DGS Small GESA 3 FIN.1 GESA
Department of Human Services
Selinsgrove Center

Energy Financing Providers

COMMONWEALTH OF PENNSYLVANIA
DEPARTMENT OF GENERAL SERVICES
HARRISBURG

Tom Wolf
Governor

Curt Topper
Secretary

Small GESA-3 FIN.1

Department of Human Services – Selinsgrove Center

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DATE OF ISSUE: January 8, 2019

NOTICE TO FINANCIAL BIDDERS

Department of General Services, Office of Energy and Resource Management, 401 North Street, Harrisburg, Pennsylvania 17120

It is the responsibility of each bidder to ensure that its bid is received by the Department of General Services prior to the date and time set for the bid opening. No bid shall be considered if it arrives after the Bid Opening Date and Time, regardless of reason for the late arrival.

Financing.....Energy Financial Provider for
Guaranteed Energy Savings Act Project

Project Location.....Selinsgrove Center
Selinsgrove, Pennsylvania

Professional.....Department of General Services
Energy and Resource Management Office

Agency .....Department of Human Services

Brief Description.....This solicitation seeks financing for the GESA Contract described in the Bidding Documents including the Energy Audit (EA). The Bidder / Energy Financial Provider ("Financer") will be required to execute the Installment Purchase Agreement and Payment Schedule included in the Bidding Documents. The GESA Contract Documents are included with the Bidding Documents.

Bid Opening Date and Time .....Tuesday, January 29, 2019 at 2:00 PM

Contract Numbers .....D.G.S. Small GESA -3 FIN.1
....DHS – Selinsgrove Center Project GESA Financing
Collective No.: CN00038815

Proposed Term of Financing.....18 years starting 12 months after completed construction

Proposal Period ..... 60 Days allowed from Bid Opening until Award of Installment Purchase Agreement

Bidder / Financer is expected to hold interest rates for 90 days from the date and time of Bid Opening.

MANDATORY Vendor Registration:.....All Bidders must be registered to and must have a current & active PA Vendor Number. Register at www.pasupplierportal.state.pa.us

Contact Office……	Energy and Resource Management Office Department of General Services
Mailing Address and Telephone Number to receive contract documents.	Room 403 North Office Building 401 North Street Harrisburg, Pennsylvania 17120 Telephone No: (717) 705-5946 Contact: Becky Tomlinson

For information on the project please contact:
Becky Tomlinson (717) 705-5946, email retomlinso@pa.gov

THE INSTRUCTIONS TO FINANCIAL BIDDERS FOR GESA PROJECTS, INSTALLMENT PURCHASE AGREEMENT, AND THE GESA CONTRACT DOCUMENTS, ARE INCORPORATED INTO AND APPLY TO THIS PROJECT.

INSTRUCTIONS
TO
FINANCIAL BIDDERS
FOR GESA PROJECT

Small GESA-3 FIN.1

pennsylvania

DEPARTMENT OF GENERAL SERVICES

DHS – SELINSGROVE CENTER

SELINSGROVE, PENNSYLVANIA

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FAILURE TO COMPLY WITH THESE INSTRUCTIONS MAY RESULT IN THE REJECTION OF THE BID AS NOT RESPONSIVE.

SECTION 1. FINANCING TO BE PROVIDED. The financing to be provided is for the GESA Contract described in the bidding documents and the Investment Grade Audit (IGA). The GESA Contract Documents may be inspected during regular business hours at the Energy and Resource Management Office of the Department of General Services, located at Room 403, 401 North Street, Harrisburg, Pennsylvania 17120. The successful Bidder / Energy Financial Provider ("Financer") will be required to execute the Installment Purchase Agreement and Payment Schedule included in the Bidding Documents.

SECTION 2. FAMILIARITY WITH PROPOSED GESA CONTRACT WORK. The Bidder is responsible for its due diligence regarding the Investment Grade Audit (IGA) and for examining the nature and location of the GESA Contract Work. The Bidder shall also examine the Installment Purchase Agreement and proposed GESA Contract Documents pertaining to the Project. After the award of the contract, the Financer may not submit any claim alleging insufficient data, incorrectly assumed conditions, or misunderstanding with regard to matters for which no such clarification was sought during the bidding phase of the Project.

SECTION 3. INTERPRETATION OF BIDDING DOCUMENTS.

A. Requests for Interpretation (RFI) during the bid stage **shall be submitted in writing/email** to the name and address found in the Notice to Bidders. A copy of the RFI must also be forwarded at the same time to the Director, Energy and Resource Management, Department of General Services, 401 North Street, Harrisburg, Pennsylvania 17120. All RFIs related to the proposed Work or proposed contract documents must be received, in writing, by the Department, **no later than close of business five (5) days prior to the Bid Opening Date**. Only written RFIs received no later than five (5) days prior to the date fixed for the opening of bids will be considered by the Department. If a request is received within 5 days of the bid opening date, the Department may, in its sole discretion, answer the request. Requests via emails shall be considered "written" requests.

B. NEITHER THE DEPARTMENT NOR ANY REPRESENTATIVE OF THE FUNDING AGENCY SHOULD BE ASKED TO PROVIDE ANY ORAL INTERPRETATION TO ANY BIDDER RFI OF THE GESA CONTRACT DOCUMENTS. ANY CONVERSATION BETWEEN A BIDDER AND EITHER THE DEPARTMENT, OR THE REPRESENTATIVE OF THE FUNDING AGENCY FOR WHOM THE PROJECT IS BEING CONSTRUCTED, SHOULD NOT BE RELIED UPON BY ANY BIDDER, IS NOT BINDING UPON THE DEPARTMENT, AND SHALL NOT BECOME PART OF THE INSTALLMENT PURCHASE AGREEMENT UNLESS THE INFORMATION SUBSEQUENTLY APPEARS IN A WRITTEN BULLETIN.

C. The Department's response to any RFI will be in the form of a written bulletin signed by the Department. The Department will forward all bulletins to all Bidders that obtained bidding documents for the Project. All bulletins become a part of the Installment Purchase Agreement, and all Bidders are bound by all bulletins issued on the project.

SECTION 4. SUBMISSION OF BIDS. All bids shall be submitted on the form prepared by the Department. Bidder should retain a copy for their own use. All entries on the bid must be in ink or typewritten, preferably in blue ink to indicate an original writing. In case of discrepancy between the words and numbers, the written words are the bid price. The GESA Financial Bid form must be completed and a preliminary Payment Schedule must be submitted with the Bid. If the Interest Rate, Market Index, Spread (basis points), Other Fees, and/or All-In Total Payment on the GESA Financial Bid form are not completed and/or the preliminary Payment Schedule is not submitted with the Bid, **the Bid will be rejected as non-responsive**.

SECTION 5. **SIGNING THE BID.** The Bidder must sign the bid correctly as described in the bid documents. The signature must be an ORIGINAL and HAND-SCRIPTED signature. If the bid is submitted by a corporation, the bid should be signed by the President or Vice President and any one of the following officers of the Corporation: the Secretary, Assistant Secretary, Treasurer, or Assistant Treasurer. If not signed by the specified officers, the signing individual must be authorized to sign by the corporation's board of directors. If a person other than one of these officers executes the bid, a copy of the document authorizing that person to execute the bid must accompany the bid. **If the "Certification and Bid Signature Page" is left blank, the bid will be deemed void and the bid WILL BE REJECTED by the Department. The bidder will NOT be given any opportunity to sign the page after the time and date of the bid opening. A signature appearing any other place in the bid package shall not be sufficient to substitute for the lack of a signature on the Certification and Bid Signature page.**

SECTION 6. **AWARD TO A FOREIGN BUSINESS.** No contract will be awarded to a Bidder which is a foreign corporation, a foreign limited liability company, a foreign limited partnership, or which is operating under a fictitious or assumed name unless the Bidder has complied with, or agreed to comply with, the registration requirements under the Business Corporation Law of 1988 (15 Pa. C.S. §4121-§4131) and/or the Limited Liability Company Law of 1994 (15 Pa. C.S. §8981-§8982), and/or the Partnership Code (15 Pa. C.S. §8581-§8590), and/or the Fictitious Names Act (54 Pa. C.S. §301-§332).

SECTION 7. **TIMELY DELIVERY OF BID PROPOSAL.** The bidder must submit its bid to the Department prior to the time scheduled for bid opening, regardless of the method of delivery used. Any bid received after the time set for the bid opening will be returned to the bidder without being considered by the Department. The bid will not be returned if it is not possible to determine the identity and address of the bidder.

SECTION 8. **DELIVERY OF BID IN CLEARLY MARKED ENVELOPE.** Each bid should be submitted in a separate envelope. All bids shall be enclosed in a sealed envelope and marked plainly on the outside with the contract number, bid opening date and time. If the bid envelope is to be enclosed in another envelope for the purpose of express-type delivery, the exterior envelope shall be clearly marked as a bid and the contract number, bid opening date and time shall be shown on the exterior envelope.

A. **Submission of Bid by Mail.** If submitted by mail, the envelope shall be sent to the address for receiving bids noted in the "Notice to Bidders" for the particular Project, and should be sent Return Receipt Requested.

B. **Submission of Bid by other than Mail.** If submitted other than by mail, the bid must be delivered to the address noted in the particular "Notice to Bidders" prior to the time stated therein.

C. **Submission of Bid by Hand Delivery.** Photographic identification and proof of authorization will be required from individuals who are hand-delivering bids.

SECTION 9. **WITHDRAWAL OR MODIFICATION OF A BID PRIOR TO BID OPENING**

A. **Complete Withdrawal Before Bid Date or Time.** A Bid may be withdrawn by written notice or in person by a Bidder or its authorized representative (if their identity is established by photographic identification and proof of authorization, preferably on Bidder letterhead) and a receipt for the bid is signed prior to the exact hour and date set for the opening of bids.

B. **Modification Before Bid Date or Time of a Bid of Bid Already Submitted But Not Opened.** If, before the time of the bid opening, a Bidder wishes to modify a bid already delivered to the Department, the Bidder or its authorized representative (if their identity is made known through photographic identification and proof of authorization) may request that the Department return the bid, but only if the Bidder/representative signs a receipt for the bid **before** the exact hour and date set for the opening of bids. The Bidder or their authorized representative may then modify the bid and resubmit the bid so long as the modified bid complies with the requirements set forth in these Instructions to Financial Bidders for GESA Projects. The Department will not, under any circumstances, open a bid before the bid opening date and time.

SECTION 10. **BID OPENING PROCEDURE.** Bids will be opened and the All-In Total Payment will be read aloud publicly in the presence of one or more witnesses at the time and place designated in the Notice to Bidders. No inspection or photocopies of any Bid Proposal will be made at the bid opening. The amount of each bid, together with the name of each Bidder will be recorded. Such recorded information shall be considered unofficial and shall be open to public inspection after the bid opening. The bid tab, listing the Bidders and their bid amount, will formally be made available to interested parties typically within (3) three business days.

SECTION 11. **REJECTION OF BID.** The Department reserves the right to reject any or all bids or parts thereof. A bid may be rejected if it shows any omission, alterations of form, additions or deductions not called for, conditional language or uninvited alternate bids, or irregularities of any kind. The Department reserves the right, however, to waive technical defects or irregularities on bids. The Department may reject the bid of any Bidder failing to meet the requirements of these Instructions to Financial Bidders or any other requirements of Bidders set forth in the Bidding Documents.

SECTION 12. **WITHDRAWAL OF BIDS AFTER BID OPENING.** Within three (3) days after the opening of the bids, but before award, a Bidder may request permission to withdraw its entire bid if it submits a request, by email or mail, to the Department. The request must be addressed to the Director of the Energy and Resource Management Office. The request will not be considered received unless it is directed as set out in this section. With the request for withdrawal, the Bidder must submit evidence that the reason for withdrawal is a clerical mistake as opposed to a judgment mistake and was actually due to an unintentional arithmetical error.

SECTION 13. **EXPERIENCE QUESTIONNAIRE AND FINANCIAL STATEMENT PROVIDED ON REQUEST.** At the Department's request, or if specifically required by the bid, Bidders shall file an experience questionnaire and financial statement with the Department on the form provided by the Department. The questionnaire and statement shall be certified to be true and correct by an affidavit sworn to or affirmed before a Notary Public, or other officer empowered to administer oaths or affirmations. Falsification of any requested information shall result in a rejection of the bid as not responsible, forfeiture of the bid bond and/or cancellation of the Contract Award.

SECTION 14. **COLLUSIVE BIDS WILL BE REJECTED.** The bids of any Bidder or Bidders who engage in collusive bidding will be rejected. Any Bidder who submits more than one bid in such manner as to make it appear that the bids submitted are on a competitive basis from different parties will be considered a collusive Bidder. Submission of collusive bids will result in a Bidder being rejected as not responsible for subsequent projects. Nothing in this Section prevents a Bidder from superseding a bid by submitting a subsequent bid, delivered prior to bid opening, which expressly revokes the previous bid.

SECTION 15. **BID PROTEST PROCEDURE.** The Commonwealth Procurement Code (62 P.C. §1711.1, as amended) governs the protest procedure, which is summarized below. In the event this general description conflicts with the statute, the statutory language controls.

A. Who may File. Any Bidder or prospective Bidder who is aggrieved in connection with the bid or the award of a contract resulting from the bid may file a protest.

1. Prospective Bidder is an entity that has not submitted a bid in response to the Notice to Bidders.

2. Bidder is an entity that has submitted a bid in response to the Notice to Bidders.

B. Time Limits.

1. If a protest is filed by a prospective Bidder, a protest must be filed, in writing or by email, with the head of the Issuing Office **prior** to the bid opening date and time described in the Notice to Bidders.

2. If a protest is filed by a Bidder, the protest must be filed, in writing or email, with the Issuing Office within seven (7) days after the protesting Bidder knew or should have

known of the facts giving rise to the protest **except** in no event may a protest be filed later than 7 days after the Notice of Award is posted on the DGS website.

3. Filed – shall be defined as the date upon which the Issuing Office receives the written protest.

4. If the Bidder fails to file a bid protest or files an untimely protest, then they shall be deemed to have waived the right to protest the solicitation or award of the contract in any forum. Untimely protests will be disregarded by the Department.

C. The Department may cancel an invitation for bids or may reject all bids at any time prior to the time a contract is executed by all parties when it is in the best interests of the Commonwealth. The Bidder may not submit a protest relating to cancellation of the bid or rejection of all bids.

D. A protest shall state all grounds upon which the protestant asserts the solicitation or award of the contract was improper. The protestant may submit with the protest any documents or information it deems relevant to the protest.

E. The full text of the Bid Protest Procedure can be found at 62 Pa.C.S §1711.1 *et seq.*

SECTION 16. BIDDER CERTIFIED NOT UNDER DEBARMENT. The Bidder must certify that it is not currently under suspension or debarment by the Commonwealth, any other state, or the federal government, and if the Bidder cannot so certify, then the Bidder agrees to submit along with the bid a written explanation of why such certification cannot be made.

SECTION 17. REIMBURSEMENT OF COSTS OF INSPECTOR GENERAL INVESTIGATION. The Financer shall reimburse the Commonwealth for the reasonable costs of investigation incurred by the Office of Inspector General for investigations of the Contractor's compliance with the terms of this or any other agreement between the Financer and the Commonwealth which result in the suspension or debarment of the Financer. Such costs shall include, but not be limited to, salaries of investigators, including overtime; travel and lodging expenses; and expert witness and documentary fees. The Contractor shall not be responsible for investigative costs for investigations which do not result in the Financer's suspension or debarment.

SECTION 18. CURRENT LIST OF SUSPENDED AND DEBARRED ENTITIES. The Financier/Contractor may obtain the current list of suspended and debarred Entities by referring to the Department of General Services' Construction and Public Works website or by contacting the:

Department of General Services
Office of Chief Counsel
603 North Office Building
Harrisburg, Pennsylvania 17125
Telephone No. (717) 783-6472
FAX No. (717) 787-9138

SECTION 19. ASSIGNMENT OF ANTITRUST CLAIMS. The Financer/Contractor and the Commonwealth recognize that, in actual economic practice, overcharges by the Financer's/Contractor's consultants, resulting from the violations of State or Federal antitrust laws, are, in fact, borne by the Commonwealth. As part of the consideration for the award of this contract, and, intending to be legally bound, the Financer/Contractor assigns to the Commonwealth all right, title and interest in, and to, any claims contractor now has, or may hereafter acquire, under State or Federal antitrust laws relating to the goods or services, which are the subject of this contract.

SECTION 20. CONTRACTOR INTEGRITY PROVISIONS

A. It is essential that those who seek to contract with the Commonwealth of Pennsylvania ("Commonwealth") observe high standards of honesty and integrity. They must conduct themselves in a manner that fosters public confidence in the integrity of the Commonwealth procurement process.

B. In furtherance of this policy, the Energy Financing Provider/Financer (referred to as "Contractor" in this Section) agrees to the following:

a. Contractor shall maintain the highest standards of honesty and integrity during the performance of this contract and shall take no action in violation of state or federal laws or regulations or any other applicable laws or regulations, or other requirements applicable to Contractor or that govern contracting with the Commonwealth.

b. Contractor shall establish and implement a written business integrity policy, which includes, at a minimum, the requirements of these provisions as they relate to Contractor employee activity with the Commonwealth and Commonwealth employees, and which is distributed and made known to all Contractor employees.

c. Contractor, its affiliates, agents and employees shall not influence, or attempt to influence, any Commonwealth employee to breach the standards of ethical conduct for Commonwealth employees set forth in the *Public Official and Employees Ethics Act, 65 Pa.C.S. §§1101 et seq*.; the *State Adverse Interest Act, 71 P.S. §776.1 et seq*.; and the *Governor's Code of Conduct, Executive Order 1980-18, 4 Pa. Code §7.151 et seq*., or to breach any other state or federal law or regulation.

d. Contractor, its affiliates, agents and employees shall not offer, give, or agree or promise to give any gratuity to a Commonwealth official or employee or to any other person at the direction or request of any Commonwealth official or employee.

e. Contractor, its affiliates, agents and employees shall not offer, give, or agree or promise to give any gratuity to a Commonwealth official or employee or to any other person, the acceptance of which would violate the *Governor's Code of Conduct, Executive Order 1980-18, 4 Pa. Code §7.151 et seq.* or any statute, regulation, statement of policy, management directive or any other published standard of the Commonwealth.

f. Contractor, its affiliates, agents and employees shall not, directly or indirectly, offer, confer, or agree to confer any pecuniary benefit on anyone as consideration for the decision, opinion, recommendation, vote, other exercise of discretion, or violation of a known legal duty by any Commonwealth official or employee.

g. Contractor, its affiliates, agents, employees, or anyone in privity with him or her shall not accept or agree to accept from any person, any gratuity in connection with the performance of work under the contract, except as provided in the contract.

h. Contractor shall not have a financial interest in any other contractor, subcontractor, or supplier providing services, labor, or material on this project, unless the financial interest is disclosed to the Commonwealth in writing and the Commonwealth consents to Contractor's financial interest prior to Commonwealth execution of the contract. Contractor shall disclose the financial interest to the Commonwealth at the time of bid or proposal submission, or if no bids or proposals are solicited, no later than Contractor's submission of the contract signed by Contractor.

i. Contractor, its affiliates, agents and employees shall not disclose to others any information, documents, reports, data, or records provided to, or prepared by, Contractor under this contract without the prior written approval of the Commonwealth, except as required by the *Pennsylvania Right-to-Know Law, 65 P.S. §§ 67.101-3104*, or other applicable law or as otherwise provided in this contract. Any information, documents, reports, data, or records secured by Contractor from the Commonwealth or a third party in connection with the performance of this contract shall be kept confidential unless disclosure of such information is:

    i. Approved in writing by the Commonwealth prior to its disclosure; or

    ii. Directed by a court or other tribunal of competent jurisdiction unless the contract requires prior Commonwealth approval; or

iii. Required for compliance with federal or state securities laws or the requirements of national securities exchanges; or

iv. Necessary for purposes of Contractor's internal assessment and review; or

v. Deemed necessary by Contractor in any action to enforce the provisions of this contract or to defend or prosecute claims by or against parties other than the Commonwealth; or

vi. Permitted by the valid authorization of a third party to whom the information, documents, reports, data, or records pertain: or

vii. Otherwise required by law.

j. Contractor certifies that neither it nor any of its officers, directors, associates, partners, limited partners or individual owners has not been officially notified of, charged with, or convicted of any of the following and agrees to immediately notify the Commonwealth agency contracting officer in writing if and when it or any officer, director, associate, partner, limited partner or individual owner has been officially notified of, charged with, convicted of, or officially notified of a governmental determination of any of the following:

i. Commission of embezzlement, theft, forgery, bribery, falsification or destruction of records, making false statements or receiving stolen property.

ii. Commission of fraud or a criminal offense or other improper conduct or knowledge of, approval of or acquiescence in such activities by Contractor or any affiliate, officer, director, associate, partner, limited partner, individual owner, or employee or other individual or entity associated with:

1. Obtaining;

2. Attempting to obtain; or

3. Performing a public contract or subcontract

Contractor's acceptance of the benefits derived from the conduct shall be deemed evidence of such knowledge, approval or acquiescence.

iii. Violation of federal or state antitrust statutes.

iv. Violation of any federal or state law regulating campaign contributions.

v. Violation of any federal or state environmental law.

vi. Violation of any federal or state law regulating hours of labor, minimum wage standards or prevailing wage standards; discrimination in wages; or child labor violations.

vii. Violation of the *Act of June 2, 1915 (P.L.736, No. 338)*, known as the *Workers' Compensation Act,* 77 P.S. 1 *et seq*.

viii. Violation of any federal or state law prohibiting discrimination in employment.

ix. Debarment by any agency or department of the federal government or by any other state.

x. Any other crime involving moral turpitude or business honesty or integrity.

Contractor acknowledges that the Commonwealth may, in its sole discretion, terminate the contract for cause upon such notification or when the Commonwealth otherwise learns that Contractor has been officially notified, charged, or convicted.

k. If this contract was awarded to Contractor on a non-bid basis, Contractor must, (as required by *Section 1641* of the *Pennsylvania Election Code*) file a report of political contributions with the Secretary of the Commonwealth on or before February 15 of the next calendar year. The report must include an itemized list of all political contributions known to Contractor by virtue of the knowledge possessed by every officer, director, associate, partner, limited partner, or individual owner that has been made by:

    i. Any officer, director, associate, partner, limited partner, individual owner or members of the immediate family when the contributions exceed an aggregate of one thousand dollars ($1,000) by any individual during the preceding year; or

    ii. Any employee or members of his immediate family whose political contribution exceeded one thousand dollars ($1,000) during the preceding year.

To obtain a copy of the reporting form, Contractor shall contact the Bureau of Commissions, Elections and Legislation, Division of Campaign Finance and Lobbying Disclosure, Room 210, North Office Building, Harrisburg, PA 17120.

l. Contractor shall comply with requirements of the *Lobbying Disclosure Act, 65 Pa.C.S. § 13A01 et seq*., and the regulations promulgated pursuant to that law. Contractor employee activities prior to or outside of formal Commonwealth procurement communication protocol are considered lobbying and subjects the Contractor employees to the registration and reporting requirements of the law. Actions by outside lobbyists on Contractor's behalf, no matter the procurement stage, are not exempt and must be reported.

m. When Contractor has reason to believe that any breach of ethical standards as set forth in law, the Governor's Code of Conduct, or in these provisions has occurred or may occur, including but not limited to contact by a Commonwealth officer or employee which, if acted upon, would violate such ethical standards, Contractor shall immediately notify the Commonwealth contracting officer or Commonwealth Inspector General in writing.

n. Contractor, by submission of its bid or proposal and/or execution of this contract and by the submission of any bills, invoices or requests for payment pursuant to the contract, certifies and represents that it has not violated any of these contractor integrity provisions in connection with the submission of the bid or proposal, during any contract negotiations or during the term of the contract.

o. Contractor shall cooperate with the Office of Inspector General in its investigation of any alleged Commonwealth employee breach of ethical standards and any alleged Contractor non-compliance with these provisions. Contractor agrees to make identified Contractor employees available for interviews at reasonable times and places. Contractor, upon the inquiry or request of the Office of Inspector General, shall provide, or if appropriate, make promptly available for inspection or copying, any information of any type or form deemed relevant by the Inspector General to Contractor's integrity and compliance with these provisions. Such information may include, but shall not be limited to, Contractor's business or financial records, documents or files of any type or form that refers to or concern this contract.

p. For violation of any of these Contractor Integrity Provisions, the Commonwealth may terminate this and any other contract with Contractor, claim liquidated damages in an amount equal to the value of anything received in breach of these provisions, claim damages for all additional costs and expenses incurred in obtaining another contractor to complete performance under this contract, and debar and suspend Contractor from doing business with the Commonwealth. These rights and remedies are cumulative, and the use or non-use of any one shall not preclude the use of all or any other. These rights and

remedies are in addition to those the Commonwealth may have under law, statute, regulation, or otherwise.

q. For purposes of these Contractor Integrity Provisions, the following terms shall have the meanings found in this Paragraph q.

i. "Confidential information" means information that a) is not already in the public domain; b) is not available to the public upon request; c) is not or does not become generally known to Contractor from a third party without an obligation to maintain its confidentiality; d) has not become generally known to the public through a act or omission of Contractor; or e) has not been independently developed by Contractor without the use of confidential information of the Commonwealth.

ii. "Consent" means written permission signed by a duly authorized officer or employee of the Commonwealth, provided that where the material facts have been disclosed, in writing, by pre-qualification, bid, proposal, or contractual terms, the Commonwealth shall be deemed to have consented by virtue of execution of this contract.

iii. "Contractor" means the individual or entity that has entered into this contract with the Commonwealth, including those directors, officers, partners, managers, and owners having more than a five percent interest in Contractor.

iv. "Financial interest" means:

1. Ownership of more than a five percent interest in any business; or

2. Holding a position as an officer, director, trustee, partner, employee, or holding any position of management.

v. "Gratuity" means tendering, giving or providing anything of more than nominal monetary value including, but not limited to, cash, travel, entertainment, gifts, meals, lodging, loans, subscriptions, advances, deposits of money, services, employment, or contracts of any kind. The exceptions set forth in the *Governor's Code of Conduct, Executive Order 1980-18*, the *4 Pa. Code §7.153(b)*, shall apply.

vi. "Immediate family" means a spouse and any unemancipated child.

vii. "Non-bid basis" means a contract awarded or executed by the Commonwealth with Contractor without seeking bids or proposals from any other potential bidder or offeror.

viii. "Political contribution" means any payment, gift, subscription, assessment, contract, payment for services, dues, loan, forbearance, advance or deposit of money or any valuable thing, to a candidate for public office or to a political committee, including but not limited to a political action committee, made for the purpose of influencing any election in the Commonwealth of Pennsylvania or for paying debts incurred by or for a candidate or committee before or after any election.

SECTION 21. AWARD OF INSTALLMENT PURCHASE AGREEMENT (i.e., CONTRACT). If DGS awards an Installment Purchase Agreement, it will be made to the responsible Bidder with the lowest "All-In Total Payment," whose "All-In Total Payment" coincides with their submitted preliminary Payment Schedule (monthly, commencing 1 month after final completion) and the project's Investment Grade Audit , within sixty (60) days from the Bid Opening Date. The 60-day period may be extended by written consent of the lowest responsible Bidder(s). Notice of Award of Contract will be made by letter mailed to the Financer and will be effective upon the date DGS mailed the Notice of Award. If the lowest Bidder withdraws its bid, declines to extend the bid or refuses the Award of Contract, the Department may award the Installment Purchase Agreement to the next lowest responsible Bidder or reject all bids and re-bid the

Financing. **There will be no Contract with the Commonwealth until all parties have fully executed the Installment Purchase Agreement**

SECTION 22. EXECUTION OF INSTALLMENT PURCHASE AGREEMENT. Within ten (10) days after receipt of the Installment Purchase Agreement, the successful Bidder, must:

A. Sign and return the Installment Purchase Agreement and Payment Schedule (monthly, commencing 12 months after final completion) to the Department of General Services, Room 403, 401 North Street, Harrisburg, Pennsylvania 17120; in care of the Energy and Resource Office, or emailed to the GESA administrator and

B. The payment schedule shall include payment number, payment date, payment amount, principle payment, interest payment and total balance.

C. The Commonwealth will review the Payment Schedule for accuracy;

a. If it is inaccurate, discuss the discrepancies with the Bidder; or
b. If accurate, process for Commonwealth signatures.

D. After all Commonwealth signatures (handwritten or electronic) are obtained and the Installment Purchase Agreement is fully executed, the Department will forward a written notification to you.

E. Understand and agree that a stamped "APPROVED ELECTRONICALLY" or similar wording by the Commonwealth on the Installment Purchase Agreement signature page constitutes a valid, binding contract with the Commonwealth and represents that all approvals required by Commonwealth contracting procedures have been obtained. The fully executed Contract may not contain "ink" signatures by the Commonwealth.

F. The monthly payments will be made automatically to the Bidder with no payment book or invoices.

SECTION 23. FAILURE TO EXECUTE INSTALLMENT PURCHASE AGREEMENT. Failure or refusal of the Financer to properly execute the Installment Purchase Agreement within the 10-day time will be viewed as a refusal to accept the Award. If the successful Bidder refuses to accept the award or properly execute the Installment Purchase Agreement within the 10-day time, the Department may award the Installment Purchase Agreement to the next lowest responsible Bidder, or reject all bids and re-bid the Financing

SECTION 24. VETERAN'S PREFERENCE. The Department strongly encourages that, all things being equal, contractors give preference in employment on projects of the Department to veterans of the Armed Services of the United States of America.

SECTION 25. PROVISIONS CONCERNING THE AMERICANS WITH DISABILITIES ACT. During the term of this contract, the Energy Financing Provider/Financer (referred to as "Contractor" in this Section) agrees as follows:

A. Pursuant to federal regulations promulgated under the authority of The Americans with Disabilities Act, 28 C.F.R. 35.202 et seq., the contractor understands and agrees that no individual with a disability shall, on the basis of the disability, be excluded from participation in this contract or from such activities provided for under this contract. As a condition of accepting and executing this contract, the Contractor agrees to comply with the "General Prohibitions Against Discrimination," 28 C.F.R. 35.130, and all other regulations promulgated under Title II of The Americans with Disabilities Act which are applicable to the benefits, services, programs, and activities provided by the Commonwealth of Pennsylvania through contracts with outside contractors.

B. The Contractor shall be responsible for and agrees to indemnify and hold harmless the Commonwealth of Pennsylvania from all losses, damages, expenses, claims, demands, suits, and actions brought by any party against the Commonwealth of Pennsylvania as a result of the Contractor's failure to comply with the provisions of paragraph A above.

SECTION 26. **Energy Finance Providers Bid Package Contents.** The bid package for solicitation of an Energy Financial Provider for the GESA includes:

- **A.** Notice to Financial Bidders
- **B.** Instructions to Financial Bidders for GESA Project
- **C.** Financial Bid Proposal for GESA Project which includes:
    1. Responsiveness Checklist
    2. General Information
    3. Certification and Bid Signature Page
- **D.** Installment Purchase Agreement and Payment Schedule with Exhibits containing:
    1. GESA Contract
        a. Contract Bonds
        b. Scope of Work
        c. Assured Performance Guarantee for Small GESA Contract
    2. Form of Acceptance Certificate
    3. Payment Schedule
- **E.** Other GESA Contract Documents including:
    1. Request for Proposal (RFP) for Small GESA Contractor
    2. Selected Small GESA Contractor's Proposal
    3. General Conditions
    4. Scope of Work by ECM
    5. Bulletins
    6. Administrative Procedures
- **F.** Investment Grade Audit

Financial Bid Proposal
for
Guaranteed Energy Savings Project
Contract No.
DGS Small GESA 3 DHS – Selinsgrove Center

Bid Index

Responsiveness Checklist

General Information

Certification and Bid Signature

Note: Please read all pages of this Bid Proposal. The Responsiveness Checklist is provided for your convenience and should not be returned to the Department. All other pages shall be completed and properly signed and/or sealed by Bidder in the appropriate place before being returned to the Department on or before the bid due date and time established in the Notice to Bidders. If the Bidder wishes to have a copy of their Bid Proposal, make the copy before submitting to the Department. The Department will not provide Bidder with a copy.

Responsiveness Checklist

This checklist is only provided as a courtesy to assist bidders in submitting a responsive bid. Compliance with the checklist does not guarantee a responsive bid. The checklist should not be returned to the Department since it will not be used to review the bid package.

	YES	NO
Bidder has acknowledged receipt of any Bulletins under "BULLETIN INFORMATION"		
Bidder has ensured the GESA Financial Bid form is fully complete		
Bidder has ensured the words match numbers in the All-In Total Payment, if not, words control		
Bidder has submitted the preliminary Payment Schedule		
Bidder has completed the Bid Signature Page		
Bidder has ensured that the Bid Signature Page is signed by authorized person		

pennsylvania
DEPARTMENT OF GENERAL SERVICES

GESA FINANCE BID PROPOSAL

Department of General Services
401 North Street
Harrisburg, PA 17125

Do not write in space below

Date: _____

Bid Opening Witness: _____

Legal Review: _____

CONTRACT NO. DGS SMALL GESA-3 DHS SELINSGROVE CENTER FIN.1
COLLECTIVE NO.: CN00038815
GUARANTEED ENERGY SAVINGS PROJECT
FINANCING BID PROPOSAL FOR
SMALL GESA 3 – DHS SELINSGROVE CENTER - SELINSGROVE, PENNSYLVANIA

Bidder Name and Address:

_____

_____

_____

_____

_____

Bidder Phone #: _____

Bidder Email: _____

Bidder Federal ID #: _____

Vendor ID #: _____

BULLETIN INFORMATION: Bidder acknowledges receipt of the following Bulletin(s) and agrees they are part of this Bid Proposal.

Bulletin #___ Issue Date:_____ Bulletin #___ Issue Date:_____

Bulletin #___ Issue Date:_____ Bulletin #___ Issue Date:_____

Bulletin #___ Issue Date:_____ Bulletin #___ Issue Date:_____

GESA Financial Bid

Funding Placement	Private
Construction Duration	12 months
Repayment Period (commencing 1 month after final completion)	18 years
Payment Structure (commencing 1 month after final completion)	Monthly
*Interest Rate	
*Market Index	
*Spread (basis points)	
*Other fees (if applicable and include explanation)	
*°All-In Total Payment $	$_____ (figures) _____ _____ (written)

*These items are required to be completed. If they are not completed, the Bid will be rejected as non-responsive.

° All-In Total Payment is the total amount to be paid to the Financer over the Repayment Period.

BIDDER ORGANIZATIONAL INFORMATION

BIDDER ORGANIZATION (Check applicable box)

☐ The Bidder is a corporation, limited liability company, or partnership organized and existing under the laws of Pennsylvania and has been granted a certificate of authority to do business in Pennsylvania as required by the Business Corporation Law of 1988, as amended.

OR

☐ The Bidder is a corporation organized and existing under the laws of _____ and **has or has not** (circle one) been granted a certificate of authority to do business in Pennsylvania as required by the Business Corporation Law of 1988 (15 Pa. C.S. §4121-§4131), as amended.

OR

☐ The Bidder is a limited liability company organized and existing under the laws of _____ and **has or has not** (circle one) registered to do business in Pennsylvania as required by the Limited Liability Company Law of 1994 (15 Pa. C.S. §8981-§8982), as amended.

OR

☐ The Bidder is a limited partnership organized and existing under the laws of _____ and **has or has not** (circle one) registered to do business in Pennsylvania as required by the Partnership Code (15 Pa. C.S. §8581-§8590), as amended.

OR

☐ The Bidder is an individual or partnership trading under a fictitious or assumed name and **has or has not** (circle one) registered under the Fictitious Names Act (54 Pa. C.S. §301-§332), as amended.

BIDDER RESIDENCE INFORMATION

Bidder has a bona fide establishment in Pennsylvania at which it was transacting business when the Notice to Bidders for this Project was issued?

If "**Yes**", insert address below if different than address on page 1:

_____
_____
_____
_____

If "**No**", insert Bidder's office address if different than address on page 1.

_____
_____
_____
_____

Certification and Bid Signature

In conformity with the Energy Audit prepared for this Project and after examination of the contract documents including the Installment Purchase Agreement and Payment Schedule and issued Bulletins, which are made a part hereof as if fully set forth, the undersigned (hereinafter "Bidder"), submits this Bid Proposal and certifies by signing that:

1. Bidder is the only person(s) interested in this Bid as principal and this Bid Proposal is submitted without collusion with any person, firm or corporation; and

2. Bidder will execute the Installment Purchase Agreement within ten (10) days after receipt of the documents; and

3. Bidder agrees to provide the funding to complete the work set forth in the GESA Contract documents and the Energy Audit. It is understood that the first payment of the Payment Schedule is not due until twelve (12) months after the GESA Project is completed; and

4. Bidder agrees that DGS reserves the right to reject this and any or all Bid Proposals, or any part thereof or to waive technicalities required for the best interests of the Commonwealth; and

5. Bidder understands and acknowledges that all information provided by, and representations made by, the Bidder in the Bid Proposal are material and important and will be relied upon by the Issuing Office in awarding the contract(s). Any misstatement shall be treated as fraudulent concealment from the Issuing Office of the true facts relating to the submission of this bid. A misrepresentation shall be punishable under 18 Pa. C.S. § 4904; and

6. Bidder agrees that the Commonwealth of Pennsylvania may offset all or a portion of any and all payments that may become due and owing under the contract for this project against any and all debts owed to any other Commonwealth of Pennsylvania agency; and

7. The bid is made in good faith and not pursuant to any agreement or discussion with, or inducement from, any firm or person to submit a complementary or other noncompetitive bid; and

8. To the best knowledge of the person signing the bid, Bidder, its affiliates, subsidiaries, officers, directors, and employees are not currently under investigation by any governmental agency and have not in the last three (3) years been convicted or found liable for any act prohibited by State or Federal law in any jurisdiction, involving conspiracy or collusion with respect to bidding or proposing on any public contract, except as disclosed by the Bidder in its bid; and.

9. To the best of the knowledge of the person signing the Bid Proposal for the Bidder and except as otherwise disclosed by the Bidder in its bid, the Bidder has no outstanding, delinquent obligations to the Commonwealth including, but not limited to, any state tax liability not being contested on appeal or other obligation of the Bidder that is owed to the Commonwealth; and.

10. The Bidder is not currently under suspension or debarment by the Commonwealth, or any other state, or the federal government; and

11. The Bidder has not, under separate contract with the Issuing Office, made any recommendations to the Issuing Office concerning the need for the services described in the bid or the specifications for the services described in the bid; and

12. Bidder, by submitting its bid, authorizes all Commonwealth agencies to release to the Commonwealth information related to liabilities to the Commonwealth including, but not limited to, taxes, unemployment compensation, and workers' compensation liabilities; and

13. Until the awarded Bidder receives a fully executed and approved written Installment Purchase Agreement from the Issuing Office there is no legal and valid contract, in law or in equity, and the Bidder should not begin to perform Work; and

14. Bidder agrees to comply with the Non-Discrimination Sexual Harassment Clause in the Installment Purchase Agreement and is aware that implementation of nondiscrimination and equal opportunity is the policy of the Commonwealth of Pennsylvania. DGS has established a method of administration to assure that all contracting agencies and contractors are accorded equal employment opportunity without regard to race, color, national origin, ancestry, religious creed, age or sex; and

15. The person(s) signing this bid certifies that the information in this Bid Proposal is true and correct to the best of their knowledge and that the person(s) is authorized to represent the Bidder in connection with this certification

I state that _____ (Name of Bidder) submits this Bid Proposal and understands and acknowledges that the above representations (1 through 15) are material and important, and will be relied upon by the Department of General Services in awarding the Installment Purchase Agreement for which this bid is submitted. I understand and my firm understands that any misstatement in this affidavit is and shall be treated as fraudulent concealment from the Department of General Services of the true facts relating to the submission of this bid.

BIDDER IS AN INDIVIDUAL:

Witness: By:

_____ _____ _____

General Partner Date

BIDDER IS A PARTNERSHIP:

Witness: By:

_____ _____ _____

General Partner Date

BIDDER IS A LIMITED LIABILITY COMPANY:

Attest: By:

_____ _____ _____

Secretary President Date

OR

BIDDER IS A CORPORATION:

Attest: By:

_____ _____ _____

Secretary President Date

Installment Purchase Agreement and Payment Schedule
Small GESA 3 DHS Selinsgrove Center Project

This **Installment Purchase Agreement and Payment Schedule** ("Agreement") is entered into this ____ day of_____, 20___between the Energy Financial Provider, **[FINANCIAL PROVIDER],** a **[STATE]** corporation ("FINANCER"), and the Commonwealth of Pennsylvania ("Commonwealth"), acting through the Department of Human Services ("Funding Agency").

WITNESSETH:

WHEREAS, GESA Contractor and Commonwealth will enter into a Guaranteed Energy Savings Contract ("GESA Contract" --**Exhibit A**) for the implementation of the Energy Conservation Measures ("ECM") at the Funding Agency's facilities located in Snyder County, Pennsylvania, Small GESA 3 – DHS Selinsgrove Center Project;

WHEREAS, the FINANCER will provide financing for the GESA Contract and receive payments from the Funding Agency in accordance with the terms of this Agreement;

WHEREAS, the GESA Contractor will implement/construct the ECMs and adhere to all terms of the GESA Contract; and

WHEREAS, the Funding Agency will approve payments to be made to the GESA Contractor for work satisfactorily completed by the GESA Contractor during the implementation/construction of the ECMs and make payments to the FINANCER in accordance with the terms of this Agreement.

NOW THEREFORE, the parties intending to be legally bound, agree as follows:

1. FUNDING AND PAYMENT FOR GESA CONTRACT

   A. To assure the availability of moneys to pay the GESA Contractor, the cost of the GESA Contract for, inter alia, the implementation/construction of the ECMs, the FINANCER has, at the request of the Commonwealth, deposited **[ACQUISITION AMOUNT]** $ (the "Acquisition Amount") into a segregated escrow account (the "Escrow Account") at **[ESCROW AGENT]**, (the "Escrow Agent") to be held, invested, and disbursed by the Escrow Agent in accordance with the terms of that certain Escrow and Account Control Agreement dated as of _____ by and among the Financer, the Funding Agency, and the Escrow Agent (the "Escrow Agreement").

   B. The ECMs will be implemented/constructed by the GESA Contractor at the location specified in the GESA Contract. The GESA Contractor will submit Applications for Payment in accordance with the GESA Contract, and once the Applications for Payment are reviewed/approved by the Funding Agency, the Funding Agency will request disbursement from the Escrow Account for the payment of the cost of the ECMs.

   C. The FINANCER shall then make payments to the GESA Contractor for the amount specified by the Funding Agency.

D. In the event that the amounts in the Escrow Account are insufficient to pay the costs of the ECMs, the Funding Agency shall deposit additional funds into the Escrow Account to eliminate such insufficiency.

E. In the event that the amount in the Escrow Account exceeds the cost of the ECMs (the "Excess Funds"), the Funding Agency shall pay such Excess Funds to FINANCER and such Excess Funds shall be applied as a principal prepayment to the first payment on the Payment Schedule, and to each succeeding payment on the Payment Schedule, until all of the Excess Funds have been applied. Upon acceptance of all the ECMs, the Funding Agency shall deliver to FINANCER an Acceptance Certificate in the form attached to this Agreement as **Exhibit B**.

2. TERM

A. This Agreement will become effective upon receipt of a fully executed Agreement by all parties. This Agreement, unless earlier terminated as expressly provided for in this Agreement, will continue until all payments set in the Payment Schedule (**Exhibit C**) have been made in full ("Agreement Term").

3. PAYMENT

A. The Funding Agency agrees to pay to FINANCER, or any assignee of the FINANCER, the payments, including the interest portion, as specified in the Payment Schedule at the office of FINANCER (or such other place as FINANCER or its assignee may from time to time designate in writing).

B. Such payments will be made commencing on (and thereafter) the dates set in the Payment Schedule.

C. Unless specifically provided otherwise in this Agreement, the Funding Agency's obligation to make the payments to the Financer shall commence approximately one (1) month after the Final Payment has been paid to the GESA Contractor by the Escrow Agent and shall be absolute and unconditional in all events except as expressly provided in Section 4 and Section 19.

D. The Funding Agency believes that sufficient funds can be obtained to make all payments during the Agreement Term and hereby covenants that it will do all things lawfully within its power to obtain, maintain, and properly request and pursue funds from which the payments may be made, including making provisions for such payments to the extent necessary in each budget submitted for the purpose of obtaining funding, using its best efforts to have such portion of the budget approved, and exhausting all available administrative reviews and appeals in the event that such portion of the budget is not approved.

E. It is the Funding Agency's intent to make payment for the full Agreement Term if funds are legally available, and in that regard, the Funding Agency represents that the use of the ECMs is essential to its proper, efficient, and economic operation.

F. During the Agreement Term, the Funding Agency will, upon the request of FINANCER, annually make available to FINANCER, or its assignee, current financial statements, budgets, proof of appropriation for the ensuing fiscal period, and such other financial information as may be requested by FINANCER or any assignee relating to the ability of the Funding Agency to continue to make installment payments and other sums due under this Agreement.

G. If payment or other sums owed by the Funding Agency are not paid when due, interest may accrue in accordance with State law.

4. NONAPPROPRIATION OF FUNDS

A. In the event that no funds or insufficient funds are appropriated and budgeted in any Commonwealth Fiscal Period for payments due under this Agreement, then the Funding Agency will immediately notify FINANCER or its assignee of such occurrence, and this Agreement shall terminate on the last day of Commonwealth's Fiscal Period for which appropriations were received without penalty or expense to the Funding Agency of any kind whatsoever. In the event of such termination, the Funding Agency agrees to peaceable surrender possession of all ECMs requested by FINANCER in good operating condition, subject to normal wear and tear to FINANCER or its assignee on the date of such termination, packed for shipment in accordance with manufacturer's published specifications and with freight and insurance prepaid to FINANCER's or its assignee's nearest warehouse location in the United States, such location to be specified by FINANCER or its assignee. FINANCER or its assignee will have all legal and equitable rights and remedies to take possession of the ECMs. Upon such termination, title to the ECMs will revert to FINANCER or its assignee.

B. If on the thirtieth (30th) day after the commencement of any Fiscal Period, sufficient funds have not been appropriated for the purpose of making all of the payments scheduled to be paid in such Fiscal Period, the Funding Agency shall cause to be delivered written notice (a "notice of non-appropriation") to FINANCER or its assignee within ten (10) calendar days after such thirtieth (30th) day. Upon FINANCER's receipt of a notice of non-appropriation, this Agreement shall terminate as of the end of the Fiscal Period just ended; provided, however, that such termination shall not become effective as of the end of such Fiscal Period just ended if, within ten (10) calendar days of the thirtieth (30th) day after the end of such Fiscal Period just completed, the Funding Agency shall cause to be delivered to FINANCER a written statement to the effect that it reasonably expects sufficient funds for the then-current Fiscal Period to be appropriated for this Agreement, and in such event that the term shall continue into the then-current Fiscal Period so long, but only so long, as an appropriation becomes available from which to make the payments. Notwithstanding the foregoing, the Funding Agency agrees that it will not cancel this Agreement under the provisions of this paragraph if any funds are appropriated to it, or by it, for this Guaranteed Energy Saving Act project for the Fiscal Period following the Fiscal Period in which funds were appropriated.

5. AUTHORITY AND AUTHORIZATION

A. Commonwealth represents, covenants, and warrants that:

I. The execution, delivery, and performance by Commonwealth of this Agreement have been duly authorized by necessary action on the part of Commonwealth;

II. This Agreement has been duly executed and delivered on behalf of Commonwealth and constitutes a legal, valid, and binding obligation of Commonwealth enforceable in accordance with its terms; and

III. The Commonwealth has complied with all bidding requirements where necessary, and by due notification, presented this Agreement for approval as a valid obligation on its part. The Commonwealth agrees that:

a. The Commonwealth will do, or cause to be done, all things necessary to preserve and keep the Agreement in full force and effect;

b. The Funding Agency has sufficient appropriations or other funds available to pay all amounts due for the current Fiscal Period;

c. The Funding Agency's obligations are not guaranteed by the United States of America or any agency or instrumentality;

d. The Funding Agency has not established, and will not establish, any sinking fund, redemption fund, debt service fund, reserve fund, replacement fund, or similar fund to be used to pay principal or interest composing the payments due;

e. The Funding Agency will take no action that would cause the interest portion of the payments due to become included in gross income of the recipient for federal income tax purposes under the Internal Revenue Code of 1986, as amended (the "Code"), and Treasury Regulations promulgated (the "Regulations"), and the Funding Agency will take and will cause its officers, employees, and agents to take all affirmative actions legally within its power necessary to ensure that the interest portion of the payments due does not become included in gross income of the recipient for federal income tax purposes under the Code and Regulations, all as amended from time to time (including, without limitation, the calculation and payment of any rebate required to preserve such exclusion); and

f. The Funding Agency will sign and submit to FINANCER for filing with the Secretary of the Treasury, information reporting statements and other information relating to this Agreement at the times and in the forms required by the Code and the Regulations.

6. TITLE

A. Upon final acceptance of the implemented/constructed ECMs by Commonwealth, title to the ECMs will vest in Commonwealth, provided however, that:

I. In the event of termination of this Agreement by the Funding Agency pursuant to NONAPPROPRIATION OF FUNDS paragraph and delivery of the ECMs to FINANCER; or

II. Upon repossession of the ECMs in the event of a default, title will immediately vest in FINANCER or its assignee.

7. SECURITY INTEREST

A. In order to secure all of its obligation, the Funding Agency::

I. Grants to FINANCER a first priority security interest in any and all right, title, and interest of the Funding Agency in the ECMs and in all additions, attachments, accessions, and substitutions, and on any proceeds therefrom;

II. Agrees that this Agreement may be filed as a financing statement evidencing such security interest; and

III. Agrees to execute and deliver all financing statements, certificates of title, and other instruments necessary or appropriate to evidence such security interest.

B. Once all payments set in Payment Schedule have been made, then the Funding Agency will own the ECMs free and clear of all liens or other encumbrances.

8. PERSONAL PROPERTY

A. The ECMs are, and will remain, personal property, and will not be deemed to be affixed to, or be a part of, the real estate on which it may be situated, notwithstanding that the ECMs, or any part thereof, may be or hereafter become in any manner, physically affixed or attached to real estate or any building hereon.

9. MAINTENANCE

A. The Funding Agency, at its own cost and expense, will maintain the ECMs in good operating condition for the duration of this Agreement and will not use or deal with the ECMs in any manner which is inconsistent with any laws or regulations. The ECMs will not be misused, abused, wasted, or be allowed to deteriorate except for ordinary wear and tear resulting from its intended use. The Funding Agency agrees to cause the ECMs to be maintained pursuant to manufacturer's standard maintenance specifications and will provide proof of proper maintenance at FINANCER's request.

10. ALTERATIONS

A. The Funding Agency will not make any alterations, additions, or improvements to the ECMs without FINANCER's prior written consent unless such alterations, additions, or improvement may be readily removed without damage to the ECMs.

11. LIENS AND ENCUMBRANCES

A. Commonwealth shall keep the ECMs free and clear of all levies, liens, and encumbrances, except those created under this Agreement. The Funding Agency shall pay, when due, all charges which may be imposed upon the ownership, leasing, rental, sale, purchase, possession, or use of the ECMs, excluding, however, all taxes on or measured by FINANCER's income. If the Funding Agency fails to pay said charges when due, FINANCER shall have a right, but shall not be obligated, to pay said charges. If FINANCER pays any charges for which the Funding Agency is responsible or liable under this Agreement, the Funding Agency shall reimburse FINANCER.

12. RISK OF LOSS; DAMAGE; DESTRUCTION

A. Upon acceptance of the ECMs, Commonwealth and/or GESA Contractor, as per the terms of the GESA Contract, assumes all risks of loss or damage to the ECMs from any cause whatsoever, and no such loss of or damage to the ECMs or defect, or unfitness, or obsolescence, shall relieve the Funding Agency of its obligation to make payments or to perform any other obligation under this Agreement.

B. In the event of damage to any item or ECM, the Funding Agency will immediately notify GESA Contractor and place the same in good repair. If the Funding Agency determines that any item of ECMs is lost, stolen, destroyed, or damaged beyond repair, the Funding Agency will either:

I. Replace the same with like ECMs in good repair; or

II. On the next payment date following occurrence of loss, pay FINANCER or its assignee:

a. All amounts for said lost, stolen, destroyed, or damaged beyond repair ECM then owed by the Funding Agency to FINANCER under this Agreement, including the payment for such item(s) due on such date; and

b. The proportionate amount of applicable payment set in the PAYMENT SCHEDULE.

13. INSURANCE

A. GESA Contractor will insure against any or all risks in accordance with the GESA Contract. GESA Contractor shall demonstrate to the satisfaction of FINANCER or assignee that adequate insurance is provided. In the event of any loss, damage, injury, or accident involving the ECMs, Commonwealth will promptly provide GESA Contractor with written notice within ten (10) days and make available to GESA Contractor all relative information and documentation.

B. Upon final acceptance of ECMs, and in accordance with Section 6 of this Agreement, title of the ECMs will vest with the Commonwealth. Commonwealth will then self-insure against any or all risks assumed in this Agreement. Commonwealth shall demonstrate to the satisfaction of FINANCER or assignee that adequate self-insurance is provided. In the event of any loss, damage, injury, or accident involving the ECM(s), Commonwealth will promptly

provide GESA Contractor with written notice within ten (10) days and make available to GESA Contractor all relative information and documentation.

C. Upon Commonwealth self-insuring the ECMs, Commonwealth will assume all risks and liabilities for injury to or death of any person or damage to any property, in any manner arising out of possession, use, operation, custody, control, condition, or storage of the ECMs by Commonwealth, whether such injury or death be with respect to Commonwealth's property or the property of other; provided, however, that said damage or injury results from the negligence of Commonwealth, its agents or employees, and that either Commonwealth agrees to settle such claim or judgment has been obtained against Commonwealth. This Section shall not be construed to limit or waive in any way the sovereign immunity of Commonwealth, liability of which under the Section is limited to amounts in which Commonwealth is otherwise permitted or required to respond in accordance with applicable law.

14. PREPAYMENT OPTION

A. Upon thirty (30) days' prior written notice from the Funding Agency to FINANCER, and provided that there is no Event of Default, or an event with which notice or lapse of time, or both, could become an Event of Default, then existing, the Funding Agency will have the right to terminate the Funding Agency's continued obligation to make payments, as specified in the PAYMENT paragraph and Payment Schedule to FINANCER on the purchase of the ECMs.

B. Under this paragraph, payments up to date of prepayment and the Purchase Price, along with any interest accrued from the date of the last payment, will be due to FINANCER on the date of prepayment. Upon satisfaction by the Funding Agency of such purchase conditions, FINANCER shall then have no rights, title, and interest in the ECMs. No voluntary prepayment is permitted prior to the date of the first scheduled payment under the Payment Schedule.

15. ASSIGNMENTS

A. Without FINANCER's prior written consent, Commonwealth will not assign, transfer, pledge, or grant any security interest in, or otherwise dispose, of this Agreement, the ECMs, or any interest in this Agreement or the ECMs. FINANCER may assign its rights, title, and interest to this Agreement, the ECMs, and any other documents executed with respect to this Agreement and/or grant or assign a security interest in this Agreement and the ECMs, in whole or in part. Any such assignee shall have all of the rights of FINANCER under this Agreement. Subject to the foregoing, this Agreement inures to the benefit of, and is binding upon, the heirs, executors, administrators, successors, and assigns of the parties.

B. Upon assignment of FINANCER's interests, FINANCER will cause written notice of such assignment to be sent to the Funding Agency, which will be sufficient if it discloses the name of the assignee and address to which further payments should be made. No further action will be required by FINANCER or by the Funding Agency to evidence the assignment, but the Funding Agency will acknowledge such assignments in writing, if so requested.

C. Notwithstanding the foregoing, no such assignments of FINANCER's interests shall be effective against the Funding Agency unless the Funding Agency receives notification in writing of the Agreement designating the name and address of any such assign. In compliance with Section 149(a) of the Internal Revenue Code, Commonwealth agrees to affix a copy of each notification of assignment to Commonwealth's counterpart of the Agreement.

D. NOT BEING THE MANUFACTURER OR VENDOR OF THE ECMs, ANY ASSIGNEE OF FINANCER SHALL BE DEEMED TO HAVE MADE NO WARRANTY OR REPRESENTATION, EITHER EXPRESS OR IMPLIED, AS TO THE VALUE, DESIGN, CONDITIONS, MERCHANTABILITY, OR FITNESS FOR A PARTICULAR PURPOSE OR FITNESS FOR USE OF THE ECMs. In no event shall any assignee be liable for any incidental, indirect, special, or consequential damage in connection with, or arising out of, this Agreement or the existence, furnishing, functioning, or the Funding Agency's use of any item of ECMs, or products, or services provided for in this Agreement.

16. EVENTS OF DEFAULT BY the Funding Agency

A. The term "Event of Default," as used in paragraphs 17 and 18, means the occurrence of any one of the following events:

I. The Funding Agency, in accordance with the GESA Contract, fails to make any payment as it becomes due in accordance with the terms of this Agreement, and any such failure continues for sixty (60) days after receipt of written notice of Default; or

II. The Funding Agency fails to perform or observe any other covenant, condition, or agreement to be performed or observed by it, and such failure is not cured within sixty (60) days after written notice by FINANCER.

17. REMEDIES BY FINANCER

A. Upon the occurrence of an Event of Default, and as long as such Event of Default is continuing, FINANCER may at its option, exercise any one or more of the following remedies:

I. By written notice to the Funding Agency, with or without terminating this Agreement, declare an amount equal to all amounts then due under this Agreement, and all remaining payments due for which funds have been appropriated, to be immediately due and payable, whereupon the same shall become immediately due and payable;

II. By written notice to the Funding Agency, request the Funding Agency to, at the Funding Agency's expense, promptly return the ECMs to FINANCER in the manner specified in NONAPPROPRIATION OF FUNDS paragraph, or FINANCER, at its option, may enter upon the premises where the ECM is located and take immediate possession of and remove the same, and the Funding Agency hereby expressly waives any damages occasioned by such actions not caused by FINANCER's willful misconduct or negligence;

III. Sell the ECMs and apply any proceeds of such disposition in the following order: (i) all costs incurred in securing possession of the ECMs; (ii) all expenses incurred in completing the disposition; (iii) any sales or transfer taxes; (iv) the applicable payment; and (v) the balance of any payments owed by the Funding Agency for which funds have been appropriated. Any disposition proceeds remaining after the requirements of clauses (i), (ii), (iii), (iv), and (v) have been met shall be paid to the Funding Agency; and

IV. Exercise any other right, remedy, or privilege which may be available to it under applicable laws of the Commonwealth of Pennsylvania, or any other applicable law, or proceed by appropriate court action to enforce the terms of this Agreement, or to recover damages for the breach of this Agreement, or to terminate this Agreement as to any or all of the ECMs. In addition, the Funding Agency will remain liable to the extent not prohibited by law for all covenants under this Agreement and for all fees, other costs, and expenses incurred by FINANCER with respect to the enforcement of any of the remedies listed above or any other remedy available to the FINANCER.

18. EVENTS OF DEFAULT BY FINANCER AND REMEDIES BY COMMONWEALTH

A. If FINANCER fails to make any payment as it becomes due in accordance with the terms of this Agreement, and any such failure continues for sixty (60) days after receipt of written notice of Default, then Commonwealth may pursue any right, remedy, or privilege which may be available to it under applicable laws of the Commonwealth of Pennsylvania, or any other applicable law, or proceed by appropriate court action to enforce the terms of this Agreement, or to recover damages for the breach of this Agreement.

19. NOTICES

A. All notices to be given under this Agreement shall be made in writing and mailed by certified mail (return receipt requested) to the other party at its address or at such address as the party may provide in writing from time to time. Any such notice shall be deemed to have been received five (5) days after mailing.

20. NONDISCRIMINATION/SEXUAL HARASSMENT CLAUSE

The Contractor agrees:

A. In the hiring of any employee(s) for the manufacture of supplies, performance of work, or any other activity required under the contract or any subcontract, the Contractor, each subcontractor, or any person acting on behalf of the Contractor or subcontractor shall not discriminate by reason of race, gender, creed, color, sexual orientation, gender identity or expression, or in violation of the Pennsylvania Human Relations Act (PHRA) and applicable federal laws, against any citizen of this commonwealth who is qualified and available to perform the work to which the employment relates.

B. Neither the Contractor nor any subcontractor nor any person on their behalf shall in any manner discriminate by reason of race, gender, creed, color, sexual orientation, gender identity or expression, or in violation of the PHRA and applicable federal laws, against or intimidate any employee involved in the manufacture of supplies, the performance of work, or any other activity required under the contract.

C. Neither the Contractor nor any subcontractor nor any person on their behalf shall in any manner discriminate by reason of race, gender, creed, color, sexual orientation, gender identity or expression, or in violation of the PHRA and applicable federal laws, in the provision of services under the contract.

D. Neither the Contractor nor any subcontractor nor any person on their behalf shall in any manner discriminate against employees by reason of participation in or decision to refrain from participating in labor activities protected under the Public Employee Relations Act, Pennsylvania Labor Relations Act or National Labor Relations Act, as applicable and to the extent determined by entities charged with such Acts' enforcement, and shall comply with any provision of law establishing organizations as employees' exclusive representatives.

E. The Contractor and each subcontractor shall establish and maintain a written nondiscrimination and sexual harassment policy and shall inform their employees in writing of the policy. The policy must contain a provision that sexual harassment will not be tolerated and employees who practice it will be disciplined. Posting this Nondiscrimination/Sexual Harassment Clause conspicuously in easily-accessible and well-lighted places customarily frequented by employees and at or near where the contracted services are performed shall satisfy this requirement for employees with an established work site.

F. The Contractor and each subcontractor shall not discriminate by reason of race, gender, creed, color, sexual orientation, gender identity or expression, or in violation of PHRA and applicable federal laws, against any subcontractor or supplier who is qualified to perform the work to which the contract relates.

G. The Contractor and each subcontractor represents that it is presently in compliance with and will maintain compliance with all applicable federal, state, and local laws, regulations and policies relating to nondiscrimination and sexual harassment. The Contractor and each subcontractor further represents that it has filed a Standard Form 100 Employer Information Report ("EEO-1") with the U.S. Equal Employment Opportunity Commission ("EEOC") and shall file an annual EEO-1 report with the EEOC as required for employers' subject to Title VII of the Civil Rights Act of 1964, as amended, that have 100 or more employees and employers that have federal government contracts or first-tier subcontracts and have 50 or more employees. The Contractor and each subcontractor shall, upon request and within the time periods requested by the commonwealth, furnish all necessary employment documents and records, including EEO-1 reports, and permit access to their books, records, and accounts by the contracting agency and the Bureau of Diversity, Inclusion and Small Business Opportunities for purpose of ascertaining compliance with provisions of this Nondiscrimination/Sexual Harassment Clause.

H. The Contractor shall include the provisions of this Nondiscrimination/Sexual Harassment Clause in every subcontract so that those provisions applicable to subcontractors will be binding upon each subcontractor.

I. The Contractor's and each subcontractor's obligations pursuant to these provisions are ongoing from and after the effective date of the contract through the termination date thereof. Accordingly, the Contractor and each subcontractor shall have an obligation to inform the commonwealth if, at any time during the term of the contract, it becomes aware of any actions or occurrences that would result in violation of these provisions.

J. The commonwealth may cancel or terminate the contract and all money due or to become due under the contract may be forfeited for a violation of the terms and conditions of this Nondiscrimination/Sexual Harassment Clause. In addition, the agency may proceed with debarment or suspension and may place the Contractor in the Contractor Responsibility File.

21. CONTRACTOR INTEGRITY PROVISIONS

It is essential that those who seek to contract with the Commonwealth of Pennsylvania ("Commonwealth") observe high standards of honesty and integrity. They must conduct themselves in a manner that fosters public confidence in the integrity of the Commonwealth procurement process.

(a). DEFINITIONS. For purposes of these Contractor Integrity Provisions, the following terms shall have the meanings found in this Section:

1. "Affiliate" means two or more entities where (a) a parent entity owns more than fifty percent of the voting stock of each of the entities; or (b) a common shareholder or group of shareholders owns more than fifty percent of the voting stock of each of the entities; or (c) the entities have a common proprietor or general partner.

2. "Consent" means written permission signed by a duly authorized officer or employee of the Commonwealth, provided that where the material facts have been disclosed in writing, by prequalification, bid, proposal, or contractual terms, the Commonwealth shall be deemed to have consented by virtue of the execution of this contract.

3. "Contractor" means the individual or entity, that has entered into this contract with the Commonwealth.

4. "Contractor Related Parties" means any affiliates of the Contractor and the Contractor's executive officers, Pennsylvania officers and directors, or owners of 5 percent or more interest in the Contractor.

5. "Financial Interest" means either:

(1) Ownership of more than a five percent interest in any business; or

(2) Holding a position as an officer, director, trustee, partner, employee, or holding any position of management.

6. "Gratuity" means tendering, giving, or providing anything of more than nominal monetary value including, but not limited to, cash, travel, entertainment, gifts, meals, lodging, loans, subscriptions, advances, deposits of money, services, employment, or contracts of any kind. The exceptions set forth in the Governor's Code of Conduct, Executive Order 1980-18, the 4 Pa. Code §7.153(b), shall apply.

7. "Non-bid Basis" means a contract awarded or executed by the Commonwealth with Contractor without seeking bids or proposals from any other potential bidder or offeror.

(b) In furtherance of this policy, Contractor (i.e., FINANCER) agrees to the following:

1. Contractor shall maintain the highest standards of honesty and integrity during the performance of this contract and shall take no action in violation of state of federal laws or regulations or any other applicable laws or regulations or other requirements

applicable to Contractor or that govern contracting or procurement with the Commonwealth.

2. Contractor shall establish and implement a written business integrity policy, which includes, at a minimum, the requirements or these provisions as they relate to Contractor activity with the Commonwealth and Commonwealth employees and which is made known to all Contractor employees. Posting these Contractor Integrity Provisions conspicuously in easily-accessible and well-lighted places customarily frequented by employees and at or near where the contract services are performed shall satisfy this requirement.

3. Contractor, its affiliates, agents and employees and anyone in privity with Contractor shall not accept, agree to give, offer, confer, or agree to confer or promise to confer, directly or indirectly, any gratuity or pecuniary benefit to any person, or to influence or attempt to influence any person in violation of any federal or state law, regulation, executive order of the Governor of Pennsylvania, statement of policy, management directive, or any other published standard of the Commonwealth in connection with performance of work under this contract, except as provided in this contract.

4. Contractor shall not have a financial interest in any other contractor, subcontractor, or supplier providing services, labor, or material under this contract, unless the financial interest is disclosed to the Commonwealth in writing and the Commonwealth consents to Contractor's financial interest prior to Commonwealth execution of the contract. Contractor shall disclose the financial interest to the Commonwealth at the time of bid or proposal submission, or if no bids or proposals are solicited, no later than Contractor's submission of the contract signed by Contractor.

5. Contractor certifies to the best of its knowledge and belief that within the last five (5) years Contractor or Contractor Related Parties have not:

i. been indicted or convicted of a crime involving moral turpitude or business honesty or integrity in any jurisdiction;
ii. been suspended, debarred, or otherwise disqualified from entering into any contract with any governmental agency;
iii. had any business license or professional license suspended or revoked;
iv. had any sanction or finding of fact imposed as a result of a judicial or administrative proceeding related to fraud, extortion, bribery, bid rigging, embezzlement, misrepresentation, or anti-trust; and
v. been, and is not currently, the subject of a criminal investigation by any federal, state, or local prosecuting or investigative agency and/or civil anti-trust investigation by any federal, state, or local prosecuting or investigative agency.

If Contractor cannot certify to the above, then it must submit, along with its bid proposal or contract, a written explanation (**Exhibit D**) of why such certification cannot be made, and the Commonwealth will determine whether a contract may be entered into with the Contractor. The Contractor's obligation pursuant to this certification is ongoing from and after the effective date of the contract through the termination date. thereof.

Accordingly, the Contractor shall have an obligation to immediately notify the Commonwealth in writing if at any time during the term of the contract if becomes aware of any event which would cause the Contractor's certification or explanation to change. Contractor acknowledges that the Commonwealth may, in its sole discretion, terminate the contract for cause if it learns that any of the certifications made herein are currently false due to intervening factual circumstances, or were false, or should have been known to be false, when entering into the contract.

6. Contractor shall comply with the requirements of the Lobbying Disclosure Act (65 Pa.C.S. §13A01 et seq.) regardless of the method of award. If this contract was awarded on a Non-bid Basis, Contractor must also comply with the requirements of the Section 1641 of the Pennsylvania Election Code (25 P.S. §3260a).

7. When Contractor has reason to believe that any breach of ethical standards as set forth in law, the Governor's Code of Conduct, or these Contractor Integrity Provisions has occurred or may occur, including, but not limited to, contact by a Commonwealth officer or employee which, if acted upon, would violate such ethical standards, Contractor shall immediately notify the Commonwealth contracting officer or the Office of the State Inspector General in writing.

8. Contractor, by submission of its bid or proposal and/or execution of this contract and by the submission of any bills, invoices, or requests for payment pursuant to the contract, certifies and represents that it has not violated any of these Contractor Integrity Provisions in connection with the submission of the bid or proposal, during any contract negotiations or during the term of the contract, to include any extensions thereof. Contractor shall immediately notify the Commonwealth in writing of any actions for occurrences that would result in a violation of these Contractor Integrity Provisions. Contractor agrees to reimburse the Commonwealth for the reasonable costs of investigation incurred by the Office of the State Inspector General for investigations of the Contractor's compliance with the terms of this or any other agreement between the Contractor and the Commonwealth that results in the suspension or debarment of the Contractor. Contractor shall not be responsible for investigative costs for investigations that do not result in the Contractor's suspension or debarment.

9. Contractor shall cooperate with the Office of the State Inspector General in its investigation of any alleged Commonwealth agency or employee breach of ethical standards and any alleged Contractor non-compliance with these Contractor Integrity Provisions. Contractor agrees to make identified Contractor employees available for interviews at reasonable times and places. Contractor, upon the inquiry or request of an Inspector General, shall provide, or if appropriate, make promptly available for inspection or copying, any information of any type or form deemed relevant by the Office of the State Inspector General to Contractor's integrity and compliance with these provisions. Such information may include, but shall not be limited to, Contractor's business or financial records, documents, or files of any type or form that refer to or concern this contract. Contractor shall incorporate this paragraph in any agreement, contract, or subcontract it enters into in the course of the performance of this contract/agreement solely for the purpose of obtaining subcontractor compliance with this provision. The incorporation of this provision in a subcontract shall not create

privity of contract between the Commonwealth and any such subcontractor, and no third-party beneficiaries shall be created thereby.

10. For violation of any of these Contractor Integrity Provisions, the Commonwealth may terminate this and any other contract with Contractor, claim liquidated damages in an amount equal to the value of anything received in breach of these Provisions, claim damages for all additional costs and expenses incurred in obtaining another contractor to complete performance under this contract, and debar and suspend Contractor from doing business with the Commonwealth. These rights and remedies are cumulative, and the use or non-use of any one shall not preclude the use of all or any other. These rights and remedies are in addition to those the Commonwealth may have under law, statute, regulation, or otherwise.

22. CONTRACTOR RESPONSIBILITY PROVISIONS

For the purpose of these provisions, the term contractor is defined as any person, including, but not limited to, a bidder, offeror, loan recipient, grantee or lessor, who has furnished or performed or seeks to furnish or perform, goods, supplies, services, leased space, construction or other activity, under a contract, grant, lease, purchase order or reimbursement agreement with the Commonwealth of Pennsylvania (Commonwealth). The term contractor includes a permittee, licensee, or any agency, political subdivision, instrumentality, public authority, or other public entity in the Commonwealth.

(a) The Contractor certifies, in writing, for itself and its subcontractors required to be disclosed or approved by the Commonwealth, that as of the date of its execution of this Bid/Contract, that neither the Contractor, nor any such subcontractors, are under suspension or debarment by the Commonwealth or any governmental entity, instrumentality, or authority and, if the Contractor cannot so certify, then it agrees to submit, along with its Bid/Contract, a written explanation of why such certification cannot be made.

(b) The Contractor also certifies, in writing, that as of the date of its execution of this Bid/Contract, it has no tax liabilities or other Commonwealth obligations, or has filed a timely administrative or judicial appeal if such liabilities of obligations exist, or is subject to a duly approved deferred payment plan if such liabilities exist.

(c) The Contractor's obligations pursuant to these provisions are ongoing from and after the effective date of the Contract through the termination date thereof. Accordingly, the Contractor shall have an obligation to inform the Commonwealth if, at any time during the term of the Contract, it becomes delinquent in the payment of taxes or other Commonwealth obligations, or if it, or, to the best knowledge of the Contractor, any of its subcontractors are suspended or debarred by the Commonwealth, the federal government, or any other state or governmental entity. Such notification shall be made within 15 days of the date of suspension or debarment.

(d) The failure of the Contractor to notify the Commonwealth of its suspension or debarment by the Commonwealth, any other state, or the federal government shall constitute an event of default of the Contract with the Commonwealth.

(e) The Contractor agrees to reimburse the Commonwealth for the reasonable costs of investigation incurred by the Office of State Inspector General for investigations of the Contractor's compliance with the terms of this or any other agreement between the Contractor and the Commonwealth that results in the suspension or debarment of the contractor. Such costs shall include, but shall not be limited to, salaries of investigators, including overtime; travel and lodging expenses; and expert witness and documentary fees. The Contractor shall not be responsible for investigative costs for investigations that do not result in the Contractor's suspension or debarment.

(f) The Contractor may obtain a current list of suspended and debarred Commonwealth contractors by either searching the Internet at http://www.dgs.pa.gov or contacting:

Department of General Services
Office of Chief Counsel
603 North Office Building
Harrisburg, PA 17125
Telephone No: (717) 787-5599
FAX No. (717) 787-9138

23. AMERICANS WITH DISABILITIES ACT

Pursuant to federal regulations promulgated under the authority of The Americans With Disabilities Act, 28 C.F.R. §35.101 et seq., FINANCER understands and agrees that it shall not cause any individual with a disability to be excluded from participation in this Agreement or from activities provided for under this Agreement on the basis of the disability. As a condition of accepting this Agreement, FINANCER agrees to comply with the "General Prohibitions Against Discrimination", 28 C.F.R. §35.130, and all other regulations promulgated under Title II of The Americans With Disabilities Act which are applicable to all benefits, services programs, and activities provided by the Commonwealth of Pennsylvania through the contracts with outside contractors.

FINANCER shall be responsible for and agrees to indemnify and hold harmless the Commonwealth of Pennsylvania from all losses, damages, expenses, claims, demands, suits, and actions brought by any party against the Commonwealth of Pennsylvania as a result of FINANCER's failure to comply with the provisions of subparagraph above.

24. INDEMNIFICATION

Subject to Exhibit D, neither the FINANCER nor the Commonwealth assumes any liability for each other. As to liability to each other for injury or death to persons, or damages to property, the Commonwealth and the FINANCER do not waive any defenses as a result of entering into this Agreement. This provision shall not be construed to limit the Commonwealth's rights, claims or defenses which arise as a matter of law pursuant to any provisions of this Agreement. This provision shall not be construed to limit the sovereign immunity of the Commonwealth.

25. RIGHT-TO-KNOW

A. The Pennsylvania Right-to-Know Law, 65 P.S. §§ 67.101-3104, ("RTKL") applies to this Contract. For the purpose of these provisions, the term "the Commonwealth" shall refer to the contracting Commonwealth agency .and "this Contract" shall refer to the Agreement together with its Payment Schedule and "the Contractor" shall refer to FINANCER.

B. If the Commonwealth needs the Contractor's assistance in a matter arising out of the RTKL related to this Contract, it shall notify the Contractor using the legal contact information provided in this Contract. The Contractor, at any time, may designate a different contact for such purpose upon reasonable prior written notice to the Commonwealth.

C. Upon written notification from the Commonwealth that it requires the Contractor's assistance in responding to a request under the RTKL for information related to this Contract that may be in the Contractor's possession, constituting, or alleged to constitute, a public record in accordance with the RTKL ("Requested Information"), the Contractor shall:

I. Provide the Commonwealth, within ten (10) calendar days after receipt of written notification, access to, and copies of, any document or information in the Contractor's possession arising out of this Contract that the Commonwealth reasonably believes is Requested Information and may be a public record under the RTKL; and

II. Provide such other assistance as the Commonwealth may reasonably request, in order to comply with the RTKL with respect to this Contract.

D. If the Contractor considers the Requested Information to include a request for a Trade Secret or Confidential Proprietary Information, as those terms are defined by the RTKL, or other information that the Contractor considers exempt from production under the RTKL, the Contractor must notify the Commonwealth and provide, within seven (7) calendar days of receiving the written notification, a written statement signed by a representative of the Contractor explaining why the requested material is exempt from public disclosure under the RTKL.

E. The Commonwealth will rely upon the written statement from the Contractor in denying a RTKL request for the Requested Information unless the Commonwealth determines that the Requested Information is clearly not protected from disclosure under the RTKL. Should the Commonwealth determine that the Requested Information is clearly not exempt from disclosure, the Contractor shall provide the Requested Information within five (5) business days of receipt of written notification of the Commonwealth's determination.

F. If the Contractor fails to provide the Requested Information within the time period required by these provisions, the Contractor shall indemnify and hold the Commonwealth harmless for any damages, penalties, costs, detriment or harm that the Commonwealth may incur as a result of the Contractor's failure, including any statutory damages assessed against the Commonwealth.

G. The Commonwealth will reimburse the Contractor for any costs associated with complying with these provisions only to the extent allowed under the fee schedule established by the Office of Open Records or as otherwise provided by the RTKL if the fee schedule is inapplicable.

H. The contractor may file a legal challenge to any Commonwealth decision to release a record to the public with the Office of Open Records, or in the Pennsylvania Courts; however, the Contractor shall indemnify the Commonwealth for any legal expenses incurred by the Commonwealth as a result of such a challenge and shall hold the Commonwealth harmless for any damages, penalties, costs, detriment or harm that the Commonwealth may incur as a result of the Contractor's failure, including any statutory damages assessed against the Commonwealth, regardless of the outcome of such legal challenge. As between the parties, the Contractor agrees to waive all rights or remedies that may be available to it as a result of

the Commonwealth's disclosure of Requested Information pursuant to RTKL.

I. The Contractor's duties relating to the RTKL are continuing duties that survive the expiration of this Contract and shall continue as long as the Contractor has Requested Information in its possession.

26. OFFSET PROVISION

A. Subject to Exhibit D, the contractor agrees that the Commonwealth may offset the amount of any state tax or Commonwealth liability of the contractor or its affiliates and subsidiaries that is owed to the Commonwealth against any payments due the contractor under this or any other contract with the Commonwealth.

27. GOVERNING LAW

A. This Agreement shall be construed in accordance with, and governed by the laws of, the Commonwealth of Pennsylvania.

28. ENHANCED MINIMUM WAGE PROVISIONS

A. Enhanced Minimum Wage. Contractor agrees to pay no less than $10.15 per hour to its employees for all hours worked directly performing the services called for in this Contract, and for an employee's hours performing ancillary services necessary for the performance of the contracted services or lease when such employee spends at least twenty per cent (20%) of their time performing ancillary services in a given work week.

B. Adjustment. Beginning January 1, 2017, and annually thereafter, Contractor shall pay its employees described in Paragraph 1. above an amount that is no less than the amount previously in effect; increased from such amount by the annual percentage increase in the Consumer Price Index for Urban Wage Earners and Clerical Workers (United States city average, all items, not seasonally adjusted), or its successor publication as determined by the United States Bureau of Labor Statistics; and rounded to the nearest multiple of $0.05. The applicable adjusted amount shall be published in the Pennsylvania Bulletin by March 1 of each year to be effective the following July 1.

C. Exceptions. These Enhanced Minimum Wage Provisions shall not apply to employees:

I. exempt from the minimum wage under the Minimum Wage Act of 1968;
II. covered by a collective bargaining agreement;
III. required to be paid a higher wage under another state or federal law governing the services, including the Prevailing Wage Act and Davis-Bacon Act; or
IV. required to be paid a higher wage under any state or local policy or ordinance.

D. Notice. Contractor shall post these Enhanced Minimum Wage Provisions for the entire period of the contract conspicuously in easily-accessible and well-lighted places customarily frequented by employees at or near where the contracted services are performed.

E. Records. Contractor must maintain and, upon request and within the time periods requested by the Commonwealth, furnish all employment and wage records necessary to document compliance with these Enhanced Minimum Wage Provisions.

F. Sanctions. Failure to comply with these Enhanced Minimum Wage Provisions may result in

the imposition of sanctions, which may include, but shall not be limited to, termination of the contract or lease, nonpayment, debarment or referral to the Office of General Counsel for appropriate civil or criminal referral.

G. Subcontractors. Contractor shall include the provisions of these Enhanced Minimum Wage Provisions in every subcontract so that these provisions will be binding upon each subcontractor.

D. PARAGRAPH HEADINGS

a. All section headings contained herein are for the convenience of reference only and are not intended to define or limit the scope of any provision of this Agreement.

E. COUNTERPARTS

a. This Agreement may be executed in one or more counterparts, each of which is an original, and all of which together are a single Agreement.

F. DELIVERY OF RELATED DOCUMENTS

a. Commonwealth will execute or provide, as requested by FINANCER, such other documents and information as are reasonable necessary with respect to the transaction contemplated by this Agreement.

b. Commonwealth agrees that, pursuant to Section 149(a) of the Internal "Revenue Code of 1986, as amended (the "Code"), and any temporary and final income tax regulations promulgated thereunder, it shall file the applicable Internal Revenue Service Form 8039G or 8038GC (Information Return for Tax Exempt Governmental Bond Issues). Additionally, Commonwealth, pursuant to Section 149 (a) of the Code, appoints the FINANCER, or any assignee, as "Agent" of the Lessee to keep a record of the assignees who maintain an interest in this Lease. Commonwealth agrees that it shall remit to the Internal Revenue Service any rebates due as provided by the Code.

G. ENTIRE AGREEMENT; WAIVER

a. This Agreement, together with the Request for Bid Proposals for Financing, the FINANCER's Bid Proposal, the GESA Contract, the Payment Schedule, and the documents delivered pursuant to the requirements of paragraph 27 of this Agreement, constitute the entire Agreement between the parties with respect to the financing of the GESA Contract, and this Agreement shall not be modified amended, altered, or changed except with the written consent of the FINANCER and the Commonwealth (the Funding Agency). Any provision of this Agreement found to be prohibited by law shall be ineffective to the extent of such prohibition without invalidating the remainder of this Agreement. The waiver by the FINANCER and the Commonwealth (the Funding Agency) of any breach by the other party of any term, covenant, or condition shall not operate as a waiver of any subsequent breach.

[SIGNATURE PAGE IMMEDIATELY FOLLOWS.]

The parties have caused this contract to be executed on the dates written above.

ATTEST:

_____
Printed Name

_____
Title

_____
Signature *Date*

[FINANCAL PROVIDER]

_____
Printed Name

_____
Title

_____
Signature *Date*

Federal Identification No. _____
Vender No._____

COMMONWEALTH OF PENNSYLVANIA
Acting through the [FUNDING AGENCY]

_____
Signature *Date*

_____
Title: *Date*

APPROVED AS TO FORM AND LEGALITY:

_____
Office of Chief Counsel *Date*
[FUNDING AGENCY]

_____
Office of General Counsel *Date*

_____
Office of Attorney General *Date*

_____
Comptroller Operations *Date*

Exhibit A

to Installment Purchase Agreement and Payment Schedule

GESA CONTRACT (WITH EXHIBITS)

Guaranteed Energy Savings Act Contract
GESA [PROJECT NUMBER AND NAME] Project

This Guaranteed Energy Savings Act Contract ("GESA Contract") for a GESA Project is executed this _____ day of _____, 20____, by and between the **[FUNDING AGENCY]** ("Funding Agency"), an executive agency of the Commonwealth of Pennsylvania authorized to enter into GESA Contracts pursuant to 62 Pa C. S. §§3751-3758, and **[GESA CONTRACTOR]** ("GESA Contractor" or "Contractor"), a company organized under the Laws of the State of **[STATE]**, with its principal offices located at **[GESA CONTRACTOR ADDRESS]**.

ARTICLE 1 – CONTRACT DOCUMENTS

1.1 The Contract Documents shall consist of this GESA Contract, the Request for Quote ("the RFQ"), the Contractor's Quote submitted in response to the RFQ, the Contract Bonds, the Conditions of the Contract (General, Special, Supplementary, and other Conditions), all drawings created by or for the Contractor and/or its Retained Professional, the specifications created by or for the Contractor and/or its Retained Professional, the Scope of Work by ECM (**Exhibit 1**), all bulletins and addenda issued prior to execution of this Contract, all change orders, the Administrative Procedures for the GESA Contract, the Installment Purchase Agreement and Payment Schedule, and the Investment Grade Audit Contract Documents, and the Investment Grade Audit. These documents form the Contract and are as fully part of the Contract as if attached to this Contract.

ARTICLE 2 – SCOPE OF WORK

2.1 The Contractor shall perform all the Work required by the Contract Documents as stated in the RFQ for the design and implementation/construction of the **[PROJECT NUMBER AND NAME]** ("Project").

ARTICLE 3 – TERM

3.1 The term of this Contract shall commence upon the Effective Date of this Contract and shall run for **[LENGTH OF CONSTRUCTION]** calendar days. The Effective Date of this Contract shall be the date of the last required Commonwealth signature.

3.2 The format and scope of the Work shall be as stated in the RFQ and the Investment Grade Audit.

3.3 Time is of the essence and if the Contractor fails to complete the Work within the time specified above, the Contractor shall pay the Funding Agency, as Liquidated Damages and not as a penalty for such failure, the sum of **[LIQUIDATED DAMAGES {AMOUNT PER DGS' CALCULATION} WRITTEN & NUMERICAL]** ($0.00) per day for each and every calendar day after the completion date until the Work is completed and accepted. The Funding Agency may extend the completion date of the GESA Contract for causes stated in the General Conditions of the GESA Contract ("General Conditions") that, in fact, delay the completion of the Work. In such case, the Contractor is liable for said Liquidated Damages only after the expiration of the extended period.

ARTICLE 4 – CONTRACT SUM

4.1 The Funding Agency will authorize a financing provider, procured separately, to pay the Contractor for the performance of the Work subject to additions and deductions by change order, as provided in the

General Conditions, the Contract Sum of **[CONTRACT SUM – WRITTEN AND NUMERICAL] ($)**. Payment will be made as stated in the General Conditions. Deductions from, or additions to, this sum will be made as stated in the General Conditions. The Funding Agency is not liable for any debt due to the GESA Contract.

ARTICLE 5 – PROGRESS PAYMENTS AND RETAINAGE

5.1 Based upon Applications for Release of Payment submitted to the Funding Agency by the Contractor, the Funding Agency will authorize the financing provider to release progress payments to the Contractor, in accordance with the provisions of the Prompt Payment Schedules found in the Commonwealth Procurement Code, 62 Pa. C.S. §3931-§3939, and the Administrative Procedures, which are both incorporated by reference and made a part hereof as if those provisions were fully and at length recited, except that, where those provisions refer to the government agency, it is deemed to refer to the Funding Agency. The Funding Agency will retain a portion of the amount due to the Contractor to insure the proper performance of the Contractor in each Application for Release of Payment in accordance with the provisions of Retainage found in the Commonwealth Procurement Code, 62 Pa. C.S. §3921, and the General Conditions, which are both incorporated by reference and made a part hereof as if those provisions were fully and at length recited, except that, where those provisions refer to the government agency, it is deemed to refer to the Funding Agency.

ARTICLE 6 – FINAL PAYMENT

6.1 Final Payment, constituting the entire unpaid balance of the Contract Sum, will be approved by the Funding Agency for release by the financing provider to the Contractor within thirty (30) days after Closeout Inspection of the Work if the Contract has been fully performed and a Final Application for Release of Payment has been submitted, as provided in the General Conditions.

ARTICLE 7 – SMALL DIVERSE BUSINESS PARTICIPATION

7.1 The Contractor provided its Small Business (“Small Business”) and Small Diverse Business (i.e., minority owned small business, woman owned small business, veteran owned small business, service disable veteran owned small business, LGBT owned small business, or disability owned small business) (“Small Diverse Business”) percentages for Small Business & Small Diverse Business Subcontracts, suppliers, and manufacturers for this Project in its Quote. The GESA Contractor’s Small Business & Small Diverse Business percentage is included in **Exhibit 1**.

ARTICLE 8 – WARRANTEE AND GUARANTEE

8.1 In addition to the Contract Bond, the GESA Contractor shall unconditionally warrant and guarantees equipment, materials and workmanship against patent defects arising from faulty equipment, faulty materials, faulty workmanship or negligence for a period of twelve (12) months following the date of Final Acceptance of the Work or beneficial occupancy (whichever comes first) unless other warranties found within the Contract Documents specify or indicate longer periods. The GESA Contractor shall replace such defective equipment, materials or workmanship without cost to DGS or the Funding Agency. The GESA Contractor shall warrant that such equipment, material or workmanship furnished under this GESA Contractor shall be furnished in conformance with the Contract Documents. All work not conforming to these standards may be considered non-conforming.

1. If items of equipment or material carry a manufacturer's warranty for any period in excess of twelve (12) months, then the manufacturer's warranty shall apply for that particular piece of equipment or material. The GESA Contractor shall replace such defective equipment or materials, without cost to DGS or the Funding Agency, within the manufacturer's warranty period. Nothing in this paragraph relieves the GESA Contractor or surety of its obligations under the performance bond.

2. The GESA Contractor shall assign and deliver to the Funding Agency all warranties for review. The warranty provided in this Paragraph shall be in addition to, and not in limitation of, any other warranty or remedy provided by Law or by the Contract Documents.

3. If there is a substitution of material or equipment, the GESA Contractor warrants that such installation, construction, material or equipment will perform to the standard of the item originally specified. The GESA Contractor explicitly warrants the merchantability, and the fitness for use and quality of all substituted items provided for or by it.

4. DGS and the Funding Agency may bring an action for latent defects that were hidden or not readily apparent to DGS and/or the Funding Agency at the time of beneficial occupancy or final acceptance, whichever occurred first, in accordance with applicable law and/or the Contract Bond.

B This paragraph, "Warranty and Guarantee," in no way limits the applicability of the Contract Bond.

ARTICLE 9 – MISCELLANEOUS PROVISIONS

9.1 Terms used in this Contract defined in the General Conditions have the meanings designated in those General Conditions.

9.2 In addition to any other guarantees or warrantees, the Contractor covenants and agrees after acceptance of the Work performed under this Contract, to remedy without cost to the Funding Agency, any such defect in the Work, provided said defects in the reasonable judgment of the Funding Agency, or its successors having jurisdiction over the premises, are caused by defective or inferior materials, equipment, or workmanship. If the corrective Work is not completed within thirty (30) days after the notification by the Funding Agency to the GESA Contractor, the Funding Agency may do the Work and submit those costs to the Surety Company for reimbursement.

9.3 The Contract Bonds given by the Contractor conditioned upon the faithful performance of the Contract and for the payment of labor, material, equipment, and public utility service claims are attached to this Contract and are made a part of it. No third party shall acquire any rights against the Funding Agency under the Contract Documents. The Performance Bond does not cover the Assured Performance Guarantee or guaranteed savings under the Contract Documents. However, failure to meet Assured Performance Guarantee or guaranteed savings may be the result of defective or inferior materials, equipment, or workmanship due to the Contractor's failure of faithful performance. Where and when such cases of defective and/or nonconforming work occurs, such defective and/or nonconforming work is covered by the Performance Bond.

9.4 The Contractor agrees to abide by and be bound by the Laws of Pennsylvania, including those relating to and regulating the hours and conditions of employment.

9.5 Nothing in this Contract shall be deemed to waive or otherwise affect the sovereign immunity of the Commonwealth and its agencies, officers, and employees, or to subject any Commonwealth party to any liability not expressly authorized by law.

9.6 Any person, co-partnership, association, or corporation furnishing labor, material, equipment or renting equipment, or rendering public utility services in connection with the performance of this GESA Contract, has a right of action to recover the cost from the Contractor and the Surety on the Bond given to secure the payment of such labor, material, equipment, or equipment rental and services rendered by public utility as though such person or corporation had been named as Obligee in the Bond. For those who do not have a Contract directly with the Contractor, this right of action may not be exercised unless the Contractor is notified of the claim within ninety (90) days from the last performance of labor or provision of materials. The Contractor shall include in all of its Subcontracts or supply Contracts a provision requiring that its Subcontractors and Suppliers notify, in writing, their Subcontractors and Suppliers of this requirement. It is agreed that no third-party rights arise against the Funding Agency for any reason under this Article, and the Contractor agrees to inform all Subcontractors and Suppliers in writing.

9.7 This Contract may be executed in one or counterparts, each of which is an original, and all of which together are a single Contract.

ARTICLE 10 – CONTRACT COMPLIANCE REGULATIONS

10.1 Refer to the appropriate paragraph of the General Conditions (which are made a part of this Contract by incorporation by reference), which prohibits discrimination in hiring or employment opportunities. Also made a part of this Contract by incorporation by reference are all State and Federal Laws prohibiting discrimination in hiring or employment opportunities. The Contract Documents also list applicable statutory provisions, which are incorporated by reference into this GESA Contract.

ARTICLE 11 – ASSURED PERFORMANCE GUARANTEE

11.1 The Contractor is required to guarantee energy and cost savings stipulated in this Contract on an annual basis. The savings must be guaranteed to equal or exceed the Project financing payment, plus the service fees during that year for the Contract duration. No credit for savings above the annual guarantee will be credited toward the performance guarantees for future years of this Contract. The recovery of Contract costs from energy savings over the term of this Contract shall not exceed **[PAYBACK PERIOD – WRITTEN & NUMERICAL] () years**. Refer to the Assured Performance Guarantee (which is made a part of this Contract by incorporation) for the Contractor's requirements regarding documenting and verifying the annual energy and/or cost savings that are attributed to this Project **(Exhibit 2)**.

[SIGNATURE PAGE IMMEDIATELY FOLLOWS.]

The parties have caused this contract to be executed on the dates written above.

ATTEST:

_____
Secretary/Treasurer *Date*

ATTEST:

_____
Date

APPROVED AS FORM AND LEGALITY

_____
Office of Chief Counsel *Date*
Department of General Services

_____
Office of General Counsel *Date*

_____
Office of Attorney General *Date*

[CONTRACTOR]

_____
[NAME] President *Date*

COMMONWEALTH OF PENNSYLVANIA
ACTING THROUGH [FUNDING AGENCY]

_____
Secretary *Date*

I hereby certify that funds in the amount of
$_____
Are available under Appropriation Symbol
_____
Comptroller Operations *Date*
(Comptroller Operations execution may be by electronic signature and does not imply verification of funds)

CONTRACT BOND

KNOW ALL PERSONS BY THESE PRESENTS, That we the undersigned

_____

_____

_____

as Principal and

_____

_____

_____

as the Surety Company, a Corporation organized and existing under the Laws of the State of _____ and authorized to transact business in Pennsylvania, as surety, are held and firmly bound unto the **[FUNDING AGENCY]** ("Funding Agency"), as hereinafter set forth, in the full and just several sums of:

(A)_____Dollars

($_____) for faithful performance of the GESA Contract as designated in Paragraph "A" below; and

(B)_____Dollars

($_____) for payment for labor, material equipment rental and public utility services as designated in Paragraph "B" below; and

Sealed with our respective seals and dates this _____ day of _____.

WHEREAS, the above Principal has entered into a GESA Contract with the **[FUNDING AGENCY]** dated the _____ day of _____, 20__ for _____upon certain terms and conditions in said GESA Contract more particularly mentioned; and

WHEREAS, it is one of the conditions of the Award pursuant to which said GESA Contract is about to be entered into, that these presents be executed;

NOW, THEREFORE, the joint and several conditions of this obligation are such:

A. That, if the above Principal as GESA Contractor shall well and faithfully do and perform the things agreed by it to be done and performed according to the terms of said Contract Documents, including the plans and specifications therein referred to and made part thereof, and such alterations as may be made in said plans and specifications as therein provided and which are hereby made part of this Bond the same as though they were fully set forth herein, and shall indemnify and save harmless the Department of General Services and all of their officers, agent and employees from any expense incurred through the failure of said GESA Contractor to complete the Work as specified and for any damages growing out of the manner of performance of said GESA Contract by said GESA Contractor or its Subcontractors, or their agents or servants, including, but not limited to, patent trademark and copyright infringements, then this part of this obligation shall be void; otherwise, it shall be and remain in full force and effect.

B. That, if the above Principal shall and will promptly pay or cause to be paid all sums of money which may be due by the Principal or any of its Subcontractors to any person, co-partnership, association or corporation for all material furnished and labor supplied or performed in the prosecution of the work, whether or not the said material or labor entered into and become component parts of the Work or improvements contemplated, and for rental of equipment used, and services rendered by public utilities in, or in connection with, the prosecution of such Work, then this part of this obligation shall be void; otherwise, it shall be and remain in full force and effect.

C. It is further agreed that any alterations which may be made in the terms of the GESA Contract or in the Work to be done or materials to be furnished or labor to be supplied or performed, or equipment to be rented, or public utility services to be rendered, or the giving by the Funding Agency of any extension of time for the performance of the GESA Contract, or the reduction of the retained percentage as permitted by the GESA

Contract, or any other forbearance on the part of either the Funding Agency or the Principal to the other, shall not in any way release the Principal and the surety or sureties or either or any of them, their heirs, executors, administrators, successors or assigns, from their liability hereunder; notice to the surety or sureties of any such alterations, extension or forbearance being hereby waived.

D. The Principal and Surety hereby jointly and severally agree with the Funding Agency herein that every person, co-partnership, association or corporation which, whether as subcontractor as a person otherwise entitled to the benefits of this Bond, has furnished material or supplied or performed labor or rented equipment used in the prosecution of the Work as above provided and any public utility, which has rendered services, in, or in connection with, the prosecution of such Work, and, which has not been paid in full therefore, may sue in assumpsit on this Bond in his, their, or its name and prosecute the same to final judgment for such sum or sums as may be justly due him, them, or its, and have execution thereon; provided, however, that the Funding Agency shall not be liable for the payment of any cost or expenses of such suit to a third party under any theory of law or equity.

E. Recovery by any persons, co-partnership, association or corporation hereunder is subject to the provisions of the Pennsylvania Procurement Code, 62 Pa. C.S §§101-4509, as amended, which Act is incorporated herein and made a part hereof, as fully and completely as though its provisions were fully and at length herein recited, except that, where said Act refers to the Commonwealth of Pennsylvania or a Department thereof, it is deemed to refer to the Funding Agency.

IN WITNESS WHEREOF, the said Principal and Surety have duly executed this Bond under seal the day and year above written.

Witness:

_____ (Date)

_____
Principal (Date)
[CONTRACTOR]

(Corporate Seal)

_____
Surety

By:_____
Attorney-in-Fact (Date)

APPROVED AS TO FORM AND LEGALITY

_____
Office of Chief Counsel
Department of General Services

_____
Office of Attorney General

_____
Office of General Counsel

EXHIBIT 1

Scope of Work by ECM
Including
Small Diverse Business Participation

Project Scope

[LIST PROJECT SCOPE / DESCRIPTION OF ECMS] EXAMPLE: Listed in the table below are the Base Project Energy Conservation Measures (ECMs) (Lighting, Building Envelope and Water Conservation), as well as, the additional "Wish List" ECMs which **[FUNDING AGENCY]** wanted to include in the project:

[INSERT TABLES OR CHART SHOWING EACH ECM & DESCRIPTION OF ECM]

[Remainder of this page left intentionally blank]

[INSERT SB/SDB FORM HERE]

EXHIBIT 2

ASSURED PERFORMANCE GUARANTEE
For
GESA CONTRACT

PART 1

1-1. DEFINITIONS
For purposes of this Agreement, the following terms have the meanings set forth below:

Annual Project Benefits are the portion of the projected Total Project Benefits to be achieved in any one year of the Guarantee Term.

Annual Project Benefits Realized are the Project Benefits actually realized for any one year of the Guarantee Term.

Annual Project Benefits Shortfall is the amount by which the Annual Project Benefits exceed the Annual Project Benefits Realized in any one year of the Guarantee Term.

Annual Project Benefits Surplus is the amount by which the Annual Project Benefits Realized exceed the Annual Project Benefits in any one year of the Guarantee Term.

Baseline is the mutually agreed upon data and/or usage amounts that reflect conditions prior to the installation of the Energy Conservation Measures.

Guarantee Term will commence on the first day of the month following the Final Payment date and will continue through the duration of the M&V Services.

Installation Period is the period beginning on the effective date of the GESA Contract and ending on the commencement of the Guarantee Term.

Measured Project Benefits are the utility savings and cost avoidance calculated in accordance with the methodologies set forth in Part 2 of this Agreement.

Project Benefits are the Measured Project Benefits to be achieved for a particular period during the term of this Agreement.

O&M Benefits are the operations and maintenance cost avoidance savings as stipulated in Part 2 of this Agreement.

Rebate Project Benefits are the energy rebate or incentive non-recurring savings as stipulated in Part 2 of this Agreement.

Total Project Benefits are the projected Project Benefits to be achieved during the entire term of this Agreement.

1-2. SCOPE

A. The Funding Agency is contracting for a full range of energy services and energy-related capital improvements at no initial capital cost for the Project. The ECMs may include but are not limited to: the design, acquisition, installation, modification, maintenance and training of funding agency personnel in the operation of existing and new equipment. The ECMs will reduce energy consumption and related costs associated with the heating, ventilation and air conditioning system, lighting systems, control systems, building envelope, the hot water systems, water consumption, sewage costs and other energy using devices. Additionally, savings which will not reduce consumption but are aimed at cost savings, such as fuel switching, demand side management, on-site generation, utility bill auditing, utility rate changes, and distribution upgrades etc. have been considered. ECMs may also include the training of facility staff with respect to routine maintenance and operation of all improvements. ECMs must result in a guaranteed minimum energy savings with payments linked to actual documented energy and cost reductions.

B. Any stipulated energy and/or operational cost savings that are attributed to this project have been rigorously reviewed and the GESA Contractor is required by this contract to thoroughly document and verify the savings, which have been approved by DGS and the Funding Agency. The Annual Project Benefits Realized by the ECMs in any year must be guaranteed to equal or exceed the Annual Project Benefits during that year for the duration of the contract. The GESA Contractor is required to guarantee energy and cost savings on an annual basis. No credit for the achievement of savings above and beyond the annual guarantee will be credited to satisfy performance guarantees in future years of the contract. Annual reconciliation of the achieved savings will be required.

1-3. MEASUREMENT & VERIFICATION

A. Measurement & Verification (M&V) services shall commence on the first day of the month following the month in which the Funding Agency releases the Final Payment to the GESA Contractor and shall continue throughout the Assured Performance Guarantee Term, subject to earlier termination of the Assured Performance Guarantee as provided herein. The GESA Contractor shall ensure that an approved representative from the Funding Agency is physically present for all pre-retrofit and post-retrofit measurements for each ECM as applicable to the Energy Savings Guarantee unless the Funding Agency waives their right to be present. The final completion date shall be the date when all Work is completed, including all punch list items, as evidenced by the release of the Final Payment by the Funding Agency. In the event the Funding Agency (i) cancels or terminates receipt of M&V Services, (ii) fails to fulfill any of Funding Agency responsibilities necessary to enable GESA Contractor to complete the Work and provide the M&V Services, or (iii) otherwise cancels, terminates or materially breaches this Agreement, GESA Contractor shall issue a written notice to the Funding Agency stating the nature of the alleged breach, the date upon which it arose, and the remedy sought. GESA Contractor shall provide the Funding Agency with a thirty (30) day period to cure such breach. In the event of a dispute, all parties shall act in good faith to mitigate damages with a reservation of rights as to damages.

B. If the GESA Contractor is delayed in the commencement, performance, or completion of the M&V Services by causes beyond its control and without its fault, including but not limited to inability to

access property; concealed or unknown conditions encountered at the project, differing from the conditions represented by Funding Agency in the quote documents or otherwise disclosed by Funding Agency to the GESA Contractor; a Force Majeure condition; failure by Funding Agency to perform its obligations under this GESA Contract; or failure by Funding Agency to reasonably cooperate with GESA Contractor in the timely completion of the M&V Work where such failure is material, substantial and inconsistent with the terms of this GESA Contract, GESA Contractor shall provide written notice to Funding Agency of the existence, extent of, and reason for such delays and impacts. Under such circumstances, an equitable adjustment in the time for performance and the Assured Performance Guarantee shall be made, subject to the mutual written agreement of the parties.

C. Funding Agency shall provide GESA Contractor, its subcontractors, and its agents reasonable and safe access to all facilities and properties in Funding Agency's control that are subject to the M&V Services. Work to be performed by GESA Contractor in accordance with this GESA Contract shall be performed during normally scheduled staff shifts and as agreed to by both parties. Funding Agency further agrees to assist GESA Contractor, its subcontractors, and its agents to gain access to facilities and properties that are not controlled by Funding Agency but are necessary for GESA Contractor to provide the M&V Services. An equitable adjustment in the time for performance and Assured Performance Guarantee shall be made as a result of any failure to grant such access, subject to the mutual written agreement of the parties.

D. In order for GESA Contractor to perform its obligations under this Agreement with respect to the Work, the Assured Performance Guarantee, and the M&V Services, Funding Agency shall be responsible for:

1. Providing GESA Contractor, its subcontractors, and its agents reasonable and safe access to all facilities and properties that are subject to the Work and/or M&V Services;

2. Properly maintaining, and performing appropriate preventative maintenance on, all equipment and building systems affecting the Assured Performance Guarantee in accordance with manufacturers' standards and specifications;

3. Providing the utility bills, reports, and similar information reasonably necessary for administering GESA Contractor's obligations under the Assured Performance Guarantee within thirty (30) days of Funding Agency receipt and/or generation or GESA Contractor's request therefore;

4. Providing all records relating to energy and/or water usage and related maintenance of the premises and relevant equipment requested by GESA Contractor; and

5. Promptly notifying GESA Contractor of any change in use or condition or any other matter that may impact the Assured Performance Guarantee.

[Remainder of this page left intentionally blank]

PART 2
PROJECT BENEFITS

2-1. PROJECT BENEFITS SUMMARY

A. Subject to the terms and conditions of this GESA Contract, GESA Contractor and Funding Agency agree that, upon Final Completion, Funding Agency will be deemed to achieve a total of **$** in annual increments as shown in the Maintenance Material Savings column of the Total Project Benefits table below. GESA Contractor guarantees that Funding Agency will achieve a total of **$** in Total Annual Energy Savings during the term of this Assured Performance Guarantee, for Total Project Benefits of **$** as set forth in the Total Project Benefits table below.

Table A. Total Project Benefits

[INSERT TABLE SHOWING BREAKDOWN OF ANNUAL SAVINGS HERE]

The energy cost savings provided in **Table A** above are based on the annual escalation stated in **Table A-1** below and will be applied to the unit utility rates listed in **Table B** beginning the first month following the baseline period, escalating annually throughout the Guarantee Period.

Table A-1 – Annual Escalation Rates

Energy Cost Esc./yr	**1.0%**
Labor Cost Esc./yr	**3.0%**
Maintenance Cost Esc	**1.0%**

The actual escalation of calculated savings that will be applied in the M&V Report will be the highest of:

(1) **Table A-1** above
(2) CPI (Consumer Price Index) for the geographical region, or
(3) Actual fuel rate

B. Within thirty (30) days of the commencement of the Guarantee Term, GESA Contractor will calculate the Measured Project Benefits achieved during the Installation Period and provide the Funding Agency of written confirmation of the calculations.

C. Within thirty (30) days of each anniversary of the commencement of the Guarantee Term, GESA Contractor will calculate the Measured Project Benefits achieved for the applicable year applicable to such period and provide both DGS and the Funding Agency with an annual report containing:

1. an executive overview of the project's performance and Project Benefits achieved to date; and
2. a summary analysis of the Measured Project Benefits accounting; and
3. a detailed analysis of the Measured Project Benefits calculations.

D. Funding Agency acknowledges and agrees that if, for any reason, it (i) cancels or terminates receipt of M&V Services, (ii) fails to pay for M&V Services, (iii) fails to fulfill any of its responsibilities necessary to enable GESA Contractor to complete the Work and provide the M&V Services, or (iv) otherwise cancels, terminates or materially breaches this GESA Contract, the Assured Performance Guarantee shall automatically terminate and GESA Contractor shall have no liability hereunder.

2-2. PROJECT SAVINGS SHORTFALLS OR SURPLUSES

A. Guaranteed Savings Shortfalls: If an Annual Project Benefit Shortfall occurs for any year of the Assured Performance Guarantee Term, GESA Contractor shall, at the sole discretion of the Funding Agency, perform one or more of the following:

1. pay to Funding Agency the amount of such shortfall, or
2. subject to Funding Agency's written approval, provide to Funding Agency additional products or services, in the value of such shortfall, at no additional cost to Funding Agency.

B. Guaranteed Savings Surpluses: If an Annual Project Benefit Surplus occurs for any year of the Guarantee Term, GESA Contractor may not apply the amount of such surplus to set off any subsequent Annual Project Benefit Shortfall during the Guarantee Term.

C. Additional Energy Conservations. Where an Annual Project Benefits Shortfall has occurred, GESA Contractor may, subject to Funding Agency approval, implement additional Energy Conservation Measures, at no cost to Funding Agency, which may generate additional Project Benefits in future years of the Guarantee Term. Such improvements do not relieve the GESA Contractor from liability set forth in Paragraph 2-2(A).

D. Event of Default by GESA Contractor: If an Annual Project Benefits Shortfall has occurred and the GESA Contractor does not comply with Paragraph 2-2(A), the Funding Agency may deem this to be an Event of Default. If default occurs, the Funding Agency may place the GESA Contractor in the Contractor Responsibility Program and also pursue debarment or suspension in accordance with the Commonwealth Procurement Code.

PART 3

MEASUREMENT AND VERIFICATION METHODOLOGY

3-1. MEASUREMENT & VERIFICATION PROTOCOL

A. GESA Contractor shall apply either Option A or Option B verification methodologies, as more fully detailed in the guidelines and standards of the International Measurement and Verification Protocol (IPMVP) and/or the Federal Energy Management Program (FEMP), or modified variations as outlined below, in connection with the provision of M&V Services hereunder. The applicable option shall be as set forth in the Project-Specific Request for Quote submitted to and accepted by DGS and the Funding Agency. Option A shall not be accepted without DGS and the Funding Agency's prior written approval.

B. Option A: Partially Measured Retrofit Isolation

Measured Project Benefits are determined by partial field measurement of the energy use of the system(s) to which an ECM was applied separate from the energy use of the rest of the facility. Measurements will be short-term with only one-time measurements before and after the Installation Period.

Partial measurement means that some but not all parameters will be measured. Careful review of the design and installation of ECMs is intended to demonstrate that the stipulated values fairly represent the probable actual values. Agreed-upon values will be shown in the measurement and verification plan, along with analysis of the significance of the error they may introduce. Engineering calculations using short-term pre and post-retrofit measurements and stipulations are used to calculate Measured Project Benefits for the duration of the Guarantee Term.

C. Option B: Retrofit Isolation

Savings are determined by field measurement of the energy use of the systems to which the ECM was applied, separate from the energy use of the rest of the facility. Short-term or continuous measurements are taken throughout the post-retrofit period.

3-2. CHANGES IN USE OR CONDITION

A. Funding Agency agrees to notify GESA Contractor within thirty (30) days of (i) any actual or intended change, whether before or during the Guarantee Term, in the use of any facility, equipment, or Energy Conservation Measure to which this schedule applies; (ii) any proposed or actual expansions or additions to the premises or any building or facility at the premises; (iii) a change to utility services to all or any portion of the premises; or (iv) any other change or condition arising before or during the Guarantee Term that reasonably could be expected to change the amount of Project Savings realized under this Agreement.

1. Such a change, expansion, addition, or condition would include, but is not limited to: (a) changes in the primary use of any facility, Energy Conservation Measure, or portion of the premises; (b) changes to the hours of operation of any facility or portion of the premises; (c) changes or modifications to the Energy Conservation Measures or any related equipment; (d) changes to the M&V Services provided under this GESA Contract; (e) insufficient or improper

maintenance or unsound usage of the Energy Conservation Measures or any related equipment at any facility or portion of the premises (other than by GESA Contractor); or (f) additions or deletions of Energy Conservation Measures or any related equipment at any facility or portion of the premises.

B. If GESA Contractor independently learns of any such change or condition, GESA Contractor shall calculate and send to Funding Agency a Notice of adjustment to the Annual Project Benefits to reflect the impact of such change or condition, and the adjustment shall become effective as of the date the change or condition first arose. If the Funding Agency fails to promptly provide GESA Contractor with notice of any such change or condition, GESA Contractor may make reasonable estimates as to the impact of such change or condition and as to the date on which such change or condition first arose in calculating the impact of such change or condition, and such estimates shall be conclusive.

PART 4

BASELINE CALCULATIONS AND UTILITY RATES

4-1. UTILITY COSTS FOR BASELINE

A. The unit utility costs for the Baseline period are set forth below as "Base Utility Cost" and shall be used for all calculations. The Base Utility Cost shall be escalated annually by escalation rate of one percent (1%). The Base Utility Cost for electric represents the 12- month average utility costs from **[BASELINE PERIOD] EXAMPLE:** July 1, 2014 through June 30, 2015.

B. The **[BASELINE PERIOD]** energy rates used to calculate savings are **[COST/KWH]** $ / kWh for electricity, **[COST/MMBTU]** $/mmBtu for natural gas, **[COST/KBTU]** $ / KBtu for heating fuel and **[COST/KGAL]** $/kGal for water.

Baseline utility rates used for the energy savings calculations were determined according to the following methods:

Electric Rates:
Heating Fuel Rates:
Natural Gas Rates:
Water Rates:

[Remainder of this page left intentionally blank]

PART 5

PRIMARY OPERATIONS SCHEDULE PRE & POST RETROFIT

5-1. PRE/POST RETROFIT

[INCLUDE CHARTS/TABLES ETC. THAT EXPLAIN PRE/POST RETROFIT LIGHTING BURN HOURS, TEMPERATURES, SETPOINTS, ETC. OF ECMS]

[Remainder of this page left intentionally blank]

PART 6

6.1 MEASUREMENT & VERIFICATION SERVICES

COMMONWEALTH REPRESENTATIVE

A. **GESA Contractor shall ensure that an approved representative from Funding Agency is physically present for all pre-retrofit and post retrofit measurements, for each ECM as applicable to the Energy Savings Guarantee. Funding Agency and GESA Contractor shall mutually witness and record said measurements and sign GESA Contractor's measurement logbook, if deemed mutually acceptable. GESA Contractor shall include all logged measurements in the annual report to be provided.**

6-2. M&V SERVICES

A. GESA Contractor will, for a period of 3 Guarantee Years (the "Reporting Period") unless earlier terminated by Funding Agency, provide the "M&V Services" set forth below in connection with the Assured Performance Guarantee. Funding Agency shall pay GESA Contractor an annual fee during the Reporting Period for such M&V Services as identified in the table below. Notwithstanding anything to the contrary, Funding Agency may choose to continue the M&V services in Guarantee Year Four (4) and beyond by notifying GESA Contractor within thirty (30) days of the end of the third Guarantee Year. If Funding Agency, after GESA Contractor's completion of the third year of M&V Services, does not continue with the M&V Services, it irrevocably acknowledges GESA Contractor's full satisfaction of, and release from, this Assured Performance Guaranty.

1. During the Installation Period, the GESA Contractor's Performance Assurance Engineer will track Measured Project Benefits. The GESA Contractor will report the Measured Project Benefits achieved during the Installation Period to the Funding Agency within 90 days of the commencement of the Guarantee Term.

2. Within 90 days of each anniversary of the commencement of the Guarantee Term, for a period of 3 years, GESA Contractor will provide the Funding Agency with an annual report containing:

    A. an executive overview of the project's performance and Project Benefits achieved to date;
    B. a summary analysis of the Measured Project Benefits accounting; and
    C. depending on the M&V Option, a detailed analysis of the Measured Project Benefits calculations.

3. During the Guarantee Term, for a period of 3 years, the GESA Contractor's Performance Assurance Engineer will monitor the on-going performance of the ECMs, as specified in this GESA Contract, to determine whether anticipated Measured Project Benefits are being achieved. In this regard, the Performance Assurance Engineer will periodically assist the Funding Agency, on-site or remotely, with respect to the following activities:

    A. Conduct one annual on-site visit to verify proper operation of the equipment

installed under the project.

B. review information furnished by the Funding Agency from the facility management system to confirm that control strategies are in place and functioning;
C. advise Funding Agency's designated personnel of any performance deficiencies based on such information;
D. coordinate with Funding Agency's designated personnel to address any performance deficiencies that affect the realization of Measured Project Benefits; and
E. inform Funding Agency of opportunities to further enhance project performance and of opportunities for the implementation of additional ECMs.

4. For specified ECMs utilizing "Option A" and "Modified Option A" M&V protocols, the GESA Contractor will:

A. conduct pre and post installation measurements required under this GESA Contract;
B. confirm the building management system employs the control strategies and set points specified in this GESA Contract; and
C. analyze actual as-built information and adjust the Baseline and/or Measured Project Benefits to conform to actual installation conditions (e.g., final lighting and water benefits calculations will be determined from the as-built information to reflect the actual mix of retrofits encountered during installation).

6-3. COST OF M&V SERVICES

Based on direction from the Commonwealth, the fees for the first three (3) years of annual M&V service has been included in the Project; refer to the project cash flow in the Investment Grade Audit. The amount to be paid annually by Funding Agency for the M&V services provided is listed in the table below. If the Funding Agency chooses to continue the M&V services in Guarantee Year Four (4) and beyond, it must notify GESA Contractor within thirty (30) days of the end of the third Guarantee Year. If the Customer wishes to continue the M&V Services past the third Guarantee Year, the pricing for each additional Guarantee Year for M&V services will be the Year 3 M&V Cost annually escalated at 3% in each additional Guarantee Year. The billing for the 1st three Guarantee Years will begin with Final Acceptance of this project.

Year	**M&V Cost**
1	$
2	$
3	$
Total	**$**

[Remainder of this page left intentionally blank]

PART 7

FUNDING AGENCY RESPONSIBILITIES

7-1. In order for GESA Contractor to perform its obligations under this GESA Contract with respect to the Work, the Assured Performance Guarantee, and the M&V Services, Funding Agency shall be responsible for:

1. Providing GESA Contractor, its subcontractors, and its agents reasonable and safe access to all facilities and properties that are subject to the Work and/or M&V Services;

2. Properly maintaining, and performing appropriate preventative maintenance on, all equipment and building systems affecting the Assured Performance Guarantee in accordance with manufacturers' standards and specifications;

3. Providing the utility bills, reports, and similar information reasonably necessary for administering GESA Contractor's obligations under the Assured Performance Guarantee within thirty (30) days of Funding Agency receipt and/or generation or GESA Contractor's request therefore;

4. Providing all records relating to energy and/or water usage and related maintenance of the premises and relevant equipment requested by GESA Contractor;

5. Providing and maintaining a dedicated telephone line and/or TCP/IP remote connection to facilitate remote monitoring of relevant equipment;

6. Promptly notifying GESA Contractor of any change in use or condition or any other matter that may impact the Assured Performance Guarantee.

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ENERGY EFFICIENT MEASURES
The table(s) below summarizes ECM savings and cost and simple payback

[INSERT SUMMARY TABLE(S)]

Exhibit B

to Installment Purchase Agreement and Payment Schedule

FORM OF ACCEPTANCE CERTIFICATE

FINANCER ADDRESS
Attn: Contract Administration

Re: Installment Purchase Agreement and Payment Schedule (the "Agreement") dated as of _____ between _____ ("FINANCER") and the Commonwealth of Pennsylvania, Acting through the Department of Human Services (the "Funding Agency")

Ladies and Gentlemen:

In accordance with the Agreement, the undersigned Funding Agency hereby certifies and represents to, and agrees with Lessor as follows:

1. The implementation/construction of the ECMs (as defined in the Agreement) has been completed by the GESA Contractor (as defined in the Agreement) and such ECMs have been delivered, installed, are operating in a manner consistent with the GESA Contractor's intended use and has been inspected and finally accepted for all purposes by the Funding Agency and title thereto has transferred to the Funding Agency and any security interest of the GESA Contractor therein has been released.

2. The Funding Agency has conducted such inspection and/or testing of the ECMs as it deems necessary and appropriate in order to determine the capability and functionality of the ECMs in order to accept such ECMs and hereby acknowledges that it accepts the ECMs for all purposes.

3. The Funding Agency is self-insured in accordance with Section 13 of the Agreement.

4. The Funding Agency hereby reaffirms that the representations, warranties and covenants contained in the Agreement are true and correct as of the date hereof.

5. No event or condition that constitutes, or with notice or lapse of time, or both, would constitute, an Event of Default (as defined in the Agreement) exists at the date hereof under the Agreement.

Date: _____

Commonwealth of Pennsylvania, Acting through the Department of Human Services (the "Funding Agency")

By: _____

Name: _____

Title: _____

(Seal)

Exhibit C

to Installment Purchase Agreement and Payment Schedule

Small GESA Request for Proposals

For

Guaranteed Energy Savings Contractor

For

Small GESA-3 Project for

Department of General Services

At

Department of Human Services

Selinsgrove Center

COMMONWEALTH OF PENNSYLVANIA
DEPARTMENT OF GENERAL SERVICES
HARRISBURG

Tom Wolf
Governor

Curtis Topper
Secretary

DATE OF ISSUE:
December 29, 2016

GUARANTEED ENERGY SAVINGS PROJECT

NOTICE TO PROPOSERS

It is the responsibility of each Proposer to ensure that its proposal is received at the delivery location listed below prior to the date and time set for the opening of proposals ("Proposal Opening Time"), regardless of method of delivery used. **No proposal shall be considered if it arrives after the Proposal Opening Time, regardless of the reason for the late arrival.** All envelopes containing proposals must be clearly marked "PROPOSAL" and must include the address of the Proposal Opening location, the assigned contract, project number and the Proposal Opening Date and Time.

Project	Small GESA – 3
Project Location	Selinsgrove Center Snyder County, Pennsylvania
Funding Agency	Department of Human Services
Brief Description……	The Department of General Services is soliciting proposals for a project to increase the energy efficiency of The Department of Human Services' facility at Selinsgrove Center through installation of energy conservation measures, upgrades, and implementation of optimal operation and maintenance procedures. The Department wishes to implement the proposed energy project on an energy performance contract basis. Only proposals that have a return on investment of less than 10 years and reduce real energy consumption and are funded under a guaranteed performance basis will be considered. Savings or guarantees provided by the successful proposer will fully offset the project costs involved for the Commonwealth. Only Qualified Small GESA Providers are eligible to submit a Proposal for this RFP. Any submission from a non-Qualified Small GESA Provider will be rejected and returned.
Pre-Proposal Meeting……..	January 11, 2017 at 10:00a.m. in Room 150 of the Training Center, 1000 Route 522, Selinsgrove, Pennsylvania 17870
Site Visits……..……..	Wednesday, January 11, 2017 (after Pre-Proposal Mtg) 3 hour maximum duration

Proposal Due Date and Time...	**Friday, February 17, 2017 at 11:00 a.m.**
Deliver Proposals To……	Rebecca Tomlinson Department of General Services Room 403 401 North Street Harrisburg, PA 17120 Phone: (717) 705-5946 Email: retomlinso@pa.gov
Vendor Registration…….	**All Proposers must have a Current and Active Vendor Number. Proposal Documents require Proposers to provide this number. Register at www.pasupplierportal.state.pa.us**
Proposal Results At……..	www.dgs.pa.gov Menu Path: State Government > Facilities & Space Management > Energy Savings Programs"
Proposed Date of Completion	To be Determined
Proposal Period……..	60 days allowed from Proposal Submission Deadline until Notice of Selection
Issuing Office……	Rebecca Tomlinson Energy and Resource Management Office Department of General Services Room 403 401 North Street Harrisburg, PA 17120 Phone: (717) 705-5946 Email: retomlinso@pa.gov
Public Works Verification Act:	**The Bidder must comply with the Public Works Employment Verification Act 127 of 2012 by submitting to the Department, a Commonwealth Public Works Verification Form ("Form") prior to the award of the Contract.**

For the listings of Certified Small Diverse Businesses (Minority, Women, Veteran, and Service Disabled Veteran Business Enterprises), go to

http://www.dgs.pa.gov/Businesses/Minority,%20Women%20and%20Veteran%20Businesses/Small-Diverse-Business-Verification/Pages/default.aspx

Table of Contents

PART 1

General Information

1.1 **PURPOSE.** This Small GESA Request for Proposals ("RFP") provides interested Qualified Small GESA Providers (i.e., Proposers) with sufficient information to enable them to prepare and submit a proposal to the Department of General Services ("DGS") to provide services on a Small GESA project under a guaranteed energy savings contract to design and implement Energy Conservation Measures ("ECMs") at DCNR's Western Region Parks. Only Qualified Small GESA Providers are eligible to submit a Proposal for this RFP. Any submission from a non-Qualified Small GESA Provider will be rejected and returned.

A The successful Proposer will, if a contract is awarded and fully executed, become the "Small GESA Contractor" on this project.

B As the Commonwealth Procurement Code, 62 Pa. C.S. §§ 3751 – 3758, as amended, permits, the cost of paying for this Small GESA project will be financed by a third party finance company.

1.2 **Definitions**. These definitions shall apply to terms used in the RFP, without conflicting with any definitions in the General Conditions of the Small GESA Contract:

A **DGS** - The Department of General Services, the agency that will issue the RFP, coordinate the proposal scoring process, award the contract and monitor the design and construction contractual obligations.

B **Energy Conservation Measure (ECM)** –as further defined in 62 Pa. C.S. §3752, as amended.

C **Funding Agency** – The executive agency under the Governor's Office jurisdiction that will fund the individual Small GESA project.

D **GESA** – Guaranteed Energy Savings Act, 62 Pa. C.S. §§ 3751-3758.

E **Issuing Office** – This designated DGS employee will serve as the sole point of contact between any Proposers and the Commonwealth for this RFP.

F **Investment Grade Audit Contract** – The written document between the Funding Agency, Office of Budget, DGS and the Small GESA Contractor signed after selection of the Successful Proposer on a project-specific Small GESA RFP which authorizes payment to the Small GESA Contractor by the Funding Agency for costs incurred in preparing the Energy Audit Report. Even if the Funding Agency elects not to pursue the Small GESA project, the costs for performing the Energy Audit Report must be paid by the Funding Agency.

G **Investment Grade Audit Report** – An extensive written analysis conducted by the Successful Proposer to evaluate viable energy conservation measures based upon the Funding Agency's existing conditions and utility/operating costs. The Report which contains, at a minimum, the costs, savings and cash flow schedule, will be submitted to

DGS and the Funding Agency for review prior to the Funding Agency determining to proceed with a Small GESA Contract.

H **Project** - The site and associated building(s) and infrastructure improvements selected by Commonwealth agencies.

I **Proposer** – Any Qualified Small GESA Provider submitting a Proposal in response to this RFP for consideration by the Commonwealth for the award of a Small GESA Contract.

J **RFP** – "Request for Proposal", the document issued by DGS to obtain proposals for award of a Small GESA contract.

K **Small GESA Contract** – "the Small GESA Contract", the written document executed by the Contractor and the Commonwealth for the implementation of the energy conservation measures. Terms of the Small GESA Contract are non-negotiable. Submission of a Proposal constitutes acceptance of the terms of the Small GESA Contract.

L **Small GESA Contractor** – "the Small GESA Contractor", the entity awarded the Small GESA Contract by DGS.

M **Small GESA Contractor's Retained Professional ("Professional")** – The Small GESA Contractor's retained licensed Professional listed in the Application for the AFQ and whose qualifications are included in the Technical Submission.

1.3 Issuing Office: The DGS Issuing Office is the sole point of contact in the Commonwealth for this RFP. Proposers should not contact any other DGS employees, or other Commonwealth Agency employees with regard to this RFP. All questions or inquiries (which shall be written and not verbal) concerning this RFP shall be submitted as described in this RFP to:

Issuing Officer:
Becky Tomlinson
403 North Office Building
401 North Street
Harrisburg, PA 17120
Telephone: (717) 705-5946
Fax: (717) 772-5317
Email: retomlinso@pa.gov

A The Issuing Officer will ensure that questions are answered promptly and that all bulletins will be issued to Proposers who have requested the RFP. Only Proposers who obtained the RFP directly from DGS will receive bulletins.

B **Any entity that is not on DGS' list of Qualified Small GESA Providers will not receive complete bulletins and will be deemed non-responsive on the Proposal Submission Date.**

1.4 Scope. DGS wants to procure a Small GESA Contractor capable of providing and implementing the listed energy conservation measures for this Small GESA project

located at DCNR's Western Region Parks. The ECMs will reduce energy consumption and related costs associated with the heating, ventilation and air conditioning system, lighting systems, control systems, building envelope, the hot water systems, water consumption, sewage costs and other energy using devices. Additionally, savings which would not reduce consumption per se but are aimed at cost savings, such as fuel switching, demand side management, on-site generation, utility bill auditing, utility rate changes, and distribution upgrades etc. may also be considered. ECMs must result in a guaranteed minimum energy savings with payments linked to actual documented energy and cost reductions.

A Any stipulated energy and/or operational cost savings that may be attributed to a single project will be rigorously reviewed by DGS and the Funding Agency. The Small GESA Contractor will be required by the project-specific contract to thoroughly document and verify the savings, which must be approved by both DGS and the Funding Agency.

B The Small GESA Contractor will be required to guarantee energy and cost savings on an annual basis for each project. No credit for the achievement of savings above and beyond the annual guarantee will be credited to satisfy performance guarantees in future years of the project. Annual reconciliation of the achieved savings will be required.

C Although the provisions of the Commonwealth Procurement Code (62 Pa. C.S. § 3754(c)), permit the recovery of contract costs from energy savings over a 20-year term, the maximum simple blended payback period for any and all ECMs arising out of this RFP is strictly limited to a **maximum term of 10 years**. In addition to the time limit of a 10-year payback period, any Small GESA Contract issued under this RFP **may not exceed a total dollar value limit of $5,000,000**.

1.5 Type and Award of Contracts. DGS may award an Investment Grade Audit Contract to the successful proposer. Once the Investment Grade Audit Report is accepted, the Funding Agency may proceed with the Small GESA Project by awarding a Small GESA Contract to the successful proposer. The Small GESA Contract is attached as an appendix to this RFP. The Contract Bond will be in the amount of 100% of the awarded Small GESA Contract. The Effective Date of the contract will be the date when all signatures required by law are affixed to the contract. No contract exists until all such signatures are fixed and the final date becomes the Effective Date of the contract. A stamped "APPROVED ELECTRONICALLY" or similar wording by the Commonwealth on a contract signature page constitutes a valid, binding contract with the Commonwealth and represents that all approvals required by Commonwealth contracting procedures have been obtained. The fully executed Small GESA Contract may not contain "ink" signatures by the Commonwealth. **Terms of the Small GESA Contract are non-negotiable. Submission of a Proposal constitutes acceptance of the terms of the Small GESA Contract.**

1.6 Commonwealth's Rights Reserved. DGS reserves the right to cancel or withdraw this RFP in whole or in part any time prior to award of Small GESA Contract or entering into an Investment Grade Audit Contract. DGS reserves the right to reject any and all proposals received as a result of this request. DGS may, in its discretion, waive any informality or technical deficiency in a proposal.

1.7 Incurring Costs. The Commonwealth is not liable for any costs incurred by Proposers prior to issuance of a contract.

1.8 Pre-Proposal Conference. A Pre-Proposal Conference will be held as indicated in the Calendar of Events shown at the end of Part 1 of this RFP. Although attendance at the Pre-Proposal Conference is not mandatory, all prospective Proposers, subcontractors and suppliers are encouraged to attend. The Conference will not be videotaped and no recordings will be permitted. Representatives from DGS will present an overview of the RFP and will also review submission requirements and answer questions. If possible, Proposers should forward questions to the Issuing Office prior to the Conference to ensure sufficient analysis prior to an answer being supplied at the Conference. Questions may also be asked at the Conference. Answers furnished during the Conference will not be official or binding until verified, in writing, by the Issuing Office. Questions and answers from the Pre-Proposal Conference issued as a bulletin become part of this RFP.

1.9 Questions/Requests for Information (RFI) to the RFP. Proposers shall raise any questions regarding this RFP by submitting a question in writing to the Issuing Officer.

- RFI's must reference the Project name.
- Do not contact the Issuing Officer by phone.
- Questions must be submitted in writing and must be received no later than the date indicated in the Calendar of Events.
- Questions will NOT be answered via telephone.
- All relevant questions and written answers will be issued as a bulletin and become part of this RFP.
- DGS shall not be bound by any verbal information or by any written information allegedly supplied by DGS that is not either contained within the solicitation documents or issued by DGS through a bulletin.

1.10 Amendments to the RFP. If the RFP needs to be amended, the Issuing Officer will administer the issuance of bulletin(s) setting forth all modifications to the RFP and questions and answers about the RFP. Notice of each Bulletin will be emailed to all entities that have obtained the RFP through DGS and who have provided the required contact (email) information. Entities that do not provide complete contact information including firm name, prime contact, address, phone, and email might not receive all bulletins. The Proposer shall acknowledge receipt of the bulletin(s) as required by the language of the bulletin. Any proposal that does not acknowledge all bulletins may be considered non-responsive. Bulletin(s) will become part of the RFP. DGS will not issue any bulletin later than indicated in the RFP Calendar of Events, unless DGS extends the Submission Date. By submitting a proposal, Proposer acknowledges and affirms that the provisions of all Bulletins have been included in the Proposal and that the Proposer understands its responsibility for all provisions of all Bulletins. A written bulletin issued by DGS is the only binding revision to this RFP and no other form of amendment, either written or oral, will be considered binding upon DGS. Proposers shall not rely on information other than written bulletins issued by DGS.

1.11 Proposal Submission Deadline. In order to be considered responsive, a proposal must be delivered to the Issuing Officer **In Harrisburg, Pennsylvania** on or before the Proposal Submission Deadline set forth in the Calendar of Events Paragraph. Proposers who mail proposals should allow sufficient mail delivery time to ensure timely receipt of their proposals. If, due to inclement weather, natural disaster, or any other cause, the DGS

office to which proposals are to be submitted is closed on the proposal response date, the deadline for submission shall be automatically extended until the next Commonwealth business day on which the office is open, unless the Proposers are notified otherwise by DGS. The time of day for the extended submission of proposals shall remain the same. The Proposer shall be solely responsible for assuring that the proposal arrives prior to the submission deadline. Proposals delivered after the Proposal Submission Deadline, regardless of the reason for lateness, will automatically be rejected and returned unopened to the Proposer.

1.12 Withdrawal of Proposal. Each Proposer specifically waives any right to withdraw or modify a submission except as hereinafter provided. A Proposal may be withdrawn by written notice (via hand delivery or email) received at the Issuing Office's address for proposal delivery prior to the exact hour and date specified for receipt of the Submission. If the Proposer chooses to attempt to provide such written notice by email, the email address shall be identical to the email address DGS has on file with the Qualified Small GESA Provider, however, DGS shall not be responsible or liable for errors or failures in transmission. A Proposal may also be withdrawn in person by a Proposer or its authorized representative, provided its identity is made known and it signs a receipt for the proposal, but only if the withdrawal is made prior to the exact hour and date set forth for receipt of the proposal. A proposal may only be modified by the submission of a new sealed submission or a sealed modification that complies with the requirements of this RFP and received by the Issuing Office prior to the Proposal Submission Deadline.

1.13 Small Diverse Business Information. As noted in Section 2101 of the Commonwealth Procurement Code, it is Commonwealth policy to assist small businesses in doing business with Commonwealth agencies. In addition, DGS encourages participation by Small Diverse Businesses as prime contractors, and encourages all prime contractors to make a significant commitment to use Small Diverse Businesses as subcontractors and suppliers. A Small Diverse Business is a DGS-verified minority-owned business, woman-owned business, veteran-owned business or service-disabled veteran-owned business.

A A small business is a business in the United States which is independently owned, not dominant in its field of operation, employs no more than 100 full-time or full-time equivalent employees, and earns less than $7 million in gross annual revenues for building design, $20 million in gross annual revenues for sales and services and $25 million in gross annual revenues for those businesses in the information technology sales or service business. In order to participate in the Small Diverse Business program, the small business must first complete the self-certification process through Small Business Procurement Initiative (SBPI) located at:
http://www.dgs.pa.gov/Businesses/Minority,%20Women%20and%20Veteran%20Businesses/Small-Diverse-Business-Verification/Pages/default.aspx

B Any and all Small Diverse Businesses submitting a Proposal will not be considered a Small Diverse Business in status. No credit toward Small Diverse Business participation levels will be scored or awarded to Small Diverse Business Proposer and/or a Small Diverse Business submitting the Proposal as a Small GESA Contractor.

C The work of qualified Small Diverse Businesses that are subcontractors of any level to the Small GESA Contractor will count toward the Small Diverse Business participation total based on the dollar value of their work.

D Small Diverse Businesses are small businesses that are owned or controlled by a majority of persons, not limited to members of minority groups, who have been deprived of the opportunity to develop and maintain a competitive position in the economy because of social disadvantages. The term includes:

- Department of General Services Bureau of Small Business Opportunities (BSBO)-verified Minority Businesses Enterprises (MBEs), Women Business Enterprises (WBEs), Veteran Business Enterprises (VBEs), and Service-Disabled Veteran Business Enterprises (SDVBEs) that qualify as small businesses; and
- United States Small Business Administration-certified small diverse businesses or
- United States Small Business Administration 8(a) small diverse business concerns that qualify as Small Businesses.

Questions regarding this Program can be directed to:

Department of General Services
Bureau of Small Business Opportunities
Room 611, North Office Building
Harrisburg, PA 17125
Phone: (717) 783-3119
Fax: (717) 787-7052
Email: gs-bsbo@pa.gov
Website: www.dgs.state.pa.us

The Department's directory of BSBO-verified minority, women, veteran and service disabled veteran-owned businesses can be accessed from: http://www.dgs.pa.gov/Businesses/Minority,%20Women%20and%20Veteran%20Businesses/Small-Diverse-Business-Verification/Pages/default.aspx

1.14 Alternate Proposals. DGS has identified the basic approach to meeting its requirements, and will not accept alternate proposals or uninvited proposals. DGS will reject as non-responsive any proposals that are conditioned on negotiating any terms of the documents in the RFP.

1.15 Contact for Clarification. Proposers that submit proposals may be required to make an oral or written clarification of their proposals to the Issuing Office to ensure thorough mutual understanding and Proposer responsiveness to the solicitation requirements. The Issuing Office will handle any requests for clarification.

1.16 Disclosure of Proposal Contents.

A **Confidential Information**. The Commonwealth is not requesting, and does not require, confidential proprietary information or trade secrets to be included as part of Proposers' submissions in order to evaluate proposals submitted in response to this RFP. Accordingly, except as provided herein, Proposers should not label proposal submissions as confidential or proprietary or trade secret protected. Any Proposer who determines that it must divulge such information as part of its proposal must submit the signed written statement described in subparagraph 2 below and must additionally provide a redacted version of its proposal, which removes only the confidential proprietary information and trade secrets, for required public disclosure purposes.

B **Commonwealth Use of Proposal Contents**. All material submitted with the proposal shall be considered the property of the Commonwealth of Pennsylvania and may be returned only at the Issuing Office's option. The Commonwealth has the right to use any or all ideas not protected by intellectual property rights that are presented in any proposal regardless of whether the proposal becomes part of the contract. Notwithstanding any Proposer copyright designations contained on proposals, the Commonwealth shall have the right to make copies and distribute proposals internally and to comply with public record or other disclosure requirements under the provisions of any Commonwealth or United States statute or regulation, or rule or order of any court of competent jurisdiction.

C **Public Disclosure**. Public records requests for proposals are governed by and shall be handled in the following manner:

1. After the award of a contract pursuant to this RFP, or if all proposals are opened and rejected, all proposal submissions are subject to disclosure in response to a request for public records made under the Pennsylvania Right-to-Know-Law, 65 P.S. §67.101, et seq. If a proposal submission contains confidential proprietary information or trade secrets, a signed written statement to this effect must be provided with the submission in accordance with 65 P.S. §67.707(b) for the information to be considered exempt under 65 P.S. §67.708(b)(11) from public records requests.

1.17 **Interviews**. The proposals will be evaluated and scored as described in detail in this RFP. Those Proposers who accumulate sufficient Technical Submission points as described in Part 3 will be advised of a date and time to interview with the Scoring Committee members.

1.18 **News Releases**. All news releases and media contacts regarding this project will be made only by DGS, unless DGS directs otherwise in specific instances. Proposer(s) shall not initiate news releases or media contact without prior written permission of the DGS. This paragraph does not apply to any advertisement soliciting interested subcontractors made by the Proposer during the preparation of the proposal or during preparation of the Investment Grade Audit.

1.19 **Restriction of Contact**. From the issue date of this RFP until the issuance of a Notice of Selection, there shall be no contacts between the Proposers and Commonwealth personnel concerning this RFP, proposals, and the Scoring process except as discussed in this RFP. The only person who may be contacted directly in writing is the Issuing Officer. This restriction ensures that all Proposers obtain the same accurate and binding information, with no advantage or undue influence on any potential proposal scores. Any violation of this condition is cause for DGS to reject the Proposer's proposal. If DGS discovers that any violations have occurred, DGS may reject any proposal or rescind any contract awarded pursuant to this RFP.

1.20 **Term of Contract**. If a contract is awarded and fully executed, the term of the contract will commence on the Effective Date and terminate as defined in the Investment Grade Audit Contract and/or the Small GESA Contract. The Effective Date shall be fixed by DGS after the contract has been fully executed by the Small GESA Contractor and the Commonwealth and all approvals required by Commonwealth contracting procedures have been obtained.

1.21 Interpretation. If any conflicts of the Contract Documents arise requiring interpretation, the terms of the General Conditions of the Small GESA Contract shall control. The RFP may be referred to in an effort to assist in the interpretation but will not overrule the General Conditions of the Small GESA Contract.

1.22 Proposal Results. The proposals will be scored in a timely fashion following proposal submission date. See Part 3 of this RFP for a detailed discussion on how the proposals are scored by DGS. Proposers should not call or contact DGS to inquire as to the status of the scoring process. The Calendar of Events at the end of Part 1 indicates the anticipated selection date.

1.23 Debriefing of Unsuccessful Proposers. DGS will provide written notice to all unsuccessful Proposers on the same day DGS issues the Notice of Selection (if one is issued) to the successful Proposer. As part of this notice to unsuccessful proposers, DGS will notify them of the opportunity and time frame for this optional debriefing. Any unsuccessful Proposer who wants to be debriefed must email a request to the Issuing Officer within three (3) calendar days of the date of the unsuccessful letter. DGS will hold a debriefing conference for each unsuccessful Proposer who submitted a written request for such a conference within four (4) calendar days of receipt of notice of a request for a debriefing but no later than seven (7) calendar days from the date of the unsuccessful letter.

A An Offeror's exercise of the opportunity to be debriefed does not constitute the filing of a protest. Also, the timeframe for debriefing of unsuccessful Proposers neither extends nor modifies in any way the deadlines for the RFP Protest Procedure set forth herein.

B The Issuing Officer will hold the debriefing conference in Harrisburg or by telephone or video conference if possible. The unsuccessful proposer may review the Proposal Score Summary scores, posted to the DGS website, prior to the debriefing conference.

1.24 Small GESA RFP Protest Procedure. In addition to the summary provided herein, the Protest Procedure is available in the Procurement Code (62 Pa. C.S. § 1711.1).

A **Who may file** – Any Proposer or Prospective Proposer who is aggrieved in connection with the RFP or the award of a contract resulting from the RFP may file a protest.

1. Prospective Proposer – is a Qualified Small GESA Provider that has not submitted a proposal in response to the RFP.

2. Proposer – is a Qualified Small GESA Provider that has submitted a proposal in response to the RFP.

B **Time limits**

1. If a protest is filed by a Prospective Proposer, it must be filed, in writing, with the Issuing Office prior to the Proposal Submission Deadline.

2. If a protest is filed by a Proposer, it must be filed, in writing, with the Issuing Office within seven (7) days after the protesting Proposer knew or should have known of the facts giving rise to the protest except in no event may a protest be filed later than 7 days after the Notice of Selection is posted on the DGS website.

3. Filed – shall be defined as the date upon which the Issuing Office receives the written protest.

C Protests relating to cancellation of the RFP and/or rejection of all proposals may not be filed.

1.25 Investment Grade Audit (IGA). Proposers acknowledge that upon Notice of Selection the successful proposer will become the Small GESA Contractor and will be required to enter an Investment Grade Audit Contract and prepare and submit a project-specific Investment Grade Audit Report. The primary purpose of the Report is to provide an engineering and fiscal basis that will allow DGS and the Funding Agency to fully analyze the proposed scope and cost of the Small GESA contract. Based upon the limited scope and dollar value of Small GESA projects, the Commonwealth anticipates that the IGA should have a maximum 45-day turn-around time.

A **Funding Agency responsibilities -** The Funding Agency shall provide the Small GESA Contractor all available records and data concerning energy and water usage for the Facility for approximately the past 36 months. These records shall include, if available:

1. Utility bills for the past 36 months; and

2. Occupancy information; and

3. Descriptions of any recent changes in the structure or heating, cooling, lighting, or other systems over the past 36 months; and

4. Descriptions of all major energy and water consuming or saving equipment used at the Facility; and

5. Any comfort issues; and

6. Any Notice of Code deficiencies or Consent Decrees; and

7. Description of current energy management procedures; and

8. Any upgrades or modifications to the building made in the last 36 months; and

9. Copies of project as-built drawings, L&I Record drawings, O&M manuals, service agreements, and service work orders.

B **Small GESA Contractor's Investment Grade Audit Report** - The Report will specifically discuss each ECM included in the Investment Grade Audit Contract. The scope shall identify any operational changes recommended to be implemented at the Facility. The Report shall set forth detailed projections of energy and cost savings to be obtained as a result of the ECMs and operational changes.

1. The Small GESA Contractor shall physically inspect the major electrical and mechanical systems in the Facility and analyze the following as they apply to each ECM:

a. Loads; and

b. Proper sizing; and

c. Current operating conditions for each system; and

d. Efficiencies or hours of operation for each system.

e. NOTE: Where Facility operating or climatic conditions necessitate, Small GESA may use engineering estimates, but for large fluctuating loads with a high potential savings, Small GESA shall use appropriate measurements.

2. The Small GESA Contractor shall interview Funding Agency personnel to discuss the current mechanical operating systems, occupancy numbers and use of the Facility and any problems with comfort levels or equipment reliability.

3. The Small GESA Contractor shall, using the utility bills provided, establish a baseline annual consumption for electricity, fossil fuels and water utilizing averages or the most representative contiguous 12 months. The Small GESA Contractor shall discuss any deviations or unusual monthly usage that might skew the baseline data with Facility personnel.

4. As applicable to each ECM, the Small GESA Contractor shall:

a. List ECMs for installation or implementation at the Facility, including cut sheets on proposed equipment.

b. For each ECM, the Small GESA Contractor shall provide a detailed estimate (using the Pricing Submission numbers submitted during the AFQ stage) for:

(1). Hard costs; and

(2). Savings; and

(3). Life expectancy; and

(4). Commissioning costs

c. Specify operations and maintenance procedures for the Facility which will be affected by the installation/implementation of the proposed ECMs.

d. Provide the analysis methodology, supporting calculations and a detailed explanation of assumptions used to derive the baselines (i.e., work hours of occupants in the Facility) and estimate savings.

(1). Provide the existing and proposed air and hot water temperatures;

(2). Provide the amount of outdoor air ventilation;

(3). Provide lighting and acoustical levels.

(4). Provide copies of the utility tariffs and commodity price histories used in savings calculations.

(a). Manual calculations should disclose essential data, assumptions and all formulas so that a reviewer can replicate the calculations based on the data provided in the Report.

(b). For savings estimates using computer simulations, the Small GESA Contractor shall, if requested by either DGS or the Funding Agency, provide access to the program and all inputs and assumptions used by the Small GESA Contractor.

e. Provide a detailed preliminary savings measurement and verification plan for each ECM.

f. Provide a detailed preliminary commissioning plan for each proposed ECM.

g. Provide detailed calculations for any rate savings proposal.

h. Provide detailed supporting calculations for any proposed maintenance, material or other operational savings.

i. Estimate any environmental costs or benefits of each proposed ECM (e.g., disposal costs, avoided emissions, water conservation, etc.) including any emissions reductions data for NOX, CO2, SO2. Segment emissions data for direct site emissions reductions (e.g. fossil fuels) and indirect emissions reduction data (electricity/water).

1.26 Project Parameters.

A The total energy savings projected in the final scope of work will be at least 95% of the savings and within 10% of project costs projected in the Investment Grade Audit Report and that the project will be self-funded over the financial term of the project (maximum term of 12 years.)

B Small GESA Contractor must adhere to all applicable codes and standards.

C Small GESA Contractor is responsible to design and specify equipment and systems to be used in providing energy efficiency services.

D Small GESA Contractor is responsible to procure and install new equipment and refurbish existing equipment. All new and refurbished equipment must be consistent and compatible with the existing equipment of the Commonwealth.

E Small GESA Contractor is responsible to commission the equipment, as per USGBC-LEED and ASHRAE Guideline 1.1-2007 standards.

F Small GESA Contractor is responsible for preventive and emergency maintenance and servicing of the equipment installed through the warranty period.

G Small GESA Contractor is responsible to provide energy savings performance guarantee (see Exhibit 2 of the Small GESA Contract).

H The Small GESA Contractor must work cooperatively with facility management and the Commonwealth to coordinate this project.

I Small GESA Contractor may not escalate project costs or maintenance costs.

J One percent (1%) escalation of energy cost per year is permitted.

K Interest or Discount Rates shall be assumed to be 3.0%.

L Financing term and overall project shall be assumed to be a 12-year period.

M Small GESA Contractor is responsible to identify and obtain all available financial incentives or rate reductions from companies supplying oil, gas, electricity, or transmission or distribution service for gas or electricity. In addition, Small GESA Contractor is responsible to identify and obtain all government incentives, aid, or other benefits. Small GESA Contractor shall subtract estimated rebates from Total Project Cost to determine Net Project Cost.

N Base price for heating oil should be the actual market price paid by the Commonwealth over the last 12 months.

O Heating season should be generally assumed to be October 1st to May 1st.

P Cooling season, as applicable should be generally assumed to be May 1st to October 1st.

Q Actual baseline operation hours must be determined for each building and area and refined during the audit process by the Small GESA Contractor.

R As discussed in further detail in the General Conditions, provide written documentation no later than project close-out to Funding Agency of the system and installation, including but not limited to:

1. Test Results;
2. Equipment specifications; and
3. Authority over all sequence of operations; and
4. Multiple licenses and software; and
5. Back-up copies of all software programming provided on non-magnetic media; and
6. All documentation, maintenance manuals, and as-builts; and
7. System configurations and equipment locations.

S Measurement and Verification (M&V) methods must be in accordance with the International Performance Measurement and Verification Protocol (IPMVP) as appropriate. See also Exhibit 2 of the Small GESA Contract.

T Proposer acknowledges that the Commonwealth, as Owner, controls the expenditure of any and all contingency funds. Any unspent contingency will be controlled by the Commonwealth at the completion of the project.

1.27 Design and Construction Phase. If, after review of the Investment Grade Audit Report, the Commonwealth decides to go forward with the Project, the Commonwealth will circulate a project-specific Small GESA Contract to the Selected Proposer for signatures in accordance with the Commonwealth Attorneys' Act. There will be no contract for any specific project until and unless all Commonwealth signatures are affixed to the contract. A stamped "APPROVED ELECTRONICALLY" or similar wording by the Commonwealth on the Small GESA Contract signature page constitutes a valid, binding contract with the Commonwealth and represents that all approvals required by Commonwealth contracting procedures have been obtained. The template contract appears as an appendix to this RFP.

A Small GESA Contractor agrees that time is of the essence and that if it fails to complete the work within the time specified in the project-specific contract, the Small GESA Contractor will pay the Funding Agency, as Liquidated Damages and not as a penalty for such failure, the sum of one tenth of 1% (0.1%) of the value of the Small GESA Contract per day for each and every calendar day after the completion date until the Work is completed and accepted. The Commonwealth may extend the completion date of the Work for causes set forth in the General Conditions of the Small GESA Contract that, in fact, delay the completion of said work. In such case, Small GESA Contractor is liable for said Liquidated Damages only after the expiration of the extended period.

1.28 Service Phase. Upon completion of the Design and Construction Phase, the Small GESA Contractor will perform ongoing services detailed in the project-specific contract to assure savings and guarantees are met, together with the required and appropriate staff training, maintenance services only as required by warranty, and measurement and verification (M&V) services. M&V services must adhere to all federal M&V protocol standards and scalability for M&V of the energy baseline, adjustment factors, and energy cost savings.

1.29 Lead Paint.

A All work is to be performed with the assumption that all painted surfaces are lead containing. The Small GESA Contractor is responsible for following all required OSHA 1926.62 'Lead in Construction' standards when disturbing or impacting these painted surfaces during the course of performing the work, including but not limited to activities such as: cutting and patching, core drilling, penetration, anchoring, fastening, etc. The area(s) shall be visually clean upon completion of any of these activities.

1. Action Plan: The Small GESA Contractor shall submit an Action Plan that conforms to A., 1. – 3. herein for approval at the Initial Project Meeting, which specifically outlines details of means and methods to be used for each dust-generating activity involving lead-painted surfaces, erection of critical barriers and plastic sheeting for dust control, subsequent exposure assessment, personal protective equipment, hygiene and clean-up.

2. Small GESA Contractor shall utilize means and methods that preclude dust generation to complete work that disturbs/impacts lead containing paint (i.e., paint stripper, HEPA-assisted drills, etc.).

3. Small GESA Contractor shall ensure areas beyond work area are not contaminated, and shall immediately stop work and erect plastic sheeting to prevent the spread of dust, anytime means and methods inadvertently create dust from lead painted surfaces.

1.30 Asbestos and Hazardous Material. If applicable, the Small GESA Contractor will be responsible for providing project-specific asbestos and hazardous material liability insurance as described below. The Small GESA Contractor has the obligation to determine if hazardous materials/wastes will be disturbed or handled/disposed of in performing the project. Hazardous materials/wastes include, but are not limited to, asbestos, mercury and PCBs. If hazardous materials/wastes must be disturbed, removed and/or remediated and/or disposed of, the Small GESA Contractor must advise the Commonwealth beforehand and the Small GESA Contractor shall perform such activities in accordance with industry standards and all federal, State and local regulations and pay for the cost of said activities out of the project savings. A copy of any project-specific Hazardous Material Management Plan, if one exists, will be made available upon request for use as a guide to the presence of ACM. If a management plan is not available, the Small GESA Contractor must test all suspect asbestos, etc. prior to disturbance.

A **Note:** The replacement of equipment or disturbance of materials is the Small GESA Contractor's responsibility and must be performed in a manner that prevents uncontained releases of asbestos, lead, PCB's, mercury, and/or other hazardous materials and provide for their proper disposal. The Commonwealth requires a chain of custody of all materials from source removal to disposal.

B **Hazardous material liability insurance is as follows**: $1,000,000 occurrence/$2,000,000 aggregate, including products and completed operations. Such insurance shall include coverage for the Small GESA Contractor's operations including, but not limited to, removal, replacement enclosure, encapsulation and/or disposal of asbestos, or any other hazardous material, along with any related pollution events, including coverage for third-party liability claims for bodily injury, property damage and clean-up costs. If a retroactive date is used, it shall pre-date the inception of the Small GESA Contract. If motor vehicles are used for transporting hazardous materials, the Small GESA Contractor or its subcontractor shall provide pollution liability broadened coverage (ISO endorsement CA 9948) as well as proof of MCS 90. Coverage shall fulfill all requirements set forth herein and shall extend for a period of three (3) years following acceptance by the Commonwealth of the Certificate of Completion.

1.31 Project Bonds. Although not required to be submitted with the proposal, the Small GESA Contractor shall, for the project authorized under the Small GESA Contract, provide performance and payment bonds in the amount of 100% of each project-specific contract cost as fully described in the General Conditions of the Small GESA Contract and §3753(f) of the GESA. All bonds for this Project shall be issued by a qualified insurer licensed in Pennsylvania.

1.32 Insurance Requirements

A Although not required to be submitted with the Proposal, the successful Small GESA Contractor shall purchase and maintain, at its expense, the following types of insurance, issued by companies licensed to do business in the Commonwealth of Pennsylvania:

1. Workers' Compensation:

   a. Coverage — Sufficient to cover statutory requirements for all employees involved in work under this agreement

   b. Extensions — Voluntary compensation
All states coverage employers
Employers' liability – unlimited

2. Commercial General and Umbrella Liability:

   a. Coverage — Occurrence using ISO occurrence Form CG 00 01 07 98 or later form

   b. Limits per Project — General Aggregate - $3,000,000.00
Products - Completed/Operations - $1,000,000.00
Personal & Advertising Injury - $1,000,000.00
Each Occurrence - $2,000,000.00
Fire Damage (any one fire) - $100,000.00
Medical Expenses (any one person) - $50,000.00
Property Damage - $2,000,000 Each Occurrence

   c. Umbrella - $5,000,000.00

   d. Builder's Risk Coverage - Amount sufficient to repair or replace the work, such amount to be approved by the Commonwealth

   e. Vehicle Liability — $1,000,000 per occurrence/$3,000,000 aggregate (All vehicles hired or non hired)

   f. The Small GESA Contractor shall require their Retained Professional to maintain the following minimum insurance coverage:

      The Architect/Engineer shall maintain professional liability insurance (errors and omissions) in an amount no less than $2,000,000, worker's compensation in amounts required by law and general liability insurance (including owned, non-owned, and hired motor vehicles) in a single limit amount of no less than $1,000,000.

   g. The Small GESA Contractor must, upon award of the GESA Contract by DGS, provide a Certificate of Insurance demonstrating to DGS' satisfaction the existence of the required insurance. The Commonwealth of Pennsylvania shall be named as an Additional Insured, on a primary non-contributory basis, on all certificates of insurance with the exception of Workers' Compensation and Professional Liability. Likewise, the Architect and/or Engineer's insurance coverage shall name the Commonwealth as an additional insured. The insurance coverages must be approved by DGS prior to the commencement of any work.

h. The insurance coverage to be provided by the Small GESA Contractor shall state that the Small GESA Contractor's coverage shall be the primary coverage for the Small GESA Contractor's work.

i. The required insurance coverages shall be maintained without interruption from the date of commencement of the Work until the date of final payment and/or termination of any coverage required to be maintained after final payment.

j. All insurance coverage to be provided by the Small GESA Contractor, its subcontractors and the Retained Professional shall include a cancellation notice to the Commonwealth of at least thirty days.

k. In the event that any of the insurance coverage to be provided by the Small GESA Contractor and/or Retained Professional to the Commonwealth contains a deductible, the GESA Contractor and/or Retained Professional shall indemnify and hold the Commonwealth harmless from the payment of such deductible, which deductible shall in all circumstances remain the sole obligation and expense of the Small GESA Contractor.

l. The Small GESA Contractor acknowledges that its failure to obtain or keep current the insurance coverage required and/or its failure to ensure that its subcontractors and/or Retained Professional maintain the required coverage, shall constitute a material breach of contract and subjects the Small GESA Contractor to liability for damages, including but not limited to direct, indirect, consequential, special and such other damages the Commonwealth sustains as a result of such breach. In addition, the Small GESA Contractor shall be responsible for the indemnification to the Commonwealth of any and all costs associated with the aforementioned lapse in coverage, including but not limited to reasonable attorneys fees.

m. The Small GESA Contractor shall require all subcontractors to carry similar insurance coverages and limits of liability as set forth herein and adjusted to the nature of subcontractors' operations and submit same to the Commonwealth for approval prior to start of any work. In the event the Small GESA Contractor fails to obtain the required certificates of insurance from its subcontractors and/or Retained Professional, and a claim is made or suffered, the Small GESA Contractor shall indemnify, defend, and hold harmless the Commonwealth, its board, officers, agents or employees from any and all claims for which the required insurance would have provided coverage. <u>This indemnity obligation is in addition to any other indemnity obligation that will be provided for in the Contract</u>.

n. The Small GESA Contractor assumes responsibility for all injury or destruction of the GESA Contractor's materials, tools, machinery, equipment, appliances, shoring, scaffolding, false and form work, and personal property of GESA Contractor's employees from whatever cause arises. Any policy of insurance secured covering the Small GESA Contractor or subcontractors leased or hired by them and any policy of insurance covering the Small GESA Contractor or subcontractors against physical loss or damage to such property shall include an endorsement waiving the right of subrogation against the Commonwealth for any loss or damage to such property.

o. The Commonwealth in good faith may adjust and settle a loss with the GESA Contractor's insurance carrier. The Small GESA Contractor waives all rights against the Commonwealth, its board, officers, agents and employees for damages caused by fire or other perils to the extent of actual recovery of any insurance proceeds under any insurance policy procured or other property insurance applicable to the GESA Contractor's work.

p. Before commencement of its work, the GESA Contractor, its Architect/Engineer, and its subcontractors shall obtain and pay for such insurance as may be required to comply with the contract documents requirements.

q. In addition to the coverages required and under the same terms and requirements of such coverages, the Small GESA Contractor or its subcontractor shall provide hazardous material liability insurance as follows: $1,000,000 occurrence/$2,000,000 aggregate, including products and completed operations. Such insurance shall include coverage for the GESA Contractor's operations including, but not limited to, removal, replacement enclosure, encapsulation and/or disposal of asbestos, or any other hazardous material, along with any related pollution events, including coverage for third-party liability claims for bodily injury, property damage and clean-up costs. If a retroactive date is used, it shall pre-date the inception of the GESA Contract. If motor vehicles are used for transporting hazardous materials, the Small GESA Contractor or its subcontractor shall provide pollution liability broadened coverage (ISO endorsement CA 9948) as well as proof of MCS 90. Coverage shall fulfill all requirements set forth herein and shall extend for a period of three (3) years following acceptance by the Commonwealth of the Certificate of Completion.

r. In the event that the Project involves removal of asbestos or other hazardous materials, the Small GESA Contractor shall coordinate any asbestos/hazardous material testing and sampling with the Commonwealth's Environmental Consultant. All costs associated with such testing/sampling shall be the responsibility of the GESA Contractor.

s. Under no circumstances shall the successful Small GESA Contractor limit its liability to the amount of its primary comprehensive general liability policy limits.

t. The Small GESA Contractor shall be required to obtain and maintain throughout the course of the Project any insurance coverage beyond that listed above that may be necessary due to the scope of work encompassed within this Project.

u. The Commonwealth does not warrant or represent that coverages and limits required here and in the General Conditions are appropriate or adequate to protect the GESA Contractor. Providing coverage in these stated minimum limits shall not be construed to relieve the Small GESA Contractor from liability in excess of such limits. All deductibles, co-insurance requirements, and self-insured retention amounts must be disclosed and are subject to acceptance by DGS. The cost of any claim payments falling within the deductible shall be the sole responsibility of the GESA Contractor

1.33 **Compliance with Coal Act (71 P.S. §650**).The Small GESA Contractor must comply with the provisions of Act 28 of April 9, 1990 (71 P.S. §650) that requires heating systems or heating units installed in state-owned facilities to be fueled by coal unless exempted by the Secretary of the Department of General Services as provided for under the Act.

1.34 **Prevailing Wage Act** This project is subject to the prevailing wage rate laws and regulations for public work in accordance with the "Pennsylvania Prevailing Wage Act" Act of 1961, P.L. 987, No. 442 of the Pennsylvania State Labor Law. The Small GESA Contractor must comply with the prevailing wage rate laws on each project.

1.35 **Public Works Employment Verification Act**. As a pre-condition to the award of contract, the Small GESA Contractor will be required to be in compliance and remain in compliance with the Public Works Employment Verification Act ('the Act'). This Act requires that all public works contractors and subcontractors utilize the Federal Government's E-Verify program ("EVP") operated by the U.S. Department of Homeland Security, to ensure that all employees of firms performing work on public works projects are authorized to work in the United States. The Small GESA Contractor will ensure that all subcontracts contain notification of the applicability of the Act, information regarding the use of EVP and either a copy of the actual form or a link to the DGS website containing the form. The Small GESA Contractor will also ensure that prior to beginning onsite or offsite work, every subcontractor shall submit a completed form to the Funding Agency. Additionally, the Small GESA Contractor and all subcontractors shall utilize EVP to verify the employment eligibility of each new employee hired, whether the new employee will be performing on site or offsite work, within five (5) business days of the employee's start date and shall maintain documentation of continued compliance with the Act for the entire duration of the Small GESA Contract.

1.36 Calendar of Events:

Activity	Date
Notice to Proposers and RFP Issued	December 29, 2016
Pre-Proposal Conference Room 150 of the Training Center, 1000 Route 522, Selinsgrove, Pennsylvania 17870	*10:00 AM on* *January 11, 2017*
Proposers' Deadline to Submit Questions	*February 8, 2017*
DGS' Deadline to Issue Bulletins	*February 10, 2017*
Proposal Submission Deadline Rebecca Tomlinson Issuing Officer 403 North Office Building 401 North Street Harrisburg, PA 17120	*By 11:00 a.m. on* *February 17, 2017*
Anticipated Date for Interviews with Proposers who received sufficient Technical Submission points	*March 2 & 3, 2017*
Anticipated Date for Announcement of Successful Proposer	*March 10, 2017*

END OF PART 1

PART 2

Proposal Format and Required Information

2.1 Proposal Submission.

A Maintaining the confidentiality of the Submission information is critical, which is why the submission information must be sealed separately. DGS will reject as non-responsive any submission that is not submitted in separately sealed parts. There will be no opportunity for a Proposer to resubmit the proposal after the Proposal Submission Date. Each proposal shall consist of the following 3 **separately sealed parts**:

- **Technical Submission (4 copies and 1 CD); and**
- **ECM/Cost Submission (4 copies); and**
- **Small Diverse Business Submission (1 copy)**

B The Commonwealth may make such investigations deemed necessary and the Proposer shall furnish to the Commonwealth all such information and data for this purpose as requested by the Commonwealth. The Commonwealth reserves the right to reject any proposal if the evidence submitted by, or investigation of, such Proposer fails to satisfy the Commonwealth that such Proposer is properly qualified to carry out the obligations of the Small GESA Contract. By submitting a Proposal, the Proposer agrees to the terms and conditions stated in this RFP. For this RFP, the Proposal Submission, as submitted, must remain valid for 60 calendar days after the Proposal Submission Date and then become part of the Contract Documents.

2.2 Technical Submission Requirements

A The Proposer shall submit four (4) hardcopies and one (1) electronic version of the Technical Submission on a compact disc in a separately sealed envelope/package.

One of the four (4) hardcopies of the Technical Submission must include one (1) signed original of the following (which do not count toward the sheet/page limit):

1. Proposal Signature Page signed; and
2. Non-Collusion Affidavit signed and notarized.

B **For ease in DGS' reviewing purposes, the first two pages of the Technical Submission should be the Proposal Signature sheet. The third and fourth pages of the Technical Submission should be the Non-Collusion Affidavit.**

C Proposers shall not include cost information (ECMs and construction cost or energy savings) for this Project in the Technical Submission. This separation ensures that the Evaluation Committee's scoring of the Technical information is not tainted by knowing any of the Proposer's costs for this project. Cost information for other projects that the Proposer worked on, including project budget and actual costs, may be included in the Technical Submission. Small Diverse Businesses may be identified as such in the Technical Submittal, so long as no cost information is revealed.

D **DISCUSSION OF METHODOLOGY FOR DESIGN/IMPLEMENTATION OF ECMS FOR THIS PROJECT**

1. The remainder of the Technical Submission (which is suggested to be between 15 or 20 pages only) is for the Proposer to provide a detailed description of the Proposer's technical plan to design and implement ECMs on this Small GESA project. The description shall focus upon methodology for project specific ECMs. The discussion should include a discussion of interaction with the Funding Agency, the design process, ability to create and maintain a CPM schedule, quality control practices throughout the phases of the project, approach to commissioning, methodology for creating the appropriate Measurement and Verification plan using the IPMVP (International Performance Measurement & Verification Protocol) standards, training and close-out procedures. The description should also discuss the Proposer's guaranteed savings reconciliation practices. Proposers should refer to the Scoring Matrix (which is included as an Appendix) for details on how this information will be scored.

E **DEFINITION OF SHEET/PAGE AND FONT SIZE LIMITS:**

1. A "sheet" means 1 piece of paper, consisting of 2 pages (front and back). A "page" means the 1 side of a sheet. Text font should not be smaller than Times New Roman 11 point. Proposers are advised to take notice of suggested number of sheets/pages.

2.3 ECM/Cost Submission

A Each Proposer shall submit four (4) hardcopies of the ECM/Cost Submission. All four copies shall be sealed in a single envelope/package, separate from the Technical and Small Diverse Business Submissions. Proposers will be interviewed by the Scoring Committee and scored on the basis for their ECM/cost information, the transparency of the calculations and the clarity and reasonableness of estimated amounts by which energy or operating costs would be reduced. **Proposers should refer to the ECM/Cost Submission Scoring Matrix (which is included as an Appendix) for details on how this information will be scored, including a breakdown of the points allotted for individual categories.**

1. The ECM/Cost Submission should be limited to 20 pages. An appendix (with no suggested page limits) can be included with the ECM/Cost Submission to provide all the energy savings calculations.

2. **Energy Conservation Measures and Costs**. Information considered in this submission includes depth of the proposed solution for the facility, including the energy conservation measure descriptions, selected equipment, proposed energy cost savings, proposed energy baseline and adjustment factors, and proposed method and schedules for annual energy audit and verification of energy and operational cost savings. Although the Evaluation Committee will score specifically using the Scoring Matrix, each scorer will consider in general the degree to which the proposal addresses or discusses the following:

    a. The Comprehensive Energy Audit that will be conducted for this Project after the selection of the Small GESA Contractor. The proposal must include information on the systems that will be covered, the personnel to be involved, the general

method to be used and the time frame for completion of each item. The proposal must detail the Proposer's methodology for the calculation of the baseline. The utility usage data will be provided as an appendix to this RFP. The proposal should describe in detail the method used to compute the energy baseline. The proposal should also establish the timeline to commence and complete the audit, which should be reflected in the RFP Project Schedule.

b. Proposed energy efficiency measures, providing a preliminary assessment of the energy efficiency opportunities available based upon the information provided in this RFP and the site visit. List the energy efficiency measures to be implemented under the proposal with the estimated implementation cost and the energy cost savings, including detailed energy savings calculations. If there is a reason a proposed ECM listed in the Appendix to this RFP by the Commonwealth is not included in the scope of the proposal, the Proposer must provide a detailed explanation as to why the ECM was excluded from the scope.

Failure to include the estimated cost and cost savings or to discuss why the ECM should not be included will result in a five (5) point deduction the ECM/Cost submission score for each ECM not included or discussed.

c. Provide annual financial projections for the length of the contract, to a maximum of 12 years using a discount rate of 3% and assume an interest rate of 3% and also assume payments will be made on a monthly basis. The format should include the following:

(1). Annual energy costs without improvements;

(2). Annual energy costs with improvements;

(3). Annual energy cost savings (A-B)

(4). Payments for financing equipment

(5). Payments for monitoring and maintenance services

(6). Net annual benefit

(7). Cumulative cash flow

(8). Net Present Value of cash flow

d. The ongoing project monitoring and maintenance services Proposer will provide. Specifically discuss the personnel including identity of supervisor responsible, schedules, conditions, equipment covered and extra costs (if any) of providing scheduled preventive maintenance, warranty work, emergency service, training of DGS staff and monitoring of energy use. There will not be a service contract.

e. The degree to which the proposal demonstrates the technical feasibility, suitability, reasonableness, comprehensiveness and acceptability of the proposed

ECMs, including the proposed equipment and level of quality of said equipment for the proposed savings.

f. The degree to which the proposed energy analysis demonstrates sound engineering principles and the reasonableness of the proposed savings.

g. The degree to which the proposed Measurement and Verification (M&V) plan adheres to all M&V protocol standards and demonstrates scalability for measurement and verification of the proposed energy baseline, adjustment factors and energy cost savings.

3. **Detailed Energy Audit Pricing Methodology**

a. Provide a detailed explanation of Proposer's Energy Audit pricing methodology for this specific project, including an estimate of the costs for the Investment Grade Audit (covering the Core ECMs only). Based upon the limited scope and dollar value of the project, the Investment Grade Audit should have a maximum 45-day turn-around time. This time period commences as of the date DGS convenes the Initial Project Meeting, which shall be shortly after the effective date of the Investment Grade Audit Contract.

(9). This explanation shall be in terms of dollars, not a percentage.

(10). The explanation should include a thorough discussion of how the methodology will comply with the format set forth in the Pricing Submission form submitted with the AFQ.

(11). The Scoring Committee will score based upon the reasonableness and transparency of the pricing methodology of these costs.

4. **Guaranteed M & V Pricing Methodology**

a. Provide a detailed explanation of Proposer's Guaranteed Savings Measurement and Verification pricing methodology for this specific project.

(12). This explanation shall be in terms of dollars, not a percentage.

(13). The explanation should include a thorough discussion of how the methodology will ensure compliance with DGS' Design Manual, General Conditions and the IPMVP. The Design Manual, General Conditions and Administrative Procedures are included as Appendixes to this RFP.

(14). The Scoring Committee will score based upon the reasonableness and transparency of the methodology of these costs.

2.4 Small Diverse Business Submission

A Each Proposer shall submit one (1) copy of its Small Diverse Business Submission in a sealed envelope separate from the Technical and ECM/Cost Submissions. A value for each ECM with its associated Small Diverse Business participation percentage should be entered into the Small Diverse Business Submission Form. If no form is submitted

or if the submitted form is left blank, DGS will presume that the value is 0% for each ECM and the submission will be scored accordingly. If a Proposer commits to 0%, the proposal will not be rejected as non-responsive, but the Proposer will receive 0 points for their Small Diverse Business Submission.

1. The Small Diverse Business Submission percentage per ECM represents the dollar value the Small GESA Contractor will pay to Small Diverse Businesses for that ECM in accordance with the calculation in section D below.

2. Small Diverse Businesses may provide a wide variety of services and supplies on any Small GESA project. Commitments include payments beyond the initial tier of subcontractors and suppliers ("trickle down" until payments are made to a SDB) and may also include design costs.

3. The Small Diverse Business Submission percentage for each Core ECM will apply to the value of each ECM included in the Small GESA Contract. **Deletion of a core ECM will also delete that ECM's SDB percentage. Any SBD commitments on non-core ECM's will not count toward the overall commitment percentage.**

4. The Proposer should recognize that:

   a. Small Diverse Business subcontractors performing at least 60% of the subcontract with their own employees will be credited toward the provided Small Diverse Business percentage at 100% of the total dollar value of the subcontract/supply contract. Any Small Diverse Business subcontract where the subcontractor performs less than 60% of the subcontract will not be credited.

   b. Small Diverse Business manufacturers are credited at 100% of the total cost of the materials or supplies purchased.

   c. For each Small Diverse Business which is a supplier, the Proposer shall specify whether that supplier is a stocking or non-stocking supplier.

      (1). Stocking suppliers will be credited at 60% of the total cost of the materials or supplies purchased.

      (2). Non-Stocking suppliers, are credited at only the amount of the fee or commission charged by the Small Diverse Business non-stocking supplier for assistance in the procurement of the materials and supplies provided the fees or commissions are reasonable and not excessive as compared with fees customarily allowed for similar services and with the understanding that under no circumstances shall the credit, for a Small Diverse Business non-stocking supplier, exceed 10% of the purchase order cost.

End of Part 2

PART 3

Scoring Process and Criteria for Selection

3.1 Competitive Sealed Proposal Award.

A If the Commonwealth selects a Proposer, the selection will be made only to the responsive and responsible Proposer whose proposal conforms to the requirements of this RFP and receives the highest overall score by the Scoring Committee in accordance with the Scoring factors, procedures, and criteria set forth in this RFP.

3.2 Selection Formula.

A The Issuing Officer will use the following formula to calculate the Proposal Score for each responsive and responsible proposal. The selected Proposer will be the Proposer whose proposal has obtained the highest Total Proposal Score. The maximum Proposal Score is 500.

Technical Submission Score x (.40)
+
ECM/Cost Submission Score x (.40)
+
SDB Submission Score x (.20)
Total Proposal Score:

3.3 Proposal Scoring Process:

A The proposals will be evaluated by the Scoring Committee comprised of three scoring members. The Committee will also include a non-scoring representative from DGS' Office of Chief Counsel (OCC) and the non-scoring Issuing Officer.

B After the Proposal Submission date, a representative from OCC will assist a representative of DGS' Public Works Bidding Unit in opening each proposal. The OCC representative will conduct a Proposal Compliance Review, the purpose of which is to determine each proposal's compliance with the Mandatory Proposal Requirements, including noting violations of page limits and appropriate deductions.

C After the OCC/Bidding Unit representative determines the responsiveness of all the proposals received, the OCC representative will forward the Technical Submissions to the Issuing Officer. The ECM/Cost Submissions and the Small Diverse Business Submissions will remain sealed until the Scoring Committee has completed its Scoring of the Technical Submissions. The Issuing Officer will not distribute the Technical Submission for any proposal that has been deemed non-responsive.

1. **Technical Submission Scoring**

   a. Each Scoring Committee member will receive responsive proposals shortly after the submission date. Each member will independently evaluate and score every Proposer's Technical Submission using the same Scoring Matrix included as an appendix to this RFP and will forward the scores to the Issuing Officer. The Technical Submission maximum score is 500 points.

b. The Issuing Officer will convene a meeting of the Scoring Committee to calculate the Total Technical Score for each proposer and determine which, if any, Proposers met the minimum score requirements. All Committee Member's scores will be averaged, resulting in a Total Technical Score for each Proposer.

(1). The Total Technical Scores of the proposers will not be revealed outside the Scoring Committee until after DGS issues the Notice of Selection.

(2). The Proposer's Total Technical Score will be used by the Scoring Committee in determining the successful proposer.

(3). Proposers receiving a Total Technical Score less than 70% of available points (less than 350) will be rejected as non-responsive and will not be considered for award of the Small GESA contract. These Proposers will be notified by letter of their rejection.

(4). The Total Technical Score will be final and will not be adjusted as a result of the interview process.

2. **Interview Process**

a. Every Proposer who receives 70% of the available Technical Submission points will be notified by letter regarding the date and time scheduled for interviews with the Scoring Committee to discuss their ECM/Cost submission.

(1). The interviews will be in Harrisburg and will be set for the same location and duration for each Proposer.

(2). The Scoring Committee, the Issuing Officer and the OCC representative will attend each interview with the Proposers.

(3). Each interview will focus upon an in-depth discussion of the Cost Submission.

(4). Scoring Committee members will not finalize or submit Cost scores for any proposal until after all interviews have been completed.

(5). After the interview process is complete, each Scoring Committee member will independently score each ECM/Cost Submission using the scoring matrix included as an appendix to this RFP.

(6). The Issuing Officer will convene a meeting of the Scoring Committee to calculate the ECM/Cost score for each Proposer. All Committee Member's scores will be averaged for each Proposer.

(7). Once the Total ECM/Cost Submission scores are finalized, the Small Diverse Business Submissions will be opened by the Issuing Officer.

3. **Small Diverse Business Submission Scoring**

a. Proposals shall be scored on an objective basis, based upon their individual percentages of commitments. The Proposer with the highest percentage will receive the most points. The other Proposers will receive a points based upon the formula set forth in the applicable scoring paragraph of the RFP. Proposers acknowledge that this commitment percentage per ECM constitutes a material element of the scoring for this RFP and will be included as the binding percentages of the Small GESA Contract. Failure to meet or exceed the percentages may be deemed to be a breach of contract.

$$500 - (500 \times \frac{\text{Highest Proposer's SDB \% – Proposer's SDB \%}}{\text{Highest Proposer's SDB \%}})$$

4. **Total Proposal Score and Recommendation Memo**

a. When the Issuing Officer and the Scoring Committee members have calculated the Small Diverse Business Submission scores, the Issuing Officer will calculate the Total Proposal Score using the Selection Formula set forth in this RFP.

b. The Issuing Officer will submit a recommendation memo identifying the successful proposer to the Deputy Secretary for Public Works for DGS and the Secretary of DGS for review and approval.

c. DGS will issue a written Notice of Selection to the Proposer whose proposal is determined to be the most advantageous to the Commonwealth in accordance with the Scoring factors, procedures and criteria set forth in this RFP.

d. DGS will post the following information on the DGS Public Works website after the Notice of Selection is issued:

(1). The successful Proposers' Technical Submission

(2). The successful Proposers' Total ECM/Cost Submission

(3). The successful Proposers' SDB Submission

(4). All Proposers' Proposal Score Summary but only the successful Proposer's identity revealed on the spreadsheet.

(5). The Issuing Officer's Recommendation Memo.

END OF PART 3

PART 4

Work Statement

4.1 General Description of the Project Scope

A The objective of this RFP is to solicit proposals for a project to assist the Department of General Services to become as energy efficient as possible at the Selinsgrove Center, in Selinsgrove PA through installation of energy conservation measures, upgrades, and implementation of optimal operation and maintenance procedures. DGS wishes to implement the proposed comprehensive energy project on an energy performance contract basis. Only proposals that evidence a return of investment of less than 10 years, reduce real energy consumption, and are funded under a guaranteed performance basis will be considered by the Commonwealth.

B The Project goals include, but are not limited to the following, which are listed in no particular order of importance:

- Improving utilization of technology;
- Collecting and managing building/facility information in 'real time;
- Minimizing financial and technical risk to the Commonwealth;
- Establishing current base usage for electricity;
- Reducing energy usage; and
- Reducing operating costs

C Savings or guarantees provided by the successful Proposer must fully offset the Project costs involved for the Commonwealth.

D The Commonwealth will issue a separate procurement to obtain financing for the Small GESA Contract to obtain the lowest cost possible.

E The Funding Agency will finance and own any new equipment installed as a result of this project. DGS reserves the right to consider its options relative to the purchase, finance and ownership of any new equipment installed. Proposals shall include the Proposer's services in connection with such arrangements. **All services shall be stated separately.**

4.2 Engineering Services.

A The successful Proposer, who shall become the Small GESA Contractor upon the effective date of the Investment Grade Audit (IGA) Contract or the Small GESA Contract, shall use the services of the Small GESA Contractor's in-house or Retained Professional to prepare the IGA and the plans and specifications for all Energy Conservation Measures (ECM) proposed, reviewed and accepted by the Commonwealth. The Small GESA Contractor will provide the Small GESA Contractor's Retained Professional with design details. DGS, the Funding Agency and the Small GESA Contractor will review for approval the final plans and specifications.

4.3 Project Parameters.

A Proposals are requested for the provision of services for the reduction of energy consumption and for maintenance and operational savings and services on a performance contracting basis at facilities owned by the Funding Agency. Specifically, the Small GESA Contractor selected as a result of this RFP will be expected to provide comprehensive energy and design services at DCNR Western Region Parks, including but not limited to:

1. Performance of an Investment Grade Audit Report;

2. Proposal must contain a statement from the Proposer that the total energy savings projected in the final scope of work will be at least 95% of the savings projected in the proposal, the actual ECM costs shall be within 10% of the costs listed in the IGA, and that the project will be self-funded over the financial term of the project (maximum term of 12 years.);

3. Small GESA Contractor must adhere to all applicable codes and standards;

4. Services in connection with the design and specification of equipment and systems to be used in providing energy efficiency services;

5. Procurement and installation of new equipment and refurbishing existing equipment. All new and refurbished equipment must be consistent with the existing equipment of the Commonwealth;

6. Commissioning of the equipment, as per USGBC-LEED and ASHRAE Guideline 1.1-2007 standards;

7. Preventive and emergency maintenance and servicing of the equipment installed through the warranty period;

8. Staff training;

9. Energy savings performance guarantees;

10. The Small GESA Contractor must work cooperatively with facility management and the Commonwealth in coordinating this Project;

11. The Small GESA Contractor has the obligation to determine if hazardous materials/wastes will be disturbed or handled/disposed of in performing the project. Hazardous materials/wastes include, but are not limited, to asbestos, lead paint, mercury and PCBs. If hazardous materials/wastes must be disturbed, removed and/or remediated and/or disposed of, the Small GESA Contractor must advise the Commonwealth beforehand and perform such activities in accordance with all Federal and State regulations and pay for the cost of said activities out of the Project savings. A copy of the Hazardous Material Management Plan will be made available upon request for use as a guide to ACBM in the various buildings. If a management plan is not available, the Small GESA Contractor must test all suspect asbestos or lead painted surfaces prior to disturbance;

    a. **Note**: The replacement of equipment or disturbance of materials is the Small GESA Contractor's responsibility and must be performed in a manner that prevents the release of asbestos, lead, PCB's, mercury, and/or other hazardous materials and provide for their proper disposal. The Commonwealth requires a chain of custody of all materials from source removal to disposal.

12. Operating and Maintenance (O&M) costs shall not be included in cash flow or ECMs Estimates of Operating and Maintenance cost unless agreed to by the funding agency and DGS. If not agreed to the savings may be listed for informational purposes only;

13. Interest or Discount Rates shall be assumed to be 3.0%;

14. Financing term and overall Project shall be assumed to be a 12-year period;

15. One percent (1%) escalation of energy cost per year is permitted;

16. No escalation of Project costs or maintenance costs;

17. Identification of and obtaining all available financial incentives or rate reductions from companies supplying oil, gas, electricity, or transmission or distribution service for gas or electricity. Identifying and obtaining all government incentives, aid, or other benefits;

18. List estimate of available rebates. If the Small GESA Contractor is receiving the rebates, subtract estimated rebates from Total Project Cost to determine Net Project Cost upon which lease payments are based;

19. Base price for heating oil should be the actual market price paid by the Commonwealth over the last 12 months;

20. Heating season should be generally assumed to be October 1st to May 1st;

21. Cooling season, as applicable should be generally assumed to be May 1st to October 1st;

22. Actual baseline operation hours must be determined for each building and area and refined during the audit process by the Small GESA Contractor;

23. Assume one year of interest accrual for the construction period in Small GESA Contractor's financial Pro-Forma;

24. Use the Commonwealth's most recent provided fiscal year as the baseline for your energy usage in the project response;

25. As discussed in further detail in the General Conditions, provide written documentation no later than project close-out to Funding Agency of the system and installation, including but not limited to:

    a. Test Results;

    b. Equipment specifications;

    c. Authority over all sequence of operations;

    d. Multiple licenses and software;

    e. Back-up copies of all software programming provided on non-magnetic media;

    f. All documentation, maintenance manuals, and as-builts; and

g. System configurations and equipment locations.

26. Include Measurement and Verification (M&V) costs for 3 years as part of your proposal. M&V methods must be in accordance with the International Performance Measurement and Verification Protocol (IPMVP) as appropriate. Indicate in your RFP response the M&V Option being employed for each measure. At no time may measures be simply noted as "stipulated savings".

4.4 Scope of Work.

A **The "Core Energy Conservation Measures"** set forth in the Appendix to this RFP must be considered and discussed as part of every proposal. If an item is considered, but determined not feasible for inclusion in the Project, the Small GESA Contractor must provide a narrative explaining why the ECM is not feasible.

B In addition to the "Core ECMs", the Small GESA Contractor may identify additional cost effective ECMs that can be taken to reduce consumption and costs for heating, cooling, ventilation, lighting, water heating and other energy uses in each facility. The proposal should address consumption of all energy sources including oil, gas and electricity. Measures may involve controlling, modifying, adding or replacing equipment and systems. The Small GESA Contractor shall establish consumption levels for all current services as a baseline for measurement of savings.

C The Commonwealth reserves the right to negotiate the final scope of ECMs with the successful Proposer as further described in this RFP.

D The Commonwealth's final scope of work will reflect an acceptable project without out-of-pocket expense, deficit or negative cash flow at any time during the project term, as opposed to a maximization of cash flows. **Proposals shall guarantee recovery of contract costs from energy savings realized by the Commonwealth during the term of the Small GESA Contract, which shall not exceed twelve years.**

E Each building, including all portables, identified in this solicitation must be evaluated for any potential savings.

4.5 Conditions To Be Maintained The following energy end use conditions must be maintained at the facility. Any efficiency measures proposed must allow for the maintenance of these conditions, as well as comply with State Code and all requirements of the Funding Agency:

A Minimum Temperature: Temperatures in occupied areas during the hours of 6:00AM TO 6:00PM must be maintained at no less than 68 degrees F during the heating season or during scheduled activities. Unoccupied setback must be no less than 63 degrees F.;

B Maximum Temperature: Temperatures in occupied areas during the hours of 6:00AM TO 6:00PM or during scheduled activities must be maintained at no more than 76 degrees F during the cooling season (where air conditioning equipment is located). Unoccupied setback must be no more than 80 degrees F.;

C Indoor and Outdoor Lighting: Funding Agency's lighting level standards must be maintained. Spaces shall be considered "Occupied" from 6:00AM to 6:00PM and during scheduled activities, except for Security lighting and night lighting, which shall be "Occupied" 24/7;

D Air Changes/Ventilation Requirements: Within code at all times, including ASHRAE standards for fresh air ventilation: and

E Existing ventilation code requirements not met shall be identified as such. Failure to do so will subject bid to be non-compliant.

The Commonwealth reserves the right to increase or decrease the minimum and maximum temperatures provided above.

END OF PART 4

APPENDIX A

Proposal Signature Page

Proposal Signature

Proposer's Representations and Authorizations. Proposer by signing on the signature page and submitting its proposal understands, represents, acknowledges and certifies that:

a. All information provided by, and representations made by, the Proposer in the proposal are material and important and will be relied upon by the Issuing Office in awarding the contract(s). Any misstatement shall be treated as fraudulent concealment from the Issuing Office of the true facts relating to the submission of this proposal. A misrepresentation shall be punishable under 18 Pa. C.S. § 4904.

b. No attempt has been made or will be made to induce any firm or person to refrain from submitting a proposal on this contract, or to submit a proposal higher than this proposal, or to submit any intentionally high or noncompetitive proposal or other form of complementary proposal.

c. The proposal is made in good faith and not pursuant to any agreement or discussion with, or inducement from, any firm or person to submit a complementary or other noncompetitive proposal.

d. To the best knowledge of the person signing the proposal for the Proposer, the Proposer, its affiliates, subsidiaries, officers, directors, and employees are not currently under investigation by any governmental agency and have not in the last four (4) years been convicted or found liable for any act prohibited by State or Federal law in any jurisdiction, involving conspiracy or collusion with respect to bidding or proposing on any public contract, except as disclosed by the Proposer in its proposal.

e. To the best of the knowledge of the person signing the proposal for the Proposer and except as otherwise disclosed by the Proposer in its proposal, the Proposer has no outstanding, delinquent obligations to the Commonwealth including, but not limited to, any state tax liability not being contested on appeal or other obligation of the Proposer that is owed to the Commonwealth.

f. The Proposer is not currently under suspension or debarment by the Commonwealth, or any other state, or the federal government. If the Proposer has received, within three years of the issuance of this RFP, a Notice of Default from the Commonwealth, other state or the federal government, then the Proposer shall submit, as part of the Technical Submission, seven copies of a written explanation of why such Notice of Default was issued. This written explanation shall not exceed 1 sheet (2 pages) and shall not count towards the sheet and page limit established for the Technical Submission of the proposal.

g. The Proposer has not, under separate contract with the Issuing Office, made any recommendations to the Issuing Office concerning the need for the services described in the proposal or the specifications for the services described in the proposal.

h. Each Proposer, by submitting its proposal, authorizes all Commonwealth agencies to release to the Commonwealth information related to liabilities to the Commonwealth including, but not limited to, taxes, unemployment compensation, and workers' compensation liabilities.

i. Until the awarded Small GESA Contractor receives a fully executed and approved written contract from the Issuing Office there is no legal and valid contract, in law or in equity, and the Small GESA Contractor should not begin to perform.

j. The total energy savings projected in the final scope of work will be at least 95% of the savings projected in the proposal and that the project will be self-funded over the financial term of the project (maximum term of 20 years.)

k. Proposer agrees and certifies in accordance with the enclosed Commonwealth of Pennsylvania:

- Nondiscrimination/Sexual Harassment Clause
- Tax Liability Certification
- Americans Disabilities Act
- GESA Contractor Integrity Provisions
- GESA Contractor Responsibility Provisions
- Environmental Statement
- Compliance with State and Federal Statutes, Rules and Regulations
- Non-Collusion Affidavit

I am authorized to sign this proposal on behalf of the Proposer and I agree and state that _____ (Name of Firm) understands and acknowledges that the above representations are material and important, and will be relied upon by the Department of General Services in awarding the contract(s) for which this proposal is submitted. I understand and my firm understands that any misstatement shall be treated as fraudulent concealment from the Department of General Services of the true facts relating to the submission of this proposal.

_____
Signature

_____
Print Name Legibly

_____
Title

APPENDIX B

Non-Collusion Affidavit

INSTRUCTIONS FOR NONCOLLUSION AFFIDAVIT

1. This Non-collusion Affidavit is material to any contract awarded pursuant to this proposal. According to §4507 of the Commonwealth Procurement Code, 62 Pa.C.S. §4507, governmental agencies may require Noncollusion Affidavits to be submitted with proposals.

2. This Non-collusion Affidavit must be executed by the member, officer, or employee of the Proposer who makes the final decision on prices and the amount quoted in the proposal.

3. Bid rigging and other efforts to restrain competition, and the making of false sworn statements in connection with the submission of proposals are unlawful and may be subject to criminal prosecution. The person who signs the affidavit should examine it carefully before signing and assure himself or herself that each statement is true and accurate, making diligent inquiry, as necessary, of all other persons employed by or associated with the Proposer with responsibilities for the preparation, approval or submission of the proposal.

4. In the case of a proposal submitted by a joint venture, each party to the venture must be identified in the proposal documents and an affidavit must be submitted separately on behalf of each party to the joint venture.

5. The term "complementary proposal" as used in the affidavit has the meaning commonly associated with that term in the proposal process, and includes the knowing submission of proposals higher than the proposal of another firm, any intentionally high or noncompetitive proposal, and any other form of proposal submitted for the purpose of giving a false appearance of competition.

6. Failure to submit an affidavit with the Proposal in compliance with these instructions may result in disqualification of the proposal.

NONCOLLUSION AFFIDAVIT

DGS Project Number: _____

State of _____:

County of _____: s.s.

I state that I am the _____ (Title) of _____ (Name of Firm) and that I am authorized to make this affidavit on behalf of my firm, and its owners, directors, and officers. I am the person responsible in my firm for the prices(s) and the amount of this proposal.

I state that:

1. The price(s) and amount of this proposal have been arrived at independently and without consultation, communication or agreement with any other contractor, proposer, or potential proposer.
2. Neither the price(s) nor the amount of this proposal, and neither the approximate price(s) nor approximate amount of this proposal, have been disclosed to any other firm or person who is a proposer or potential proposer, and they will not be disclosed before the proposal submission date.
3. No attempt has been made or will be made to induce any firm or person to refrain from proposing on this contract, or to submit a proposal higher than this proposal, or to submit any intentionally high or noncompetitive proposal or other form of complementary proposal.
4. The proposal of my firm is made in good faith and not pursuant to any agreement or discussion with, or inducement from, any firm or person to submit a complementary or other noncompetitive proposal.
5. _____ (Name of Firm) its affiliates, subsidiaries, officers, directors, and employees are not currently under investigation by any governmental agency and have not in the last four years been convicted or found liable for any act prohibited by state or federal law in any jurisdiction, involving conspiracy or collusion with respect to proposing and/or bidding on any public contract, except as follows:
   _____

I state that _____ (Name of Firm) understands and acknowledges that the above representations are material and important, and will be relied upon by the Department of General Services in awarding the contract(s) for which this proposal is submitted. I understand and my firm understands that any misstatement in this affidavit is and shall be treated as fraudulent concealment from the Department of General Services of the true facts relating to the submission of this proposal.

_____
(Signature)

_____
(Signatory's Printed Name)

_____
(Signatory's Title)

SWORN TO AND SUBSCRIBED
BEFORE ME THIS _____ DAY OF
_____, 20_____.

_____
Notary Public

My Commission Expires

_____

APPENDIX C

Small Diverse Business

Submission Form

Submit 1 original in a sealed envelope separate from the Technical Submission and the ECM/Cost Submission

After examination of the contract documents, which are made a part hereof as if fully set forth herein, the Proposer commits to the following percentage for Small Diverse Business participation on this project. The Proposer understands the language in the RFP regarding the calculation of the percentage.

Project: Small GESA Project _____

Proposer (Firm) Name

_____

Commitment for Small Diverse Businesses for each ECM: (FILL IN)

ECM	Dollar Value of ECM	% SDB Commitment	Dollar Value SDB Commitment
			($ Value of ECM x % Commitment)
1			
2			
3			
4			
5			
6			
7			
8			
9			
10			
TOTAL		N/A	

Proposer's SDB % = 100 X Total Dollar Value SDB Commitment
Total Dollar Value of ECMs

_____% _____ Percent
(Figure) (Written)

APPENDIX D

Mandatory Requirement Checklist

RESPONSIVENESS CHECKLIST

RFP for Project No. :_____

Proposer's Name: _____

Office of Chief Counsel Rep.: _____ Date: _____
Bidding Unit Rep.: _____ Date: _____

Mandatory Submittal Requirements

Indicate in the spaces provided if the proposal meets each of following mandatory proposal requirements. Any Proposal that has a "No" checked will be rejected as non-responsive.

Mandatory requirements	**Yes**	**No**
Technical, ECM/Cost, and SDB Submissions included and separately sealed		
Non-Collusion Affidavit properly completed and notarized		
Proposal Signature properly completed and signed		
Technical Proposal contains no project specific Cost Submission Information		

APPENDIX E

Scoring Committee Scoring Matrices

Small GESA-3 Technical Submission Scoring Matrix	
Description	**Points**
Project Management Team	**40**
Organizational Chart clearly depicts hierarchy and reporting structure of the core project team members with specific individuals named with roles.	10
Proposal demonstrates a successful history of working relationships on past projects by core project team members.	10
Proposal describes the specific and meaningful roles fulfilled by core members.	10
Established history of working relationship between Proposer, the Retained Professional, and selected subcontractors on GESA projects.	10
Work Plan for this Project	**110**
Proposal contains a detailed description of how the Proposer will coordinate with DGS and the Funding Agency.	10
Proposal demonstrates a thorough understanding of the design process and sets forth how the Proposer will coordinate with the Retained Professional.	10
Proposal demonstrates a thorough understanding of the design process on Small GESA projects using the DGS Procedure Manual.	10
Proposal identifies design issues and describes how to manage and execute the Project.	15
Proposal thoroughly describes construction challenges and proposed solutions.	10
Proposal thoroughly describes a construction plan, including site operations, logistics, lay down areas and a detailed discussion about how to execute the project.	15
Proposal demonstrates a thorough understanding of scheduling and construction practices using DGS' General Conditions and Administrative Procedures.	5
Proposal describes project safety plan and monitoring.	5
Proposal describes an effective Quality Control Plan.	5
Proposal clearly describes Proposer's methodology for Commissioning this project.	5
Proposal describes training of Funding Agency personnel, manuals, occupancy permits, commissioning and final close-out approach.	10
Proposal clearly describes Proposer's methodology for creating the appropriate Measurement and Verification plan.	10
Critical Path Schedule	**40**
Narrative clearly identifies and discusses critical aspects of the schedule, associated risks and the process to ensure achievement of critical milestone dates.	25
CPM sets forth a logical progression of critical path, including at least the Notice of Award, duration and submission date of Energy Audit Report, full execution of Energy Contract, permits submission and approval dates, durations of on-site work, commissioning and training.	10

CPM integrates and coordinates construction with local utilities, subcontractors, equipment suppliers and Funding Agency facility personnel.	5
Qualifications, Experience & Past Performance	**310**
Proposal clearly explains the qualifications and experience of all core members, including project specific roles and not generalized work performed on projects.	75
Proposal provides a detailed explanation of qualifications and experience for core members on LED conversions and HVAC controls projects.	30
Proposal clearly identifies the Retained Professional's individual core personnel and clearly establishes the Retained Professional's ability to complete energy projects involving LED conversion and HVAC controls.	60
Proposal demonstrates the Retained Professional's readiness and commitment of personnel.	15
Proposal clearly establishes Subcontractors' ability to complete Small GESA projects since 2010 with the team identified in this proposal.	60
Subcontractors' Qualification demonstrates readiness and commitment of personnel.	20
Proposal clearly explains the qualifications of firm or consultants firm with retro burner installation similar to the proposed project boilers.	50
Total	**500**

Small GESA-3 ECM/Cost Submission Scoring Matrix	Points
Energy Conservation Measures	**200**
Every ECM described in Appendix document is either calculated into the project scope or the Proposer set forth a detailed justification for exclusion of the ECM.	50
Proposal provides a preliminary assessment of the ECMs, including a detailed estimate of implementation costs and energy cost savings (including detailed calculations) for each ECM.	60
Proposal thoroughly demonstrates the technical feasibility, suitability, reasonableness, comprehensiveness and acceptability of the proposed ECMs, including the proposed equipment and level of quality of the equipment for the proposed savings.	60
Proposal includes additional ECMs not already included in the project.	30
Energy Audit	**50**
Proposal clearly and thoroughly describes the scope of the Energy Audit, including systems covered, personnel, methodology and schedule milestones.	20
Proposal thoroughly discusses how the Proposer's approach to the Energy Audit will comply with DGS' Energy Audit format.	5
Proposer clearly and thoroughly describes a reasonable and transparent approach to pricing the costs to prepare an Energy Audit for this project.	25
Costs	**200**
Degree to which the proposed energy analysis demonstrates sound engineering principles and the reasonableness of the proposed savings.	75
Proposer established a reasonable cost for preparing an Energy Audit for this scope of work in compliance with the methodology discussed in the Cost Submission. Proposer thoroughly discussed and supported their cost during the interview.	75
Proposal provides annual financial projections for the length of the contract and each projection appears in the proper format listed in the RFP.	50
Measurement and Verification	**50**
Degree to which the proposed Measurement & Verification (M&V) plan adheres to all M&V protocol standards and demonstrates scalability for measurement and verification of the proposed energy baseline, adjustment factors and energy cost savings.	10
Proposal clearly and thoroughly describes a reasonable and transparent approach to pricing the costs to measure and verify the guaranteed savings for the entire duration of the project.	20
Proposal clearly indicates the M&V pricing is premised upon design and construction in compliance with DGS' Design Manual and General Conditions and also in compliance with the International Performance Measurement and Verification Protocol (IPMVP).	10
Proposal thoroughly describes the methods, schedule, scope and personnel who will be performing the Measurement & Verification.	10
Total	**500**

Appendix F

Standard Contract Provisions

Standard Contract Provisions

RIGHT TO KNOW LAW
NONDISCRIMINATION / SEXUAL HARASSMENT CLAUSE
AMERICANS WITH DISABILITIES ACT
CONTRACTOR INTEGRITY PROVISIONS
CONTRACTOR RESPONSIBILITY PROVISIONS
TAX LIABILITY CERTIFICATION
STEEL PRODUCTS PROCUREMENT ACT
ENVIRONMENTAL STATEMENT

RIGHT TO KNOW LAW

1. The PA Right-to-Know Law, 65 P.S. §§ 67.101-3104, applies to this Audit Contract.

2. Unless the Small GESA Contractor provides the Commonwealth, in writing, with the name and contact information of another person, the agency shall notify the Small GESA Contractor using the Small GESA Contractor information provided by the Small GESA Contractor in SRM [*or* "the legal contact information provided in this Contract"] if the agency needs the Small GESA Contractor's assistance in any matter arising out of the Right to Know Law ("RTKL"). The Small GESA Contractor shall notify the agency in writing of any change in the name or the contact information within a reasonable time prior to the change.

3. Upon notification from the Commonwealth that the Commonwealth requires the Small GESA Contractor's assistance in responding to a RTKL request for records in the Small GESA Contractor's possession, the Small GESA Contractor shall provide the Commonwealth, within fourteen (14) calendar days after receipt of such notification, access to, and copies of, any document or information in the Small GESA Contractor's possession which arises out of the Contract that the Commonwealth requests ("Requested Information") and provide such other assistance as the Commonwealth may request in order to comply with the RTKL. If the Small GESA Contractor fails to provide the Requested Information within fourteen (14) calendar days after receipt of such request, the Small GESA Contractor shall indemnify and hold the Commonwealth harmless for any damages, penalties, detriment or harm that the Commonwealth may incur as a result of the Small GESA Contractor's failure, including any statutory damages assessed against the Commonwealth.

4. The Commonwealth's determination as to whether the Requested Information is a public record is dispositive of the question as between the parties. Small GESA Contractor agrees not to challenge the Commonwealth's decision to deem the Requested Information a Public Record. If the Small GESA Contractor considers the Requested Information to include a request for a Trade Secret or Confidential Proprietary Information, as those terms are defined by the RTKL, the Small GESA Contractor will immediately notify the Commonwealth, and will provide a written statement signed by a representative of the Small GESA Contractor explaining why the requested material is exempt from public disclosure under the RTKL within seven (7) calendar days of receiving the request. If, upon review of the Small GESA Contractor written statement, the Commonwealth still decides to provide the Requested Information, Small GESA Contractor will not challenge or in any way hold the Commonwealth liable for such a decision.

5. The Commonwealth will reimburse the Small GESA Contractor for any costs associated with complying with this provision only to the extent allowed under the fee schedule established by

the Office of Open Records or as otherwise provided by the RTKL if the fee schedule is inapplicable.

6. Small GESA Contractor agrees to abide by any decision to release a record to the public made by the Office of Open Records, or by the Pennsylvania Courts. The Small GESA Contractor agrees to waive all rights or remedies that may be available to it as a result of the Commonwealth's disclosure of Requested Information pursuant to the RTKL. Small GESA Contractor's duties relating to the RTKL are continuing duties that survive the expiration of this Contract and shall continue as long as the Small GESA Contractor has Requested Information in its possession.

NONDISCRIMINATION/SEXUAL HARASSMENT CLAUSE

During the term of this Contract, Small GESA Contractor agrees as follows:

1. In the hiring of any employee(s) for the manufacture of supplies, performance of work, or any other activity required under the contract or any subcontract, the Contractor, each subcontractor, or any person acting on behalf of the Contractor or subcontractor shall not discriminate in violation of the Pennsylvania Human Relations Act (PHRA) and applicable federal laws against any citizen of this Commonwealth who is qualified and available to perform the work to which the employment relates.

2. Neither the Contractor nor any subcontractor nor any person on their behalf shall in any manner discriminate in violation of the PHRA and applicable federal laws against or intimidate any employee involved in the manufacture of supplies, the performance of work, or any other activity required under the contract.

3. The Contractor and each subcontractor shall establish and maintain a written nondiscrimination and sexual harassment policy and shall inform their employees of the policy. The policy must contain a provision that sexual harassment will not be tolerated and employees who practice it will be disciplined. Posting this Nondiscrimination/Sexual Harassment clause conspicuously in easily-accessible and well-lighted places customarily frequented by employees and at or near where the contract services are performed shall satisfy this requirement.

4. The Contractor and each subcontractor shall not discriminate in violation of PHRA and applicable federal laws against any subcontractor or supplier who is qualified to perform the work to which the contract relates.

5. The Contractor and each subcontractor represents that it is presently in compliance with and will maintain compliance with all applicable federal, state, and local laws and regulations relating to nondiscrimination and sexual harassment. The Contractor and each subcontractor further represents that it has filed a Standard Form 100 Employer Information Report ("EEO-1") with the U.S. Equal Employment Opportunity Commission ("EEOC") and shall file an annual EEO-1 report with the EEOC as required for employers subject to Title VII of the Civil Rights Act of 1964, as amended, that that have 100 or more employees and employers that have federal government contracts or first-tier subcontracts and have 50 or more employees. The Contractor and each subcontractor shall, upon request and within the time periods requested by the Commonwealth, furnish all necessary employment documents and records, including EEO-1 reports, and permit access to their books, records, and accounts by the contracting agency and the Bureau of Small Business Opportunities (BSBO), for purpose of ascertaining compliance with provisions of this Nondiscrimination/Sexual Harassment Clause.

6. The contractor shall include the provisions of this Nondiscrimination/Sexual Harassment Clause in every subcontract so that those provisions applicable to subcontractors will be binding upon each subcontractor.

7. The Contractor's and each subcontractor's obligations pursuant to these provisions are ongoing from and after the effective date of the contract through the termination date thereof. Accordingly, the Contractor and each subcontractor shall have an obligation to inform the Commonwealth if, at any time during the term of the contract, it becomes aware of any actions or occurrences that would result in violation of the provisions.

8. The Commonwealth may cancel or terminate the contract and all money due or to become due under the contract may be forfeited for the violation of the terms and conditions of this Nondiscrimination/Sexual Harassment Clause. In addition, the agency may proceed with debarment or suspension and may place the Contractor in the Contractor Responsibility File.

AMERICANS WITH DISABILITIES ACT

During the term of this contract, Contractor agrees as follows:

1. Pursuant to federal regulations promulgated under the authority of The Americans with Disabilities Act, 28 C.F.R. § 35.101 et seq., the Contractor understands and agrees that no individual with a disability shall, on the basis of the disability, be excluded from participation in this contract or from activities provided for under this contract. As a condition of accepting and executing this contract, the contractor agrees to comply with the "General Prohibitions Against Discrimination," 28 C.F.R. § 35.130, and all other regulations promulgated under Title II of The Americans with Disabilities Act which are applicable to all benefits, services, programs, and activities provided by the Commonwealth through contracts with outside contractors.

2. The Contractor shall be responsible for and agrees to indemnify and hold harmless the Commonwealth from all losses, damages, expenses, claims, demands, suits, and actions brought by any party against the Commonwealth as a result of the Contractor's failure to comply with the provisions of paragraph 1 above.

CONTRACTOR INTEGRITY PROVISIONS

It is essential that those who seek to contract with the Commonwealth of Pennsylvania ("Commonwealth") observe high standards of honesty and integrity. They must conduct themselves in a manner that fosters public confidence in the integrity of the Commonwealth contracting and procurement process.

1. DEFINITIONS. For purposes of these Contractor Integrity Provisions, the following terms shall have the meanings found in this Section:

   A. "Affiliate" means two or more entities where (a) a parent entity owns more than fifty percent of the voting stock of each of the entities; or (b) a common shareholder or group of shareholders owns more than fifty percent of the voting stock of each of the entities; or (c) the entities have a common proprietor or general partner.

   B. "Consent" means written permission signed by a duly authorized officer or employee of the Commonwealth, provided that where the material facts have been disclosed, in writing, by prequalification, bid, proposal, or contractual terms, the Commonwealth shall be deemed to have consented by virtue of the execution of this contract.

C. “Contractor” means the individual or entity, that has entered into this contract with the Commonwealth.

D. “Contractor Related Parties” means any affiliates of the Contractor and the Contractor’s executive officers, Pennsylvania officers and directors, or owners of 5 percent or more interest in the Contractor.

E. “Financial Interest” means either:

i. Ownership of more than a five percent interest in any business; or

ii. Holding a position as an officer, director, trustee, partner, employee, or holding any position of management.

F. “Gratuity” means tendering, giving, or providing anything of more than nominal monetary value including, but not limited to, cash, travel, entertainment, gifts, meals, lodging, loans, subscriptions, advances, deposits of money, services, employment, or contracts of any kind. The exceptions set forth in the Governor’s Code of Conduct, Executive Order 1980-18, the 4 Pa. Code §7.153(b), shall apply.

G. “Non-bid Basis” means a contract awarded or executed by the Commonwealth with Contractor without seeking bids or proposals from any other potential bidder or offeror.

2. In furtherance of this policy, Contractor agrees to the following:

A. Contractor shall maintain the highest standards of honesty and integrity during the performance of this contract and shall take no action in violation of state or federal laws or regulations or any other applicable laws or regulations, or other requirements applicable to Contractor or that govern contracting or procurement with the Commonwealth.

B. Contractor shall establish and implement a written business integrity policy, which includes, at a minimum, the requirements of these provisions as they relate to the Contractor activity with the Commonwealth and Commonwealth employees and which is made known to all Contractor employees. Posting these Contractor Integrity Provisions conspicuously in easily-accessible and well-lighted places customarily frequented by employees and at or near where the contract services are performed shall satisfy this requirement.

C. Contractor, its affiliates, agents, employees and anyone in privity with Contractor shall not accept, agree to give, offer, confer, or agree to confer or promise to confer, directly or indirectly, any gratuity or pecuniary benefit to any person, or to influence or attempt to influence any person in violation of any federal or state law, regulation, executive order of the Governor of Pennsylvania, statement of policy, management directive or any other published standard of the Commonwealth in connection with performance of work under this contract, except as provided in this contract.

D. Contractor shall not have a financial interest in any other contractor, subcontractor, or supplier providing services, labor, or material under this contract, unless the financial interest is disclosed to the Commonwealth in writing and the Commonwealth consents to Contractor’s financial interest prior to Commonwealth execution of the contract.

Contractor shall disclose the financial interest to the Commonwealth at the time of bid or proposal submission, or if no bids or proposals are solicited, no later than Contractor's submission of the contract signed by Contractor.

E. Contractor certifies to the best of its knowledge and belief that within the last five (5) years Contractor or Contractor Related Parties have not:

i. been indicted or convicted of a crime involving moral turpitude or business honesty or integrity in any jurisdiction;

ii. been suspended, debarred or otherwise disqualified from entering into any contract with any governmental agency;

iii. had any business license or professional license suspended or revoked;

iv. had any sanction or finding of fact imposed as a result of a judicial or administrative proceeding related to fraud, extortion, bribery, bid rigging, embezzlement, misrepresentation or anti-trust; and

v. been, and is not currently, the subject of a criminal investigation by any federal, state or local prosecuting or investigative agency and/or civil anti-trust investigation by any federal, state or local prosecuting or investigative agency.

If Contractor cannot so certify to the above, then it must submit along with its bid, proposal or contract a written explanation of why such certification cannot be made and the Commonwealth will determine whether a contract may be entered into with the Contractor. The Contractor's obligation pursuant to this certification is ongoing from and after the effective date of the contract through the termination date thereof. Accordingly, the Contractor shall have an obligation to immediately notify the Commonwealth in writing if at any time during the term of the contract if becomes aware of any event which would cause the Contractor's certification or explanation to change. Contractor acknowledges that the Commonwealth may, in its sole discretion, terminate the contract for cause if it learns that any of the certifications made herein are currently false due to intervening factual circumstances or were false or should have been known to be false when entering into the contract.

F. Contractor shall comply with the requirements of the Lobbying Disclosure Act (65 Pa.C.S. §13A01 et seq.) regardless of the method of award. If this contract was awarded on a Non-bid Basis, Contractor must also comply with the requirements of the Section 1641 of the Pennsylvania Election Code (25 P.S. §3260a).

G. When Contractor has reason to believe that any breach of ethical standards as set forth in law, the Governor's Code of Conduct, or these Contractor Integrity Provisions has occurred or may occur, including but not limited to contact by a Commonwealth officer or employee which, if acted upon, would violate such ethical standards, Contractor shall immediately notify the Commonwealth contracting officer or the Office of the State Inspector General in writing.

H. Contractor, by submission of its bid or proposal and/or execution of this contract and by the submission of any bills, invoices or requests for payment pursuant to the contract,

certifies and represents that it has not violated any of these Contractor Integrity Provisions in connection with the submission of the bid or proposal, during any contract negotiations or during the term of the contract, to include any extensions thereof. Contractor shall immediately notify the Commonwealth in writing of any actions for occurrences that would result in a violation of these Contractor Integrity Provisions. Contractor agrees to reimburse the Commonwealth for the reasonable costs of investigation incurred by the Office of the State Inspector General for investigations of the Contractor's compliance with the terms of this or any other agreement between the Contractor and the Commonwealth that results in the suspension or debarment of the Contractor. Contractor shall not be responsible for investigative costs for investigations that do not result in the Contractor's suspension or debarment.

I. Contractor shall cooperate with the Office of the State Inspector General in its investigation of any alleged Commonwealth agency or employee breach of ethical standards and any alleged Contractor non-compliance with these Contractor Integrity Provisions. Contractor agrees to make identified Contractor employees available for interviews at reasonable times and places. Contractor, upon the inquiry or request of an Inspector General, shall provide, or if appropriate, make promptly available for inspection or copying, any information of any type or form deemed relevant by the Office of the State Inspector General to Contractor's integrity and compliance with these provisions. Such information may include, but shall not be limited to, Contractor's business or financial records, documents or files of any type or form that refer to or concern this contract. Contractor shall incorporate this paragraph in any agreement, contract or subcontract it enters into in the course of the performance of this contract/agreement solely for the purpose of obtaining subcontractor compliance with this provision. The incorporation of this provision in a subcontract shall not create privity of contract between the Commonwealth and any such subcontractor, and no third party beneficiaries shall be created thereby.

J. For violation of any of these Contractor Integrity Provisions, the Commonwealth may terminate this and any other contract with Contractor, claim liquidated damages in an amount equal to the value of anything received in breach of these Provisions, claim damages for all additional costs and expenses incurred in obtaining another contractor to complete performance under this contract, and debar and suspend Contractor from doing business with the Commonwealth. These rights and remedies are cumulative, and the use or non-use of any one shall not preclude the use of all or any other. These rights and remedies are in addition to those the Commonwealth may have under law, statute, regulation, or otherwise.

CONTRACTOR RESPONSIBILITY PROVISIONS

For the purpose of these provisions, the term contractor is defined as any person, including, but not limited to, a bidder, offeror, loan recipient, grantee or lessor, who has furnished or performed or seeks to furnish or perform, goods, supplies, services, leased space, construction or other activity, under a contract, grant, lease, purchase order or reimbursement agreement with the Commonwealth of Pennsylvania (Commonwealth). The term contractor includes a permittee, licensee, or any agency, political subdivision, instrumentality, public authority, or other public entity in the Commonwealth.

1. The Contractor certifies, in writing, for itself and its subcontractors required to be disclosed or approved by the Commonwealth, that as of the date of its execution of this Bid/Contract, that neither the Contractor, nor any such subcontractors, are under suspension or debarment by the Commonwealth or any governmental entity, instrumentality, or authority and, if the Contractor cannot so certify, then it agrees to submit, along with its Bid/Contract, a written explanation of why such certification cannot be made.

2. The Contractor also certifies, in writing, that as of the date of its execution of this Bid/Contract it has no tax liabilities or other Commonwealth obligations, or has filed a timely administrative or judicial appeal if such liabilities or obligations exist, or is subject to a duly approved deferred payment plan if such liabilities exist.

3. The Contractor's obligations pursuant to these provisions are ongoing from and after the effective date of the Contract through the termination date thereof. Accordingly, the Contractor shall have an obligation to inform the Commonwealth if, at any time during the term of the Contract, it becomes delinquent in the payment of taxes, or other Commonwealth obligations, or if it or, to the best knowledge of the Contractor, any of its subcontractors are suspended or debarred by the Commonwealth, the federal government, or any other state or governmental entity. Such notification shall be made within 15 days of the date of suspension or debarment.

4. The failure of the Contractor to notify the Commonwealth of its suspension or debarment by the Commonwealth, any other state, or the federal government shall constitute an event of default of the Contract with the Commonwealth.

5. The Contractor agrees to reimburse the Commonwealth for the reasonable costs of investigation incurred by the Office of State Inspector General for investigations of the Contractor's compliance with the terms of this or any other agreement between the Contractor and the Commonwealth that results in the suspension or debarment of the contractor. Such costs shall include, but shall not be limited to, salaries of investigators, including overtime; travel and lodging expenses; and expert witness and documentary fees. The Contractor shall not be responsible for investigative costs for investigations that do not result in the Contractor's suspension or debarment.

6. The Contractor may obtain a current list of suspended and debarred Commonwealth contractors by either searching the Internet at http://www.dgs.state.pa.us/ or contacting the:

Department of General Services
Office of Chief Counsel
603 North Office Building
Harrisburg, PA 17125
Telephone No: (717) 783-6472
FAX No: (717) 787-9138

TAX LIABILITY CERTIFICATION

The Small GESA Contractor, by execution of the Audit Contract:

1. Certifies that the Contractor has no outstanding tax liability to the Commonwealth of Pennsylvania;

2. Authorizes the Department of Revenue to release information related to it's tax liability to the Department of General Services; and

3. Authorizes the Commonwealth to set off any state and local tax liabilities of the Contractor or any of its subsidiaries, as well as any other amount due to the Commonwealth from the Contractor, not being contested on appeal by the Contractor, against any payment due to the Contractor under a contract with the Commonwealth.

The certification of no outstanding tax liability is a material representation of fact upon which reliance is placed by the Department in entering into the contract. If it is later determined that the Contractor knowingly rendered an erroneous certification, the Department may find the Contractor in default and terminate the contract. Such erroneous certification may also be grounds for the initiation of civil or criminal proceedings.

STEEL PRODUCTS PROCUREMENT ACT – CERTIFICATIONS

1. In accordance with the Steel Products Procurement Act of March 3, 1978, P.L. 6 as amended (73 P.S. Sections 1881 et seq.), only steel products as defined in the Act shall be used or supplied in the performance of the contract or any subcontracts thereunder.

2. In the performance of the Contract the Contractor, subcontractors, material men or suppliers shall use only: 1) steel products, rolled, formed, shaped, drawn, extruded, forged, cast, fabricated, or otherwise similarly processed by a combination of two or more of such operations, from steel made in the United States by the open hearth, basic oxygen, electric furnace, bessemer or other steel making process; and 2) cast iron products made in the United States.

3. The Contractor shall certify that all steel and cast iron products to be used or supplied in the performance of the Contract comply with this Act. No payment will be made to the Contractor for steel and cast iron products until such certification has been received.

4. This section shall not apply in any case where the Deputy Secretary for Public Works of the Department, in writing, determines that steel and/or cast iron products as herein described are not produced in the United States in sufficient quantities to meet the Contract needs.

5. The Department shall not provide for, or make any payments to any person who has not complied with the Act. Any such payments made by the Department to anyone that should not have been made as a result of the Act, shall be recoverable directly from the Contractor, subcontractor, manufacturer or supplier that did not comply with the Act.

6. In addition to the withholding of payments, any person who willfully violates any of the provisions of the Act shall be prohibited from submitting any bids to any public agency for a period of five (5) years from the date of the determination that a violation has occurred. In the event the person who violates the provisions of the Act is a subcontractor, manufacturer or supplier, such person shall be prohibited from performing any work or supplying any materials to a public agency for a period of five (5) years from the date of the determination that a violation has occurred.

7. The Contractor shall include the provisions of the Steel Products Procurement Act in every subcontract and supply contract, so that the provisions of the Act shall be binding upon each subcontractor and supplier.

8. Where trade names, catalog numbers and manufacturers of material or equipment are specified, they are mentioned therein for the purpose of establishing a standard of quality, performance and appearance, and for establishing a standard of competitive bidding. The use of this descriptive information will not relieve the contractor from compliance with all aspects of the Act.

ENVIRONMENTAL STATEMENT

1. According to the Commonwealth Procurement Code, Act of May 15, 1998, P.L. 358, No. 57, 62 Pa. C.S. §§ 101-4509, all Requests for Proposals for construction projects issued by any government agency shall set forth any provision of Federal and State statutes, rules and regulations dealing with the prevention of environmental pollution and the preservation of public natural resources that affect the projects.

2. The Small GESA Contractor is hereby notified that this Project is subject to those statutes, rules and regulations shown on the following list, and the Work must be carried out in compliance with these statutes, rules and regulations.

STATE LAW

I. Purdon's Statutes - Title 3 (Agriculture)

Fertilizer Act, Act of Dec. 13, 2001, 3 Pa. C.S.A. § 6701, et seq.

Soil and Plant Amendment Act, Act of Dec. 13, 2001, 3 Pa. C.S.A. § 6901, et seq.

PA Pesticide Control Act of 1973, Act of March 1, 1974 as amended, 3 P.S. § 111.21, et seq.

Agricultural Liming Materials Act, Act of March 17, 1978, as amended, 3 P.S. § 132-1, et seq.

The PA Plant Pest Act of 1992, Act of December 16, 1992 as amended, 3 P.S. § 258.1, et seq.

Noxious Weed Control Law, Act of April 7, 1982 as amended, 3 P.S. § 255.1, et seq.

Conservation District Law, Act of May 15, 1945 as amended, 3 P.S. § 849, et seq.

(Relating to weather modification), Act of January 19, 1968, as amended, 3 P.S. § 1101, et seq.

II. Purdon's Statutes - Title 16 (Counties)

(Relating to land use), Act of January 13, 1966 as amended, 16 P.S. § 11941, et seq.

III. Purdon's Statutes - Title 18 (Crimes and Offenses)

The Crimes Code, Act of December 6, 1972, as amended, 18 Pa. C.S.A. § 101, et seq.

IV. Purdon's Statutes - Title 24 (Education)

Public School Code of 1949, Act of March 10, 1949, as amended, 24 P.S. § 7-731, et seq.

V. Purdon's Statutes - Title 30 (Fish)

The Fish and Boat Code, Act of October 16, 1980, as amended, 30 Pa. C.S.A. § 101, et seq.

VI. Purdon's Statutes - Title 32 (Forests, Waters and State Parks)

(Relating to water power and water supply permits), Act of June 14, 1923, as amended, 32 P.S. § 591, et seq.

Water Well Drillers License Act, Act of May 29, 1956, as amended, 32 P.S. § 645.1, et sec.

(Relating to Flood Control Districts), Act of August 7, 1936, as amended, 32 P.S. § 653, et seq.

Flood Plain Management Act, Act of October 4, 1978, as amended, 32 P.S. § 679.101, et seq.

Storm Water Management Act, Act of October 4, 1978, as amended, 32 P.S. § 680.1, et seq.

Dam Safety and Encroachments Act, Act of November 26, 1978, as amended, 32 P.S. § 693.1, et seq.

(Relating to Stream Clearance), Act of June 5, 1947, as amended, 32 P.S. § 701, et seq.

(Relating to Potomac River Pollution), Act of May 29, 1945 (P.L. 1134, § 1), as amended, 32 P.S. 741 et seq. *Repealed in Part*. Section 4 of Act 1981, May 1, P.L. 22 No. 9, repeals this section to "the extent it required one of the members of the Interstate Commission on the Potomic River Basin to be a member of the Pennsylvania Commission on Interstate Cooperation."

(Relating to Schuylkill River pollution), Act of June 4, 1945, as amend., 32 P.S. § 751.1, et seq.

(Relating to Delaware River pollution) Act of April 19, 1945 as amend.32 P.S. § 815.31, et seq.

Delaware River Basin Compact, Act of July 7, 1961, as amended, 32 P.S. § 815.101, et seq.

Ohio River Valley Water Sanitation Compact, Act of April 2, 1945, as amended, 32 P.S. § 816.1, et seq.

Great Lakes Basin Compact, Act of March 22, 1956, as amended, 32 P.S. § 817.1, et seq.

Brandywine River Valley Compact, Act of September 9, 1959, as amend. 32 P.S. § 818, et seq.

Wheeling Creek Watershed Protection and Flood Prevention District Compact, Act of August 2, 1967, as amended, 32 P.S. § 819.1, et seq.

Susquehanna River Basin Compact, Act of July 17, 1968, as amended, 32 P.S. § 820.1, et seq.

Chesapeake Bay Commission Agreement, Act of June 25, 1985, as amended, 32 P.S. § 820.11, et seq.

(Relating to Preservation and Acquisition of Land for Open Space Uses), Act of January 19, 1968, as amended, 32 P.S. § 5001, et seq.

Land and Water Conservation and Reclamation Act, Act of January 19, 1968, § 2), as amended, 32 P.S. § 5101, et seq.

Bluff Recession and Setback Act, Act of May 13, 1980, as amended, 32 P.S. § 5201, et seq.

Wild Resource Conservation Act, Act of June 23, 1982, as amended, 32 P.S. § 5301, et seq.

VII. Purdon's Statutes - Title 34 (Game)

The Game and Wildlife Code, Act of July 8, 1986, as amended, 34 Pa. C.S.A. § 101, et seq.

VIII. Purdon's Statutes - Title 35 (Health and Safety)

(Related to public eating and drinking places), Act of May 23, 1945, as amended, 35 P.S. 655.1 et seq. *Repealed in Part*. Section 6(b) of Act 1994, repealed this section in so far as it is inconsistent with said act (3 Pa. C.S.A. § 6501, et seq.). §§ 655.1 to 655.11. §§ 655.12a to 655.13a repealed by 2010, Nov. 23, P.L. 1039, No.106, § 8(2)(ii), effective in 60 days [Jan.24, 2011]

The Public Bathing Law, Act of June 23, 1931, as amended, 35 P.S. § 672, et seq.

The Clean Streams Law (Related to the protection of public water supply), Act of June 22, 1937, as amended, 35 P.S. § 691.1, et seq.

PA Safe Drinking Water Act, Act of May 1, 1984, as amended, 35 P.S. § 721.1, et seq.

PA Sewage Facilities Act, Act of January 24, 1966 as amended, 35 P.S. § 750.1, et seq. Repealed in Part. Section 15 of Act 1990, July 1, repealed this section insofar as it relates to fee payments.

PA Solid Waste-Resource Recovery Development Act, Act of July 20, 1974, as amended, 35 P.S. § 755.1, et seq.

(Related to pollution from abandoned coal mines), Act of December 15, 1965 as amended, 35 P.S. § 760.1, et seq.

Low-Level Radioactive Waste Disposal Act, Act of February 9, 1988, as amended, 35 P.S. § 7130.101, et seq.

(Related to Camp Regulation), Act of November 10, 1959 as amended 35 P.S. § 3001, et seq.

Air Pollution Control Act, Act of January 8, 1960, as amended 35 P.S. § 4001, et seq.

Solid Waste Management Act, Act of July 7, 1980 as amended, 35 P.S. § 6018.101, et seq. *Repealed in Part*. Section 905(b) of Act 1988, Feb. 9, the Low-Level Radioactive Waste Disposal Act (35 P.S. § 7130.101, et seq.), repealed this section insofar as it is inconsistent with said act.

Radiation Protection Act, Act of July 10, 1984, as amended, 35 P.S. 7110.101, et seq. *Repealed in Part*. Section 17(b) of Act 1992, Dec. 18, provides that this section is repealed insofar as it is inconsistent with said act. Section 6(3) of 2007, July 13, P.L. 95, No. 31, imd. Effective, provides that "[a]ll other acts and parts of acts are repealed insofar as they are inconsistent with this act.

Worker and Community Right-to-Know Act, Act of October 5, 1984 as amended, 35 P.S. § 7301, et seq.

IX. Purdon's Statutes - Title 36 (Highways and Bridges)

State Highway Law, Act of June 1, 1945, as amended, 36 P.S. § 670-101, et seq. *Repealed in Part*. Section 4 of Act 1985, July 3, repealed this act insofar as it's inconsistent with said act.

Junkyards and Automotive Recycler Screen Law, Act of July 28, 1966, as amended, 36 P.S. § 2719.1, et seq.

Highway Vegetation Control Act of December 20, 1983 as amended, 36 P.S. § 2720.1, et seq.

X. Purdon's Statutes – Title 37 APPENDIX (Historical & Museums)

History Code, Act of May 26, 1988, as amd, 37 Pa.C.S.A. § 101, et seq.

XI. Purdon's Statutes - Title 43 (Labor)

General Safety Law
(Related to General Safety), Act of May 18, 1937, as amended, 43 P.S. § 25-1, et seq.

Seasonal Farm Labor Act, Act of June 23, 1978, as amended, 43 P.S. § 1301.101, et seq.

XII. Purdon's Statutes - Title 52 (Mines and Mining)

Coal Refuse Disposal Control Act of September 24, 1968, as amended, 52 P.S. § 30.51, et seq.

Surface Mine Land Acquisition & Reclamation Law
(Related to Coal Land Improvement), Act of July 19, 1965, as amended, 52 P.S. § 30.101, et seq.

Mine Fire and Subsidence Remedial Project Indemnification Law
(Related to Mine Fires & Subsidence),Act of April 3,1968, as amd. 52 P.S. § 30.201, et seq.

PA Anthracite Coal Mine Act, Act of November 10, 1965 as amended, 52 P.S. § 70-101, et seq.

(Related to discharge of coal into streams), Act of June 27, 1913 as amended, 52 P.S. § 631, et seq.

(Caving-in, Collapse, Subsidence), Act of May 27, 1921, as amended, 52 P.S. § 661, et seq.

Anthracite Coal Mining Regulation Law
(Related to Subsidence), Act of September 20, 1961 as amended, 52 P.S. § 672.1, et seq.

Anthracite Strip Mining and Conservation Act, Act of June 27, 1947 as amended, 52 P.S. § 681.1, et seq. Repealed in Part. Section 16 of Act 1971, Nov. 30, provided that this section repealed insofar as it is inconsistent with Act No. 147.

Anthracite Mine Drainage Law
(Related to control and drainage of water from coal formations), Act of July 7, 1955 as amended, 52 P.S. § 682, et seq.

Bituminous Coal Mine Safety Act, Act of July 7, 2008, 52 P.S. § 690-101, et seq.

(Related to Abandoned Mines – abandoned mines; sealing entries and air shafts), Act of May 7, 1935, as amended, 52 P.S. § 809, et seq.

(Related to maps and plans of mines), Act of June 15, 1911, as amended, 52 P.S. § 823.

Surface Mining Conservation and Reclamation Act, Act of May 31, 1945 as amended, 52 P.S. § 1396.1 et seq. *Repealed in Part*. Section 27 of Act 1984, Dec. 19, provides that, except as provided in § 3304 of this title, this section "is repealed to the extent that it applies to the surface mining of minerals other than bituminous and anthracite coal."

The Bituminous Mine Subsidence and Land Conservation Act, Act of April 27, 1966, as amended, 52 P.S. § 1406.1, et seq

Bituminous Mine Subsidences in Counties of the Second Class. (Related to cave-in or subsidence of surface above mines), Act of July 2, 1937, as amended, 52 P.S. § 1407, et seq.

(Related to Coal Stripping – Coal stripping Operation Defined), Act of June 18, 1941 as amended, 52 P.S. § 1471, et seq.

(Related to Coal under State Lands – Easements and Rights of Way), Act of June 1, 1933 as amended, 52 P.S. § 1501, et seq.

(Related to Mining Safety Zones – Establishment of Safety Zones), Act of Dec. 22, 1959 as amended, 52 P.S. § 3101, et seq. *Repealed in Part* – Act 1959, Dec. 22, P.L. 1994, No. 729 [52 P.S. §§3101 TO 3109], is repealed to the extent applicable to bituminous coal mines by 2008, July 7, P.L. 654, No. 55, §3101(b)(3), effective in 180 days [Jan. 5, 2009]

(Coal and Clay Mine Coal Subsidence Insurance Fund Law), Act of August 23, 1961 as amended, 52 P.S. § 3201, et seq.

Interstate Mining Compact, Act of May 5, 1966 as amended, 52 P.S. § 3251, et seq.

Noncoal Surface Mining Conservation and Reclamation Act, Act of December 19, 1984, as amended, 52 P.S. § 3301, et seq.

XIII. Purdon's Statutes - Title 58 (Oil and Gas)

Oil and Gas Conservation Law, Act of July 25, 1961 as amended, 58 P.S. § 401, et seq.

PA Used Oil Recycling Act, Act of April 9, 1982, as amended, 58 P.S. § 471, et seq.

Coal & Gas Resource Coord.Act, Act of Dec.18, 1984, as amended, 58 P.S. § 501, et seq.

(Relates to oil and gas), Act of February 14, 2012, 58 Pa. C.S.A. § 3201, et seq.

XIV. Purdon's Statutes Title 63 (Professions and Occupations)

Water and Wastewater Systems Operators' Certification Act, Act of November 18, 1968 as amended, 63 P.S. § 1001, et seq.

XV. Purdon's Statutes - Title 64 (Public Lands)

PA Appalachian Trail Act, Act of April 28, 1978, as amended, 64 P.S. § 801, et seq.

XVI. Purdon's Statutes - Title 71 (State Government)

The Administrative Code of 1929, Act of April 9, 1929 as amended, 71 P.S. § 51, et seq.

XVII. Purdon's Statutes - Title 72 (Taxation and Fiscal Affairs)

Project 70 Land Acquisition and Borrowing Act, Act of June 22, 1964 as amended, 72 P.S. § 3946.1, et seq.

(Related to pollution control services), Act of March 4, 1971 as amended, 72 P.S. § 7602.1, et seq. Deleted Section 7602.5 by the Act 2000, May 24. *Repealed in Part.* Section 7602.3 of the Act 2007, Dec. 18, was repealed to effectuate the enactment of 35 P.S. § 6021.4.

XVIII. Purdon's Statutes - Title 73 (Trade and Commerce)

Infrastructure Development Act, Act of July 11, 1996, as amended, 73 P.S. § 393.21, et seq.

(Related to Explosives), Act of July 1, 1937 as amended, 73 P.S. § 151, et seq.; *Suspended in Part*. This section is suspended insofar as it is in conflict with the provisions of Reorganization Plan No. 8 of 1981. *See* 71 P.S. § 751-35.

(Related to Explosives), Act of July 10, 1957 as amended, 73 P.S. § 164, et seq. *Suspended in Part*. Section 164 is suspended insofar as it is in conflict with the provisions of Reorganization Plan No. 8 of 1981. *See* 71 P.S. § 751-35.

Purchase of Black Powder in Contiguous States
(Related to Black Powder), Act of May 31, 1974, 73 P.S. § 169 et seq.
(Related to excavation and demolition), Act of Dec.10, 1974 as amended, 73 P.S. § 176, et seq.

XIX. Purdon's Statutes - Title 75 (Vehicles)

Vehicle Code, Act of June 17, 1976, as amended., 75 Pa. C.S.A. § 101, et seq.
Snowmobile and All-Terrain Vehicle Law, Act of June 17, 1976, as amended, 75 Pa. C.S.A. § 7701, et seq.

(Related to hazardous materials transportation), Act of June 30, 1984, 75 Pa. C.S.A. § 8301, et seq.

XX. Purdon's Statutes - Title 77 (Workmen's Compensation)

Workers' Compensation Act, Act of June 2, 1915 as amended, 77 P.S. § 1, et seq.
PA Occupational Disease Act, Act of June 21, 1939, as amended, 77 P.S. § 1201, et seq.

XXI. Other Statutes

Infectious and Chemotherapeutic Waste Disposal

(Relating to Medical Waste-Manifesting and Transporter Licensing), Act of July 13, 1988, 35 P.S. § 6019.1, et seq.

Municipal Waste Planning, Recycling and Waste Reduction Act, Act of July 28, 1988, 53 P.S. § 4000.1501.

Hazardous Sites Cleanup Act, Act of October 18, 1988, 35 P.S. § 6020.101. Repealed insofar as inconsistent with the Hazardous Sites Cleanup Fund Funding Act, 35 P.S. § 6021.1 ET SEQ., PURSUANT TO 2007, Dec. 18, P.L. 486, No. 77, § 18(b) imd. effective

XXII. Pennsylvania Constitution - Article I, Section 27 (Adopted May 18, 1971)

FEDERAL LAW

Acid Precipitation Act of 1980 (42 U.S.C. § 8901-8912).

Act to Prevent Pollution from Ships (33 U.S.C. § 1901-1915).

Americans with Disabilities Act of 1990, (42 U.S.C. § 12101-12213 and 47 U.S.C. § 225 and 611).

Asbestos Hazard Emergency Response Act of 1986 [see Toxic Substances Control Act secs. 201-214 (15 U.S.C. § 2641-2656)].

Atomic Energy Act of 1954 (42 U.S.C. § 2014, 2021, 2021a, 2022, 2111, 2113, 2114).

Aviation Safety and Noise Abatement Act of 1979 (49 U.S.C. § 47501-47510).

Clean Air Act (42 U.S.C. § 7401-7642).

Clean Water Act [see Federal Water Pollution Control Act].

Coastal Zone Management Act of 1972 (16 U.S.C. § 1451-1466).

Comp.Env.Response, Compensation, and Liability Act of 1980 (42 U.S.C. § 9601-9675).

Emergency Planning and Community Right-to-Know Act of 1986 (42 U.S.C. § 11001-11050).

Energy Supply and Environmental Coordination Act of 1974 (15 U.S.C. § 791-798).

Environmental Quality Improvement Act of 1970 (42 U.S.C. § 4371-4375).

Federal Insecticide, Fungicide, and Rodenticide Act (7 U.S.C. § 136-136y).

Federal Land Policy and Management Act of 1976 (43 U.S.C. § 1701-1784).

Federal Water Pollution Control Act (33 U.S.C. § 1251-1387).

Geothermal Energy R& Development, Demonstration Act of 1974 (30 U.S.C. § 1101-1164).

Global Climate Protection Act of 1987 (15 U.S.C. § 2901 note).

Hazardous Substance Response Revenue Act 1980 (see 26 U.S.C. § 4611, 4612, 4661, 4662).

Low-Level Radioactive Waste Policy Act (42 U.S.C. § 2021b-2021d).

Marine Protection, Research, and Sanctuaries Act of 1972 (33 U.S.C. § 1401-1445)

National Climate Program Act (15 U.S.C. § 2901-2908).

National Environmental Policy Act of 1969 (42 U.S.C. § 4321-4370h).

Noise Control Act of 1972 (42 U.S.C. § 4901-4918).

Nuclear Waste Policy Act of 1982 (42 U.S.C. § 10101-10270).

Outer Continental Shelf Land Act Amendments of 1978 (43 U.S.C. § 1801-1866).

Public Health Service Act (42 U.S.C. § 300f-300j-11).

Safe Drinking Water Act [Public Health Service Act 1401-1451 (42 U.S.C. § 300f-300j-26)].

Soil and Water Resources Conservation Act of 1977 (16 U.S.C. § 2001-2009).

Solid Waste Disposal Act (42 U.S.C. § 6901-6991i).

Surface Mining Control and Reclamation Act of 1977 (30 U.S.C. § 1201-1328)

Toxic Substances Control Act (15 U.S.C. § 2601-2695d).

Uranium Mill Tailings Radiation Control Act of 1978 (42 U.S.C. § 7901-7942).

Water Resources Research Act of 1984 (42 U.S.C. § 10301-10309).

APPENDIX G

- Small GESA Contract with Bond and APG

GUARANTEED ENERGY SAVINGS ACT CONTRACT

FOR A SMALL GESA PROJECT

BETWEEN

THE FUNDING AGENCY,

AND

THE SMALL GESA CONTRACTOR

This Guaranteed Energy Savings Act Contract for a Small GESA Project (hereinafter "The Small GESA Contract"), executed this _____ day of _____, 20____, by and between the *Funding Agency (" ")*, as an executive agency of the Commonwealth of Pennsylvania authorized to enter into Small GESA Contracts pursuant to 62 Pa C. S. §§3751-3758, and

_____

_____

_____

a corporation incorporated under the Laws of the State of _____, its successors and assigns, hereinafter called "the Small GESA Contractor".

OR

This Guaranteed Energy Savings Act Contract for a Small GESA Project (hereinafter "The Small GESA Contract"), executed this _____ day of _____, 20____, by and between the "*Funding Agency* (" ") as an executive agency of the Commonwealth of Pennsylvania authorized to enter into design build contracts pursuant to 62 Pa C. S.

§§3751- 3758, and

_____

_____

_____

their heirs, executors, administrators and assigns, hereinafter called "the Small GESA Contractor".

ARTICLE 1 – THE CONTRACT DOCUMENTS

The Contract Documents shall consist of this Small GESA Contract and all attachments hereto, the Request for Proposal ("the RFP"), the Small GESA Contractor's proposal submitted in response to the RFP, the Contract Bonds, the Conditions of the Contract (General, Special, Supplementary, and other Conditions), all drawings created by or for the Small GESA Contractor and/or their Retained Professional, the specifications created by or for the Small GESA Contractor and/or their Retained Professional, the Scope of Work by ECM (Exhibit 1), all bulletins and addenda issued prior to execution of the Small GESA Contract, all change orders, the Administrative Procedures for the Small GESA Contract, the Installment Purchase Agreement and Payment Schedule, and the Investment Grade Audit Contract, its contract documents, and the Investment Grade Audit Report. All of these documents form the contract and are as fully part of the contract as if attached to this Contract or repeated herein.

ARTICLE 2 – THE WORK

The Small GESA Contractor shall perform all the work required by these Contract Documents as set forth in the RFP for the design and implementation/ construction of

_____.

ARTICLE 3 – TIME OF COMMENCEMENT AND COMPLETION

3.1 The Contract duration for this Small GESA Contract is_____calendar days and shall

commence upon the effective date of the Small GESA Contract. This date shall be defined, pursuant to the terms of the General Conditions of the Small GESA Contract, to be the date upon which the last Commonwealth official who is required to execute the contract executes the contract.

3.2 The format and scope of the Work shall be as set forth in the RFP and the Investment Grade Audit

3.3 Small GESA Contractor further agrees that the time is of the essence on this Small GESA Contract and that if it fails to complete the work within the time specified above, the Small GESA Contractor will pay the Funding Agency, as Liquidated Damages and not as a penalty for such failure, the sum of_____dollars ($ .00) (0.1% x Contract Sum) per day for each and every calendar day after the completion date until the Work is completed and accepted. The DGS may extend the completion date of the GESA Contact for causes set forth in the General Conditions of the Small GESA Contract that, in fact, delay the completion of said work. In such case, Small GESA Contractor is liable for said Liquidated Damages only after the expiration of the extended period.

ARTICLE 4 – CONTRACT SUM

The Funding Agency will authorize an energy financing provider, procured separately, to pay the Small GESA Contractor for the performance of the Work subject to additions and deductions by change order, as provided in the General Conditions of the Small GESA Contract, the contract sum of_____dollars ($_____). Payment will be made as set forth in the General Conditions of the Small GESA Contract. Deductions from or additions to this sum will be made as set forth in the General Conditions of the Small GESA Contract. Funding Agency is not liable for any debt due to the Small GESA Contract.

ARTICLE 5 – PROGRESS PAYMENTS and RETAINAGE

Based upon Applications for Release of Payment submitted to the Funding Agency by the Small GESA Contractor, the Funding Agency will authorize the energy financing provider to release progress payments on account of the contract sum to the Small GESA Contractor, , in accordance with the provisions of the Prompt Payment Schedules found in the Commonwealth Procurement Code, 62 Pa. C.S. §3931-§3939, and the Administrative Procedures, which both are incorporated herein by reference and made a part hereof as if those provisions were fully and at length herein recited, except that, where those provisions refer to the government agency, it is deemed to refer to the Funding Agency. The Funding Agency will retain a portion of the amount due the Small GESA Contractor, to insure the proper performance of the contractor, in each Application for Release of Payment in accordance with the provisions of Retainage found in the Commonwealth Procurement Code, 62 Pa. C.S. §3921, and the General Conditions for Small GESA Projects, which both are incorporated herein by reference and made a part hereof as if those provisions were fully and at length herein recited, except that, where those provisions refer to the government agency, it is deemed to refer to the Funding Agency .

ARTICLE 6 – FINAL PAYMENT

Final Payment, constituting the entire unpaid balance of the Contract Sum, will be approved by the Funding Agency for release by the energy financing provider to the Small GESA Contractor within thirty (30) days after Closeout Inspection of the Work if the Small GESA Contract has been fully performed and a Final Application for Release of Payment has been submitted, as provided in the General Conditions of the Small GESA Contract.

ARTICLE 7 – SMALL DIVERSE BUSINESS PARTICIPATION

The Small GESA Contractor provided its Small Diverse Business (i.e., Minority Business Enterprises (MBEs), Women Business Enterprises (WBEs), Veteran Business Enterprises (VBEs), and Service-Disabled Veteran Business Enterprises (SDVBEs) (together referred to hereinafter as Small Diverse Businesses)) percentage for Small Diverse Business subcontracts, suppliers, and manufacturers for this project in the Small GESA Contractor's RFP Proposal. The Small GESA Contractor's Small Diverse Business percentage per ECM is included on Exhibit 1.

ARTICLE 8 – MISCELLANEOUS PROVISIONS

8.1 Terms used in this Small GESA Contract defined in the General Conditions of the Small GESA Contract have the meanings designated in those Conditions.

8.2 In addition to any other guarantees or warrantees, the Small GESA Contractor covenants and agrees, after acceptance of the Work performed under this Small GESA Contract, to remedy without cost to the Funding Agency, any such defect in the Work provided said defects in the judgment of the Funding Agency, or its successors having jurisdiction over the premises, are caused by defective or inferior materials, equipment or workmanship. If the corrective work is not completed within thirty (30) days after the notification by the Funding Agency to the Small GESA Contractor, the Funding Agency may do the work and submit those costs to the Surety Company for reimbursement.

8.3 The Contract Bonds given by the Small GESA Contractor conditioned upon the faithful performance of the Small GESA Contract and for the payment of labor, material, equipment and public utility service claims are attached to this Small GESA Contract and are made a part of it. No third party shall acquire any rights against the Funding Agency under the Contract Documents.

8.4 The Small GESA Contractor agrees to abide by and be bound by the Laws of

Pennsylvania including those relating to and regulating the hours and conditions of employment.

8.5 Nothing in this Small GESA Contract shall be deemed to waive or otherwise affect the sovereign immunity of the Commonwealth, and its agencies, officers, and employees, or to subject any Commonwealth party to any liability not expressly authorized by law.

8.6 Any person, co-partnership, association or corporation furnishing labor, material, equipment or renting equipment or rendering public utility services in connection with the performance of this Small GESA Contract has a right of action to recover the cost thereof from the Small GESA Contractor and the Surety on the Bond given to secure the payment of such labor, material, equipment or equipment rental and services rendered by public utility as though such person or corporation had been named as Obligee in such Bond. For those who do not have a contract directly with the Small GESA Contractor, this right of action may not be exercised unless the Small GESA Contractor is notified of the claim within ninety (90) days from the last performance of labor or provision of materials. The Small GESA Contractor shall include in all of its subcontracts or supply contracts a provision requiring that its subcontractors and suppliers notify, in writing, their subcontractors and suppliers of this requirement. It is hereby agreed that no third party rights arise against the Funding Agency for any reason under this Article, and the Small GESA Contractor hereby agrees to so inform all subcontractors and suppliers in writing.

8.7 This Small GESA Contract may be executed in one or counterparts, each of which is an original, and all of which together are a single contract.

ARTICLE 9 – CONTRACT COMPLIANCE REGULATIONS

Refer to the appropriate paragraph of the General Conditions of the Small GESA Contract (which are made a part of this Contract by incorporation by reference as if fully set forth herein), which prohibits discrimination in hiring or employment opportunities. Also made a part of this Contract by incorporation by reference are all State and Federal Laws prohibiting discrimination in hiring or employment opportunities. The Contract Documents also list applicable statutory provisions which are incorporated by reference into this Small GESA Contract as if set forth fully herein.

ARTICLE 10 – ASSURED PERFORMANCE GUARANTEE

The Small GESA Contractor is required to guarantee energy and cost savings stipulated in this Small GESA Contract on an annual basis. The savings must be guaranteed to equal or exceed the project financing payment plus the service fees during that year for the Small GESA Contract duration. No credit for savings above the annual guarantee will be credited toward the performance guarantees for future years of this Small GESA Contract. The recovery of contract costs from energy savings over the term of this Small GESA Contract shall not exceed_____( ) years. Refer to the Assured Performance Guarantee (which is made a part of this Contract by incorporation) for the Small GESA Contractor's requirements regarding documenting and verifying the annual energy and/or cost savings that are attributed to this project. **(Exhibit 2)**

SIGNATURE PAGE IMMEDIATELY FOLLOWS

REMAINDER OF PAGE INTENTIONALLY LEFT

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IN WITNESS WHEREOF, the Department of _____, the Governor's Office of Budget, the Department of General Services, and the Small GESA Contractor, have caused this contract to be executed on the day and year above written.

Witness: [Small GESA Contractor]

Attest:

_____ _____

Secretary/Treasurer Date:_____ President Date:_____

Witness: COMMONWEALTH OF PENNSYLVANIA
ACTING THROUGH THE DEPARTMENT
OF [Funding Agency]

_____ _____

Date:_____ Secretary of [funding agency] Date:_____

APPROVED AS TO LEGALITY
AND FORM

I hereby certify that funds in the amount of
$_____
Are available under Appropriation Symbol

_____
Comptroller Operations

_____
Office of Chief Counsel - Funding Agency

_____
Office of General Counsel

_____
Office of Attorney General

CONTRACT BOND

KNOW ALL PERSONS BY THESE PRESENTS, That we the undersigned

_____

_____

_____

as Principal and

_____

_____

_____

as the Surety Company, a Corporation organized and existing under the Laws of the State of _____and authorized to transact business in Pennsylvania, as surety, are held and firmly bound unto the Department of XXXX (as hereinafter set forth, in the full and just several sums of:

(A)_____Dollars

($_____) for faithful performance of the Small GESA Contract as designated in Paragraph "A" below; and

(B)_____Dollars

($_____) for payment for labor, material equipment rental and public utility services as designated in Paragraph "B" below; and

Sealed with our respective seals and dates this_____day of_____.

WHEREAS, the above Principal has entered into a Small GESA Contract with the Department of XXXX dated the_____day of_____, 20__for

_____upon certain terms and conditions in said Small GESA Contract more particularly mentioned; and

WHEREAS, it is one of the conditions of the Award pursuant to which said Small GESA Contract is about to be entered into, that these presents be executed;

NOW, THEREFORE, the joint and several conditions of this obligation are such:

A. That, if the above Principal as Small GESA Contractor shall well and faithfully do and perform the things agreed by it to be done and performed according to the terms of said Contract Documents, including the plans and specifications therein referred to and made part thereof, and such alterations as may be made in said plans and specifications as therein provided and which are hereby made part of this Bond the same as though they were fully set forth herein, and shall indemnify and save harmless the Department of [Funding Agency] and all of their officers, agent and employees from any expense incurred through the failure of said Small GESA Contractor to complete the Work as specified and for any damages growing out of the manner of performance of said Small GESA Contract by said Small GESA Contractor or its Subcontractors, or their agents or servants, including, but not limited to, patent trademark and copyright infringements, then this part of this obligation shall be void; otherwise, it shall be and remain in full force and effect.

B. That, if the above Principal shall and will promptly pay or cause to be paid all sums of money which may be due by the Principal or any of its Subcontractors to any person, co-partnership, association or corporation for all material furnished and labor supplied or performed in the prosecution of the work, whether or not the said material or labor entered into and become component parts of the Work or improvements contemplated, and for rental of equipment used, and services rendered by public utilities in, or in connection with, the prosecution of such Work,

then this part of this obligation shall be void; otherwise, it shall be and remain in full force and effect.

C. It is further agreed that any alterations which may be made in the terms of the Small GESA Contract or in the Work to be done or materials to be furnished or labor to be supplied or performed, or equipment to be rented, or public utility services to be rendered, or the giving by the Department of [Funding Agency] of any extension of time for the performance of the Small GESA Contract, or the reduction of the retained percentage as permitted by the Small GESA Contract, or any other forbearance on the part of either the Department of [Funding Agency] or the Principal to the other, shall not in any way release the Principal and the surety or sureties or either or any of them, their heirs, executors, administrators, successors or assigns, from their liability hereunder; notice to the surety or sureties of any such alterations, extension or forbearance being hereby waived.

D. The Principal and Surety hereby jointly and severally agree with the Department of [Funding Agency] herein that every person, co-partnership, association or corporation which, whether as subcontractor as a person otherwise entitled to the benefits of this Bond, has furnished material or supplied or performed labor or rented equipment used in the prosecution of the Work as above provided and any public utility, which has rendered services, in, or in connection with, the prosecution of such Work, and, which has not been paid in full therefore, may sue in assumpsit on this Bond in his, their, or its name and prosecute the same to final judgment for such sum or sums as may be justly due him, them, or its, and have execution thereon; provided, however, that the Department of [Funding Agency] shall not be liable for the payment of any cost or expenses of such suit to a third party under any theory of law or equity.

E. Recovery by any persons, co-partnership, association or corporation hereunder is subject to the provisions of the Pennsylvania Procurement Code, 62 Pa. C.S §§101-4509, as amended, which Act is incorporated herein and made a part hereof, as fully and completely as though its provisions were fully and at length herein recited, except that, where said Act refers to the Commonwealth of Pennsylvania or a Department thereof, it is deemed to refer to the Department of [Funding Agency].

IN WITNESS WHEREOF, the said Principal and Surety have duly executed this Bond under seal the day and year above written.

Witness:

_____ (Date)

_____
Principal (Date)
[Small GESA Contractor]

(Corporate Seal)

_____
Surety

By:_____
Attorney-in-Fact (Date)

APPROVED AS TO FORM AND LEGALITY

_____
Office of Chief Counsel, Funding Agency

_____
Office of Attorney General

_____
Office of Chief Counsel, DGS

EXHIBIT 1

Scope of Work by ECM
Including
Small Diverse Business Participation

Core Energy Conservation Measures

Note: All items listed below must be considered in the RFP response. For any measure that cannot be incorporated into the proposal or is determined infeasible, a detailed explanation must be provided that clearly outlines the financial and technical rationale behind the choice not to include the measure.

Electrical Measures

1. Facility lighting fixture (interior and exterior building mounted, and site lighting) conversion to LED. Color Temperature shall be 3,000°K (warm white) except for garages and exterior locations, which shall be 5,000°K. Minimum CRI = 80. Conversion of interior lighting shall be limited to occupied buildings.

2. Lighting sensors, including occupancy and daylight harvesting technologies.

Facility Thermal Building Systems

1. Energy Management System (EMS) implementation and upgrades. Web-based, open protocol EMS upgrades and implementation of proper setbacks, scheduling, and optimum start strategies.

2. Retrofit existing coal fired boilers with high-efficiency duel fired oil/ gas fired Burners. See suggested/proposed scope on following pages.

    a. Contractor/Subcontractor qualifications: Must have documented specialized experience in working on Keeler water tube boilers, gas/oil burners with FGR, fuel supply and control systems.

Building Envelope

1. Weatherization of doors, windows, roof/wall joints, and sealing of other openings in all building envelopes.

Water Conservation

1. Low-flow faucet aerators, flush valves and faucets. Replacement of existing china with low-flow or waterless models.

EXHIBIT 2

ASSURED PERFORMANCE GUARANTEE
For
SMALL GESA CONTRACT

1-1. DEFINITIONS

PART 1

For purposes of this Agreement, the following terms have the meanings set forth below:

Annual Project Benefits are the portion of the projected Total Project Benefits to be achieved in any one year of the Guarantee Term.

Annual Project Benefits Realized are the Project Benefits actually realized for any one year of the Guarantee Term.

Annual Project Benefits Shortfall is the amount by which the Annual Project Benefits exceed the Annual Project Benefits Realized in any one year of the Guarantee Term.

Annual Project Benefits Surplus is the amount by which the Annual Project Benefits Realized exceed the Annual Project Benefits in any one year of the Guarantee Term.

Baseline is the mutually agreed upon data and/or usage amounts that reflect conditions prior to the installation of the Energy Conservation Measures.

Guarantee Term will commence on the first day of the month following the Final Payment date and will continue through the duration of the M&V Services.

Installation Period is the period beginning on the effective date of the Small GESA Contract and ending on the commencement of the Guarantee Term.

Measured Project Benefits are the utility savings and cost avoidance calculated in accordance with the methodologies set forth in Part 2 of this Agreement.

Project Benefits are the Measured Project Benefits to be achieved for a particular period during the term of this Agreement.

O&M Benefits are the operations and maintenance cost avoidance savings as stipulated in Part 2 of this Agreement.

Rebate Project Benefits are the energy rebate or incentive non-recurring savings as stipulated in Part 2 of this Agreement.

Total Project Benefits are the projected Project Benefits to be achieved during the entire term of this Agreement.

1-2. SCOPE

A. The Department of [Funding Agency] (“Funding Agency”) is contracting for a full range of energy services and energy-related capital improvements ("Energy Conservation Measures" or "ECMs") at no initial capital cost for the Project. The ECMs may include but are not limited to: the design, acquisition, installation, modification, maintenance and training of funding agency personnel in the operation of existing and new equipment. The ECMs will reduce energy consumption and related costs associated with the heating, ventilation and air conditioning system, lighting systems, control systems, building envelope, the hot water systems, water consumption, sewage costs and other energy using devices. Additionally, savings which will not reduce consumption but are aimed at cost savings, such as fuel switching, demand side management, on-site generation, utility bill auditing, utility rate changes, and distribution upgrades etc. have been considered. ECMs may also include the training of facility staff with respect to routine maintenance and operation of all improvements. ECMs must result in a guaranteed minimum energy savings with payments linked to actual documented energy and cost reductions.

B. Any stipulated energy and/or operational cost savings that are attributed to this project have been rigorously reviewed and the Small GESA Contractor is required by this contract to thoroughly document and verify the savings, which have been approved by DGS and the Funding Agency. The Annual Project Benefits Realized by the ECMs in any year must be guaranteed to equal or exceed the Annual Project Benefits during that year for the duration of the contract. The Small GESA Contractor is required to guarantee energy and cost savings on an annual basis. No credit for the achievement of savings above and beyond the annual guarantee will be credited to satisfy performance guarantees in future years of the contract. Annual reconciliation of the achieved savings will be required.

1-3. MEASUREMENT & VERIFICATION

A. Measurement & Verification (M&V) services shall commence on the first day of the month following the month in which the Funding Agency releases the Final Payment to the Small GESA Contractor and shall continue throughout the Assured Performance Guarantee Term, subject to earlier termination of the Assured Performance Guarantee as provided herein. The Small GESA Contractor shall ensure that an approved representative from the Funding Agency is physically present for all pre-retrofit and post-retrofit measurements for each ECM as applicable to the Energy Savings Guarantee unless the Funding Agency waives their right to be present. The final completion date shall be the date when all Work is completed, including all punch list items, as evidenced by the release of the Final Payment by the Funding Agency. In the event the Funding Agency (i) cancels or terminates receipt of M&V Services, (ii) fails to fulfill any of Funding Agency responsibilities necessary to enable Small GESA Contractor to complete the Work and provide the M&V Services, or (iii) otherwise cancels, terminates or materially breaches this Agreement, Small GESA Contractor shall issue a written notice to the Funding Agency stating the nature of the alleged breach, the date upon which it arose, and the remedy sought. Small GESA Contractor shall provide the Funding Agency with a thirty (30) day period to cure such breach. In the event of a dispute, all parties shall act in good faith to mitigate damages with a reservation of rights as to damages.

B. If the Small GESA Contractor is delayed in the commencement, performance, or completion of the M&V Services by causes beyond its control and without its fault, including but not limited to inability to access property; concealed or unknown conditions encountered at the project, differing from the conditions represented by Funding Agency in the proposal documents or otherwise disclosed by Funding Agency to the Small GESA Contractor; a Force Majeure condition; failure by Funding Agency to perform its obligations under this Small GESA Contract; or failure by Funding Agency to reasonably cooperate with Small GESA Contractor in the timely completion of the M&V Work where such failure is material, substantial and inconsistent with the terms of this Small GESA Contract, Small GESA Contractor shall provide written notice to Funding Agency of the existence, extent of, and reason for such delays and impacts. Under such circumstances, an equitable adjustment in the time for performance and the Assured Performance Guarantee shall be made, subject to the mutual written agreement of the parties.

C. Funding Agency shall provide Small GESA Contractor, its subcontractors, and its agents reasonable and safe access to all facilities and properties in Funding Agency's control that are subject to the M&V Services. Work to be performed by Small GESA Contractor in accordance with this Small GESA Contract shall be performed during normally scheduled staff shifts and as agreed to by both parties. Funding Agency further agrees to assist Small GESA Contractor, its subcontractors, and its agents to gain access to facilities and properties that are not controlled by Funding Agency but are necessary for Small GESA Contractor to provide the M&V Services. An equitable adjustment in the time for performance and Assured Performance Guarantee shall be made as a result of any failure to grant such access, subject to the mutual written agreement of the parties.

D. In order for Small GESA Contractor to perform its obligations under this Agreement with respect to the Work, the Assured Performance Guarantee, and the M&V Services, Funding Agency shall be responsible for:

1. Providing Small GESA Contractor, its subcontractors, and its agents reasonable and safe access to all facilities and properties that are subject to the Work and/or M&V Services;

2. Properly maintaining, and performing appropriate preventative maintenance on, all equipment and building systems affecting the Assured Performance Guarantee in accordance with manufacturers' standards and specifications;

3. Providing the utility bills, reports, and similar information reasonably necessary for administering Small GESA Contractor's obligations under the Assured Performance Guarantee within thirty (30) days of Funding Agency receipt and/or generation or Small GESA Contractor's request therefore;

4. Providing all records relating to energy and/or water usage and related maintenance of the premises and relevant equipment requested by Small GESA Contractor;

5. Promptly notifying Small GESA Contractor of any change in use or condition or any other matter that may impact the Assured Performance Guarantee.

PART 2

PROJECT BENEFITS

2-1. PROJECT BENEFITS SUMMARY

A. Subject to the terms and conditions of this Small GESA Contract, Small GESA Contractor and Funding Agency agree that Funding Agency will be deemed to achieve a total of $_____ in O&M and Rebate Project Benefits and Small GESA Contractor guarantees that Funding Agency will achieve a total of $_____ in Measured Project Benefits during the term of this Small GESA Contract, for Total Project Benefits of $_____ as set forth in the Total Project Benefits table below.

Table A. Total Project Benefits

Year	Guaranteed Energy Cost Savings	Operations & Maintenance Cost Savings	Rebate Project Benefits (non-recurring)	Total Guaranteed Project Savings
1				
2				
3				
4				
5				
Totals				

The energy cost savings provided in **Table A** above are based on the annual escalation stated in **Table A-1** below, and will be applied to the unit utility rates listed in **Table B** beginning the first month following the baseline period, escalating annually throughout the Guarantee Period.

Table A-1 – Annual Escalation Rates

Energy Cost Esc./yr	**1.0%**
Labor Cost Esc./yr	**3.0%**
Maintenance Cost Esc	**1.0%**

The actual escalation of calculated savings that will be applied in the M&V Report will be the highest of:

(1) **Table A-1** above
(2) CPI (Consumer Price Index) for the geographical region, or
(3) Actual fuel rate

B. Within thirty (30) days of the commencement of the Guarantee Term, Small GESA Contractor will calculate the Measured Project Benefits achieved during the Installation

Period and provide the Funding Agency of written confirmation of the calculations.

C. Within thirty (30) days of each anniversary of the commencement of the Guarantee Term, Small GESA Contractor will calculate the Measured Project Benefits achieved for the applicable year applicable to such period and provide both DGS and the Funding Agency with an annual report containing:

1. an executive overview of the project's performance and Project Benefits achieved to date; and
2. a summary analysis of the Measured Project Benefits accounting; and
3. a detailed analysis of the Measured Project Benefits calculations.

D. Funding Agency acknowledges and agrees that if, for any reason, it (i) cancels or terminates receipt of M&V Services, (ii) fails to pay for M&V Services, (iii) fails to fulfill any of its responsibilities necessary to enable Small GESA Contractor to complete the Work and provide the M&V Services, or (iv) otherwise cancels, terminates or materially breaches this Small GESA Contract, the Assured Performance Guarantee shall automatically terminate and Small GESA Contractor shall have no liability hereunder.

2-2. PROJECT SAVINGS SHORTFALLS OR SURPLUSES

A. Guaranteed Savings Shortfalls: If an Annual Project Benefit Shortfall occurs for any year of the Assured Performance Guarantee Term, Small GESA Contractor shall, at the sole discretion of the Funding Agency, perform one or more of the following:

1. pay to Funding Agency the amount of such shortfall, or
2. subject to Funding Agency's written approval, provide to Funding Agency additional products or services, in the value of such shortfall, at no additional cost to Funding Agency.

B. Guaranteed Savings Surpluses: If an Annual Project Benefit Surplus occurs for any year of the Guarantee Term, Small GESA Contractor may not apply the amount of such surplus to set off any subsequent Annual Project Benefit Shortfall during the Guarantee Term.

C. Additional Energy Conservations. Where an Annual Project Benefits Shortfall has occurred, Small GESA Contractor may, subject to Funding Agency approval, implement additional Energy Conservation Measures, at no cost to Funding Agency, which may generate additional Project Benefits in future years of the Guarantee Term. Such improvements do not relieve the Small GESA Contractor from liability set forth in Paragraph 2-2(A).

D. Event of Default by GESA Contractor: If an Annual Project Benefits Shortfall has occurred and the GESA Contractor does not comply with Paragraph 2-2(A), the Funding Agency may deem this to be an Event of Default. If default occurs, the Funding Agency may place the GESA Contractor in the Contractor Responsibility Program and also pursue debarment or suspension in accordance with the Commonwealth Procurement Code.

PART 3

MEASUREMENT AND VERIFICATION METHODOLOGY

3-1. MEASUREMENT & VERIFICATION PROTOCOL

A. Small GESA Contractor shall apply either Option A or Option B or Option C verification methodologies, as more fully detailed in the guidelines and standards of the International Measurement and Verification Protocol (IPMVP) and/or the Federal Energy Management Program (FEMP), in connection with the provision of M&V Services hereunder. The applicable option shall be as set forth in the Project-Specific Request for Proposal submitted to and accepted by DGS and the Funding Agency. Option A shall not be accepted without DGS and the Funding Agency's prior written approval.

Option A: Partially Measured Retrofit Isolation

Measured Project Benefits are determined by partial field measurement of the energy use of the system(s) to which an ECM was applied separate from the energy use of the rest of the facility. Measurements will be short-term with only one-time measurements before and after the Installation Period.

Partial measurement means that some but not all parameters will be measured. Careful review of the design and installation of ECMs is intended to demonstrate that the stipulated values fairly represent the probable actual values. Agreed-upon values will be shown in the measurement and verification plan, along with analysis of the significance of the error they may introduce. Engineering calculations using short-term pre and post-retrofit measurements and stipulations are used to calculate Measured Project Benefits for the duration of the Guarantee Term.

Measured Project Benefits from the following ECMs will be calculated using Option A:
INSERT TABLE WITH ECMS USING OPTION A

Pre & Post Installation Verification Methodology Description
Option A – Water System

The Measurement and Verification Plan for the _____shall be adhered to as indicated in the Energy Audit Report, dated_____, Part IV M&V Plan and Commissioning, Paragraph X– Option A - _____ System.

Option B: Retrofit Isolation

Measured Project Benefits are determined by field measurement of the energy use of the systems to which an Improvement Measure was applied separate from the energy use of the rest of the facility. Short-term, long-term or continuous measurements are taken throughout the pre and post-retrofit periods. Engineering calculations using short term, long-term or continuous pre and post-retrofit measurements are used to calculate the Measured Project Benefits for the duration of the Guarantee Term.

Measured Project Benefits from the following Improvement Measures will be calculated using Option B:

LIST ALL OPTION B ECMS and for each, set forth:

ECM #

Pre-Installation Verification Methodology Description

Post-Installation Verification Methodology Description

CALCULATION OF SAVINGS:

[EQUATIONS / FORMULAE]

Option C: Utility Bill Analysis

Measured Project Benefits involves use of utility meters or whole building sub-meters to assess the energy performance of a total building. Option C assesses the impact of any type of Improvement Measure, but not individually if more than one is applied to an energy meter. This option determines the collective Measured Project Benefits of all Improvement Measures applied to the part of the facility monitored by the energy meter. Also, since whole building meters are used, Measured Project Benefits reported under Option C include the impact of any other change made in facility energy use (positive or negative). Period consumption against baseline consumption will be normalized using weather data. Baseline changes due to any changes in non-routine factors such as building operation and building foot print will be manually adjusted using the savings calculations as presented herein.

Meters Included in Option C:

Building Name / Location	Fuel Type	Account # / Meter #

Measured Project Benefits from the following Improvement Measures will be calculated using Option C:

ECM #

Pre-Installation Verification Methodology Description

Post-Installation Verification Methodology Description

CALCULATION OF SAVINGS:

[EQUATIONS / FORMULAE]

3-2. CHANGES IN USE OR CONDITION

The Changes in Use or Condition shall be as indicated in this Part and not as indicated in Part IV, M&V Plan and Commissioning, Paragraph X of the EAR.

A. Funding Agency agrees to notify Small GESA Contractor within thirty (30) days of (i) any actual or intended change, whether before or during the Guarantee Term, in the use of any facility, equipment, or Energy Conservation Measure to which this schedule applies; (ii) any proposed or actual expansions or additions to the premises or any building or facility at the premises; (iii) a change to utility services to all or any portion of the premises; or (iv) any other change or condition arising before or during the Guarantee Term that reasonably could be expected to change the amount of Project Savings realized under this Agreement.

1. Such a change, expansion, addition, or condition would include, but is not limited to: (a) changes in the primary use of any facility, Energy Conservation Measure, or portion of the premises; (b) changes to the hours of operation of any facility or portion of the premises; (c) changes or modifications to the Energy Conservation Measures or any related equipment; (d) changes to the M&V Services provided under this Small GESA Contract; (e) insufficient or improper maintenance or unsound usage of the Energy Conservation Measures or any related equipment at any facility or portion of the premises (other than by Small GESA Contractor); or (f) additions or deletions of Energy Conservation Measures or any related equipment at any facility or portion of the premises.

B. If Small GESA Contractor independently learns of any such change or condition, Small GESA Contractor shall calculate and send to Funding Agency a Notice of adjustment tothe Annual Project Benefits to reflect the impact of such change or condition, and the adjustment shall become effective as of the date the change or condition first arose. If the Funding Agency fails to promptly provide Small GESA Contractor with notice of any such change or condition,

Small GESA Contractor may make reasonable estimates as to the impact of such change or condition and as to the date on which such change or condition first arose in calculating the impact of such change or condition, and such estimates shall be conclusive.

PART 4

BASELINE CALCULATIONS AND UTILITY RATES

4-1. UTILITY COSTS FOR BASELINE

A. The unit utility costs for the Baseline period are set forth below as "Base Utility Cost" and shall be used for all calculations. The Base Utility Cost shall be escalated annually by escalation rate of one percent (1%). The Base Utility Cost for each type of utility represents the 12-month average utility costs from [START DATE] through [END DATE].

Building	SF	$/kWh (BER)	Avg kW Cost	Unblended $/kWh	$/Gallon	$/Ton	$/Therm

PART 5

PRIMARY OPERATIONS SCHEDULE PRE & POST RETROFIT

5-1. PRE/POST RETROFIT – [LIST APPLICABLE FACILITIES]

▪	Lighting – locations (Post)	
	Time On	Time Off
Monday	am	pm
Tuesday	am	pm
Wednesday	am	pm
Thursday	am	pm
Friday	am	pm
Saturday	Average of_____hours over the weekend	
Sunday		
Holidays	am	pm

HVAC – Occupied Hours (Pre)		
Monday	am	pm
Tuesday	am	pm
Wednesday	am	pm
Thursday	am	pm
Friday	am	pm
Saturday	-	-
Sunday	-	-
Holidays	-	-

HVAC – Occupied Hours (Post)		
Monday	am	pm
Tuesday	am	pm
Wednesday	am	pm
Thursday	am	pm
Friday	am	pm
Saturday	-	-
Sunday	-	-
Holidays	-	-

5-2. PRE/POST RETROFIT BUILDING TEMPERATURES

LIST APPLICABLE BUILDINGS AND FOR EACH:

Pre-Temperatures:

Occupied Temperature During Heating Season: _____to_____degrees F
Unoccupied Low Temperature Limit During Heating Season:_degrees F
Heating season is October_____through April _____
Occupied Temperature During Cooling Season: __ to___degrees F
Unoccupied High Temperature Limit During Cooling Season:____to___degrees F
Cooling season is May _____through September _____

Post-Temperatures:

Occupied Temperature During Heating Season: _____to_____degrees F
Unoccupied Low Temperature Limit During Heating Season: _____degrees F
Heating season is October_____through April _____
Occupied Temperature During Cooling Season: _____to_____degrees F
Unoccupied High Temperature Limit During Cooling Season: ____to____degrees F
Cooling season is May _ through September _____

PART 6

MEASUREMENT & VERIFICATION SERVICES

6-1. COMMONWEALTH REPRESENTATIVE

A. Small GESA Contractor shall ensure that an approved representative from Funding Agency is physically present for all pre-retrofit and post retrofit measurements, for each ECM as applicable to the Energy Savings Guarantee. Funding Agency and Small GESA Contractor shall mutually witness and record said measurements and sign Small GESA Contractor's measurement logbook, if deemed mutually acceptable. Small GESA Contractor shall include all logged measurements in the annual report to be provided.

6-2. M&V SERVICES

A. Small GESA Contractor will provide the M&V Services set forth below in connection with the Assured Performance Guarantee. Funding Agency shall pay Small GESA Contractor an annual fee for such services as identified in the table below. Notwithstanding anything to the contrary, Funding Agency may choose to continue the M&V services in Guarantee Year Four (4) and beyond by notifying the Small GESA Contractor within thirty (30) days of the end of the third Guarantee Year. If Funding Agency, after Small GESA Contractor's completion of the third year of M&V Services, does not continue with the M&V Services, it irrevocably acknowledges Small GESA

Contractor's full satisfaction of, and release from, this Assured Performance Guaranty.

1. During the Installation Period, the Small GESA Contractor's Performance Assurance Engineer will track Measured Project Benefits. The Small GESA Contractor will report the Measured Project Benefits achieved during the Installation Period to the Funding Agency within 30 days of the commencement of the Guarantee Term.

2. Within 30 days of each anniversary of the commencement of the Guarantee Term, Small GESA Contractor will provide DGS with an annual report containing:

   A. an executive overview of the project's performance and Project Benefits achieved to date;

   B. a summary analysis of the Measured Project Benefits accounting; and

   C. depending on the M&V Option, a detailed analysis of the Measured Project Benefits calculations.

3. During the Guarantee Term, the Small GESA Contractor's Performance Assurance Engineer will monitor the on-going performance of the ECMs, as specified in this Small GESA Contract, to determine whether anticipated Measured Project Benefits are being achieved. In this regard, the Performance Assurance Engineer will periodically assist the Funding Agency, on-site or remotely, with respect to the following activities:

   A. Conduct two annual on-site visits to verify proper operation of the equipment installed under the project.

   B. review information furnished by the Funding Agency from the facility management system to confirm that control strategies are in place and functioning;

   C. advise Funding Agency's designated personnel of any performance deficiencies based on such information;

   D. coordinate with Funding Agency's designated personnel to address any performance deficiencies that affect the realization of Measured Project Benefits; and

   E. inform Funding Agency of opportunities to further enhance project performance and of opportunities for the implementation of additional Improvement Measures.

4. If the Funding Agency allowed "Option A" M&V protocol, for those specified ECMs, the Small GESA Contractor will:

   A. conduct pre and post installation measurements required under this Small GESA Contract;

   B. confirm the building management system employs the control strategies and set points specified in this Small GESA Contract; and

   C. analyze actual as-built information and adjust the Baseline and/or Measured Project Benefits to conform to actual installation conditions (e.g., final lighting

and water benefits calculations will be determined from the as-built information to reflect the actual mix of retrofits encountered during installation).

5. For specified ECMs utilizing an "Option B" M&V protocol, the Small GESA Contractor will:

   A. confirm that the appropriate metering and data points required to track the variables associated with the applicable ECM's benefits calculation formulas are established; and

   B. set up appropriate data capture systems (e.g., trend and totalization data on the facility management system) necessary to track and report Measured Project Benefits for the applicable ECM.

6. For specified ECMs utilizing an "Option C" M&V protocol, the Small GESA Contractor will:

   A. perform periodic analysis of natural gas, coal, propane and oil consumption as applicable; and

   B. periodically verify heating set points, building operating schedules and occupancy and compare them to the baseline; and

   C. monthly updates to the baseline parameters and adjust baseline energy consumption as needed.

COST OF M&V SERVICES

Based on direction from the State, the fees for the first three (3) years of annual M&V service has been included in the Project; please refer to the project cash flow in the EAR Report dated XXXXXX. The amount to be paid annually by **CUSTOMER** for the M&V services provided is listed in the table below. If the Customer chooses to continue the M&V services in Guarantee Year Four (4) and beyond, it must notify Small GESA Contractor within thirty (30) days of the end of the third Guarantee Year. If the Customer wishes to continue the M&V Services past the third Guarantee Year, the pricing for each additional Guarantee Year for M&V services will be the Year 3 M&V Cost and Energy Bond Costs annually escalated at 3% in each additional Guarantee Year. The billing for the 1st three Guarantee Years will begin with Final Acceptance of this project.

TABLE FOR YEAR AND M&V COST

PART 7

[Agency] RESPONSIBILITIES

7-1. In order for Small GESA Contractor to perform its obligations under this Small GESA Contract with respect to the Work, the Assured Performance Guarantee, and the M&V Services, Funding Agency shall be responsible for:

1. Providing Small GESA Contractor, its subcontractors, and its agents reasonable and safe access to all facilities and properties that are subject to the Work and/or M&V Services;

2. Properly maintaining, and performing appropriate preventative maintenance on, all equipment and building systems affecting the Assured Performance Guarantee in accordance with manufacturers' standards and specifications;

3. Providing the utility bills, reports, and similar information reasonably necessary for administering Small GESA Contractor's obligations under the Assured Performance Guarantee within thirty (30) days of Funding Agency receipt and/or generation or Small GESA Contractor's request therefore;

4. Providing all records relating to energy and/or water usage and related maintenance of the premises and relevant equipment requested by Small GESA Contractor;

5. Providing and maintaining a dedicated telephone line and/or TCP/IP remote connection to facilitate remote monitoring of relevant equipment;

6. Promptly notifying Small GESA Contractor of any change in use or condition or any other matter that may impact the Assured Performance Guarantee.

ENERGY EFFICIENT MEASURES

The table below summarizes ECM savings and costs and Simple Payback.

TABLE TO BE INCLUDED

Appendix H

Small GESA Contract General Conditions

pennsylvania
DEPARTMENT OF GENERAL SERVICES

GENERAL CONDITIONS

FOR

SMALL GESA PROJECTS

Department of General Services
Harrisburg, PA
2016

TABLE OF CONTENTS

ARTICLE 1

DEFINITIONS

Whenever in this Small GESA Contract the following words and expressions occur, they have the following meanings, which shall be construed in conjunction with the applicable definitions of the Commonwealth Procurement Code:

1.1 Administrative Procedures – the Small GESA construction procedures manual to be followed for various administrative functions.

1.2 Application for Release of Payment – The document (DGS Form GSC-17) submitted by the Small GESA Contractor to the Funding Agency pursuant to the applicable Administrative Procedure for Funding Agency's review and/or approval of the release of payment by the Escrow Agent.

1.3 As-Built Record Drawings – Terminology used to identify contract prints or drawings, corrected with suitable markings to show all changes or variations from the original contract drawings, including all items uncovered during the Work and show details of the Work as actually built. As-built record drawings are not "Record Drawings", which terminology is used to describe the revised set of construction documents (also referred to as L&I Record Drawings) in which the Small GESA Contractor's Retained Professional is responsible for submitting to L&I for approval of changes made during construction that are not in accordance with the Design Documents.

1.4 Biweekly – an event occurring every two weeks.

1.5 Change Order – A written order signed by the Funding Agency directing the Small GESA Contractor to make changes that the changes clause of the Contract authorizes the Funding Agency to order. The change order may be either with the consent of the Small GESA Contractor or a unilateral order issued by the Funding Agency. The Contract Sum may be changed only by Change Order.

1.6 Commonwealth – The Commonwealth of Pennsylvania.

1.7 Contract – (Small GESA Contract or Contract) A written agreement consisting of the Contract Documents, as defined in Article I of the Small GESA Contract and executed by the Small GESA Contractor and the Commonwealth in accordance with the Commonwealth Attorneys Act. The Contract represents the entire an integrated agreement between the parties and supersedes all prior negotiations, representations, or agreements, either written or oral. To the extent that any of these documents are amended by statute, the statutory language will control.

1.8 Contract Bonds – The bonds required by the Small GESA Contract Documents which must be executed by one or more surety companies legally authorized to do business in the Commonwealth of Pennsylvania for the faithful performance of the contract and for payment of labor and material.

1.9 Contract Completion Date – The date specified in the Contract for completion of the Work.

1.10 Contract Documents – As described in Article I of the Small GESA Contract. All of these documents form the contract and are incorporated by reference and are as fully part

of the contract as if attached to this Contract or repeated herein. To the extent that any of these documents are amended by statute, the statutory language will control.

1.11 Contract Duration – The number of calendar days set forth in the Contract Documents for completion of the Work, also referred to as Contract Time.

1.12 Contract Limits – the area set forth in the Contract Documents that establishes the perimeter within which the Small GESA Contractor shall perform the Work.

1.13 Contract Start Date – For purposes of calculating date for completion of the Work, this is the date upon which the Initial Design Meeting is held for the Project.

1.14 Contract Sum – The total amount payable to the Small GESA Contractor for the performance of the Work under the Contract Documents.

1.15 Days – Calendar days unless specifically stated otherwise in the contract.

1.16 Deficiency Item – Any work or activity, either complete or incomplete, which the Funding Agency will not certify as being performed in accordance with the Contract Documents.

1.17 Design Documents – documents created by the Small GESA Contractor's Retained Professional to be issued for any specific Small GESA project.

1.18 Effective Date of the Contract – the date on which the last Commonwealth official who is required to execute the contract executes it.

1.19 Energy Conservation Measure (ECM) – Energy Conservation Measure, as fully defined in *62 Pa. C.S. §3752*, as amended.

1.20 Escrow Agent – If applicable to a specific project, this is the financial entity designated by the Energy Financing Provider to maintain and administer the Escrow Account from which the Small GESA Contractor will be paid upon submission of approved Applications for Release of Payment.

1.21 Extension of Time – a formal written approved extension of the contract duration.

1.22 Field Order – A field order is a record of a minor adjustment in the work that results in no change in the Contract Sum or Contract Duration.

1.23 Final Inspection – A review of the Work conducted by the Small GESA Contractor's Retained Professional and the Funding Agency after the Small GESA Contractor requests a Final Inspection to determine if the Work on a specific project is substantially complete.

1.24 Funding Agency (a.k.a. "designee") - The Department that operates the facility where the Small GESA project will occur. The Funding Agency will sign the Small GESA Contract on behalf of the Commonwealth.

1.25 Labor & Industry (L&I) – The Commonwealth of Pennsylvania's Department of Labor & Industry also referred to as "L&I".

1.26 Milestone Activity – On a Project schedule, this is the beginning date or the completion date for a significant Work event.

1.27 Notice of Deficiency – A written document issued by the Funding Agency to record non-conforming work, deficient work and/or schedule slippage.

1.28 Off-Site Work – All work that is not physically carried out within the limits of contract on a project site.

1.29 On-Site Work – All work that is physically carried out on the site within the limits of contract.

1.30 Post-Consumer Material – Material or finished product that has served its intended use and has been diverted or recovered from waste destined for disposal, having completed its life as a consumer item. Post-consumer material is part of the broader category of recovered material.

1.31 Post-Consumer Recovered Paper – Any paper, paperboard, and fibrous wastes from retail stores, office buildings, homes and so forth, after they have been passed through their end-usage as a consumer item including: used corrugated boxes, old newspapers, old magazines, mixed waste paper, tabulating cards and used coreage, as well as all paper, paperboard and fibrous wastes that enter and are collected from municipal solid waste.

1.32 Project – The total Work to be performed by the Small GESA Contractor under the Project Number.

1.33 Project Manager – Small GESA Contractor's person responsible for direct supervision of a specific Small GESA project, including all design and construction, in accordance with the Contract Documents and the Small GESA Contract with the Funding Agency. The Project Manager is responsible for continuous contract operations including supervision, coordination and completion of all of the work. The Project Manager shall have full authority to act on behalf of the Small GESA Contractor in relation to project activities and associated work.

1.34 Project Procedures Manual – The Manual that provides the Small GESA Contractor's Retained Professional with a guideline of procedures and standards for the design and construction of every Small GESA Project. The Manual's organization reflects the sequence in which services and submissions will normally occur.

1.35 Project Schedule – The Critical Path Method (CPM) schedule prepared by the Small GESA Contractor as more fully described in these General Conditions.

1.36 Record Drawings – (also referred to as "L&I Record Drawings") - The revised set of construction documents in which the Small GESA Contractor's Retained Professional is responsible for submitting to L&I for approval of changes made during construction that are not in accordance with the Design Documents. The Small GESA Contractor shall also submit one (1) set to the Funding Agency or designee.

1.37 Recovered Material – Waste material and byproducts which have been recovered or diverted from solid waste, but such term does not include those materials and byproducts generated from and commonly reused within an original manufacturing process.

1.38 Request for Information – A written question issued by the Small GESA Contractor to the Funding Agency or designee seeking clarification of the Contract Documents ("RFI").

1.39 Samples – Physical examples furnished by the Small GESA Contractor to illustrate materials, equipment or workmanship, and to establish standards by which the work will be judged.

1.40 Small GESA Contractor – The person, entity, or organization identified as such in the Small GESA Contract.

1.41 Small GESA Contractor's Retained Professional – the licensed engineer(s) and/or architect(s) retained by the Small GESA Contractor to provide necessary design services under contract to the Small GESA Contract. The term "Small GESA Contractor's Retained Professional" is referred to throughout the Contract Documents as if singular in number and means a person or firm and/or persons or firms that have contractual responsibility for all or any portion of the Project design.

1.42 Specification – A description of the physical or functional characteristics or the nature of a construction item, including a description of any requirement of inspecting, testing or preparing a construction item for delivery. The specifications are prepared by the Small GESA Contractor's Retained Professional, become a part of the Contract Documents and must be interpreted in conjunction with the other Contract Documents, as specified further in these General Conditions.

1.43 Subcontractor – A person or organization which has a contract with the Small GESA Contractor to perform any of the design, construction or testing work. The term subcontractor is referred to throughout the Contract Documents as if singular in number and means a subcontractor or its authorized representative. The Small GESA Contractor and every subcontractor agree that there is no privity of contract between the Funding Agency and any subcontractor and that, to the extent set forth by law, the subcontractor has no direct cause of action against the Funding Agency for any claim arising out of the Project.

1.44 Submittals – Administrative or technical information, including but not limited to drawings, diagrams, illustrations, schedules, performance charts, brochures, catalog data, samples and other data that are prepared by the Small GESA Contractor, the Small GESA Contractor's Retained Professional or any subcontractor, manufacturer, supplier, or distributor, and which illustrate some portion of the Work or how it fits in relation to other parts of the Work.

1.45 Substantial Completion of the Work – The date on which the Work on the Small GESA Contractor Contract is sufficiently completed in accordance with the Contract Documents and certified by the Small GESA Contractor's Retained Professional and reviewed and accepted by the Funding Agency, or designee, so that the Project, or a part of the Project specified by the Funding Agency, can be used, occupied or operated for its intended use. In no event shall the Project be certified by the Small GESA Contractor's Retained Professional or the Funding Agency, or designee, as substantially complete until at least 90% of the physical work has been completed and accepted by the Funding Agency and is capable of beneficial occupancy.

1.46 Superintendent – The Small GESA Contractor's full time construction representative at the project site. The Superintendent is responsible for continuous field supervision, coordination and completion of the construction work, and, unless another person is designated in writing by the Small GESA Contractor to the Funding Agency, for the

prevention of accidents. The Superintendent shall have full authority to act on behalf of the Small GESA Contractor in relation to construction activities and associated work.

1.47 Supplier – An entity or individual who receives compensation from the Small GESA Contractor, pursuant to the terms of a purchase order or invoice to provide any material and/or any equipment to the Project. Nothing contained in the Contract Documents between the Funding Agency and the Small GESA Contractor creates any contractual relationship between the Funding Agency and any supplier. A supplier lacks the privity of contract to the Funding Agency and every supplier agrees that it neither acquires nor intends to acquire any rights against the Funding Agency on a third party beneficiary theory or any other theory.

A. STOCKING SUPPLIER – a firm that owns, operates or maintains a store, warehouse, or other establishment in which the materials, supplies, articles or equipment of the general character described by the specifications and required under the contract are bought, kept in stock, and regularly sold or leased to the public in the usual course of business.

B. NON-STOCKING SUPPLIER – a supplier that does not carry inventory but orders materials from a manufacturer, manufacturer's representative or a stocking supplier. In order for a non-stocking supplier to received credit as a SDB, it must perform a useful business function by engaging in meaningful work (i.e., negotiating price and determining quality and quantity and ordering materials and paying for the materials.

1.48 Uniform Construction Code (UCC) – Pennsylvania's Uniform Construction Code (35 P.S. §7210.101 *et seq*.) that grants the Pennsylvania Department of Labor & Industry sole jurisdiction over state-owned buildings. A general description and important links can be found at **http://www.dli.pa.gov** and clicking on the Building Codes Quick Link. The Small GESA Contractor is responsible for compliance as set forth in the UCC and these General Conditions.

1.49 Work – All services and labor necessary to design, implement/construct, and test the ECMs set forth in the Contract Documents. This term also includes all material and equipment incorporated or to be incorporated into such construction.

ARTICLE 2

EXECUTION, CORRELATION, INTENT AND INTERPRETATIONS

2.1 Contract Execution. The Funding Agency and the Small GESA Contractor shall sign the Small GESA Contract and any amendments to the Small GESA Contract. All drawings created during the design portion of a specific project shall be sealed as appropriate by the Small GESA Contractor's Retained Professional. Any Licensed Consultant(s) of the Small GESA Contractor's Retained Professional shall as appropriate sign and seal for their part of the Work. No oral contract or conversation with any officer, agent or personnel of The Funding Agency or the Funding Agency either before or after the execution of the Small GESA Contractor Contract shall affect or modify any of the terms or obligations herein contained.

2.2 Contract Interpretation.

a. The Contract Documents are complementary, and what is required by any one of the Contract Documents is binding as if required by all. The intention of the Contract Documents is to include all labor, materials, equipment and other items or conditions necessary for the proper design, construction and testing of the work for its intended use. The omission of words or phrases for brevity of the Contract Documents, the inadvertent omission of words or phrases or obvious typographical or written errors shall not nullify the Funding Agency's interpretations (or designee's interpretation) so long as that interpretation is reasonably inferable from the Contract Documents as a whole. Except as noted otherwise, references to standard specifications or publications or associations, bureaus, or organizations shall mean that latest edition or revision of the referenced standard specification or publication as of the issuance date of the RFP. Words which have well-known technical or trade meanings are used in this contract in accordance with such recognized meanings.

b. In the event of a conflict in the Contract Documents, the Small GESA Contractor shall notify the Retained Professional and the Funding Agency within the time frame stated below. The Retained Professional or the Funding Agency as appropriate) shall interpret the Contract Documents using the following priorities:

1) Change Orders shall govern over all Contract Documents and subsequent Change Orders shall govern over prior Change Orders only to the extent modified.
2) The Small GESA Contract.
3) The Small GESA General Conditions.
4) Bulletins or addenda and subsequent addenda shall govern over prior addenda only to the extent modified.
5) The RFP shall govern over Design Documents.
6) The Administrative Procedures.
7) If there is a conflict regarding quantities or quality of products in the Contract Documents, the higher quantity or quality shall be delivered.
8) If there is a conflict between the contract drawings and the specifications, the specifications shall prevail.
9) If there is a conflict regarding quantities or quality of products in the Contract Documents, seek guidance from the Funding Agency and/or use the priorities above to determine the appropriate quantity or quality.
10) Where Reference and/or Prototype documents are provided, the Small GESA RFP documents shall prevail with regard to intent and administrative provisions even though reference and/or prototype documents may be in more detail. Where a conflict prevents clarity in this regard the Small GESA Contractor shall assume the most costly in developing the Cost Submission and shall seek guidance from the Funding Agency prior to finalizing the design.

2.3 **Contract Errors or Conflicts.** If the Small GESA Contractor, in the course of design and construction, finds any conflict, error or discrepancy on or among the Contract Documents, such conflict, error or discrepancy shall be immediately referred to the Small GESA Contractor's Retained Professional in writing, with a copy of each such referral to be forwarded to the Funding Agency. If the matter concerns the Design Documents only, the Small GESA Contractor's Retained Professional must review the matter and issue an interpretation to the Small GESA Contractor in writing within seven (7) days after receipt of the Small GESA Contractor's written request, with a copy of each such interpretation to be forwarded to the Funding Agency for acceptance. If the matter concerns the RFP documents, the Funding Agency shall review the matter and issue an interpretation to the Small GESA Contractor in writing within seven (7) days after receipt of the Small GESA Contractor's written request, with a copy to the Retained Professional.

2.4 **Ownership and Copies of Contract Documents.** Unless otherwise provided in the Contract Documents, the Small GESA Contractor's Retained Professional will furnish three (3) complete sets in the Funding Agency accepted electronic format and media of drawings and specifications to the Funding Agency at the time they are issued for construction of the project. These three sets of drawings and specifications shall be in addition to any drawings and specifications submitted as preliminary design documents. If the Funding Agency requires additional sets for the Funding Agency's use during the project, the Funding Agency shall pay for the cost of obtaining additional specifications and drawings. All drawings, specifications and copies thereof are and shall remain the property of the Funding Agency.

ARTICLE 3

SMALL GESA CONTRACTOR'S RETAINED PROFESSIONAL'S RESPONSIBILITIES AND SERVICES

3.1 **Relationship between The Funding Agency, Small GESA Contractor and Retained Professional.** The Retained Professional shall be under contract to the Small GESA Contractor. As such, the Small GESA Contractor has ultimate responsibility to the Funding Agency for the design and/or coordination of designs if multiple Retained Professionals are utilized for different portions of the Work. The Retained Professional is responsible to the Small GESA Contractor and only the Small GESA Contractor may give instructions which bind the Retained Professional. Although the Funding Agency will obtain a copy of the fully executed contract between the Small GESA Contractor and the Retained Professional, the Funding Agency will not assume any privity or liability for the performance of the Small GESA Contractor/Retained Professional contract.

3.2 **Basic Services.** The Retained Professional's Basic Services consist of design of a specific Small GESA Project described in the Small GESA Contract. The Basic Services include coordination of all architectural, structural, mechanical, plumbing and electrical engineering, and landscape architectural design and all other professional services and stated construction phase services required for the specific project. Where the Small GESA Contractor retains separate professionals to carry out the Work of their respective disciplines, the provisions of this Article apply equally to each. The Retained

Professional shall perform its services in accordance with the Project Procedures Manual.

3.3 Professional Liability Insurance.

a. The Retained Professional and any consultants of the Retained Professional which are required to provide sealed documents shall secure and maintain Professional Liability Insurance as specified in these General Conditions.

b. If the Retained Professional or any consultant is a Joint Venture, one Retained Professional Liability Insurance policy covering the Joint Venture, or separate policies covering the individual joint venturers may be furnished. If separate policies covering the individual joint venturers are furnished, each policy must provide the minimum coverage for each occurrence as called for in the RFP and must together be equal to at least the aggregate amounts.

c. Alternately, the Retained Professional may be covered under the Small GESA Contractor policies as provided for in these General Conditions. The Small GESA Contractor is ultimately responsible for the Project design and any errors, omissions or other acts covered by professional liability insurance and shall ensure that the Small GESA Contractor and the Retained Professional are adequately and appropriately covered by insurance.

3.4 Responsibility. The Retained Professional is responsible for the compliance of the Design Documents with all applicable permits, laws, regulations and ordinances of all commissions, agencies and governments, federal, state and local, insofar as they are applicable to, and have jurisdiction over the Project. The Retained Professional shall make all required submittals to, and shall obtain all required approvals from, the applicable agency in a timely manner so as not to cause delays to the Project.

3.5 Cooperation with Local Bodies. During the design of a Small GESA Project, the Retained Professional shall keep the local government informed about the Project and comply with any applicable requirements of local zoning, planning and supervisory bodies. If any of these requirements vary with the RFP and substantially increase the cost of the Project, or if any required approvals are withheld by the local bodies, the Retained Professional shall immediately notify both the Small GESA Contractor and the Funding Agency in writing of the issue.

3.6 Interpretation of Documents. The Small GESA Contractor's Retained Professional is the initial interpreter of the requirements of the Design Documents. The Small GESA Contractor's Retained Professional will, within seven (7) days after receipt of a written request, render in writing such interpretation and shall copy the Funding Agency on all such correspondence rendering an interpretation of the contract documents. All interpretations by the Small GESA Contractor's Retained Professional shall be consistent with the Contract Documents.

3.7 Coordination with Existing Facilities and Utilities. The Retained Professional and consultants shall consult with the Funding Agency to obtain all necessary data for coordinating a specific project with existing structures and all support utilities. The Retained Professional shall confirm in writing to and Funding Agency, through the Small GESA Contractor, all data furnished to the Retained Professional in this connection and the data's adequacy. The Retained Professional shall verify the information provided in

the Contract Documents regarding the various public services and utility companies, such as gas, electric, water, steam, waste water treatment/disposal, surface water disposal, telephone and communication, the commitment of their capability to service this Project, and shall submit same to the Funding Agency as part of its design submissions. The Retained Professional shall bring to the Funding Agency's immediate attention any reservations to this commitment by the utility companies, such as in-house engineering and construction costs and any inconsistencies regarding the locations and characteristics of such utilities between the actual field conditions and those indicated.

3.8 **Standards of Quality.** If the Small GESA Contractor wishes to utilize material or equipment that is of the same type as specified, but manufactured by others than those named in the specifications of either the RFP, bridging or prototype documents (if any), the Small GESA Contractor shall certify at the time of submittals that the material or the equipment is equal in quality, performance and appearance to that mentioned in the specifications. No substitutions or "equal" submissions can be made to proprietary items.

3.9 **Non-Conforming Work.** If corrective work or drawings are required from the Small GESA Contractor's Retained Professional due to defective or non-conforming work by the Small GESA Contractor, the cost for the Retained Professional's additional services shall be borne by the Small GESA Contractor.

3.10 **"Record Drawings" for Department of Labor & Industry.** The Small GESA Contractor is responsible for submitting to the Department of Labor and Industry a revised set of Design Documents for approval for changes made during construction that are not in accordance with the Design Documents. This revised set of construction shall be referred to as "L&I Record Drawings" and shall be submitted in accordance with L&I UCC requirements.

3.11 **"As-Built Record Drawings" for the Funding Agency.** No later than at Final Inspection of the Project, the Retained Professional shall submit As-Built Record Documents showing all changes or variations from the original contract drawings and specifications made during the course of construction. These drawings shall indicate all items uncovered during the Work and show details of the work as actually built, including but not limited to horizontal and vertical dimensional references of all concealed pipe, conduit and other lines and equipment and similar items. Recorded changes shall be obtained from clearly marked field prints provided by the construction contractors and field office and from change orders. These As-Built Record Drawings shall be on archival paper for drawings and documents, and shall include three complete, identical electronic copies formatted and on media acceptable to the Funding Agency, shall be identified as "As-Built Record Documents", shall be delivered to, and shall become the sole property of, the Funding Agency.

3.12 **Operations and Maintenance Data.** Prior to Final Inspection of the Project, the Retained Professional shall collect from the Small GESA Contractor, as provided in the Construction Documents, a final draft of the Operation and Maintenance Instructions Manuals prepared by the Small GESA Contractor and its various subcontractors. The Retained Professional shall review the draft for completeness including all pertinent shop drawings, diagrams, catalog data, manufacturers operating instructions, manufacturer's or supplier's maintenance instructions, certificates, warranties, guarantees and other pertinent operating and maintenance data. The Retained Professional shall indicate its approval of the draft with correction if necessary or request a revised draft and

resubmission of the manual for the Retained Professional's review and approval. Upon receipt of the two (2) final bound manuals from the Small GESA Contractor, the Retained Professional shall review them for accuracy and content, and when they meet with its approval, the Retained Professional shall forward to the Funding Agency the two (2) copies and two (2) identical, additional copies in electronic format(s) and on media acceptable to the Funding Agency prior Final Inspection.

3.13 **Replacement of Small GESA Contractor's Retained Professional.** If the Small GESA Contractor terminates the Retained Professional, the Small GESA Contractor may hire a new Retained Professional whose status under the Contract Documents shall be that of the former Small GESA Contractor's Retained Professional. The decision of whether or not to terminate the Retained Professional rests solely with the Small GESA Contractor. The Funding Agency expressly reserves the right to evaluate and either accept or reject the Small GESA Contractor's replacement Professional. The Small GESA Contractor's decision to replace the Small GESA Contractor's retained Professional shall not give rise to any claim for additional costs or time to complete the Small GESA Contract.

3.14 **Final Design Submission.** The Retained Professional shall schedule and coordinate its work so the Funding Agency and the Energy Engineer have adequate time and opportunity to review and accept the Final Design submission as discussed in the Small GESA Project Design Manual. The Retained Professional must obtain acceptance in a timely manner to permit the Work to continue on schedule.

3.15 **Final Inspection.** When the Small GESA Contractor submits in writing to the Funding Agency a request for a Final Inspection and an application for final release of payment, the Final Inspection will be conducted within 30 days of the receipt of the request. If the Funding Agency and the Small GESA Contractor's Retained Professional concur that the Work is substantially complete, the Small GESA Contractor's Retained Professional will issue a Certificate of Final Completion and a final certificate for payment. In such case, the Retained Professional shall produce and deliver to the Small GESA Contractor, at Final Inspection, a list of uncompleted items and a reasonable cost of completion (Punch List). The Punch List shall list in detail each uncompleted item and a reasonable cost of completion for each Punch List item. The Funding Agency shall be given the opportunity to review and accept the contents of the Punch List. The Retained Professional will participate in any subsequent inspection to determine if the items are completed.

3.16 **Commonwealth Owns Documents.** All contract drawings and specifications, special requirements and all other data compiled by the Retained Professional or the consultants for this Project, become the sole property of the Commonwealth, and may be used by it for any purpose desired by the Funding Agency without compensation. The Small GESA Contractor, the Retained Professional and all consultants convey to the Commonwealth copyright of the design and all design documents produced under this contract. The Small GESA Contractor and Retained Professional and consultants are not liable for any reuse of these documents by the Commonwealth.

ARTICLE 4

THE COMMONWEALTH

4.1 **Easements and Rights of Access.** If the Funding Agency deems it necessary, they, or their designee, will secure the appropriate interests in land, including but not limited to permanent and temporary easements. If such easements are insufficient for the erection of temporary construction facilities and storage of materials, the Funding Agency or designee shall provide easements and space as the Funding Agency deems necessary.

4.2 **The Funding Agency Not Responsible for Small GESA Contractor Means/Methods/Techniques.** Neither the Funding Agency nor designee bears any responsibility for the construction means, methods, techniques, sequences or procedures, or for safety precautions and programs in connection with the Work since these are solely the Small GESA Contractor's responsibilities.

4.3 **The Funding Agency Not Responsible for Small GESA Contractor Acts or Omissions**. Neither the Funding Agency nor designee bears any responsibility for the acts or omissions of the Small GESA Contractor, or any of its subcontractors or any of their agents or employees, or any other persons performing any Work for the Small GESA Contractor.

4.4 **Commonwealth's Access to the Work.** The Funding Agency will, at all times, be provided full access to any area they deem necessary. The Small GESA Contractor shall provide the facilities for such access so the Funding Agency may perform its functions under the Contract Documents.

4.5 **Rejection of Work.** The Funding Agency may reject Work that is not in conformance with the Design Documents or direct the Small GESA Contractor to stop any portion of the Work, or to require special inspection or testing of the Work whenever such action is necessary or advisable to insure the proper implementation of the Contract Documents. The Funding Agency's failure to reject Work does not relieve the Small GESA Contractor from performing Work in accordance with the Contract Documents.

ARTICLE 5

THE SMALL GESA CONTRACTOR

5.1 **Review of Contract Documents and Site Conditions.**

a. Proposal Preparation Stage Investigation and Document Review. During the Proposal preparation stage, the Small GESA Contractor had an affirmative duty to examine the nature and location of the Work, the soil and rock conditions if applicable and the character, quality and quantity of the materials that are required for the Work. The Small GESA Contractor may rely upon the geotechnical information, if any, available for review on the Project. The Small GESA Contractor also had a duty to study and compare the utility bills and any other documents supplied by the Funding Agency. If the Small GESA Contractor did not request a clarification during the Proposal preparation stage with regard to the site conditions or discrepancies within the Contract Documents, the Small GESA Contractor may

not submit a claim after award of the contract alleging insufficient data, ambiguity in the documents or incorrectly assumed conditions.

b. Post-Award Investigation and Document Review.

1) Site Conditions – If, after award, the Small GESA Contractor finds any material change in the condition of the site, the Small GESA Contractor must immediately inform the Funding Agency in writing of the change site condition. The Funding Agency will address the alleged material change in the site conditions and notify the Small GESA Contractor in writing of such review.

2) Contract Documents – If, after award, the Small GESA Contractor contends that there are discrepancies or errors in the documents issued with the RFP, the Small GESA Contractor must submit the contention as a written Request for Information to the Funding Agency within 10 days of discovering the alleged discrepancy.

i. If the Funding Agency determines that the alleged discrepancy/error constitutes a patent condition that should have been discovered during the proposal preparation stage (see 5.1a), no additional time or compensation will be granted to the Small GESA Contractor.

ii. If the Funding Agency determines the alleged discrepancy constitutes a latent condition that would not be reasonably susceptible of being discovered during the proposal preparation stage, the Funding Agency will consider granting additional time and/or compensation to the Small GESA Contractor, depending upon the specific nature of the condition.

5.2 **Supervision and Construction Procedures.** The Small GESA Contractor is solely responsible for all construction means, methods, techniques, procedures, and safety programs in connection with the Work on any project. Furthermore, the Small GESA Contractor shall perform the Work in accordance with applicable industry standards for performance, service life, deterioration and wear; in a good and workmanlike manner, and in accordance with manufacturer's recommendations and requirements; in compliance with regulatory approvals and applicable laws, regulations, and ordinances; and in accordance with the Contract Documents.

5.3 **Coordination of Subcontractors.** The Small GESA Contractor shall be responsible for all acts of its subcontractors utilized under the Small GESA Contractor Contract and for their compliance with all terms and provisions of the Small GESA Contract applicable to their performance. The Small GESA Contractor's subcontractors shall not be removed from the Project without the Funding Agency's review and acceptance. The Small GESA Contractor will not receive an extension of time or additional compensation for the removal of any unacceptable subcontractors. The failure of any subcontractor to complete its portion of the Work in a satisfactory manner within the proper time will not relieve the Small GESA Contractor of responsibility for the proper and satisfactory execution and completion of the entire Work.

5.4 **Use of Site.** The Small GESA Contractor shall confine its apparatus, the storage of equipment, tools and materials and its operations and workers at the site to the limits of contract as permitted by law, ordinances, permits and the Contract Documents. The

Small GESA Contractor shall not unreasonably encumber the site with any materials or equipment.

5.5 Job Conferences. Job Conferences may be held as often as required, but shall be held at least bi-weekly and must be attended by the Small GESA Contractor. The names of the authorized representative of the Small GESA Contractor shall be submitted to the Funding Agency at the Orientation Conference. The Funding Agency will attend the Job Conference. The Funding Agency will advise the Small GESA Contractor of the dates and times of the Job Conferences. Failure to attend a Job Conference or any other mandatory meeting (unless excused by the Funding Agency) constitutes a breach of the Small GESA Contractor contract.

5.6 Drawings and Specifications at the Site.

a. The Small GESA Contractor shall maintain in good order at the site, for the Funding Agency and the Small GESA Contractor's Retained Professional, one record copy of all drawings, specifications, bulletins, addenda, contract modifications, change orders and requests for information. The Small GESA Contractor shall include the value of the as-built drawings as a cost item, which shall be subject to the acceptance of the Funding Agency.

b. The Small GESA Contractor shall also maintain at the site one record copy of approved shop drawings, catalog data, operating and maintenance instructions, certificates, warranties, samples and similar submittals. These shall be available to the Funding Agency and Small GESA Contractor's Retained Professional at all times, and they shall be delivered to the Funding Agency as part of the Operation and Maintenance Instruction Manuals.

5.7. Responsibility for those Performing Work. The Small GESA Contractor is responsible for the acts and/or omissions of all of its employees and all subcontractors, their agents and employees, and all other persons performing any of the Work. The Small GESA Contractor shall at all times enforce good order and conduct among its employees and subcontractors. Every employee and subcontractor shall be skilled in the performance of work assigned to that employee or subcontractor. All Small GESA Contractor personnel shall be respectful of all Commonwealth employees and the general public. Any incidents of disrespect, verbal abuse, threatening statements, unwelcome comments, unwelcome interaction or any form of harassment from any Small GESA Contractor personnel toward any Commonwealth employee, or the general public is strictly prohibited. Any violation is sufficient cause for the Funding Agency to direct the Small GESA Contractor to remove such person from employment on the site. The Funding Agency will not be responsible or liable for any delays caused to the Project due to any individual being removed from the site.

5.8. Permits and Fees. Due to the UCC, all state-owned facilities fall under the jurisdiction for plan review and inspection only by the Commonwealth Department of Labor & Industry. Consequently, the Small GESA Contractor shall not obtain any building permits from local authorities. The Small GESA Contractor shall, however, continue to obtain and pay for all other necessary permits, licenses, and certificates required by law for the proper execution and completion of its work. The Small GESA Contractor shall furnish proof of payment for all such items, or proof that no such items are required. No change order will be issued for these costs since they are to be included in the submitted

Energy Audit Report. Sewer and Water Tap-In Fees shall be reimbursed to the Small GESA Contractor by Change Order without mark-up.

5.9. PCCA/UCC Inspections and Compliance with Applicable Laws, etc.

a. The Small GESA Contractor shall give all notices and comply with all applicable laws, ordinances, regulations, rules and orders of any public authority bearing on the performance of the work. If the Small GESA Contractor observes that any of the Contract Documents are at variance therewith in any respect, it shall promptly notify the Small GESA Contractor's Retained Professional and the Funding Agency in writing. Any necessary modifications will be made by the Small GESA Contractor's Retained Professional at no cost to the Funding Agency unless applicable laws, ordinances, regulations, rules and/or orders are changed after the receipt of the Small GESA Contractor's Cost Submittal, If the Small GESA Contractor performs any work knowing it to be contrary to such applicable laws, ordinances, regulations, rules or orders, and without such written notice to the Small GESA Contractor's Retained Professional and the Funding Agency, the Small GESA Contractor assumes full responsibility therefore and shall bear all costs attributable thereto.

b. The Project shall be subject to the Pennsylvania Construction Code Act (PCCA) and the Uniform Construction Code. The Small GESA Contractor shall become familiar, and is responsible for complying, with all aspects of the PCCA and the UCC, including but not limited to the site inspection procedure set forth in the Funding Agency of Labor & Industry's Inspection Procedures. For purposes of inspection, the Small GESA Contractor shall be deemed "the owner" as described in the PCCA/UCC. The most recent list of inspections required by L&I can be found on L&I's website. The Small GESA Contractor must include both the dates for notification to L&I and the date of all PCCA/UCC inspections as milestones in the Project Schedule. The L&I mandated advance notice, defined for each inspection activity, shall be considered and included as lead time in the development of the Project Schedule. The Small GESA Contractor shall assume the responsibility of the permit applicant/permit holder as applicable. The Small GESA Contractor shall be responsible to contact L&I to schedule the required inspections in accordance with the inspection procedures outlined in the Building Permit. Failure to do so shall not be cause for a delay claim against the Funding Agency.

5.10. Existing Utilities.

a. The Small GESA Contractor shall comply with all notification requirements established by applicable law relative to protection of underground utilities and shall also check the location of existing utilities required to remain in place, including those overhead or underground, and take all necessary precautions to prevent injury or damage during the performance of the Work.

b. If performing excavation, the Small GESA Contractor is responsible for costs associated with locating all existing underground utilities prior to commencing excavation, including utilities that are owned and operated by the Funding Agency.

c. The Small GESA Contractor shall be responsible for the costs associated with utility interruption and repair due to any excavation if the utility location was not requested and/or proper location procedures were not performed and/or followed prior to commencing excavation.

d. If the Small GESA Contractor damages a utility, the Small GESA Contractor shall immediately notify the utility company and the Funding Agency and assume all costs of repairing or relocating the service of any utility disrupted due to excavation, or any Small GESA Contractor action, whatever the circumstance. The Funding Agency reserves the right to immediately restore the service of any utility disrupted due to actions of the Small GESA Contractor and to invoice the Small GESA Contractor for payment. Payment of invoice is due within 30 days of date of invoice.

e. Utilities and/or other service which are shown or not shown but encountered shall be protected by the Small GESA Contractor from any damage from any Work and operations of the Small GESA Contractor, unless or until they are abandoned.

5.11. Interruption of Existing Services. Whenever it becomes necessary to interrupt existing services in use by the Funding Agency, such as sewer, water, gas, steam, and electric, the Small GESA Contractor shall perform the Work during such hours as required by and in coordination with the Funding Agency, so as to complete the Work and restore all existing services with minimal interruption or disruption to the Funding Agency. The Small GESA Contractor shall continue its work on a twenty-four hour bases until the Work is completed and the services restored or at such alternate time required by the Funding Agency. Before beginning the Work, the Small GESA Contractor shall apply in writing and receive acceptance in writing from the Funding Agency to establish a time when interruption of the service will cause minimum interference with the activities of the Funding Agency. The Small GESA Contractor's request to interrupt service must be submitted to the Funding Agency at least 15 calendar days prior to the date desired for interruption.

5.12. Small GESA Contractor Performing Excavation or Demolition. If the Small GESA Contractor performs excavation or demolition work, the Small GESA Contractor shall fully comply with the requirements of Underground Utility Line Protection Law, Act 287-74, as amended, approved December 10, 1974, relative to protection of underground utilities.

5.13. Cleaning the Project. The Small GESA Contractor shall be responsible for the cost of cleaning and removing from the site its identifiable debris, including but not limited to, bulky debris, packaging containers, unused materials and equipment and materials not suitable for disposal by standard commercial procedures, such as masonry, concrete materials, crates and combustible items. Good housekeeping shall be observed at all times, and waste, debris, and garbage shall be removed daily or placed in appropriate waste containers outside of the work place and all materials, tools and equipment shall be stored in a safe and orderly fashion.

5.14. Tests. If the Contract Documents, laws, ordinances, rules, regulations or orders of any public authority having jurisdiction that are in effect at the time of the effective date of a Small GESA Contract require any work to be inspected, tested or approved, the Small GESA Contractor shall give the Funding Agency timely notice of its readiness and of the date arranged, so the Funding Agency may observe such inspection, testing or approval. The Small GESA Contractor shall bear all costs of such inspections, tests and approvals, unless otherwise provided.

5.15. Certificates of Inspection. The Small GESA Contractor is responsible to secure any required certificates of inspection, testing or approval. Such required certificates of inspection, testing and approval include those required by the PCCA/UCC. The Small

GESA Contractor shall be delivered to the Small GESA Contractor's Retained Professional and the Funding Agency.

5.16. Observation of Testing. The Small GESA Contractor's Retained Professional and, where required by the PCCA/UCC, L&I, shall observe the inspections, tests or approvals and it shall be the Small GESA Contractor's responsibility to serve sufficient notice to the Small GESA Contractor's Retained Professional and, where required by PCCA/UCC, to L&I of such inspections, tests or approvals to enable the timely inspection of the Work without impacting the Project Schedule.

5.17. Effect of Tests. Neither the observations of the Small GESA Contractor's Retained Professional nor inspections, tests or approvals by persons other than the Small GESA Contractor shall relieve the Small GESA Contractor from its obligations to perform the Work in accordance with Contract Documents.

5.18. Environmental Quality Control. The Small GESA Contractor and its Subcontractors shall perform their work in a manner that minimizes the possibility of air, water, land and noise pollution.

5.19. Solid Waste. Storage, collection, transportation and final disposal of solid waste shall be in accordance with the Solid Waste Management Act regulations and standards of the Department of Environmental Protection (DEP). Immediately upon the effective date of a Small GESA Contract, the Small GESA Contractor shall obtain, at its cost, the necessary permit(s) from DEP and conduct waste disposal to sites approved under this permit. A copy of this permit must be submitted to the Funding Agency before commencing waste disposal. A record of receipt of the waste material that is signed by the waste company certified to receive the waste material acknowledging receipt and proper disposal must be provided to the Funding Agency.

5.20. Compliance with Statutes and Regulations Administered by DEP. The Small GESA Contractor shall comply with all statutes and regulations of the Commonwealth of Pennsylvania concerning environmental quality control administered by DEP. The Small GESA Contractor is responsible for any violations and shall secure all required permits. The Small GESA Contractor's Retained Professional, if required, shall obtain an erosion control permit.

5.21. Suspension from Metal Roof Decks – New and Existing. Ductwork, conduit, ceiling systems, lighting fixtures or any other miscellaneous equipment shall not be suspended from metal roof decks. These components shall only be suspended from the structural members or a suspension system supported by the structural members. All concentrated loads must be reviewed and approved by the Small GESA Contractor's Retained Professional.

5.22. Insulation. All insulation incorporated into the Project **must** contain the minimum percentage of postconsumer recovered paper or recovered material as shown below for the applicable product:

Material Type	Percent by Weight
Cellulose loose – fill and spray on	75% postconsumer recovered paper
Perlite Composite Board	23% postconsumer recovered paper
Plastic rigid foam, polyisocyanurate/polyurethane	
1.1 Rigid Foam	9% recovered material

Material Type	Percent by Weight
1.2 Foam-in-Place	5% recovered material
1.3 Glass Rigid Foam	6% recovered material
1.4 Phenolic Rigid Foam	5% recovered material
1.5 Rock Wool	50% recovered material

5.23. Enforcement of Insulation Requirement. The Small GESA Contractor may be required to provide the Funding Agency with documentary evidence that the insulation provided for the Project was produced with the required minimum percentage of postconsumer recovered paper or recovered material.

5.24. Landscaping Recycled Products Content. All landscaping products included in the final product and sold to the Commonwealth **MUST** contain the minimum percentage of postconsumer and recovered material content as shown below for the applicable products:

Landscaping Product	Recovered Material Content
Hydraulic Mulch: Paper Wood/Paper	 100% (post-consumer) 100% total
Compost Made From Yard Trimmings and/or Food Waste	Purchase or use of compost made from yard trimmings, applications such as landscaping, seeding of grass or other plants, as nutritious mulch under trees and shrubs, and in soil erosion control reclamation. The Funding Agency further recommends implementing a composting system for these materials when agencies have an adequate volume and sufficient space.
Garden Hose: 1.6 Rubber and/or Plastic Soaker Hose: 1.7 Rubber and/or Plastic	 60% (post-consumer) 60% (post-consumer)
Lawn and Garden Edging 1.8 Rubber and/or Plastic	 30% post-consumer/30-100% total

The Small GESA Contractor shall submit certification that the landscaping product(s) which the Small GESA Contractor used contains the required minimum percentage of post-consumer and recovered material content as shown in this chart. In addition, a Manufacturer's Certification must be completed and signed by the manufacturer before payment will be made to the Small GESA Contractor for the delivered items. The Manufacturer's Certification must indicate, at a minimum, the manufacturer's federal id number, this project number, and the following paragraph:

I, the undersigned officer of the manufacturer do hereby certify that I am authorized to provide this certification on behalf of the manufacturer and that the type of construction product(s) listed above which my company furnished to the Small GESA Contractor on this project contained not less than _____% post-consumer materials and _____%

recovered materials as those terms are defined in these General Conditions. I understand that this document is subject to the provisions of the Unsworn Falsification to Authorities Act, 18 P.S. §4904. The Funding Agency shall have no obligation to pay for item(s) until a properly completed and signed Manufacturer's Certification is submitted.

5.25. Construction Products Recycled Content. All construction products offered by the Contractor, or included in the final product offered by the Contractor and sold to the Commonwealth must contain the minimum percentage of postconsumer and recovered material content as shown in the chart below for the applicable products.

Construction Products	Material	% of Post-Consumer Materials	% of Total Recovered Materials
Structural Fiberboard	Recovered Materials	-	80
Laminated Paperboard	Post-consumer Paper	100	-
Rock Wool Insulation	Slag	-	75
Fiberglass Insulation	Glass Cullet	-	20
Cellulose Insulation (loose-fill and spray-on)	Post-consumer Paper	75	-
Perlite Composite Board Insulation	Post-consumer Paper	23	-
Plastic Rigid Foam, Polyisocyanurate/ Polyurethane: Rigid Foam Insulation	Recovered Material	-	9
Foam-in-Place Insulation	Recovered Material	-	5
Glass Fiber Reinforced Insulation	Recovered Material	-	6
Phenolic Rigid Foam Insulation	Recovered Material	-	5
Floor Tiles (heavy duty/commercial use)	Rubber Plastic	90 -	- 90
Patio Blocks	Rubber or Rubber Blends Plastic or Plastic Blends	90 -	- 90
Polyester Carpet Fiber Face	Polyethylene terephthalate (PET) resin	25	-
Latex Paint: 1.9 Consolidated [1] 1.10 Reprocessed [2] White, Off-White, Pastel Colors Grey, Brown, Earthtones, and Other Dark Colors	 Recovered Material Recovered Material Recovered Material	 100 20 50	 - - -
Shower and Restroom Dividers/Partitions:	Plastic Steel [4]	20 16 67	- 9 33
Carpet Cushion: Bonded Polyurethane Jute Synthetic Fibers Rubber	 Old Carpet Cushion Burlap Carpet Fabrication Scrap Tire Rubber	 15 40 - 60	 - - 100 -
Railroad Grade Crossing Surfaces 1.11 Concrete 1.12 Rubber [3]	 Coal Fly Ash Tire Rubber	 - -	 15 85

[1] Consolidated latex paint used for covering graffiti, where color and consistency of performance are not primary concerns.
[2] Reprocessed latex paint used for interior and exterior architectural applications such as wallboard, ceiling, and trim; gutterboards; and concrete, stucco, masonry, wood, and metal surfaces.

See next page for continuation of footnotes

[3]The recommended recovered materials content for rubber railroad grade crossing surfaces are based on the weight of the raw materials, exclusive of any additives such as binders or additives

Construction Products	Material	% of Post-Consumer Materials	% of Total Recovered Materials
1.13 Steel [4]	Steel	16 67	9 33

The Small GESA Contractor shall submit certification that the landscaping product(s) which the Small GESA Contractor used contains the required minimum percentage of post-consumer and recovered material content as shown in this chart. In addition, a Manufacturer's Certification must be completed and signed by the manufacturer before payment will be made to the Small GESA Contractor for the delivered items. The Manufacturer's Certification must indicate, at a minimum, the manufacturer's federal id number, this project number, and the following paragraph:

I, the undersigned officer of the manufacturer do hereby certify that I am authorized to provide this certification on behalf of the manufacturer and that the type of construction product(s) listed above which my company furnished to the Small GESA Contractor on this project contained not less than _____% post-consumer materials and _____% recovered materials as those terms are defined in these General Conditions. I understand that this document is subject to the provisions of the Unsworn Falsification to Authorities Act, 18 P.S. §4904. The Funding Agency shall have no obligation to pay for item(s) until a properly completed and signed Manufacturer's Certification is submitted.

5.26. Storage. The Small GESA Contractor shall provide, at its cost, in a location directed by the Funding Agency, a suitable, substantially watertight storage shed in which it shall store all materials that might be damaged by the weather. A mobile trailer is acceptable. The enclosure shall be situated on site as directed by the Funding Agency. All storage enclosures shall have floors raised at least six (6) inches above the ground on heavy joists or sleepers. Storage sheds shall have sufficient natural ventilation to preclude condensation. The Small GESA Contractor shall maintain the storage shed at its cost and shall remove the shed(s) when directed by the Funding Agency. The Small GESA Contractor shall not store any materials in any existing building or beyond the contract limits as defined by the drawings without prior written authorization from the Funding Agency.

5.27. Operation and Maintenance Instruction Manuals. The Small GESA Contractor shall, for its scope of work, carefully compile during the progress of the Work indexed Operation and Maintenance Manuals to include methods of care and cleaning of all types of visible surface materials, both interior and exterior, and descriptions of all systems and equipment and methods of operations thereof. Descriptions shall give pertinent diagrams, identifying charts, color coding, connections, lubricating instructions, and single line and detailed wiring diagrams, using manufacturers' printed information where possible. Where manufacturers' printed information is not available, the Small GESA Contractor shall obtain written instructions prepared by subcontractors and sub-subcontractors. The Small GESA Contractor shall include names, addresses and phone numbers of all subcontractors and sub-subcontractors, and of service firms of each mechanical item, for the Funding Agency' use after expiration of the guarantee period.

[4] The recommended recovered materials content levels for steel in this table reflect the fact that the designated items can be made from steel manufactured from either a Basic Oxygen Furnace (BOF) or an Electric Arc Furnace (EAF). Steel from the BOF process contains 25-30% total recovered materials, of which 16% is post-consumer steel. Steel from the EAF process contains a total of 100% recovered steel, of which 67% is post-consumer.

Prior to Final Inspection, the Small GESA Contractor shall submit a final draft of the manual in a loose-leaf binder for approval by the Small GESA Contractor's Retained Professional and the Funding Agency. After approval and before final payment, the Small GESA Contractor shall furnish two (2) corrected, indexed, bound copies and one (1) electronic copy in the Funding Agency accepted formats and media to the Funding Agency for issuance to the Funding Agency no later than Final Inspection.

5.28. As-Built Record Drawings. No later than Final Inspection, the Small GESA Contractor shall prepare and deliver to the Funding Agency through its Retained Professional a complete set of contract prints, corrected with suitable markings to show all changes or variations from the original contract, including all items uncovered during the Work and showing the details of the Work as actually built, including but not limited to horizontal and vertical dimensional references of all concealed pipe, conduit and other lines and equipment.

5.29. Warranty and Guarantee. In addition to the Contract Bond, the Small GESA Contractor shall unconditionally warrant and guarantee equipment, materials and workmanship against defects arising from faulty equipment, faulty materials, faulty workmanship or negligence for a period of twelve (12) months following the date of Final Inspection of the Work or beneficial occupancy (whichever occurs first) unless other warranties found within the Contract Documents specify or indicate longer periods. The Small GESA Contractor shall replace such defective equipment, materials or workmanship without cost to the Funding Agency. The Small GESA Contractor warrants that such replacement equipment, material or workmanship furnished under this provision shall be furnished in conformance with the Contract Documents for an additional twelve (12) months from the completion of the replacement work. The Small GESA Contractor shall warrant that such equipment, material or workmanship furnished under this Small GESA Contractor shall be furnished in conformance with the Contract Documents. All Work not conforming to these standards may be considered non-conforming.

5.30. Taxes. The Small GESA Contractor shall pay all sales, consumer, use and other similar taxes required by law. The Small GESA Contractor shall be familiar with and take full advantage of all sales tax exemptions allowed by the Pennsylvania Department of Revenue. The Small GESA Contractor has an affirmative duty to seek a refund or reimbursement of sales tax from Department of Revenue for costs that were included in the Contract. Once those savings are received by the Small GESA Contractor, they shall be transferred back to the Funding Agency through a credit change order(s). Additional information is available at: http://www.revenue.pa.gov/portal/server.pt/community/revenue_home/10648 and at: http://www.revenue.pa.gov/portal/server.pt/community/sales___use_tax/14702. Credit changes orders for such tax refunds or reimbursements shall be equal to the actual tax refund or reimbursement amount(s) less ten percent (10%) for administrative costs.

5.31. Offset of Amounts Due to Commonwealth. The Small GESA Contractor, by execution of the Contract, certifies that it has no outstanding tax liability to Pennsylvania; authorizes the Department of Revenue to release information related to its tax liability to the Funding Agency; and authorizes the Commonwealth to offset the amount of any state tax or Small GESA Contractor liability owed to the Commonwealth by the Small GESA Contractor or its affiliates and subsidiaries, as well as any other amount due to the Commonwealth from the Small GESA Contractor not being contested on appeal by the Small GESA Contractor, against any payments due the Small GESA Contractor

under this or any other contract with the Commonwealth. The certification of no outstanding tax liability is a material representation of fact, which the Funding Agency relies upon in entering into the Contract. If it is later determined that the Small GESA Contractor knowingly rendered an erroneous certification, the Funding Agency may find the Small GESA Contractor in default and terminate the Contract. Such erroneous certification may also be grounds for initiation of civil, criminal and/or debarment proceedings.

5.32. Nondiscrimination and Sexual Harassment. During the term of the Contract the Small GESA Contractor agrees as follows:

1. In the hiring of any employee(s) for the manufacture of supplies, performance of work, or any other activity required under the contract or any subcontract, the Contractor, each subcontractor, or any person acting on behalf of the Contractor or subcontractor shall not discriminate in violation of the *Pennsylvania Human Relations Act* (PHRA) and applicable federal laws against any citizen of this Commonwealth who is qualified and available to perform the work to which the employment relates.

2. Neither the Contractor nor any subcontractor nor any person on their behalf shall in any manner discriminate in violation of the PHRA and applicable federal laws against or intimidate any employee involved in the manufacture of supplies, the performance of work, or any other activity required under the contract.

3. The Contractor and each subcontractor shall establish and maintain a written nondiscrimination and sexual harassment policy and shall inform their employees of the policy. The policy must contain a provision that sexual harassment will not be tolerated and employees who practice it will be disciplined. Posting this Nondiscrimination/Sexual Harassment clause conspicuously in easily-accessible and well-lighted places customarily frequented by employees and at or near where the contract services are performed shall satisfy this requirement.

4. The Contractor and each subcontractor shall not discriminate in violation of PHRA and applicable federal laws against any subcontractor or supplier who is qualified to perform the work to which the contract relates.

5. The Contractor and each subcontractor represents that it is presently in compliance with and will maintain compliance with all applicable federal, state, and local laws and regulations relating to nondiscrimination and sexual harassment. The Contractor and each subcontractor further represents that it has filed a Standard Form 100 Employer Information Report ("EEO-1") with the U.S. Equal Employment Opportunity Commission ("EEOC") and shall file an annual EEO-1 report with the EEOC as required for employers subject to *Title VII* of the Civil Rights Act of 1964, as amended, that that have 100 or more employees and employers that have federal government contracts or first-tier subcontracts and have 50 or more employees. The Contractor and each subcontractor shall, upon request and within the time periods requested by the Commonwealth, furnish all necessary employment documents and records, including EEO-1 reports, and permit access to their books, records, and accounts by the contracting agency and the Bureau of Small Business Opportunities (BSBO), for purpose of ascertaining compliance with provisions of this Nondiscrimination/Sexual Harassment Clause.

6. The contractor shall include the provisions of this Nondiscrimination/Sexual Harassment Clause in every subcontract so that those provisions applicable to subcontractors will be binding upon each subcontractor.

7. The Contractor's and each subcontractor's obligations pursuant to these provisions are ongoing from and after the effective date of the contract through the termination date thereof. Accordingly, the Contractor and each subcontractor shall have an obligation to inform the Commonwealth if, at any time during the term of the contract, it becomes aware of any actions or occurrences that would result in violation of the provisions.

8. The Commonwealth may cancel or terminate the contract and all money due or to become due under the contract may be forfeited for the violation of the terms and conditions of this Nondiscrimination/Sexual Harassment Clause. In addition, the agency may proceed with debarment or suspension and may place the Contractor in the Contractor Responsibility File.

ARTICLE 6

SUBCONTRACTORS

6.1 **Small GESA Contractor's Interest in Subcontractor**. Pursuant to the Contractor Integrity Provisions (included in the RFP), a Small GESA Contractor may not, except with the consent of the Commonwealth, have a financial interest in any other Contractor, Subcontractor, or Supplier providing services, labor, or material on this project. The Small GESA Contractor will be requested to disclose the names of all Subcontractors and/or Suppliers in which the Small GESA Contractor has a financial interest, and which will be utilized in the Project. This information must be disclosed on Form GSC-23, Request for Approval of Materials and/or Subcontractors. If the Funding Agency has a reasonable objection to the proposed Subcontractors and/or Suppliers, the Small GESA Contractor shall promptly propose another Subcontract and/or Supplier to whom the Funding Agency does not have an objection. The Funding Agency's acceptance of the Subcontractors and/or Suppliers will be deemed to be consent for the purposes of Contractor Integrity Provisions. Failure to disclose the names of such Subcontractors and/or Suppliers is sufficient grounds for termination of this Contract. Such failure may also be grounds for the initiation of civil or criminal proceedings. The Small GESA Contractor shall not replace any Subcontractor and/or Supplier previously selected and/or accepted by the Funding Agency, without prior written notification to the Funding Agency and receipt of the Funding Agency's written acceptance for such substitution.

6.2 **Subcontractor/Supplier Responsibility.** If the Small GESA Contractor enters into any subcontracts or purchase orders under this Contract with Subcontractors or Suppliers currently suspended or debarred by the Commonwealth, or who become suspended or debarred by the Commonwealth during the term of this Contract or any extensions or renewals of it, the Funding Agency may require the Small GESA Contractor to terminate such Contract.

6.3 **Small GESA Contractor Responsibility for Actions and Compliance.** The Small GESA Contractor shall be responsible for all acts of its Subcontractors and Suppliers utilized under this Contract, and for their compliance with all terms and provisions of the Contract applicable to their performance. The Small GESA Contractor shall

continuously coordinate the Work of all Subcontractors to assure proper processing and progress of the Work.

a. The Small GESA Contractor shall require each Subcontractor to comply with the following:

1) Examine the shop drawings and the Work of other subcontractors and all sections of the specifications to the extent necessary for satisfactory installation of its Work, and connection between its Work and the Work of other subcontractors; and
2) Coordinate its Work accordingly; and
3) Cooperate with other subcontractors toward timely and satisfactory completion of the Project.

b. Subcontractors proposed by the Small GESA Contractor will not be acceptable to the Funding Agency if evidence exists or arises during the Work that the Subcontractors are unable or unwilling to comply with the requirements of the Contract Documents which govern the Work of the Subcontractors involved, or if the Subcontractors have experience which is inconsistent with requirements for the Work of the Subcontractors. In the event a Subcontractor is or becomes unacceptable to the Funding Agency, the Small GESA Contractor will not be entitled to a change in the Contract Sum or Contract Duration and shall propose substitute Subcontractors for unacceptable Subcontractors.

c. The failure of any Subcontractor to complete its portion of the Work in a satisfactory manner within the proper time will not relieve the Small GESA Contractor of responsibility for the proper and satisfactory execution and completion of the entire Work.

6.4 **Acts and Omissions of Subcontractors.** The Small GESA Contractor acknowledges its full responsibility to the Funding Agency for the acts and omissions of its Subcontractors, and of the persons and firms either directly or indirectly employed by them, equally to the extent that the Small GESA Contractor is responsible for the acts and omissions of persons and firms directly or indirectly employed by it. The Small GESA Contractor acknowledges that it remains fully responsible for the proper performance of its Contract whether work is performed by the Small GESA Contractor's own forces or by Subcontractors engaged by the Small GESA Contractor.

6.5 **Subcontracts and Purchase Orders.**

a. Subcontractors:

1) All Work performed for the Small GESA Contractor by a Subcontractor shall be done pursuant to a written subcontract between the Small GESA Contractor and the Subcontractor.
2) The form of the written subcontracts may vary at the discretion of the Small GESA Contractor, but must contain the provisions noted below.
3) All subcontracts between the Small GESA Contractor and each Subcontractor **must**:
   - **i.** Be signed by both parties;
   - **ii.** Contain Provisions that:
     - A. Set forth the amount the Subcontractor is to be paid; and
     - B. Describe the scope of Work to be performed by the Subcontractor; and

C. Preserve and protect the rights of the Funding Agency and the Professional under the Contract with respect to the Work to be performed under the Subcontract, so that the subcontracting thereof will not prejudice such rights; and

D. Require that such Work be performed in accordance with the requirements of the Contract Documents; and

E. Require submission to the Small GESA Contractor of applications for payment under each Subcontract to which the Small GESA Contractor is party, in reasonable time to enable the Small GESA Contractor to apply for payment in accordance with the provisions of the Prompt Payment Act (62 Pa. C. S. §3901 *et seq*.) and the provisions of these General Conditions governing payment by the Funding Agency; and

F. Prior to commencing onsite or offsite work, require each Subcontractor to comply with the provisions of the Public Works Employment Verification Act (43 P.S. §§ 167.1 – 167.11), which requires subcontractors to utilize the Federal E-Verify program to verify the employment eligibility for every new employee hired after January 1, 2013 and to submit to the Department a Commonwealth Public Works Verification Form available on the Department's web site at www.dgs.pa.gov ; and.

G. Require each Subcontractor to include provisions in each of its subcontracts regarding the applicability of the Public Works Employment Verification Act (43 P.S. §§ 167.1 – 167.11), information regarding the use of the Federal E-Verify program, and reference to the Department's web site to obtain a downloadable copy of the Commonwealth Public Works Employment Verification Form required to be submitted to the Department.

H. Require that all claims for additional costs, extensions of time or otherwise with respect to subcontracted portions of the Work shall be submitted to the Small GESA Contractor in the manner provided in the Contract Documents for like claims by the Small GESA Contractor upon the Funding Agency; and

I. Require acknowledgement by the Subcontractor that the Subcontractor is without privity of Contract with the Funding Agency and that the Subcontractor agrees by signing the Subcontract that it neither acquires or intends to acquire any

rights against the Funding Agency on a third party beneficiary theory or any other theory; and

J. Require each Subcontractor to notify its Subcontractors, in writing, that their rights of recovery against the bond of the Small GESA Contractor for failure of payment may not be exercised unless the Small GESA Contractor is notified of the claim within ninety (90) days from the last performance of labor or provision of materials and/or equipment; and

K. Obligate each Subcontractor to specifically consent to all provisions of this Article of the General Conditions of the Contract; and

L. Contain the following certification language:
Certification: I, the undersigned officer of the Small GESA Contractor, do certify that, to the best of my knowledge, this subcontract complies with the provisions of the Subcontractor Article of the General Conditions of the Contract with the Funding Agency. I understand that by signing this document I certify that this document is subject to the provisions of the Unsworn Falsifications to Authorities (18 P.S. §4904). I acknowledge that if my company does not comply with the terms of the Subcontractor Article my firm may be subject to suspension for a period up to three (3) months and/or debarment from bidding on any Commonwealth of Pennsylvania Public Works Projects for a period of three (3) years.

4) The Small GESA Contractor agrees that failure to incorporate these terms in its Subcontracts is a material breach of the terms of the Contract Documents. The Small GESA Contractor will have five (5) days, as required by the Administrative Procedures, to provide proof in writing that such a deficiency in its subcontract documents has been remedied. Failure to provide written proof within five (5) days shall constitute grounds for default of the Small GESA Contractor by the Funding Agency.
5) The Small GESA Contractor shall submit one copy plus an electronic copy of all subcontracts for Work to be performed on the Project to the Funding Agency, or its designee, for the Project prior to the commencement of any Work by the Subcontractor.
6) The Small GESA Contractor shall also submit a copy of every subcontract with a SDB to the Bureau of Diversity, Inclusion and Small Business Opportunities.
7) The Small GESA Contractor shall submit to the Funding Agency a list of its subcontractors' personnel to be in attendance at the site or Job Conferences, their duties and responsibilities and their addresses and cell phone numbers. Once construction by a subcontractor begins at

the project site, the subcontractor shall be represented by a duly authorized and competent superintendent, whenever it is carrying out any work on the site. The subcontractor may not change its superintendent, unless it provides, in writing, justification for the change, along with the name and qualifications of the individual whom the Small GESA Contractor proposes to be the subcontract superintendent. The Funding Agency may demand that the Small GESA Contractor dismiss from the project any person subcontracted by the Small GESA Contractor whom the Funding Agency determines is incompetent or guilty of misconduct. The Funding Agency may withhold any payments, which are or may become due to the Small GESA Contractor, or the Funding Agency may suspend the work at the expense of the Small GESA Contractor, if the Small GESA Contractor fails to comply with the provisions of this paragraph.

b. Suppliers:

1) Suppliers do not have to sign Purchase Orders.
2) The Small GESA Contractor shall submit one (1) certification letter, on the Small GESA Contractor's letterhead, with language identical to that set forth in the sample letter included as part of the Administrative Procedures governing Supplier and Subcontractor approvals. This one (1) letter, which shall apply to all purchase orders, shall certify the Small GESA Contractor's compliance with the terms set forth in the letter. The language required by the Administrative Procedures to be included in the letter shall not be altered in any way.
3) The Small GESA Contractor shall submit this certification letter to the Funding Agency **prior to the delivery of any material and/or equipment by any Supplier.**
4) For every purchase order with a SDB Supplier, the Small GESA Contractor shall submit a copy of the purchase order to Bureau of Small Business Opportunities
5) The Small GESA Contractor shall identify all material and/or equipment that will be supplied by a SDB Supplier.

6.6 **No Contractual Relationship between The Funding Agency and Subcontractor.** Nothing contained in the Contract Documents creates any contractual relationship between the Funding Agency and any Subcontractor, Sub-Subcontractor or any of its authorized representatives. Nothing in the Contract Documents between the Funding Agency and the Small GESA Contractor should be construed to authorize any person not a party to the Standard Form of Contract to maintain any lawsuit involving that contract, unless otherwise provided by law.

6.7 **No Contractual Relationship between The Funding Agency and Supplier.** Nothing contained in the Contract Documents creates any contractual relationship between the Funding Agency and any Supplier or its authorized representatives. Nothing in the Contract Documents between the Funding Agency and the Small GESA Contractor should be construed to authorize any person not a party to the Standard Form of Contract to maintain any lawsuit involving that contract, unless otherwise provided by law.

6.8 **Payment of Subcontractor by Small GESA Contractor Governed By Prompt Payment Schedule.** Payments to the Subcontractor are subject to the provisions of

Section 3931 *et seq.,* Subchapter D, *"Prompt Payment Schedules"* of Title 62 Procurement. The general description set forth in the General Conditions does not relieve the Small GESA Contractor from strict compliance with the requirements of the Prompt Payment Act. Nothing described in these General Conditions is intended to impose a duty greater than that imposed by the Prompt Payment Act. In the event of any discrepancy between this language and the language of the Act, the Act controls.

6.9 **Failure of The Funding Agency to Release Progress Payment.** If the Funding Agency fails to approve release for payment of some or all of an accepted Application for Payment for any cause which is the fault of the Small GESA Contractor and not the fault of a particular Subcontractor, the Small GESA Contractor shall pay that Subcontractor, upon demand made by the Subcontractor at any time after the accepted Application for Payment should otherwise have been issued, for its Work to the extent completed, less the retained percentage.

6.10 **Percentage of Completion.** The Funding Agency may, on request, furnish to any Subcontractor, if practicable, information regarding percentages of completion certified to the Small GESA Contractor on account of work done by such Subcontractor.

6.11 **No Obligation on Part of The Funding Agency to Pay Subcontractor or Supplier.** Subcontractor or Supplier issues concerning delayed and non-payment should be addressed to the Small GESA Contractor and the Small GESA Contractor's payment bond surety. The Funding Agency shall have no obligation to pay or to ensure the payment of any moneys to any Subcontractor or Supplier except as may otherwise be required by law. Subcontractors and Suppliers acknowledge they have no direct cause of action (unless otherwise provided by law) against The Funding Agency relating to any payment issues.

6.12 **Subcontractor and Supplier Claims.** The Small GESA Contractor agrees to require the Subcontractor and/or Supplier to submit all claims for extras, extensions of time or for damages to the Small GESA Contractor in the manner provided in the Contract Documents for claims by the Small GESA Contractor against the Funding Agency in accordance with the Disputes Article of these General Conditions. Since neither the Subcontractors nor Suppliers have privity of contract with the Funding Agency, they may not pursue a claim directly against the Funding Agency.

ARTICLE 7

PROJECT SCHEDULE

7.1 **Submission of the Baseline Project Schedule** The Baseline Project Schedule is to be submitted to the Funding Agency within thirty (30) days of the Contract Start Date. This schedule shall utilize Primavera and incorporate all activities. The project shall not be submitted in .pdf format, but shall be submitted in .XER format. The Baseline Project Schedule shall include all design, permitting, procurement, construction, inspections and contract closeout activities until the Contract Completion Date.

7.2 Software

a. The Critical Path Method (CPM) of Project Schedule calculation shall be used to generate the project. The schedule need not be cost-loaded; costs and payment will be governed by the GSC-30 Cost Breakdown sheet.

b. The scheduling software that will be utilized on this project is Primavera Project Planner by Primavera Systems, Inc. and "CONTRACTOR" by Primavera Systems, Inc. It is the responsibility of the Small GESA Contractor to ensure all data elements and logic required by this specification is kept intact during any upgrade associated with Primavera. CONTRACTOR may be used to develop the schedule only. The elements developed in CONTRACTOR will be migrated to P6.

c. The Small GESA Contractor may utilize any Primavera product fully compatible with P6 in developing the schedule. The following programs are not considered compatible with P6:

i. Microsoft Project (all versions)

ii. Primavera products P3 and earlier.

7.3 Project Schedule Overview

a. The Funding Agency Reservation of Rights. The Funding Agency reserves the right to accept the Project Schedule developed, signed and submitted by the Small GESA Contractor, while preserving exceptions to any defects in the means, methods, sequences, durations and/or logic which the Funding Agency believes exist in the schedule. The acceptance of the Project Schedule by the Funding Agency in no way relieves the Small GESA Contractor from the duty to coordinate all activities and shall not make the Funding Agency a guarantor of the Project Schedule. Upon request, the Small GESA Contractor shall provide to the Funding Agency all the planning data used to develop the Project Schedule.

b. Work during Formation of Project Schedule. Until the Baseline Project Schedule is signed by the Small GESA Contractor and accepted by the Funding Agency, the Small GESA Contractor must proceed with the Work utilizing all the information available, including coordination meetings with the subcontractors, attendance at Job Conferences, two week look ahead activities, weekly superintendent's meetings, draft CPM schedules used in the development of the final Project Schedule, and any other means necessary to maintain work progress until such time as the Project Schedule is complete and accepted. As such, the Small GESA Contractor shall not assert any claim whatsoever for any delay or additional cost incurred with the development of the Project Schedule.

c. Applications for Payment.

i. The Small GESA Contractor may submit their first Application for Payment to the Funding Agency 30 days after the beginning of work, but only if the Small GESA Contractor had submitted the 30-day schedule. Payment of the first Application for Payment is

subject to review and approval of the Application by the Funding Agency as being reasonable for the work performed during the first 30-day period.

ii. After the first 30 days, the Funding Agency will only review and pay (if the application is otherwise acceptable) the Small GESA Contractor's Applications for Payment if there is a full Baseline Project Schedule submitted and accepted by the Funding Agency. If the Baseline Project Schedule is not submitted and/or accepted, the Funding Agency will withhold payments to the Small GESA Contractor until such time as there is an accepted Baseline Project Schedule.

iii. After acceptance of the Baseline Project Schedule, the Funding Agency will only review and pay (if the application is otherwise acceptable) the Small GESA Contractor's Applications for Payment as long as the Small GESA Contractor continues to maintain and update the Progress Schedule. If the Small GESA Contractor fails to maintain, update, and submit the Progress Schedule, the Funding Agency will withhold payments to the Small GESA Contractor until such time as there are updates to the Schedule that are accepted by the Funding Agency.

7.4 **Time Is of the Essence**. All time limits stated in the Contract Documents are of the essence. The Small GESA Contractor shall perform the Work expeditiously with adequate forces using all calendar days to complete the Work no later than the Contract Completion Date.

a. The Small GESA Contractor is responsible to expedite development of the Project Schedule, as it pertains to their work effort, planning, execution and inter-contractor relationship logic.

b. Submission of progress and revision data will be used to measure work progress, as an aid to evaluate time extensions, and to provide the basis of all progress payments.

c. The Small GESA Contractor shall designate a responsible representative that is knowledgeable about how the project will be executed and is empowered to make scheduling decisions as the Project Schedule is developed.

d. The Project Schedule is to be implemented by the Small GESA Contractor, utilizing the services of a qualified subcontractor or its own in-house staff. The Small GESA Contractor/subcontractor must also provide evidence of at least five years scheduling experience of its staff with projects of similar size and nature.

7.5 **Schedule Requirements.** The minimum number of construction activities in the Project Schedule diagram shall be at a level to describe a discreet amount of work that can be accomplished within a fixed time frame.

d. No activity, except for a design or procurement activity, shall have durations greater than 30 calendar days. Upon written request from the Small GESA

Contractor and written agreement of the Funding Agency, the maximum duration for an activity may be extended beyond 30 calendar days.

e. Separate subcontractors and other outside (the Funding Agency or others) activities that could impact progress shall be clearly identified. These activities include, but are not limited to: approval of submittal reviews, inspections/tests, utility outages, and delivery of equipment.

i. Show activities indicating furnished materials and equipment utilizing delivery dates supplied by others.

ii. External contractors' or others' activities will be driven by calendars that reflect Saturdays, Sundays and all State Holidays as non-work days unless any additional costs for these being work days are borne by the Small GESA Contractor.

f. UCC Inspections and Testing. The Project Schedule shall consider and include all time durations associated with UCC Inspection criteria by the Department of Labor and Industry, along with all other testing and inspections required by contract. It must take into account the advance notice needed for L&I Inspectors as defined by the UCC Building Permit criteria.

g. During the development of the Project Schedule, as a minimum, the Small GESA Contractor shall facilitate utilization of:

i. Work Breakdown Structures (WBS) and activity coding;

ii. Establishment of design and engineering activities;

iii. Establishment of procurement activities;

iv. External contractor and the Funding Agency activities;

v. Construction activities; and

vi. Activity relationship, resourcing, budget costs and reports to be used during the project.

h. No more than 15 percent of the activities may be critical or near critical. Critical is defined as having zero days of Total Float. "Near critical" is defined as having Total Float less than 10 days.

i. Scheduled Project Duration: The schedule duration shall extend from the date of the Project Start Date to the Contract Completion Date.

j. Milestones. A Milestone is to signify the start or finish date of a specific activity that is significant to completing the Project on schedule.

i. The Project Schedule shall identify Design or Procurement Milestones for the Project. Milestones that are not completed as planned may require a Recovery Plan from the Small GESA Contractor.

ii. The Project Schedule shall identify Construction Progress Milestones for the Project. Milestones that are not completed as

planned may require a Recovery Plan from the Small GESA Contractor.

iii. The Master Summary Schedule submitted with the Small GESA Contractor's Proposal to the Funding Agency will serve as the basis for the Baseline Project Schedule. The Milestone dates shown on the Master Summary Schedule submitted with the Small GESA Contractor's Proposal shall not be change without prior written acceptance from the Funding Agency.

k. The use of Resource Leveling or similar techniques intended to artificially adjust activity durations to consume float and influence the critical path will not be used.

l. Use of float suppression techniques, such as; preferential sequencing (arranging critical path through activities more susceptible to an owner caused delay), special lead/lag logic restraints, zero total or free float constraints, extended activity times, or imposing constraint dates other than as required by the contract, shall not be used.

m. Leads or lags will not be used when the creation of an activity will perform the same function (e.g., concrete cure time). Lag durations contained in the project schedule shall not have a negative value. The use of any lead or lag must be justified and documented.

7.6. Design Activities

a. Design activities shall include, but are not limited to: Tasks related to site planning, final design, specifications, the Funding Agency reviews, regulatory requirements, permitting, design progress meetings, etc. Small GESA Contractor, Retained Professional, the Funding Agency and any regulatory agency activities will be driven by calendars that reflect Saturdays, Sundays and all State Holidays as non-work days unless any additional costs for these being work days are borne by the Small GESA Contractor

b. Design Activities will have the same properties as Construction Activities.

c. Failure to include adequate time for the Funding Agency design reviews in the Project Schedule will be cause for rejection of the submission.

d. List design activities as they will be completed. Design activities should be concurrent with construction activities. Design activities will be discreet in description so as to define the particular efforts associated with any one particular building, area, site or system.

7.7. Construction Activities

a. Construction activities shall include, but are not limited to: Tasks related to mobilization/demobilization; submittal and review activities, the installation of temporary or permanent work by tradesman; testing and inspections of installed work by technicians, inspectors or engineers; start-up and testing of equipment; site management and cleaning, commissioning of building and related systems; scheduling of specified manufacturer's representatives; final clean-up; training to be provided; and administrative tasks necessary to start,

proceed with, accomplish or finalize the contract. Small GESA Contractor activities will be driven by calendars that reflect Saturdays, Sundays and all State Holidays as non-work days unless any additional costs for these being work days are borne by the Small GESA Contractor.

b. List items of construction as they will be installed. When more than one building, level or floor is included, each building, level or floor shall be listed separately.

7.8. Procurement Activities

a. Tasks related to the procurement of material or equipment shall be included as separate activities in the project schedule. Examples of procurement activities include, but are not limited to:

i. Material/equipment submittal preparation.

ii. Submittal and approval of material/equipment.

iii. Material/equipment fabrication and delivery.

iv. Delivery of O&M manuals.

b. If the Small GESA Contractor intends on using Just-In-Time (JIT) delivery methods, the schedule will show each JIT delivery with relationship tie to the Construction Activity specifically for the JIT delivery.

c. The Small GESA Contractor must meet the Funding Agency criteria for payments for Stored Materials specified in the Administrative Procedures prior to any payments (i.e. 'completion' of the procurement activity.)

7.9. Small GESA Contractor Anticipated Weather Delays – Schedule activity duration(s) shall be formulated with consideration for normal adverse weather conditions. Any activity duration which could be impacted by adverse weather, shall include an adjustment to include the anticipated weather delay.

a. The Contractor shall anticipate weather effect by the Contract Documents to the National Oceanic and Atmospheric Association's (NOAA) historical monthly averages for the NOAA location closest to the project site.

b. A lost workday, due to weather conditions, is defined as a day in which the contractor's workforce cannot work 50 percent or more of the day.

c. The Contractor shall immediately notify the Funding Agency when a lost day has occurred due to weather and will record the event in their Daily Reports.

7.10. Float – Any Total Float available within the Schedule will be a resource available to the Funding Agency and Small GESA Contractor. No time extensions will be granted, or compensable time impact paid unless the impact consumes all available Project Float, and extends the work beyond an Interim Milestone or the Contract Completion Date. Extensions of time to interim milestone dates or the Contract Completion Date under this Contract will be granted only to the extent that time adjustments to the activity or activities affected by the Contract Modification or delay exceeds the total float of the affected or subsequent paths and extends any interim milestone date or the Contract Completion Date. Such determination shall be made at the sole discretion of the Funding Agency.

7.11. **Schedule Acceptance -** The Small GESA Contractor shall submit an electronic version of its Baseline Project Schedule to the Funding Agency as an XER file, unless otherwise requested. When requested, Small GESA Contractor shall also submit hard copy and/or PDF versions, including all requested sort and arrangements and utilizing color printing and plotting of these. The Small GESA Contractor Project Manager in conjunction with the person responsible for the schedule build and the scheduler will submit a narrative of their full project plan, detailing the project execution, methodology to build the Baseline Project Schedule, along with any other documentation supporting the development of the Project Schedule.

a. When the Baseline Project Schedule is accepted, it will be considered the "Baseline Project Schedule". The Baseline Project Schedule will then be used by the Small GESA Contractor for planning, organizing, and directing the work; reporting progress; and requesting payment for work accomplished.

7.12. **Maintaining the Project Schedule.** Small GESA Contractor shall ensure that such manpower, materials, facilities, and equipment is applied to the Work, and shall work such hours, including night shifts, overtime operations, Sundays, and holidays, as may be necessary, to maintain its progress in accordance with the Project Schedule so that no delays are caused to the Project and to insure the progress and completion of the Work within the time allowed by the Contract and as permitted by the Funding Agency. If the Small GESA Contractor fails to maintain progress according to the schedule the Small GESA Contractor shall furnish such additional manpower, equipment, additional shifts or other measures that are necessary, to bring operations up to schedule without any additional cost or expense to the Funding Agency. If the Small GESA Contractor refuses or fails to keep up with the Project Schedule or fails to proceed as directed by the Funding Agency, then the Funding Agency will note this refusal/failure and will consider suspension of the Small GESA Contractor in accordance with Section 531 of the Commonwealth Procurement Code. the Funding Agency may also, in its sole discretion, find the Small GESA Contractor in breach of its Contract and/or declare the Small GESA Contractor in default of its Contract in accordance with the Termination Article of these General Conditions.

7.13. **Project Schedule Updating.** The Project Schedule will be updated using the P6 Web "Reflection file and issued at least once per month by the Small GESA Contractor. At its sole discretion, the Funding Agency may require more frequent updates if deemed necessary to facilitate the Work. The Small GESA Contractor will provide, at least once per month, updates of the Project Schedule to reflect actual progress. If the Project is not on schedule, the Funding Agency reserves the right to request additional updates and recovery schedules, at no cost to the Funding Agency, from the Small GESA Contractor. The Small GESA Contractor shall provide documentation confirming the Monthly Update Meetings, stating the date, time, and attendance. The submittal and acceptance of the Progress Schedule, entry of accurate update information, review and acceptance by the Funding Agency are all conditions precedent to processing pay requests. Submittal of the schedule updates is the Small GESA Contractor's representation that the submitted Progress Schedule meets all of the requirements of the Contract Documents, accurately reflects the work accomplished, and that Work will be executed in the sequence indicated on the Progress Schedule. Work activities will be updated by actual work progression rather than being cash flow driven. The updating of the percent complete and the remaining duration of any activity shall be independent functions; program features that calculate one of these parameters from the other shall

be disabled, as required. Out-of-Sequence progress (if applicable) shall be handled through Retained Logic, not the Default Option of Progress Override. It will be the responsibility of the Small GESA Contractor to resolve out of sequence issues prior to the next issuance of the Small GESA Contractor's payment request. The changes and/or modifications executed in a Recovery Schedule that accomplish this will be submitted and reviewed by the Funding Agency prior to acceptance and implementation into the project schedule.

7.14. **Recovery Plan.** Events that Trigger the Need for a Recovery Plan. The Funding Agency may issue a notice demanding that the Small GESA Contractor submit a Progress Recovery Plan upon the occurrence of any of the following events:

d. The progress of the Work or a single activity falls behind the contract time as shown in a currently updated Project Schedule by more than fifteen (15) calendar days; or

e. A missed milestone; or

f. When an updated Project Schedule provides a completion date past the Contract Completion Date; or

g. When a late finish for any activity does not come within the time allowed by the current Project Schedule.

h. When, in the sole opinion of the Funding Agency, it appears likely that the Work will not be completed within the Contract Time.

The Small GESA Contractor will prepare a Recovery Plan in a Recovery Schedule indicating that all future activities, project completion and occupancy dates will be met within the Contract Duration. The Recovery Plan shall be developed and received by the Funding Agency within three (3) calendar days of receipt of the Recovery Schedule Notice. The Recovery Schedule shall be implemented immediately after written direction from the Funding Agency. In order to create and maintain the Recovery Plan, the Small GESA Contractor agrees to undertake, but not be limited to, some or all of the following actions at no additional cost to the Funding Agency: increase the manpower, the number of working hours per shift, the number of shifts per day, the number of working days per week, the quantity of equipment, or any combination of the foregoing, and reschedule such activities to bring the project back on schedule. Failure of the Small GESA Contractor to comply with these requirements shall be considered grounds for a determination by the Funding Agency that the Small GESA Contractor is failing to prosecute the Work with sufficient diligence to ensure its completion within the Contract Time and is failing to comply with the Contract Time provisions of the Contract. Such determination may result in default and/or suspension and/or debarment of the Small GESA Contractor. the Funding Agency's acceptance of the Recovery Plan does not relieve the Small GESA Contractor of the responsibility for the accuracy of the schedule and for the Small GESA Contractor's obligation to meet the Contract Completion Date. the Funding Agency's acceptance of the Recovery Plan does not constitute acceptance or warranty of the Small GESA Contractor's means, methods, and techniques of construction. The Funding Agency reserves the right to review any Recovery Plan to determine if it satisfies the Project Schedule. If the Recovery Plan does not satisfy the Project Schedule, the Funding Agency may elect to prepare a Recovery Plan, to which the Small GESA Contractor must adhere. The costs incurred by the Funding Agency in

preparing the Recovery Plan will be assessed against the Small GESA Contractor by credit change order.

7.15. Requests for Extensions of Time. All requests for Extensions of Time shall be submitted to the Funding Agency in writing on the form provided in the Administrative Procedures. Reasons substantiating the request shall be included or the request may be denied. Notification of any alleged delay event shall be given to the Funding Agency within two days of the start of such delay. All such formal requests must be filed within ten (10) calendar days of the end of the event or issue that caused the alleged delay. Any EOT shall include a fragnet (defined as the sequence of new activities and/or activity revisions, logic relationships and resource changes that are proposed to be added to the existing schedule to demonstrate the influence of impacts to the schedule) to be used to determine if an EOT is justified. The fragnet shall identify the predecessors to the new activities and demonstrate the impacts to successor activities. Include a narrative report describing the effects of new activities and relationships to interim and contract completion dates, with each TIA. Activity time delays shall not automatically merit an extension of the Contract Completion Date of this Contract.

7.16. Extensions of Time and Impact on Schedule. A change order, field order or delay may not affect existing critical activities or cause non-critical activities to become critical. Change orders, field orders or delays may result in the Funding Agency giving the Small GESA Contractor part of or the entire available total float that may exist within an activity chain on the Network, thereby not causing any effect on any interim milestone date or the Contract Completion Date of this Contract.

i. If the Funding Agency, for any period after the commencement of On-Site Work, grants an Extension of Time to the Small GESA Contractor, the Small GESA Contractor may be required by the Funding Agency to prepare a revised Project Schedule. Based on a Recovery Schedule, if a revised Project Schedule is requested, the Small GESA Contractor must send the revised Project Schedule, signed by the Small GESA Contractor to the Funding Agency within fourteen (14) calendar days of the approval of the Extension of Time.

ii. Upon the granting of an Extension of Time, the monthly updating of the Project Schedule may result in changes in the dates on which activities and the Project itself are expected to be completed. The process of updating the Project Schedule does not constitute the Funding Agency approval of requests for Extensions of Time and does not replace the process of seeking extensions in accordance with both the applicable provisions of these General Conditions and the Administrative Procedures, both of which will be strictly enforced. To substantiate and support any timely filed requests for Extensions of Time, the Small GESA Contractor must submit CPM Schedules (based upon the current Project Schedule in effect at the time the Extension of Time is submitted) with and without the asserted delay. The Small GESA Contractor must also establish that the delay is justifiable in accordance with the Requests for Extensions of Time paragraph of these General Conditions. Data drawn from the Project Schedule will also be used by the Funding Agency in assessing responsibility for liquidated damages if the Small GESA Contractor causes an unjustified delay.

iii. The Milestones shall be updated and adjusted within ten (10) calendar days of the Funding Agency granting the Small GESA Contractor an Extension of Time. If a

Recovery Plan that was accepted by the Funding Agency requires modification of any future Milestone, the Project Schedule and Milestones must be revised accordingly. The Milestones shall be updated and adjusted each time the Project Schedule is revised.

iv. Adjusting the Project Schedule through the use of a Recovery Plan does not constitute approval by the Funding Agency of any request for an Extension of Time and does not replace the process of seeking Extensions of Time in accordance with the Extension of Time paragraph in this Article of these General Conditions and the Administrative Procedures, which provisions will be strictly enforced. If a Small GESA Contractor submits a timely filed request for an Extension of Time the Small GESA Contractor a proposed Milestone schedule with and without the asserted delay.

7.17. Delays and Extensions of Time. If the Small GESA Contractor is delayed by:

a. Any action or inaction on the part of the Funding Agency on a critical activity on the current Progress Schedule; or

b. Labor disputes; or

c. Fire; or

d. Unavoidable casualties; or

e. Delay due to suspension of work, as provided in these General Conditions; or

f. Any cause that the Funding Agency determines may justify the delay;

then the Contract Duration may be extended by the approval of the Funding Agency, through an Extension of Time, for such reasonable time as the Funding Agency may determine. The Funding Agency will respond to a Small GESA Contractor's timely request for Extension of Time within thirty (30) calendar days of the Funding Agency's receipt of such request.

7.18. Unfavorable Weather. Unfavorable weather, including but not limited to rain, snow, wind and cold or freezing weather, is not a cause for an Extension of Time. The Small GESA Contractor shall anticipate the effects of weather in developing its construction plan, use such methods of protection as may be necessary to continue the Work throughout periods of unfavorable weather and/or make up time lost due to weather conditions. No Extension of Time due to unfavorable weather conditions shall be granted except as may pertain to a force majeure weather event.

7.19. Extensions of Time Not an Admission of Liability for Delay. The approval of an Extension of Time only constitutes a release by the Funding Agency of the Funding Agency's ability to assess liquidated damages against the Small GESA Contractor for the number of days granted by the Extension of Time. the Funding Agency's approval of an Extension of Time shall not be construed or interpreted by any Small GESA Contractor as an admission that the Funding Agency is liable for delay damages. The Small GESA Contractor agrees that the Funding Agency's grant of an Extension of Time will not be used as an admission by the Funding Agency of any liability for delay in any subsequent dispute regarding delays. This Paragraph does not preclude either the Small GESA Contractor's rights or the Funding Agency's rights to pursue a claim for damages under other provisions of the Contract Documents.

ARTICLE 8

SUBMITTALS

8.1 **Submittals.** The Small GESA Contractor shall submit all necessary submittals to Small GESA Contractor's Retained Professional for review and approval. The Small GESA Contractor's Retained Professional shall then distribute (in accordance with the Administrative Procedures) all approved submittals to the Funding Agency. Submittals shall be in accordance with the Contract Documents and include, but not be limited to, such items as:

- **a.** Small GESA Contractor's, Subcontractor's, manufacturer's or fabricator's shop drawings.
- **b.** Descriptive literature including, but not limited to:
  - **i.** Catalog cuts
  - **ii.** Diagrams
  - **iii.** Operation charts or curves
  - **iv.** Test reports
  - **v.** Samples
  - **vi.** Operations and maintenance manual, including parts lists
  - **vii.** Certifications
  - **viii.** Warranties
- **c.** Coordination Drawings as required.

The Small GESA Contractor's Retained Professional's approval of submittals does not relieve the Small GESA Contractor of the responsibility for any deviation from the requirements of the Contract Documents, unless:

i. The Small GESA Contractor has informed the Funding Agency of such deviation in writing in its letter of submission at the time of submission and the Funding Agency accepted such deviation; and

ii. The Small GESA Contractor has noted the deviation on the shop drawings; and

iii. The Small GESA Contractor's Retained Professional has given written approval of the specific deviation. The Retained Professional's approval also does not relieve the Small GESA Contractor from responsibility for errors or omissions in the submittals.

If each of these three steps is not performed, the Small GESA Contractor will not be relieved of the responsibility for executing the Work in complete conformity with the Contract Documents, even though the submittals have been approved.

Failure to mention a deviation shall be construed as a non-conformance with the Contract Documents. The Small GESA Contractor shall be responsible for all costs associated with bringing the Work back into conformance with the Contract Documents,

including costs incurred by the Small GESA Contractor, the Small GESA Contractor's Retained Professional and the Funding Agency as a result of such non-conformance.

8.2 **Approval by Retained Professional**. By approving and submitting submittals, the Small GESA Contractor represents that such submittals are sufficient for review purposes and that it has determined and verified all field measurements, field construction criteria, materials, catalog numbers and similar data and that it has checked and coordinated each submittal with the requirements of the Work and of the Contract Documents. Where field measurements and field construction criteria are not verifiable at the date of the submittal, the Small GESA Contractor shall ensure that dimensions will be held.

a. The Small GESA Contractor's Retained Professional shall review and approve the Small GESA Contractor's submittals promptly and in accordance with its Small GESA Contractor/Retained contract. Submissions requiring the Funding Agency acceptance shall be made in an orderly fashion. Simultaneous submission of large quantities of documents requiring review and acceptance by the Funding Agency may lead to significant delays in receiving required acceptance and such delays shall not be a cause for any Extension of Time. The Small GESA Contractor's Retained Professional's review and approval is for conformance with the design concept of the project and with the information given in the Contract Documents. The Funding Agency review and acceptance is for conformance with the Contract Documents. The Small GESA Contractor's Retained Professional's approval and the Funding Agency acceptance of a separate item does not indicate approval of an assembly in which the item functions. Approval and/or acceptance of a separate item does not indicate approval and/or acceptance of an assembly in which the item functions. The Small GESA Contractor shall be responsible for all costs associated with delays of the Project incurred as a result of any disapprovals and/or non-acceptance of its submittals for incompleteness.

b. The Small GESA Contractor shall make any corrections required and shall resubmit the required number of corrected copies of submittals until approved. The resubmission shall be acted on promptly by the Small GESA Contractor's Retained Professional in accordance with the Small GESA Contractor/Retained Professional agreement. When resubmitting submittals, the Small GESA Contractor shall direct specific attention to any revisions made, other than the corrections requested by the Small GESA Contractor's Retained Professional on previous submissions, by noting such revisions on the resubmitted submittals. The Funding Agency review time of resubmissions for required acceptance by the Funding Agency shall not be reduced by failure of the Small GESA Contractor and/or the Retained Professional to adhere to the accepted Submittal Schedule or by the failure of the Small GESA Contractor to make an acceptable initial submission.

c. When resubmitting submittals, the Small GESA Contractor shall direct specific attention to any revisions made, other than the corrections requested by Small GESA Contractor's Retained Professional on previous submissions, by noting such revisions on the resubmissions.

d. The Retained Professional's approval and/or the Funding Agency acceptance of shop drawings or samples does not relieve the Small GESA Contractor of responsibility for any deviation from the requirements of the Contract Documents, unless the Small GESA Contractor has informed the Funding Agency in writing of such deviation at the time of submission, has noted the deviation on the submittals, and Small GESA Contractor's Retained Professional has given written approval of the specific deviation. The Professional's approval also does not relieve the Small GESA Contractor from responsibility for errors or omissions in the submittals. Failure to mention a variation shall be construed as a non-conformance with the Contract Documents. The Small GESA Contractor shall be responsible for all costs associated with bringing the Work back into conformance with the Contract Documents, including costs incurred by any other Prime Small GESA Contractor, Small GESA Contractor's Retained Professional and the Funding Agency as a result of such non-conformance.

e. No portion of the Work requiring a submittal shall be commenced until the submittal has been approved by the Retained Professional. Any Work commenced by the Small GESA Contractor prior to final approval of the submittal is performed by the Small GESA Contractor at its own risk.

8.3 **Standards of Quality.** Where trade names, catalog number and manufacturers of material or equipment are specified, whether in the RFP, bridging, prototype or other contract document, they are mentioned for the purpose of establishing a standard of quality, performance, and appearance, and for establishing a standard of competitive bidding. If the Small GESA Contractor wishes to utilize material or equipment that is of the same type, but manufactured by others than those named in the specifications, the Small GESA Contractor shall certify that the material or the equipment is equal in quality, performance and appearance to that mentioned in the specifications. **The list of proprietary items (if any) may not be considered for "or equals"**. The Small GESA Contractor shall submit to Small GESA Contractor's Retained Professional and the Funding Agency, subsequent to the Award of Contract, a request to install such material or equipment. The Small GESA Contractor's request shall include a comprehensive description of the material or equipment proposed to be utilized as an equal, including engineering, construction, and dimension and performance data. The Small GESA Contractor's Retained Professional will render a written determination to the Small GESA Contractor and to the Funding Agency. The Funding Agency must be allowed at least fourteen (14) calendar days to review and retains the right to reject the determination. If the Small GESA Contractor disagrees with the Funding Agency's decision, the Small GESA Contractor may file a dispute, but must proceed with the Work as decided by the Funding Agency.

8.4 **Substitution of Materials. The list of proprietary items (if any) may not be considered for substitutions**. If the Small GESA Contractor desires to furnish materials or equipment other than that which is specified, the Small GESA Contractor shall submit to Small GESA Contractor's Retained Professional and to the Funding Agency a comprehensive description of the material or equipment proposed for substitution, including engineering, construction, dimension, performance and appearance data, along with a statement of the cost involved. The Retained Professional shall render a written determination to the Small GESA Contractor. The Funding Agency must be allowed to at least fourteen (14) calendar days for review and retains the right to reject the determination. If the substituted material or equipment is

accepted, the Small GESA Contractor is responsible for any and all costs incurred and shall work to eliminate any additional time needed as a result of the substitution. If the cost of the substituted item is less than the specified item, the Funding Agency is entitled to a credit for the difference between the cost of the substituted item and the item specified.

ARTICLE 9

PROTECTION OF PROPERTY, INSURANCE AND INDEMNIFICATION

9.1 **Safety Overview.** The Small GESA Contractor and its subcontractors of all tiers will be responsible for the safety and security of its employees under their control and as to its area of Work. The Small GESA Contractor shall recognize that it is important to business to prevent the occurrence of incidents that lead to occupational injuries or illnesses. Safety and Health requirements on this Project shall be assembled and administered by the Small GESA Contractor in accordance with the following:

a. The accident prevention policy shall be based on a sincere desire to eliminate personal injuries, occupational illnesses, and equipment and property damage and to protect the general public exposed to or associated with the Work.

b. The importance of safety on the Project shall be recognized and accident prevention shall be an integral part of all operations.

c. Small GESA Contractor and subcontractors shall conduct Work in a safe and practical manner in conformance with Occupational Safety and Health Act of 1970 and as amended, and the latest edition of the Manual of Accident Prevention, Associated General Contractors of America.

d. In addition to the Small GESA Contractor's Safety Program, the Small GESA Contractor and subcontractors shall follow all applicable Federal, State and local laws/regulations pertaining to safety, health, pollution control, water supply, fire protection, sanitation facilities, waste disposal and other related items.

e. OSHA and Emergency Phone Numbers Poster shall be posted in a conspicuous location.

f. Good housekeeping shall be observed at all times. Waste, debris, and garbage shall be removed daily or placed in appropriate waste containers outside of the work place and all materials, tools and equipment shall be stored in a safe and orderly fashion.

g. The Small GESA Contractor shall educate its employees and subcontractors as to the site specific Health and Safety Plan and to enforce adherence to safe work procedures outlined in these General Conditions.

9.2 **Compliance with Safety Laws.** The Small GESA Contractor and its Subcontractor(s) of any tier shall follow OSHA requirements regarding the recognition and avoidance of unsafe conditions and the regulations applicable to the work environment. The Small GESA Contractor shall comply at all times with all applicable Federal, Commonwealth, and local laws, ordinances, rules, regulations and orders of any public authority having

jurisdiction for the safety of persons or property and to protect them from damage, injury or loss. The Small GESA Contractor shall erect and maintain, as required by existing conditions and progress of the Work, all reasonable safeguards for safety and protection, including posting danger signs and other warnings against hazards, promulgating safety regulations and notifying owners and users of adjacent utilities until the acceptance of all on-site physical work, change order work, and/or demobilization. All areas of the Project shall be hardhat areas. All persons within the Contract Limits are required to be protected by protective helmets in compliance with Occupational Safety & Health Administration (OSHA) requirements.

9.3 **Accident Reports.** In the case of an injury to an employee of the Small GESA Contractor or its Subcontractor(s) involving lost time beyond the date of the injury, the Small GESA Contractor will furnish to the Funding Agency a copy of the first Report of Injury, the injury report filed with the insurance company and a Foreman's Accident Report within 24 hours after the occurrence. Any incidents involving the police or other law enforcement agency will also be included in this documentation. All recordable occupational injuries and illnesses, other than First Aid cases, as required by the regulations issued under the Occupational Safety and Health Act of 1980 (as amended) shall be recorded on the appropriate OSHA form each month and a copy forwarded to the Funding Agency.

9.4 **First Aid Treatment.** The Small GESA Contractor shall keep on-site at suitable locations first aid kits supplied according to current regulations and shall have a certified person(s) trained in first aid and CPR to cover normal project working hours as well as any on-site operations occurring outside of normal project working hours. In case of an injury to an employee of the Small GESA Contractor or its Subcontractor(s) requiring First Aid Treatment, the Small GESA Contractor will furnish to the Funding Agency a copy of the First Aid Register, in accordance with the Small GESA Contractor's Procedures Manual, detailing the type of injury and the treatment provided.

9.5 **Emergency Notification.** The Small GESA Contractor shall establish a procedure to provide emergency communications to all individuals on the site. This procedure will not be used to handle routine calls to individuals.

9.6 **Failure To Comply With Safety Regulations.** Failure to comply with the Contract safety requirements will be considered as non-compliance with the Contract and may result in remedial action provided by the Contract. If the Funding Agency notifies the Small GESA Contractor of any non-compliance with the provisions of this program, the Small GESA Contractor shall make all reasonable efforts to correct the unsafe conditions or acts. Satisfactory corrective action shall be taken within the time specified by the Funding Agency. If the Small GESA Contractor or Subcontractor refuses to correct unsafe or unhealthy conditions or acts, the Funding Agency may take one or more of the following steps:

a. Cease the operation or a portion thereof until the condition is brought into compliance with the Site Safety Procedures;

b. Stop payment for the Work being performed;

All costs, including but not limited to those above, associated with ensuring a safe and health conscious work environment shall be borne by the Small GESA Contractor and costs will be backcharged to the Small GESA Contractor. The Small GESA Contractor

shall be responsible for payment of all fines and/or claims for damages levied for deficiencies relating to conduct of Small GESA Contractor's Work.

9.7 **Explosives.** Unless permitted in the specifications, the use of explosives and other hazardous materials or equipment is not permitted for the execution of the Work. If explosives are permitted, the Small GESA Contractor shall observe the utmost care, performing such Work with experienced personnel and in accordance with all Federal, Commonwealth, local, Departmental, and institutional regulations, so as not to endanger life or property. Rock encountered within five (5) feet of pipelines or buildings shall be removed without blasting. All explosives shall be stored in a secure and safe manner, in strict conformity with all Federal, Commonwealth and municipal regulations and all such storage shall be clearly marked "Dangerous-Explosives" and shall be in the care of competent watchmen at all times. The Small GESA Contractor shall provide insurance in accordance with the special insurance provision in these General Conditions relating to "Blasting". The Small GESA Contractor shall be responsible for all damages caused by the use of explosives, hazardous materials and/or equipment, and blasting and shall notify the Funding Agency of any claims of damage associated with this Paragraph at the time of claim.

9.8 **Remediation of Damages.** The Small GESA Contractor shall remedy all damages or loss to any property caused in whole or in part by the Small GESA Contractor, any Subcontractor, any sub-subcontractor, or anyone directly or indirectly employed by any of them. If damage or loss is attributable to faulty drawings or specifications or to the acts or omissions of the Funding Agency and the damage or loss is not attributable to any fault or negligence of the Small GESA Contractor, then the Small GESA Contractor shall not provide remediation.

9.9 **Loads.** The Small GESA Contractor shall not load or permit any part of the Work to be loaded so as to endanger the safety of persons or property.

9.10 **Small GESA Contractor's Liability Insurance.** The Small GESA Contractor, during the progress of the Work and until the acceptance of all on-site physical work, change order work, and/or demobilization, shall purchase and maintain such insurance as will protect it from claims set forth below which may directly or indirectly arise out of or result from operations under the Small GESA Contract or by a subcontractor of the Small GESA Contractor, or by anyone directly or indirectly employed by or representative of any of them, or by anyone for whose acts any of them may be liable:

a. Claims under workers' compensation disability benefit and other similar employee benefit laws;

b. Claims for damages due to bodily injury, occupational sickness, sickness or disease, or death of the Small GESA Contractor's employees, and claims insured by usual personal injury liability coverage;

c. Claims for damages covered by usual personal liability coverage which are sustained (1) by a person as a result of an offense directly or indirectly related to employment of such person by the Small GESA Contractor or (2) by another person;

d. Claims for damages because of injury to or destruction of tangible property including loss of use resulting therefrom;

e. Claims for damages because of bodily injury, death of a person or property damage arising out of ownership, maintenance or use of a motor vehicle; and

f. Claims for bodily injury or property damage arising out of completed operations. Liability insurance shall include all major divisions of coverage and be on a comprehensive basis including:

   i. Premises Operations (Including X-C-U coverage as applicable).

   ii. Independent Contractor's Protective.

   iii. Products and Completed Operations.

   iv. Personal Injury Liability with Employment Exclusion deleted.

   v. Contractual.

   vi. Owned, non-owned and hired motor vehicles.

   vii. Broad Form Property Damage including Completed Operations.

   viii. Umbrella Excess Liability.

   ix. Claims involving contractual liability applicable to the Small GESA Contractor's obligations under the Contract Documents, including without limitation Article 10.23 herein.

g. If the General Liability coverages are provided by a Commercial General Liability Policy on a claims-made basis, the policy date or Retroactive Date shall predate the Contract; the termination date of the policy or applicable extended reporting period shall be no earlier than the termination date of coverages required to be maintained after Final Inspection.

h. The insurance required by this Article shall be written for not less than any limits of liability specified in this Article, or required by Law. Coverage, whether written on an occurrence or claims made basis, shall be maintained without interruption from date of commencement of the Work until date of final Closeout Inspection and/or termination of any coverage required to be maintained after Final Inspection, whichever event occurs later.

9.11 COMPREHENSIVE GENERAL LIABILITY AND AUTOMOBILE LIABILITY INSURANCES. The Contractor's comprehensive general liability insurance and automobile liability insurance shall be in the amounts set forth in the RFP.

a. For Subcontractors, the Contractor shall either

   i. Require each of its Subcontractors to procure and to maintain Subcontractors' comprehensive general liability, automobile liability, and property damage liability insurance of the type and in the same amounts as specified in this subsection for the life of its subcontract and/or until the acceptance of all of its on-site physical work, change order work, and/or demobilization;

OR

ii. Insure the activity of its Subcontractors in its own policy.

b. If required by a Special Condition, the GESA Contractor's and its Subcontractors' liability insurance shall include additional riders providing for adequate protection against the indicated special hazards (e.g., blasting, flooding, underpinnings, etc.).

c. The GESA Contractor must submit to the Department within ten (10) calendar days from the Initial Job Conference, and prior to the beginning of on-site work, evidence that all subcontractors and sub-subcontractors are covered by insurance.

9.12 **INSURANCE LIMITS**. The insurance required by this Article shall be written for not less than any limits of liability specified in this Article, the RFP, or required by Law.

9.13 **Certificates of Insurance.** The Small GESA Contractor must submit to the Funding Agency, with its signed Small GESA Contract, Certificates of Insurance acceptable to the Funding Agency. These certificates shall contain a provision that coverages afforded under the policies shall not be canceled or changed until at least ninety (90) calendar days written notice has been given to the Funding Agency. Renewal certificates must be provided to the Funding Agency prior to the expiration of the prior policy as stated on the certificate. If any of the foregoing insurance coverages are required to remain in force after Final Inspection, an additional certificate evidencing continuation of such coverage shall be submitted at Final Inspection. All subcontractors and sub-subcontractors insurance evidence shall be provided at least five (5) calendar days before those entities begin work on-site.

9.14 **Small GESA Contractor's Property Insurance.** The Small GESA Contractor shall, until all physical on-site work is complete, including change order work, punch list work, demobilization or seasonal work, maintain insurance on all insurable work included in the Contract against loss or damage by fire and lightning and those perils covered by the extended coverage endorsement. Insurable work includes work both inside and outside of any building being constructed. The insurance (which must include Builder's Risk Insurance or an installation floater that covers all risks) must be in the names of the DGS, Funding Agency, and the Small GESA Contractor in full insurable value thereof as will fully protect the interests of DGS and the Commonwealth, the Contractor, Subcontractors, and Sub-subcontractors.

9.15 **Small GESA Contractor's Insurance Requirements.** Refer to requirements established in the Request for Proposal.

9.16 **Specialized Insurance.** The Small GESA Contractor shall be required to obtain and maintain throughout the course of the Project any insurance coverage beyond that which is listed in the Request for Proposal and contract documents that may be necessary due to the scope of Work encompassed within this Project.

9.17 **Hazardous Material Liability Insurance.** When applicable, the Small GESA Contractor must provide a Certificate of Insurance demonstrating to the Funding Agency's satisfaction the existence of the following required insurance:

$1,000,000 occurrence/$2,000,000 aggregate, including products and completed operations. Such insurance shall include coverage for the Small GESA Contractor's operations including, but not limited to, removal, replacement enclosure, encapsulation and/or disposal of asbestos, or any other hazardous material, along with any related pollution events, including coverage for third-party liability claims for bodily injury, property damage and clean-up costs. If a retroactive date is used, it shall pre-date the inception of the Small GESA Contract. If motor vehicles are used for transporting hazardous materials, the Small GESA Contractor or its subcontractor shall provide pollution liability broadened coverage (ISO endorsement CA 9948) as well as proof of MCS 90. Coverage shall fulfill all requirements set forth herein and shall extend for a period of three (3) years following acceptance by the Commonwealth of the Certificate of Completion.

9.18 **Risk to Construction Work.** The risk of damage to the construction work is that of the Small GESA Contractor and surety until Final Inspection. No claims for such loss or damage will be recognized by the Funding Agency, nor will such loss or damage excuse the complete and satisfactory performance of the Contract by the Small GESA Contractor.

9.19 **Unacceptable Surety or Insurance Company.** If the surety on the bonds or the insurance company providing the required coverage becomes unsatisfactory to the Funding Agency, the Small GESA Contractor must promptly furnish such additional security or insurance coverage as may be required to protect the interest of the Funding Agency. The Small GESA Contractor shall, from time to time, furnish the Funding Agency, when requested, satisfactory proof of coverage of each type of Bond and/or insurance required. Failure to comply with this provision shall result in the cessation of the Work, and shall be sufficient grounds to withhold any further payments due the Small GESA Contractor and/or to declare the Small GESA Contractor in default. The Funding Agency will not consider any claim for an Extension of Time, costs, or damages because of time lost due to such instance brought by the noncompliant Small GESA Contractor. The Small GESA Contractor shall be responsible for damages incurred the Funding Agency for non-compliance.

9.20 **Indemnification.** The Small GESA Contractor shall indemnify and hold harmless the Commonwealth, the Funding Agency, and their agents and employees from and against all claims, damages, losses and expenses, including attorneys' fees arising out of or resulting from the performance of the Work, provided that any such claim, damage, loss or expense is:

a. Attributable to bodily injury, sickness, disease or death or to injury to or destruction of tangible property, including the loss of use resulting therefrom; and

b. Caused in whole or in part by any negligent act or omission of the Small GESA Contractor or any Subcontractor, regardless of whether or not it is caused in part by a party indemnified hereunder.

9.21 **Indemnification Not Limited by Employee Benefits Acts.** In any and all claims against the Commonwealth, the Funding Agency, or the Retained Professional or any of their agents or employees, by any employee of the Small GESA Contractor or any Subcontractor, the indemnification obligations under this Article shall not be limited on the amount or type of damages, compensation, or benefits payable by or for the Small

GESA Contractor or any Subcontractor under Worker's Compensation Acts, Disability Benefit Acts, or other employee benefit Acts.

9.22 **Workplace Drug and Alcohol Policy.** The Funding Agency is committed to providing a safe workplace for the workers assigned to the Project, promoting high standards of employee health and fostering productivity. Consistent with the intent and spirit of this commitment, the Funding Agency requires the Small GESA Contractor to establish a drug and alcohol policy specification for the Project with the goal of maintaining a work environment that is free from the effects of the use of illegal drugs and alcohol.

ARTICLE 10

CHANGES IN THE WORK

10.1 **Changes.** The Funding Agency, without invalidating the Contract, may direct changes in the Work within the general scope of the ECMs set forth in the Small GESA Contract, consisting of additions, deletions or other revisions. All such changes in the Work will be authorized by Change Order or Field Order.

a. **The Small GESA Contractor agrees that payment under any method noted within this Article will be the exclusive compensation for such addition, deletion, or other revision to the original Contract, including any and all costs associated with acceleration, stacking and re-sequencing of forces required by the change in order to maintain the Project Schedule.**

b. If it is not possible to complete the Work in accordance with the Project Schedule by acceleration, stacking or re-sequencing, the Small GESA Contractor may request an Extension of Time. Adequate information and proper form submission must be provided to validate this request. The Funding Agency reserves the right to deny requests not accompanied by adequate information and proper form submissions.

10.2 **Cost of Change Order.** The debit or credit cost to the Funding Agency resulting from a change in the Work shall be determined in accordance with the Change Order Administrative Procedure as determined by the Funding Agency.

10.3 **Disagreement as to Cost or Credit.** If the Funding Agency and the Small GESA Contractor cannot agree as to the cost or credit to the Funding Agency resulting from a change in the Work, the Funding Agency shall determine the cost or credit. The Small GESA Contractor **must** proceed with the Change Order work under this Article if directed to do so by the Funding Agency. The Small GESA Contractor may submit the disputed cost to the Funding Agency when the Work is completed for a re-evaluation by the Funding Agency in accordance with the Dispute Resolution Article of these General Conditions. The Funding Agency may, in the Funding Agency's sole discretion, monitor any or all disputed cost work on a time and material force account basis. If the Funding Agency accepts the change as a force account Change Order, the Small GESA Contractor would be required to show proof of incurred cost as stipulated under the provisions of Change Order Administrative Procedure.

10.4 **Unclassified Excavation.**

a. If required for this Project, excavation will be unclassified and will include all types of earth and soil, any pebbles, boulders, and bedrock, municipal trash, rubbish and garbage, and all types of debris of the construction industry such as wood, stone, concrete, plaster, brick, mortar, steel and iron shapes, pipe, wire asphaltic materials, paper and glass. Unclassified excavation does not include unforeseen concrete foundations, walls, or slabs. Unclassified excavation also does not include unforeseen buried hazardous materials.

b. All materials encountered which are identified as described in the previous paragraph as unclassified shall be removed to the required widths and depths to create a finished product as shown and/or noted on the drawings and as written in the specifications. No additional compensation or time shall be given to the Small GESA Contractor for this unclassified excavation.

c. Any unclassified items described in paragraphs A and B above that are discovered during any excavation are not concealed conditions or unknown physical conditions below the surface for purposes of the Concealed Conditions paragraph of these General Conditions.

10.5 Concealed Conditions.

a. The Funding Agency recognizes two types of concealed conditions which might be encountered during the performance of the Work, namely:

   i. Concealed conditions which are unascertainable from the plans, Contract Documents, visits to the site, or reasonable investigation, and which are at variance with the conditions indicated by the Contract Documents; or

   ii. Unknown physical conditions below the surface of the ground of an unusual nature, differing materially from those ordinarily encountered and generally recognized as inherent in work of the character provided for in this Contract.

b. The Small GESA Contractor shall immediately, and before the conditions are disturbed, give a written notice to the Funding Agency describing the concealed conditions. The Funding Agency shall investigate the concealed conditions and determine if there is a concealed condition.

c. If the Funding Agency decides that either of the two concealed conditions described above has occurred during construction, then the Contract Sum shall be equitably adjusted by Change Order. No adjustment shall be made to the Contract Sum under this paragraph, however, for concealed conditions encountered during cutting and patching of Work.

d. In the event that concealed or unknown conditions described above preclude either the Small GESA Contractor or the Funding Agency from establishing either a methodology or a quantity of work to be priced into a Change Order before commencement and performance of Work, the Funding Agency reserves the right to do any of the following:

   i. If only the quantity of Work is unknown, the Funding Agency may issue a Change Order to perform work in a quantity established by the Funding Agency. The Funding Agency will monitor the actual quantities and, upon

completion of the Work, issue a second Change Order to adjust the original quantity.

ii. If the Funding Agency deems that either the methodology and/or scope of the Change Order are indeterminable, the Funding Agency may issue an exploratory Change Order to determine the appropriate methodology and scope before issuing a follow-up Change Order to complete the Work. If the Funding Agency determines, after review of the results of the exploratory Change Order, that this Change Order was not successful in establishing the methodology or scope of work, the Funding Agency may opt for performing and monitoring the entire Change Order Work on a time and material force account basis. If the Funding Agency decides to proceed in this manner, the Small GESA Contractor will be required to show proof of incurred cost as stipulated under the provisions of Change Order Administrative Procedure.

10.6 **No Claims for Additional Cost or Time.** No claims for increased costs, charges, expenses, or damages of any kind, except as provided in the General Conditions, shall be made by the Small GESA Contractor against the Funding Agency for any delays or hindrances from any cause whatsoever, including, but not limited to, strikes, walkouts or work stoppages during the progress of any portion of the Work. The Funding Agency may, however, address such non-compensable delays by extending the time for completion of the Work, as provided in the Contract, which extensions shall constitute the exclusive remedy between the parties.

10.7 **Minor Changes in the Work.** The Funding Agency may direct minor changes in the Work (such as minor relocations or field revisions) that the Funding Agency and the Small GESA Contractor mutually agree do not involve an adjustment in the Contract Sum or an extension of the Contract time and which are not inconsistent with the intent of the Contract Documents. Such changes may only be enacted by written Field Order, as provided, or by other written order. Such changes are binding on the Funding Agency and the Small GESA Contractor. The Small GESA Contractor shall carry out such Field Orders promptly.

10.8 **Directive to Commence Change Order Work.** The Funding Agency may direct the Small GESA Contractor to commence Change Order Work prior to a fully executed Change Order. Such direction will not be given until the Funding Agency generates the scope and confirms that funding is available to complete the Change Order Work.

ARTICLE 11

NON-CONFORMING WORK AND CORRECTIONS

11.1 **Work Covered Contrary to Request.** If any Work is covered contrary to the reasonable request of the Funding Agency or the Professional, the Work must, if required by the Funding Agency or the Professional, be uncovered for observation and replaced, at the Small GESA Contractor's expense with no Extension of Time.

11.2 **Uncovering of Work.** If any Work has been covered which the Funding Agency has not specifically requested to observe prior to being covered, the Funding Agency may

request to see such Work and the Work shall be promptly uncovered by the Small GESA Contractor.

a. If such Work is found to be in accordance with the Contract Documents, the cost of uncovering and replacement shall be charged to the Funding Agency by appropriate Change Order.

b. If such Work is found to be not in accordance with the Contract Documents, the Small GESA Contractor shall pay costs to make the Work conform and the cost of uncovering and replacement.

11.3 **Correction of Work Rejected by The Funding Agency.** The Small GESA Contractor shall promptly correct all Work rejected by the Funding Agency, or the Small GESA Contractor's Retained Professional as defective or as failing to conform to the Contract Documents. The correction must be implemented regardless of when such Work is observed and whether or not the Work was fabricated, installed or completed or whether such Work had been paid for by the Funding Agency. The Small GESA Contractor shall bear all costs of correcting such rejected Work, including the cost of the Small GESA Contractor's Retained Professional's additional services and any additional cost incurred by the Funding Agency and/or any other agency.

11.4 **Correction of Work after Acceptance.** If, after the date of Final Inspection and acceptance of all Work performed under the Contract and until the expiration of warranty on the Work, any of the Work is found to be defective or nonconforming, the Small GESA Contractor shall correct such Work promptly after receipt of a written notice from the Funding Agency, unless the Funding Agency has previously given the Small GESA Contractor a written acceptance of this specific condition. The Funding Agency should give such notice of rejection promptly after discovery of the condition. Acceptance or payment of an Application for Payment by the Funding Agency shall not constitute acceptance.

11.5 **Correction at No Cost to The Funding Agency.** All defective or nonconforming Work shall be promptly removed from the site, and the Work shall be corrected to comply with the Contract Documents without cost to the Funding Agency.

11.6 **Investigation by The Funding Agency.** The Funding Agency reserves the right, upon investigation of installation of defective and/or nonconforming Work, to note this situation in the Contractor Responsibility Program and may consider suspension of the Small GESA Contractor in accordance with Section 531 of the Commonwealth Procurement Code. The Funding Agency may also, in its sole discretion, find the Small GESA Contractor in breach of its Contract and/or declare the Small GESA Contractor in default of its Contract in accordance with the Termination Article of these General Conditions.

11.7 **Acceptance of Nonconforming Work.** If The Funding Agency knowingly elects to accept nonconforming work, it may do so instead of requiring its removal and correction. If nonconforming work is accepted, a credit Change Order shall be issued to reflect an appropriate reduction in the Contract Sum, or, if the amount is determined after final payment, it shall be paid by the Small GESA Contractor and/or the Small GESA Contractor's surety.

11.8 **Obligations of Small GESA Contractor Not Limited by this Article.** The obligations of the Small GESA Contractor under this Article are in addition to, and not in limitation of, any obligations imposed upon the Small GESA Contractor by the Contract Documents or otherwise prescribed by Law.

ARTICLE 12

PAYMENTS AND COMPLETION

12.1 **Contract Breakdown.** The language in this Article must be construed in conjunction with the detailed language of the applicable Administrative Procedure.

12.2 **Application for Progress Payments.** During the progress of the Work, the Small GESA Contractor shall submit to the Funding Agency itemized Applications for Progress Payment on the form specified by the Funding Agency in the Administrative Procedures. The Funding Agency will review the application for validity.

12.3 **Stored Materials**: If, upon the determination of the Funding Agency as to reasonableness, payments are to be released to the Small GESA Contractor on account of materials or equipment which are not incorporated in the Work, but are delivered and suitably stored at the site, or at some other location agreed to in writing, such release of payment shall be conditioned upon submission by the Small GESA Contractor of Bills of Sale forms provided by the Funding Agency to establish the Funding Agency's title to such materials or equipment as well as the compliance with the requirements in the Administrative Procedures. The Small GESA Contractor shall remain responsible for all losses of materials and equipment that remain under its custody and control, regardless of the exclusions in insurance policies. Warranties do not begin until the date of Final Inspection.

12.4 **Small GESA Contractor Warrants Title to all Work Passes Free of Liens.** The Small GESA Contractor warrants and guarantees that title to all work, materials and equipment covered by an Application for Progress Payment, whether incorporated in the Project or not, will pass to the Funding Agency upon Final Payment by the Funding Agency. The title shall be free and clear of all liens, claims, security interests or encumbrances (hereinafter referred to in this Paragraph as "liens"). The Small GESA Contractor further guarantees that no work, materials or equipment covered by an Application for Progress Payment was acquired by the Small GESA Contractor, its employees, its Suppliers or its Subcontractors subject to an agreement under which an interest therein or an encumbrance thereon is retained by the seller or otherwise imposed by the Small GESA Contractor, its employees, its Suppliers or its Subcontractors.

12.5 **Neither Payment Nor Occupancy Constitutes Acceptance of Work not in Conformance with Contract Documents.** Under no circumstances will any of the following occurrences constitute an acceptance of any Work not in accordance with the Contract Documents:

a. An acceptance of an Application for Progress Payment; or

b. Full or partial payment to the Small GESA Contractor of any progress payment; or

c. Partial or entire use or occupancy of the Project by the Funding Agency.

12.6 **Approval for Release of Payment Withheld.** The Funding Agency may decline to release payment on an Application for Progress Payment in whole or in part if the Work has not progressed to the point indicated, or the quality and quantity of the Work is not in accordance with the Contract Documents. The Funding Agency may also decline to release payment on any Applications for Payment because of subsequently discovered evidence or subsequent inspections which may nullify the whole or any part of any Application for Payment previously issued to such extent as may be necessary in their opinion to protect the Funding Agency from loss because of deficiency items, including but not limited to:

a. Defective work not remedied; or

b. Reasonable doubt that the Work can be completed for the unpaid balance of the Contract Sum; or

c. Reasonable indication that the Work will not be completed within the contract time; or

d. Unsatisfactory prosecution of the Work by the Small GESA Contractor; or

e. Failure of the Small GESA Contractor to maintain insurance; or

f. Failure of the Small GESA Contractor to properly submit the required submittals and forms, as required in the Administrative Procedures.

If the Funding Agency withholds approval of the release of payment from the Small GESA Contractor for any of the aforementioned reasons, the Funding Agency will provide written notification to the Small GESA Contractor of the reason for withholding approval of payment within fifteen (15) days of the Funding Agency's receipt of the Application for Release of Progress Payment.

The Small GESA Contractor may withhold payment from a Subcontractor or Supplier for a deficiency item. If payment is withheld from the Subcontractor or Supplier for such item, the Small GESA Contractor must notify the Subcontractor or Supplier and the Funding Agency of the reason for the withholding within 15 days of the date after the Small GESA Contractor receives the notice of deficiency item from the Funding Agency.

12.7 **Payment Approved When Grounds are Resolved.** When issues for withholding approval of the release of payment are resolved to the Funding Agency's satisfaction, the Funding Agency will approval of the release of payment to the Small GESA Contractor for the amounts withheld. The grounds for withholding payment shall be considered resolved upon the Funding Agency's issuance of a letter indicating that the issue has been resolved.

12.8 **Retainage.** The Funding Agency may retain a portion of the amount due the Small GESA Contractor to ensure the proper performance of the Contract. In computing the amount payable in accordance with this Article on any current Application for Release of Payment:

a. The Funding Agency may deduct and retain up to three percent (3%) of the then total Applications for Release of Payment. The sum withheld by the Funding Agency shall not exceed three percent of the Contract Sum. All money retained

by the Funding Agency may be withheld until the Final Payment is approved for release.

12.9 <u>If The Funding Agency Does Not Approve Release of Payment</u>. If the Funding Agency fails to approve release of payment to the Small GESA Contractor within forty-five (45) days after receipt of an acceptable Application for Progress Payment, the Small GESA Contractor may file a claim for interest. No interest penalty payment shall be paid, however, if payment is made on or before the fifteenth (15^{th}) calendar day after the payment due date. The Small GESA Contractor is not entitled to stop work in any event, unless the Funding Agency exercises its right to suspend the work, as provided in these General Conditions. According to 62 Pa. C.S. §3938, as amended, this failure to pay provision shall not apply if:

a. The General Assembly failed to enact a budget for the fiscal year of payment; or

b. The Federal or State Government failed to pay funds due and payable to the local government unit; or

c. The General Assembly failed to enact an operating budget for the fiscal year of payment or a capital budget for the capital project; or

d. The Federal, State, or local government failed to pay funds designated or to be designated for the specific project.

12.10 <u>If Work Cannot be Completed Through No Fault of Small GESA Contractor</u>. If, after Final Inspection, items of Work cannot be completed because of any of the following conditions:

a. Unseasonable considerations, such as bituminous paving, landscaping, etc.; or

b. The Funding Agency agrees that particular items need not be completed until a subsequent date; or

c. The Funding Agency delays the acceptance of the release of the Final Application for Payment for any unreasonable length of time, (reasonableness shall be determined by the Funding Agency)

The Funding Agency may agree to release payment to the Small GESA Contractor. The payment may be reduced by one and one-half (1-1/2) times the dollar value of uncompleted items.

12.11 <u>Approval to Release Final Payment Not Due Until Conditions Met</u>. Neither the approval to release final payment nor the remaining retained percentage becomes due until the Small GESA Contractor submits to the Funding Agency:

a. An affidavit that all payrolls, bills for materials and equipment, and other indebtedness connected with the work for which the Funding Agency might in any way be responsible, have been paid or otherwise satisfied by the Small GESA Contractor; and

b. Statements from the Small GESA Contractor's Surety Company and the Small GESA Contractor's certificate on forms satisfactory to the Funding Agency as to Small GESA Contractor's payment of all claims for labor, materials, equipment rentals and public utility services; and

c. If required by the Funding Agency, other data establishing payment or satisfaction of all such obligations, such as receipts, releases and waivers of liens arising out of the Contract, to the extent and in such form as is designated by the Funding Agency.

If any Subcontractor refuses to furnish a release or waiver, as required by the Funding Agency, the Small GESA Contractor may furnish a Bond satisfactory to the Funding Agency to indemnify the Funding Agency against any such lien. If any such lien remains unsatisfied after all payments are made, the Small GESA Contractor shall refund to the Funding Agency all moneys that the latter may be compelled to pay in discharging such lien, including all costs and reasonable attorney's fees.

12.12 Approval of the Release of Funds If Delay Is Not Due to the Fault of the Small GESA Contractor. If Final Inspection is materially delayed through no fault of the Small GESA Contractor, the Funding Agency shall, upon certification by the Small GESA Contractor's Retained Professional, make payment of the balance due for that portion of the Work fully completed and accepted by the Funding Agency. Such payment will not complete the contract. If the remaining balance of Work not fully completed or corrected is less than the retainage, and, if performance and payment bonds have been furnished as required, the Small GESA Contractor must submit to the Funding Agency, prior to certification of the payment, the written consent of the surety to the payment of the balance due for that portion of the Work fully completed and accepted by the Funding Agency. Such payment shall be made under the terms and conditions governing final payment, except that it does not constitute a waiver of any of the Funding Agency's claims against the Small GESA Contractor.

12.13 Final Payment as Waiver of Claims. The approval of the release of final payment constitutes a waiver of all claims by the Funding Agency, **except** those arising from:

a. Unsettled claims;

b. Faulty, nonconforming or defective work or material;

c. Failure of the work or material to comply with the requirements of the Contract Documents; or

d. Terms of any warranties, special warranties and/or special guarantees required by the Contract Documents.

12.14 Acceptance of Final Payment as Waiver of Claims. The acceptance of final payment by the Small GESA Contractor constitutes a waiver of all claims by the Small GESA Contractor against the Funding Agency.

ARTICLE 13

PROJECT CLOSEOUT

13.1 **Closeout Generally.** Project closeout consists of a Final Inspection which shall be a Project Milestone. The purpose of Final Inspection is to determine whether the Work is substantially complete and to produce a Punch List of incomplete work.

13.2 **Final Inspection.** Final Inspection occurs within thirty (30) days from the receipt of a written request by the Small GESA Contractor to the Funding Agency for a Final Inspection and an application for release of final payment. Final Inspection shall be conducted by the Retained Professional, and the Funding Agency. The Small GESA Contractor must be present throughout the duration of the Final Inspection.

a. The Small GESA Contractor is required to obtain the required occupancy permit from Labor and Industry prior to Final Inspection.

b. The Funding Agency has the sole authority, in light of the Project's Scope of Work, to determine whether parts or the whole of the Project is subject to a Final Inspection.

c. The Small GESA Contractor shall verify at Final Inspection that a complete set of contract prints, corrected with suitable markings to show all changes or variations from the original contract, including all items uncovered during the work and showing the details of the work as actually built, including but not limited to horizontal and vertical dimensional references of all concealed pipe, conduit and other lines and equipment have been prepared and delivered to the Funding Agency.

d. If the Funding Agency and the Small GESA Contractor's Retained Professional concur that the Work is substantially complete, the Small GESA Contractor's Retained Professional shall issue a Certificate of Final Completion and a certificate for release of final payment. In such case, the Professional shall produce and deliver to the Small GESA Contractor, at Final Inspection, a list of uncompleted items and a reasonable cost of completion (Punch List). The Punch List shall list in detail each uncompleted item and a reasonable cost of completion for each Punch List item. The Funding Agency shall be given the opportunity to review and accept the contents of the Punch List. The Small GESA Contractor shall complete all Punch List items within 30 calendar days of Final Inspection.

e. The Funding Agency will approve the release of final payment in full within 45 days from the date of Final Inspection, but the amount will be reflect a deduction of one and one-half times the amount required to complete any then-remaining uncompleted minor items and any other monies withheld in accordance with the certificate and the Contract Documents, which amount shall be certified by the Professional and concurred with by the Funding Agency. The Funding Agency' approval of the release of payment of any amount withheld for the completion of the Punch List or other items shall granted upon completion of the items in the Certificate.

f. If the Small GESA Contractor does not complete all Punch List items or show just cause to the satisfaction of the Funding Agency why they cannot be completed, the Funding Agency may take action, including but not limited to, assessing liquidated damages, correcting items and deducting the cost of completion from the amount retained or default the Small GESA Contractor and pursue its surety for completion of the Work.

g. If the Work is complete in accordance with the Contract Documents, a report of the Final Inspection shall be prepared by the Funding Agency in accordance with the Administrative Procedures. After successful Final Inspection, the Funding Agency may utilize the project and the warranty period shall commence.

ARTICLE 14

SUSPENSION

14.1 **Suspension of Work Due to Unfavorable Conditions or Weather.** If, in the judgment of the Funding Agency, the Small GESA Contractor takes undue risk of damage to any part of a the Project, including, but not limited to, soil compaction, foundation excavation, concrete placement or any exterior building construction, by proceeding with the Work during unfavorable weather or other conditions (not relating to the fault of the Small GESA Contractor or the convenience of the Funding Agency), the Funding Agency may issue a written notice of a temporary suspension of the Work for either the whole Contract or any part of the Contract, for such temporary period as the Funding Agency deems necessary. If the temporary suspension is due to unfavorable weather, the suspension may span the time period (days, weeks or months) encompassed by the unfavorable weather. In case of such suspension under this paragraph, a proper Extension of Time will be allowed for this excusable, non-compensatory delay, but the Small GESA Contractor may not, unless the suspension resulted from a force majeure weather event, submit any claim for any expense or damages resulting from the suspension. The failure of the Funding Agency to suspend the Work does not relieve the Small GESA Contractor of its responsibility to perform the Work in accordance with the Contract Documents.

14.2 **Suspension of Work due to Fault of Small GESA Contractor.** If the Small GESA Contractor fails to comply with the orders of the Funding Agency relative to any particular parts of the Work, the Funding Agency may issue a written notice of a temporary suspension of the Work for either the whole Contract or any part of the Contract until the orders respecting the particular parts are complied with by the Small GESA Contractor. In case of this type of suspension, which shall be considered due to the fault of the Small GESA Contractor, no Extension of Time shall be given and the Small GESA Contractor may not submit any claim for any expenses incurred by the Small GESA Contractor during the suspension period. Further, the Small GESA Contractor may be liable for any and all damages incurred by the Funding Agency due to the Small GESA Contractor's actions.

14.3 **Suspension of Work for the Convenience of The Funding Agency.** The Funding Agency may issue a written notice of a temporary suspension of the Work for the convenience of the Funding Agency for either the whole Contract or any part of the Contract for such period of time as the Funding Agency may determine to be

appropriate. This Paragraph does not apply to suspensions due to unfavorable weather or to suspensions due to Small GESA Contractor's fault.

a. If the performance of all or any part of the Work is suspended by the Funding Agency for an excessive period of time under this paragraph, an adjustment shall be made for any increase in the cost of performance of this Contract (excluding profit) necessarily caused by such excessive suspension. The Contract Sum shall be modified in writing accordingly. The Funding Agency will not pay any costs under this paragraph to the extent:

    i. Performance would have been concurrently suspended by any other cause, including weather, or the fault or negligence of the Small GESA Contractor; or

    ii. An equitable adjustment for the time period encompassed within the suspension has been provided for or excluded under any other provision of this Contract.

No claim for damages allegedly incurred under this paragraph shall be submitted under the Dispute Resolution Article unless the claim, in an amount stated, is asserted in writing within six months after the date of the Funding Agency's letter terminating the suspension.

14.4 **Resumption of Work.** When the Funding Agency directs resumption of the Work under this Article, the Small GESA Contractor shall resume full operations within ten (10) days after the date of the Funding Agency's letter terminating the suspension. The Funding Agency is not liable for any damages or anticipated profits on account of the Work being suspended, except as described in the Paragraph entitled Suspension of Work for Convenience of the Funding Agency. Suspensions of Work as outlined in this Article shall not automatically extend the Contract Completion Date. A request for an Extension of Time may be submitted by the Small GESA Contractor, setting forth its reasons for the extension, which the Funding Agency will review in accordance with the Administrative Procedures governing Extensions of Time.

ARTICLE 15

TERMINATION OF CONTRACT

15.1 **Termination for the Convenience of The Funding Agency.** The Funding Agency may, in accordance with the terms of the Installment Purchase Agreement, terminate this Contract. In such case, the Small GESA Contractor shall be paid (and shall accept payment) for that portion of the entire Contract actually performed satisfactorily as of the date of termination. Termination costs shall not include any loss of anticipated profits. Disputes as to the sum payable to the Small GESA Contractor shall be settled in accordance with the provisions of the Dispute Article of these General Conditions of the Contract.

15.2 **Small GESA Contractor's Default.** If the Small GESA Contractor:

a. Persistently or repeatedly refuses or fails to supply sufficient properly skilled workmen or proper materials; or

b. Persistently disregards laws, ordinances, rules, regulations or orders of any public authority having jurisdiction over the Project; or

c. Fails to proceed as directed by the Funding Agency; or

d. Performs the Work unsuitably; or

e. Neglects or refuses to remove materials or replace rejected Work; or

f. Discontinues the prosecution of the Work without approval of the Funding Agency; or

g. Otherwise breaches any material provision of this Contract, then the Funding Agency may, without prejudice to any of its other rights or remedies, give the Small GESA Contractor and its Surety written notice that the Small GESA Contractor has seven (7) days from the date of the Funding Agency's letter to cure the default. If the Small GESA Contractor fails to cure the default within the specified time, the Funding Agency may terminate the Contract between the Funding Agency and the Small GESA Contractor and may take possession of the site and of all materials and equipment, which has been paid for by the Funding Agency as of the date of termination. The Funding Agency may finish the Work by whatever method the Funding Agency may deem expedient. Upon termination, the Small GESA Contractor is not entitled to receive any further payment until the Work is finished, at which time the Small GESA Contractor shall be paid any excess remaining, in accordance with the Unpaid Contract Balance Paragraph below. The discretion to declare the Small GESA Contractor in default rests solely with the Funding Agency. No party, whether bound by Contract to the Funding Agency or attempting to raise a third party relationship, which this Contract specifically precludes, may state a cause of action against the Funding Agency alleging the failure of the Funding Agency to exercise its discretion to terminate the Small GESA Contractor.

15.3 **Unpaid Contract Balance.** If the unpaid balance of the Contract sum exceeds the cost of finishing the Work, including compensation for any other damages that the Funding Agency has incurred in accordance with the Contract, such excess shall be paid to the Surety. If such costs exceed the unpaid balance, the Small GESA Contractor or the surety or both shall pay the difference to the Funding Agency.

15.4 **Surety Replacement of Small GESA Contractor.** If the Funding Agency terminates the Small GESA Contractor, the surety will have thirty (30) days from the date of the termination letter to replace the terminated Small GESA Contractor with a completion contractor that is acceptable to the Funding Agency.

15.5 **Surety's Failure to Provide Replacement Small GESA Contractor.** If the surety fails to provide an acceptable Small GESA Contractor within thirty (30) days from the date of the termination letter, the Funding Agency may contract with a contractor to complete the Work in accordance with the Contract Documents.

15.6 **The Funding Agency's Right of Recovery.** The Funding Agency will hold the Surety responsible for any additional cost incurred by the Funding Agency as a result of the Small GESA Contractor's termination, including but not limited to, delay cost, acceleration cost, direct cost and consequential and incidental cost incurred by the Funding Agency.

ARTICLE 16: DISPUTES

16.1 **Small GESA Contractor Must Carry on Work During the Dispute Process.** The Small GESA Contractor may note that they are performing the Work under protest and may keep records of costs during the dispute resolution process but the Small GESA Contractor shall not refuse to perform as directed by the Funding Agency. The Small GESA Contractor must maintain the Project Schedule unless otherwise agreed to by the Funding Agency. If the Small GESA Contractor fails or refuses to perform as directed, this action will constitute a breach of contract and the Funding Agency may default the Small GESA Contractor and/or proceed to suspend and/or debar the Small GESA Contractor.

16.2 **Dispute Resolution is a 3-Step Process.** The Small GESA Contractor and the Funding Agency agree that any and all disputes arising out of this Contract are subject to a 3-step resolution process. The Small GESA Contractor and the Funding Agency agree that participation in each preceding step is a condition precedent to the Small GESA Contractor's right to pursue any and all unresolved disputes to the next step.

16.3 **Step 1: Field Dispute Review Meeting.** The Field Dispute Review Meeting is the initial step in identifying and attempting to reach a timely and equitable resolution of the variety of issues that arise on any construction project. The nature and structure of each Field Dispute Review Meeting shall be flexible and consist of an informal, good-faith discussion of the current status of the Project, and identification of potential and actual disputes.

a. Project Intervals: A Field Dispute Review Meeting ("FDR Meeting") will be scheduled by the Funding Agency to discuss issues arising as of the following intervals of the Project:

   i. At least once in every three (3) month period of the project duration.

   ii. At any other time deemed necessary by the Funding Agency.

b. Location: The Funding Agency will schedule a mutually convenient date and time for each FDR Meeting. If possible, the FDR Meeting should be convened at the Project site.

c. Attendees: The Small GESA Contractor shall attend each Field Dispute Review Meeting. The Small GESA Contractor's Retained Professional shall attend each Field Dispute Review Meeting. The Funding Agency will chair the Meeting.

d. Procedure: As the Project progresses and the time for a FDR Meeting approaches, the Funding Agency should establish the date for the meeting during the discussion at a bi-weekly Job Conference.

The Small GESA Contractor must fill out a Field Dispute Review Meeting Form, a sample of which appears in the Disputes Administrative Procedure. This Form should be submitted to the Funding Agency and provided to the Small GESA Contractor's Retained Professional approximately 1 week prior to the FDR meeting. The information on this Form should provide sufficient information to allow attendees to research potential disputes, review the Contract Documents, review the Project Schedule and examine site conditions prior to the Meeting. In all cases of misunderstanding and disputes, allegations that verbal instruction was given will not be considered. The Small GESA Contractor must produce written documentation in support of its contentions and shall advance no claim in the absence of such written documentation, or use or attempt to use any conversation with any parties against the Funding Agency, or in prosecuting any claim against the Funding Agency.

e. FDR Meeting: The Funding Agency shall convene the Field Dispute Review Meeting.

   i. The FDR Meeting shall not be subject to 2 Pa. C.S. (relating to administrative law and procedure).

   ii. Neither audio recording nor videotaping will be allowed during the FDR Meeting.

   iii. No transcripts will be taken but attendees are free to take their own notes.

   iv. The Meeting may be moved out to the field for visual inspection of the condition if necessary to understand and resolve the issue.

   v. The Funding Agency will allow all parties a reasonable time to present and discuss the disputes raised in the Small GESA Contractor's FDR Meeting Form.

   vi. The Small GESA Contractor's representative (who should be an employee in the field who is familiar with the day-to-day work on the Contract) shall present a description of:

      1. The Work performed since the last Field Dispute Review Meeting; and

      2. The Work to be performed in the near future; and

      3. The status of disputes raised at any previous FDR Meeting; and

      4. New disputes that have arisen since the previous FDR Meeting. For each new dispute:

         a. Set forth the schedule impacts, which may only be presented using the current Project Schedule; and

         b. Set forth a proposed solution to the dispute, including:

            1. Days needed in any Extension of Time; and/or

            2. Damages attributed to the dispute; and'

            3. Identify the party the Small GESA Contractor believes is responsible for creating the dispute.

   vii. The Funding Agency's representative shall present a description of:

1. their understanding of the Work performed since the last FDR Meetings; and
2. the Work to be performed in the near future; and
3. status of disputes raised at the previous FDR Meeting; and
4. a response to the new dispute(s) raised by the Small GESA Contractor, including:
    a. The Funding Agency's view of the schedule impact, which may only be presented using the current Project Schedule; and
    b. The Funding Agency's response to the Small GESA Contractor's proposed solution; and
    c. the identity of the party the Funding Agency believes is responsible for creating the dispute.

f. Within two weeks of the FDR Meeting, the Funding Agency will render a written decision on the issues raised during the FDR Meeting. The decision will be issued to all attendees. The decision is not binding upon any party.

g. If any party is dissatisfied with the decision reached at the FDR Meeting, they may appeal the decision to the second step in the dispute process.

h. **Any issue or dispute arising on the Project must be presented at the first FDR Meeting after the dispute arose. If a Small GESA Contractor fails to raise an issue at the appropriate FDR Meeting (i.e., an issue arising during first 25% of contract duration must be presented at the 25% FDR Meeting and may not be presented later at the 50% FDR Meeting) then the Small GESA Contractor is deemed to have waived the issue.**

i. **Only claims raised during an FDR Meeting may be appealed to the Claim Conference stage.**

16.4 **Step 2: Claim Settlement Conference.** The second step in the dispute resolution process is a Claim Settlement Conference, which is a more formal step in the process and is described in general in §1712.1 of the Commonwealth Procurement Code.

a. Time to File A Claim: Under this second step of the process, the Small GESA Contractor may appeal the FDR Meeting decision by submitting a written claim to the Deputy Secretary or designee for the Funding Agency.

b. **Any issue or dispute arising on the Project that is not mutually resolved at the FDR Meeting stage may only be appealed to the Claim Settlement Conference stage. If the Small GESA Contractor fails to pursue any unresolved FDR Meeting issue to a Claim Conference within the 6-month time frame set forth below, then the Small GESA Contractor is deemed to have waived the issue.**

c. **A claim accrues under this Step upon the date of the Funding Agency's written decision. If the Small GESA Contractor decides to appeal the decision reached at the FDR Meeting, the Small GESA Contractor must file an appeal of the decision to the Deputy Secretary or designee within six months of the date of the Funding Agency's decision. If the Small GESA**

Contractor fails to file a written request within this time period, the Small GESA Contractor is deemed to have waived its right to assert the claim in any forum. The Deputy Secretary or designee will disregard untimely claims.

d. Contents of the Claim: The claim filed by the Small GESA Contractor with the Deputy Secretary **or designee** shall state **all grounds** upon which the Small GESA Contractor asserts a controversy exists. The claim must contain, at a minimum:

   i. The Claim Settlement Conference request form set forth in the Disputes Administrative Procedure; and

   ii. The documentation submitted by the Small GESA Contractor to the Funding Agency during the FDR Meeting to substantiate the Small GESA Contractor's view of the issue; and

   iii. The Funding Agency's decision.

e. Date of the Claim Conference: The Deputy Secretary or a designee will schedule a mutually convenient date and time for the Claim Settlement Conference.

f. Attendees: All parties identified in the Claim Packet or deemed necessary by the Funding Agency shall attend the Claim Settlement Conference. At a minimum, the Small GESA Contractor, the Small GESA Contractor's Retained Professional and a representative from the Funding Agency shall attend the Claim Settlement Conference.

g. Procedure: The Deputy Secretary or a designee will convene the Claim Settlement Conference.

   i. The Claim Settlement Conference shall not be subject to 2 Pa. C.S. (relating to administrative law and procedure).

   ii. Neither audio recording nor videotaping will be allowed during the Claim Settlement Conference.

   iii. No transcripts will be taken but attendees are free to take their own notes.

   iv. The Deputy Secretary or a designee will allow all parties a reasonable time to present and discuss the issues.

   v. The Small GESA Contractor's representative shall present a description of the issue, including:

      1. the factual background of the issue;

      2. the schedule impacts, which may only be presented using the current Project Schedule; and

      3. the proposed solution to the dispute, including:

         a. days needed in any Extension of Time; and/or

         b. damages attributed to the dispute; and

         c. identify the party the Small GESA Contractor believes is responsible for creating the dispute.

vi. The Funding Agency's representative shall present a description of:

1. a response to the dispute(s) raised by the Small GESA Contractor, including:

a. The Funding Agency's view of the schedule impact, which may only be presented using the current Project Schedule; and

b. The Funding Agency's response to the Small GESA Contractor's proposed solution; and

c. the identity of the party the Funding Agency believes is responsible for creating the dispute.

h. The Deputy Secretary or designee will render a final determination on the issue(s) raised during the Claim Settlement Conference within 120 days of the receipt of the claim by the Deputy Secretary or designee. The parties may, during the 120 day period, mutually agree to extend the 120-day deadline. If extended, the Deputy Secretary or designee will issue written confirmation of the extension. If no decision is rendered within the 120 days, the claim is deemed to be denied on the 120th day. The determination of the Deputy Secretary or designee shall be the final order of the Funding Agency with regard to the issue(s).

16.5 **Step 3: Filing a Claim at the Board of Claims.** The third step in the dispute resolution process is filing a Statement of Claim with the Board of Claims, which is a more formal step in the process and is described in general in §1712.1 and §1721 et seq. of the Commonwealth Procurement Code.

a. Time to File a Statement of Claim. Within fifteen (15) days of:

i. The mailing date of the Deputy Secretary's final determination denying a claim; or

ii. Within 135 days of the date the Small GESA Contractor files a claim with the Deputy Secretary if no final determination has been rendered and no extension has been agreed to,

whichever occurs first, the Small GESA Contractor may proceed to the third stage of the dispute resolution process by filing a claim with the Board of Claims in Harrisburg.

b. **Only claims that were raised during a Claim Settlement Conference may proceed to the Board of Claims.**

ARTICLE 17

MISCELLANEOUS CONDITIONS

17.1 **Project Sign.** No signs of any kind shall be placed anywhere on the project site without the explicit written permission of the Funding Agency. Signs for safety instruction, direction of traffic, instruction of visitors to the site and site restrictions shall be fabricated, erected and maintained by the Small GESA Contractor as required at no additional cost to the Funding Agency. Upon Completion of the work, or when directed by the Funding Agency, the Small GESA Contractor shall remove signs.

17.2 **Temporary Ventilation.** The Small GESA Contractor shall provide temporary ventilation to remove from the structure any excessive heat and/or humidity in enclosed portions of the Work, resulting from its construction operations so that the Work may be carried on without interruption and under correct conditions, including required dryness for installation of the various materials. Removing any dangerous or noxious fumes or particles suspended in the air is the responsibility of the Small GESA Contractor. Temporary equipment used for this temporary ventilation shall produce no hazard to the Work or to any person in or near it. The Small GESA Contractor shall furnish all such temporary equipment; pay all costs for it and for its operation, including fuel and power supplies during operation both in and out of normal working hours. The Small GESA Contractor shall remove the equipment when it is no longer required, or when so directed by the Funding Agency.

17.3 **Work Beyond Limit of Contract.** For purposes of performing the Work, the site is defined by the Limit of Contract lines shown on the drawings. The Small GESA Contractor is responsible for any work performed beyond the limit of Contract.

17.4 **Advertising.** No advertising is permitted within the Work area or adjacent area. This does not apply to corporate vehicles or attire.

17.5 **Federal and A.S.T.M. and Other Specifications.** Reference to Federal, A.S.T.M. and other standard specifications references and designations means those in effect at the date of bid. Basic codes and regulations incorporated by reference, standard regulations and codes refer to editions in effect at the date of proposals, including current addenda or errata. The most stringent section of each code applies.

17.6 **Storage and Stockpiling on Roofs.** No materials of any type may be stored or stockpiled overnight on roofs.

17.7 **Audit of Records.** The Funding Agency may, at reasonable times and places, audit the books and records of the Small GESA Contractor. The Small GESA Contractor shall maintain books and records related to the Contract for a period of three (3) years from the date of final payment. The Small GESA Contractor shall include a requirement in contracts with subcontractors or suppliers that requires the Subcontractor or Supplier to maintain its records for the same length of time.

17.8 **Reduction of Noise.** The Small GESA Contractor must take reasonable steps to minimize noise and shall perform work in accordance with local noise ordinances. The Small GESA Contractor shall perform noise-producing work in less sensitive hours of the day or week as directed by the Funding Agency. The Small GESA Contractor shall maintain noise-producing work at or below the decibel levels and within the time periods specified and shall perform construction activities involving repetitive, high-level impact noise only between 8:00 a.m. and 6:00 p.m. unless otherwise permitted by the Funding Agency and permissible by local ordinance.

17.9 **Visible Dust Emissions**. No person shall perform any construction, demolition, excavation, extraction, or other earthmoving activities unless appropriate measures are sufficiently implemented to limit Visible Dust Emissions (VDE) to 20% opacity and comply with the conditions for a stabilized surface area when applicable. The Small GESA Contractor shall apply sufficient water to building exterior surfaces, and/or unpaved surface areas where equipment will operate to limit VDE to 20% opacity throughout the duration of razing and demolition activities or handling, storage, and transport of bulk materials on-site or off-site. The Small GESA Contractor shall apply sufficient dust suppressants to unpaved surface areas within 100 feet where materials from razing or demolition activities will fall in order to limit VDE to 20% opacity. The Small GESA Contractor shall also apply sufficient dust suppressants to unpaved surface areas where wrecking or hauling equipment will be operated in order to limit VDE to 20% opacity.

ARTICLE 18

LEGAL MATTERS

18.1 **No Estoppel or Waiver of Legal Rights.** The Funding Agency is not precluded or estopped by the measurements or the release of Applications for Payment made or given by the Funding Agency from showing the true and correct amount and character of the Work performed and materials and equipment furnished by the Small GESA Contractor. The Funding Agency may show, at any time, that any such measurements or approvals of release of Applications for Payment are untrue or incorrectly made in any particular, or that the Work or materials, equipment or any parts thereof do not conform to the specifications and the Contract. The Funding Agency may reject the whole or any part of the aforesaid Work or materials and equipment if the measurements or approval of release of Applications for Payment are found or become known to be inconsistent with the terms of the Contract, or otherwise improperly given. The Funding Agency may, notwithstanding any such measurements or approval of release of Applications for Payment, demand and recover from the Small GESA Contractor, its surety, or both, such damages as the Funding Agency may sustain by reason of the Small GESA Contractor's failure to comply with the terms of the specifications and the Contract, or on account of any overpayments made on any approved for release Application for Payment. Neither the acceptance by the Funding Agency nor any certificate accepted for payment of money, nor any approval for release of payments, nor acceptance of the whole or any part of the Work by the Funding Agency nor any Extension of Time, nor any position taken by the Funding Agency operates as a waiver of any portion of the Contract or any power herein reserved by the Funding Agency or any right to damages. A waiver of any breach of the Contract will not be held to be a waiver of any other or subsequent breach.

18.2 **Law of the Place.** The Contract shall be governed by the Laws of the Commonwealth of Pennsylvania.

18.3 **Successors and Assigns.** This Small GESA Contract shall be binding on the parties hereto, their heirs, executors, administrators, successors and assigns. No part of this Contract may be assigned by the Small GESA Contractor without the prior written consent of the Funding Agency.

18.4 **Written Notice.** Written notice is duly served if delivered in person to the individual or member of the firm or to an officer of the corporation for whom it was intended, or mailed to its post office box address, if any, or addressed to the Small GESA Contractor at its place of business as set forth in the Standard Form of Contract. Wherever the term "notice" is used, such notices, to be effective, shall be in writing and, if to the Funding Agency, shall be mailed by Certified or Registered mail, postage and fees prepaid, or shall be delivered, in person, to the Deputy Secretary for Public Works, Department of General Services, 18th & Herr Streets, Harrisburg, Pennsylvania 17125.

18.5 **Claims for Damages: Legal Relations and Responsibilities.** Contracts covered by these General Conditions are not to be construed as being made for the benefit of any person or political subdivision not a party to this Contract, nor shall this Contract be construed to authorize any person or political subdivision, not a party to this Contract, to maintain any lawsuit hereunder, nor shall this Contract be construed to constitute the basis for the maintenance of any lawsuit by any person, or political subdivision not a party hereto.

18.6 **Royalties and Patents.** The Small GESA Contractor shall pay all royalties and license fees. The Small GESA Contractor shall defend all suits or claims for infringement of any patent rights and shall hold the Funding Agency harmless from loss on account thereof.

18.7 **Personal Responsibility and Work Opportunity Reconciliation Act.** Pursuant to the Personal Responsibility and Work Opportunity Reconciliation Act of 1996 (Act 58 of 1997, as amended), all employers are required to report information on newly-hired employees to a designated state agency. The Commonwealth of Pennsylvania has designated the Department of Labor and Industry as that agency. For information concerning this requirement call 1-888-PAHIRES.

18.8 **Prevailing Minimum Wage Predetermination.** The Small GESA Contractor is hereby notified that this Contract is subject to the provisions, duties, obligations, remedies and penalties of the Pennsylvania Prevailing Wage Act, 43 P.S. §165-1 et seq., as amended, which is incorporated herein by reference as if fully set forth herein. In compliance with said Pennsylvania Prevailing Wage Act, the Prevailing Minimum Wage Predetermination is hereto attached and made part hereof as approved by the Secretary of Labor and Industry. If a job classification is not covered by the Prevailing Wage Predetermination, the Small GESA Contractor may not pay individuals in that classification less than the lowest rate for laborers, as set out in the predetermination.

18.9 **Public Works Employment Verification Act.** The Small GESA Contractor is hereby notified that this contract is for a public work and the Small GESA Contractor is therefore subject to the provisions, duties, obligations, remedies and penalties of the Public Works Employment Verification Act, 43 P.S. §§167.1-167.11, which is incorporated herein by reference as if fully set forth herein. Contractors subject to said Public Works Employment Verification Act are required to utilize the Federal E-Verify program to verify the employment eligibility of each new employee hired after January 1, 2013 and to submit to the Department a Commonwealth Public Works Employment Verification Form available on the Department's web site at www.dgs.pa.gov.

18.10 **Steel Products Procurement Act.** The Small GESA Contractor is hereby notified that this contract is for a public work and the Contractor is therefore subject to the provisions, duties, obligations, remedies and penalties of the Steel Product Procurement Act, 73

P.S. §§1881-1887, as amended, which is incorporated herein by reference as if fully set forth herein. The Small GESA Contractor must refer to the Department's web site at www.dgs.pa.gov for information regarding the Steel Products Procurement Act and the current list of exempt machinery and equipment steel products.

18.11 Tobacco Use on Project Site. Use of tobacco products (smoke and smokeless) shall be restricted on site after the building has been enclosed (with permanent or temporary enclosures). Personnel found in noncompliance with this directive may be removed from the site upon discovery of this noncompliance.

18.12 Right-to-Know Law. The Pennsylvania Right-to-Know Law, 65 P.S. §§ 67.101-3104, applies to this Contract.

a. Unless the Small GESA Contractor provides the Commonwealth, in writing, with the name and contact information of another person, the Funding Agency shall notify the Small GESA Contractor using the Small GESA Contractor information provided by the Small GESA Contractor in the legal contact information provided in this Contract if the agency needs the Small GESA Contractor's assistance in any matter arising out of the Right to Know Law ("RTKL"). The Small GESA Contractor shall notify the agency in writing of any change in the name or the contact information within a reasonable time prior to the change.

b. Upon notification from the Commonwealth that the Commonwealth requires the Small GESA Contractor's assistance in responding to a RTKL request for records in the Small GESA Contractor's possession, the Small GESA Contractor shall provide the Commonwealth, within fourteen (14) calendar days after receipt of such notification, access to, and copies of, any document or information in the Small GESA Contractor's possession which arises out of the Contract that the Commonwealth requests ("Requested Information") and provide such other assistance as the Commonwealth may request in order to comply with the RTKL. If the Small GESA Contractor fails to provide the Requested Information within fourteen (14) calendar days after receipt of such request, the Small GESA Contractor shall indemnify and hold the Commonwealth harmless for any damages, penalties, detriment or harm that the Commonwealth may incur as a result of the Small GESA Contractor's failure, including any statutory damages assessed against the Commonwealth.

c. The Commonwealth's determination as to whether the Requested Information is a public record is dispositive of the question as between the parties. Small GESA Contractor agrees not to challenge the Commonwealth's decision to deem the Requested Information a Public Record. If the Small GESA Contractor considers the Requested Information to include a request for a Trade Secret or Confidential Proprietary Information, as those terms are defined by the RTKL, the Small GESA Contractor will immediately notify the Commonwealth, and will provide a written statement signed by a representative of the Small GESA Contractor explaining why the requested material is exempt from public disclosure under the RTKL within seven (7) calendar days of receiving the request. If, upon review of the Small GESA Contractor's written statement, the Commonwealth still decides to provide the Requested Information, Small GESA Contractor will not challenge or in any way hold the Commonwealth liable for such a decision.

d. The Commonwealth will reimburse the Small GESA Contractor for any costs associated with complying with this provision only to the extent allowed under the fee schedule established by the Office of Open Records or as otherwise provided by the RTKL if the fee schedule is inapplicable.

e. Small GESA Contractor agrees to abide by any decision to release a record to the public made by the Office of Open Records, or by the Pennsylvania Courts. The Small GESA Contractor agrees to waive all rights or remedies that may be available to it as a result of the Commonwealth's disclosure of Requested Information pursuant to the RTKL. Small GESA Contractor's duties relating to the RTKL are continuing duties that survive the expiration of this Contract and shall continue as long as the Small GESA Contractor has Requested Information in its possession.

END

APPENDIX I

- Small GESA Contract Administrative Procedures

ADMINISTRATIVE PROCEDURES FOR SMALL GESA CONTRACTS

HARRISBURG, PENNSYLVANIA

2015 EDITION

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Small Diverse Business Participation

THE TERM "DGS" MAY APPEAR IN THIS DOCUMENT AND THE GSC FORMS BUT, IT SHALL MEAN "FUNDING AGENCY."

ADMINISTRATIVE PROCEDURE #1

CORRESPONDENCE

A. Identification of Correspondence

1. Correspondence (letters, transmittals, memos) and forms should be sent and received, whenever possible, as an email attachment. Individual email addresses will be exchanged during either the Project Orientation Meeting or the Initial Design Progress Meeting. US Mail and package delivery should be kept to a minimum.

    a If printing on paper is necessary, the item should be printed on both sides of the paper.

2. All correspondence must be identified by the Contract Number, Project Name, Facility, and a brief summary of the issue.

3. Following is an example of proper identification for email subject line: Small GESA-4, DCNR Western Region

B. Addressing and Distribution of Correspondence

Letters, transmittals and forms shall be emailed with the distribution to include, at a minimum, personnel indicated below. The email addresses of the specific individuals who will be involved with the project will be identified at either the Orientation Meeting or the Initial Job Conference.

During Design Phase:

DGS Director of Energy and Resource Management (Energy Coordinator)
Energy Engineer
Funding Agency Person assigned to project
Small GESA Contractor's Retained Professional

During Construction:

Funding Agency Person assigned to project
Energy Coordinator
Energy Engineer
Small GESA Contractor's Retained Professional

ADMINISTRATIVE PROCEDURE #2

ORIENTATION MEETING

A. Scheduling of Orientation Meeting

1. The Orientation Meeting will be held prior to the Initial Design Progress Meeting. The Funding Agency will contact the Small GESA Contractor by letter within ten days after the Small GESA contract effective date to schedule this meeting. The Funding Agency will also inform the Energy Coordinator and the Energy Engineer of the meeting. The purpose of the Orientation Meeting is to familiarize the Small GESA Contractor with the Small GESA procedures and forms to be used during design and construction and to review the Funding Agency's requirements for design services, design progress meetings, submissions, regulatory and other approvals, construction phase meetings, and other items including the project schedule.

2. Personnel from the Small GESA Contractor's office, such as the principal of the firm, Project manager and Project superintendent, the Small GESA Contractor's Retained Professional and its consultants, and the Small GESA Contractor's HVAC, plumbing and electrical subcontractors must attend since instructions will be given on completion of forms. All Forms may be downloaded on DGS' website.

3. During the Orientation Meeting, the Funding Agency or designee shall conduct the order of business and discuss specific requirements and particulars of the project.

B. Agenda for Orientation Meeting

1. Introduction of all project participants by the Funding Agency and exchange of email addresses and phone numbers for all project participants.

2. Explanation of Administrative Procedures and forms.

    a All Forms may be downloaded on DGS' website.
    b The Funding Agency will not distribute paper copies of any forms.

3. Overview of the Project Scope and Schedule.

4. Review of design, submission and approval requirements.

5. At the Orientation Meeting, the Energy Engineer will set a time, date, and place for the Initial Design Progress Meeting, which will be no later than the tenth day following the Orientation Meeting.

6. Question and answer period.

ADMINISTRATIVE PROCEDURE #3

DESIGN PROGRESS MEETINGS AND JOB CONFERENCES

A. General Information Regarding Job Conferences and Design Progress Meetings

1. Design Progress Meetings are held to address and document Design Phase activities and progress on the Project.

2. Job Conferences are held to address and document Construction Phase activities and the progress on the Project.

3. The Orientation Meeting will be held prior to the Initial Design Progress Meeting. Job Conferences will be scheduled by the Funding Agency subsequent to the commencement of on-site work by the Small GESA Contractor.

4. In the event that site development construction work begins prior to the completion of the Design Phase, both Job Conferences and Design Progress Meetings will be scheduled as required. The Small GESA Contractor's Retained Professional and the Funding Agency may elect to schedule these meetings on the same date.

B. Design Meetings

1. General Information Concerning Design Progress Meetings

   a The following persons are required to attend Design Progress Meetings:

      i Small GESA Contractor's Project Manager or equivalent
      ii Small GESA Contractor's Professional or Retained Professional and its consultants
      iii Funding Agency representative(s)

   b The following representatives are permitted, but not required, to attend any Design Progress Meeting:

      i Energy Coordinator
      ii Energy Engineer

   c During the Design Progress Meetings, the Small GESA Contractor's Professional or Retained Professional or designee shall conduct the order of business. The Small GESA Contractor's Professional shall take the minutes of Design Progress Meetings. Within ten days of the meeting or not less than two days prior to the next Design Progress Meeting, whichever occurs first, the appointed individual shall email a copy of the minutes to each addressee listed on the record.

2. Initial Design Progress Meeting Agenda

   a Introduction of attendees.

   b Explanation by Funding Agency of relevant portions of the GESA Design Manual and associated forms. The Small GESA Contractor may use the Design Manual included in the RFP as a guide. The discussion will include:

      i Meeting minutes and correspondence
      ii Project schedule, submissions and reviews
      iii Project scope and changes

iv Required Funding Agency approvals
v Pre-design activities

- Site visit and existing conditions verification
- Available existing documents acquisition and review
- Code analysis verification
- Proprietary and restricted products
- Final Submission requirements
- Drawing, specification and design standards to be met.

vi Review and verification of materials included with the RFP, as applicable:

- Scope of work and technical requirements
- Site drawings, utilities and interferences
- Environmental, archaeological and related impacts
- Facility prototype drawings
- Identified adjustments or corrections required to prototype
- Structural criteria including geotechnical report impacts
- HVAC, plumbing, fire protection and electrical criteria
- Security criteria
- Codes, regulatory approvals and permits
- Summarize determinations regarding site and facility criteria.
- Submission requirements to Labor and Industry Building and Boiler.

c Other topics raised for discussion

d Establish date, time and location for the next Regular Design Progress Meeting

C. Regular Design Progress Meetings

1. The Small GESA Contractor will hold Regular Design Progress Meetings as often as deemed necessary, however, in no case less than monthly unless a longer interval is approved, in writing/email, by the Funding Agency.

2. The Small GESA Contractor Professional, or designee, shall determine the required agenda, notify all required participants by email and conduct the meeting among all those concerned with Project design. The agenda of a Regular Design Progress Meeting shall include the following:

a General Review of minutes of the previous Design Progress Meeting with progress on Action Items, as noted on previous Design Progress Meeting minutes. The manner in which the item was addressed should also be noted. Action Items will be included in each report until resolved.

b Presentation of current drawings and specifications

c Discussion of progress and identification of new Action Items

d Review of Design Progress Schedule with special attention given to items that are behind schedule.

e Projected work for the next bi-weekly period

f Delays with the Small GESA Contractor identifying any outstanding Action Item that may delay the completion of the design.

g Information to be incorporated into completed minutes should include percentage of elapsed design time and estimated percentage contract document completion; date, time and place of the next Design Progress Meeting; and the name of the person who prepared the minutes.

h The Small GESA Contractor Retained Professional will email the Design Progress Meeting minutes to the following:

i Small GESA Contractor
ii Small GESA Contractor's Retained Professional
iii Funding Agency
iv Energy Coordinator
v Energy Engineer

D. General Information Concerning Job Conferences during Construction Phase

1. The following persons are required to attend Regular Job Conferences:

a Small GESA Contractor's Project Manager or equivalent

b Small GESA Contractor's Professional or Retained Professional

c The Funding Agency

i If necessary, the Funding Agency will schedule Special Job Conferences and will specify the required attendees.

2. The following representatives are permitted, but not required, to attend any Job Conference:

a Energy Coordinator

b Energy Engineer

c Other representatives, as appropriate (determined by the Funding Agency)

3. The Small GESA Contractor's Professional shall create minutes of Job Conferences. A copy of the minutes shall be emailed to each attendee before the next Job Conference.

4. Failure of the Small GESA Contractor representative to attend any Job Conference is a violation of the Small GESA Contract.

E. Initial Job Conference

1. **Notice and attendance**

a The Funding Agency will set a time, date, and place for the Initial Job Conference (IJC), which will be no later than the fifteenth day following approval of the Final Design. **The Small GESA Contractor and all subcontractors are expected to have reviewed and familiarized themselves with the Administrative Procedures prior to the IJC.**

i The email notification of the time, date and place of the IJC shall be sent to:

- Small GESA Contractor
- Small GESA Contractor's Professional or Retained Professional
- Funding Agency representative(s)
- Energy Coordinator
- Energy Engineer
- DGS Bureau of Diversity, Inclusion and Small Business Opportunities

2. During the IJC, the Funding Agency shall conduct the order of business and discuss specific requirements and particulars of project construction.

3. The GESA Professional shall attach a separate sheet to the minutes of the IJC Report, indicating the names, email addresses and telephone numbers of the Small GESA Contractor, the Small GESA Contractor′s Retained Professional, appointed Funding Agency personal, the Energy Coordinator, and the DGS Energy Engineer, assigned to the project.

4. Agenda for Initial Job Conference

a Introduction of attendees.

b Explanation of Small GESA Administrative Procedures and associated forms. The Funding Agency will not provide the Small GESA Contractor with a copy of the Administrative Procedures with the Orientation Packet..

c Permits, Fees, Notices, Safety

d Establish Small GESA Contractor′s projected start date for on-site construction work.

e Establishment of date, time and location of the first Regular Job Conference

f Review of Small GESA Contractor contract General Conditions

g General Comments

F. Construction Job Conferences

1. The Funding Agency will hold bi-weekly Job Conferences unless a longer interval is mutually accepted. The GESA contractor is responsible for meeting minutes.

2. The agenda of a Regular Job Conference shall include the following:

a General Review of Previous Report

i Unsatisfactory conditions and/or workmanship noted on previous Job Conference Reports must be noted when corrected and accepted on first report following correction. The manner in which the correction was made should also be noted. The unsatisfactory item will be included in each report until correction is made.

b General discussion of Job Conditions

c Review of past due Shop Drawings

d Review of outstanding Change Orders

e Review of Progress Schedule

- Special attention will be given to items that are behind schedule.

f Projected work for the next bi-weekly period

g Delays

- The Small GESA Contractor should pay special attention to ensure that any delays are documented on the Job Conference Reports, since Extensions of Time will be determined from the information provided at the Job Conference.

h Information to be incorporated into completed Job Conference Reports may include, but is not limited to, percentage of elapsed Project time; percentage of Project payment; percentage of Project job completion (based upon physical inspection); date, time and place of the next Project job conference; and the name of the person who prepared the report.

i Job Conference Reports will be emailed as an attachment by the Funding Agency to the following:

Small GESA Contractor
Small GESA Contractor's Retained Professional
Funding Agency
Energy Coordinator
Energy Engineer

G. Special Job Conferences

1. The Funding Agency, or representative, may call a Special Job Conference to consider any emergency or unusual job condition. Only the subject(s) mentioned in the notice of the Special Job Conference shall be discussed.

ADMINISTRATIVE PROCEDURE #4

A. CONTRACT BREAKDOWN SHEET (FORM GSC-30)

1. The Small GESA Contractor shall prepare and submit the Contract Breakdown Sheet ("GSC-30") to the Funding Agency for its approval within 45 days of the effective date of the Small GESA Contract and prior to submission of the Small GESA Contractor's first Application for Release of Payment. The Small GESA Contractor will use the Cost Submission form completed in response to the AFQ and the RFP as the basis for the GSC-30. The Funding Agency will require at least ten working days to review and approve the GSC-30 or any Supplemental GSC-30.

2. The Small GESA Contractor may request a meeting with the Funding Agency for the purpose of reviewing a work copy of the GSC-30. The Small GESA Contractor shall prepare the GSC-30 work copy prior to the requested meeting. This meeting does not trigger a submission for purposes of the Prompt Payment Act.

3. Following review of the GSC-30 work copy by the Funding Agency, the Small GESA Contractor shall email the final GSC-30 to the Funding Agency.

   a The Funding Agency shall review the GSC-30 with their designated personnel and the Funding Agency personnel assigned to the Project shall sign the bottom of the GSC-30.

   b The Funding Agency shall review and approve the Small GESA Contractor's Applications for Payment in accordance with language included in the project-specific Small GESA RFP without DGS participating in the review or approval of any Applications for Payment.

   c In reviewing the GSC-30, the Funding Agency should utilize the items set forth under General Information for this Administrative Procedure. The Funding Agency-approved GSC-30 will be the basis for the Small GESA Contractor's Applications for Release of Payment. The Funding Agency may also use the GSC-30 to determine the cost or credit to the Funding Agency resulting from changes in the work.

4. General Information

   a The Small GESA Contractor shall show the Contract Bond as the first item. The bond cost shall not exceed the actual amount paid by the Small GESA Contractor.

   b If a Roof Bond/Guarantee is required, it must be listed separately as the second item.

   c Temporary heat, if required by the Contract Documents, must be shown on the GSC-30 as a separate line item, which must be the last item on the GSC-30 and must include the number of days, the Unit Price per twenty-four hour day, and the extension of the figures. Any adjustment to the number of days of temporary heat, used or not, must be based on the Unit Price shown on the breakdown.

   d The Small GESA Contractor must list items according to Energy Conservation Measures and break the ECMs into buildings or floors.

e The Small GESA Contractor shall include separate line items for Retained Professional's services during design and during construction. The sum of these items shall match the fee established in the contract between the Small GESA Contractor and their Retained Professional. No more than 50% of the fee may be included in the design line item and no more that 25% may be included in the line item for administration and review services during construction. The remaining 25% balance shall be identified as being for services associated with testing, commissioning and project close-out activities. These percentages may not be altered without the prior written consent of the Funding Agency.

f The Small GESA Contractor shall not show temporary services and/or equipment furnished at the Small GESA Contractor's cost. The Small GESA Contractor must pro-rate the cost of these items (with the exception of temporary heat) throughout the items of work, material and/or equipment to which the cost pertains.

g The Small GESA Contractor shall include a single line item for mobilization in its GSC-30, limited to include only those items listed in the General Conditions of the Small GESA Contract. The total for mobilization cost shall not exceed 1.5% of the contract award amount.

h The Small GESA Contractor shall show excavation and backfill as separate items. If hand excavation is required, it must also be separately listed. All excavation and backfill quantities shall be indicated in cubic yard units. If there is no backfill, an explanation must be provided.

i Concrete for structures is to be indicated in cubic yard units. Concrete sidewalk and concrete paving may be indicated as square yard units. All unit prices for concrete work shall include forming. Forming may not be indicated as a separate line item.

j Painting must be a separate item, listed in square feet. The Funding Agency will not accept lump sum painting costs.

k The Small GESA Contractor shall not use the terms "furnish" or "install" as part of the description of a line item. Procurement and installation costs must be included in the line item of work. The only exception shall be in cases where materials or equipment are furnished by the Funding Agency or another Commonwealth of Pennsylvania entity for the Small GESA Contractor's use in the Project.

l "Demolition" shall include, in parentheses, the specific item(s) to be demolished.

m The Small GESA Contractor shall include scaffolding costs within the item with which it is associated, not as a separate line item.

n The Small GESA Contractor may show sheet metal work as two items, i.e., (a) Sheet metal shop drawings and (b) Sheet metal fabrication and installation. Shop drawings must be shown at actual cost, as a "lump sum" item. The Small GESA Contractor shall obtain Funding Agency's approval of the shop drawings prior to Application for Release of Payment. If a subcontractor is used for shop drawings, a copy of the subcontractor's invoice must be attached to the Application for Release of Payment when the Small GESA Contractor requests payment for the shop drawings.

o When balancing of heating and ventilating systems is required by the specifications, the Small GESA Contractor shall show it as a separate item.

p Lump Sum items cannot be released for payment until the item is completely finished, inspected, and accepted by the Funding Agency.

q The Small GESA Contractor may submit a supplemental breakdown for those items listed as Lump Sum on the original approved GSC-30 at a later date, indicating quantity, unit price and extensions for all items to be furnished and installed under each Lump Sum item. Lump Sum items should be kept to a minimum. Supplemental breakdowns are not permitted for items where partial payment has been made.

r The Small GESA Contractor's initial GSC-30 must designate any work to be subcontracted by noting such in parenthesis after the scope of work, such as "Painting (subcontracted)". The line item for subcontract work may be broken into as many sub-items as necessary, including building, area or floor.

s A separate line item is required for each purchase order or subcontract issued to an SDB firm. The line item for the purchase order or subcontract may be broken into as many sub-items as necessary, including building, area or floor. The value for the purchase order or subcontract line item (or the sum of the sub-items) shall be identical to the value of the purchase order or subcontract.

t Descriptions shall be clear and concise for each item of work, material or equipment, using the same designation as the specifications. The Small GESA Contractor shall list all items (examples: concrete masonry units, conduit, pipe fittings, wire, cable, etc.) by type and size to be installed.

u The Small GESA Contractor shall list items by ECM in chronological order on the GSC-30. Additional items may be listed at the Small GESA Contractor's discretion. Alpha-numeric numbering is not permitted except in cases where supplemental breakdowns are submitted.

v The Small GESA Contractor shall list operation and maintenance manuals as one line item. The value shall be not less than 1% of the contract award amount and is subject to the approval of the Funding Agency.

w The Small GESA Contractor shall list Record Drawings (as-built dwgs.) as one line item. The value shall be at least 2% of the contract award amount.

ADMINISTRATIVE PROCEDURE #5

A. PROJECT SCHEDULE FORM GSC-35

1. The Project Schedule shall be developed using the Critical Path Method. The schedule shall be developed, prepared, and submitted in accordance with the requirements and time frames required by the General Conditions of the Small GESA Contract and the requirements of this Administrative Procedure, in addition to the following:

   a The CPM Schedule is to be created by the Small GESA Contractor the utilizing current version of Primavera.

   b The Small GESA Contractor shall complete all work in accordance with the accepted Project Schedule. The Project Schedule will reflect the decisions of the Small GESA Contractor as to sequence, duration, design and construction logic and all means and methods of construction.

   c The Project Schedule shall be reviewed at the first Design Meeting. No Application for Release of Payment beyond #1 will be approved by the Funding Agency until the Project Schedule is submitted by the Small GESA Contractor and accepted by the Funding Agency.

   d The Funding Agency will not automatically grant an extension of time due to activity time delays. Since a contract modification or delay may result in only absorbing a part of the available total float that may exist within an activity or chain of activities, the modification or delay may not affect existing critical activities or interim milestone dates or cause non-critical activities to become critical.

   e Total float is defined as the amount of time between the early start date and the late start date, or the early finish date and the late finish date, for each and every activity in the Project Schedule. Float is not for the exclusive use or benefit of either the Funding Agency or the Small GESA Contractor. The Funding Agency will consider extensions of time to interim milestone dates or the Contract Completion Date only to the extent that equitable time adjustments to the activity or activities affected by the contract modification or delay exceeds the total float of the affected or subsequent paths and extends any interim milestone date or the Contract Completion Date.

   f General Information

      i The Small GESA Contractor shall list design activities indicating Required Submissions dates and required review time.

      ii The Small GESA Contractor shall list items of construction as they will be installed, listing each ECM separately The Small GESA Contractor shall also include in its schedule submissions of shop drawings for approval, approval of shop drawings, placing of material orders, and delivery of materials.

      iii The Small GESA Contractor is responsible for assuring that any/all subcontract work as well as work performed by its own forces, is included in the schedule.

      iv The Project Schedule shall reflect Early Start/Early Finish Dates, Late Start/Late Finish Dates, and available float or slack time for each and every activity.

- v The Small GESA Contractor shall identify and incorporate construction progress milestones into the Project Schedule in accordance with the General Conditions of the Small GESA Contract. The milestones shall signify the start date or completion date of a specific activity that is critical to the completion of the project on schedule. The Small GESA Contractor must show at least one milestone in each month of the scheduled construction period.

ADMINISTRATIVE PROCEDURE #6

A. REQUEST FOR APPROVAL OF MATERIALS OR SUBCONTRACTORS FORM GSC-23

1. The Small GESA Contractor shall prepare and submit the Form GSC-23 as required by the General Conditions of the Small GESA Contract and this Administrative Procedure.

2. If the Small GESA Contractor wishes to provide an "equal," it must check the appropriate block on the Form GSC-23. The submission shall fulfill the requirements of the General Conditions of the Small GESA Contract.

3. If the Small GESA Contractor desires to provide a "substitution," it must check the appropriate block on the Form GSC-23. The submission shall fulfill the requirements of the General Conditions of the Small GESA Contract. The Small GESA Contractor must also attach a "Letter of Certification" on company letterhead in this format:

   GESA Project Location_____

   ### Certification

   I, the authorized representative of the Small GESA Contractor certify, to the best of my knowledge that, for each purchase order issued on this Project:

   a. The material and/or equipment to be supplied is accurately described in the purchase order; and
   b. The material and/or equipment to be supplied complies with the requirements of the contract documents; and
   c. The Suppliers have been notified of the payment provisions of the Prompt Payment Schedule.
   d. The Suppliers have been notified that nothing contained in the Contract Documents between the Small GESA Contractor and the Funding Agency creates any contractual relationship between the Funding Agency and any Supplier.

   I understand that by signing this document I certify that the facts contained herein are true. I further understand that this document is subject to the provisions of the Unsworn Falsification to Authorities (18 P.S. § 4904). I acknowledge that if my company does not comply with these terms, my company may be subject to suspension and/or debarment from bidding on any Commonwealth of Pennsylvania public works project for a period of three years.

4. The Small GESA Contractor shall number each submission and each page within each submission consecutively and shall give resubmissions the same number as the original submission.

5. The Small GESA Contractor shall attach a copy of the Certification for Welders and a copy of the License for Blasters to the Form GSC-23, when submitted.

6. If the Small GESA Contractor has a financial interest in a Subcontractor, Sub-subcontractor or Supplier, it must disclose its relationship to the Subcontractor, Sub-subcontractor or Supplier on the GSC-23 in the block "Relation to Small GESA Contractor" in accordance with the General Conditions of the Small GESA Contract.

7. Prior to the commencement of work by any Subcontractor, Sub-subcontractor or

Supplier, the Small GESA Contractor must submit a copy of the Subcontractor/Supplier Agreement, in accordance with the General Conditions of the Small GESA Contract to DGS field personnel (or Funding Agency if Small GESA project is administered by Funding Agency) who will retain a copy.

8. The Small GESA Contractor shall also submit a copy of every Subcontractor/Supplier Agreement or Purchase Order with a SDB to the DGS' Bureau of Diversity, Inclusion and Small Business Opportunities regardless of which agency is administering construction.

9. The Small GESA Contractor shall specifically identify the Subcontractor, Sub-subcontractor or Supplier on a separate line on the Contract Breakdown Sheet GSC-30 (if known prior to approval of the GSC-30), or on the Application for Release of Payment GSC-18 (if after approval of the GSC-30), as described more completely elsewhere in the Administrative Procedures.

10. The Small GESA Contractor shall email the GSC-23 Form to its Retained Professional, with a copy to the Funding Agency .

11. The Funding Agency shall review the copy of the GSC-23 for compliance immediately upon receipt. If any discrepancies are found, The Funding Agency shall notify the Small GESA Contractor's Retained Professional in writing.

12. It is the Small GESA Contractor's Retained Professional's responsibility to check each item for conformity with the requirements of the specifications. The Small GESA Contractor's Retained Professional will indicate on the Form GSC-23 whether each item is approved, disapproved (with the reason), or that approval is withheld, pending submission of additional qualifying material or information (catalog cuts, engineering data, test data, etc.) from the Small GESA Contractor. The Small GESA Contractor's Retained Professional's signature on the bottom of the Form GSC-23 constitutes approval, subject to final approval of sample, shop drawings or catalog data, certification, test report, or other information, when such additional information is required.

13. The Small GESA Contractor's Retained Professional will email the approved GSC-23 to the Small GESA Contractor and the Funding Agency.

ADMINISTRATIVE PROCEDURE #7

MATERIALS TESTING (ALL ITEMS-GENERAL REQUIREMENTS)

LABORATORY SAMPLE OR FIELD TEST IDENTIFICATION – FORM GSC-22/33

CONCRETE TESTING (APPROVAL OF MIX COMPUTATIONS)

CONCRETE MIX COMPUTATION - FORM GSC-26

MANUFACTURERS' HIGH VOLTAGE CABLE TEST (BIRTH CERTIFICATE)

FIELD HIGH VOLTAGE CABLE TEST

HVAC SYSTEMS BALANCING

A. Materials and Concrete Testing (General Requirements)

1. The Small GESA Contractor shall:

   a Give the Funding Agency timely notice of its readiness and of the date arranged, so the Funding Agency or its designee may observe such inspection or testing.

   b Bear all costs of inspections and tests, unless otherwise specified. All expenses incurred in the collecting, packing, and delivering of samples of materials or equipment to or from the Project site or laboratory will be paid by the Small GESA Contractor.

   c When Form GSC-22/33 (which can be downloaded from the DGS website) is used for concrete cylinders, each cylinder shall be numbered consecutively and prefaced for design mix tests, precast concrete, and pre-stressed concrete. The type of cylinder shall be noted on the form as follows:

      DM - Design Mix PC - Precast Concrete PS - Pre-stressed Concrete

      Cylinders for concrete other than these types will not be prefaced. Approved samples to be incorporated into the work shall be returned to the site by the Testing Laboratory.

2. The Small GESA Contractor's Retained Professional shall:

   a Secure from the Testing Laboratory an original and three copies of the test reports and should keep the original and email a copy to the Small GESA Contractor and the Funding Agency.

   b Any reports showing deficiencies in test results will be immediately communicated by the Small GESA Contractor's Retained Professional to the Small GESA Contractor, and to the Funding Agency.

B. Concrete Testing (Approval of Mix Computations)

1. The Small GESA Contractor (or testing laboratory) shall prepare a Form GSC-26, Concrete Mix Computation, downloaded from the DGS website for each type of design mix to be used. Forms shall be emailed to the Small GESA Contractor's

2. Retained Professional for review and approval. All information required by the form must be provided.

3. The Small GESA Contractor's Retained Professional shall review each Form GSC- 26 for compliance with the Contract Documents, and approve/disapprove as appropriate and email the form to the Funding Agency for review and distribution.

4. Upon receipt of the approved GSC-26 from the Funding Agency, the Small GESA Contractor shall instruct the testing laboratory to pick up samples for mix design testing from either the batch plant or the site. One Form GSC-22/33, Laboratory Sample or Field Test Identification, must accompany each sample to be tested. A separate form must be submitted for each test.

C. Manufacturer's High Voltage Cable Test Report (Birth Certificate)

1. The Small GESA Contractor will ensure the Cable Test Report (Birth Certificate) complies with the Contract Documents. The Small GESA Contractor shall email this report to the Small GESA Contractor's Retained Professional and copy the Funding Agency on that email.

2. The Small GESA Contractor's Retained Professional will review the report for compliance with the Contract Documents.

   a If approved, the Professional shall affix a stamp of approval directly to each copy of the report, retain a copy and email a copy of the stamped report to the Funding Agency.

   b If disapproved the report, the Professional shall return all copies to the Small GESA Contractor by email explaining the reason(s) for rejection. The Professional shall copy the Funding Agency on this email.

3. High Voltage Cable may not be installed until the Funding Agency approves the Manufacturer's Cable Test Reports.

D. High Voltage Cable Field Test Report

1. The Small GESA Contractor shall email the report to the Small GESA Contractor's Retained Professional and copy the Funding Agency on that email.

2. The Small GESA Contractor's Retained Professional shall review the Field Test Report for compliance with testing procedures and Contract Documents.

   a If approved, the Small GESA Contractor's Professional will affix its stamp of approval directly to each copy of the report, retain a copy and email a copy to the Funding Agency.

   b If disapproved the report, the Small GESA Contractor's Professional shall advise the Small GESA Contractor of the appropriate corrective action to assure compliance with the Contract Documents.

3. The Funding Agency will consider approving the release of payment for High Voltage Cable only after (a) the Manufacturer's Test Report is approved, and (b) the cable is installed, and (c) the Field Test Report is approved by the Small GESA Contractor's Professional and (d) reviewed by the Funding Agency.

E. HVAC Systems Balancing Report

1. The Small GESA Contractor shall submit an original of the HVAC Systems Balancing Report to the Small GESA Contractor's Professional or Retained Professional. The Funding Agency must be copied on the email including the attachment.

2. The Small GESA Contractor's Professional shall review the Balancing Report for compliance with balancing procedures and the Contract Documents.

   a If approved, the Small GESA Contractor's Professional shall affix its stamp of approval directly to each copy of the report and email a copy to the Funding Agency.

   b If the report is disapproved, the Small GESA Contractor's Professional shall advise the Small GESA Contractor of the appropriate corrective action to assure compliance with the Contract Documents. The Small GESA Contractor's Retained Professional must email the Funding Agency that the report has been disapproved and set forth the proposed method of correction.

   c If the Funding Agency disapproves any report or concurs with a "qualified" approval by the Small GESA Contractor's Professional, the Small GESA Contractor's Professional shall verify that the Small GESA Contractor has completed any required remedial action. The Small GESA Contractor's Professional shall notify the Funding in writing, that the Small GESA Contractor has completed the required remedial action. The Small GESA Contractor shall be responsible for the retesting and rebalancing of any and all zones affected by the corrective action. The Small GESA Contractor shall then resubmit a Balancing Report for these areas to the Small GESA Contractor's Professional.

3. Payment for test and balancing will not be made until the report(s) are approved by the Funding Agency.

ADMINISTRATIVE PROCEDURE #8

A. SUBMITTALS

1. The Small GESA Contractor's Retained Professional will review and approve all submittals in accordance with the Small GESA General Conditions by stamping with an approval stamp. Only a stamp as indicated in the sample provided in this section will be accepted.

2. The Small GESA Contractor shall make any corrections the Small GESA Contractor's Retained Professional may require and resubmit the required number of corrected copies of shop drawings or new samples until approved. The Small GESA Contractor's Retained Professional shall act on the resubmission within ten (10) days of its receipt, unless the Funding Agency approves a different period of time. The resubmission of submittals by the Small GESA Contractor and the Small GESA Contractor's Retained Professional's subsequent review shall be in accordance the General Conditions of the Small GESA Contract.

3. The Small GESA Contractor's Retained Professional shall supply one copy of the Final Shop Drawings or Catalog Data to the Small GESA Contractor, the Funding Agency.

4. The Small GESA Contractor must maintain at the Project site one copy of all Project drawings, updated daily to indicate as-built conditions.

5. Any work commenced by the Small GESA Contractor prior to final approval of the submittals is performed at the Small GESA Contractor's own risk.

6. The box below is a sample of the "Approval Stamp" to be utilized by the Small GESA Contractor's Retained Professional in the review and approval process of all submissions. **Only a stamp with the language as indicated in this sample will be accepted**.

☐ APPROVED	☐ NOT APPROVED
☐ APPROVED AS NOTED	☐ REVISE AND RESUBMIT

SIGNATURE/TITLE DATE

- A note may be added to: Advise the Small GESA Contractor that quantities have not been verified.
- Advise the Small GESA Contractor that all materials must meet the requirements of the Contract Documents

ADMINISTRATIVE PROCEDURE #9

APPLICATION FOR RELEASE OF PAYMENT

FORM GSC-16 – Prevailing Minimum Wage Certificate

FORM GSC-17 – Recap of Small GESA Contractor' Application for Release of Payment

FORM GSC-18 – Application for Release of Payment

FORM GSC-24 – Payroll Affidavit, Certificate/Statement of Surety, Power of Attorney

FORM GSC-43 – Stored Materials

A. General Information

1. The Small GESA Contractor's Applications for Release of Payment shall be prepared, submitted, and processed in accordance with the General Conditions of the Small GESA Contract and this Administrative Procedure.

2. The Funding Agency will not process an Application for Release of Payment until the Contract Breakdown Sheet, Form GSC-30, has been approved.

3. An Application for Release of Payment will not be processed without the Small Diverse Business Utilization Report (See AP 15).

4. If the Small GESA Contractor submits an incorrect Application for Release of Payment, the Funding Agency will authorize release of payment for all items which are correct and notify the Small GESA Contractor, within fifteen days of the submittal, of the deficiencies in the Application. The Funding Agency will return Applications for Release of Payment to the Small GESA Contractor only if there is missing or incomplete paperwork.

5. When the Funding Agency receives an Application for Release of Payment, the Funding Agency field personnel shall date and initial the Form GSC-17 in the upper right corner. The Funding Agency field personnel have three days from the date of receipt to review, correct, and approve the Application for Release of Payment.

6. The Small GESA Contractor will make any adjustments or changes required as a result of the Funding Agency's review on the next Application for Release of Payment submitted after receipt of the Funding Agency comments.

B. Prevailing Minimum Wage Certificate - Form GSC-16

1. The Small GESA Contractor must attach a completed Form GSC-16 to each Application for Release of Payment to certify compliance with the payment of Prevailing Minimum Wages as required by the Contract Documents.

2. The Small GESA Contractor and its subcontractors are required to submit Form LLC-25 to the Funding Agency field personnel on a weekly basis.

C. Small GESA Contractor's Application for Release of Payment - Form GSC-17

1. The Small GESA Contractor must number each application consecutively and

complete the heading information.

2. The Small GESA Contractor must check the "Final" block when requesting release of final payment of the contract amount. If the Small GESA Contractor is revising a request for release of the final payment application, the "Post Final" block must be checked.

3. The Amended Contract Amount is the Total Contract Award, plus or minus all approved change orders (debit or credit).

D. Release of Payment of Labor, Materials/Equipment Incorporated – Form GSC-18

1. The Small GESA Contractor must provide a true and correct list, according to the item number(s) on the approved GSC-30, of the Project work performed for each pay period.

2. The Small GESA Contractor shall list all items in numerical sequence, as shown on the GSC-30, and carry all items on each and every Application for Release of Payment, Form GSC-18.

3. The Small GESA Contractor shall individually list all completed debit and/or credit change order work previously approved by the Funding Agency under the heading "Executed Change Orders" on the Form GSC-18.

4. The Funding Agency may authorize payment of an approved change order on a percentage basis as the work is completed, upon the request of the Small GESA Contractor.

5. The Small GESA Contractor shall individually list all pending debit and/or credit change orders, which have received Funding Agency scope authorization under the heading "Pending Change Orders" on the Form GSC-18.

E. Stored Materials – Form GSC-43

1. The Small GESA Contractor may invoice stored materials when materials are ordered in advance and stored at the Project site pending their installation. Material scheduled for installation **in fewer than 45 days** from the date of procurement is not eligible for payment as stored material.

2. The Small GESA Contractor must submit a completed GSC-43 Form with the Application for Release of Payment.

3. Prior Funding Agency approval to store materials is not required. The signatures of the Small GESA Contractor and the Funding Agency will signify that the forms have been reviewed and are correct.

4. The Small GESA Contractor is responsible for proper storage of the materials at the Project site. Materials shall be stored off the ground and properly protected from the elements.

5. The Small GESA Contractor shall submit a separate GSC-43 Form for each Supplier.

6. The description of line items on the Small GESA Contractor's Supplier invoice should be identical to the description on the Small GESA Contractor's GSC-43 Form and the GSC-30. If an item description on the Supplier's invoice is not identical to the items on the GSC-43 and GSC-30, the Small GESA Contractor must clearly describe, either on the invoice or an attachment, how the invoiced item(s) relate to the items on the GSC-43 and GSC-30.

7. The Small GESA Contractor's Supplier invoice must also show the Unit Wholesale Price and the Extended Unit Wholesale Price. The Small GESA Contractor may add information to the Supplier's invoice for the purpose of clarity.

8. If items that are being submitted as stored material are combined with other items on a Small GESA Contractor's Supplier invoice, the claimed stored items must be clearly identified.

9. The Small GESA Contractor's requests for release of payment may not exceed 85% of the price of the item as indicated on the approved GSC-30.

10. When a Supplier's invoice lists two or more separate items that are component parts of a previously submitted single line item on the GSC-30, a "Supplemental Cost Breakdown Sheet" must be submitted and approved prior to payment for the individual items. Line items with differing unit prices must be shown as separate items on the Supplemental Cost Breakdown Sheet. Each component part must be shown as an individual item.

11. The Small GESA Contractor's completed GSC-43 Form, submitted with each Application for Release of Payment, must also have the following documents attached:

    a. Supplier's Invoice

    b. Fire and theft insurance policy rider for the materials

    c. Evidence of payment, or when payment has not been made, a letter on the Small GESA Contractor's letterhead authorizing payment to be made jointly to the Small GESA Contractor and the Supplier.

    d. Power of Attorney (from bonding company)

F. Payroll Affidavit, Small GESA Contractor's Affidavit and Statement of Surety Company. Power of Attorney-Form GSC-24

1. The Small GESA Contractor must submit a completed Form GSC-24 with its Final Application for Release of Payment. If the Small GESA Contractor does not submit Form GSC-24 with the Final Application for Release of Payment, the Funding Agency will withhold approval of the release of the sum of $500 until the form is submitted.

2. The Small GESA Contractor need not complete the Payroll Affidavit section of the form if the prevailing minimum wage scale does not apply. However, the Small GESA Contractor must make a statement on the reverse side of the Payroll Affidavit indicating that the prevailing minimum wage scale does not apply.

3. The Small GESA Contractor should retain a copy of Form GSC-24 and email an original with the Application for Release of Payment, with a copy of the Power of Attorney attached.

G. For Each Application for Release of Payment

1. Prior to the Application for Release of Payment packets being submitted to the Escrow Agent, the Funding Agency field personnel shall assemble it in the following order:

    a. Application for Release of Payment GSC-17

    b. Application for Release of Payment Labor/Material/Equipment GSC-18

    c. Prevailing Wage Certificate GSC-16

d. If applicable, Stored Materials GSC-43

   i. Power of Attorney (from bonding company)

   ii. Supplier's Invoice

   iii. Fire and theft insurance policy rider

   iv. Evidence of payment, or when payment has not been made a letter on the Small GESA Contractor's letterhead authorizing payment to be made jointly to the Small GESA Contractor and the supplier

e. GSC-24 (if Final Invoice)

2. Upon Final Inspection, the Funding Agency will adjust the retainage to reflect the actual amounts withheld as set out in the General Conditions of the Small GESA Contract. The Application for Release of Payment packet will include the pertinent pages of the Final Inspection Report, including the Funding Agency's certificate detailing the incomplete items and value, pending credit change orders, liquidated damages, claims, and other pertinent information. To receive payment, the Small GESA Contractor must have completed or settled the open items listed on the certificate. As individual paperwork items are completed, the Funding Agency may approve proportionately reduced retainage amount. The Funding Agency field personnel shall attach the pertinent pages of the Final Inspection Report to the Application for Release of Payment noting items which have been resolved and shall calculate, insert, and highlight the adjusted retained amount on each copy of the Final Inspection Report attached to the Application for Release of Payment.

ADMINISTRATIVE PROCEDURE #10

CHANGE ORDERS FORM GSC-1

A. **General Information** - Any change to the Small GESA Contract must be documented by either a Field Order or a Change Order according to the conditions for each as defined below.

1. **Field Order** - any change to the Small GESA Contract which meets both of the following criteria:

   a The Small GESA Contractor and the Funding Agency field personnel agree that the change constitutes neither a net additional nor deductible cost to the Small GESA Contract; and

   b The change consists of a minor relocation, substitution, or revision to quantity of contract items which does not constitute a significant design change and does not need to be documented by revision to Project Drawings and/or Specifications.

   c Field Orders are issued by the Funding Agency field personnel describing the full scope of the work. The Small GESA Contractor shall request a Field Order in writing to the Funding Agency.

2. **Change Order -** any change to the Small GESA Contract which does not meet both of the Field Order criteria.

   a **The Funding Agency will only issue a debit change order for unforeseen conditions and Using Agency Request. No change orders will be issued unless it is for a credit.**

      i An unforeseen condition is a site condition discovered that could not have been determined by the Small GESA Contractor during the site investigation or a condition that did not occur until after the project was awarded.

3. **Emergency situation** - If a change order condition is an emergency, it is essential that the Funding Agency issue the Change Order and authorize the Small GESA Contractor to begin work as soon as possible.

B. Step By Step Instructions - This table lists actions from beginning to end for a Change Order. All actions are to be performed chronologically.

STEP	PARTY	ACTION
1	Small GESA Contractor	Identify Unforeseen Condition.
2	Small GESA Contractor	Complete SECTION 1 of GSC-1 with cost and scope and signed by Retained Professional and Small GESA Contractor. Attach itemized cost breakdown for review and verify that costs are within remaining project contingency. Email to Funding Agency and DGS Resource & Energy Office
3	Funding Agency & DGS	Review and approve. Sign and, if needed, obtain Sec. signature. Email to Small GESA Contractor.
4	Small GESA Contractor	Perform work upon receipt of GSC-1. When done, the Small GESA Contractor invoices the final determined cost. If cost is disputed, the Small GESA Contractor may pursue a Field Dispute.

C. General Comments on processing C/O.

1. **Small GESA Contractor and Retained Professional** - The Small GESA Contractor shall describe in detail the unforeseen condition or the Using Agency Request that constitutes a change from original contract. The description should include all reference drawings, sketches, and specification sections. Small GESA Contractor must provide a detailed cost breakdown of the actual costs. The Funding Agency will consider this cost to be the final binding cost for this Change Order unless an unforeseen change in scope occurs during the performance of the Change Order work. If any new work is being requested in lieu of specified contract work, the Small GESA Contractor should clearly define both the requested (new) and the superseded (specified) work. The description should also make reference to any Energy Conservation Measure impacted by the proposed change order.

2. **Field Personnel** - The Funding Agency field personnel shall check the detailed cost breakdown and verify its accuracy. Any inaccurate information discovered in the cost breakdown that may be corrected by the Funding Agency (such as math errors, incorrect application of overhead and profit, burden, and/or bond rate adjustment) should be adjusted in lieu of returning it to the Small GESA Contractor for correction. Any missing, incomplete, or improper information that cannot be corrected should be referred back to the Small GESA Contractor for correction.

D. Change Order Breakdown

1. **Material** - The Cost Breakdown shall list, as a minimum for each material item used, the material description, the unit and the quantity. The Cost Breakdown shall then include the total of all the individual cost totals which is defined as the pre-mark-up cost total. Any freight charges for specific materials listed must be included in the unit cost for the particular material. Funding Agency will not authorize payment of any separate line items in the Cost Breakdown for such freight charges. The Small GESA Contractor may claim 5% mark-up for material.

2. **Labor** - The Cost Breakdown shall include for each labor classification listed, the number of workers, duration of work for each worker, the total labor hours, the classification description, the hourly base wage rate paid (BR), the total hourly wage rate paid (WR), the base rate individual cost (H x BR) and the wage rate individual cost (H x WR). The Cost Breakdown shall then include the total of all the individual base rate costs (TBR) and the total of all the individual wage rate costs (TWR). The hourly base wage rate (BR) is defined as the rate of wages paid by the employer directly to the employee. The total hourly wage rate (WR) is defined as the total rate of wages paid by the employer including wages paid directly to the employee (BR) plus any employer participation or contribution to employee benefits paid on behalf of the employee. The Small GESA Contractor may claim 5% mark-up for labor. The Funding Agency will not authorize reimbursement of line items in the Small GESA Contractor's or Subcontractor's Cost Breakdown for items such as travel, lodging and per-diem.

3. **Equipment** - The Cost Breakdown shall include for each piece of equipment used to perform the work, the description of the piece of equipment used, the quantity of that particular piece used, the duration the piece of equipment was used, the rental rate for the duration used and the total rental cost. The Funding Agency expects the Small GESA Contractor to procure/provide the most economical rental rate available over the duration of the work performed. For example, if the piece of equipment was used over a four-week period, Small GESA may only use a monthly rate not a daily or weekly rate if the monthly rate is more economical than the other two rates. The Funding Agency will not authorize payment of equipment costs for any piece of equipment not specifically identified, or for any tools such as hand tools used in the everyday performance of contract work. The Small GESA Contractor may claim sales tax paid for any piece of equipment rented from an outside (non-Small GESA Contractor owned) rental agency provided that a receipt showing the sales tax paid amount accompanies the cost breakdown. The Funding Agency will disallow sales tax for any rental item without such proper verification. The

Small GESA Contractor may claim mark-up for overhead, general support and profit equal to 5% times the sum of the total rental costs plus the total applicable sales tax. The total rental costs are the sum of all the individual rental costs. The total applicable sales tax is the sum of all the individual verified sales taxes.

4. **Subcontractors** – A detailed cost breakdown from the Subcontractor is required from the Small GESA Contractor showing any Change Order work being performed by a Subcontractor. Include any costs for the Small GESA Contractor's Retained Professional as subcontract work. For those breakdowns containing work performed by one or more Subcontractors, the Small GESA Contractor is responsible for clarifying somewhere in the breakdown, the exact scope of work being performed by each Subcontractor. The Small GESA Contractor may claim mark-up for overhead, general support and profit equal to 5% times the sum of the total costs realized by the Small GESA Contractor's Subcontractor in performance of the work.

5. **Summary** - At the end of the detailed cost breakdown, the Small GESA Contractor shall list individually the total costs of material, labor, equipment, sub-contracts and deductions. The Small GESA Contractor shall then apply the adjustment to contract bond which is equal to the Small GESA Contractor's bond rate times the Change Order cost subtotal. The Funding Agency considers the appropriate bond adjustment rate to be equal to the percentage rate used by the Small GESA Contractor to establish the contract bond amount shown on the Small GESA Contractor's original cost breakdown GSC-30 previously approved by the Funding Agency.

6. **Change Order Approval Letter** (see example format provided in this manual section) will be issued to the Small GESA Contractor by the Funding Agency upon review and approval of every Change Order. This letter authorizes the Small GESA Contractor to perform the subject work, and upon completion of work, invoice for that work in a cost amount equal to the final determined cost which has been agreed to by the Small GESA Contractor and Funding Agency.

7. **Disputed Change Order** - A Disputed Change Order Approval Letter may be issued to the Small GESA Contractor by the Funding Agency on any Change Order which contains a Small GESA Contractor's cost proposal being disputed by the Funding Agency. The letter authorizes the Small GESA Contractor to perform the work, and upon completion of work, invoice for that work in a cost amount equal to the final cost as determined by the Funding Agency and in conflict with the Small GESA Contractor's proposed cost. The letter will establish the Funding Agency's determined cost and the Small GESA Contractors rejected proposed cost. If the Small GESA Contractor disputed the Funding Agency's cost, additional compensation may be pursued after completion of the Change Order work by pursuing a Field Dispute Resolution.

Small GESA Contractor: _____ **GESA CHANGE ORDER** _ Project: G –
Agency: _____
Locale: _____

CHANGE ORDER #: _____

SECTION 1 Small GESA Contractor's Retained Professional's Scope of Work (Complete and email to DGS)

The description of this construction change (including reference to drawings/sketches to define scope) is as follows:

Small GESA Contractor agrees to furnish and or delete labor and materials in order to complete the construction included within the scope of this Change Order to contract plans and specifications for the net ___ additional ___ deductible cost amount of :$ _____ in accordance with the attached cost breakdown. Small GESA Contractor further agrees that the completion date for construction as contained in the contract shall not be changed by approval of this Change Order without the submission of a request for an extension of time.

Small GESA Contractor Retained Professional Signature:

_____ **Date** _____

Small GESA Contractor Signature: **Date** _____

SECTION 2-RECOMMENDATION OF THE FUNDING AGENCY

☐ Small GESA Contractor's breakdown costs have been checked and are recommended.

☐ Small GESA Contractor's breakdown costs are not recommended. Region recommends cost of $_____. I have enclosed a separate breakdown.

Approval of this Change Order is ☐ is not ☐ recommended.

Funding Agency Signature: _____ **Date** _____

EXAMPLE COMPLETED COST

BREAKDOWN Small GESA CONTRACTOR'S NAME

MATERIAL

QTY. (Q)	UNIT (U)	DESCRIPTION	UNIT COST (MU)	COST TOTAL (Q x MU)	LABOR HOURS (OPTIONAL) HOURS/UNIT (HU)	TOTAL HOURS (Q x HU)
8000	S.F.	1/2" GYPSUM WALL BOARD	$0.15	$1,200.00	.008	64
15	EACH	DOUBLE HUNG WINDOWS	$120.00	$1,800.00	.800	12
		PRE-MARK-UP MAT'L. COST TOTAL		$3,000.00	TOTAL LABOR HRS.	76
		6% SALES TAX		$180.00		
		SUBTOTAL		$3,180.00		
		10% OVERHEAD, GEN. SUPT. & PROFIT(ON SUBTOTAL)		$318.00		
		TOTAL MATERIAL COST		$3,498.00		

LABOR

NUMBER OF WORKERS	DURATION	HOURS (H)	CLASSIFICATION	HOURLY BASE RATE (BR)	TOTAL HOURLY WAGE RATE (WR)	BASE RATE COSTS (H x BR)	WAGE RATE COST (H x WR)
2	38	76	CARPENTER	$20.27	$30.59	$1,540.52	$2,324.84
TOTAL LABOR HOURS		76		TOTAL BASE RATE COST (TBR)		$1,540.52	
					TOTAL WAGE RATE COST (TWR)		$2,324.84

RATE	MANDATED BURDEN		
7.65%	SOCIAL SECURITY (ON TOTAL TBR)	$117.85	
12.39%	UNEMPLOYMENT TAXES (ON TOTAL TBR)	$190.87	
8.90%	WORKMEN'S COMP. INS. (ON TOTAL TBR)	$137.11	
2.46%	PUBLIC LIABILITY INS. (ON TOTAL TBR)	$37.90	
	TOTAL MANDATED BURDEN (TMB)	$483.73	$483.73
	SUBTOTAL LABOR COSTS (TWR + TMB)		$2,808.57
	15% OVERHEAD, GEN. SUPT. & PROFIT(ON SUBTOTAL)		$421.29
	TOTAL LABOR COST		$3,229.86

EQUIPMENT

DURATION	QTY.	EQUIPMENT	RENTAL RATE FOR DURATION	RENTAL COST
N/A	1	N/A	N/A	N/A
			% SALES TAX (IF RENTED)	
			SUBTOTAL EQUIPMENT COST	
			10% OVERHEAD, GEN. SUPT. & PROFIT(ON SUBTOTAL)	
			TOTAL EQUIPMENT COST	$0

SUBCONTRACTORS (IF APPLICABLE)

COMPANY	*Total Cost From Attached Subcontractor's Detailed Breakdown	*TOTAL COST
XYZ Paving		$31,973.26
	SUBTOTAL	$31,973.26
	10% OVERHEAD, GEN. SUPT. & PROFIT(ON SUBTOTAL)	$3,197.33
	TOTAL SUBCONTRACTS	$35,170.59

SUMMARY

TOTAL MATERIAL	$3,498.00
TOTAL LABOR	$3,229.86
TOTAL EQUIPMENT	N/A
TOTAL SUBCONTRACTS	$35,170.59
LESS DEDUCTS (Explain Separately)	N/A
SUBTOTAL	$41,898.45
2.0% BOND COST ADJUSTMENT(ON SUBTOTAL)	$837.97
TOTAL PROPOSAL	$42,736.42

Small GESA Contractor's Signature

CHANGE ORDER APPROVAL LETTER

Date: _____

Small GESA Contractor Name
Small GESA Contractor Address

Re: Change Order No._____
Project G - _____
Title_____
Location_____

Gentlemen:

The Department of_____has issued the subject Change Order to your firm in the approved debit/credit amount of $_____to perform the following work scope:

This letter serves as the formal authorization and approval to perform the subject work and invoice for payment upon completion of the work. Enclosed is a copy of the approved Form GSC-1.

Sincerely.

Funding Agency

cc: Energy Engineer Funding Agency

DISPUTED CHANGE ORDER APPROVAL LETTER (EXAMPLE FORMAT)

Date: _____

Small GESA Contractor Name
Small GESA Contractor Address

Re: Change Order No._____
Project G -_____
Title_____
Location_____

Gentlemen:

The Department of_____has issued the subject Change Order to your firm in the approved debit/credit amount of $_____to perform the following work scope:

The Funding Agency determined that your original cost breakdown amount of $_____is too high. The discrepancy in cost is due to_____.

This letter serves as the formal authorization and approval to perform the subject work and invoice for payment upon completion of the work. Enclosed is a copy of the approved Form GSC-1.

If you disagree with this assessment and feel that the work involved is worth more than $_____, you may pursue a claim through the Field Dispute Review process.

Sincerely,

Funding Agency

cc: Funding Agency Energy Engineer

ADMINISTRATIVE PROCEDURE #11

REQUEST FOR EXTENSION OF TIME

FORM GSC-5

A. General Information

1. All Requests for an Extension of Time shall be prepared and processed by the Small GESA Contractor and the Funding Agency in accordance with the General Conditions of the Small GESA Contract, and this Administrative Procedure.

2. The Small GESA Contractor may download the GSC-5 from DGS' website.

3. The Small GESA Contractor must verbally inform the Funding Agency at the first Job Conference after any alleged delay it has encountered. No forms or correspondence are required at this time, however, the Small GESA Contractor should verify that the verbal notification of the alleged delay has been noted in the Job Conference Report. Within ten (10) days after the end of the alleged delay, the Small GESA Contractor must submit the Form GSC-5 to the Funding Agency. Failure to submit the form within ten days may result in the denial of the request.

4. The front of the form is for the Small GESA Contractor's use. The Small GESA Contractor must enter all required information and answer all questions to the best of its ability. Omission of data or failure to answer any of the questions will result in the form being returned to the Small GESA Contractor for completion. The Small GESA Contractor or its authorized representative is required to sign the Form GSC-5 in attestation of the submitted facts.

    a The Request Number will be assigned by the Funding Agency. A request number will not be assigned until a properly completed form is received.

    b Only one delay shall be submitted on a GSC-5 Form; multiple delays must be submitted on separate forms.

    c If the explanation of the delay is lengthy and/or the Small GESA Contractor wishes to attach additional documentation, it is permissible to indicate "see attached" in any appropriate area of the form. It is mandatory, however, that as much of a factual synopsis as possible be included on the form itself.

5. Claims for weather-related delays must be substantiated by Weather Data, which may be secured from local weather records and/or the National Oceanic & Atmospheric Administration, National Climatic Center, Asheville, North Carolina 28801.

6. The Small GESA Contractor should keep one copy of the form and email a signed copy to the Funding Agency.

7. The Funding Agency will review the form to ensure the provided the required information is provided and the form is signed.

    a If the information is incomplete, the Funding Agency will return the original form, with an appropriate explanation, to the Small GESA Contractor for correction and resubmission.

    b If the GSC-5 is in order, the Funding Agency will assign a sequential number, enter the received date, enter the acknowledged date and email a copy to the Small GESA Contractor.

8. Within five days of receipt, the Funding Agency shall review the extension request, Small GESA Contractor's supporting documentation, field documentation and all other sources of information required for evaluation by the Funding. The Funding Agency's recommendation shall be incorporated into the form in the appropriate area. Additional sheets may be attached as required. The Funding Agency shall also attach all pertinent information and documentation required to justify and support the recommendation. The form shall then be signed and dated by the Funding Agency. A complete copy of the GSC-5 Form and all supporting documentation should be retained by the Funding Agency.

9. The Funding Agency's recommendation will be emailed to the Deputy Secretary for the Funding Agency. The Deputy will review the packet and email a letter to the Small GESA Contractor, copy to Funding Agency personnel with the determination.

ADMINISTRATIVE PROCEDURE #12

SUBMISSION GUIDELINES FOR

STEEL CERTIFICATIONS PURSUANT TO THE

STEEL PRODUCTS PROCUREMENT ACT

73 P.S. §1881, et. seq. as amended

A. GENERAL INFORMATION CONCERNING THE STEEL PRODUCTS PROCUREMENT ACT AND STEEL CERTIFICATIONS

1. The Small GESA Contractor shall download the forms from the DGS website and submit the appropriate form to the Funding Agency assigned to the Project. Only one fully-executed certification form for each product must be submitted.

2. According to Section 1886 of the Steel Products Procurement Act (the Act), cast iron products are considered to be steel products. The appropriate certification form, therefore, is required to be submitted for cast iron products.

3. The North American Free Trade Agreement (NAFTA) does not supersede or preempt the Act.

4. Aluminum and brass products are not steel products; therefore, steel certification forms are not required for such items.

5. Pursuant to Section 1884(b)(2) of the Act, DGS has created a list of exempt machinery and equipment steel products, which is posted on the DGS website at www.dgs.state.pa.us If a product to be utilized on the project appears on the exemption list, steel certification forms are not required.

6. Modification or alteration of the Steel Certification forms is strictly prohibited. However, where the term "DGS" is written, it shall mean "Funding Agency."

7. If the entity executing an ST form has a corporate seal, that seal should be impressed in the signature area of the form. The signatures on the ST forms do not have to be notarized, but they must be original signatures. Signature stamps are not acceptable; a form submitted with such a stamp will be rejected.

8. Questions regarding steel certification submissions and/or compliance with the Act shall be submitted in writing to the Funding Agency as soon as possible after the Initial Job Conference. The Funding Agency will investigate and render a written response in a timely fashion.

9. **Nothing in this Administrative Procedure should be construed as relieving the Small GESA Contractor, Subcontractor, supplier or fabricator from complying with the requirements of the Act. Steel Certification forms must be submitted and approved before a steel product arrives on site. If the Small GESA Contractor enters into a purchase order for a "steel product" prior to submitting acceptable steel certification, the Small GESA Contractor does so at its own risk and faces penalties which include, but are not limited to, nonpayment, and/or replacement costs, and/or debarment. If steel products are incorporated into the Project prior to the submission of proper certification, the Small GESA Contractor assumes the full risk of nonpayment, replacement costs and/or debarment if the products are not certifiable.**

10. No Application for Release of Payment containing steel products will be processed until the appropriate steel certification form(s) has been approved by the Funding Agency.

11. **Domestic availability will be determined as of the date the ST-4 form is submitted for approval.**

12. The forms that follow ST-1 through ST-4 have been developed by the DGS of General Services for use on the GESA projects. The DGS assumes no responsibility or liability for any use of these forms on the public works projects of any other entity subject to the Act.

ST-1

This form must be filled out for each "steel product" on a project unless otherwise noted.

SECTION A

Line #1 This is the Small GESA Contractor's formal business name. If a sub's name appears on this form, the form must be rejected and resubmitted.

Line #2 This is the Small GESA Contractor's business address.

Line #3 This is the Small GESA Contractor's business phone number.

Line #4 This is the date the ST form is submitted to the Funding Agency.

Line #5 This is the contract number for the Project.

Line #6 This is the Project description.

Line #7 This is the "steel product" being certified, such as an I-beam, angle, bolt, channel, etc. The Small GESA Contractor may not fill in the line with a description like "structural steel", "heating unit" or "air conditioning system".

LINE #7 IS THE MOST CRITICAL PART OF THE FORM.
FAILURE TO PROPERLY FILL OUT LINE #7 MAKES THE ENTIRE FORM INVALID AND A NEW FORM MUST BE SUBMITTED.

NOTE: The Small GESA Contractor does not have to submit a form for each **piece** of steel which is being put into the Project. The Small GESA Contractor only has to submit an ST form for each **type** of steel product. For example, if the Project needs 56 I-Beams of varying lengths, the Small GESA Contractor must submit **1 ST form** for "steel I-Beams" with a listing of the various sizes covered by that ST form. The Small GESA Contractor **does not** submit 56 ST-1 forms. If, on the other hand, only 30 of the I-Beams are identifiable (stamped) structural steel, the Small GESA Contractor submits an ST-1 form with Section B(1) marked off. The other 26 I-Beams are non-identifiable structural steel, so the Small GESA Contractor must also submit an ST-1 with Section B(2) marked off and attach the appropriate supporting documentation.

If different suppliers are used, each supplier must submit the appropriate steel form.

Line #8 - This refers to the corresponding GSC-23 submittal number.

Line #9 - This is the fabricator or supplier of the product listed on Line #7.

SECTION B **ONLY ONE OF THESE ITEMS CAN BE CHECKED AS APPLICABLE**

_____ **1. Identifiable Steel Product**

This type of steel product is limited to products which are stamped "made in the USA" or otherwise identifiable as U.S. steel.

a) Supporting documentation: Small GESA Contractor only needs to submit the ST-1 form. Field personnel will verify the markings when product arrives on-site.

_____ **2. Non-identifiable Structural Steel Product**

This type of steel product is limited to items of structural steel which are not marked as made in USA.

a) Supporting documentation: Small GESA Contractor must also submit, attached to the ST-1 form, bills of lading, invoices and mill certificates.

3. Non-identifiable, Non-structural Steel Product

This type of steel product is every product which is non-structural steel, including, but not limited to, doors, doorframes, windows, machinery and equipment.

a) supporting documentation: Fully executed ST-2

b) NOTE: A steel product may not appear on any Application for Release of Payment until such time as the ST-1 and ST-2 are accepted by the Funding Agency.

SECTION C

1. Language - **No modifications, cross-outs or alterations of any type may be made to the language of this certification paragraph**.

2. Signature - Two signatures are required on the ST-1 form. The Small GESA Contractor's President/Vice President must sign on one line **and** the Secretary or Treasurer must sign as a witness. The names should be typed or printed beneath the signature lines. Failure to type in the names **does not** invalidate the ST form.

ST-2

This form must be filled out for non-identifiable, non-structural steel products.

SECTION A **To be filled out by the Purchaser, the firm that pays the Fabricator.**

Line #1 This is the name of the firm that is dealing directly with the Fabricator.

Line #2 This is the purchaser's mailing address.

Line #3 This is the purchaser's business phone.

Line #4 This is the date the ST-2 form is sent to the fabricator.

Line #5 This is the contract number for the Project.

Line #6 This is the Project description.

Line #7 **This is the "steel product" being certified, such as a chiller, condenser, hollow metal doors. The Small GESA Contractor may not fill in the line with a description like "structural steel", "heating unit" or "air conditioning unit". The model number, if any, of the steel product must be listed as indicated.**

LINE #7 IS THE MOST CRITICAL PART OF THE FORM.
FAILURE TO PROPERLY FILL OUT LINE #7 MAKES THE ENTIRE FORM INVALID AND A NEW FORM MUST BESUBMITTED.

Line #8 This refers to the corresponding GSC-23 submittal number.

SECTION B **To be filled out by the Fabricator, the firm that assembles the product listed on Line #7.**

Line #9 This is the Fabricator's name.

Line #10 This is the Fabricator's mailing address.

Line #11 This is the Fabricator's business phone.

Line #12 This is the date the Fabricator receives the ST-2 from the Purchaser.

Line #13 This is the Fabricator's Federal I.D. number.

SECTION C

1. Language - **No modifications, cross-outs or alterations of any type may be made to the language of this certification paragraph.**

2. Signature - Two signatures are required on the ST-2 form. The Small GESA Contractor's President/Vice President must sign on one line and the Secretary or Treasurer must sign as a witness. The names should be typed or printed beneath the signature lines. Failure to type in the names **does not** invalidate the ST form.

ST-3

2-STEP ELIGIBILITY ANALYSIS:

**BEFORE A Small GESA Contractor CAN SUBMIT AN ST-3,
THE FOLLOWING ANALYSIS MUST BE SATISFIED:**

STEP #1: The Small GESA Contractor must establish that the "product" **contains BOTH:**

• Steel melted in the USA

AND

• Foreign Steel

Note: Step #1 focuses upon the **content** of the "product".

Note: The % need not be close; it can be 99-1, so long as there is **both** foreign and domestic steel in the "product".

STEP #2: The Small GESA Contractor must establish that 75% of the **cost** of the "product" has been mined, produced or manufactured in the USA.

Note: Step #2 focuses upon the **cost** of the entire "product", not just the steel in it.

SECTION A

Line #1 This is the Small GESA Contractor's name.

Line #2 This is the Small GESA Contractor's business address.

Line #3 This is the Small GESA Contractor's phone number.
Line #4 This is the date the ST-3 is submitted to the fabricator.

Line #5 This is the contract number for the Project.

Line #6 This is the Project description.

Line #7 This is the "steel product" being certified, such as a chiller, condenser, hollow metal doors. The Small GESA Contractor may not fill in the line with a description like "structural steel", "heating unit" or "air conditioning unit". The model number, if any, of the steel product must be listed as indicated.

**LINE #7 IS THE MOST CRITICAL PART OF THE FORM.
FAILURE TO PROPERLY FILL OUT LINE #7 ON EACH ST FORM
MAKES THE ENTIRE FORM INVALID AND A NEW FORM MUST BE
SUBMITTED.**

Line #8 This refers to the corresponding GSC-23 submittal number.

SECTION B **To be filled out by the Fabricator/Manufacturer, the firm that fabricates the product listed on Line #7.**

Line #9 This is the Fabricator's name.

Line #10 This is the Fabricator's business address.

Line #11 This is the Fabricator's business phone.

Line #12 This is the date the Fabricator receives the ST-3 from the purchaser.

Line #13 This is the Fabricator's Federal I.D. number.

Line #14 The Fabricator must insert the percentage of the cost of the articles, materials and supplies mined, produced or manufactured in the U.S. for the product listed on Line #7.

SECTION C

1. Language - **No modifications, cross-outs or alterations of any type may be made to the language of this certification paragraph.**

2. Signature - Two signatures are required on the ST-3 form. The Fabricator's President/Vice President must sign on one line **and** the Secretary or Treasurer must sign as a witness. The names should be typed or printed beneath the signature lines. Failure to type in the names **does not** invalidate the ST form.

NOTES on ST-3 Forms:

- It is not necessary to submit an ST-1 with the ST-3.
- **The Funding reserves the right to request additional documentation to support the percentage specified on Line 14. If the Fabricator/manufacturer refuses to produce such documentation and/or Funding Agency deems it to be in the Commonwealth's best interests, the Funding Agency may request the Office of Inspector General to investigate the submission of the ST-3 form.**

ST-4

This form may be submitted in circumstances where the Small GESA Contractor believes that the "product" on Line #7 is not made in sufficient quantities to satisfy the requirements of the contract.

The information submitted by a Small GESA Contractor is subject to verification by the Funding Agency. Any Small GESA Contractor who executes a Purchase Order or other type of purchase agreement encompassing a "steel product" prior to receiving the Funding Agency's written determination that the "steel product" listed on Line #7 of the ST-4 form is not manufactured in sufficient quantity to meet the requirements of the Project does so at its own risk and faces penalties including, but not limited to, non-payment for the product; removal and replacement of the product at its own costs; and/or an Office of Inspector General investigation which may lead to debarment.

☞ **Domestic availability will be determined as of the date the ST-4 form is submitted to the Funding Agency for approval.**

Line #1 This is the Small GESA Contractor's formal business name.

Line #2 This is the Small GESA Contractor's business address.

Line #3 This is the Small GESA Contractor's business phone.

Line #4 This is the date the ST-4 form is submitted to DGS.

Line #5 This is the contract number for the Project.

Line #6 This is the Project description.

Line #7 This is the "steel product" being certified, such as a chiller, condenser, hollow metal doors. The Small GESA Contractor may not fill in the line with a description like "structural steel", "heating unit" or "air conditioning unit".

LINE #7 IS THE MOST CRITICAL PART OF THE FORM. FAILURE TO PROPERLY FILL OUT LINE #7 ON EACH ST FORM MAKES THE ENTIRE FORM INVALID AND A NEW FORM MUST BE SUBMITTED FOR APPROVAL.

Line #8 This refers to the corresponding GSC-23 submittal number.

Line #9 These four lines, (a) through (d), are to be filled out completely by the Small GESA Contractor. At least four suppliers/manufacturers must be contacted by the Small GESA Contractor to ascertain if the "product" on Line #7 is manufactured with domestic steel.

CERTIFICATION

1. Language - **No modifications, cross-outs or alterations of any type may be made to the language of this certification paragraph.**

2. Signature - Two signatures are required on the ST-4 form. The Small GESA Contractor's President/Vice President must sign on one line **and** the Secretary or Treasurer must sign as a witness. The names should be typed or printed beneath the signature lines. Failure to type in the names **does not** invalidate the ST form.

NOTE ON ST-4 FORMS: It is not necessary to submit an ST-1 form with an ST-4 form.

ADMINISTRATIVE PROCEDURE #13

OCCUPANCY/UTILIZATION INSPECTION

FORM GSC-46 Certificate of Occupancy/Final Completion Inspection

FORM GSC-47 Certificate of Final Completions and Release of Final Payment

A. Occupancy/Utilization Inspection

1. The Funding Agency may use or permit the Funding Agency to use or occupy any completed or partially completed portion(s) of the work in accordance with the General Conditions of the Small GESA Contract and this Administrative Procedure.

2. The Funding Agency will establish the date and time for an Occupancy/Utilization Inspection and will invite the following:

   a Energy Engineer, optional
   b Energy Coordinator, optional
   c Small GESA Contractor
   d Small GESA Contractor's Retained Professional
   e Funding Agency personnel

3. The inspection will be conducted to evaluate the area(s) to be occupied or equipment to be utilized for conformity to the Contract Documents. The use and/or occupancy of the work does not constitute acceptance of any portion so taken or used. The Occupancy/Utilization Inspection must be attended by the Small GESA Contractor's Retained Professional, the Small GESA Contractor and a representative of the Funding Agency.

4. The Small GESA Contractor's Retained Professional shall conduct the inspection, unless another party is designated by the Funding. A report of the Occupancy/Utilization Inspection shall be prepared and emailed to attendees by the Construction Regional Director within five work days of the inspection. The Report shall include the following information:

   a Project Number
   b Name of Facility
   c Project Description
   d Area(s) and/or equipment to be occupied/utilized
   e Attendees along with their respective title and organization
   f The responsibilities of the Small GESA Contractor for maintenance, heat and utilities
   g A list of all items remaining to be completed or corrected in the area(s) to be occupied or equipment to be used
   h Form GSC-46, "Certificate of Occupancy/Utilization"

B. Form GSC-46, "Certificate of Occupancy/Utilization"

1. The Small GESA Contractor may download Form GSC-46 from DGS' website. The form must be prepared by the Small GESA Contractor's Retained Professional and emailed to the Funding Agency.

2. At the conclusion of the Occupancy/Utilization Inspection, the attendees shall review the responsibilities of the Small GESA Contractor for maintenance, heat and utilities, the remaining items to be completed or corrected and shall sign Form GSC-46 to indicate their concurrence with the items.

3. The work list, prepared by the Small GESA Contractor's Retained Professional, shall be appended directly to the Form GSC-46, additional sheets may be attached as required. The work list shall indicate, in detail, all items requiring completion or correction. The failure to include an item on the work list will not relieve the Small GESA Contractor of its responsibility to complete all work in accordance with the Contract Documents.

4. The Funding Agency shall, within five working days after receipt, review the Certificate of Occupancy/Utilization for completeness. If properly completed, the Funding Agency shall sign, date and email the Form GSC-46, with any attachments, in accordance with Administrative Procedure #1.

5. The Funding Agency shall not be permitted to occupy nor utilize any portion of the work until a fully executed copy of the Form GSC-46 has been received from the Funding Agency.

6. The date of the fully executed Form GSC-46 shall be the start date of any warranties or guarantees associated with the occupied area(s) or utilized equipment.

7. Any damage subsequent to the inspection due solely to the use and/or occupancy of the completed or partially completed portion of the work shall not be the responsibility of the Small GESA Contractor.

C. Final Completion Inspection

1. The Final Inspection shall be requested and conducted in accordance with the General Conditions of the Small GESA Contract and this Administrative Procedure. The Small GESA Contractor's request for a Final Inspection must be emailed to the Funding Agency.

2. Within thirty days of receipt of the request, the Funding shall establish a date and time for the Final Completion Inspection and will notify the following:

   a DGS Energy Engineer
   b Small GESA Contractor
   c Small GESA Contractor's Retained Professional
   d Funding Agency personnel

3. The Final Inspection must be attended by the Funding Agency, the Small GESA Contractor's Retained Professional, the Small GESA Contractor and a representative of the Funding Agency.

4. At the Final Inspection, the Small GESA Contractor shall submit a final Application for Release of Payment to the Funding Agency.

   a Line numbers 9, 10, 12 and 14 of the Form GSC-17, "Recapitulation of Small GESA Contractor Application for Release of Payment," should not be completed until the conclusion of the Final Inspection and all items requiring funds to be retained, as provided in the General Conditions of the Small GESA Contract have been determined. At that time, the Small GESA Contractor and the Funding Agency shall review the total amount to be retained, if any, and complete the applicable portions of the Form GSC-17. The Funding Agency shall then prepare and submit the final Application for Release of Payment to the Fiscal Division.

5. The Funding Agency shall conduct the Final Inspection. The inspection shall include all aspects of the Contract(s), including any areas or equipment previously occupied or

utilized by the Funding Agency. If the work is "substantially complete", in accordance with the General Conditions of the Small GESA Contract, a report of the Final Inspection shall be prepared and distributed in accordance with Administrative Procedure #1, by the Funding Agency within five work days of the inspection, and shall include the following information:

a Project Number and Contract Number(s)

b Name of Facility

c Project Description

d Project Location

e Attendees along with their respective title and organization

f A detailed list of all remaining work to be completed or corrected with a reasonable cost to complete each item and a statement that all items shall be completed within thirty days from the date of Final Inspection

g The status of any pending change orders and the status of the associated work

h The status of payment of approved change orders to include CO#, approval date, debit/credit and amount to be released for payment.

i The status of claims, if any, to include the request date and position within the Funding Agency

j The status of Requests for Extension of Time, if any, to include request date, number and position within the Funding Agency

k Liquidated damages, if any, to include the number of days overrun, amount per day and total amount to be withheld

l Recapitulation of retained amounts to include the following:

i Punch List Items, plus one and one-half times the aggregate value of the items
ii Credit Change Orders
iii Pending Claims
iv Liquidated Damages

m The status of SDB Commitments

n The status of Bonds, Guarantees, Warranties, Tests and Instructions still required, to include page and paragraph of the specifications

o The status of the as-built drawings

p The status of Small GESA Contractor's papers, Form GSC-24 ($500.00 shall be retained until properly submitted)

q General comments, if any

r Statement regarding the start date of all warranties and guarantees

s Statement that the Contract has been completed in accordance with the plans and specifications

t Statement that the Small GESA Contractor shall continue insurance coverage pending written permission to terminate by the Funding Agency

u Statement that the Report as written shall be deemed acceptable to all parties in receipt, unless written notification of objections is received by the Funding Agency within seven days of receipt of the Final Inspection Report

v Form GSC-47, "Certificate of Final Completion and Final Payment"

6. If through the course of the inspection, it is determined by the Small GESA Contractor's Retained Professional that the work is not "substantially complete", in accordance with the General Conditions of the Small GESA Contract, the Small GESA Contractor's Retained Professional shall not issue the Certificate of Final Completion and Final Payment.

D. Form GSC-47, "Certificate of Final Completion and Final Payment"

1. The Small GESA Contractor's Retained Professional shall download a copy of the Form GSC-47. The form must be prepared by the Small GESA Contractor's Retained Professional, signed and emailed to the Funding Agency.

2. At the conclusion of the Final Inspection, the attendees shall review all of the remaining responsibilities of the Small GESA Contractor, the remaining responsibilities of the Small GESA Contractor's Retained Professional, the status of all pending change orders, the status of all pending Requests for Extension of Time, the status of any pending claims against the Funding Agency and any other obligations of any party necessary to fulfill the requirements of the Contract Documents. Upon completion of this review the Small GESA Contractor, Small GESA Contractor's Retained Professional and the Funding Agency shall affix their signatures to the Form GSC-47, Certificate of Final Completion to indicate their concurrence with the remaining responsibilities of each party.

3. The Final Punch List, prepared by the Small GESA Contractor's Retained Professional shall be appended directly to the Form GSC-47; additional sheets may be attached as required. The punch list shall indicate, in detail, all items requiring completion or correction and a reasonable cost of completion plus one and one-half times the aggregate value of the items.

4. The Funding Agency shall, within five working days after receipt, review the Certificate of Final Completion and Final Payment for completeness and attach the Form GSC-47 to the Final Inspection Report.

ADMINISTRATIVE PROCEDURE #14

FIELD DISPUTE RESOLUTION

A. General Information on Dispute Process

1. The Dispute Process is set forth in detail in the Disputes Article of the General Conditions.

2. The Small GESA Contractor may download the Field Dispute Resolution form from the DGS website.

ADMINISTRATIVE PROCEDURE #15

SMALL DIVERSE BUSINESS PARTICIPATION

A. General Information:

1. The Small GESA Contractor must meet or exceed the participation percentages provided in the Small Diverse Business Submittal for Minority Business Enterprises (MBE), Women Business Enterprises (WBE), Veteran Business Enterprises (VBEs), and Service-Disabled Veteran Business Enterprises (SDVBEs) (together referred to hereinafter as Small Diverse Businesses) on the Project as follows:

2. The participation level for each ECM shall apply to the total ECM value.

3. The Small Diverse Business participation may include all tiers of design and/or construction.

B. Small GESA Contractor's Duty

1. The participation percentage for each ECM provided in the Small Diverse Business Submittal is to be maintained throughout the term of the Contract and shall apply to the ECM value.

2. The Small GESA Contractor shall submit a Small Diverse Business Utilization Report with each Application for Payment (See section C below).

3. The Small GESA Contractor has until the date of the Final Inspection to meet or exceed the participation percentage for the ECM. This will be tracked through the Small Diverse Business Utilization Report.

C. Small Diverse Business Utilization Report

1. This report must be submitted with each Application for Release of Payment.

2. Starting with either the first full month after the Orientation Meeting or the first Application for Release of Payment (whichever is earlier), the Small GESA Contractor must submit a Small Diverse Business Utilization Report. Thereafter, an updated Small Diverse Business Utilization Report shall be submitted with each Application for Release of Payment.

3. Each Small Diverse Business Utilization Report must have current data (totals to date) identifying at least each element as follows:

   a Detailed information including, but not limited to, any subcontracts and purchase orders documenting the dollar value commitments to Small Diverse Business firms to be used toward the satisfaction of the ECM participation percentages provided in the Small Diverse Business Submittal. All Small Diverse Businesses identified on the Utilization Report shall be retained on the Utilization Report throughout the duration of the Project.

b Detailed information regarding any work that is claimed to be self- performed by the GESA Contractor and therefore allegedly not eligible for subcontracting to a Small Diverse Business.

c Construction Subcontracts and Purchase Orders:

i All Subcontract/Purchase Orders awarded to date are $_____

ii Commitment total to Small Diverse Businesses to date:

iii $ _____

iv % _____

v For each subcontract and purchase order awarded since the previous Application for Release of Payment the:

- Identity and status of the Small Diverse Business as a MBE/WBE/VBE/SDVBE that will be performing the work; and
- The ECM for which the work will be performed; and
- The type of work/service/material to be performed/supplied; and
- The amount paid to date on each Small Diverse Business subcontract/purchase order this month.
- The designation of Small Diverse Business Stocking Suppliers as either a MEP (i.e., mechanical, electrical, and plumbing) Stocking Suppliers or a General Construction Stocking Supplier.
- The fee or commission paid to the Nonstocking Supplier. No credit will be given if the fee or commission is not listed and, the maximum credit shall not exceed 10 percent of the purchase order cost.

d Failure to submit a Small Diverse Business Utilization Report with each Application for Release of Payment will result in an incomplete Application for Release of Payment. Such incomplete Application will be returned to the Small GESA Contractor and no payment will be processed until a complete Application is submitted.

D. The Small GESA Contractor's Commitments Toward the Submitted Participation Levels will be Calculated and Credited as follows:

1. Only DGS-certified Small Diverse Businesses can be credited toward satisfying the participation percentages provided in the Small Diverse Business Submittal.

2. Small Diverse Business subcontractor performing at least sixty percent (60%) of the subcontract with their own employees will be credited toward the submitted percentage at 100 percent of the total dollar value of the subcontract/supply contract. Any Small Diverse Business subcontract, where the subcontractor performs less than 60% of the subcontract, will not be credited toward the submitted percentage.

3. Small Diverse Business stocking suppliers are credited at 60 percent of the total cost of the materials or supplies purchased. A stocking supplier is a regular dealer that owns, operates, or maintains a store, warehouse, or other establishment, in which the materials or supplies of the general character described by the specifications and required under the contract are bought, kept in stock, and regularly sold or leased to the public in the

usual course of business.

4. Small Diverse Business nonstocking suppliers are credited at only the amount of the fee or commission charged by the Small Diverse Business nonstocking supplier for assistance in the procurement of the materials and supplies provided the fees are reasonable and not excessive as compared with fees customarily allowed for similar services and under no circumstances shall the credit, for a Small Diverse Business nonstocking supplier, exceed 10% of the purchase order cost. A nonstocking supplier does not carry inventory but orders materials from a manufacturer, manufacturer's representative or a stocking supplier. In order for a nonstocking supplier to receive credit, it must perform a useful business function by engaging in meaningful work (i.e., negotiating price; AND determining quality and quantity; AND ordering materials; AND paying for the materials) and the fee or commission must be provided with the purchase order and the Small Diverse Business Utilization Report. Industry practices and other relevant factors will be considered.

5. Small Diverse Business manufacturers are credited at 100 percent of the total cost of the materials or supplies purchased.

6. The Small GESA Contractor is allowed to use contract amounts at any tier of supply or subcontracting; however the dollar value of any commitment to a Small Diverse Business cannot be double counted.

   a If the Small GESA Contractor or any of its non-Small Diverse Business Subcontractors or Suppliers makes a commitment to a Small Diverse Business, the credit for the subcontract/purchase order commitment, regardless of the level or tier, shall be calculated as indicated in Section D and credited toward the participation percentage provided in the Small Diverse Business Submittal.

   b In the event that the Small Diverse Business whose entire subcontract value is counted towards the Small GESA Contractor's Minimum Participation Level and then subcontracts a portion of the work or supplies associated with this subcontract to another Small Diverse Business, the dollar value of the subcontract with/to this lower tier Small Diverse Business is NOT counted in the Small GESA Contractor's Participation Level in order to prevent the duplicate counting of Small Diverse Business commitment dollars. In this case, the dollar value of this subsequent Small Diverse Business subcontract has already been included within the scope of work and dollar value of the Small Diverse Business commitment already counted as a part of the Small GESA Contractor's Minimum Participation Level.

7. All Small Diverse Businesses must present a photocopy of their current Small Diverse Business certificate from DGS to the Small GESA Contractor. The certificate must be current as of the subcontract / purchase order execution date, not revoked, lapsed or pending, in order to obtain credit for the commitment.

8. A Small GESA Contractor's Small Diverse Business participation level per ECM is calculated by adding all or a percentage of the dollar commitments (as described in this section D) to DGS-certified Small Diverse Business subcontractor s of all tiers, DGS-certified Small Diverse Business manufacturers, DGS-certified Small Diverse Business stocking suppliers, and the fee or commission paid to the DGS-certified nonstocking supplier and dividing that total amount by the total ECM price.

9. Upon receipt of the Small GESA Contractor Small Diverse Business Utilization Report, DGS will verify the certification status of the subcontractor, manufacturer, stocking supplier, or nonstocking supplier. Once reviewed by DGS, the dollar value of the subcontract or purchase order, or a percentage thereof, shall be calculated as part of the total dollar value of the Small Diverse Business participation level for the ECM.

E. Remedies

1. The DGS may, in accordance with the General Conditions for the GESA Contracts (Payments Withheld), decline to approve an Application for Release of Payment in whole or in part if the Small Diverse Business Utilization Report is not included and return the incomplete Application for Release of Payment.

2. If after the first three months following Contract execution, the Small GESA Contractor fails to progress in achieving the participation percentage provided in the Small Diverse Business Submittal (based upon the data supplied in the Small Diverse Business Utilization Report), the Funding Agency may withhold payments until the GESA Contractor and the Funding Agency discuss the reasons for lack of progress and achieve a resolution. The Small GESA Contractor is not entitled to interest on any funds withheld due to their failure to submit a properly completed Small Diverse Business Utilization Report or their failure to progress in achieving the participation level.

3. The Small GESA Contractor's compliance with requirements of the Small Diverse Business participation component, including the fulfillment of any Small Diverse Business commitments in all subcontracts and purchase orders is material to the contract between the GESA Contractor and the Funding Agency. Any failure to comply with these requirements constitutes a substantial breach of the Contract. It is further understood and agreed that in the event the Funding Agency determines that the Small GESA Contractor has failed to comply with these requirements, the Funding Agency may, in addition to any other rights and remedies the Funding Agency may have under the contract, any bond filed in connection therewith, or at law or in equity, impose remedies as applicable on the Small GESA Contractor. Remedies for breach of this component may include entry into the CRP, termination, suspension, default, penalties, and/or debarment from future contracting opportunities with the Commonwealth of Pennsylvania. The remedies enumerated herein are for the sole benefit of the Funding Agency and the Funding Agency's enforcement of any provision or the Funding Agency's indulgence of any non-compliance with any provision hereunder shall not operate as a waiver of any of the Funding Agency's rights in connection with the Contract, nor shall it give rise to actions by any third parties, including any Small Diverse Business enterprises.

Appendix J

Small GESA Project Design Manual

pennsylvania
DEPARTMENT OF GENERAL SERVICES

Small GESA Project
Design Manual

2014 Edition

BUREAU OF ENGINEERING AND ARCHITECTURE
SMALL GESA PROJECT DESIGN MANUAL

CHAPTER 1 - PROJECT ADMINISTRATION

CHAPTER 2 – INVESTMENT GRADE AUDIT ACTIVITIES

CHAPTER 3 – CONSTRUCTION DOCUMENTS SUBMISSION

CHAPTER 4 – DRAWINGS

CHAPTER 5 – PROJECT SPECIFICATIONS

CHAPTER 6 – DGS STANDARD DESIGN PRACTICES

CHAPTER 7 – CONSTRUCTION CONTRACT ADMINISTRATION

CHAPTER 1

PROJECT ADMINISTRATION

SECTION 100 - INTRODUCTION

100.1 PURPOSE. This Manual provides the Small GESA's Professional (**Inhouse or Retained Professional**) with a guideline of procedures and standards for the design and construction stages of the Department of General Services' Small GESA projects. The Manual's organization reflects the sequence in which services and submissions will normally occur. The Department of General Services is also referred to throughout this Manual as "DGS".

100.2 EXCEPTIONS. It is not the purpose of the Manual to establish inflexible rules that hinder practical performance. If a specific situation appears to justify a deviation from the guidelines, it should be brought to the attention of Project Coordinator. Prior written approval is to be obtained before making a deviation.

SECTION 101 - REFERENCE AND STANDARD DOCUMENTS

101.1 MANUAL INCORPORATED INTO SMALL GESA PROJECT DOCUMENTS. This Project Procedure Manual is incorporated into the Small GESA Contract documents and is complimentary to that Contract and documents incorporated therein.

SECTION 102 - CORRESPONDENCE

102.1 NUMBER OF COPIES. All correspondence on the Small GESA Project will be handled as set forth in the Administrative Procedures of the Small GESA Contract.

SECTION 103 - MEETINGS, MINUTES AND REPORTS

103.1 MINUTES. The Small GESA's Professional ("the Professional") is to furnish minutes of all meetings to DGS and the Funding Agency. The minutes are to be sent to the DGS Project Coordinator within one (1) week following the meeting. Minutes shall be emailed as set forth in the Administrative Procedures.

103.2 PROGRESS REPORTS. The Professional is to email DGS a Monthly Progress Report during the Design Stages as part of its monthly invoice. The Monthly Progress Report must be submitted to DGS and the Funding Agency even if an invoice is not submitted for that month. The Report must include at least the following information:

A. Percentage of design/document completion

B. Significant actions taken during the period

C. Anticipated circumstances that may affect schedule or cost

103.3 INSURANCE. No payment for any services will be made without a current certificate of Professional Liability Insurance and a current certificate of General Liability Insurance on file with the DGS Bureau of Professional Selection and Administrative Services. It is the Small GESA's Professional's responsibility to provide current certificates as soon as the previous certificates expire.

SECTION 104 - APPROVALS AND COMPLIANCES

104.1 DGS APPROVAL. The Department may choose to Approve / Conditionally Accept / or Reject a Design Submission. The Professional must receive DGS Conditional Acceptance or Approval of each separate Design Stage prior to proceeding to the next Stage. No compensation for wasted design or changes will be paid for work performed on subsequent Design Stages prior to receipt of approval of preceding Stages.

104.2 FUNDING AGENCY APPROVAL. The design submissions must, be approved by the Funding Agency at, or following, the Review Conference. The Professional is to secure the Funding Agency Head's approval in the form of a letter, prior to the Construction Documents Stage approval by DGS.

104.3 REGULATORY AGENCIES. The Professional must obtain the design approval of all Local, State, Federal and other regulatory agencies having jurisdiction over the Work of the Project. Permits and approvals required at various stages are covered in more detail in subsequent chapters of this manual. The Project costs shall include the cost of permits, filing fees or similar approvals obtained during the Design Stages. The Professional shall obtain the necessary Building Permit from Pa. Department of Labor and Industry under the PA UCC Code. Commonwealth projects are exempted from the local building permit approval. Where other permit applications are part of the codes approval process, the Small GESA's Professional shall make application and obtain permits.

A. 'Furnish': To supply and deliver to Project site, ready for unloading, unpacking, assembly, installation, and similar operations.

B. 'Install': Operations at the Project site, including unloading, temporarily storing, unpacking, assembling, erecting, placing, anchoring, applying, working to dimension, finishing, curing, protecting, cleaning and similar operations.

C. 'Funding Agency': The particular facility at which the work of the Project is located.

D. 'Provide': To furnish and install, complete and ready for the intended use.

E. 'Quality Assurance': Testing and inspection services provided by the Small GESA's Retained Professional as additional services, and performed by an independent Consultant, retained by the Small GESA's Professional and acting on behalf of the Funding Agency, to ensure a quality project.

F. 'Quality Control': Testing services required by the specifications, and performed by an agent of the Contractor.

CHAPTER 2

ENERGY AUDIT ACTIVITIES

SECTION 200 – SITE VISIT

200.1 The Small GESA's Professional shall visit the site during the project-specific RFP process and as needed during the investigation and preparation of the Energy Audit Report. These visits should provide the Small GESA's Professional the opportunity to review with the Funding Agency's and Funding Agency's representatives the Project Description, the Funding Agency's purpose, the Project feasibility, site location, special design or construction considerations and any available program information.

SECTION 201 - SURVEY OF EXISTING CONDITIONS

201.1 SITE VERIFICATION. The Small GESA's Professional shall investigate existing site conditions visually and by measurement, as well as by examining available records and drawings, to determine the location and nature of utility lines and all other manmade conditions as well as natural conditions, that may influence the project. As-Built records and any existing survey cannot be relied upon to adequately disclose the pertinent information.

201.2 EXISTING BUILDING CONDITIONS VERIFICATION. The Small GESA's Professional is to survey the existing conditions as needed to determine all existing conditions affecting the Small GESA project ECMs. The survey shall include HVAC, Plumbing, Electrical, and all other conditions necessary for the Energy Audit and appropriate recommendations for ECMs. As-Built drawings, if available, are

only intended as a guide. DGS assumes no responsibility for the accuracy of any As-Built drawings. Surveys of existing conditions include reasonable cutting of exploratory holes and other investigations to determine the location of existing elements as necessary for coordinating the design. The Funding Agency shall determine if the exploratory hole location is acceptable, considering the facility's operation and shall assist with relocation of property and personnel, if possible and reasonable. The Funding Agency is responsible for actual cutting and patching of the holes.

201.3 AS-BUILT RECORD DRAWINGS. Funding Agency may have As-Built Record Drawings for some of the projects constructed by the Funding Agency and the Former General State Authority (GSA). In addition, the DGS Bureau of Real Estate, Space Management Division may be able to provide the architectural plans for some DGS-controlled state office buildings on CAD. Small GESA's Professional should review the documents available at the Facility and determine their need for as-built drawings. If they exist, As-Built record drawings are available for viewing at DGS' offices in Harrisburg.

SECTION 202 - CODES AND PERMITS

202.1 PROFESSIONAL'S RESPONSIBILITY. The Small GESA's Professional shall design the Small GESA Project in compliance with all applicable Federal, State and Local Codes, ordinances, laws, and regulations.

202.2 VARIANCES. Variances to codes and ordinances are to be avoided unless absolutely necessary for the project. If a variance must be obtained, the issue must be presented and reviewed with DGS prior to submission of the variance. In no case is a variance application to be made without prior approval of DGS.

202.3 BUILDING CODES. The Project design and construction must conform to the Pennsylvania Uniform Construction Code (UCC) adopted under Act No. 45 of 1999.

A. The UCC adopts various standards and codes, including the International Building Code (IBC) for use throughout the Commonwealth of Pennsylvania. The Pa. Department of Labor and Industry will perform code enforcement and enforce the UCC. State-owned buildings are exempt from local (Municipal, Township) review of projects for a building permit.

   1. The PA Uniform Construction Code (UCC) is administered by the PA Department of Labor and Industry.

   2. All Commonwealth projects are exempted from fees for plan review and building permit application.

B. Other Building Codes and Standards (Local, State and Federal) not listed may also apply.

202.4 ZONING. DGS is required to comply with local land use, setback, height and other local zoning restrictions. The scope of work for the Small GESA's Professional includes making application and obtaining zoning approval and variances prior to Construction Documents Submission at no additional cost to the project.

202.5 SUBDIVISION AND LAND DEVELOPMENT APPROVAL. DGS will comply with local subdivision and land development ordinances. The scope of work for the Small GESA's Professional includes making application and obtaining those approvals if necessary.

202.6 PERMITS. The Small GESA's Professional shall obtain all other design approval permits, such as those issued by DEP, PHMC, Highway Occupancy permits, and permission to connect to utility systems.

SECTION 203 - LAND SURVEY

203.1 INITIAL INFORMATION. If necessary for the Small GESA Project, the Small GESA's Professional shall collect all available topographic and other site information available from the Funding Agency and DGS at the time of the initial site visit or shortly thereafter and review, analyze and determine completeness of Project Information.

203.2 OBTAINING A LAND SURVEY. An existing Property/Topographic survey, if within DGS' possession will be provided by DGS. If necessary for the Small GESA Project, the Small GESA's Professional should obtain confirmation from public records that all existing easements are shown on the land survey.

SECTION 204 - SUBSURFACE AND RELATED SITE INVESTIGATION

204.1 INTENT. If necessary for the Small GESA Project, the Small GESA's Professional, with a Civil/Structural Engineer, is to obtain data that will yield sufficient information for an accurate evaluation of the existing subsurface and related conditions for the following purposes:

A. Analysis, design and construction of foundation and substructure.

B. Analysis, design and construction of site work such as embankment, slopes, retaining structures, site and subsurface drainage, roads and pavements.

C. Soil Erosion and Sedimentation Control.

D. Analysis and cost estimation of rock and soil excavation and fill.

E. Wetlands and other land use evaluation.

F. Archaeological studies.

204.2 OBTAINING SUBSURFACE AND RELATED INFORMATION. The Small GESA's Professional, in collaboration with a Civil/Structural Engineer, is to gather available information from any previous studies or reports and by observing the site.

204.3 SUBSURFACE FUEL TANK INVESTIGATIONS. There are specific regulations regarding existing and new fuel storage systems. Unforeseen fuel systems, whether discovered during design or construction, shall be addressed by the Small GESA's Professional in the most appropriate manner so as not to impede the project. The Professional shall use due diligence to determine the presence of or lack of underground tank systems.

204.4 SUBSURFACE UTILITY INVESTIGATIONS. When it is necessary to locate unobservable utility lines, tanks or other objects due to complexity or special circumstances of the Project, the Small GESA's Professional may obtain the necessary information through the use of geophysical prospecting techniques.

204.5 SOILS ENVIRONMENTAL ASSESSMENT. The Funding Agency shall alert DGS and the Small GESA's Professional of any previous activity which could have created soil contamination problems. Where the likelihood of contamination is real, the Funding Agency and the Small GESA's Professional shall jointly determine if a soils environmental assessment is appropriate. Installing improvements on top of contaminated soil is to be avoided.

SECTION 205 - DESIGN RESTRICTIONS

205.1 STEEL PRODUCTS. Pursuant to the Steel Products Procurement Act, steel products including approved proprietary products must be composed of steel manufactured in the U.S. Products containing foreign steel are permitted only if 75% of the cost of the product is composed of articles or materials mined, produced or manufactured in the U.S. DGS may grant an exception to the prohibition if DGS

determines that the product is not manufactured of U.S. steel in sufficient quantity for the Project. The Professional shall not knowingly specify a prohibited product.

205.2 ENERGY SOURCE FOR SPACE HEATING. Heating systems or heating units installed in a facility owned by the Commonwealth shall be fueled by coal, consistent with Act 1990-28.

A. When an alternate fuel source is proposed, justification for not using coal is required. Information for the type of fuel proposed for this Project supporting the justification must be submitted to DGS for review.

B. Small GESA's Professional's written justification to use an alternative fuel source should include such considerations as:

1. Heating system first costs, and life cycle analysis.
2. Space considerations for handling and storage.
3. Space considerations for equipment.
4. Manpower requirements for operation and maintenance of a coal system.
5. State and Federal Air Quality considerations.
6. Aesthetic appeal of the site, building and/or facility.
7. Other information you consider appropriate.
8. Using natural gas from wells located in PA may be an appropriate justification.

C. Information must be specific enough to present a provable argument for using the proposed fuel in place of coal. An extensive report is not required; information can be presented in letter form addressing items listed above.

205.3 DEVIATION FROM CONSTRUCTION CONTRACT GENERAL CONDITIONS. DGS uses our standard General Conditions to the Construction Contract for all projects. The Small GESA's Professional may not deviate from the standard practices and procedures established in the General Conditions without specific prior written approval from DGS.

CHAPTER 3

CONSTRUCTION DOCUMENTS SUBMISSION

SECTION 300 - GENERAL

300.1 PURPOSE. The Construction Documents Submission ("CD") is to provide 100% complete final construction documents including drawings and specifications as required for construction. Upon receipt of written approval of the Energy Audit Report, the Small GESA's Professional shall proceed to prepare the CD submission as discussed in this Chapter.

300.2 SUBMISSION TO THE DGS BUREAU OF ENGINEERING/ARCHITECTURE. The Construction Documents shall be submitted on disc(s) to DGS' Bureau of Engineering& Architecture ("E/A") and the Funding Agency on or before the date established in the Small GESA Contract, unless another date has been approved by DGS. Delivery may be made in person or by commercial courier.

300.3 UCC APPLICATION FOR BUILDING PERMIT. If DGS determines that the Construction Documents Submission is adequate for building permit purposes, DGS will direct the Small GESA's Professional in writing to submit all the Construction Documents to the Pa. Department of Labor and Industry with a completed UCC Application for Building Permit. Commonwealth projects are exempt from UCC Building Permit Application fees.

300.4 REVIEW CONFERENCE. A conference to review the Construction Documents Submission with the Small GESA's Professional, the Funding Agency and E/A will be scheduled in E/A's Harrisburg Office approximately two (2) weeks after receipt of submission. The Small GESA's Professional, the Small GESA Contractor and any Consultants are required to attend the Conference.

SECTION 301 - CONSTRUCTION DOCUMENTS SUBMISSION

301.1 CONSTRUCTION DOCUMENTS SUBMISSION PACKAGE. On the scheduled date of the Construction Documents Submission, the Small GESA's Professional shall deliver a disc(s) containing the following information:

A. Construction Documents Submission Checklist duly checked and filled-in as appropriate.

B. One copy of the Code Review and Analysis.

C. One copy of the Construction Documents Submission Probable Construction Cost Summary for each ECM.

D. One copy of Project Specifications with the Small GESA's Professional's seal and signature on the Cover Page.

E. One complete set of all Construction Drawings, including the Cover Sheet, with the Small GESA's Professional's seals and signatures on all drawings. See Chapter 8 for the drawing format.

F. One copy of a Report Summarizing the Status of all Utilities required for the Project (Electric, Gas, Water, Sewer, Telephone, Cable TV, etc., as applicable). If applicable, provide a written estimate for the Utility Company's cost to extend service to the building.

G. One copy of the List of Regulatory Approvals/Permits – Status Report indicating the status of the submission/review/approval process for all required permits and approvals, with copies of all approvals/permits obtained to date. Completed applications for regulatory approvals/ permits must be submitted to appropriate agencies with copies to DGS at least thirty (30) days prior to Construction Documents Submission.

H. One copy of each of Final Engineering Calculations for civil, structural, HVAC, plumbing, fire protection and electrical computations as applicable to the project.

I. One copy of a CPM Construction Schedule , with recommended number of calendar days of construction and temporary heat requirements

301.2 SPECIFICATIONS. The Professional must submit the 100% complete specifications, including Cover Page, Table of Contents, List of Drawings, Division 1 – General Requirements, and technical specifications of all contracts, describing the type, quality and use of materials, equipment, processes and systems to be incorporated in the work. The Cover Page must bear the Small GESA's Professional's Seal and Signature.

301.3 DRAWINGS. Construction drawings are to be 100% complete dimensioned plans, elevations, sections, details, schedules and diagrams of all architectural, landscaping, civil, structural, HVAC, plumbing, electrical and other miscellaneous contract work. The Professional's seals and signatures must appear on all drawings.

A. The Professional's and respective Consultants' seals and signatures shall be affixed to all drawings.

B. Bind sets as indexed, with Cover Sheet.

C. All approvals from various regulatory agencies shall be noted on Cover Sheet of the drawings.

301.4 SITE PLAN DRAWING. The site development drawing should include the following:

A. General Construction: The CD Submission must include a site plan sheet showing the Limit of Contract line and locate staging areas, trailer locations, and the Small GESA Contractor parking area. The following information shall also be included as applicable to the project:
   1. Existing conditions plan with site demolition, if any.
   2. New improvements plan with all surface features indicated and detail cuts, if any.
   3. Site details of all conditions.
   4. Layout plan of new improvements with tie to control monuments, locations of easements and property lines near the work, floor elevations and source/date of survey with location/description of benchmarks.
   5. Grading and drainage plan with Stormwater Management system.
   6. Profiles of drainage lines with crossover pipes indicated.
   7. Common utility plan showing interrelationship of all utilities and the POC (Pennsylvania One Call) Serial Number. Include a 'Utility Contact Table' as required by Act 287.
   8. Landscape plans with details.
   9. Soil erosion and sedimentation plans and details with narrative.

B. After approval of the Construction Documents submission, for purposes of Land Title/Lease Confirmation by DGS Legal Unit, the Small GESA's Professional shall provide an electronic file of an 11" x 17" Site Plan, showing all property lines, easements, ROWs, and Limit of Contract line. Verify exact requirements with the DGS Project Coordinator.

301.5 ENGINEERING ANALYSIS AND COMPUTATIONS. The Small GESA's Professional must provide complete and orderly civil, structural, HVAC, plumbing (with fire protection), and electrical engineering analysis and computations. Clearly indicate all engineering processes used to develop and size all members, connections, equipment and systems. All design criteria with sketches and text to clarify analysis, assumptions and safety factors used must be included.

301.6 UTILITY SERVICES. The Small GESA's Professional shall provide a report summarizing the status of all utilities for the Project. The report shall indicate the nominal capacity of each service and confirm that each service is adequately sized to serve the Project. The report shall indicate what documents were provided for the DGS Legal to prepare easement agreements and the dates the documents were provided. The report shall also detail what actions are required to obtain services, when the actions are required, and who is to take the necessary actions.

301.7 CPM CONSTRUCTION SCHEDULE. The Small GESA's Professional shall furnish a CPM schedule of the envisioned construction sequence. This sheet shall indicate the significant construction activities and milestones (including long lead equipment times, etc.), and shall also contain the recommended number of calendar days of construction time

SECTION 302 - REGULATORY APPROVALS AND PERMITS

302.1 CONSTRUCTION/BUILDING PERMITS. The Small GESA's Professional shall obtain a UCC Building Permit from the Pa/ Department of Labor and Industry. DGS requires the Small GESA Contractor to obtain and pay for all other necessary permits, licenses and certificates required by law for proper execution and completion of its work.

302.2 SUBMISSION REQUIREMENTS. The Construction Documents Submission is to include a list of Regulatory Approval/Permits with current status of all required approvals and permits.

SECTION 303 - APPROVALS AND POST-CONFERENCE ACTIVITIES

303.1 FUNDING AGENCY APPROVAL. The Small GESA's Professional should obtain the Funding Agency's formal approval of the Construction Documents in the form of a letter to the Director of the Bureau of Engineering and Architecture signed by the Funding Agency's Secretary, or designee, with approval authority. This letter is required following the Construction Documents Review Conference, and prior to DGS Final Approval.

303.2 DGS APPROVAL. Official DGS approval is not given at the Review Conference. Construction Documents Submission approval, conditional acceptance, or rejection is issued by E/A in a letter following the Review Conference. Approval of the Construction Documents Submission by DGS is contingent on all changes requested or required being incorporated into the Construction Documents.

303.3 MINUTES. The Professional shall furnish minutes of the Construction Documents Review Conference to the Department and Funding Agency within five (5) days following the conference. Professional's post-conference comments, included with the meeting minutes, shall be identified as not a part of the meeting minutes.

CHAPTER 4

DRAWINGS

SECTION 400 - GENERAL

400.1 PURPOSE. This Chapter presents standards and guidelines for drawings prepared for Small GESA projects. Generally accepted professional practices are to be used, except where different DGS standards or practices are given.

400.2 WORKING DRAWINGS. Original drawings must be CADD-generated drawings. Line and lettering must be dark and large enough for microfilm 1/2 size reproduction. Lettering must be a minimum 3/32" height, and be legible on half-size prints. Signatures and code approvals must be in permanent ink. Except where drawings are diagrammatic, all drawings shall be drawn to scale.

400.3 INFORMATION. Final construction drawings on the disc shall contain adequate information, including schedules, details and pertinent information necessary to perform the work.

400.4 'AS-BUILT' RECORD DRAWINGS. Record drawings of the construction shall adhere to the industry standard for 'As-Built' Record Drawings in .pdf format

SECTION 401 - SIZE, FORMAT AND APPROVALS

401.1 COVER SHEET. All projects shall have a Cover Sheet. The Index to Drawings shall list each drawing by name, sheet number and descriptive title. Cover Sheet shall have all pertinent regulatory approval references. List all Consultants, indicating their discipline.

401.2 PROFESSIONAL SEAL AND SIGNATURE. For the Construction Documents Submission, the Small GESA's Professional Seal of the Registrant in charge of the work must appear on all drawings, specifications, plats and reports issued by the Small GESA's Professional. The Architect's Seal must appear on the architectural drawings, the Engineer's Seal must appear on the engineering drawings, etc. An embossed seal, a stamp of a design identical to the seal, or a reproduction of a stamp identical to the seal, may be used with the Registrant's signature applied near or across the seal.

SECTION 402 - SYMBOLS, REFERENCES AND SCHEDULES

402.1 SYMBOLS. A Legend showing all reference symbols and abbreviations with a clear explanation of each must be provided. Symbols utilized in the development of drawings shall be those commonly recognized by Professionals throughout the building industry as being both identifiable and universal in meaning.

402.2 REFERENCES. Industry-recognized reference standards must be used in the preparation of all Contract Drawings. The Department recognizes the following reference standards as the most commonly used reference publications available to the professional building industry. These reference standards are mentioned because of their universal acceptance. It is not the intention of the Department; however, to limit or restrict the use of other industry recognized standards or reference material in the preparation of the contract drawings.

A.	Ramsey/Sleeper -	Architectural Graphic Standards
B.	Time-Saver Standards for Architecture -	Design Data
C.	ASHRAE -	HVAC reference
D.	SMACNA -	Sheet Metal reference
E.	AIA Standard -	Numbering Drawings

402.3 SCHEDULES. The Department has no standard format for schedules. It is important to stress, however, that the development of accurate and complete schedules is essential to clear and concise documents. Do not include manufacturers or model numbers in the schedule unless permitted by the Department. Show these names and numbers in the appropriate specification sections. Schedules shall include as applicable to the project:

A. Door schedule, indicating door type, frame type, threshold, hardware set, and rating.

B. Finish schedules, indicating each wall, floor, ceiling, base, etc., with an integral or separate color schedule.

C. Window schedule.

D. Lintel schedule.

E. Hardware schedule shall be in the hardware specification of the Project Manual.

F. Beam and column, and other structural member schedules with design and construction loads and information.

G. Caisson and pile schedules with design and construction information, anticipated bearing elevations and loads.

H. Fixture schedules (all contracts), including design conditions, size of service connections. Fixtures must be identified on the drawings.

I. Equipment schedules (all contracts), including design conditions, size and capacity, motor horsepower and all electrical characteristics.

J. Electrical panel schedules.

SECTION 403 - MISCELLANEOUS

403.1 AS-BUILT CHANGES. At the completion of the Project, the Small GESA's Professional shall prepare and submit record 'As-Built' drawings as further discussed in the General Conditions of the Small GESA Contract. The Small GESA's Professional shall identify 'As-Built' changes using symbol and description key on the standard title block.

403.2 STRUCTURAL DRAWING REQUIREMENTS. As necessary or applicable to the project, the construction contract drawings shall include structural information describing, but not limited to, the following:

A. Design live loads, wind loads and other applicable loads, and show plan locations of special heavy loading areas.

B. Strength of structural materials with ASTM designations.

C. Required bearing capacity of bearing strata.

D. Required capacity of piles.

E. Structural design provisions included for future additions and alterations.

F. AISC type of construction.

G. Sufficient details to allow construction.

H. Criteria for removal of shoring and form work.

I. Requirements for special earthwork.

403.3 HVAC, PLUMBING AND ELECTRICAL DRAWING REQUIREMENTS. The following guidelines are to be used with accommodation for conditions of specific projects. HVAC, Plumbing and Electrical drawing criteria should be similar.

A. Water, Soil, Waste and Vent Piping:

1. 1/4” scale drawing of piping for all toilet rooms and kitchens.
2. Isometric drawing and/or riser diagrams.
3. Identify and number all stacks, rainwater conductors, hot and cold water risers, cleanouts and floor drains.
4. Detail of safe wastes for refrigerator drains, fountain equipment, coffee urns, vending machine, etc.
5. Clearly indicate all pipe sizes.
6. Show location of shock absorbers.

B. Condensate Drain Piping:

1. Drain line shall be run to a safe waste, slop sink, funnel drain, etc.
2. Detail of connection to drip pan.
3. Riser diagram.
4. Clearly indicate pipe sizes.

C. Fire Protection:

1. Fire protection systems shall be designed in accordance with the current requirements of the NFPA and National Board of Fire Underwriters shall be considered a part of the specifications.
2. Prepare detailed diagrams or drawings which may be required by the Department.
3. Riser diagram of standpipe system showing valved outlets at each floor.
4. Show location of all fire hose cabinets.
6. Show all sprinkler head locations.
7. Show all fire protection systems in the building.
8. Clearly indicate location and size of all sprinkler main and risers.

D. Gas Piping:

1. The entire design of gas piping shall be made in strict accordance with the recommendation of the local gas company and the ASME Code for Pressure Piping

ASA B 31.1-1955 and American Standard for Installation of Gas Piping and Gas Appliances in Building ASA 221.30.

2. Riser diagram.
3. Clearly indicate location and size of all gas piping.

E. Mechanical, Electrical, and Data Communications Equipment Rooms:

1. Show location and size of all equipment.
2. Show proper clearances of all equipment, conforming to Department of Labor & Industry, “Regulations for Boilers and Unfired Pressure Vessels”.
3. Exit from equipment rooms shall be large enough to remove all equipment without dismantling.
4. Proper clearance for tube removal from all equipment.
5. Proper clearance for electrical equipment in accordance with NEC.
6. Proper clearance around all equipment for maintenance work.

F. Roof Plan:

1. Show location of all roof drains (furnished, installed and flashed by GC).
2. Show location of all roof penetrations, curbs, etc.
3. Show location and size of all rooftop equipment.

G. Equipment Pads and Structural Supports:

1. Show steel member sizes and details.
2. Show all dimensions.
3. Show reinforcing size and pattern.
4. Method of anchoring equipment.
5. Vibration eliminators and isolators.
6. Design to be checked by Structural Engineer.

H. HVAC Equipment, Ductwork and Piping:

1. Show all items of equipment including anchors and support structures and piping.
2. Show all ductwork preferably to scale with duct sizes shown and coordinated to avoid interference.

I. Electrical Equipment:

1. Show proper distribution riser diagrams.
2. Use DGS standard panelboard schedule.

J. Other Systems: Show location of all equipment and devices of other systems including building automation, temperature control, fire alarm, security, data and telecommunication, and lightning protection.

CHAPTER 5

PROJECT SPECIFICATIONS

SECTION 500 - GENERAL

500.1 CONSTRUCTION DOCUMENTS SUBMISSION. Final specifications must be 100% complete as of this submission.

SECTION 501 - PROJECT MANUAL FORMAT

501.1 CONSISTENCY. The preferred format is CSI Master Format/Section Format. The AIA 'Master Spec' or similar formats are acceptable. Any other format must be approved by DGS.

501.2 LIST OF DRAWINGS. This document is to be prepared by the Small GESA's Professional.

SECTION 502 - INSTRUCTIONS ON TECHNICAL SPECIFICATIONS

502.1 STANDARD SPECIFICATIONS. Commercially available pre-written generic specifications by CSI or AIA Master Spec or similar are acceptable with certain editing modifications using the latest available edition. All paragraphs and subparagraphs must be numbered. DGS Standard Specification Requirements must be incorporated into the contract specifications, as applicable.

502.2 EDITING. Specifications are to be created to suit the requirements of each individual project, editing specs to exclude all non-pertinent information. Procedures specified must not conflict with the DGS General Conditions.

502.3 REFERENCED STANDARDS. Entire published standards, such as PennDOT Form 408 or SMACNA are not to be referenced. If only a portion is required, include the applicable text from the standard in the specification.

502.4 TRADE NAMES. Trade names are to be used only to establish a standard of quality, appearance, design and function whenever possible. Trade names are not to appear on the drawings.

502.5 QUALITY CONTROL TESTING. Quality control tests to be done by the Small GESA Contractor are to be included in Section 01400 of the Project Specifications.

502.6 BASIC CODES/REGULATIONS. Reference to an edited list of the latest edition of design codes shall be made in each appropriate section of each contract specification, as applicable. The following is a partial list, as a guide:

A. Life Safety Code – NFPA 101

B. Labor & Industry – Uniform Construction Code (UCC)

C. Pennsylvania Code – Department of Health regulations

D. National Electrical Code – NFPA 70

E. National Electrical Safety Code – ANSI C2

F. ASHRAE

G. Pennsylvania Code – Elevators, lifts, escalators, dumbwaiters, hoists and tramways – Labor & Industry 34 Code Chapters 7 and 8

H. Safety Code for Elevators and Escalators – ASME/ANSI A 17.1

I. Accessibility Codes - UCC

J. City or Local Municipal Codes

CHAPTER 6

DGS STANDARD DESIGN PRACTICES

SECTION 600 - GENERAL

600.1 PURPOSE. This Chapter provides information concerning design and drawing standards adopted by DGS as standard for Small GESA projects. This section in no way limits the responsibilities of the Small GESA's Professional and its Consultants stated or implied elsewhere.

600.2 ACCEPTABLE DGS PRACTICES. The practices included are both those written by DGS and standards referenced from other agencies. It is not the intent of this Manual to furnish a complete and up-to-date list of all acceptable industry standards. Questions should be discussed with the DGS Project Coordinator.

SECTION 601 - ARCHITECTURAL

601.1 ROOF DESIGN. Roof designs must provide a positive slope to roof drains of at least 1/4" per foot. Crickets and similar fabrications shall be employed to eliminate ponding in valleys. In this regard:

A. Achieve the minimum slope by sloping the structural framing system, or justify other methods such as sloped insulation.

B. Roof drains are to be 4" minimum, unless justified otherwise,

C. Provide secondary drainage system as required by Code.

601.2 ROOF DECK. Metal roof decks, new or existing, shall not be used for suspension or support of ductwork, conduit, ceiling systems, lighting fixtures or any other miscellaneous equipment or items.

A. All suspended items shall be supported from the structural members or a suspension system supported by the structural members. Include the above provisions in the contract specifications.

B. When ponding occurs because of design of secondary drain system, the ponded water load should be included in the live load.

601.3 BUILDING JOINTS. Expansion and control joints are required in partitions, walls, and floors to control cracking. These must be specified and shown on the drawings. Expansion joints in exterior walls are to have a mechanical weatherstop, in addition to any compressible sealant used.

A. Structural members must be permitted free movement. It is preferred to keep the main structural members within the building insulation envelope to minimize its expansion and contraction.

601.4 FINISH CARPENTRY. The Quality Standards of the Architectural Woodwork Industry (AWI) are to be used for designing and specifying custom woodwork, cabinetry and finish carpentry.

601.5 WINDOWS. The standards of the Architectural Aluminum Manufacturers Association are to be used for designing and specifying aluminum windows. Specific trade requirements and standards will govern for other types of windows. All metal windows shall incorporate a thermal break. All windows shall have insulating glass. All operable windows shall have insect screens.

A. Rough-ins shall be stubbed at least 8" above floor, out of walls or down from ceiling, and pressure lines valved (waste lines capped), unless shown otherwise for particular reasons.

B. All wiring of equipment, both internal and external must be in accordance with the National Electric Code.

601.6 LIGHTING USE. Standards of design for illumination shall be Lumens Per Watt for equipment selection, except where special effect is sought.

601.7 FIRE EXTINGUISHERS. Fire extinguishers needed for occupancy of the Project (whether in cabinets or loose) are included in the costs for the project.

A. Bubble-face cabinets are preferred to flush or surface mounted cabinets.

B. Extinguishers are to be the type and size recommended by the National Board of Fire Underwriters' and shall bear the UL label.

601.8 PROVISIONS FOR FUTURE RADON PROTECTION. The following features should be included as recommended in EPA/625/R-92/016 dated January 1993:

A. Use a minimum 4" layer of #57 stone with a vapor barrier under all basement slabs on grade. Seal or detail slabs for future sealing of all joints and penetrations, including the perimeter. Include a suction void and stubbed up vacuum exhaust pipe for future connection.

B. If basement walls are made of concrete block they should be selected for minimum porosity and filled solid.

C. Where crawl spaces occur, install a vapor barrier over the earth and seal all floor penetrations. If a stone layer is installed under the vapor barrier, a future vacuum exhaust system can be installed.

D. HVAC systems should be designed to provide a positive pressure throughout the building.

E. Radon testing should be included in the air quality testing after the building is enclosed and nearly ready for occupancy.

SECTION 602 - CIVIL/STRUCTURAL

602.1 CIVIL. Site design shall be by a Civil Engineer Registered in the Commonwealth of Pennsylvania. Design shall comply with all codes and federal, state and local regulations and obtain required design approvals. Information shall include but not be limited to:

A. Drawings:

1. Existing site plan with all above ground and underground improvements, property line metes and bounds if the site borders property lines and site demolition, indicated and described in detail. Locate and describe two or preferably three benchmarks and indicate the source and date of the survey. Note PA One Call design notification serial number.
2. Site improvements indicating all visible surface improvements. Provide building layout dimensions from control points. Locate the Contract Limit Line and the Contractor staging and parking areas.
3. Grading and drainage with existing and new contours or point grades to allow construction. Show stormwater management system. Show all drainage structures with invert and top elevations; provide profiles with pipe crossings indicated.
4. Landscaping drawings.
5. Soil erosion and sedimentation drawings, and narrative.
6. Details of all work with section cuts on plans.

B. Specifications: The Civil Engineer shall write or review the specification sections governing all work that he has designed. Where specifications sections are provided in Division 2 for work (such as concrete paving) which is a sub-category of the main category subsequently specified (Concrete, in Division 3) they shall be fully coordinated, so that requirements of the main specification are required by reference.

602.2 STRUCTURAL. Structural design shall be by a Professional Engineer, licensed in the Commonwealth of Pennsylvania.

A. General: Design all primary and secondary structural elements and comply with all requirements of the Pennsylvania UCC. Commonwealth office buildings are to be designed for live load of 125 psf. Where renovating an existing building, the structural adequacy shall be analyzed for code compliance.

B. Drawings: Coordinate with the Architect and verify that all architectural details reflect structural design. Provide design notes with design load criteria and notes on all structural systems. Information shall be provided on drawings, which includes but is not limited to:

1. Foundation Systems: Following the recommendations of the Geotechnical Engineer Consultant, provide a complete design of foundation systems. Fully define the work, providing bearing elevations necessary to establish a clear scope of work for bidding. Consider ground water conditions and accommodate foundation drain and waterproofing systems. Drilled piers requiring inspection are to be a minimum of 30" diameter.
2. Concrete: Design in accordance with applicable current ACI specifications.
3. Structural Steel: Design in accordance with applicable current AISC specifications.
4. Steel Joists: Design in accordance with applicable current SJI specifications.
5. Steel Deck: Design in accordance with applicable current SDI specifications.
6. Cold-Formed Steel Framing: Design in accordance with applicable current AISI specifications.
7. Masonry: Design in accordance with applicable current ACI specifications.
8. Wood framing: Design in accordance with applicable current NDS specifications.
9. Other Systems: Other structural systems shall be designed in accordance with requirements of stated applicable specifications required by Code or, where no code governs, by engineering judgment.

C. Specifications: The Structural Engineer should write or review the specification sections governing the work he has designed. Specifications, not the drawings, are to contain testing requirements. Tests and inspections to occur are to be listed in Sections 01400 and 01401, not the technical sections. See Chapters 13-15 for instructions and details.

D. Performance-Specified Structural Systems: If a structural system or component is selected where the manufacturer or contractor (hereafter referred to as "manufacturer") does the design instead of the Project structural engineer, it must meet the following criteria:

1. The system must be selected because it is superior to other systems in quality, longevity, efficiency, cost or other features innate to the system. It is not to be selected simply to avoid the effort of design.
2. The Small GESA's Professional may base his design on that of a specific manufacturer/supplier of its choosing, and document that design on the Drawings and in the Specifications, as the "Basis of Design". The design must be detailed sufficiently by the Small GESA's Professional to clearly indicate intent and functionality. Other manufacturers are to be permitted only to substitute their technology, without changing the design configuration shown, unless specifically permitted.

3. The design criteria and loads must be fully defined in the Contract Documents, including specifics on locally applied loads. The system must be designed using best design practices and comply with all codes and regulations.
4. The system is not to be selected unless the Project structural engineer is capable of checking the manufacturer's shop drawings for structural adequacy, and when shop drawings are processed the Project structural engineer must state that he has approved the design of the manufacturer and checked it for structural adequacy. His approval need not be based on more analysis than he deems necessary to make this statement.
5. Where there is an industry association which exercises quality control over its members, membership should be required.
6. The manufacturer's design engineer must be licensed in the Commonwealth of Pennsylvania.
7. The system used as the "Basis of Design", and the equals named in the specifications, must be available to all bidders. At least three (3) manufacturers/suppliers must be specified.
8. If the system is a complete building system, the specified system and its equals must be available to all bidders.
9. The design of cold-formed studs and joists and other materials manufactured universally according to industry standards shall be by the Small GESA's Professional.

E. Metal Stud Bearing Walls: DGS policy does not allow Commonwealth buildings to be constructed with metal stud bearing walls.

F. Slabs On Grade Within Buildings: Slabs are to be designed to allow removal and replacement, without disturbing exterior walls or the supporting structure, unless specifically authorized.

SECTION 603 - HEATING, VENTILATING AND AIR-CONDITIONING

603.1 GENERAL. The HVAC system shall comply with all the state's UCC requirements, including ASHRAE standards and guidelines set forth herein and/or state and local codes, whichever is more stringent.

A. The number of air changes shall conform to recommendations established by ASHRAE standards and/or the PA and local Health Department.

B. The design and installation of air duct distribution exhaust and return systems shall conform with requirements of SMACNA standards.

C. Exhaust hoods for kitchens and laboratory facilities shall conform to NFPA requirements and bear the NSF seal of approval, and be UL listed or classified. Hoods shall adequately collect and exhaust air, fumes, smoke and vapors from the area in which the hood is installed. Provide outside air so that the room area is sufficiently ventilated, and maintains the required negative pressure.

D. Locate fire dampers to conform to NFPA 90A. Fire dampers are to comply with UL 555 and be so labeled by an approved testing or inspection agency.

603.2 STEAM AND HOT WATER HEATING SYSTEMS. All equipment used for steam or hot water heating systems shall be constructed and installed in accordance with requirements of the Department of Labor & Industry, Boiler Division and ASME Boiler and Pressure Vessel Codes.

A. See Chapter 2 for boiler fuel requirements.

B. Steam and HWS and HWR pipes shall be steel per ASTM A 53, A 106 or A 120 Schedule 40. Condensate return pipes shall be steel per ASTM A 53, Schedule 80.

C. All valves for hot water boilers, hot water pressure vessels, high and low pressure steam boilers and pressure reducing stations shall be marked in accordance with ASME, Boiler and Pressure Vessel Code indicating type of service, capacity of valve in BTU/HR or lbs. steam per hour and operating pressure. Pressure relief valve rating shall not exceed the maximum allowable working pressure of the boiler.

D. Pipe joints for steel piping shall be threaded up to and including 2" diameter. Pipes 2-1/2" diameter and over shall be joined by welding or flanged fittings. Copper tubing shall be joined by brazing or soldering. For 3" diameter or larger, mechanical couplings may be used for low pressure hot and cold water systems only in accessible locations. Seals for mechanical couplings shall be designed for the specified operating and type service.

E. Properly support all piping to permit expansion and contraction.

F. Piping for branches to baseboard radiation, fan coiled units and such other local heating equipment which may require servicing or replacement shall be provided with a union on each side of the device.

G. Connections to pumps, circulator, hot water heater and all other equipment which may require servicing or replacement shall be provided with a union on each side of the device.

H. Insulate all heating and cooling system pipes within the building with the minimum thickness as prescribed by the Thermal Insulation Manufacturers Association (TIMA). Pipe insulation and covering shall have a flame-spread rating not exceeding 25 and a smoke-developed rating not exceeding 50.

603.3 COAL-FIRED BOILERS. Coal fired boiler plants shall be fully equipped to provide for all coal and ash handling equipment, control panels, water treatment system and all other associate appurtenances.

A. File Permit application with DEP and other regulatory agencies prior to Construction Document Submission.

B. Provide appropriate equipment to conform to the requirements of DEP – Air Quality and Waste Management codes and regulations, in addition to the requirements of the Department of Labor & Industry Boiler Division.

C. The Boiler Capacity and Performance Test is under the supervision of the Small GESA's Professional and boiler operator personnel. The Funding Agency provides the fuel for the test.

603.4 INCINERATORS. Incinerators used for burning of trash or medical waste shall conform to the requirements of DEP, and/or the local Health Department. The Small GESA contractor must file a permit application with DEP and other regulatory agencies prior to the Construction Documents Submission.

603.5 TESTING, ADJUSTING AND BALANCING (TAB) AGENCY. The services of a qualified TAB agency shall be provided by the Small GESA Contractor. Such agency shall have in its employ a Professional Engineer registered in Pennsylvania. The TAB agency shall have a minimum of five (5) years experience in the testing, adjusting and balancing of all water, hydraulic and air systems.

A. The testing and recording of all dates shall in general conform to standards of AABC or NEBB or as may be approved by the Small GESA's Professional.

B. All TAB reports shall be certified by the testing agent and reviewed and approved by the Small GESA's Professional. The report shall make record of any and all deficiencies found by the testing agent prior to, during and after testing. The Professional, prior to approval,

shall provide to the DGS Bureau of Construction appropriate comments regarding such deficiencies indicating how such deficiency, if any, was corrected.

603.6 REFERENCE CODES AND STANDARDS. All codes and standards applicable to design, installation and material requirements shall be of the latest date of issue.

603.7 GEOTHERMAL HVAC SYSTEM DESIGN. To insure proper initial operation and ongoing serviceability, the following requirements shall be incorporated into all closed-loop geothermal piping systems.

A. Bring each borehole piping individually back to supply and return headers in the Mechanical Room. For a very large system (over 60 boreholes), a maximum of two (2) boreholes per circuit will still allow the potential to flush dirt and debris adequately.

B. Add shutoff/balancing valves at each header connection to allow breaking the borehole circuit for flushing.

C. Incorporate a duplex basket strainer somewhere on the return leg from the well field, before the pumps.

D. Add wording in Contract Specifications to require the Contractor to monitor the amount of grout pumped down each borehole to insure complete filling of all voids, which would impair heat transfer.

E. Utilize, to the extent possible, two-pipe, reverse-return piping configurations for house piping from headers to heat pumps.

F. Insulate house piping where it passes thru finished spaces, or where extremes in building temperatures could either cause condensation, or affect thermal performance of the equipment.

G. If aqueous glycol is proposed for the geothermal heat transfer fluid, specify and design around propylene glycol rather than ethylene glycol, for environmental reasons.

H. Install sufficient instrumentation in the geothermal piping system to enable maintenance personnel to monitor and troubleshoot individual borehole performance.

I. The Small GESA Contractor shall be responsible for installation of geothermal well field. This provides the Department a single point of responsibility in the event of performance issues with the system.

SECTION 604 - PLUMBING

604.1 GENERAL. The design and installation of plumbing systems, including sanitary and storm drainage, sanitary facilities, water supply, storm water and sewage disposal, shall comply with the requirements of Pennsylvania UCC and/or local municipal plumbing codes, whichever is the more stringent.

604.2 BASIC REQUIREMENTS. The following provides basic requirements for the design and construction of plumbing systems. This guide does not supersede any state, municipal or other governing agency's codes and regulations.

A. Toilet Fixtures:

1. All public toilet rooms shall be provided with wall hung lavatories, urinals (for men) and water closets using appropriate fixture carriers. Private toilet rooms may use floor mounted water closets. Provisions for handicapped fixtures shall conform to all applicable codes.

2. Lavatories shall be rectangular (20" x 18" minimum) with combination faucets and pop-up waste stoppers, except in state parks. Use screen guards in state parks. Provisions for lavatories for people with disabilities shall comply in number, position and fixture type, with all applicable codes.
3. The minimum number of fixtures. For the percentage of men and women occupants consult with the Funding Agency. Unless otherwise required for particular building types, the number of fixtures for each toilet room shall conform to applicable codes. In places of assembly, the number of fixtures shall be provided so that waiting time for use of the restroom facilities shall not be greater for women than for men.

B. Service Sinks: The number of service sinks required in any building should be determined by the janitorial requirements and the location of the building plumbing. Sinks will be installed in a separate janitor service closet.

C. Water Coolers and Drinking Fountains: Provide chilled drinking water in all buildings, except residences. Coolers are to be lead free in soldering and tank construction.

D. Special Temperature Controls: Hot water for baths and showers in all hospitals, health care centers and other such Institutions shall be provided with temperature-pressure controllers, so that the delivered hot water temperature does not exceed 110^{o}F.

E. Emergency Showers and Eyewash Stations: Emergency showers and/or eyewash stations shall be provided and strategically located in all chemical laboratories and other facilities where individuals are exposed to chemical or fire harm. Emergency showers shall be supplied with tempered water.

F. Materials: Unless otherwise instructed, plumbing fixtures shall conform, as a minimum, to the following indicated standards. All fixtures shall be of a water conservation type and conform to applicable codes.

1. Toilet Fixtures: Water closets, urinals and lavatories shall be vitreous china.
2. Service Sinks and Bath Tubs: Shall be porcelain cast iron, or as approved by the Department.
3. Piping and Fittings:
   a) Water Service: Schedule 40 (Type A), galvanized steel per ASTM A 53 or ASTM A 120.
   b) Water Distribution: Copper tubing Type A or Type B per ASTM B 88.
4. Sanitary Drainage System and Vents:
   a) Aboveground: Type A, Type B or Type D (cast iron ASTM A 74 – service weight)
   b) Underground: Type C (cast iron ASTM A 74 – heavy weight) (Type D).
   c) Vents: Galvanized steel (per ASTM A 53 or cast iron per ASTM A 74 light weight). Vents through roof shall not be less than 3" diameter.
5. Rainwater Conductors: Type D (cast iron ASTM A 74 light weight).
   NOTE: Downspout and roof gutters are to be within the scope of work of the General Contractor.
6. Storm Sewer: Refer to National Plumbing Code and/or local codes.
7. Pipe Fittings: Malleable iron per ANSI B 16.3.
8. Acid Waste: Shall be a separate system and shall be neutralized before entering the sanitary sewer system. Pipe shall be high silicon alloy iron, or brass pipe and fittings. Borosilicate glass pipe and fittings may be used for acid waste lines within the building only, not below grade.
9. Vent Flashing: Coordinate with the General Contract for material required and Prime Contractor responsibility.
10. Solder: Shall be lead free, 95/5 solders.

11. Water and Fire Protection Piping: Mechanical fittings for pipe sizes 3" diameter or greater may be used in accessible locations, but shall not be used in inaccessible locations, above finished ceilings or light fixtures. Piping for fire protection systems shall conform to NFPA 13 and as may be modified by the Department and/or local codes.

604.3 REFERENCE CODES. All codes and standards applicable to design, installation and/or material requirements shall be the latest date of issue. Basic references are:

IPC	International Plumbing Code
ANSI	American National Standard Institute
ASSE	American Society of Sanitary Engineering
ASTM	American Society of Testing and Materials
MSS	Manufacturers Standardization Society of Valves and Fitting Industry
PDI	Plumbing and Drainage Institute
ASME	American Society of Mechanical Engineers

SECTION 605 - ELECTRICAL

605.1 REQUIREMENTS. Electrical design shall comply with all applicable codes, regulations and good engineering practices. Design and installation of electrical systems shall comply with the requirements of the National Electric Code (NEC), latest edition, and the Uniform Construction Code (UCC), whichever is more stringent.

605.2 MINIMUM DESIGN CRITERIA. Electrical design shall meet or exceed the following:

A. Lighting levels shall use Illuminating Engineering Society (IES) recommendations as maximum and 80% of IES standards as minimum, unless directed otherwise by the UCC or the Department. Construction stage lighting shall meet OSHA, Standards for Light Levels.

B. Voltage drop in feeders shall not exceed 2%.

C. Voltage drop in branch circuits shall not exceed 3%.

D. All specified equipment shall be designed to safety interrupt and/or carry the available fault current at the equipment.

E. Energy conservation shall be a prime consideration in all design. Dry type transformers shall be rated 150^{o}C with 80^{o}C rise.

F. All conduits, raceways, etc. shall be equipped with a green colored insulated grounding conductor. The conduit system shall not be relied upon as the only grounding path.

G. Set screw fittings are not acceptable on Electrical Metallic Tubing (EMT) – use compression fittings.

H. Specify security screws where required.

I. Specify 10% spare breakers in all panels where economically feasible.

J. Provide 15% provisions for installation of future breakers (not just space) in all panels.

K. Panelboard schedules shall include raceway and wire size and equipment ratings.

L. Conduct a thorough survey of existing conditions.

M. Coordinate electrical layouts and plans with layouts and plans of all other design disciplines.

N. Conduit measuring tape shall be included in all empty conduits.

O. Specify methods of controlling spread of fire and smoke. Specify fire-rated sealants and 'poke through' fittings.

P. Emergency lighting levels shall be in accordance with the UCC requirements.

Q. Maintain adequate working space around and in front of all electrical equipment.

R. Do not attach any electrical items to the metal roof deck.

S. If permission is given to run conductors exposed, specify that they shall be attached firmly to the building structure. They are not to be allowed to lie on the suspended ceiling.

T. Provide resistance heater strips in outside housed switchgear.

605.3 REGULATORY AGENCY AND UTILITY COMPANY APPROVALS. The Small GESA's Professional must meet standards and obtain approval of the following, for the Construction Documents Submission:

A. Emergency and Exit Lighting Systems.

B. Fire Alarm and Detection Systems.

C. Service Size, Location, etc.

D. Telephone and Data Communications and Computer Service Entry and Details.

E. Cable TV Service Entry Details.

F. Natural Gas or Propane to Emergency/Standby Generators – Service Location.

G. Diesel Fuel to Emergency/Standby Generators – Service Location.

H. The approval of local regulatory agencies where required.

SECTION 606 - VERTICAL TRANSPORTATION

606.1 REQUIREMENTS. Elevator, escalator, dumb-waiter, chair lift, etc. design shall comply with all applicable codes, regulations and engineering standards.

606.2 MINIMUM DESIGN CRITERIA. Vertical transportation design shall meet or exceed the following criteria:

A. Car sizes and speeds to comply with Funding Agency requests and applicable codes.

B. Light, switch and receptacle to be provided in all elevator pits.

C. Provisions for a sump to be made in all elevator pits.

D. Hole-less elevators are not to be specified without special permission.

E. Roller guides, not slide shoes, are to be specified.

F. Planed "tee" rails are to be specified, round rails are not acceptable.

G. Smoke detectors are to be installed at the top of each elevator shaft, in each elevator machine room, and in elevator lobbies.

H. Smoke detectors are to be tied to the building fire alarm system.

I. Fireman's control shall be provided where required by code.

J. Telephones shall be provided in all passenger elevators.

K. Physically handicapped accessibility standards shall be met.

L. Elevators shall be connected to normal and emergency power in all hospitals, health care facilities, office buildings, and other buildings where required by code.

M. Emergency power, where not required by code, may be provided to elevators upon request of the client agency, subject to budget constraints.

N. Provide hoist beams in all elevator shafts – coordinate with structural engineer.

O. Provide backup system lowering devices in hydraulic elevators not connected to emergency standby power.

P. Provide emergency lighting in all elevator cabs.

Q. Provide ladders in elevator pits).

R. Provide heating and ventilation in all elevator machine rooms, and cooling when equipment requires.

606.3 REGULATORY AGENCY APPROVALS. The Small GESA Contractor will obtain approval of the Vertical Transportation System(s) by all agencies having jurisdiction; however, the Small GESA's Professional must assure that what he designs and specifies is approvable.

CHAPTER 7

CONSTRUCTION CONTRACT ADMINISTRATION

SECTION 700 - GENERAL

700.1 GENERAL. The Small GESA's Professional's activities during the Construction Contract Administration Stage are presented in general terms. This Chapter should be used in concert with the Bureau of Construction's Administrative Procedures and the Construction Contract General Conditions.

700.2 OVERVIEW OF RESPONSIBILITIES. The Construction Phase commences when DGS issues a Notice to Proceed after reviewing the Funding Agency and DGS approve the Construction documents. After the Project is completed and formally accepted by DGS, the Small GESA's Professional shall execute a Certificate of Completion and revise the original Contract Documents, reflecting all changes recorded during the course of construction. Record As-Builts shall be delivered to DGS and be identified as "As-Built Record Drawings" in .pdf format.

700.3 ADMINISTRATION. The Funding Agency is the lead project administrator. The Resource and Energy Management Office is the lead DGS project administrator during the Construction Phase. The Department may, at its discretion, appoint a full-time Construction Manager to oversee the Construction Administration.

700.4 ROLE OF THE OFFICE OF RESOURCE AND ENERGY MANAGEMENT. The DGS Project Coordinator serves as an aid to the Funding Agency during construction. E/A should be copied on all design-related correspondence, shop drawings and product/material submittals.

700.5 JOB CONFERENCES. The Small GESA representative chairs regular bi-weekly Job Conferences at the site. Attendance by the Small GESA Contractor and the Small GESA's Professional is mandatory at all Job Conferences, whether it is a regularly scheduled bi-weekly conference or a special meeting called for by DGS.

SECTION 701 - PROJECT REPRESENTATION

701.1 BASIC SERVICES. The Small GESA's Professional shall visit the project site at least bi-weekly during periods of construction. In addition to bi-weekly visits to project sites, the Small GESA's Professional is required to attend, at the request of DGS, any/all project site conferences that may be necessary to clarify the Contract Documents.

701.2 CONSULTANTS. It shall be the duty of the Small GESA's Professional to have his Consultants visit the project site periodically during their respective disciplines' period of active construction, at least bi-weekly, or at such intervals as required by DGS to insure the progress and quality of the work and to determine if work is proceeding in accordance with the Contract Documents.

701.3 QUALIFICATIONS. The Small GESA's Professional's Representative (full time or not) must be qualified by training and experience to make decisions and interpretations of the Construction Documents. DGS reserves the right to request the replacement of any Project Representative assigned to the Project who is not performing satisfactorily.

SECTION 702 - DOCUMENTS

702.1 SUBMITTALS. The Small GESA's Professional must promptly review and accept/reject shop drawings, samples and other submissions of the Small GESA Contractor.

702.2 SUPPLEMENTAL DRAWINGS. Interpretations of the Contract Drawings and Project Manuals must be reviewed and approved by DGS prior to being issued to the Small GESA Contractor. Drawings issued to clarify the work must be marked as "SUPPLEMENTAL", followed by the date of issue.

702.3 TESTING PROCEDURES. The Small GESA Contractor is to be guided by manufacture, standard and best practices for testing procedures. Similar procedures must be used for all tests.

SECTION 703 - PROJECT CLOSE-OUT

703.1 DEPARTMENT OF LABOR AND INDUSTRY AS-BUILT RECORD DRAWINGS. The Small GESA's Professional is responsible for submitting to the Pa. Department of Labor and Industry a revised set of Construction Documents for approval for changes made during construction that are not in accordance with the approve Construction Documents. This revised set of Construction Documents shall be referred to as 'L&I As-Built Record Drawings' and shall be submitted in accordance with L&I UCC requirements.

703.2 DGS AS-BUILT RECORD DRAWINGS. Within ninety (90) days from the Final Inspection of the Project, the Small GESA's Professional shall submit Record Drawings on disc(s) showing all changes from the Construction Documents made during the course of construction. The Record Drawing shall indicate the vertical and horizontal alignment of concealed pipes, conduits and similar items. Recorded changes shall be obtained from clearly marked field prints provided by the Small GESA Contractor and field office. The As-Built Record Drawings shall be on disc(s) in .pdf format and shall be identified as "Record Drawings", shall be delivered to, and shall become the sole property of, the Department.

703.3 OPERATION/MAINTENANCE MANUAL. After Final Inspection the following should be collected from the Small GESA Contractor: all shop drawings, catalog data, manufacturer's operating and maintenance instructions, warranties, guaranties, certificates, test reports and other material pertinent to operating and maintaining the facility. They must be correlated and indexed, into an organized Operation/Maintenance Manual by the Small GESA Contractor. The Small GESA's Professional must review the Operation/ Maintenance Manual for completeness and accuracy. If unacceptable, it is to be returned to the Small GESA Contractor with specific criticisms. If accepted, forward to a copy of all discs to DGS and one copy of all discs to the Funding Agency with all the information in .pdf format.

703.4 CERTIFICATE OF OCCUPANCY. Inspections required by the code enforcement agencies to obtain Certificate of Occupancy must be arranged by the Small GESA's Professional. All permits needed to permit occupancy must be obtained.

CHAPTER 8

MISCELLANEOUS INSTRUCTIONS

SECTION 800 - INTRODUCTION

800.1 INTRODUCTION. This Chapter contains instructions to the Small GESA's Professional on specific topics for which the Department has standards that it wants the Small GESA's Professional to observe, if applicable. Applicability is determined by the nature of the Small GESA project.

SECTION 801 - QUALITY CONTROL AND QUALITY ASSURANCE TESTING

801.1 GENERAL. The Small GESA's Professional is to adopt the DGS system for specifying Quality Control (by Contractor's Quality Control Agency) and Quality Assurance (by the Small GESA's Professional's Quality Assurance Agency) testing and inspection. The Small GESA's Professional is to adopt DGS terminology and approach, with the end result of ensuring that all materials deemed to require testing are tested or inspected to ensure a quality project and to comply with requirements of the UCC, including Special Inspections in Chapter 17 of the IBC.

A. The Department requires that Small GESA's Professionals follow our strict guidelines regarding testing and inspection in the interest of uniformity of administration by our Construction Division. The Small GESA's Professional is to include our Sections 01400 - Quality Control Testing Services, and 01401- Quality Assurance Testing and Inspection Services for structural-related testing and inspections, adopt the Department's program and Project Manual format and terminology, and assign testing and inspection responsibilities to the recommended parties. Non-structural materials and systems which are to be independently tested or inspected are to have the testing specified within the appropriate technical specifications. The Department does not require shop testing during fabrication of structural components, when an appropriate trade association provides independent QC oversight, such as is provided for structural steel fabricators under the AISC Quality Certification Program. The Department does not ordinarily require testing of materials for which manufacturers can provide Certificates of Compliance from independent testing laboratories. These policies are not in conflict with IBC requirements.

801.2 SCOPE. All testing is to be Quality Control Testing (by the Small GESA Contractor's QC Agent) with random check testing under Quality Assurance (by Small GESA's Professional's QA Agent). Quality Control tests shall be required by specific type and frequency or quantity of tests. The exception to this is soils testing which is to be Quality Control with no specified quantities. The Small GESA Contractor is to do whatever testing is required, without limitation, to comply with specification standards. Construction monitoring of earthwork and soils testing is by the Small GESA's Professional's Geotechnical Engineer, who is acting as the QA Agent for soils work.

A. All Special Inspections required by IBC Chapter 17 are to be Quality Assurance (by Professional's QA Agent).

B. When structural Quality Control Testing is required, the technical specification shall refer to Section 01400 for all testing requirements, where types and frequencies of tests shall be listed in detail. Testing requirements shall not be stated on the Drawings, or in the technical specification sections. Detailed descriptions of testing may be included in the specifications where necessary.

C. When structural Quality Assurance Testing or Inspection is required the technical specification shall refer to Section 01401 for all testing and inspection requirements, where types of tests and inspections only shall be listed. Testing and inspection requirements shall not be stated in the technical specification sections.

801.3 QUALITY ASSURANCE TESTING AND INSPECTION SERVICES

A. If Quality Assurance Testing or Inspection is required, the Small GESA's Professional is responsible to provide this service. Based upon Project conditions, the Small GESA's Professional is to authorize check tests and inspection hours during construction as deemed necessary to assure the Small GESA's Professional of contract compliance and as required to comply with the IBC, including Chapter 17 of the IBC. Tests shall be standard tests that are identified by ASTM or other designation. Include any tests that might be taken in order to establish unit prices.

B. The Small GESA's Professional is responsible for directing the Quality Assurance program. It shall solicit advice from Consultants as it deems appropriate. It should direct the testing and inspection in accordance with need, based upon minimum documentation, Contractor performance, Quality Control Agent reports, quality of materials furnished Project conditions and UCC requirements.

C. The Funding Agency inspection staff shall be consulted prior to implementing any action by the Quality Assurance Agent. The purpose of this consultation shall be to bring areas of concern to the Department's attention and assure that all involved parties are aware of the rationale being used. The inspection staff shall also bring to the attention of the Small GESA's Professional any items that may be of concern that would require further review and supplemental testing. Implementation of the Quality Assurance Agent shall be a collective effort that must be closely coordinated between the Small GESA's Professional and the inspection staff.

D. When unsatisfactory test results occur, the Funding Agency Inspector(s) are to confer with the Small GESA's Professional and ensure that appropriate corrective action is initiated.

SECTION 802 - UTILITY REQUIREMENTS

802.1 PURPOSE. The purpose is to outline the procedure for providing utilities on a Small GESA project.

802.2 CONSTRUCTION DOCUMENTS. As soon as practical during the Construction Documents design phase, the Small GESA's Professional shall contact each utility company and obtain, in writing, a final scope of work for service installation, routing plan (includes right-of-way requirements), meter location, and the utility's cost to install its service. The Small GESA's Professional should forward this information along with the utility company point of contact to the DGS Project Coordinator for initiation of a utility agreement(s), which is reviewed and prepared as needed by DGS lawyers. Service arrangements must be completed prior to final submission of the design to DGS for review. The necessary drawings for DGS Legal to prepare easement documents shall be included.

A. Construction documents shall include any terms and conditions that the Small GESA Contractor must coordinate including costs to be paid to the utilities that are not incorporated in a utility agreement(s).

802.3 UTILITY EASEMENTS/AGREEMENTS. All information must go through the Project Coordinator for tracking purposes. The Small GESA's Professional shall provide the DGS Project Coordinator with the final utility company information, including a written legal description of each proposed easements, along with a drawing showing the location of each easement, with the metes and bounds, as well as any other information required by DGS Legal Unit. The Project Coordinator informs

the DGS Legal Unit that a utility easement/agreement(s) must be developed and discusses details and the project schedule, and transmits to Legal the utility company scope of work, the service routing plan (with right-of-way), utility company cost proposal and utility company point of contact. Using this information, Legal develops a utility easement/agreement.

802.4 CONSTRUCTION DOCUMENTS SUBMISSION. The Small GESA's Professional must follow the service requirements of each utility company described in its scope of work. The Professional should show all service work required by the Small GESA Contractor on the contract documents, as well as work provided by the utility company.

802.5 CONSTRUCTION. Service applications are applied for by the Small GESA Contractor on behalf of the Funding Agency, designating the initial payer of use charges according to requirements of the Construction Contract. The Funding Agency will authorize changing the name of the payer at the appropriate time.

SECTION 803 - SUBSURFACE INVESTIGATIONS AND GEOTECHNICAL REPORT

803.1 SCOPE. The Small GESA's Professional shall obtain assistance from its Civil/Structural Engineer as set forth in these instructions and be responsible for obtaining subsurface and related data that will yield sufficient information for an accurate evaluation of the existing subsurface and related conditions for the following purposes:

A. Analysis, design and construction of foundation and substructure.

B. Analysis, design and construction of site work, including embankments, slopes, retaining structures, underground structures, site and subsurface drainage, roads and pavements.

C. Soil erosion and sedimentation control.

D. Cost analysis and estimating of 'Unclassified' excavation.

E. Analysis of excavation and fill conditions.

803.2 CONTRACTING FOR GEOTECHNICAL SERVICES. Geotechnical Services shall include test borings and other subsurface investigation, the Geotechnical Report and Construction Monitoring which shall all be included in the cost of the Small GESA project.

A. Specifications for Test Borings and the Geotechnical Report shall be based upon best practices, and shall include a test-boring plan based upon the proposed footprint of the work and the expected foundation type to be used.

B. The Geotechnical Report shall include specific recommendations for designing structures, slabs on grade and paving.

C. The Geotechnical Consultant shall be required to submit with the Final submission a sealed statement to the effect that the design drawings and specifications are in accordance with his recommendations.

D. The Geotechnical Report shall not contain a broad disclaimer that excuses the consultant of responsibility.

803.3 SUBMISSION OF DOCUMENTS TO THE FUNDING AGENCY. The Final Geotechnical Report shall be prepared, signed and sealed by a Registered Pennsylvania Professional Engineer.

A. Upon completion of the boring contract, the Geotechnical Consultant shall submit to the Small GESA's Professional two (2) electronic copies of a complete report, covering the field work and laboratory testing, with complete analysis of each boring and with recommendations for soil and rock bearing capacities. The Small GESA's Professional shall retain one (1) copy, and submit the other copy to DGS.

803.4 CONSTRUCTION DOCUMENTS SUBMISSION. As part of the Construction Documents Submission, the Small GESA's Professional shall submit a letter stating that this Project was designed in accordance with the recommendations of the Geotechnical Consultant. If exceptions are taken, they must be justified.

SECTION 804 - SPECIAL SITE INVESTIGATIONS

804.1 WETLANDS IDENTIFICATION AND DELINEATION. The Small GESA's Professional's responsibility in site selection and site expansion includes the determination of the presence of wetlands by a qualified wetlands delineation specialist, familiar with state and federal criteria and regulations. DGS will accept a letter from the Small GESA's Professional stating that wetlands are not found on the site. If wetlands are present, the Small GESA's Professional shall submit two (2) copies of the completed study to the Funding Agency.

804.2 ENVIRONMENTAL IMPACT STUDIES. For all projects, the Small GESA's Professional shall make a preliminary Environmental Assessment (EA) to include any environmental and historic/archeological considerations for the Project. If more extensive investigation is required, then the Small GESA's Professional shall prepare an Environmental Impact Statement (EIS) in accordance with the requirements of NEPA. The Professional shall submit two (2) copies on disc of the completed study to the Funding Agency.

SECTION 805 - HAZARDOUS MATERIALS

805.1 PROFESSIONAL'S RESPONSIBILITIES. The Small GESA Project may encompass some kind of hazardous material (Asbestos, Lead, PCB, Radon, etc.) The Small GESA's Professional is responsible for addressing hazardous materials to the extent they may impact the Project, as more fully described in the project-specific RFP for each Small GESA project.

805.2 ACT 287, UTILITIES. The Small GESA's Professional shall comply with the current Act 287 (amended by Act 187 of 1996), and PA One Call provisions. The Small GESA's Professional shall contact the institutions and utility companies for location and identification of utilities on project site prior to survey. The surveyor shall identify and record PA One-Call paint marks on the survey.

SECTION 806 - SUBSURFACE UTILITY ENGINEERING

806.1 SCOPE. The Small GESA's Professional shall determine if Subsurface Utility Engineering is necessary for development of the Small GESA Project. If needed, Subsurface Utility Engineering shall be provided by the Small GESA's Professional to precisely locate all underground utilities on the construction drawings.

A. Appropriate geophysical prospecting techniques, including radio frequency electro-magnetic, magnetic, acoustic emission sonics, terrain conductivity and ground penetrating radar, shall be used to provide a comprehensive horizontal map and give an indication of vertical position. Select excavation may be used to determine precise depth when the Project requires.

SECTION 807 - FUEL FEASIBILITY STUDY

807.1 COAL FUEL NON-USE JUSTIFICATION. State Act 1990-28 requires that any heating system or heating unit installed in a Commonwealth-owned facility must use Pennsylvania coal as a

source of fuel. The following should also be addressed and expanded when a fuel other than coal is proposed:

A. Using coal as the fuel for the heating system or heating unit would violate existing or reasonably anticipated environmental laws or regulations.

B. Using coal as the fuel for the heating system or heating unit would not be cost effective when compared to using other forms of energy.

C. Using electricity generated primarily from the combustion of coal would be more cost effective when compared to using coal as the fuel for the heating system or heating unit.

D. The principle fuel for the heating system or heating unit would be natural gas from wells located in Pennsylvania or wood from forests located in Pennsylvania, if such fuels were at least as cost effective as using coal as the fuel.

SECTION 808 - PREPARATION OF STANDARD DRAWINGS AND PROJECT MANUALS

808.1 DRAWING STANDARDS. The Cover Sheet, Approval Blocks, and Title Blocks must have the proper names of the approving authorities, the correct names of the Small GESA's Professional and Consultant and the correct Project Number and Title, etc., entered in the appropriate places. Identify on the Cover Sheet the responsibilities of the Consultants.

808.2 PROJECT MANUAL STANDARDS. The Small GESA's Professional shall use DGS standards for Project Manual Cover Page, Table of Contents, List of Drawings, and Division 1 - General Requirements sections.

SECTION 809 - ARCHAEOLOGICAL AND HISTORICAL REQUIREMENTS

810.1 PHMC REVIEW. The Pennsylvania Historical and Museum Commission (PHMC) is required to review all renovation work on State-owned buildings for historical significance and all excavation work for Archaeological significance. All costs associated with this review is to be factored into the project cost. Prior to the Construction Document Submission, the Small GESA's Professional is requested to contact the PHMC for their review of the location and scope of the work.

A. Inquiries shall be directed to:

Bureau of Historic Preservation
Pennsylvania Historical & Museum Commission
400 North Street, Commonwealth Keystone Building, 2nd Floor
Harrisburg, Pennsylvania 17120-0093
Telephone: (717) 783-9926

B. Upon completion of their evaluation, PHMC will provide a response letter to the Small GESA's Professional, either indicating a finding of no significance, or requesting additional information.

809.2 ARCHAEOLOGICAL. For their archaeological review process, PHMC generally needs a map (preferably a portion of a geological survey map) showing the project location and a brief description of any ground-disturbing activity. Even an activity such as parking lot construction can be significant enough to disturb archaeological resources.

A. If PHMC's evaluation indicates a potential for archaeological resources, they may ask for a Phase I survey to identify any archaeological resources at the project location. The survey must be done by a person or persons whose qualifications meet certain requirements. PHMC has a list of some qualified people, but this list is not exclusive.

B. Based on the results of the Phase I survey, PHMC may ask for a more intensive Phase II survey to evaluate the archaeological resources at the project location. In some cases, PHMC may then ask for a Phase III survey to mitigate adverse effects to the site.

809.3 HISTORICAL. After initial contact with the applicant, PHMC checks whether the building is on or is eligible for the National Register. A survey form is used to determine eligibility. The Small GESA's Professional shall complete the form to the best of their ability; a historical analysis or survey is not required for this.

A. If National Registry eligibility is determined, PHMC reviews the Project based on the Secretary of the Interior's Standards for Rehabilitation. Each step in the review process may take up to thirty (30) days.

CHAPTER 9

DGS SPECIFICATIONS REQUIREMENTS

SECTION 900 – INTRODUCTION

900.1 PURPOSE. This Chapter contains technical guidelines and requirements documents for reference or use by the Small GESA's Professional. Follow the instructions preceding each document on the specific recommendations or requirements for use of that document.

SECTION 901 - DIVISION 1, GENERAL REQUIREMENTS

A. All Division 1 – General Requirements Sections may be downloaded from the DGS Internet website at www.dgs.state.pa.us.

B. The Small GESA's Professional must edit the sections to add, delete or modify provisions to suit the Small GESA project. Each Section, as presented here, includes notes to the specification writer. Remove 'Notes to Specification Writer' as part of the editing process. Do not make changes simply to have the Requirements conform to the Small GESA's Professional's own preferred format or content.

C. Adding/Deleting Sections: Delete Sections not applying to the Small GESA project. Add Sections to incorporate requirements needed for the project that are not covered in the standard Sections. Do not add requirements without verifying that the requirement is not covered in the General Conditions. Do not use Division 1 sections of other published specifications, which may have conflicts with the DGS standard General Conditions of Contract, Division 1 – General Requirements, and Bureau of Construction Administrative Procedures.

D. Do not edit sections to modify provisions of the General Conditions without specific authorization of DGS.

SECTION 902 - EARTHWORK SPECIFICATIONS

902.1 DGS REQUIREMENTS. There is to be only one earthwork specification in the Project Manual. Where Sitework or other General Construction specifications require earthwork, it should be specified by requiring compliance to the main earthwork specification. If there is any special earthwork or concrete work requirements not covered by the Earthwork specification, they should add these special requirements to their sections without nullifying the requirements of the Earthwork specification.

A. BASIS OF CONTRACT

1. Excavation for this Project shall be considered unclassified and shall include all types of earth and soil, any pebbles, boulders, and bedrock, municipal trash, rubbish and garbage and all types of debris of the construction industry such as wood, stone, concrete, plaster, brick, mortar, steel and iron shapes, pipe, wire, asphaltic materials, paper and glass. Unclassified excavation does not include unforeseen concrete foundations, walls, or slabs. All such materials encountered which are identified by this paragraph as unclassified shall be removed to the required widths and depths to create a finished product as shown and/or noted on the drawings and as written in the specifications. No additional compensation shall be made to the contractor for this unclassified excavation. The materials defined by this paragraph as unclassified will not be considered to be concealed conditions or unknown physical conditions below the surface of the ground for purposes of interpreting the language in the General Conditions of the Construction Contract.

B. SUBSURFACE INFORMATION

1. Any available data concerning subsurface materials or conditions based on soundings, test pits or test borings, has been obtained by the Funding Agency for its own use in designing this Project. The Test Boring logs contained within the Geotechnical Report are incorporated into the construction contract as a Contract Document. The remainder of the Geotechnical Report, with all other exhibits, is available for informational/guidance purposes only.
2. Test Boring logs reflect the conditions at the specific locations of each Test Boring only. The Funding Agencywill not be responsible in any way for the consequences of failure to conduct such investigation. Excavation for the Project is "Unclassified", as fully described in the Earthwork Section.

C. APPROVAL OF BEARING STRATA

1. The Small GESA Contractor shall furnish adequate advance notification to the Funding Agency and the Small GESA's Professional of times when footing excavations are to be completed, so that the bearing quality of bottoms may be inspected and/or tested and approved. Formwork and concreting shall follow only after this approval.
2. If the bearing at the levels indicated be found by the Small GESA's Professional and the Funding Agency to be inadequate, they may order the excavation carried down to sound bearing. If suitable bearing is found at a lesser depth than indicated, the Small GESA's Professional and the Funding Agency may order the reduction of excavation specified or shown on the drawings.

D. QUALITY CONTROL TESTING

1. The Small GESA Contractor shall perform all necessary Quality Control tests and procedures for the performance of the work in accordance with Section 01400 and this section, to produce end results specified. The Small GESA Contractor shall maintain clear and orderly records of such tests and procedures and make them available for field review and approval of the Small GESA's Professional and the Department.
2. Quality Control tests shall include tests on fill material, optimum moisture content and maximum density and field density tests of fill layers. The Q.C. Testing agent shall comment on the suitability of all subgrades, and the subgrades shall be acceptable to the Q.A. Agency.
3. Handwritten copies of field test reports shall be provided to the Contractor. They shall be given to the Contractor and inspector within two (2) hours of completion, but in no event shall the technician leave the site without providing the Contractor and inspector with a copy of the test results. This shall include density, % moisture, plan location, elevation, comments and any other relevant data. Comments shall include any condition that might have an adverse effect on the operations, including weather, drainage, etc.
4. The Small GESA Contractor shall request consultation with the Consulting Geotechnical Engineer on any problems that arise during construction. Copies of the daily in-place soil density tests shall be emailed to the consultant by the Contractor through the testing agency within twenty-four (24) hours of the time the tests are made.
5. The Small GESA Contractor shall approve each subgrade and each fill layer before proceeding to the next layer. Any area which does not meet density, % moisture or other requirements at any time, shall be suitably reworked and retested by the Contractor at his own expense.
6. The Professional and/or the Funding Agency will perform Quality Assurance tests in accordance with Section 01401 deemed necessary for the assurance of the Small GESA's Professional and/or the Funding Agency. This does not relieve the Contractor of his responsibilities.

E. Compaction standards are to be based on Modified Proctor standards, as defined by ASTM D1557.

SECTION 903 - CAST-IN-PLACE CONCRETE SPECIFICATIONS

903.1 DGS REQUIREMENTS. The cast-in-place concrete specification should be based upon requirements of ACI 301, except samples are to be taken and broken by the Quality Control Agent for each 50 cy. Slump tests and recording of temperature is to occur for each truckload. Air tests are to occur with each sampling that contains air. See recommended tests in table in Section 01400. As with earthwork, there is to be only one Cast-In-Place Concrete specification in the Project Manual. Follow the instructions in paragraph 1402.1 on adding a paragraph in Section 01040. Also, we want to include a

penalty for accepted under-strength concrete. Include the following language in the cast-in-place concrete specification:

> "If the structural members are accepted on the basis of tests other than the original cylinder tests, the Contractor shall compensate DGS for the Contractor's failure to meet specified strength requirements by paying to DGS one hundred ($100) dollars per cubic yard for each one hundred pounds per square inch below the specified strength. The original laboratory-cured 28 day test cylinder results only shall be used to determine the difference between specified and furnished strengths."

SECTION 904 - UNIT MASONRY ASSEMBLIES SPECIFICATIONS

904.1 DGS REQUIREMENTS. In order to avoid the requirement in Chapter 17 – Special Inspections of the IBC for "continuous" inspection of grout placement in CMU cores, the specifications shall require that the Small GESA Contractor mark in an approved manner the location of filled cores for the QA Agent to verify the presence of reinforcing steel using a rebar locator and the presence of grout using an ultrasound device.

SECTION 905 - STRUCTURAL STEEL SPECIFICATIONS

905.1 DGS REQUIREMENTS. In order to avoid the requirement in Chapter 17 – Special Inspections of the IBC for "continuous" inspection of high-strength bolting in slip-critical connections, the Small GESA's Professional shall require the Small GESA Contractor to use Direct Tension Indicator Washers or Twist-Off bolts or other systems providing visual verification of proper tightening. Require the Small GESA Contractor's QC Agent to provide field proof of appropriate tightening methods and calibration of the Contractor's equipment as necessary to ensure compliance. This shall be approved by the Small GESA's Professional and its QA Agent.

SECTION 906 - ARCHITECTURAL SPECIFICATIONS

906.1 PURPOSE. To specify construction materials, methods and/or contract requirements, determined to benefit the Funding Agency and required to be included in all applicable projects. The following provisions are to appear in all specifications, unless obviously inapplicable.

906.2 ROOFING WARRANTY. The Small GESA's Professional shall include the following paragraphs in the Roofing Section to specify DGS requirements regarding the Contractor's warranty for roofing work.

A. Quality Assurance:

1. Manufacturer Qualifications: The manufacturer shall have a minimum of ten (10) years experience in the production of the type of roofing herein specified, and shall be able to show experience with projects of similar size and complexity.
2. The Installer Qualifications: The installer shall have a minimum of five (5) years experience installing the type of roofing herein specified, on projects of similar size and complexity.

B. Small GESA Contractor's Warranty:

1. Small GESA Contractor's Responsibility: The Contractor shall take, or cause to have taken, any and all corrective measures necessary to keep the roofing system free of all defects, to the satisfaction of the Department, Funding Agency and to maintain the roofing system in a watertight condition. The Contractor shall have the responsibility for said corrective measures for two (2) years after the date of Final Inspection. The Contractor shall be responsible for the removal and replacement of the roofing system, if in the judgment of the Funding Agency, removal and replacement is necessary to keep

the roofing system free of all defects or to maintain the roofing system in a watertight condition. The Contractor shall also repair, or remove and replace, if the **Funding Agency** deems it to be necessary, any part of the building, including the interior, damaged as a result of leaks in the roofing system. The interior of the building includes, but is not limited to, the furnishings and fixtures. There shall be no limit to the Contractor's liability for fulfilling the aforementioned responsibilities.

a. Final Inspection shall include a statement, supplied by the Contractor and signed by an authorized representative of the roofing manufacturer, attesting to the fact that the roofing installation and finished condition is acceptable for warranty by that manufacturer.

2. Exclusions: The Small GESA Contractor shall not be responsible for repairs to, or replacement of, the roofing system, if repairs or replacement is necessary due to a natural disaster, such as lightning, flood, tornado or earthquake.

3. Notification: The Funding Agency will notify the Small GESA Contractor, as soon as reasonably possible, after it has knowledge of defects in the roofing system. Should the Contractor fail to promptly take corrective measures, the Funding Agency may undertake corrective measures. The Small GESA Contractor shall be responsible for any and all expenses incurred by the Funding Agency in undertaking the necessary corrective measures. In addition, the Funding Agency undertaking of corrective measures shall in no way relieve the Contractor of any of the aforementioned responsibilities.

C. Manufacturer's Warranty:

1. The Small GESA Contractor shall provide the Funding Agency with a twenty (20) year warranty, furnished by the manufacturer, which shall warrant that the said manufacturer will repair any leaks in the roofing system, not to exceed the original cost of the installed roof over the life of the warranty, installed by an applicator authorized by said manufacturer.

2. Leaks from the following causes shall be covered by the manufacturer's warranty:

a. Defects in the roofing system material.
b. Workmanship of the authorized applicator.

3. The following exclusions are permitted in the manufacturer's warranty:

a. Natural disasters such as lightning, hail, floors, tornadoes or earthquakes.
b. Damage from traffic or storage of materials on the roof.
c. Structural failure of roof deck, parapet or coping.
d. Infiltration of moisture in, through or around walls, coping or building structure.
e. Movement or deterioration of metal counterflashing or other metal components adjacent to the roof.
f. Damage to the building (other than roofing and insulation) or its components adjacent to the roof.

4. The warranty shall provide that in the event a leak should occur within the warranty period, and if such leak is within the coverage of the warranty, the warrantor will, at no expense to the Funding Agency, make or have made, all necessary repairs to put the roof membrane, base flashing and roof insulation in a dry and watertight condition, using the same materials and specifications as the original application. There will be no limit to the warrantor's liability for making such repairs over the period of the warranty.

5. The warranty shall provide that if, upon proper notification, the warrantor fails to promptly repair the roof, the Funding Agency may make temporary repairs to avoid damage to the facility. Such action shall not be considered a breach of the provisions of the warranty.

6. The Funding Agency shall be permitted to make alterations, additions and repairs to the roof, within the written approved guidelines of the warrantor without jeopardizing the unexpired portion of the warranty's original term.

7. Metal roofs and exposed fasteners shall be warranted against rust. Also, on metal roofs, the manufacturer, upon completion, inspection and written acceptance of the roof installation, shall furnish a warranty covering paint finish against cracking, checking, blistering, peeling, flaking and chipping for a period of twenty (20) years.

SECTION 907 - HVAC SPECIFICATIONS

907.1 PURPOSE. To provide information to assist the Small GESA's Professional in the preparation of contract drawings and specification for the Heating, Ventilating and Air Conditioning systems, and to assure consistency in contract documents to reduce errors of omission and/or commission.

907.2 GENERAL. The Small GESA's Professional shall follow these general guidelines in designing and documenting the HVAC work for all DGS projects.

A. The Professional shall comply with the latest applicable codes, standards and regulations:

1. ASHRAE Handbooks to be used as Industry Standards
2. ASHRAE Published Standards, as appropriate
3. ASHRAE 62 – Ventilation for Acceptable Indoor Air Quality
4. ASHRAE 15 – Safety Code for Mechanical Refrigeration
5. ASHRAE 34 – Number Designation and Safety Classification of Refrigeration
6. ASHRAE 90.1 – Energy Design New Buildings
7. Life Safety Code – NFPA 101
8. NFPA Published Standards, as appropriate
9. SMACNA Standards for Ductwork
10. International Energy Conservation Code
11. PA Air Quality Act, Title 5 (DEP)
12. Pennsylvania L&I Boiler Code
13. Pennsylvania Code – Health Department
14. PA UCC
15. City and Local Codes, as applicable
16. Other codes and regulations determined to be applicable

B. Energy Conservation – To assure energy conservation in design of space heating and cooling systems in new and renovated buildings, the design criteria set forth in ASHRAE Standard 90.1 and the International Energy Conservation Code shall be used, whichever is more stringent.

1. Heat conservation systems to be considered:

a. Heat Recovery Systems
b. Heat Pumps
c. Heat Storage Systems
d. Passive or Active Solar Heating
e. Wind
f. Geothermal

2. No air conditioning system should require a dedicated system for reheat, without approval of the Funding Agency.
3. Areas requiring twenty-four (24) hour cooling should be considered as separate systems.
4. All ductwork shall be specified with a 3% maximum leakage with external insulation.
5. Resistance type heating shall not exceed 40% of heating requirements. Combination systems must be used.
6. Heat pumps shall not provide less than 60% of design heat losses with SEER 11 or greater.
7. An energy analysis is required to assure that the systems and its components use minimum energy. Specifications should require this from equipment manufacturers.

C. Vibration and Sound Controls: The Professional is to design HVAC systems with vibration and sound controls as appropriate for the spaces involved. The ASHRAE HVAC Application Manual shall be used as a guide for Vibration and Sound Design Criteria. Use of air-conditioning system condensers, especially air cooled units, are to be discussed with the Funding Agency and the DGS relative to sound and vibration criteria. Professional is to monitor design and field changes during construction with the effect of changes on sound and vibration distribution. Contractor shall perform measurements and provide report to Professional for approval.

1. NOTE: The Professional shall consult with the Funding Agency and/or Funding Agency to determine requirements for special usage areas. Special attention shall be taken for such areas as auditoriums, conference rooms, classrooms and hospital patient rooms.

D. Seismic and Wind Restraint Design is required by Code and is to be designed using ASHRAE HVAC Application Manual for guidance.

E. The Professional shall present in his documents flow diagrams for all air systems, indicating hot and chilled water distribution, outside air, exhaust air, supply air and air movement within buildings and spaces. An air flow diagram is to be included in Construction Documents and all subsequent Submissions.

907.3 HVAC SPECIFICATION GUIDE. Guide information and direction may be distributed to the Small GESA's Professional by the E/A during design.

A. A complete HVAC specification outline shall be provided with the Construction Documents Submission. See Chapter 9 for more specification format information.

B. All engineering analysis and computations, drawings, specifications and other documents shall be prepared by a Registered Professional Engineer, or under the responsible supervision of a Professional Engineer, and must bear the Small GESA's Professional seal and signature of the Engineer.

C. The Professional is to design to good engineering practices. The Funding Agency reserves the right to direct the Small GESA's Professional to use materials, systems, performance characteristics, or equipment that it determines to be in the best interest of the Funding Agency, Project, and/or DGS even if beyond the code requirements.

907.4 BALANCING AND ADJUSTING HVAC SYSTEMS. The following paragraphs are intended to guide the Small GESA's Professional in preparing the Testing and Balancing (TAB) specifications.

A. The balancing firm's report shall include a section which will provide all information regarding all problems encountered prior to, during and remaining after test and what action should be taken to correct the problem(s).

B. The Professional must review and approve the final test report. Should problems remain to be resolved, the Small GESA's Professional shall submit the reports for DGS review, with comments as to the nature of the problem and acceptability of the system(s) and/or action which may need to be taken.

C. No Final Reports shall be submitted which indicate that the system(s) is incomplete, inoperative or that unresolved problems exist.

D. Specification for the testing shall include:

1. The Small GESA Contractor shall provide as part of this contract the services of an independent testing and balancing firm as listed by the Associated Air Balance Council (AABC), NEBB or a qualified firm as approved by the Funding Agency or the Small GESA's Professional. The Small GESA Contractor will be responsible for all balancing work.
2. The Small GESA Contractor and its selected and approved balancing firm shall report to and review the work required with the Small GESA's Professional prior to beginning of work. At least two (2) 1-day inspections of the Hydronic and Air Systems at appropriate times during construction shall be made by the balancing firm and it shall report its findings to the Small GESA's Professional and DGS in a written report. The Professional shall impose upon the Small GESA Contractor that all openings, pressure taps, wells and closures required, over and above those shown on the drawings, to perform the required test and adjustments shall be installed during or after construction at no additional cost to the Funding Agency.
3. The Small GESA Contractor shall furnish all services for a minimum of two (2) complete adjustments of water systems and air handling and exhaust systems, water and air distribution and controls, for the first cooling season and for the first heating season after the job is in complete operation under load conditions.
4. During all tests, it shall be demonstrated that the systems are free from leaks and that all parts of the system will operate correctly. The Balancing Firm shall make final adjustments to all equipment and controls as may be required for proper operation, maintaining correct temperatures in all parts of the building. Controls shall be adjusted by the control manufacturer's mechanics, on the advice of the balancing firm.
5. The final test report shall include appropriate reference to all problems regarding the system(s) encountered prior to, during and after testing and what action should be taken to correct the problem(s), including noise and vibration.
6. The following work shall be included in the project by the Small GESA Contractor:
    a. Supervise the balancing of all water circulation systems and parts thereof installed under this contract to obtain the water quantities and temperature drops in all parts of the system specified in the plans and in the specifications.
    b. Supervise the balancing of the air conditioning and ventilating systems to achieve the air quantities specified at each air inlet, outlet and damper shown on the plans at the proper conditions of static pressure and temperature differential. Conduct all leakage tests on ductwork in a manner acceptable to the Small GESA's Professional and the Funding Agency. Leakages shall not exceed 3% of total air to be delivered.
    c. Study and report on noise and vibration problems, which may develop in the course of system balancing.
    d. Submit reports on the cooling and heating water circulating systems, ATC system, and heating and ventilating systems. These reports shall certify test methods and instruments used, all readings obtained, temperature and pressure drops, rpm of equipment, amperage of all motors, air quantities at each outlet supply, return and air balancing problems encountered and suggestions. Reports

to be submitted to the Small GESA's Professional and the Funding Agency shall include data on all tests in the form normally used by AABC and NEBB. The reports must however, be varied to suit these specifications. Reports shall include fan and pump curves for the final speeds developed from the fan manufacturer's performance test data for all major equipment, and schematics for ALL systems tested. If the Funding Agency has contracted for Commissioning Services, the Contractor shall conform his forms and reports to the Commissioning Agents requirements. (See Chapter 13).

e. Perform tests on heating systems when the outside temperature is averaging less than 30°F and on cooling systems when the outside temperature is above 80°F.
f. Instruct the building maintenance employees for all shifts as required during the adjusting and balancing period. Obtain signed statements from each employee verifying this instruction has been received by each.
g. Carry out the 'start-up' of the various systems with the Contractor and with any necessary assistance of the equipment manufacturer's representative.
h. Furnish all instruments and provide all instrumentations required to perform the above work. The equipment and instrumentations shall remain the property of the balancing Subcontractor; however, all equipment must be first approved by the Small GESA's Professional before being used on the Project.

907.5 COAL-FIRED BOILERS. If proposing a new coal-fired boiler, contact the project coordinator for associated procedures and requirements.

907.6 PIPE AND DUCT PENETRATIONS. In compliance with the requirements of NFPA 90A, it is essential that the Small GESA's Professional determine and indicate locations of all horizontal and vertical fire separations and the hourly requirement of the separation on the contract floor plans and building services.

A. The Small GESA project plans shall show where ducts, pipes and conduits pierce required fire rated separations with standard symbols for:

1. Duct penetration of vertical separation.
2. Duct or shaft penetrations of horizontal separation.
3. Ceiling dampers for opening protection in a floor-ceiling or roof-ceiling assembly.
4. Location of duct fire dampers.
5. Location of duct smoke detectors.

B. A duct access door shall be specified at each fire damper, turning vane, and ATL sensor location, for inspection and resetting the fire damper. Typical detail(s) shall be shown on the drawings.

C. There may be occasion where ceiling or wall access panels need to be provided to reach duct access doors or above ceiling pipe valves. All access panels shall be shown on the construction drawings and the Small GESA Contractor shall provide the access panels.

D. Duct smoke detectors shall be furnishd, installed and wired by the Small GESA Contractor.

E. When dampers and detectors are to be controlled by a Central Fire Management System, including sprinkler system monitoring, the Small GESA Contractor shall install the dampers and detectors.

G. Approved fire and smoke sealant shall be used at all pipe penetrations of fire rated walls, floors and ceilings.

907.7 ELECTRICAL EQUIPMENT WIRING.

A. Wiring for Heating, Ventilating and Air-Conditioning:

1. All equipment for the heating, ventilating and air conditioning systems shall be furnished and installed under the Small GESA Contrac, including furnishing all labor and materials required for the installation and connection of all electrical power wiring to and for this equipment.
2. In general, all special control equipment required for the heating, ventilating and air conditioning equipment such as water chiller, condenser, condensing units, air handling units, water heaters, pumps and air compressor, will be furnished and installed under the temperature control section of the Small GESA contract.

B. Temperature Control Wiring:

1. All interlocking control wiring in connection with the temperature control system for all heating and air conditioning systems shall be furnished, installed and connected under the Small GESA contract, including providing a source of power and making final power connections at each air handling unit and at each apparatus control panel location where noted on the plans.

907.8 ABOVEGROUND STORAGE TANKS (AST) AND UNDERGROUND STORAGE TANKS (UST). The Pennsylvania Storage Tank and Spill Prevention Act of 1989 dictates all installation, modification, removal and inspection activities related to regulated aboveground and underground storage systems. Therefore, the Small GESA's Professional shall prepare associated specifications and drawings to assure that such storage tanks comply with Pennsylvania Act 1988-32.

A. All removal, installation and repair operations shall employ DEP certified Contractors as required.

B. Upon the discovery of fuel contamination, notify the Funding Agency for direction.

C. Stand-alone projects related to storage tanks shall be performed as a (.6) specialty contract.

D. All utility and regulatory permits, certifications and fees must be addressed and satisfied by the Contractor.

E. Adhere to the following requirements as a minimum:

1. Underground storage tank installation procedures shall in general conform to API recommended practices as well as DEP and PA Labor and Industry codes and regulations.
2. API Recommended Practice No. 1615 – Installation of USTs.
3. API Recommended Practice No. 1604 – Removal and Disposal of USTs.
   NOTE: Installation in Philadelphia County and Allegheny County shall further conform to their respective codes and regulations.
4. Provide STAGE I and STAGE II vapor recovery for gasoline.

F. Tank Requirements:

1. USTs shall be double-wall steel, 360^{o} containment meeting the requirements of STI-P3 and UL 58 or double-wall fiberglass conforming to UL 1316, and be provided with a remote emergency shut off switch, corrosion protection of all ferrous components, vehicle protection, spill containment, and overfill protection and impervious surfaces at fill and dispensing ports.
2. All ASTs shall conform to UL 142 as a minimum and be provided with a remote emergency shut off switch, product line anti-siphon valves, vehicle collision protection, spill containment, protection fence, and overfill protection.

3. Steel USTs shall be protected from exterior corrosion with 125 mils of fiberglass reinforced polyester resin meeting the requirements of ACT 100 or ACT 100U.
4. USTs shall be anchored to an adequately sized reinforced concrete hold-down pad.
5. Containment sumps will be utilized on all UST's with submersible pumping systems.
6. Inventory and leak detection for USTs and piping shall be done electronically.
7. All product lines shall be non-metallic, sloped back to the sump and have secondary containment. Include a provision for leak detection and flow restrictors.
8. The UST interstitial space and dispenser sumps shall be monitored for leaks.
9. Provide drop tube overfill protection and spill containment at fill port.

G. Drawing Requirements – As a minimum, the following information shall be indicated:

1. Site Plan:

   a. Topographic survey of site must conform to the PA Labor and Industry's area requirement stated in the Application for Approval. The plan must further indicate the location of all physical features and utilities, aboveground and underground, relevant to the design, installation and demolition of the fuel facility.
   b. Indicate all USTs, associated piping/conduit systems and island/site facilities scheduled for removal or demolition.
   c. If a site assessment is necessary, develop an Environmental Boring Plan, from a copy of the Site Plan, indicating the location, depth and soil/ground sample tests for each environmental boring around the existing USTs.
   d. Adequate vehicle accessibility, stack-up and entrance/egress patterns must be demonstrated for all anticipated truck types, Commonwealth fleet vehicles and the fuel delivery truck.
   e. Indicate the location, size and content of each UST/AST and the associated excavation/foundation.
   f. Stormwater management must be accommodated with the area affected by excavation or facility construction.
   g. Property lines must be clearly represented.
   h. Indicate the location of any required existing or desired monitor/recovery wells.
   i. UST manholes and sumps should be out of the normal path of vehicle traffic, protected from surface water flooding and designed to be immune from snowplow damage.
   j. The extent and characteristics of all paving work shall be exhibited and defined.
   k. Identify and label all piping/conduit routes.
   l. Indicate all fencing modifications, gate installations and vehicle collision protection features.
   m. Identify apron/canopy size and dispenser island equipment. Slope apron to prevent surface water accumulation.
   n. Indicate the location of all ancillary equipment and systems required to support the location of the fuel facility.
   o. Identify the intended location of Contractor parking, equipment/material storage and excavated soil storage/remediation operations.
   p. Indicate a means for isolating escaped product within the stormwater system.

2. Detail Drawings:

   a. Provide an elevation detail of pipe/conduit penetration of wall/foundation/sumps; specify cross-over intersection and backfill requirements.
   b. Provide an elevation detail of excavation cross-sections indicating all dimensional and shoring/cutback requirements.

c. Provide uniform pea gravel backfill around USTs with a minimum 12" between the UST and the hold-down pad.
d. Provide elevation details of any required monitor/recovery wells.
e. Provide clear and precise details for canopy structure and island foundation.
f. Indicate accommodation for canopy rainwater runoff.
g. Provide elevation details of UST/hold-down pad attachment and pump sumps.
h. Provide an elevation section indicating fill, vent inventory/leak sensor locations, arrangement and interface without the UST/AST.
i. Locate the inventory sensor at the UST/AST midpoint.

3. Site Assessment Program: After accurate topographic and subsurface survey information is gained and integrated onto the Site Plan, the Small GESA's Professional may be asked to perform a site assessment, utilizing the results from laboratory analysis of soil/ground water samples, to determine the extent and constituents of soil/ groundwater fuel contamination. The site assessment program may consist of the following tasks as requested:

a. Development of an Environmental Boring Plan for the Funding Agency's review and approval.
b. On-site placement, direction and drilling of the environmental borings to ascertain the extent of soil and ground water contamination.
c. Professional on-site representation during the boring operations with the ability to perform additional discretionary environmental borings and monitor/recovery wells.
d. Applicable laboratory analysis of soil/ground water samples for specific constituents, existing MTBE and lead concentration from former leaded gasoline USTs. Consider full range target pollutant tests at the locations of new USTs.
e. Samples are not to be homogenized or taken at recurrent boring depths.
f. All results are to be recorded and submitted to the Funding Agency to serve as a baseline reference for the site.
g. Evaluation of current and seasonal high ground water elevations, gradient and soil recharge rates.
h. Provide a site assessment program summary report to include the results of the environmental tests, the testing methodology and an assurance plan from the testing laboratory.
i. If necessary develop DEP required Site Characterization Report and/or Remedial Action Plan based on contamination after report is complete.
j. Interim remedial actions shall be executed upon the confirmation of reportable contamination.
k. The specifications/drawings will direct the Contractor to dispose or remediate a finite amount of contaminated soil.
l. Dewatering the excavation and proper disposal of any captured water, whether contaminated or not, is the Contractor's responsibility.
m. The removal and disposal of contaminated soil and ground water will be supervised by the Small GESA's Professional.
n. Any contamination of an extensive nature, or from other sources, not covered by the drawings or specifications, shall be considered outside the scope of the project. The Professional shall notify DGS and the Funding Agency of the results.

H. Procedure Information:

1. See guide specifications. These shall be used and may be applicable for the specific project requirement.

2. Requirements:

   a. Design Stage Procedure:

      1) If applicable the Small GESA's Professional shall have the local or L & I Fire Marshal review and comment on proposed UST design and installation procedure with respect to Fire and Safety requirements. File Form SP-FP2 with Plan.
      2) Such reviews and comments shall be filed with DGS with the Final Submission.
      3) Such comments shall be incorporated into the contract documents.

   b. Responsibility:

      1) Professional may submit to Labor and Industry for review and comment, the proposed UST/AST design and installation procedure. Include in contract document complete requirement for UST/AST, regarding installation/ removal/registration, etc.
      2) Contractor shall file for permit, for the Owner, with the Labor and Industry. The Owner is defined as the Funding Agency on whose property the UST will be installed.
      3) Register UST removal, installation and upgrade with DEP and obtain a registration number for each UST.
      4) Provide registered certification from tank fabricator.
      5) Install/Remove USTs by a certified UST installer/remover.
      6) Have inspected, tested and certified by a certified UST Installation Inspector.
      7) Submit certified statement regarding compliance with requirements for the proper disposal of tanks required to be removed.

I. Specification Guide Information – The following information shall be incorporated into the UST specifications. The Professional shall review and modify, as necessary, to suit the specific project requirements.

   1. The Storage Tank and Spill Prevention Act of 1989:

      a. The Pennsylvania Storage Tank and Spill Prevention Act of 1989 regulates all installation, modification, removal and inspection activities related to aboveground and underground storage systems.
      b. Each Contractor shall comply with the requirements of the Storage Tank and Spill Prevention Act as it applies to this project.
      c. Each Contractor, prior to commencement of any work, regulated by the Act, shall provide to the Funding Agency proof of certification by the Department of Environmental Protection as a certified installer or remover.
      d. Each Contractor, prior to commencement of any work, regulated by the Act, shall provide to the Funding Agency proof of certification by the Department of Environmental Protection for the required certified Inspector on this project.

   2. Regulatory Submittals:

      a. The certified tank installer shall be responsible for notification and/or submittals required by the Pennsylvania Department of Environmental Protection. All notifications and submittals shall be copied and turned over to the Bureau of Construction, which shall file copies with project records and forward copies to the Funding Agency for the purpose of record keeping required by DEP regulations.

b. The Pennsylvania Department of Environmental Protection, Bureau of Water Quality Management Regional Office for this project site is:

3. Soil Testing:

   a. The DEP certified installer shall conduct soil testing after removal of the storage tank(s) and pipe systems to measure for contamination which may have occurred during the operation of the system.
   b. The soil testing shall be conducted in compliance with all DEP and local regulations.
   c. The certified installer shall take separate samples of the soil and test for specific constituents.
   d. Samples shall be tested for presence of specific petroleum hydrocarbons, MTBE and lead at former leaded gas UST.
   e. The certified installer shall submit to DGS the laboratory test results, along with a copy of the methodology of testing, and a quality assurance plan from the testing laboratory.
   f. All analysis shall be conducted by DEP and EPA Methodology when available.

4. Contaminated Materials:

   a. The certified installer shall notify DEP and obtain approval for disposal of contaminated materials. Materials shall be disposed of in accordance with DEP requirements.
   b. The landfill area used for disposal of materials shall be certified to receive and bury materials contaminated by petroleum products. The Contractor shall obtain from DEP, a list of certified landfill sites. The certified installer shall make arrangements with and obtain approval from landfill manager prior to hauling material.
   c. Disposal of contaminated water, sludge, or unusable product (fuel, oil, gasoline) shall be done by a method approved by DEP and the EPA.
   d. The certified installer shall submit copies of all DEP permits, approvals and letters of notification to the Funding Agency.

SECTION 908 - PLUMBING SPECIFICATIONS

908.1 PURPOSE. The purpose is to provide guide information to assist the Small GESA's Professional in the preparation of contract drawings and specification for the various plumbing systems and fire protection system, and to assure consistency in specifications.

908.2 GENERAL INFORMATION. The work covered by this specification includes the Plumbing Contractor furnishing all labor, material, equipment and services and performing all operations in connection with the plumbing installation, complete, in strict accordance with this specification and the applicable drawings.

A. The work includes the following:

   1. A complete system of cold and hot water piping and equipment with valved connections to all water-consuming equipment.
   2. A complete sanitary drainage system with trapped connections to all fixtures and equipment with extensions to 5' beyond the building line.
   3. A complete rainwater drainage system with connections to all rainwater conductors within the building. Plumbing Contractor shall provide roof drains to General Contractor for installation. Roof drain selection shall be coordinated with the roof construction.

4. A complete fire protection system with valved connections, including as applicable; wet and dry standpipe system, sprinkler systems, hose racks, hose valve outlets, siamese connections, and exterior fire hydrants. The Professional shall include and coordinate all sprinkler risers, mains, branch piping, valve stations, and fire pump installations. Any sprinkler requirements that require special attention to layout and location of sprinkler heads shall be noted on the drawings. All hazard classification with flow and area requirements shall also be indicated on the drawings. Results of hydrant flow tests shall be listed on the drawings with the performance date.
5. A complete system of gas piping to all gas consuming fixtures and equipment, including extension to 5' beyond the building line.
6. A complete compressed air system including compressors, accumulators, piping and valved connections to indicated equipment.
7. A complete vacuum system including pumps, piping and valved connections to all vacuum equipment.
8. A complete air-conditioning condensate drainage system with connections to all equipment, with extensions and indirect connections to storm or sanitary sewer system. If the condensate drains are provided under the HVAC Contract, the Plumbing Contractor shall provide appropriate indirect waste connections.
9. Furnishing and installing plumbing fixtures.
10. Furnishing and installing special equipment, complete, including but not limited to water softening equipment, filtering equipment for swimming pools, hydrotherapy pool equipment, and sterilizing equipment.
11. Rough-in only for kitchen, laundry, laboratory and hospital equipment.
12. A complete distilled water system with water still, pumps, piping and valved connections to all distilled water outlets.
13. All screen chambers, oil, grease and lint interceptors and grease traps within the building.
14. Testing, disinfection of water system, adjusting and placing in operation all systems installed.

B. The Professional shall comply with the latest applicable codes and regulations:

1. PA UCC – Pennsylvania Uniform Construction Code.
2. Fire Protection Systems – NFPA
3. Sprinklers NFPA 13
4. Life Safety Code – NFPA 101
5. Accessibility – UCC
6. Pennsylvania Code – Health Department
7. Other codes, standards and regulations, as applicable

C. The Professional is to design to good engineering practices. The Funding Agency reserves the right to direct the Small GESA's Professional to use materials, systems, or equipment that it determines to be in the best interest of the Funding Agency, Project, and/or Commonwealth even if beyond the code requirements.

D. Electrical Equipment Wiring:

1. All equipment, unless otherwise indicated, for the plumbing system shall be furnished under the Plumbing Contract. The Electrical Contractor shall however, be responsible for furnishing all labor and materials required for the installation and connection of all electrical power wiring to and for this equipment.
2. In general, all starters and special control equipment required for electrically operated equipment furnished under the Plumbing Contract, such as the pumps and the electrical water heaters will be furnished and installed by the Plumbing Contractor.

SECTION 909 - ELECTRICAL SPECIFICATIONS

909.1 PURPOSE. To specify construction materials, methods and contract requirements, determined to benefit DGS included in all applicable projects.

909.2 APPLICABLE CODES AND REGULATIONS. Electrical design shall comply with the latest applicable codes:

A. National Electrical Code – NFPA 70

B. National Electrical Safety Code – ANSI C2

C. Life Safety Code – NFPA 10 1

D. Pennsylvania UCC

E. Pennsylvania Code, Department of Health Regulations

F. City or Local Codes, as applicable

G. Accessibility – UCC

H. Other codes, as applicable

909.3 SPREAD OF FIRE, OR PRODUCTS OF COMBUSTION. The design and specifications shall be developed in accordance with the following.

A. All lighting, power, control and fire alarm wiring shall be run in rigid metal conduit, intermediate electrical conduit, electrical metallic tubing, flexible metallic conduit, liquidtight flexible metal conduit, surface metallic raceways, or metal wireways within the parameters established by the National Electrical Code and applicable DGS design parameters.

B. Plastic conduit, which may produce toxic smoke or contribute to the spread of fire, shall not be used without permission from DGS. Plastic conduit installed underground or in concrete encasement will be acceptable.

C. Non-metallic sheathed cable or armored cable is not to be used, except with special permission.

D. All telephone, television, electronic data processing, sound and other telecommunication cables shall be run in conduit as specified above, except as follows:

1. Data processing cables installed under raised floors shall comply with NEC Article 645.
2. Plenum conductors shall be listed as having adequate fire resistant and low smoke producing characteristics. Conductors insulated with materials that produce toxic smoke are not acceptable. The manufacturer of the cable shall certify that its product complies with the above.

909.4 SURGE PROTECTION. All electrical systems susceptible to damage by lightning or other surges shall incorporate surge protection to protect the equipment. The equipment shall be protected from surges on the downstream side of the equipment as well as from surges on the incoming lines. Surge protection shall be specified as factory installed on all input and output terminals where the transmitting control panel is interconnected with other buildings for remote annunciation, alarm or data interface.

909.5 INSTALLATION OF EMERGENCY OR STANDBY GENERATORS. Contract responsibilities for the furnishing and installing of materials and equipment associated with emergency or

standby generators shall be broken down as described below. The project design and specifications shall be developed in accordance with the following.

A. Scope shall include:

1. Furnish and install concrete pad (minimum 6" high), vibration isolators and anchor bolts for the engine generator set(s).
2. Furnish and install the engine generator set(s).
3. Furnish and install the automatic transfer switch(s).
4. Furnish and install associated lighting and power panels, area protection monitors, etc.
5. Furnish pressure regulator(s) for natural gas or LP fueled engines to the HVAC Contractor for installation.
6. Provide day tank(s) for diesel-fueled generators in place. The HVAC Contractor shall do pipe installation, if not factory-installed.
7. Furnish, install and connect power and control wiring to the engine generator set(s) and all associated equipment.
8. Furnish exhaust mufflers to HVAC Contractor for installation.
9. Furnish and install all engine exhaust piping.
10. Install engine exhaust muffler(s) furnished by Electrical Contractor.
11. Insulate all muffler and exhaust line piping.
12. Furnish and install drip loop(s) in exhaust line piping.
13. Furnish and install LP fuel tank, and piping.
14. Furnish and install UST or AST diesel fuel tanks with levelometers and piping.**
15. Furnish, install and connect all natural gas or LP fuel lines; including flexible connectors.

OR

16. Furnish, install all diesel fuel lines, including flexible connectors.**
17. Provide all excavation and backfill required for installation of underground tanks and fuel lines.
18. Furnish motorized intake louver(s)* to General Contractor (GC) for installation. (Wired by Electrical Contractor)
19. Furnish exhaust air louver(s)* to General Contractor for installation.
20. Furnish and install all intake air and exhaust air duct work, including flexible connectors.

* Finishes to be coordinated by the Small GESA's Professional.

** Small GESA Contractor shall comply with the requirements of the Storage Tank and Spill Prevention Act of 1989 and shall be listed by the Department of Environmental Protection as a certified installer.

B. Proper specifications and installation will require close coordination between the Small GESA's Professional, its Consultants, and Project Reviewers of the various design disciplines.

909.6 EMERGENCY AND/OR STANDBY GENERATOR TESTING. Emergency or standby generators shall be tested at full load for four (4) hours using resistance banks.

A. Readings of all pertinent data shall be recorded at ten (10) minute intervals for the first two (2) hours, and at thirty (30) minute intervals for the remainder of the test.

B. In the event that it becomes necessary to abort the test, another full four (4) hour test shall be made after correction of the problem(s).

909.7 MEDIUM VOLTAGE SHIELDED POWER CABLE AND FUEL TESTING. Following are cable and field testing specifications for XLP and EPR cable. The selection of the cable type will be the responsibility of the Small GESA's Professional in concurrence with the Funding Agency.

A. EPR Cable:

1. General :

   a. Scope – This specification covers single conductor, ethylene propylene rubber insulated, shielded and jacketed power cable for use at 5,000 or 15,000 volts, 133% insulation level. Cable shall be rated at 90°C for normal operation; 130°C for short circuit conditions. Cables shall be UL listed and designated MV-90 in accordance with the National Electrical Code.
   b. Standards – The cable shall meet or exceed the industry standards of the latest edition of ICEA-NEMA Standard S-68-516, WC-8 and AEIC Standard CS-6.

2. Cable:

   a. Basic Construction – Cable shall have a single Class 'B' stranded bare copper conductor, extruded semi-conducting conductor screen, ethylene propylene rubber insulation, extruded semi-conducting insulation screen, copper tape shielding and extruded PVC jacket. The cable conductor screen, insulation and the insulation screen shall be manufactured by employing an in-line triple tandem extrusion process.
   b. Conductor – Annealed copper with concentric lay Class 'B' stranding conforming to ASTM B 8 and ICEA S-68-516, Part 2.
   c. Conductor Screen – Extruded layer of semi-conducting ethylene propylene rubber compound shall be applied over the conductor. The DC volume resistivity of the screen shall not exceed 50,000 ohm/cm at 90°C when tested in accordance with AEIC No. CS-6. The conductor screen shall be clean stripping from the conductor and inseparably bound to the overlying insulation.
   d. Insulation – Ethylene propylene rubber with physical and electrical characteristics that comply with the requirements of ICEA Standard S-68-516. The insulation thickness shall be as follows for 133% insulation level.

      5 KV - 115 Mils
      15KV- 220 Mils

      The thickness at any cross-section of the insulation shall not be less than 90% of the specified thickness.
   e. Insulation Screen – Extruded layer of semi-conducting ethylene propylene rubber compound shall be applied over the insulation. The DC volume of resistivity of the screen shall not exceed 50,000 ohm/cm at 90°C when tested in accordance with AEIC No. CS-6. Average thickness shall be in accordance with AEIC.
   f. Metallic Shield – Non-magnetic metallic conducting covering consisting of a 5 mil copper tape helically applied with a minimum overlap of not less than 12.5%.
   g. Cable Jacket – Polyvinylchloride jacket meeting the physical requirements of ICEA. The jacket shall have a minimum average thickness in accordance with ICEA S-68-516.
   h. Identification – The following information shall be permanently printed every 24" on the surface of the jacket.

      1) Manufacturer/Conductor Size
      2) And Type/Insulation Type and
      3) Thickness/% Insulation Level/
      4) Rated Voltage/MV-90/Year of Manufacture

3. Factory Testing and Certification:

a. DC Resistance Test – Conductor DC resistance shall meet the requirements of ICEA S-68-516.
b. AC and DC Voltage Tests – Each reel of cable shall be subjected to AC and DC tests in accordance with Part 6 of ICEA per the cable rated voltage for 133% insulation level. The cable shall be given a five (5) minute AC voltage withstanding test and fifteen (15) minute DC voltage withstand test.
c. Insulation Resistance – Insulation resistance shall be measured and recorded in megohms per 1,000 ft. and when corrected to 15.6^{o}C the series insulation resistance shall not be less the 50,000 megohms per 1,000 ft.
d. Corona Discharge – Each reel of cable shall be given a corona discharge test. The test shall be in accordance with AEIC No. CS-6, latest edition. An X-Y recording graph shall be furnished showing corona test results. The maximum partial discharge allowed is 5 pico coulombs.
e. Certification – For each reel of cable, a certified and notarized factory test report, reel numbers for cable identification with date of manufacturer and testing shall be submitted. Nine (9) copies of this certification and test report shall be submitted through the Project Inspector for approval.

B. XLP Cable:

1. General:

a. Scope – This specification covers single conductor, cross linked polyethylene insulated, shielded and jacketed power cable for use at 5,000 or 15,000 volts, 133% insulation level. Cable shall be rated at 90^{o}C for normal operation; 130^{o}C for emergency overload conditions; 250^{o}C for short circuit conditions. Cables shall be UL listed and designated MV-90 in accordance with the National Electric Code.
b. Standards – The cable shall meet or exceed the industry standards of the latest edition of ICEA-NEMA Standard S-66-524, WC-7 and AEIC Standard CS-5.

2. Cable:

a. Basic Construction – Cable shall have a single Class ‘B’ stranded bare copper conductor, extruded semi-conducting conductor screen, cross-linked polyethylene insulation, extruded semi-conducting insulation screen, copper drain wire shielding and extruded PVC jacket. The cable conductor screen, insulation and the insulation screen shall be manufactured by employing an in-line triple tandem extrusion process.
b. Conductor – Annealed copper with concentric lay Class ‘B’ stranding conforming to ASTM B 8 and ICEA S-66-524, Part 2.
c. Conductor Screen – Extruded layer of semi-conducting cross-linked polyethylene compound shall be applied over the conductor. The DC volume resistivity of the screen shall not exceed 50,000 ohm/cm at 90^{o}C when tested in accordance with AEIC No. CS-5. The conductor screen shall be clean stripping from the conductor and inseparably bound to the overlying insulation.
d. Insulation – Cross-linked polyethylene with physical and electrical characteristics that comply with the requirements of ICEA Standard S-66-524. The insulation thickness shall be as follows for 133% insulation level.

5 KV -	90 Mils
15KV-	220 Mils

The thickness at any cross-section of the insulation shall not be less than 90% of the specified thickness.

e. Insulation Screen – Extruded layer of semi-conducting cross-linked polyethylene compound shall be applied over the insulation. The DC volume of resistivity of the screen shall not exceed 50,000 ohm/cm at 90°C when tested in accordance with AEIC No. CS-5. Average thickness shall be in accordance AEIC.
f. Metallic Shield – Soft drawn uncoated copper wires helically applied over the insulation shield. The drain wire shield shall meet the requirements of ICEA S-66-524, Part 4 and UL 1072; minimum of 5,000 circular mils per inch of insulated conductor diameter. A non-metallic separator tape shall be helically applied over the metallic wire shield.
g. Cable Jacket – Polyvinylchloride jacket meeting the physical requirements of ICEA. The jacket shall have a minimum average thickness in accordance with ICEA S-66-524.
h. Identification – The following information shall be permanently printed every 24" on the surface of the jacket.

1) Manufacturer/Conductor Size
2) And Type/Insulation Type and
3) Thickness/% Insulation Level/
4) Rated Voltage/MV-90/Year of Manufacture

3. Factory Testing and Certification:

a. DC Resistance Test – Conductor DC resistance shall meet the requirements of ICEA S-66-524.
b. AC and DC Voltage Tests – Each reel of cable shall be subjected to AC and DC tests in accordance with Part 6 of ICEA per the cable rated voltage for 133% insulation level. The cable shall be given a five (5) minute AC voltage withstand test and a fifteen (15) minute DC voltage withstand test.
c. Insulation Resistance – Insulation resistance shall be measured and recorded in megohms per 1,000 ft. and when corrected to 15.6°C the series insulation resistance shall not be less than 50,000 megohms per 1,000 ft.
d. Corona Discharge – Each reel of cable shall be given a corona discharge test. The test shall be in accordance with AEIC No. CS-5, latest edition. An X-Y recording graph shall be furnished showing corona test results. The maximum partial discharge allowed is 5 pico coulombs.
e. Certification – For each real of cable, a certified and notarized factory test report, reel numbers for cable identification with date of manufacture and testing shall be submitted. Nine (9) copies of this certification and test report shall be submitted through the Project Inspector for approval.

C. Field Testing:

1. General:

a. Scope – Field testing cables, splices and terminations shall consist of a non-destructive, direct current, dielectric test for insulation of primary cable system using ICEA standard procedure.
b. The Electrical Contractor shall notify the Funding Agency two (2) weeks prior to the date of tests. Tests must be witnessed by representatives of the Funding Agency.
c. Testing shall be by an independent testing firm acceptable to the Funding Agency. Testing is not to be by the Electrical Contractor. All tests shall be made by a qualified field technician especially trained for dielectric testing and interpretation of results and regularly engaged in dielectric testing.

d. The Electrical Contractor shall be responsible for disconnecting and reconnecting existing equipment as required to make these tests.
e. If at any time during the test procedure, the test is stopped due to excessive readings, the installation shall be checked to locate the problems. Corrective measures shall be taken prior to continuing the test.

2. Cable, Splicing and Termination Testing:

a. Scope – All new cables, including all splices and termination, shall be tested after installation prior to being energized. All cables not under test shall be properly grounded and tied to the shield of the cable under test. If it is necessary to repeat a test, the capacitance and absorption current shall be discharged by grounding the conductor for sufficient time to allow complete drainage. If the cable has been energized prior to testing, the capacitance shall be completely discharged by grounding the conductor in an approved manner.
b. Field Testing – Tests performed and recorded shall be of the following types:
   1) Step Voltage Tests for New Cable Circuits
   2) Step Voltage and Time Resistance (Polarization Index) Tests for Existing Circuits
c. An installation having only new cable, splices and termination shall be tested as follows:
   1) 5 KV System – Test to 25 KV DC
   2) 15 KV System – Test to 55 KV DC* (*64 KV DC for cable only)
   3) Under no circumstances is the test voltage to exceed 80% of the manufacturer's original DC over-voltage acceptance test
d. An installation consisting of a combination of new and existing cables, splices and terminations shall be tested as follows:
   1) 5 KV System – Test to 20 KV DC provided the existing system passes the meggar test
   2) 15 KV System – Test to 35 KV DC provided the existing system passes the meggar test
   3) Lower test voltages may be used upon direction from the Funding Agency or DGS
   4) Under no circumstances is the test voltage to exceed 60% of the manufacturer's original DC over-voltage acceptance test
e. The results shall be plotted in the form of a curve on kilovolt-megohm paper.
f. In the step voltage tests, voltage shall be applied evenly to the insulation in ten (10) consecutive steps of a specified magnitude or steps equal to the kilovolt rating (whichever is the lower), starting at a pre-selected and specified initial value. Voltage shall be held at each step for one (1) minute and current readings shall be taken and recorded at the end of each one (1) minute period for each voltage step. For certain very long cables, the test current will not have stabilized at the end of one (1) minute. In these cases, each step shall be held for two (2) minutes or for sufficient time to allow for stabilization of the capacitance and absorption currents. In conducting the test, the voltage shall not be increased or decreased during the time period. At the completion of the step voltage test and when the maximum specified voltage is achieved, the voltage shall be held at this maximum for ten (10) minutes and current readings taken and recorded.
g. In the Polarization Index Test, a specified constant test voltage shall be applied for ten (10) minutes to each conductor, recording insulation resistance at 1/4, 1/2 and 3/4 and one (1) minute and every minute thereafter. The Polarization index (ratio of ten (10) minute insulation resistance to one (1) minute insulation resistance) shall be at least 1.00 to permit application of high potential in the step voltage test.

3. Test Results:

   a. Determination – A determination is to be made by the testing firm field technician as soon as the test is completed, as to whether or not the system should be energized.
   b. Distribution – Nine (9) certified copies of the field test reports shall be furnished to the Small GESA's Professional through the Project Inspector for approval, and shall include the following:

      1) All readings shall be recorded and plotted on kilvoltmegohm paper
      2) A written summary by the tester as to the conditions of the installation, and recommendations relative to the acceptability of the installation.

   c. In the event that the Funding Agency concludes that the test results are marginal, another test shall be run prior to the expiration of the one (1) year bonding period. The test shall be arranged for and paid for by the Electrical Contractor.

SECTION 910 - HAZARDOUS MATERIALS SPECIFICATION

910.1 PURPOSE. Based on past project experience, the Funding Agency has developed the "Protocol Regarding Asbestos, Lead, PCB's/Mercury, Radon and Other Hazardous Materials", which includes guidance specifications for handling of hazardous materials.

910.2 GUIDANCE SPECIFICATIONS. The Funding Agency's Protocol and Guidance Specifications for hazardous materials work include the following:

A. Professional's Responsibilities To The Funding Agency

B. Sample Hazardous Materials Survey RFP Letter

C. Sample Quality Assurance Hazmat Monitoring RFP Letter

D. Guidance Spec for Removal of Asbestos-Containing Materials*

E. Guidance Spec for Disturbance of Lead-Containing Surface Coatings*

F. Guidance Spec for Removal/Disposal of PCB and Mercury-Containing Materials*

G. Guidance Spec for Radon Testing and Mitigation Design*

H. Lead-Based Paint Guidance Note for Drawings*

* Sections D through H are available upon request; contact the DGS Project Coordinator.

910.3 EDITING. These specifications are provided for guidance only, and should not be copied verbatim. Edit specifications accordingly to suit project scope and field conditions. All guidance documents are provided to indicate the level of detail that the Funding Agency is expecting in the Construction Documents. The use of competent qualified individuals should be used for design.

CHAPTER 10

PROJECT INFORMATION EXHIBITS

EXHIBIT	TITLE
Section A	**Submission Checklists**
A1	Construction Documents Submission Checklist

Section B	**Drawing Standards**
B1	Cover Sheet Layout
B2	Cover Sheet Title Block
B3	Standard Sheet Title Block
Section C	**Miscellaneous Items**
C1	List of Regulatory Approvals/Permits – Status Report
C2	Boiler System Test Report
C3	Receipt for Test Boring Result Drawings
C4	Sample Electrical Panel Schedule
C5	Funding Agency Design Submission Approval Form
C6	Exceptions to L & I Special Inspections
Section D	**HazMat Protocol**
D1	Protocol Regarding Asbestos, Lead, PCB's/Mercury, Radon and Other Hazardous Materials

SMALL GESA PROJECT

CONSTRUCTION DOCUMENT SUBMISSION CHECKLIST

Project Number:_____ Submission Date: _____

Project Title: _____

_____

(The Professional shall submit 2 discs with each item listed; if not included, don't submit the disc.)

1	❑ Transmittal Letter (w/ this Construction Documents Submission Checklist attached)	
2	❑ Code Review and Analysis	
3	❑ Project Specifications (bound together as a Project Manual)	
4	❑ All Construction Drawings w/ Cover Sheet	
5	❑ Report Summarizing the Status of All Utilities	
6	❑ List of Required Regulatory Approvals/Permits – Status Report with copies of all applications/approvals	
7	❑ Geotechnical Report and All Other Reports (if applicable)	
8	❑ Letter From Small GESA Contractor's Professional, confirming compliance with Geotechnical Consultant's Recommendations	
9	❑ Final Engineering Calculations: ○ HVAC ○ Plumbing ○ Fire Protection ○ Electrical	
10	❑ Funding Agency's Final Design Approval Letter	

Submit Final Documents to L&I for UCC Review/Approval and Building Permit after you receive the Construction Documents Submission Acceptance Letter from the Funding Agency.

COMMONWEALTH OF PENNSYLVANIA
DEPARTMENT OF GENERAL SERVICES

HARRISBURG, PENNSYLVANIA

Xxxxxx X. Xxxxxxx, Governor — Xxxxxx X. Xxxxxxxx, Secretary

List Approval Numbers and Dates for each applicable Agency.

PROJECT NO. D.G.S. 578–12 PHASE 1
ERIE CIVIC HUMAN RESOURCES CENTER
ERIE, ERIE COUNTY, PENNSYLVANIA

(VOLUME OF)

COVER SHEET INSTRUCTIONS
- –Cover Sheet layout may be varied as determined by the Project Professional; however, all pertinent information must be included with adjustments, as applicable to particular projects.
- –Do not place lists of abbreviations, material legends or symbols on Cover Sheet.
- –Include diagrammatic Project Location Map Vicinity Map, and Institutional Map or Campus Plan.

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MECHANICAL ENGINEERING CONSULTANT
BUTTONDOWN ENGINEERS
7654 EAST 42ND STREET
JOHNSTOWN, PA

INDEX TO DRAWINGS

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General Construction
Contract No. DGS 578–12 Phase 1.1

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S–1
S–2
S–3

H.V.A.C. Construction
Contract No. DGS 578–12 Phase 1.2

HVAC DWGS.
AHE–1
H–2
H–3

Plumbing Construction
Contract No. DGS 578–12 Phase 1.3

PLUMBING DWGS.
P–1
P–2
P–3

FIRE PROTECTION DWGS.
FP–1
FP–2
FP–3

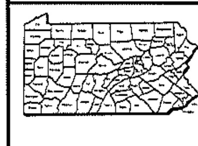
Electrical Construction
Contract No. DGS 578–12 Phase 1.4

ELECTRICAL DWGS.
AHE–1
E–2
E–3

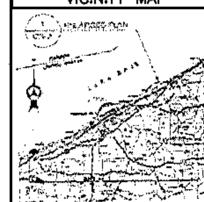
Cover Sheet title block (See full scale sample)

CODE APPROVALS

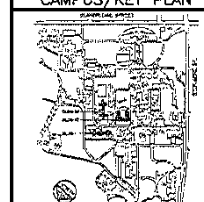
PROJECT LOCATION MAP



VICINITY MAP



CAMPUS/KEY PLAN



Drawings Listed in Index
APPROVED ____ DATE ____

SEAL

JOHN E. SMITH & ASSOCIATES
ARCHITECTS & ENGINEERS

COMMONWEALTH OF PENNSYLVANIA
DEPARTMENT OF GENERAL SERVICES
HARRISBURG, PENNSYLVANIA

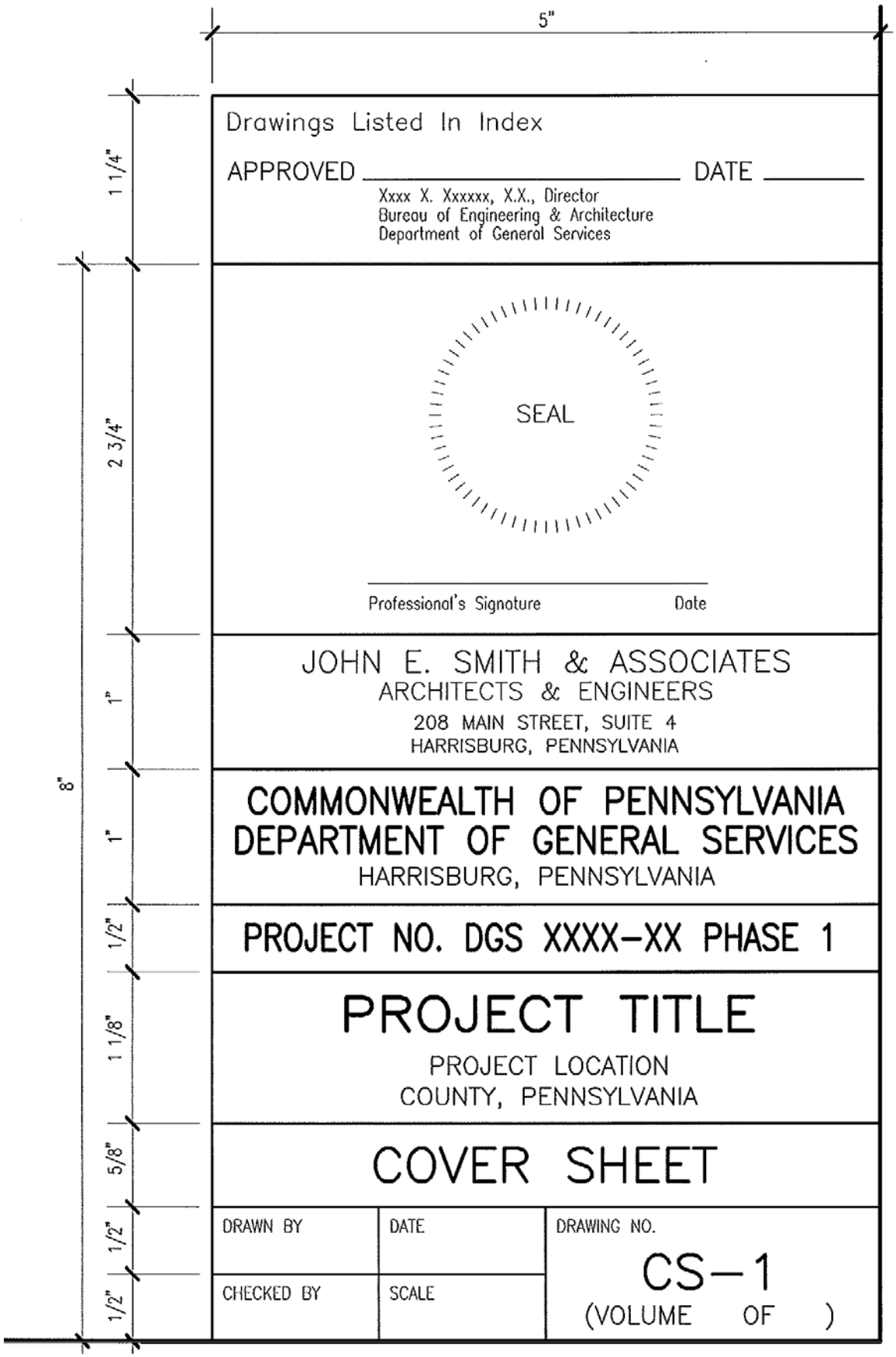
PROJECT NO. D.G.S. XXXX–XX PHASE 1

PROJECT TITLE
PROJECT LOCATION
COUNTY, PENNSYLVANIA

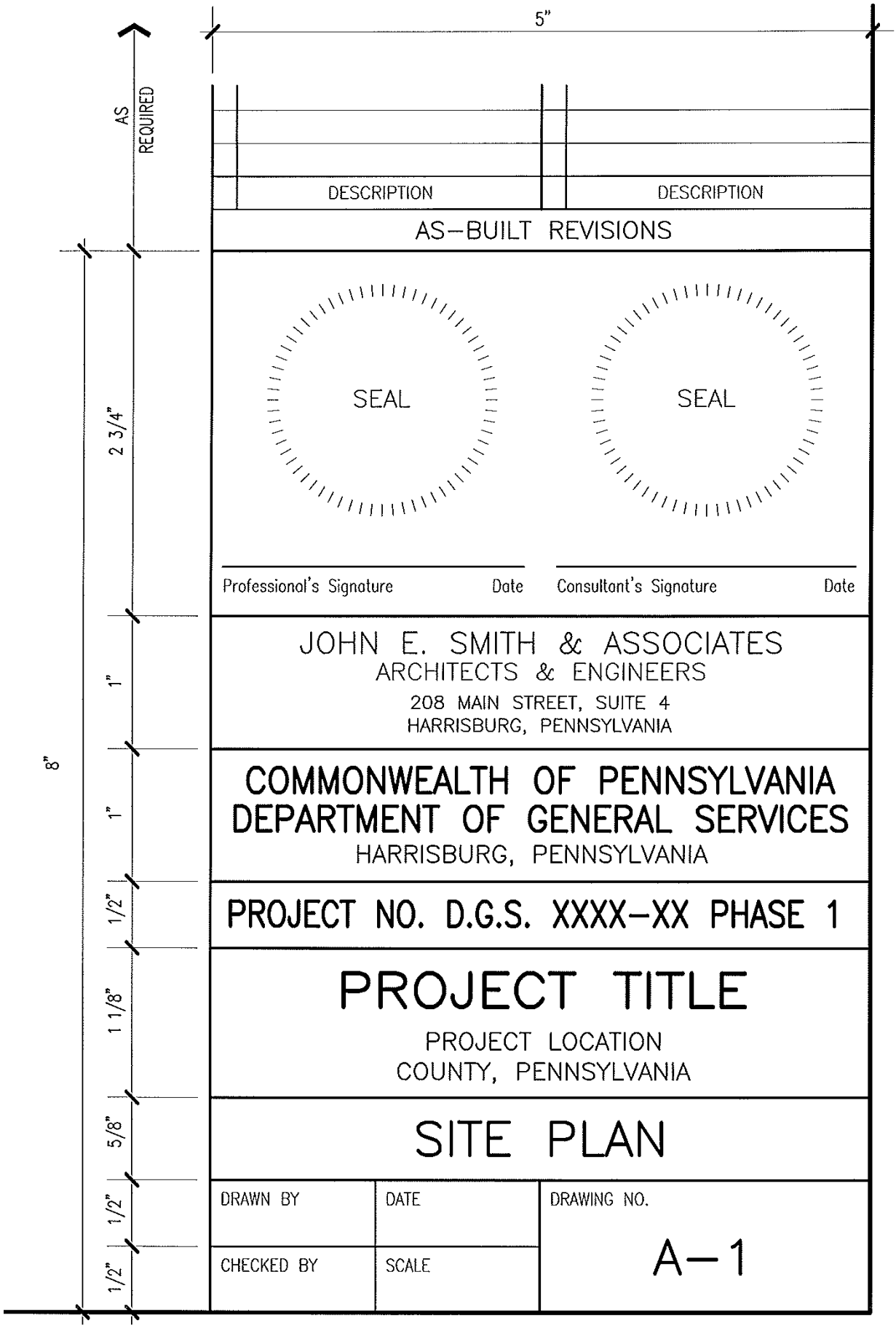
COVER SHEET

CS–1

34 1/2"
28 1/2"
5"
3/4"
1 3/4"



TITLE BLOCK: For use on the Cover Sheet, only. This is a sample. Edit with the correct information for Project No., Project Title and Location, Professional's Name & Address, Director's Name, Date, etc.



TITLE BLOCK: For all drawings other than the Cover Sheet. This is a sample. Edit with the correct information for Project No., Project Title and Location, Professional's Name & Address, Drawing Title, Drawing No., Date, etc.

LIST OF REGULATORY APPROVALS / PERMITS – Status Report

Project Number: _____ Time Period: _____

Project Location: _____ Funding Agency: _____

Professional Firm: _____

NO.	ITEM	GRANTING AUTHORITY	STATUS REPORT (Incl. anticipated approval date)
1	Local Approvals (as applicable)	Municipality	
2	Zoning Permit	Municipality	
3	Storm Water Mgt. Approval	Municipality/ County	
4	Soil Erosion and Sedimentation Control Permit	Municipality/ County	
5	Land Development Plan/ Subdivision Approval	Municipality/ County	
6	PA. UCC Approval (incl. Building Permit)	L & I	
7	Pa. Natural Diversity Index	D.C.N.R.	
8	Highway Occupancy Permit	PennDOT	
9	Sanitary Sewer Module	D.E.P.	
10	Underground Tanks Approval	L&I/ D.E.P.	
12	Flood Plain Approval	D.E.P.	
13	Wetlands Approval	D.E.P.	
14	Archaeological Approval	P.H.M.C.	
15	Historical Building Approval	P.H.M.C.	
16	NPDES Approval	D.E.P.	

Instructions to Professional: Add additional Permits/Approvals, as applicable, for complete list of all required for the Project.

.

Attach copies of all approval letters, as applicable.

Date: _____

BOILER SYSTEM TEST REPORT

PROJECT NO. D.G.S. _____

_____(Coal, Gas, Oil)_____Boiler

_____(Funding Agency)_____

PREPARED BY:

_____(Name)_____

_____(Representing)_____

REPORT DATE:

_____

SAMPLE GUIDE

Date: _____

REPORT OF BOILER SYSTEM TEST

The attached report of the Boiler System Test of Project Number D.G.S. _____, High Pressure Boiler, ____(Funding Agency and Location) _____, has been prepared for the Department of _____ by _____(Contractor)_____.

SAMPLE

Testing Agent: _____

Witnessed By: _____
(Department of _____)

Approved By: _____
(Professional)

Date: _____

Approved By: _____
(Department of - Agency -)

Date: _____

BOILER SYSTEM TEST REPORT

I. PROJECT IDENTIFICATION

Project No. D.G.S. _____

High Pressure Boiler

_____(Funding Agency)_____

_____(Location)_____

Test Dates: _____

Test Dates: _____

II. SYSTEM DESIGN

A. Equipment (*)

Boiler: (Provide description, model number(s) and serial number(s) of all equipment)

Instrumentation:

Fuel Oil Service Pump:

Chemical Feed System:

(*) For coal fired included all associated system equipment – See _____.

B. Predicted Performance – Boiler/Burner – No. 2 Fuel Oil

	MINIMUM [1]	**MAXIMUM HOUR PEAK**
Actual evaporation, lbs/hr	10,000	70,000
Operation pressure, psig	150	150
Steam quality, %	99.5	99.5
Steam temperature at nozzle, ^{o}F	366	366
Feedwater temperature, ^{o}F	212	212
CO^2 at boiler outlet, %	12.8*	13.4*
Gas temperature at boiler outlet, ^{o}F	410	505
Total weight of exit gas, lbs/hr	11,310	77,955
Fuel burning rate, lbs/hr	650	4,480
Draft loss through boiler, WG	0.17	5.75
BTU release/ft^3 gross furnace volume	7,540	52,160
Efficiency complete unit, %	81.3	82.3

* Air Atomization

SAMPLE

[1] Data is to be provided by the boiler manufacturer and to be included as part of Contractor's bid package – See _____ for coal-fired boiler.

C. Fuel Analysis

Fuel Oil No. 2	
Specific gravity, API	0.844
Viscosity, SSU, @ 60°F	40.6
Sulfur, Wt. %, Maximum	0.15
Weight, lbs/gal	7.030
BTU, as fired	136,544

(Data from Laboratory Analysis)

III. OPERATING DATA – (Data as Result of Test)

Fuel Oil No. 2	
Evaporation	
Maximum lbs/hr	62,000
Minimum lbs/hr	5,000
Average lbs/hr	21,160
Total lbs/96 hrs	2,031.330
Steam Conditions	
Drum pressure, psig	150
Outlet temperature, °F	401
Enthalpy, saturated steam, BTU/lbs	1195.6
Purity, calorimeter, %	99.5
Feedwater Conditions	
Temperature to boiler, °F	224
Enthalpy, feedwater, BTU/lbs	192.17
Blowdown, % (approximately)	10.0
Fuel	
Consumed, gallons	16,452
BTU/gallons	136,544

IV. EFFICIENCY CALCULATIONS (Calculated for Test Data)

A. Fuel Oil No.2

$$\% \text{ Eff.} = \frac{W_s (h - hf) + W_b \times hfl}{V_o \times H_v} \times 100$$

Ws	Weight steam produced, lbs
Wb	Weight blowdown, lbs
Vo	Volume oil, gallons
H	Enthalpy saturated steam, BTU/lbs
Hf	Enthalpy feedwater, BTU/lbs
Hv	Heating value fuel, BTU/gal
Hfl	Enthalpy blowdown, BTU/lbs

SAMPLE

$$\% \text{ Eff} = \frac{2{,}031{,}330\ (1195.6 - 192.17) + 20{,}313\ (173.83)}{16{,}452 \times 136{,}544} \times 100 = 90.7$$

V. OBSERVATIONS (Information Prepared by Testing Agent)

A. The boiler performance test was conducted on _____(Date)_____ and _____(Date)_____, in accordance with the Funding Agency's standard boiler system testing procedures. The primary interest of the test was to determine the ability of the boiler system components furnished and installed under Project No. D.G.S. _____, to satisfy the requirements of the system under normal institutional steam demand. No. 2 fuel oil was burned for the entire ninety-six (96) hour test.

B. A capacity test of approximately one (1) hour duration was run. Difficulty was experienced at peak of _____ lbs. per hour. The lack of sufficient quantity of boiler feedwater resulted in this limitation of capacity.

C. The ninety-six (96) hour test was started at 10:00 A.M. on ____(Date)_____, and ended at 10:00 A.M. on _____(Date)_____. No difficulties were encountered other than the limitation as detailed in Paragraph B.

D. The calculated overall boiler efficiency was 90.7%. This obviously high calculated efficiency is believed related to: (1) the steam flow recorder calibration factor and need to change orifice size and (2) an oil flow meter range below that recommended by the meter manufacturer.

E. Difficulty was experienced in feeding the boiler at near peak conditions while using the existing Funding Agency boiler feedwater system. Peak boiler steam capacity was not obtained.

F. The smoke density of combustion gases was satisfactory and in compliance with DEP regulations.

G. The boiler water chemical control was not satisfactory. Concentrations exceeded recommended control limits throughout the test.

H. The boiler chemical feed system failed on the third day of the test due to cutout of electrical overload in pump motor. Piping restrictions would cause such a condition.

I. The installation, operation and performance of the system components were satisfactory except as follows:

- ❖ Funnel drain to discharge overflow from injector was inadequately sized resulting in flooding boiler room floor. Drain piping size should be increased.

SAMPLE

- ❖ The orifice related to the Bailey steam flow recorder should be changed so as to have the recorded flow read direct without correction factor.

VI. SUMMARY (Information Prepared by Testing Agency)

A. The results of the test were satisfactory with the exception of items listed under VI above. Those items considered to be the responsibility of the Mechanical Contractor should be corrected promptly. Other items of a design nature are offered for consideration by the Authority. Some items are the responsibility of the Funding Agency. All safety controls and lockout devices were tested and found to be satisfactory.

VII. RECOMMENDATIONS (Provided by Design Engineer)

- ❖ Shall verify test results are proper.
- ❖ Shall comment as to action to be taken regarding any noted deficiencies, if any.
- ❖ Shall recommend acceptance or qualified rejection of boiler and provide action to be taken.
- ❖ For coal fired boilers, the Contractor shall obtain from DEP, Bureau of Air Quality Management 'Certification to Operate'. A copy shall be included in report.

VIII. ATTACHMENTS

A. Data sheets, Boiler System Test (for each test day)

B. Steam Flow Recorder Charts (for each test day)

C. Fuel Analysis

D. List of Representatives in Attendance (for each test day)

E. Copy of 'Certificate to Operate'

SAMPLE

SAMPLE ELECTRICAL PANEL SCHEDULE

PANEL NAME:	PANELBOARD "S"	NO. OF POLES:	30
LOCATION:	STORAGE	TYPE:	NQOD
VOLTAGE:	120 / 208V, 3 PHASE, 4 WIRE	BRACING:	10 KAIC SYM
AMPACITY:	100 AMP	MAINS:	100 M.L.O.

LOAD SERVED	COND.	GND.	WIRE SIZE	WIRE NO.	AMPS	POLES	POLE NO.	KW PER PHASE A	KW PER PHASE B	KW PER PHASE C	POLE NO.	POLES	AMPS	WIRE NO.	WIRE SIZE	GND.	COND.	LOAD SERVED
							1	1.0			2							
AHU-2	3/4	10	10	3	20	3	3		1.0		4	3	20	2	12	12	3/4	AHU-1
							5			0.8	6							
EC-1	3/4	12	12	2	20	1	7	1.0			8	1	20	2	12	12	3/4	EC-2
EC-3	3/4	12	12	2	20	1	9		5.5		10	1	20	2	12	12	3/4	EC-4
EXTERIOR RECEPTACLE	3/4	12	12	2	20	1	11			5.5	12	1	20	2	12	12	3/4	CHILLER HEAT TAPE
RECEPTACLES	3/4	12	12	2	20	1	13	5.5			14	1	20	2	12	12	3/4	RECEPTACLES
FOLDING DOOR POWER	3/4	12	12	2	20	1	15		0		16	1	20	2	12	12	3/4	GARAGE DOOR POWER
CLOCK POWER/LIGHT	3/4	12	12	2	20	1	17		1.0	0	18	1	20	2	12	12	3/4	PUMPS CP-2, CP-3
CANOPY LETTERS	3/4	12	12	2	20	1	19	0		0.8	20	1	20	2	12	12	3/4	EXT. LIGHT CONTROL
RECEPTACLES	3/4	12	12	2	20	1	21	1.2			22	1	20	2	12	12	3/4	RECEPTACLES
RECEPTACLES	3/4	12	12	2	20	1	23		1.2		24	1	20	2	12	12	3/4	RECEPTACLES
RECEPTACLES	3/4	12	12	2	20	1	25			1.2	26	1	20	2	12	12	3/4	RECEPTACLES
RECEPTACLES	3/4	12	12	2	20	1	27	0.8			28	1	20	2	12	12	3/4	RECEPTACLES
RECEPTACLES	3/4	12	12	2	20	1	29		5.5		30	1	20					SPARE
BOOKSTORE TRACK	3/4	12	12	2	20	1	31			5.5	32	1	20	2	12	12	3/4	BOOKSTORE TRACK
BOOKSTORE TRACK	3/4	12	12	2	20	1	33	5.5			34	1	20					SPARE
BOOKSTORE TRACK	3/4	12	12	2	20	1	35		0		36	1	20	2	12	12	3/4	LOBBY DISPLAY TRACK
LOBBY DISPLAY TRACK	3/4	12	12	2	20	1	37			0	38	1	20	2	12	12	3/4	LOBBY DISPLAY TRACK
LOBBY DISPLAY TRACK	3/4	12	12	2	20	1	39	0			40	1	20					SPARE
SPARE					20	1	41		0		42	1	20					SPARE
TOTAL KILOWATTS PER PHASE								7.3	6.5	6.3								
								2.0	1.4	1.0								

TOTAL A PHASE KILOWATTS =	9.0	TOTAL A PHASE AMPS =	75
TOTAL B PHASE KILOWATTS =	7.9	TOTAL B PHASE AMPS =	66
TOTAL C PHASE KILOWATTS =	7.3	TOTAL C PHASE AMPS =	61
TOTAL 3 PHASE KILOWATTS =	24.2	TOTAL 3 PHASE AMPS =	67

FUNDING AGENCY DESIGN SUBMISSION APPROVAL FORM

Project Number: _____ Phase _____ Part _____ Date: _____

Project Title: _____

_____

The _____ has completed its review of the Construction Document Submission on the Small GESA Project dated _____, for the above-referenced Project, and hereby accepts and approves the design of the project with comments, if any attached to this sheet

APPROVED BY: _____

Funding Agency Representative Date

_____

Title

cc: Project Coordinator

COMMONWEALTH OF PENNSYLVANIA
DEPARTMENT OF GENERAL SERVICES
HARRISBURG

April 18, 2007

Bureau of Occupational & Industrial Safety
UCC Plans Review Division
7th and Forster Street
Harrisburg, PA 17121
Attn: Mr. Ron Seiler

Re: Special Inspections

Dear Mr. Seiler:

Thank you for meeting with Ron Blauch and Dwight Herrmann on April 12th to discuss Special Inspections. We want to reassure you that we shall continue to demand of our Professionals full compliance with the Code, leading up to the final execution of the Special Inspections and Observations Statement indicating compliance with the approved plans and specifications and all applicable provisions of the UCC.

As discussed, we have summarized Special Inspections items appearing in the 2006 edition of the International Building Code for which we would like clarification of acceptable practice. We propose for your approval the following:

Table 1704.3 Item 2.b Inspection of bolt tightening for slip-critical Connections
If Direct Tension Indicator Washers or Twist-Off bolts or other systems providing visual verification of proper tightening are used, continuous inspection of bolt tightening is not required.

Table 1704.3 Item 5.a.1-3 Inspection of groove and fillet welds
If Liquid Penetrant, Magnetic Particle, Ultrasonic Contact, or Radiographic Examination is performed on fifteen (15) percent of critical welds, continuous inspection of the welding process is not required.

Table 1704.4 Item 3 Inspect embedded bolts where allowable loads have been increased per Para 1912.5
Continuous inspection is interpreted to mean inspection of all installed bolts prior to placing concrete.

Table 1704.4 Item 5 Making cylinders, performing slump and air tests and recording temperature of concrete
Qualified Contractor personnel, with oversight by the Special Inspector, may make cylinders; perform slump and air tests and record concrete temperature.

Table 1704.4 Item 6 Inspection of concrete placement
Inspection of every concrete pour is not mandatory, providing the inspector exercises oversight and approves application techniques. Shotcrete placement is to be continuously inspected.

Table 1704l.5.1 Item 4 Inspection of grout and rebar placement in CMU
Continuous inspection of CMU grouting is not required if all grouted cores are marked and twenty (20) percent of the core columns are examined with a rebar locator and ultrasound or drilling to verify grout placement.

Bureau of Engineering & Architecture
Room 203, 18th & Herr Streets, Harrisburg, PA 17125
Phone (717) 787-3709 Fax (717) 772-2036

Table 1704.5 Item 4 Test compaction of controlled fill
The Contractor's independent Quality Control Agent may perform compaction tests under the oversight of the Special Inspector, providing the Special Inspector approves all results and operating procedures and performs random independent check tests.

It is our intent to distribute our final understanding to all parties involved in design or construction of Commonwealth projects who are involved with Special Inspections.

Sincerely,

Gary R. Taylor, P.E.
Director
Bureau of Engineering & Architecture

xc: Tom Rados
Ron Blauch
Dwight Herrmann
Directors File
Central File

Bureau of Engineering & Architecture
Room 203, 18th & Herr Streets, Harrisburg, PA 17125
Phone (717) 787-3709 Fax (717) 772-2036

LABOR & INDUSTRY

BUREAU OF OCCUPATIONAL AND INDUSTRIAL SAFETY
HARRISBURG, PA 17120

717-787-3806 Fax: 717-783-5002 www.dli.state.pa.us

May 07, 2007

Gary R. Taylor, P.E.
Director
Bureau of Engineering & Architecture
Room 203
18th & Herr Streets
Harrisburg, Pa. 17125

Re: Special Inspections

Dear Mr. Taylor,

Please be informed that upon a review of the Bureau of Engineering & Architecture's Special Inspection summary, submitted to this Department on April 18, 2007, we find no opposition to your special inspection program as presented.

It is our opinion that your inspection and test program, as summarized, meets both the spirit and the intent of the 2006 International Building Code chapter 17. However, be advised, that thru the adoption of future triennial code editions, we may have to revisit this matter if the testing and inspection requirements were to change.

If I can be of any further assistance please do not hesitate to contact me at 717-787-2525 of email at rseiler@state.pa.us.

Sincerely,

Ronald Seiler BCO
Chief
Buildings Plan Review Division

Cc: Edward Leister
File

Department of Conservation & Natural Resources

PROTOCOL REGARDING
ASBESTOS, LEAD, PCB'S/MERCURY,
RADON AND OTHER HAZARDOUS MATERIALS

APPENDIX K

Energy Use Data

DHS –Selinsgrove Center

Facility Details
Agency: DHS
Facility: Selinsgrove Center
Location Code:

Account Details
Company: PPL Utilities
Rate Class: LP-4

Service Address
SELINSGROVE CENTER
1000 ROUTE 522

Billing Address
SELINSGROVE CENTER
OFC COMPT OP/BUR OF PYBL SVC

Bill Date	22 Jul 2015
Read Date	20 Jul 2015
Due Date	24 Aug 2015
Previous Read Date	18 Jun 2015
Next Read Date	19 Aug 2015

Charges

Charge Type	Description	Quantity		Rate	Cost
ACT 129 Charge	ACT129 COMPLIANCE RIDER	1,145.00	KW	$0.80000	$916.00
Customer Charge	DISTRIBUTION: CUSTOMER CHARGE	1.00		$169.80000	$169.80
Distribution	COMPETITIVE ENHANCEMENT RIDER	1.00		$0.04000	$0.04
Distribution	STORM DAMAGE RECOVERY RIDER	1,135.00	KW	$0.02400	$27.24
Distribution	SYSTEM IMPROVEMENT CHARGE	1.00		$0.04510	$159.12
Distribution Charge	DISTRIBUTION:	1,135.00	KW	$2.12700	$2,414.15
Smart Meter Charge	SMART METER RIDER	1.00		$0.89000	$0.89
STAS	STAS				($4.90)
Supplier	Energy 613,800 kWh at $0.07045				$43,242.21

Usage

Quantity	Type	Details
237,600.00	KWH	93397215
376,200.00	KWH	93397216
1,135.00	KW Demand	

MeterReads

ReadDate	MeterNumber	Multiplier	Quantity
7/20/2015 12:00:00 AM	93397215	1800	15399
7/20/2015 12:00:00 AM	93397216	1800	11534

TALEN ENERGY

SERVICE ADDRESS:
SELINSGROVE CENTER
1000 ROUTE 522
SELINSGROVE PA 17870

BILLING PERIOD
Oct 1, 2015 to Oct 31, 2015

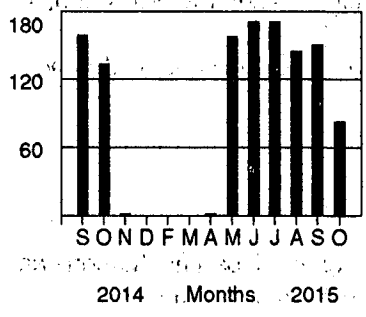
BILL ACCOUNT NUMBER:
00396-85008

Pay This Amount

AMOUNT DUE
$7,054.11
DUE DATE:
December 9, 2015

Questions About Your Bill?	Phone	Online	Email
	1-800-281-2000	www.talenenergy.com	CustomerCare@talenenergy.com

MMBtu - Average Per Day



This graph helps you better understand your gas use.

ACCOUNT BALANCE AS OF NOV 6, 2015

Previous Balance	$26,652.76
Payments Received - THANK YOU	($26,652.76)
Balance Remaining	$0.00
Current Charges	$7,054.11
Total Amount Due	**$7,054.11**

SUMMARY OF CURRENT CHARGES

Total Talen Energy Marketing, LLC Charges	$7,054.11
Total Current Charges	**$7,054.11**

IMPORTANT MESSAGES

Return this part to address below with a check payable to Talen Energy Marketing, LLC

Your Bill Account Number
00396-85008

December						
S	M	T	W	T	F	S
		1	2	3	4	5
6	7	8	9	10	11	12
13	14	15	16	17	18	19
20	21	22	23	24	25	26
27	28	29	30	31		

Due Date

Amount Due
$7,054.11

Amount Enclosed

SELINSGROVE CENTER
COMM OF PA - UTILITY INVOICE
21SELNSGRV
PO BOX 69182
HARRISBURG PA 17106

Talen Energy Marketing, LLC
P.O. BOX 9001660
Louisville, KY 40290-1660

30 21000705411100070541 11 0039685008

BILL ACCOUNT NUMBER
00396-85008

UNDERSTANDING YOUR BILL

Adjustments - Changes or corrections made to your account since last bill.

Btu - One (1) British thermal unit, the amount of heat required to raise the temperature of one (1) pound of water one(1) degree Fahrenheit at sixty (60) degrees Fahrenheit.

Commodity Charge - A fixed volumetric (unit) charge for the physical gas commodity at the specified delivery point. The commodity charge may include bundled components such as basis, variable cost, NYMEX triggers and/or NYMEX contract settlement as outlined in your contract.

Delivery Point - Designates the point where natural gas is transferred from Seller to Buyer. The LDC citygate is the most common delivery point for retail customers.

Distribution Company (LDC) Charges - Passed through natural gas utility charges.

Gas Day - A period of twenty-four (24) consecutive hours, beginning at 9 a.m. Central Time.

Incremental (Purchase/Sale) - Method of contracting for short-term spot supply to cover unexpected load fluctuations as outlined in your contract. Incremental transactions are usually priced at a specified market index plus a premium.

Late Payment Charge - A late payment of 1.500% per month will be applied to any unpaid balance if payment is not received by the due date.

Mcf - A measure of how much gas you use. MCF stands for one thousand cubic feet.

MMBtu or Dekatherm (Dth) - The quantity of heat energy which is equivalent to one (1) million (1,000,000) Btu. Most commonly, 1 Mcf = 1 Dth or MMBtu with a Btu conversion value of 1.000.

Reservation Charge (Demand Charge) - A fixed monthly charge for the reservation of capacity (space) on a pipeline path

Swing (Tolerance) - Allowable monthly/daily variance from customer's actual consumption and planned contract volume (expressed in %). Consumption falling outside the tolerance may be priced incrementally at a specified index.

State & Local Sales Taxes - Pennsylvania Department of Revenue requires Talen Energy Marketing, LLC to apply a 6% sales tax on gas used for business, commercial, or industrial purposes. Specific exemptions may be granted by the Pennsylvania Department of Revenue. Talen Energy Marketing, LLC applies sales tax for gas purchases until official documentation is provided by the customer to Talen Energy Marketing, LLC.

* Mail payments to: Talen Energy Marketing, LLC, P.O. BOX 9001660, Louisville, KY, 40290-1660.

* Mail notes and letters in a separate envelope to: Talen Energy Marketing, LLC, P.O. Box 25225, Lehigh Valley, PA 18002-5225.

* Fed. I.D. .23-2974252

* PUC License No. . A-125153

TALEN ENERGY

SERVICE ADDRESS:
SELINSGROVE CENTER
1000 ROUTE 522
SELINSGROVE PA 17870

BILLING PERIOD
Oct 1, 2015 to Oct 31, 2015

BILL ACCOUNT NUMBER:
00396-85008

Pay This Amount
AMOUNT DUE
$7,054.11
DUE DATE:
December 9, 2015

Questions About Your Bill?	Phone	Online	Email
	1-800-281-2000	www.talenenergy.com	CustomerCare@talenenergy.com

For natural gas emergencies, call your local distribution company at:

UGI Penn Natural Gas
One UGI Center
Wilkes-Barre PA 18711-0601
1-800-432-8017

Account Number:
922200168311

Prior Balance	**$0.00**
Charges for Billing Period for Oct 1, 2015 - Oct 31, 2015	
Commodity	
2,115 MMBtu's @ $2.564 (Basis $0.001 + NYMEX LDS $2.563)	5,422.86

Incremental Charge	
376 MMBtu's @ $2.318	871.64

NYMEX Trigger	
481 MMBtu's @ $0.473 (Trigger $3.036 - NYMEX LDS $2.563)	227.51
1,442 MMBtu's @ $0.369 (Trigger $2.932 - NYMEX LDS $2.563)	532.10

Total Delivered MMBtu's - 2,491	
Total Charges For This Billing Period	**$7,054.11**
Total Amount Due	**$7,054.11**

PPL Electric Utilities

8 Pay/Manage your account online at pplelectric.com

) Questions? Please call our Business Accounts help line by Jan 22. 1-888-220-9991 Opt 4 businessaccounts@pplweb.com

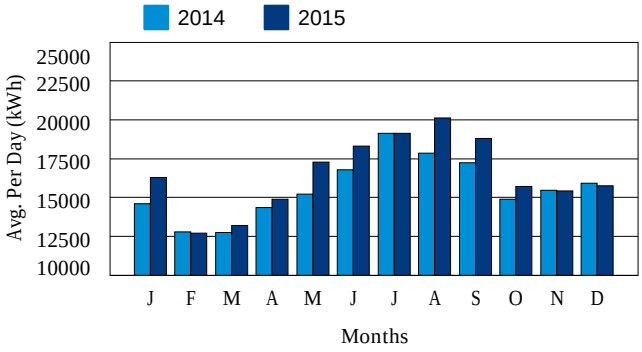
Bill Acct. No.	Due Date	Amount Due
66740-52009	Jan 22, 2016	$36,395.41

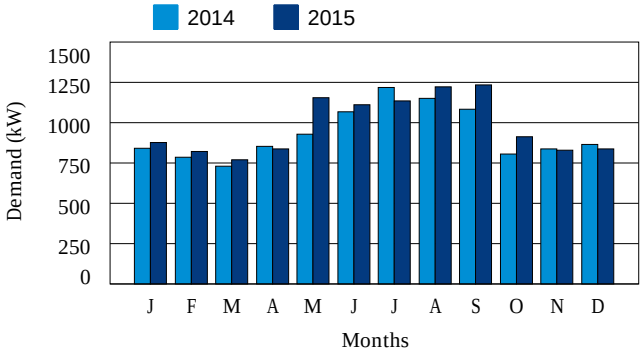
Your Electric Usage Profile

Service to:
SELINSGROVE CENTER
HCF
1000 ROUTE 522
SELINSGROVE, PA 17870

Your next meter reading is on or about Jan 20, 2016.

This section helps you understand your year-to-year electric use by month. Meter readings are actual unless otherwise noted.





Billing Summary (Billing details on back)

Balance as of Dec 22, 2015	$0.00
Charges:	
Total Distribution Charges	$3,044.38
Total Generation & Transmission Charges	$33,351.03
Total Current Charges	$36,395.41
Amount Due By Jan 22, 2016	$36,395.41
Account Balance	$36,395.41

How To Shop For Electricity

You can choose the company that supplies your electricity.
Visit papowerswitch.com or www.oca.state.pa.us for supplier offers.
If you are shopping, know your contract expiration date.

Here's the information you need to shop:
Bill Account Number: 66740-52009 Rate Schedule: LP4
Current Supplier: Anthracite PWR & LT

Manage Your Account

Pay Your Bill		Online Options (pplectric.com)
Online:	Visit pplelectric.com	- Report an outage/check outage status
Phone:	Call 1-800-342-5775	- Make a payment, view your bill and usage history.
Mail:	Use envelope provided	- Sign up for alerts.
ABP:	Automatic Bill Pay (see back of stub to enroll)	- Enroll in paperless billing, automatic bill pay, budget billing.
Card:	MasterCard, Discover, Visa or debit, call 1-800-672-2413 (service fee applies)	- View your rate schedule at: pplelectric.com/rates

Correspondence:
Customer Services, 827 Hausman Road, Allentown, PA 18104-9392

Other important information on the back of this bill ‡

PPL Electric Utilities

Return this stub in the envelope provided with a check payable to PPL Electric Utilities.

Sign up for Automatic Bill Pay on the back of this bill stub.

Bill Acct. No.	Due Date	Amount Due
66740-52009	Jan 22, 2016	$36,395.41

Amount Enclosed:

SELINSGROVE CENTER
HCF
OFC COMPT OP/BUR OF PYBL SVC
555 WALNUT ST 9TH FL
HARRISBURG, PA 17101

PPL ELECTRIC UTILITIES
P.O. BOX 25222
LEHIGH VALLEY, PA 18002-5222

1 88003639541800363954l5 6674052009

Your Message Center

- ü Peak Demand, 838.08 kW.
- ü Before digging around your home or property, you should always call the state's One Call notification system to locate any underground utility lines. You can do this by simply dialing 811, which will connect you to the One Call system. Be safe and call 811 before you dig.
- ü Save postage and late charges - sign up for Automated Bill Payment.

Billing Details - (Bill Acct. 66740-52009)

Previous Balance	$35,750.08	
Payment Received Dec 16, 2015 - Thank You!	-$35,750.08	
Balance as of Dec 22, 2015		$0.00
Charges for - PPL Electric Utilities		
General Service Rate: LP4 for Nov 18 - Dec 18		
Distribution Charge:		
Customer Charge	169.80	
838.0 kW at $2.12700477 per kW	1,782.43	
Smart Meter Rider	14.89	
Competitive Enhancement Rider	0.04	
Storm Damage Expense Rider	20.11	
System Improvement Charge at 5.00%	145.16	
Act 129 Compliance Rider	916.00	
PA Tax Adj Surcharge at -0.13300000%	-4.05	
Total Distribution Charges		$3,044.38
Total Generation & Transmission Charges (see Supplier Billing Details page)		$33,351.03
Amount Due By Jan 22, 2016		$36,395.41
Account Balance		$36,395.41

General Information

Generation prices and charges are set by the electric generation supplier you have chosen. The Public Utility Commission regulates distribution rates and services. The Federal Energy Regulatory Commission regulates transmission prices and services.

PPL Electric Utilities uses about $42.92 of this bill to pay state taxes and about $179.61 is used to pay the PA Gross Receipts Tax.

kWh Use By Meter

Reading Dates Previous/Present		Meter Number	Meter Constant	Meter Reading Previous/Present		Kilowatt Hours
Nov 18	Dec 18	93397216	1800	12263	12421	284400
Nov 18	Dec 18	93397215	1800	15849	15954	189000
Days Billed: 30					Total	473400

Understanding Your Bill

Act 129 Compliance Rider - Monthly charge to recover costs for energy efficiency and conservation programs approved by the PUC.

Storm Damage Expense Rider - Monthly charge to recover certain costs to make repairs after major storms.

Competitive Enhancement Rider - Monthly charge to recover costs to support shopping for retail electricity supply.

Customer Charge - Monthly charge to recover costs of billing, meters and equipment.

Distribution Charge - Monthly charge to recover costs of local equipment used to deliver electricity from high-voltage transmission lines (see Transmission Charge) and safely step down voltage for use in your home or business.

Smart Meter Rider - Monthly charge to recover costs associated with the smart meter programs approved by the PUC.

System Improvement Charge - Monthly charge to recover costs for improving, repairing and replacing equipment that delivers electricity to your home or business.

kWh (Kilowatt-hour) - A measure of how much electricity your household uses. One kilowatt-hour equals the amount of electricity used by ten 100-watt lights left on for one hour.

State Tax Adjustment Surcharge - Monthly charge or credit to reflect changes in various state taxes. The surcharge may vary by bill component.

Type(s) of Meter Readings:
Actual - Measures your monthly electricity use based on an actual reading.

*Federal I.D. 23-0959590

Enroll in Automatic Bill Pay (ABP) and your monthly electric payment will be automatically deducted from your bank checking account. To enroll, sign and date this form and return with your check payment (voided check not required). Money orders, cashier and foreign checks do not qualify for enrollment.

I authorize PPL Electric Utilities to automatically deduct from the checking account as shown on my enclosed check, all future payments for the PPL Electric Utility bill account number listed on this payment stub. I will notify PPL Electric Utilities if I decide to cancel this authorization.

Checking Account holder signature _____ Date _____

NOTE: To enroll using a savings account for ABP, visit the billing and payments section at www.pplelectric.com/my-account

PPL Electric Utilities

Supplier Billing Details

Bill Acct. No.	Due Date	Amount Due
66740-52009	Jan 22, 2016	$36,395.41

These are the generation and transmission charges from your supplier(s). If you have questions, please contact the supplier that served you during that period.

ap&l Reclaiming the Past to Power the Future

For questions on these charges, please contact this supplier at:

) **Phone:**
1-888-216-6841

* Anthracite PWR & LT
Customer Services
PO BOX 25225
LEHIGH VALLEY, PA 18002 - 5225

Charges for - Anthracite PWR & LT
Generation & Transmission Charges for Nov 18 - Dec 18

Energy 473,400 kWh at $0.07045	33,351.03	
Total Anthracite PWR & LT Charges		$33,351.03

Total Generation & Transmission Charges: $33,351.03

Energy to do more®

Billing Summary for Service to:
COMMONWEALTH OF PA
21SELNSGRV
1000 ROUTE 522
SELINSGROVE PA 17870

Rate Classification:
Delivery Service-Comm Heating
Billing Period:
10/01/2015 to 11/01/2015 (31 days)
Questions?
Call 800-276-2722 or write to UGI at
PO BOX 13009
Reading, PA 19612-3009

Your current UGI charges include
State taxes totaling about $ 34.80.
Fed. I. D. 56-2557139

Past Bill Information - UGI PNG

The account balance on last bill was	$ 15,235.49
Thank you for your payment of	-15,235.49
Late Charge	380.03
Balance as of 11/04/2015	380.03

Customer Number
922200168605

Current Bill Information - UGI PNG

Customer Charge	174.91
Distribution Charges	3,872.63
System Improvement Charge	129.52
No Notice Service	338.80
Monthly Balancing Service	19.16
PA State Tax Surcharge	-15.18
Total Current Charges - UGI PNG	4,519.84
UGI PNG charges owed this bill	**$ 4,899.87**
Total Amount Due, Please Pay by Due Date (12/04/2015)	**$ 4,899.87**

Billable Usage Information	CCF Used		MCF Used
	23948	=	2394.8

Messages from UGI

Please call 866-615-0571 if you have any questions regarding this bill.

Effective OCT 1, 2015, the System Improvement Charge increased from 1.92% to 3.20%.

********** WORKSHEET CONTROL #: 10254579 **********

Help prevent pipeline damage, accidents and service disruptions. Call 811 before you dig.

If you pay at a payment agent please take your entire bill. Make check payable to UGI PNG.
Keep this part for your records. **Important information is on the back of this bill.**

Energy to do more®

UGI Penn Natural Gas, Inc.
PO Box 15533
Wilmington, DE 19886-5533

Customer Number
922200168605

Please pay by the due date to avoid the late charge. Please return this portion with your payment.

DS

Due Date
December 4, 2015

Amount Due
$ 4,899.87

With Late Charge
$ 5,144.86

AB 01 000173 80023 B 2 D

COMMONWEALTH OF PA
21SELNSGRV
PO BOX 69182
HARRISBURG PA 17106-9182

990

9222001686051204020048998702449900000000000000000000007

GENERAL INFORMATION

Bill Questions?

If you have a question about the bill, please call UGI PNG before the bill's due date. UGI PNG's phone number, your due date and billing rate can be found on the front of the bill. A detailed rate schedule can be requested. You may also contact UGI PNG at our web site, www.ugi.com.

Hearing or speech impaired customers, TDD only, call 1-800-654-5988. To discuss an overdue account, call 1-800-276-2722, weekdays 8AM to 5PM.

Bill Payments

Paying your bill by mail is convenient. Simply use the envelope provided with your bill. You may also pay at one of our payment centers. A list of the payment centers is available upon request. UGI PNG offers a plan where your bank deducts your payment automatically from your checking or savings account. Please call us if you are interested in this service. To pay by phone, please call 1-877-503-2956

Need Your Natural Gas Service Turned Off?

To ensure that your natural gas service is turned off on the day that you want, please contact UGI PNG seven days in advance.

Third Party Notification - Budget Billing Plan - Operation Share - Customer Assistance Program (CAP) Call us to discuss these UGI PNG Programs.

EXPLANATION OF TERMS

Ccf -100 cubic feet of gas. **Mcf** - 1,000 cubic feet of gas. This is a measure of gas usage.

Commodity Charges -The amount billed each month for gas supply costs which is sold by volume (Ccf or Mcf). Inclusive of costs contained in the Price to Compare.

Customer Charge - A monthly charge to cover natural gas distribution company (NGDC) costs such as maintaining the gas lines, meter reading and billing.

Distribution Charges - The charges for the delivery of natural gas from the point of receipt into the NGDC's system.

Estimated Bill - A bill based on your previous use and weather conditions. UGI PNG may need to estimate your bill due to extreme weather conditions, emergencies, or any other circumstances that prevent UGI PNG from taking a meter reading.

Late Payment Charge - Fee that UGI PNG charges if you do not pay your bill on time. It is a fixed monthly percentage of the amount owed.

Price to Compare - The dollar amount charged by the NGDC, used by consumers to compare prices and potential savings with other natural gas suppliers.

State Tax Surcharges - Charges approved by the PUC. It is a special charge to recover state taxes UGI PNG pays.

System Improvement Charge - A charge used to recover costs for repairing, improving or replacing distribution facilities in order to provide safe, reliable and efficient service.

EMERGENCIES: to report a **Gas Leak**, call **1-800-276-2722, 24 hours a day**

Date	Anthracite tons	Anthracite cost	Gas mcf	Gas cost	Misc Oil gal	Misc Oil cost
10/01/12	304	$46,813	1,930	$11,455	0	$0
11/01/12	686	$105,644	0	$0	512	$1,827
12/01/12	720	$110,880	0	$0	0	$0
01/01/13	895	$137,830	0	$0	517	$1,739
02/01/13	818	$125,972	0	$0	520	$1,951
03/01/13	795	$122,430	0	$0	526	$1,867
04/01/13	490	$74,970	0	$0	0	$0
05/01/13	74	$11,322	4,663	$29,944	0	$0
06/01/13	0	$0	4,609	$26,532	0	$0
07/01/13	268	$25,773	0	$0	0	$0
08/01/13	268	$25,775	0	$0	0	$0
09/01/13	281	$27,839	0	$0	0	$0
10/01/13	331	$31,839	1,472	$7,856	0	$0
11/01/13	593	$57,041	17	$606	514	$1,773
12/01/13	799	$77,096	0	$0	505	$1,702
01/01/14	937	$90,411	0	$0	624	$2,119
02/01/14	845	$82,548	0	$0	672	$2,414
03/01/14	815	$79,373	0	$0	747	$2,433
04/01/14	507	$48,920	1,428	$614	0	$0
05/01/14	63	$6,079	4,618	$29,831	250	$799
06/01/14	0	$0	4,543	$29,449	0	$0
07/01/14	0	$0	4,562	$28,370	0	$0
08/01/14	0	$0	4,444	$26,099	0	$0
09/01/14	0	$0	4,629	$27,330	0	$0
10/01/14	158	$15,010	3,753	$19,391	0	$0
11/01/14	551	$52,345	44	$756	418	$1,142
12/01/14	726	$68,970	0	$0	573	$1,254
01/01/15	884	$82,115	0	$0	762	$1,482
02/01/15	886	$81,769	0	$0	879	$2,032
03/01/15	778	$72,969	0	$0	455	$860
04/01/15	509	$47,128	0	$0	0	$0
05/01/15	88	$8,201	4,374	$22,267	244	$522
06/01/15	0	$0	4,922	$22,893	0	$0
07/01/15	0	$0	4,851	$23,647	0	$0
08/01/15	0	$0	4,297	$20,622	0	$0
09/01/15	0	$0	891	$21,267	0	$0

Electricity KW	Electricity kWh	Electricity cost	Water mgal	Water cost	Sewage mgal	Sewage cost
880	462,760	$42,969	2,949	$11,393	2,476	$0
870	447,480	$41,863	3,453	$11,444	1,770	$0
838	461,480	$42,953	3,666	$5,120	2,547	$61,821
765	417,440	$39,561	3,518	$6,348	2,126	$0
814	402,520	$33,142	3,591	$6,332	3,235	$0
807	369,000	$30,711	4,039	$7,285	2,460	$61,821
953	442,400	$30,571	3,581	$6,815	2,817	$0
922	512,480	$41,987	3,443	$9,603	2,213	$0
1,109	509,480	$41,000	3,573	$5,354	2,618	$61,821
1,267	595,800	$48,520	3,113	$7,650	2,505	$0
1,281	567,080	$48,052	3,666	$7,658	1,571	$0
1,281	536,400	$44,846	3,350	$5,223	1,425	$61,821
939	480,760	$42,400	3,069	$7,820	1,993	$0
865	481,960	$44,381	3,600	$9,435	2,160	$0
856	457,200	$43,062	4,204	$8,397	3,154	$61,821
852	486,880	$14,309	4,343	$5,247	3,141	$0
797	390,000	$28,957	4,311	$8,475	2,791	$0
768	362,680	$29,593	4,571	$8,139	2,466	$61,821
890	479,760	$38,317	3,839	$5,248	2,947	$0
965	444,880	$35,893	3,735	$10,189	3,559	$0
1,097	504,080	$40,370	3,502	$10,584	2,292	$61,821
1,248	613,880	$48,996	3,396	$7,341	2,184	$0
1,152	518,400	$41,747	3,688	$7,577	2,107	$0
1,115	518,800	$48,227	3,230	$7,786	2,184	$61,821
812	477,320	$41,285	3,587	$9,668	2,057	$0
874	452,320	$43,002	3,932	$7,693	1,674	$0
904	482,640	$45,370	4,082	$7,674	2,584	$61,821
886	542,920	$49,491	4,456	$5,471	2,770	$0
862	374,040	$16,468	4,107	$9,040	2,099	$0
781	388,200	$37,099	4,796	$7,453	3,295	$61,821
875	480,120	$43,852	3,753	$13,709	2,882	$0
1,161	503,080	$45,998	4,276	$10,966	2,010	$0
1,118	550,880	$48,791	3,164	$13,733	1,671	$61,821
1,135	613,800	$53,038	2,085	$7,574	2,684	$0
1,248	604,800	$52,793	1,762	$5,759	1,308	$0
1,243	565,360	$50,053	2,112	$9,171	812	$61,821

MONTHLY UTILITIES USAGE REPORT

Facility	Selinsgrove Center	Date (Month and Year of Report)	Jan-14
Total Facility Square Feet	987,572	Total Vacant Square Feet *(DPW only)*	253,653
Total Facility Occupied Square Feet *(DPW only)*	707,652	Total Leased Square Feet *(DPW only)*	26,267
Residents: 267		Staff: 857	

BOILER PLANT DATA & COSTS

1. Boiler Operating Pressure	185 psig	4. Makeup %	23.87%
2. Average Feedwater Temp.	220 °F	5. Peak Steam	23,500
3. Makeup Water Used (lbs) ☐ If no meter, check here	3,258,438 lb	6. Degree Days	1353 HDD 0 CDD

Type of Coal ☑ Anthracite ☐ Bituminous

	Coal	Gas (or Purchased Steam)	Oil	Total
7. Steam Produced (or Purchased)	13,651,443 lb	0 lb	lb	13,651,443
8. Fuel Consumed	937 ton	0 mcf	gal	
9. Evaporation (col.7 ÷ col. 8)	7.28 lb/lb	#DIV/0! lb/mcuft	No Oil lb/gal	
10. Unit Fuel Cost	96.49 $/ton	#DIV/0! $/mcuft	$/gal	
11. Fuel (or Steam) Cost	90,411 $	512 $	No Oil $	$
12. Fuel (or Steam) Cost per mlb Steam	6.62 $/mlb	#DIV/0! $/mlb	No Oil $/mlb	$ 90,923

13. Parts Used

Miscellaneous Supplies	$ 22
Service Contracts ☐ If yearly, check here	$ 3,639
Repair Contracts ☐ If yearly, check here	$ 68
Wages & Salaries (Including Benefits)	$ 0
	$ 68,818
Sub Total	$ 163,470

OTHER DATA

14. Miscellaneous Fuels	Natural Gas (mcuft)	mcuft	$/mcuft	0 Cost	$
	Propane (mcuft) [gal x 0.0894=mcuft]	mcuft	$/mcuft	0 Cost	$
	Total Gas mcuft	0	Total Gas Cost		$ 0
	Oil (gal)	624 gal	$/gal	3.40 Cost	$ 2,119
15. Facility Electric	Generated	62,100 kWh			
	Total Purchased	486,880 kWh	Total Electric Cost		$ 14,309
	Billing Demand	852 KW	$/kWh		$ 0.029
	Load Factor	0.78 hr			
16. Sewage	Total Quantity Sewage ☐ If No Meter, check here 3,141 mgal		Cost of Sewage Plant Operation (Including wages & benefits)		$ 0
			Sewage Charges Paid to Municipal Authority		$ 0
		$/mgal 0	Total Sewage Cost		$ 0
18. Water	☐ If No Meter, check here	Total Used 4,343 mgal	$/mgal 1.21 Total		$ 5,247
				Grand Total	$ 185,145

17. Comments

#16 sewage paid quarterly.

Signature

Kolyn Kahley Date 4/25/14

Approved Date

Revised 2/19/07

MONTHLY UTILITIES USAGE REPORT

Facility	Selinsgrove Center	Date (Month and Year of Report)	Feb-14
Total Facility Square Feet	987,572	Total Vacant Square Feet *(DPW only)*	253,653
Total Facility Occupied Square Feet *(DPW only)*	707,652	Total Leased Square Feet *(DPW only)*	26,267
Residents:	264	Staff:	869

BOILER PLANT DATA & COSTS

1. Boiler Operating Pressure	185 psig	4. Makeup %	27.68%
2. Average Feedwater Temp.	220 °F	5. Peak Steam	21,500
3. Makeup Water Used (lbs) ☐ If no meter, check here	3,252,600 lb	6. Degree Days	1120 HDD 0 CDD

	Coal	Gas (or Purchased Steam)	Oil	Total
Type of Coal ☑ Anthracite ☐ Bituminous				
7. Steam Produced (or Purchased)	11,751,267 lb	0 lb	lb	11,751,267
8. Fuel Consumed	845 ton	0 mcf	gal	
9. Evaporation (col.7 ÷ col. 8)	6.95 lb/lb	#DIV/0! lb/mcuft	No Oil lb/gal	
10. Unit Fuel Cost	97.69 $/ton	#DIV/0! $/mcuft	$/gal	
11. Fuel (or Steam) Cost	82,548 $	512 $	No Oil $	$
12. Fuel (or Steam) Cost per mlb Steam	7.02 $/mlb	#DIV/0! $/mlb	No Oil $/mlb	$ 83,060

13. Parts Used		
Miscellaneous Supplies		$ 2,693
Service Contracts ☐ If yearly, check here		$ 3,232
Repair Contracts ☐ If yearly, check here		$ 73
Wages & Salaries (Including Benefits)		$ 0
		$ 67,018
	Sub Total	$ 156,076

OTHER DATA

14. Miscellaneous Fuels	Natural Gas (mcuft)	mcuft	$/mcuft 0 Cost		$
	Propane (mcuft) [gal x 0.0894=mcuft]	mcuft	$/mcuft 0 Cost		$
	Total Gas mcuft	0	Total Gas Cost		$ 0
	Oil (gal)	672 gal	$/gal 3.59 Cost		$ 2,414
15. Facility Electric	Generated	58,210 kWh			
	Total Purchased	390,000 kWh	Total Electric Cost		$ 28,957
	Billing Demand	797 KW	$/kWh		$ 0.074
	Load Factor	0.67 hr			
16. Sewage	Total Quantity Sewage ☐ If No Meter, check here	2,791 mgal	Cost of Sewage Plant Operation (Including wages & benefits)		$ 0
			Sewage Charges Paid to Municipal Authority		$ 0
			$/mgal 0	Total Sewage Cost	$ 0
17. Comments #16 sewage paid quarterly.	18. Water ☐ If No Meter, check here	Total Used 4,311 mgal	$/mgal 1.97 Total		$ 8,475
				Grand Total	$ 195,922

Signature: Kolyn Kahley Date: 5/8/14

Approved Date:

Revised 2/19/07

MONTHLY UTILITIES USAGE REPORT

Facility	Selinsgrove Center	Date (Month and Year of Report)	Mar-14
Total Facility Square Feet	987,572	Total Vacant Square Feet *(DPW only)*	253,653
Total Facility Occupied Square Feet *(DPW only)*	707,652	Total Leased Square Feet *(DPW only)*	26,267
Residents:	263	Staff:	869

BOILER PLANT DATA & COSTS

1. Boiler Operating Pressure	185 psig	4. Makeup %	24.64%
2. Average Feedwater Temp.	220 °F	5. Peak Steam	21,500
3. Makeup Water Used (lbs) ☐ If no meter, check here	2,830,596 lb	6. Degree Days	992 HDD 0 CDD

Type of Coal ☑ Anthracite ☐ Bituminous	Coal	Gas (or Purchased Steam)	Oil	Total
7. Steam Produced (or Purchased)	11,489,641 lb	0 lb	lb	11,489,641
8. Fuel Consumed	815 ton	0 mcf	gal	
9. Evaporation (col.7 ÷ col. 8)	7.05 lb/lb	#DIV/0! lb/mcuft	No Oil lb/gal	
10. Unit Fuel Cost	97.39 $/ton	#DIV/0! $/mcuft	$/gal	
11. Fuel (or Steam) Cost	79,373 $	512 $	No Oil $	$
12. Fuel (or Steam) Cost per mlb Steam	6.91 $/mlb	#DIV/0! $/mlb	No Oil $/mlb	$ 79,885

13. Parts Used		
Miscellaneous Supplies		$ 2,318
Service Contracts ☐ If yearly, check here		$ 4,235
Repair Contracts ☐ If yearly, check here		$ 85
Wages & Salaries (Including Benefits)		$ 0
		$ 67,919
	Sub Total	$ 154,442

OTHER DATA

14. Miscellaneous Fuels	Natural Gas (mcuft)	mcuft	$/mcuft 0 Cost		$
	Propane (mcuft) [gal x 0.0894=mcuft]	mcuft	$/mcuft 0 Cost		$
	Total Gas mcuft	0	Total Gas Cost		$ 0
	Oil (gal)	747 gal	$/gal 3.26 Cost		$ 2,433
15. Facility Electric	Generated	56,990 kWh			
	Total Purchased	362,680 kWh	Total Electric Cost		$ 29,593
	Billing Demand	768 KW	$/kWh		$ 0.082
	Load Factor	0.65 hr			
16. Sewage	Total Quantity Sewage ☐ If No Meter, check here 2,466 mgal		Cost of Sewage Plant Operation (Including wages & benefits)		$ 0
			Sewage Charges Paid to Municipal Authority		$ 61,821
		$/mgal 25.07	Total Sewage Cost		$ 61,821
17. Comments #16 sewage paid quarterly.	18. Water ☐ If No Meter, check here	Total Used 4,571 mgal	$/mgal 1.78 Total		$ 8,139
				Grand Total	$ 256,428

Signature
Kolyn Kahley Date 5/8/14

Approved Date

Revised 2/19/07

MONTHLY UTILITIES USAGE REPORT

Facility	Selinsgrove Center	Date (Month and Year of Report)	May-14
Total Facility Square Feet	987,572	Total Vacant Square Feet *(DPW only)*	253,653
Total Facility Occupied Square Feet *(DPW only)*	707,652	Total Leased Square Feet *(DPW only)*	26,267
Residents: 261		Staff: 859	

BOILER PLANT DATA & COSTS

1. Boiler Operating Pressure	185 psig	4. Makeup %	24.65%
2. Average Feedwater Temp.	220 °F	5. Peak Steam	10,500
3. Makeup Water Used (lbs) ☐ If no meter, check here	1,256,838 lb	6. Degree Days	129 HDD 55 CDD

Type of Coal ☑ Anthracite ☐ Bituminous	Coal	Gas (or Purchased Steam)	Oil	Total
7. Steam Produced (or Purchased)	903,426 lb	4,194,932 lb	lb	5,098,358
8. Fuel Consumed	63 ton	4,618 mcf	gal	
9. Evaporation (col.7 ÷ col. 8)	7.17 lb/lb	908 lb/mcuft	No Oil lb/gal	
10. Unit Fuel Cost	96.49 $/ton	6.46 $/mcuft	$/gal	
11. Fuel (or Steam) Cost	6,079 $	29,831 $	No Oil $	$
12. Fuel (or Steam) Cost per mlb Steam	6.73 $/mlb	7.11 $/mlb	No Oil $/mlb	$ 35,910

13. Parts Used		
Miscellaneous Supplies		$ 24,987
Service Contracts ☐ If yearly, check here		$ 266
Repair Contracts ☐ If yearly, check here		$ 51
Wages & Salaries (Including Benefits)		$ 0
		$ 99,700
	Sub Total	$ 160,914

OTHER DATA

14. Miscellaneous Fuels	Natural Gas (mcuft)	mcuft	$/mcuft 0	Cost	$
	Propane (mcuft) [gal x 0.0894=mcuft]	mcuft	$/mcuft 0	Cost	$
	Total Gas mcuft 0		Total Gas Cost		$ 0
	Oil (gal) 250	gal	$/gal 3.20	Cost	$ 799
15. Facility Electric	Generated 0	kWh			
	Total Purchased 444,880	kWh	Total Electric Cost		$ 35,893
	Billing Demand 965	KW	$/kWh		$ 0.081
	Load Factor 0.63	hr			
16. Sewage	Total Quantity Sewage ☐ If No Meter, check here 3,559 mgal		Cost of Sewage Plant Operation (Including wages & benefits)		$ 0
			Sewage Charges Paid to Municipal Authority		$ 0
			$/mgal 0 Total Sewage Cost		$ 0

17. Comments #16 sewage paid quarterly.	18. Water ☐ If No Meter, check here	Total Used 3,735 mgal	$/mgal 2.73 Total	$ 10,189
			Grand Total	$ 207,795
	Signature Kolyn Kahley		Date 8/5/14	
	Approved		Date	

Revised 2/19/07

MONTHLY UTILITIES USAGE REPORT

Facility	Selinsgrove Center	Date (Month and Year of Report)	Jul-14
Total Facility Square Feet	987,572	Total Vacant Square Feet *(DPW only)*	253,653
Total Facility Occupied Square Feet *(DPW only)*	707,652	Total Leased Square Feet *(DPW only)*	26,267
Residents: 255		Staff: 843	

BOILER PLANT DATA & COSTS

1. Boiler Operating Pressure	90 psig	4. Makeup %	22.79%
2. Average Feedwater Temp.	220 °F	5. Peak Steam	6,500
3. Makeup Water Used (lbs) ☐ If no meter, check here	922,404 lb	6. Degree Days	0 HDD 283 CDD

Type of Coal ☑ Anthracite ☐ Bituminous

	Coal	Gas (or Purchased Steam)	Oil	Total
7. Steam Produced (or Purchased)	0 lb	4,047,079 lb	lb	4,047,079
8. Fuel Consumed	0 ton	4,562 mcf	gal	
9. Evaporation (col.7 ÷ col. 8)	#DIV/0! lb/lb	887 lb/mcuft	No Oil lb/gal	
10. Unit Fuel Cost	0.00 $/ton	6.22 $/mcuft	$/gal	
11. Fuel (or Steam) Cost	0 $	28,370 $	No Oil $	$
12. Fuel (or Steam) Cost per mlb Steam	#DIV/0! $/mlb	7.01 $/mlb	No Oil $/mlb	$ 28,370

13. Parts Used		
Miscellaneous Supplies		$ 327
Service Contracts ☐ If yearly, check here		$ 4,755
Repair Contracts ☐ If yearly, check here		$ 0
Wages & Salaries (Including Benefits)		$ 0
		$ 62,666
	Sub Total	$ 96,118

OTHER DATA

14. Miscellaneous Fuels	Natural Gas (mcuft)	mcuft	$/mcuft 0	Cost	$
	Propane (mcuft) [gal x 0.0894=mcuft]	mcuft	$/mcuft 0	Cost	$
	Total Gas mcuft 0		Total Gas Cost		$ 0
	Oil (gal) 0	gal	$/gal 0	Cost	$ 0
15. Facility Electric	Generated 0	kWh			
	Total Purchased 613,880	kWh	Total Electric Cost		$ 48,996
	Billing Demand 1,248	KW	$/kWh		$ 0.080
	Load Factor 0.67	hr			
16. Sewage	Total Quantity Sewage ☐ If No Meter, check here 2,184 mgal		Cost of Sewage Plant Operation (Including wages & benefits)		$ 0
			Sewage Charges Paid to Municipal Authority		$ 0
	$/mgal 0		Total Sewage Cost		$ 0

17. Comments

#16 sewage paid quarterly.

18. Water ☐ If No Meter, check here	Total Used 3,396 mgal	$/mgal 2.16	Total $ 7,341
		Grand Total	$ 152,455

Signature

Kolyn Kahley Date 11/25/14

Approved Date

Revised 2/19/07

MONTHLY UTILITIES USAGE REPORT

Facility	Selinsgrove Center	Date (Month and Year of Report)	Aug-14
Total Facility Square Feet	987,572	Total Vacant Square Feet *(DPW only)*	253,653
Total Facility Occupied Square Feet *(DPW only)*	707,652	Total Leased Square Feet *(DPW only)*	26,267
Residents:	255	Staff:	833

BOILER PLANT DATA & COSTS

1. Boiler Operating Pressure	90 psig	4. Makeup %	21.77%
2. Average Feedwater Temp.	220 °F	5. Peak Steam	8,000
3. Makeup Water Used (lbs) ☐ If no meter, check here	858,186 lb	6. Degree Days	3 HDD 164 CDD

Type of Coal ☑ Anthracite ☐ Bituminous

	Coal	Gas (or Purchased Steam)	Oil	Total
7. Steam Produced (or Purchased)	0 lb	3,942,510 lb	lb	3,942,510
8. Fuel Consumed	0 ton	4,444 mcf	gal	
9. Evaporation (col.7 ÷ col. 8)	#DIV/0! lb/lb	887 lb/mcuft	No Oil lb/gal	
10. Unit Fuel Cost	0.00 $/ton	5.87 $/mcuft	$/gal	
11. Fuel (or Steam) Cost	0 $	26,099 $	No Oil $	$
12. Fuel (or Steam) Cost per mlb Steam	#DIV/0! $/mlb	6.62 $/mlb	No Oil $/mlb	$ 26,099

13. Parts Used		
Miscellaneous Supplies		$ 4,655
Service Contracts ☐ If yearly, check here		$ 856
Repair Contracts ☐ If yearly, check here		$ 0
Wages & Salaries (Including Benefits)		$ 0
		$ 60,605
	Sub Total	$ 92,215

OTHER DATA

14. Miscellaneous Fuels	Natural Gas (mcuft)	mcuft	$/mcuft 0	Cost	$
	Propane (mcuft) [gal x 0.0894=mcuft]	mcuft	$/mcuft 0	Cost	$
	Total Gas mcuft 0		Total Gas Cost		$ 0
	Oil (gal) 0	gal	$/gal 0	Cost	$ 0
15. Facility Electric	Generated 0	kWh			
	Total Purchased 518,400	kWh	Total Electric Cost		$ 41,747
	Billing Demand 1,152	KW	$/kWh		$ 0.081
	Load Factor 0.62	hr			
16. Sewage	Total Quantity Sewage ☐ If No Meter, check here 2,107 mgal		Cost of Sewage Plant Operation (Including wages & benefits)		$ 0
			Sewage Charges Paid to Municipal Authority		$ 0
	$/mgal 0		Total Sewage Cost		$ 0

17. Comments

#16 sewage paid quarterly.

18. Water ☐ If No Meter, check here	Total Used 3,688 mgal	$/mgal 2.05	Total $ 7,577
		Grand Total	$ 141,539

Signature

Kolyn Kahley Date 11/25/14

Approved Date

Revised 2/19/07

MONTHLY UTILITIES USAGE REPORT

Facility	Selinsgrove Center	Date (Month and Year of Report)	Sep-14
Total Facility Square Feet	987,572	Total Vacant Square Feet *(DPW only)*	253,653
Total Facility Occupied Square Feet *(DPW only)*	707,652	Total Leased Square Feet *(DPW only)*	26,267
Residents:	254	Staff:	833

BOILER PLANT DATA & COSTS

1. Boiler Operating Pressure	90 psig	4. Makeup %	19.33%
2. Average Feedwater Temp.	220 °F	5. Peak Steam	9,500
3. Makeup Water Used (lbs) ☐ If no meter, check here	793,134 lb	6. Degree Days	80 HDD 84 CDD

	Coal	Gas (or Purchased Steam)	Oil	Total
Type of Coal ☑ Anthracite ☐ Bituminous				
7. Steam Produced (or Purchased)	0 lb	4,103,776 lb	lb	4,103,776
8. Fuel Consumed	0 ton	4,629 mcf	gal	
9. Evaporation (col.7 ÷ col. 8)	#DIV/0! lb/lb	887 lb/mcuft	No Oil lb/gal	
10. Unit Fuel Cost	0.00 $/ton	5.90 $/mcuft	$/gal	
11. Fuel (or Steam) Cost	0 $	27,330 $	No Oil $	$
12. Fuel (or Steam) Cost per mlb Steam	#DIV/0! $/mlb	6.66 $/mlb	No Oil $/mlb	$ 27,330

13. Parts Used	
Miscellaneous Supplies	$ 279
Service Contracts ☐ If yearly, check here	$ 2,843
Repair Contracts ☐ If yearly, check here	$ 0
Wages & Salaries (Including Benefits)	$ 0
	$ 65,480
Sub Total	$ 95,932

OTHER DATA

14. Miscellaneous Fuels	Natural Gas (mcuft)	mcuft	$/mcuft 0 Cost	$	
	Propane (mcuft) [gal x 0.0894=mcuft]	mcuft	$/mcuft 0 Cost	$	
	Total Gas mcuft	0	Total Gas Cost	$	0
	Oil (gal)	0 gal	$/gal 0 Cost	$	0
15. Facility Electric	Generated	0 kWh			
	Total Purchased	518,800 kWh	Total Electric Cost	$	48,227
	Billing Demand	1,115 KW	$/kWh	$	0.093
	Load Factor	0.64 hr			
16. Sewage	Total Quantity Sewage ☐ If No Meter, check here 2,184 mgal		Cost of Sewage Plant Operation (Including wages & benefits)	$	0
			Sewage Charges Paid to Municipal Authority	$	61,821
		$/mgal 28.31	Total Sewage Cost	$	61,821

17. Comments

#16 sewage paid quarterly.

18. Water ☐ If No Meter, check here	Total Used	$/mgal	
	3,230 mgal	2.41 Total	$ 7,786
		Grand Total	$ 213,766

Signature

Kolyn Kahley Date 11/25/14

Approved Date

Revised 2/19/07

MONTHLY UTILITIES USAGE REPORT

Facility	Selinsgrove Center	Date (Month and Year of Report)	Oct-14
Total Facility Square Feet	987,572	Total Vacant Square Feet *(DPW only)*	253,653
Total Facility Occupied Square Feet *(DPW only)*	707,652	Total Leased Square Feet *(DPW only)*	26,267
Residents: 252		Staff: 850	

BOILER PLANT DATA & COSTS

1. Boiler Operating Pressure	175 psig	4. Makeup %	17.84%
2. Average Feedwater Temp.	220 °F	5. Peak Steam	12,500
3. Makeup Water Used (lbs) ☐ If no meter, check here	1,015,812 lb	6. Degree Days	303 HDD 5 CDD

Type of Coal ☑ Anthracite ☐ Bituminous	Coal	Gas (or Purchased Steam)	Oil	Total
7. Steam Produced (or Purchased)	2,197,774 lb	3,495,754 lb	lb	5,693,528
8. Fuel Consumed	158 ton	3,753 mcf	gal	
9. Evaporation (col.7 ÷ col. 8)	6.95 lb/lb	931 lb/mcuft	No Oil lb/gal	
10. Unit Fuel Cost	95.00 $/ton	5.17 $/mcuft	$/gal	
11. Fuel (or Steam) Cost	15,010 $	19,391 $	No Oil $	$
12. Fuel (or Steam) Cost per mlb Steam	6.83 $/mlb	5.55 $/mlb	No Oil $/mlb	$ 34,401

13. Parts Used		$ 136
Miscellaneous Supplies		$ 644
Service Contracts ☐ If yearly, check here		$ 0
Repair Contracts ☐ If yearly, check here		$ 7,450
Wages & Salaries (Including Benefits)		$ 101,091
	Sub Total	$ 143,722

OTHER DATA

14. Miscellaneous Fuels	Natural Gas (mcuft)	mcuft	$/mcuft	0	Cost	$
	Propane (mcuft) [gal x 0.0894=mcuft]	mcuft	$/mcuft	0	Cost	$
	Total Gas mcuft	0	Total Gas Cost			$ 0
	Oil (gal)	gal	$/gal	0	Cost	$
15. Facility Electric	Generated	0 kWh				
	Total Purchased	477,320 kWh	Total Electric Cost			$ 41,285
	Billing Demand	812 KW	$/kWh			$ 0.086
	Load Factor	0.81 hr				
16. Sewage	Total Quantity Sewage ☐ If No Meter, check here 2,057 mgal		Cost of Sewage Plant Operation (Including wages & benefits)			$ 0
			Sewage Charges Paid to Municipal Authority			$ 0
			$/mgal 0	Total Sewage Cost		$ 0

17. Comments	18. Water ☐ If No Meter, check here	Total Used	$/mgal	
#16 sewage paid quarterly.		3,587 mgal	2.70 Total	$ 9,668
			Grand Total	$ 194,675

Signature: Kolyn Kahley Date: 3/10/15

Approved Date:

Revised 2/19/07

MONTHLY UTILITIES USAGE REPORT

Facility	Selinsgrove Center	Date (Month and Year of Report)	Nov-14
Total Facility Square Feet	987,572	Total Vacant Square Feet *(DPW only)*	253,653
Total Facility Occupied Square Feet *(DPW only)*	707,652	Total Leased Square Feet *(DPW only)*	26,267
Residents: 252		Staff: 848	

BOILER PLANT DATA & COSTS

1. Boiler Operating Pressure	175 psig	4. Makeup %	13.56%
2. Average Feedwater Temp.	220 °F	5. Peak Steam	19,000
3. Makeup Water Used (lbs) ☐ If no meter, check here	1,193,454 lb	6. Degree Days	787 HDD 0 CDD

Type of Coal ☑ Anthracite ☐ Bituminous	Coal	Gas (or Purchased Steam)	Oil	Total
7. Steam Produced (or Purchased)	8,801,516 lb	lb	lb	8,801,516
8. Fuel Consumed	551 ton	44 mcf	gal	
9. Evaporation (col.7 ÷ col. 8)	7.99 lb/lb	0 lb/mcuft	No Oil lb/gal	
10. Unit Fuel Cost	95.00 $/ton	17.18 $/mcuft	$/gal	
11. Fuel (or Steam) Cost	52,345 $	756 $	No Oil $	$
12. Fuel (or Steam) Cost per mlb Steam	5.95 $/mlb	No Gas or Steam $/mlb	No Oil $/mlb	$ 53,101

13. Parts Used		$ 2,141
Miscellaneous Supplies		$ 95
Service Contracts ☐ If yearly, check here		$ 4,058
Repair Contracts ☐ If yearly, check here		$ 0
Wages & Salaries (Including Benefits)		$ 62,661
	Sub Total	$ 122,056

OTHER DATA

14. Miscellaneous Fuels	Natural Gas (mcuft)	mcuft	$/mcuft 0	Cost	$	
	Propane (mcuft) [gal x 0.0894=mcuft]	mcuft	$/mcuft 0	Cost	$	
	Total Gas mcuft 0		Total Gas Cost		$	0
	Oil (gal) 418	gal	$/gal 2.73	Cost	$	1,142
15. Facility Electric	Generated 0	kWh				
	Total Purchased 452,320	kWh	Total Electric Cost		$	43,002
	Billing Demand 874	KW	$/kWh		$	0.095
	Load Factor 0.71	hr				
16. Sewage	Total Quantity Sewage ☐ If No Meter, check here 1,674 mgal		Cost of Sewage Plant Operation (Including wages & benefits)		$	0
			Sewage Charges Paid to Municipal Authority		$	0
			$/mgal 0 Total Sewage Cost		$	0

17. Comments #16 sewage paid quarterly.	18. Water ☐ If No Meter, check here	Total Used 3,932 mgal	$/mgal 1.96 Total	$ 7,693
			Grand Total	$ 173,893
	Signature Kolyn Kahley		Date	3/10/15
	Approved		Date	

Revised 2/19/07

MONTHLY UTILITIES USAGE REPORT

Facility	Selinsgrove Center	Date (Month and Year of Report)	Apr-15
Total Facility Square Feet	987,572	Total Vacant Square Feet *(DPW only)*	253,199
Total Facility Occupied Square Feet *(DPW only)*	707,652	Total Leased Square Feet *(DPW only)*	26,721
Residents:	248	Staff:	836

BOILER PLANT DATA & COSTS

1. Boiler Operating Pressure	175 psig	4. Makeup %	23.56%
2. Average Feedwater Temp.	220 °F	5. Peak Steam	16,500
3. Makeup Water Used (lbs) ☐ If no meter, check here	1,778,088 lb	6. Degree Days	409 HDD 0 CDD

	Coal	Gas (or Purchased Steam)	Oil	Total
Type of Coal ☑ Anthracite ☐ Bituminous				
7. Steam Produced (or Purchased)	7,547,135 lb	lb	lb	7,547,135
8. Fuel Consumed	509 ton	0 mcf	gal	
9. Evaporation (col.7 ÷ col. 8)	7.41 lb/lb	#DIV/0! lb/mcuft	No Oil lb/gal	
10. Unit Fuel Cost	92.59 $/ton	#DIV/0! $/mcuft	$/gal	
11. Fuel (or Steam) Cost	47,128 $	621 $	No Oil $	$
12. Fuel (or Steam) Cost per mlb Steam	6.24 $/mlb	No Gas or Steam $/mlb	No Oil $/mlb	$ 47,749

13. Parts Used		$ 1,546
Miscellaneous Supplies		$ 2,759
Service Contracts	☐ If yearly, check here	$ 73
Repair Contracts	☐ If yearly, check here	$ 0
Wages & Salaries (Including Benefits)		$ 61,837
	Sub Total	$ 113,963

OTHER DATA

14. Miscellaneous Fuels	Natural Gas (mcuft)	mcuft	$/mcuft	0	Cost	$
	Propane (mcuft) [gal x 0.0894=mcuft]	mcuft	$/mcuft	0	Cost	$
	Total Gas mcuft	0	Total Gas Cost			$ 0
	Oil (gal)	0 gal	$/gal	0	Cost	$ 0
15. Facility Electric	Generated	4,750 kWh				
	Total Purchased	480,120 kWh	Total Electric Cost			$ 43,852
	Billing Demand	875 KW	$/kWh			$ 0.091
	Load Factor	0.75 hr				
16. Sewage	Total Quantity Sewage ☐ If No Meter, check here	2,882 mgal	Cost of Sewage Plant Operation (Including wages & benefits)			$ 0
			Sewage Charges Paid to Municipal Authority			$ 0
			$/mgal 0	Total Sewage Cost		$ 0

17. Comments #16 sewage paid quarterly.	18. Water ☐ If No Meter, check here	Total Used 3,753 mgal	$/mgal 3.65 Total	$ 13,709
			Grand Total	$ 171,525

Signature
Kolyn Kahley Date 8/31/15

Approved Date

Revised 2/19/07

MONTHLY UTILITIES USAGE REPORT

Facility	Selinsgrove Center	Date (Month and Year of Report)	May-15
Total Facility Square Feet	987,572	Total Vacant Square Feet *(DPW only)*	253,199
Total Facility Occupied Square Feet *(DPW only)*	707,652	Total Leased Square Feet *(DPW only)*	26,721
Residents: 246		Staff: 833	

BOILER PLANT DATA & COSTS

1. Boiler Operating Pressure	175 psig	4. Makeup %	26.98%
2. Average Feedwater Temp.	220 °F	5. Peak Steam	9,500
3. Makeup Water Used (lbs) ☐ If no meter, check here	1,383,606 lb	6. Degree Days	64 HDD 162 CDD

Type of Coal ☑ Anthracite ☐ Bituminous

	Coal	Gas (or Purchased Steam)	Oil	Total
7. Steam Produced (or Purchased)	1,233,829 lb	3,895,177 lb	lb	5,129,006
8. Fuel Consumed	88 ton	4,374 mcf	gal	
9. Evaporation (col.7 ÷ col. 8)	7.01 lb/lb	891 lb/mcuft	No Oil lb/gal	
10. Unit Fuel Cost	93.19 $/ton	5.09 $/mcuft	$/gal	
11. Fuel (or Steam) Cost	8,201 $	22,267 $	No Oil $	$
12. Fuel (or Steam) Cost per mlb Steam	6.65 $/mlb	5.72 $/mlb	No Oil $/mlb	$ 30,467

13. Parts Used		$ 625
Miscellaneous Supplies		$ 1,595
Service Contracts ☐ If yearly, check here		$ 34
Repair Contracts ☐ If yearly, check here		$ 2,572
Wages & Salaries (Including Benefits)		$ 94,966
	Sub Total	$ 130,259

OTHER DATA

14. Miscellaneous Fuels	Natural Gas (mcuft)	mcuft	$/mcuft	0	Cost	$
	Propane (mcuft) [gal x 0.0894=mcuft]	mcuft	$/mcuft	0	Cost	$
	Total Gas mcuft	0	Total Gas Cost			$ 0
	Oil (gal)	244 gal	$/gal	2.14	Cost	$ 522
15. Facility Electric	Generated	0 kWh				
	Total Purchased	503,080 kWh	Total Electric Cost			$ 45,998
	Billing Demand	1,161 KW	$/kWh			$ 0.091
	Load Factor	0.59 hr				

16. Sewage	Total Quantity Sewage ☐ If No Meter, check here 2,010 mgal	Cost of Sewage Plant Operation (Including wages & benefits)		$ 0
		Sewage Charges Paid to Municipal Authority		$ 0
		$/mgal 0	Total Sewage Cost	$ 0

17. Comments

#16 sewage paid quarterly.

18. Water ☐ If No Meter, check here	Total Used 4,276 mgal	$/mgal 2.56 Total	$ 10,966
		Grand Total	$ 187,745

Signature: Kolyn Kahley Date: 8/31/15

Approved Date:

Revised 2/19/07

MONTHLY UTILITIES USAGE REPORT

Facility	Selinsgrove Center	Date (Month and Year of Report)	Jun-15
Total Facility Square Feet	987,572	Total Vacant Square Feet *(DPW only)*	253,199
Total Facility Occupied Square Feet *(DPW only)*	707,652	Total Leased Square Feet *(DPW only)*	26,721
Residents: 247		Staff: 820	

BOILER PLANT DATA & COSTS

1. Boiler Operating Pressure	90 psig	4. Makeup %	28.92%
2. Average Feedwater Temp.	220 °F	5. Peak Steam	7,500
3. Makeup Water Used (lbs) ☐ If no meter, check here	1,263,510 lb	6. Degree Days	14 HDD 228 CDD

Type of Coal ☑ Anthracite ☐ Bituminous	Coal	Gas (or Purchased Steam)	Oil	Total
7. Steam Produced (or Purchased)	0 lb	4,368,708 lb	lb	4,368,708
8. Fuel Consumed	0 ton	49,219 mcf	gal	
9. Evaporation (col.7 ÷ col. 8)	#DIV/0! lb/lb	89 lb/mcuft	No Oil lb/gal	
10. Unit Fuel Cost	0.00 $/ton	0.47 $/mcuft	$/gal	
11. Fuel (or Steam) Cost	0 $	22,893 $	No Oil $	$
12. Fuel (or Steam) Cost per mlb Steam	#DIV/0! $/mlb	5.24 $/mlb	No Oil $/mlb	$ 22,893

13. Parts Used		$ 562
Miscellaneous Supplies		$ 2,696
Service Contracts ☐ If yearly, check here		$ 6,200
Repair Contracts ☐ If yearly, check here		$
Wages & Salaries (Including Benefits)		$ 94,966
	Sub Total	$ 127,317

OTHER DATA

14. Miscellaneous Fuels	Natural Gas (mcuft)	mcuft	$/mcuft	0	Cost	$
	Propane (mcuft) [gal x 0.0894=mcuft]	mcuft	$/mcuft	0	Cost	$
	Total Gas mcuft	0	Total Gas Cost			$ 0
	Oil (gal)	gal	$/gal	0	Cost	$
15. Facility Electric	Generated	0 kWh				
	Total Purchased	550,880 kWh	Total Electric Cost			$ 48,791
	Billing Demand	1,118 KW	$/kWh			$ 0.089
	Load Factor	0.68 hr				

16. Sewage	Total Quantity Sewage ☐ If No Meter, check here 1,671 mgal	Cost of Sewage Plant Operation (Including wages & benefits)		$ 0
		Sewage Charges Paid to Municipal Authority		$ 61,821
		$/mgal 37.00	Total Sewage Cost	$ 61,821

17. Comments #16 sewage paid quarterly.	18. Water ☐ If No Meter, check here	Total Used 3,164 mgal	$/mgal 4.34 Total	$ 13,733
			Grand Total	$ 251,662

Signature: Kolyn Kahley Date: 8/31/15

Approved Date:

Revised 2/19/07

MONTHLY UTILITIES USAGE REPORT

Facility	Selinsgrove Center	Date (Month and Year of Report)	Jul-15
Total Facility Square Feet	987,572	Total Vacant Square Feet *(DPW only)*	253,199
Total Facility Occupied Square Feet *(DPW only)*	707,652	Total Leased Square Feet *(DPW only)*	26,721
Residents:	245	Staff:	816

BOILER PLANT DATA & COSTS

1. Boiler Operating Pressure	90 psig	4. Makeup %	29.79%
2. Average Feedwater Temp.	220 °F	5. Peak Steam	6,500
3. Makeup Water Used (lbs) ☐ If no meter, check here	1,276,020 lb	6. Degree Days	0 HDD 315 CDD

Type of Coal ☑ Anthracite ☐ Bituminous	Coal	Gas (or Purchased Steam)	Oil	Total
7. Steam Produced (or Purchased)	0 lb	4,283,585 lb	lb	4,283,585
8. Fuel Consumed	0 ton	4,851 mcf	gal	
9. Evaporation (col.7 ÷ col. 8)	#DIV/0! lb/lb	883 lb/mcuft	No Oil lb/gal	
10. Unit Fuel Cost	0.00 $/ton	4.87 $/mcuft	$/gal	
11. Fuel (or Steam) Cost	0 $	23,647 $	No Oil $	$
12. Fuel (or Steam) Cost per mlb Steam	#DIV/0! $/mlb	5.52 $/mlb	No Oil $/mlb	$ 23,647

13. Parts Used		$ 128
Miscellaneous Supplies		$ 410
Service Contracts ☐ If yearly, check here		$
Repair Contracts ☐ If yearly, check here		$
Wages & Salaries (Including Benefits)		$ 58,676
	Sub Total	$ 82,861

OTHER DATA

14. Miscellaneous Fuels	Natural Gas (mcuft)	mcuft	$/mcuft	0	Cost	$
	Propane (mcuft) [gal x 0.0894=mcuft]	mcuft	$/mcuft	0	Cost	$
	Total Gas mcuft	0	Total Gas Cost			$ 0
	Oil (gal)	gal	$/gal	0	Cost	$
15. Facility Electric	Generated	0 kWh				
	Total Purchased	613,800 kWh	Total Electric Cost			$ 53,038
	Billing Demand	1,135 KW	$/kWh			$ 0.086
	Load Factor	0.74 hr				

16. Sewage	Total Quantity Sewage ☐ If No Meter, check here 2,684 mgal	Cost of Sewage Plant Operation (Including wages & benefits)		$ 0
		Sewage Charges Paid to Municipal Authority		$ 0
		$/mgal 0	Total Sewage Cost	$ 0

17. Comments #16 sewage paid quarterly.	18. Water ☐ If No Meter, check here	Total Used 2,085 mgal	$/mgal 3.63	Total	$ 7,574
				Grand Total	$ 143,473

Signature: Kolyn Kahley Date: 12/31/15

Approved Date:

Revised 2/19/07

MONTHLY UTILITIES USAGE REPORT

Facility	Selinsgrove Center	Date (Month and Year of Report)	Aug-15
Total Facility Square Feet	987,572	Total Vacant Square Feet *(DPW only)*	253,199
Total Facility Occupied Square Feet *(DPW only)*	707,652	Total Leased Square Feet *(DPW only)*	26,721
Residents: 243		Staff: 813	

BOILER PLANT DATA & COSTS

1. Boiler Operating Pressure	90 psig	4. Makeup %	20.06%
2. Average Feedwater Temp.	220 °F	5. Peak Steam	6,000
3. Makeup Water Used (lbs) ☐ If no meter, check here	768,114 lb	6. Degree Days	0 HDD 218 CDD

Type of Coal ☑ Anthracite ☐ Bituminous

	Coal	Gas (or Purchased Steam)	Oil	Total
7. Steam Produced (or Purchased)	0 lb	3,828,446 lb	lb	3,828,446
8. Fuel Consumed	0 ton	4,297 mcf	gal	
9. Evaporation (col.7 ÷ col. 8)	#DIV/0! lb/lb	891 lb/mcuft	No Oil lb/gal	
10. Unit Fuel Cost	0.00 $/ton	4.80 $/mcuft	$/gal	
11. Fuel (or Steam) Cost	0 $	20,622 $	No Oil $	$
12. Fuel (or Steam) Cost per mlb Steam	#DIV/0! $/mlb	5.39 $/mlb	No Oil $/mlb	$ 20,622

13. Parts Used		$ 274
Miscellaneous Supplies		$ 277
Service Contracts	☐ If yearly, check here	$
Repair Contracts	☐ If yearly, check here	$
Wages & Salaries (Including Benefits)		$ 58,642
	Sub Total	$ 79,815

OTHER DATA

14. Miscellaneous Fuels	Natural Gas (mcuft)	mcuft	$/mcuft	0	Cost	$
	Propane (mcuft) [gal x 0.0894=mcuft]	mcuft	$/mcuft	0	Cost	$
	Total Gas mcuft	0	Total Gas Cost			$ 0
	Oil (gal)	gal	$/gal	0	Cost	$
15. Facility Electric	Generated	0 kWh				
	Total Purchased	604,800 kWh	Total Electric Cost			$ 52,793
	Billing Demand	1,248 KW	$/kWh			$ 0.087
	Load Factor	0.66 hr				

16. Sewage	Total Quantity Sewage ☐ If No Meter, check here 1,308 mgal	Cost of Sewage Plant Operation (Including wages & benefits)		$ 0
		Sewage Charges Paid to Municipal Authority		$ 0
		$/mgal 0	Total Sewage Cost	$ 0

17. Comments

#16 sewage paid quarterly.

18. Water ☐ If No Meter, check here	Total Used 1,762 mgal	$/mgal 3.27	Total	$ 5,759
			Grand Total	$ 138,367

Signature

Kolyn Kahley Date 12/31/15

Approved Date

Revised 2/19/07

MONTHLY UTILITIES USAGE REPORT

Facility	Selinsgrove Center	Date (Month and Year of Report)	Sep-15
Total Facility Square Feet	987,572	Total Vacant Square Feet *(DPW only)*	253,199
Total Facility Occupied Square Feet *(DPW only)*	707,652	Total Leased Square Feet *(DPW only)*	26,721
Residents:	241	Staff:	815

BOILER PLANT DATA & COSTS

1. Boiler Operating Pressure	90 psig	4. Makeup %	18.78%
2. Average Feedwater Temp.	220 °F	5. Peak Steam	7,000
3. Makeup Water Used (lbs) ☐ If no meter, check here	707,232 lb	6. Degree Days	30 HDD 150 CDD

Type of Coal ☑ Anthracite ☐ Bituminous	Coal	Gas (or Purchased Steam)	Oil	Total
7. Steam Produced (or Purchased)	0 lb	3,766,689 lb	lb	3,766,689
8. Fuel Consumed	0 ton	4,230 mcf	gal	
9. Evaporation (col.7 ÷ col. 8)	#DIV/0! lb/lb	891 lb/mcuft	No Oil lb/gal	
10. Unit Fuel Cost	0.00 $/ton	5.03 $/mcuft	$/gal	
11. Fuel (or Steam) Cost	0 $	21,267 $	No Oil $	$
12. Fuel (or Steam) Cost per mlb Steam	#DIV/0! $/mlb	5.65 $/mlb	No Oil $/mlb	$ 21,267

13. Parts Used		$ 8,489
Miscellaneous Supplies		$ 693
Service Contracts	☐ If yearly, check here	$
Repair Contracts	☐ If yearly, check here	$ 1,425
Wages & Salaries (Including Benefits)		$ 59,833
	Sub Total	$ 91,707

OTHER DATA

14. Miscellaneous Fuels	Natural Gas (mcuft)	mcuft	$/mcuft	0	Cost	$
	Propane (mcuft) [gal x 0.0894=mcuft]	mcuft	$/mcuft	0	Cost	$
	Total Gas mcuft	0	Total Gas Cost			$ 0
	Oil (gal)	gal	$/gal	0	Cost	$
15. Facility Electric	Generated	0 kWh				
	Total Purchased	565,360 kWh	Total Electric Cost			$ 50,053
	Billing Demand	1,243 KW	$/kWh			$ 0.089
	Load Factor	0.62 hr				

16. Sewage	Total Quantity Sewage ☐ If No Meter, check here 812 mgal	Cost of Sewage Plant Operation (Including wages & benefits)				$ 0
		Sewage Charges Paid to Municipal Authority				$ 61,821
		$/mgal 76.13	Total Sewage Cost			$ 61,821

17. Comments #16 sewage paid quarterly.	18. Water ☐ If No Meter, check here	Total Used 2,112 mgal	$/mgal 4.34	Total	$ 9,171
				Grand Total	$ 212,752
	Signature Kolyn Kahley			Date	12/31/15
	Approved			Date	

Revised 2/19/07

APPENDIX J

Selinsgrove Center Site Plan

APPENDIX L

Core Energy Conservation Measures

APPENDIX L

Core Energy Conservation Measures

Note: All items listed below **must** be considered in the RFP response. For any measure that cannot be incorporated into the proposal or is determined infeasible, a detailed explanation must be provided that clearly outlines the financial and technical rationale behind the choice not to include the measure.

Electrical Measures

1. Facility lighting fixture (interior and exterior building mounted, and site lighting) conversion to LED. Color Temperature shall be 3,000°K (warm white) except for garages and exterior locations, which shall be 5,000°K. Minimum CRI = 80. Conversion of interior lighting shall be limited to occupied buildings.

2. Lighting sensors, including occupancy and daylight harvesting technologies.

Facility Thermal Building Systems

1. Energy Management System (EMS) implementation and upgrades. Web-based, open protocol EMS upgrades and implementation of proper setbacks, scheduling, and optimum start strategies.

2. Retrofit existing coal fired boilers with high-efficiency duel fired oil/ gas fired Burners. See suggested/proposed scope on following pages.

    a. Contractor/Subcontractor qualifications: Must have documented specialized experience in working on Keeler water tube boilers, gas/oil burners with FGR, fuel supply and control systems.

Building Envelope

1. Weatherization of doors, windows, roof/wall joints, and sealing of other openings in all building envelopes.

Water Conservation

1. Low-flow faucet aerators, flush valves and faucets. Replacement of existing china with low-flow or waterless models.

Retrofit Boiler Suggested/Proposed Scope

Complete the necessary documents to satisfy the PA Coal Act requirements to satisfy PA requirements to switch from burning coal to natural gas/oil, and obtain PA government approval.

Gas supply service and meter will be provided by others.

Boiler Retrofit Summary of Work:

1. Retrofit two of the existing three coal boilers (#2 and #3) to fire gas/oil, and install the oil storage and delivery infrastructure necessary to support oil firing. The new burners would be installed in the front wall of each boiler, and a refractory brick floor would be installed in the upper furnace section (creating a new combustion chamber) to wall off the lower furnace.

2. Gas/#2 Oil Low NOx Burners, swirl flame design, rated at 37,500 MBH input for the larger 30,000 PPH Keeler Boiler (Boiler #2) and 31,250 MBH input for the smaller 25,000 PPH Keeler Boiler (Boiler #3), each with the following:

    a. Linkageless Combustion Control System

    b. Low NOx guarantee: 30 PPM firing natural gas / 90 PPM firing #2 oil,

    c. UL/CSD-1/IRI/NFPA natural gas train and controls,

    d. UL/CSD-1/IRI/NFPA oil train and controls with remote oil transfer pump and air/gas separator,

    e. Remote-mount combustion air fan with FGR mixing box, damper system, temperature compensator and VFD,

    f. FGR butterfly valve with servo drive,

    g. NEMA 12 control panel with 10" HMI, control transformer, switches, lights, alarm horn and silence switch.

    h. Gas flow and oil flow metering with totalizers (gas metering to be pressure and temperature compensated).

Installation Labor and Materials, including:

1. Remove front stoker hopper assembly and shaft,

2. New brick front walls to seal off boiler furnace chamber,

3. Install new burner front plate with insulated door to provide furnace access,

4. Mount new burner to new front plate,

5. Install new structural steel catwalk with ladder for burner service access,

6. Install new remote combustion air fan on catwalk. Install new combustion air ductwork between fan and burner inlet,

7. Install new insulated FGR duct from new combustion air fan FGR mixing box connection flange and below boiler's draft control damper. FGR ductwork shall include FGR damper valve,

8. Install new natural gas piping beside burner, routed from meter just outside boiler house to burner gas train piping inlet. Assume 5 – 8 psig natural gas supply pressure is available.

9. Install new #2 oil piping beside burner, routed from point just inside boiler house wall to burner oil pump and air/gas separator, beside the burner,

10. Install new gas and oil flow metering (local readouts).

11. Wall-mount at 4' above the operating floor the NEMA 12 control panel. Supply all 3-phase wiring to the burner, combustion air fan, VFD and oil pump. Supply all control wiring between the control panel, burner, VFD and FGR damper valve,

12. Supply all control wiring for integration to the existing boiler house controls, as applicable.

Fuel oil storage and transfer infrastructure, including:

1. 12,000-gallon above ground main storage tank (AST), with options to increase storage capacity:

    - Approximately 1.8 days at 30,000 pph of steam production,
    - Approximately 5.3 days at 10,000 pph of steam production.

2. (2) 500-gallon day tanks with 17-gpm return pumps,

3. (1) 15-gpm duplex fuel oil supply pump,

4. Fuel conditioner,

5. Tank monitoring system,

6. Fuel oil supply and return piping, including exterior underground pipe and interior Schedule 40 steel pipe,

7. Site work to construct a concrete pad for the AST and the piping.

Verify Actual site conditions – Determine required ground work to support the installation of the pad and storage tank.

One (1) Lot Startup Service, Commissioning & Operator Training. Included: burner NOx and emissions testing at a point in the respective boiler breeching connector, using a certified electronic combustion analyzer. Include 3rd Party MACT Emissions Testing.

Prepare and file the required application, including required documentation, to revise the institutions Title V air emissions permit and secure PA DEP approval.

APPENDIX M

Installment Purchase Agreement

Installment Purchase Agreement and Payment Schedule

Between

Energy Financial Provider

and

Department of XXXX

This **Installment Purchase Agreement and Payment Schedule** (hereinafter "Agreement") is dated as of the ____ day of _____, 20__ between the Energy Financial Provider [_____], a [State] corporation ("FINANCER") and the Commonwealth of Pennsylvania ("Commonwealth"), acting through the Department of XXXX ("Funding Agency").

WHEREAS, GESA Contractor and Commonwealth will enter into a Guaranteed Energy Savings Contract ("GESA Contract") (Exhibit A) for the implementation of the Energy Conservation Measures ("ECM") at Funding Agency facilities located at YYYY in XXXX County, Pennsylvania,: and

WHEREAS, the FINANCER will provide financing for the GESA Contract and receive payments from Funding Agency in accordance with this Agreement and the Payment Schedule; and

WHEREAS, the GESA Contractor will implement/construct the ECMs and adhere to all terms of the GESA Contract; and

WHEREAS, Funding Agency will approve payments to be made to the GESA Contractor for work satisfactorily completed by the GESA Contractor during the implementation/construction of the ECMs in accordance with the GESA Contract and make payments to the FINANCER in accordance with this Agreement and the Payment Schedule; and

NOW THEREFORE, in consideration of the mutual promises and convenants contained herein, the parties hereto, intending to be legally bound hereby convenant and agree as follows:

1. FUNDING AND PAYMENT FOR GESA CONTRACT

To assure the availability of moneys to pay the GESA Contractor the cost of the GESA Contract for, inter alia, the implementation/construction of the ECMs, the FINANCER has at the request of the Commonwealth, deposited $_____.00 (the "Acquisition Amount") into a segregated escrow account (the "Escrow Account") at _____, (the "Escrow Agent") to be held, invested, and disbursed by the Escrow Agent in accordance with the terms of that certain Escrow and Account Control Agreement dated as of _____ by and among the Financer, Funding Agency and the Escrow Agent (the "Escrow Agreement"). The ECMs will be implemented/constructed by the GESA Contractor at the location specified in the GESA Contract. The GESA Contractor will submit Applications for Payment in accordance with the GESA Contract, and once they are reviewed/approved by Funding Agency, Funding Agency will request disbursement from the Escrow Account for the payment of the cost of the ECMs. The FINANCER shall then make payments to the GESA Contractor for the amount specified by DGS. In the event that the amounts in the Escrow Account are insufficient to pay the costs of the ECMs, Funding Agency shall deposit additional funds into the Escrow Account to eliminate such insufficiency. In the event that the amount in the Escrow Account exceeds the cost of the ECMs (the "Excess Funds"), Funding Agency shall pay such Excess Funds to FINANCER in order for such Excess Funds to be applied as a principal prepayment to the first payment on the Payment Schedule and to each succeeding payment on the Payment Schedule until all of the Excess Funds have

been applied. Upon acceptance of all the ECMs, Funding Agency shall deliver to FINANCER an Acceptance Certificate in the form attached to this Agreement as Exhibit B.

2. TERM

This Agreement will become effective upon receipt of a fully-executed Agreement by all parties. This Agreement will, unless earlier terminated as expressly provided for in this Agreement, continue until all payments set forth in the Payment Schedule attached hereto have been made in full (hereinafter, the "Agreement Term").

3. PAYMENT

Funding Agency agrees to pay to FINANCER, or any assignee of the FINANCER, the payments including the interest portion as specified in the Payment Schedule (Exhibit C) at the office of FINANCER (or such other place as FINANCER or its assignee may from time to time designate in writing). Such payments will be made, commencing on, and thereafter on the dates set forth in the Payment Schedule. Except as otherwise provided in this paragraph, Funding Agency obligation to make the payments shall commence approximately twelve (12) months after the Final Payment has been paid to the GESA Contractor and shall be absolute and unconditional in all events except as expressly provided in Section 4 and Section 19.

Funding Agency reasonable believes that funds can be obtained sufficient to make all payments during the Agreement Term and hereby convenants that it will do all things lawfully within its power to obtain, maintain, and properly request and pursue funds from which the payments may be made, including making provisions for such payments to the extent necessary in each budget submitted for the purpose of obtaining funding, using its best efforts to have such portion of the budget approved and exhausted all available administrative reviews and appeals in the event such portion of the budget is not approved.

It is Funding Agency intent to make payment for the full Agreement Term if funds are legally available therefore and in that regard Funding Agency represents that the use of the ECMs is essential to its proper, efficient, and economic operation.

During the Agreement Term, Funding Agency will, upon the request of FINANCER, annually make available to FINANCER or its assignee current financial statements, budgets, proof of appropriation for the ensuing fiscal period, and such other financial information as may be requested by FINANCER or any assignee relating to the ability of Funding Agency to continue to make installment payments and other sums due under this Agreement.

If payment or other sums owed by Funding Agency hereunder is not paid when due, interest may accrue in accordance with State law.

4. NONAPPROPRIATION OF FUNDS

In the event no funds or insufficient funds are appropriated and budgeted in any Commonwealth Fiscal Period for payments due under this Agreement, then Funding Agency will immediately notify FINANCER or its assignee of such occurrence and this Agreement shall terminate on the last day of Commonwealth's Fiscal Period for which appropriations were received without penalty or expense to Funding Agency of any kind whatsoever. In the event of such termination, Funding Agency agrees to peaceable surrender possession of all ECMs requested by FINANCER in good operating condition, subject to normal wear and tear to FINANCER or its assignee on the date of such termination, packed for shipment in accordance with manufacturer's published specifications and with freight and insurance prepaid to FINANCER's or its assignee's nearest warehouse location in the United States, such location

to be specified by FINANCER or its assignee. FINANCER or its assignee will have all legal and equitable rights and remedies to take possession of the ECMs. Upon such termination, title to the ECMs will revert to FINANCER or its assignee.

If on the thirtieth (30^{th}) day after the commencement of any Fiscal Period, sufficient funds have not been appropriated for the purpose of making all of the payments scheduled to be paid in such Fiscal Period, Funding Agency shall cause to be delivered written notice thereof (a "notice of nonappropriation") to FINANCER or its assignee within ten (10) calendar days after such thirtieth (30^{th}) day. Upon FINANCER's receipt of a notice of nonappropriation this Agreement shall terminate, as of the end of the Fiscal Period just ended; provided, however, such termination shall not become effective as of the end of such Fiscal Period just ended if, within ten (10) calendar days of the thirtieth (30th) day after the end of such Fiscal Period just completed, Funding Agency shall cause to be delivered to FINANCER a written statement to the effect that it reasonably expects sufficient funds for the then-current Fiscal Period to be appropriated for this Agreement, and in such event the term shall continue into the then-current Fiscal Period so long, but only so long, as an appropriation becomes available from which to make the payments.

Notwithstanding the foregoing, Funding Agency agrees that it will not cancel this Agreement under the provisions of this paragraph if any funds are appropriated to it, or by it, for this Guaranteed Energy Saving Act project for the Fiscal Period following the Fiscal Period in which funds were appropriated.

5. AUTHORITY AND AUTHORIZATION

Commonwealth represents, convenants, and warrants that: (a) the execution, delivery, and performance by Commonwealth of this Agreement have been duly authorized by necessary action on the part of Commonwealth; (b) this Agreement has been duly executed and delivered on behalf of Commonwealth and constitutes a legal, valid, and binding obligation of Commonwealth enforceable in accordance with its terms; and (c) Commonwealth has complied with all bidding requirements, where necessary, and by due notification presented this Agreement for approval as a valid obligation on its part. Commonwealth agrees that: (i) Commonwealth will do or cause to be done all things necessary to preserve and keep the Agreement in full force and effect; (ii) Funding Agency has sufficient appropriations or other funds available to pay all amounts due hereunder for the current Fiscal Period; (iii) Funding Agency's obligations hereunder are not guaranteed by the United States of America or any agency or instrumentality thereof; (iv) Funding Agency has not established and will not establish any sinking fund, redemption fund, debt service fund, reserve fund, replacement fund, or similar fund to be used to pay principal or interest composing the payments due hereunder; (v) Funding Agency will take no action that would cause the interest portion of the payments due hereunder to become included in gross income of the recipient for federal income tax purposes under the Internal Revenue Code of 1986, as amended (the "Code"), and Treasury Regulations promulgated thereunder (the "Regulations"), and Funding Agency will take and will cause its officers, employees, and agents to take all affirmative actions legally within its power necessary to ensure that the interest portion of the payments due hereunder does not become included in gross income of the recipient for federal income tax purposes under the Code and Regulations, all as amended from time to time (including, without limitation, the calculation and payment of any rebate required to preserve such exclusion); and (vi) Funding Agency will sign and submit to FINANCER for filing with the Secretary of the Treasury information reporting statements and other information relating to this Agreement at the times and in the forms required by the Code and the Regulations.

6. TITLE

Upon final acceptance of the implemented/constructed ECMs by Commonwealth hereunder, title to the ECMs will vest in Commonwealth; provided however, that (i) in the event of termination of this

Agreement by Funding Agency pursuant to NONAPPROPRIATION OF FUNDS paragraph hereof and delivery of the ECMs to FINANCER or (ii) upon repossession of the ECMs in the event of a default, title will immediately vest in FINANCER or its assignee.

7. SECURITY INTEREST

In order to secure all of its obligation hereunder, Funding Agency hereby (i) grants to FINANCER a first priority security interest in any and all right, title, and interest of Funding Agency in the ECMs and in all additions, attachments, accessions and substitutions thereto, and on any proceeds therefrom; (ii) agrees that this Agreement may be filed as a financing statement evidencing such security interest; and (iii) agrees to execute and deliver all financing statements, certificates of title, and other instruments necessary or appropriate to evidence such security interest. Once all payments set forth on Payment Schedule have been made, then Funding Agency will own the ECMs free and clear of all liens or other encumbrances.

8. PERSONAL PROPERTY

The ECMs are, and will remain, personal property, and will not be deemed to be affixed to or be a part of the real estate on which it may be situated, notwithstanding that the ECMs or any part thereof may be or hereafter become in any manner physically affixed or attached to real estate or any building hereon.

9. MAINTENANCE

Funding Agency, at its own cost and expense, will maintain the ECMs in good operating condition for the duration of this Agreement and will not use or deal with the ECMs in any manner which is inconsistent with any laws or regulations. The ECMs will not be misused, abused, wasted, or be allowed to deteriorate except for ordinary wear and tear resulting from its intended use. Funding Agency agrees to cause the ECMs to be maintained pursuant to manufacturer's standard maintenance specifications and will provide proof of proper maintenance at FINANCER's request.

10. ALTERATIONS

Funding Agency will not make any alterations, additions, or improvement to the ECMs without FINANCER's prior written consent unless such alterations, additions, or improvement may be readily removed without damage to the ECMs.

11. LIENS AND ENCUMBRANCES

Commonwealth shall keep the ECMs free and clear of all levies, liens, and encumbrances except those created under this Agreement. Funding Agency shall pay, when due, all charges which may now or hereinafter be imposed upon the ownership, leasing, rental, sale, purchase, possession, or use of the ECMs, excluding, however, all taxes on or measured by FINANCER's income. If Funding Agency fails to pay said charges when due, FINANCER shall have a right, but shall not be obligated, to pay said charges. If FINANCER pays any charges for which Funding Agency is responsible or liable under this Agreement, Funding Agency shall reimburse FINANCER therefor.

12. RISK OF LOSS; DAMAGE; DESTRUCTION

Upon acceptance of the ECMs, Commonwealth and/or GESA Contractor, as per the terms of the GESA Contract, assumes all risks of loss or damage to the ECMs from any cause whatsoever, and no such loss of or damage to the ECMs or defect therein, or unfitness or obsolescence thereof shall relieve Funding

Agency of their obligation to make payments or to perform any other obligation under this Agreement. In the event of damage to any item or ECM, Funding Agency will immediately notify GESA Contractor and place the same in good repair. If Funding Agency determines that any item of ECMs is lost, stolen, destroyed or damaged beyond repair, Funding Agency will either: (a) replace the same with like ECMs in good repair; or (b) on the next payment Date following occurrence of loss, pay FINANCER or its assignee (i) all amounts for said lost, stolen, destroyed or damaged beyond repair ECM then owed by Funding Agency to FINANCER under this Agreement, including the payment for such item(s) due on such date, and (ii) the proportionate amount of applicable payment set forth in the PAYMENT SCHEDULE.

13. INSURANCE

GESA Contractor will insure against any or all risks in accordance with the GESA Contract. GESA Contractor shall demonstrate to the satisfaction of FINANCER or assignee that adequate insurance is provided. In the event of any loss, damage, injury, or accident involving the ECMs, Commonwealth will promptly provide GESA Contractor with written notice within ten (10) days thereof and make available to GESA Contractor all information and documentation relating thereto.

Upon final acceptance of ECMs and in accordance with Section 6 of this Agreement, title of the ECMs will vest with the Commonwealth. Commonwealth will then self-insure against any or all risks assumed in this Agreement. Commonwealth shall demonstrate to the satisfaction of FINANCER or assignee that adequate self-insurance is provided. In the event of any loss, damage, injury, or accident involving the ECM(s), Commonwealth will promptly provide GESA Contractor with written notice within ten (10) days thereof and make available to GESA Contractor all information and documentation relating thereto.

Upon Commonwealth self-insuring the ECMs, Commonwealth will assume all risks and liabilities for injury to or death of any person or damage to any property, in any manner arising out of possession, use, operation, custody, control, condition or storage of the ECMs by Commonwealth whether such injury or death be with respect to Commonwealth's property or the property of other; provided, however, that said damage or injury results from the negligence of Commonwealth, it agents or employees, and that either Commonwealth agrees to settle such claim or judgment has been obtained against Commonwealth. This Section shall not be construed to limit or waive in any way the sovereign immunity of Commonwealth, liability of which under the Section is limited to amounts in which Commonwealth is otherwise permitted or required to respond in accordance with applicable law.

14. PREPAYMENT OPTION

Upon thirty (30) days' prior written notice from Funding Agency to FINANCER, and provided that there is no Event of Default, or an event with which notice or lapse of time, or both, could become an Event of Default, then existing, Funding Agency will have the right to terminate Funding Agency's continued obligation to make payments as specified in the PAYMENT paragraph and Payment Schedule to FINANCER on the purchase of the ECMs. Under this paragraph, payments up to date of prepayment and the Purchase Price, along with any interest accrued from the date of the last payment will be due to FINANCER on the date of prepayment. Upon satisfaction by Funding Agency of such purchase conditions, FINANCER shall henceforth have no rights, title, and interest in the ECMs. No voluntary prepayment is permitted prior to the date of the first scheduled payment under the Payment Schedule.

15. ASSIGNMENTS

Without FINANCER's prior written consent, Commonwealth will not assign, transfer, pledge, or grant any security interest in or otherwise dispose of this Agreement, the ECMs, or any interest in this Agreement or the ECMs. FINANCER may assign its rights, title, and interest in and to this Agreement, the ECMs and any other documents executed with respect to this Agreement and/or grant or assign a security interest in this Agreement and the ECMs, in whole or in part. Any such assignee shall have all of the rights of FINANCER under this Agreement. Subject to the foregoing, this Agreement inures to the benefit of and is binding upon the heirs, executors, administrators, successors, and assigns of the parties hereto.

Upon assignment of FINANCER's interests herein, FINANCER will cause written notice of such assignment to be sent to Funding Agency which will be sufficient if it discloses the name of the assignee and address to which further payments hereunder should be made. No further action will be required by FINANCER or by Funding Agency to evidence the assignment, but Funding Agency will acknowledge such assignments in writing if so requested.

Notwithstanding the foregoing, no such assignments of FINANCER's interests shall be effective against Funding Agency unless Funding Agency receives notification in writing of said Agreement designating the name and address of any such assign. In compliance with Section 149(a) of the Internal Revenue Code, Commonwealth agrees to affix a copy of each notification of assignment to Commonwealth's counterpart of the Agreement.

NOT BEING THE MANUFACTURE OR VENDOR OF THE ECMs, ANY ASSIGNEE OF FINANCER SHALL BE DEEMED TO HAVE MADE NO WARRANTY OR REPRESENTATION, EITHER EXPRESS OR IMPLIED, AS TO THE VALUE, DESIGN, CONDITIONS, MERCHANTABILITY, OR FITNESS FOR A PARTICULAR PURPOSE OR FITNESS FOR USE OF THE ECMs. In no event shall any assignee be liable for any incidental, indirect, special, or consequential damage in connection with or arising out of this Agreement or the existence, furnishing, functioning, or Funding Agency's use of any item of ECMs or products or services provided for in this Agreement.

16. EVENTS OF DEFAULT BY FUNDING AGENCY

The term "Event of Default," as used in paragraphs 17 and 18, means the occurrence of any one of the following events:

(a) Funding Agency, in accordance with the GESA Contract, fails to make any payment as it becomes due in accordance with the terms of this Agreement, and any such failure continues for sixty (60) days after receipt of written notice of Default; or

(b) Funding Agency fails to perform or observe any other convenant, condition or agreement to be performed or observed by it hereunder and such failure is not cured within sixty (60) days after written notice thereof by FINANCER.

17. REMEDIES BY FINANCER

Upon the occurrence of an Event of Default, and as long as such Event of Default is continuing, FINANCER may at its option, exercise any one or more of the following remedies:

(a) By written notice to Funding Agency, with or without terminating this Agreement, declare an amount equal to all amounts then due under this Agreement, and all remaining payments due for

which funds have been appropriated, to be immediately due and payable, whereupon the same shall become immediately due and payable;

(b) By written notice to Funding Agency, request Funding Agency to, at Funding Agency's expense, promptly return the ECMs to FINANCER in the manner set forth in NONAPPROPRIATION OF FUNDS paragraph hereof, or FINANCER, at its option, may enter upon the premises where the ECM is located and take immediate possession of and remove the same, and Funding Agency hereby expressly waives any damages occasioned by such actions not caused by FINANCER's willful misconduct or negligence;

(c) Sell the ECMs and apply any proceeds of such disposition in the following order: (i) all costs incurred in securing possession of the ECMs; (ii) all expenses incurred in completing the disposition; (iii) any sales or transfer taxes; (iv) the applicable Payment; and (v) the balance of any payments owed by Funding Agency for which funds have been appropriated. Any disposition proceeds remaining after the requirements of clauses (i), (ii), (iii), (iv), and (v) have been met shall be paid to Funding Agency; and

(d) Exercise any other right, remedy or privilege which may be available to it under applicable laws of the Commonwealth of Pennsylvania or any other applicable law or proceed by appropriate court action to enforce the terms of this Agreement or to recover damages for the breach of this Agreement or to terminate this Agreement as to any or all of the ECMs. In addition, Funding Agency will remain liable to the extent not prohibited by law for all convenants under this Agreement and for all fees, other costs and expenses incurred by FINANCER with respect to the enforcement of any of the remedies listed above or any other remedy available to the FINANCER.

18. EVENTS OF DEFAULT BY FINANCER AND REMEDIES BY COMMONWEALTH

If FINANCER, fails to make any payment as it becomes due in accordance with the terms of this Agreement, and any such failure continues for sixty (60) days after receipt of written notice of Default then Commonwealth may pursue any right, remedy or privilege which may be available to it under applicable laws of the Commonwealth of Pennsylvania or any other applicable law or proceed by appropriate court action to enforce the terms of this Agreement or to recover damages for the breach of this Agreement.

19. NOTICES

All notices to be given under this Agreement shall be made in writing and mailed by certified mail, return receipt requested, to the other party at its address set forth herein or at such address as the party may provide in writing from time to time. Any such notice shall be deemed to have been received five (5) days after mailing.

20. NONDISCRIMINATION/SEXUAL HARASSMENT CLAUSE

During the term of this Agreement, the Contractor (i.e., FINANCER) agrees as follows:

(a) In the hiring of any employee(s) for the manufacture of supplies, performance of work, or any other activity required under the contract or any subcontract, the Contractor, each subcontractor, or any person acting on behalf of the Contractor or subcontractor shall not discriminate in violation of the *Pennsylvania Human Relations Act* (PHRA) and applicable federal laws against any citizen of this Commonwealth who is qualified and available to perform the work to which the employment relates.

(b) Neither the Contractor nor any subcontractor nor any person on their behalf shall in any manner discriminate in violation of the PHRA and applicable federal laws against or intimidate any employee involved in the manufacture of supplies, the performance of work, or any other activity required under the contract.

(c) The Contractor and each subcontractor shall establish and maintain a written nondiscrimination and sexual harassment policy and shall inform their employees of the policy. The policy must contain a provision that sexual harassment will not be tolerated and employees who practice it will be disciplined. Posting this Nondiscrimination/Sexual Harassment clause conspicuously in easily-accessible and well-lighted places customarily frequented by employees and at or near where the contract services are performed shall satisfy this requirement.

(d) The Contractor and each subcontractor shall not discriminate in violation of PHRA and applicable federal laws against any subcontractor or supplier who is qualified to perform the work to which the contract relates.

(e) The Contractor and each subcontractor represents that it is presently in compliance with and will maintain compliance with all applicable federal, state, and local laws and regulations relating to nondiscrimination and sexual harassment. The Contractor and each subcontractor further represents that it has filed a Standard Form 100 Employer Information Report ("EEO-1") with the U.S. Equal Employment Opportunity Commission ("EEOC") and shall file an annual EEO-1 report with the EEOC as required for employers subject to *Title VII* of the Civil Rights Act of 1964, as amended, that that have 100 or more employees and employers that have federal government contracts or first-tier subcontracts and have 50 or more employees. The Contractor and each subcontractor shall, upon request and within the time periods requested by the Commonwealth, furnish all necessary employment documents and records, including EEO-1 reports, and permit access to their books, records, and accounts by the contracting agency and the Bureau of Diversity, Inclusion and Small Business Opportunities, for purpose of ascertaining compliance with provisions of this Nondiscrimination/Sexual Harassment Clause.

(f) The contractor shall include the provisions of this Nondiscrimination/Sexual Harassment Clause in every subcontract so that those provisions applicable to subcontractors will be binding upon each subcontractor.

(g) The Contractor's and each subcontractor's obligations pursuant to these provisions are ongoing from and after the effective date of the contract through the termination date thereof. Accordingly, the Contractor and each subcontractor shall have an obligation to inform the Commonwealth if, at any time during the term of the contract, it becomes aware of any actions or occurrences that would result in violation of the provisions.

(h) The Commonwealth may cancel or terminate the contract and all money due or to become due under the contract may be forfeited for the violation of the terms and conditions of this Nondiscrimination/Sexual Harassment Clause. In addition, the agency may proceed with debarment or suspension and may place the Contractor in the Contractor Responsibility File.

21. CONTRACTOR INTEGRITY PROVISIONS

It is essential that those who seek to contract with the Commonwealth of Pennsylvania ("Commonwealth") observe high standards of honesty and integrity. They must conduct themselves in a manner that fosters public confidence in the integrity of the Commonwealth procurement process.

(a) DEFINITIONS. For purposes of these Contractor Integrity Provisions, the following terms shall have the meanings found in this Section:

1. "**Affiliate**" means two or more entities where (a) a parent entity owns more than fifty percent of the voting stock of each of the entities; or (b) a common shareholder or group of shareholders owns more than fifty percent of the voting stock of each of the entities; or (c) the entities have a common proprietor or general partner.
2. "**Consent**" means written permission signed by a duly authorized officer or employee of the Commonwealth, provided that where the material facts have been disclosed, in writing, by prequalification, bid, proposal, or contractual terms, the Commonwealth shall be deemed to have consented by virtue of the execution of this contract.
3. "**Contractor**" means the individual or entity, that has entered into this contract with the Commonwealth.
4. "**Contractor Related Parties**" means any affiliates of the Contractor and the Contractor's executive officers, Pennsylvania officers and directors, or owners of 5 percent or more interest in the Contractor.
5. "**Financial Interest**" means either:
    i. Ownership of more than a five percent interest in any business; or
    ii. Holding a position as an officer, director, trustee, partner, employee, or holding any position of management.
6. "**Gratuity**" means tendering, giving, or providing anything of more than nominal monetary value including, but not limited to, cash, travel, entertainment, gifts, meals, lodging, loans, subscriptions, advances, deposits of money, services, employment, or contracts of any kind. The exceptions set forth in the Governor's Code of Conduct, Executive Order 1980-18, the 4 Pa. Code §7.153(b), shall apply.
7. "**Non-bid Basis**" means a contract awarded or executed by the Commonwealth with Contractor without seeking bids or proposals from any other potential bidder or offeror.

(b) In furtherance of this policy, Contractor (i.e., FINANCER) agrees to the following:

1. Contractor shall maintain the highest standards of honesty and integrity during the performance of this contract and shall take no action in violation of state of federal laws or regulations or any other applicable laws or regulations, or other requirements applicable to Contractor or that govern contracting or procurement with the Commonwealth.
2. Contractor shall establish and implement a written business integrity policy, which includes, at a minimum, the requirements or these provisions as they relate to Contractor activity with the Commonwealth and Commonwealth employees and which is made known to all Contractor employees. Posting these Contractor Integrity Provisions conspicuously in easily-accessible and well-lighted places customarily frequented by employees and at or near where the contract services are performed shall satisfy this requirement.
3. Contractor, its affiliates, agents and employees and anyone in privity with Contractor shall not accept, agree to give, offer, confer, or agree to confer or promise to confer, directly or indirectly, any gratuity or pecuniary benefit to any person, or to influence or attempt to influence any person in violation of any federal or state law, regulation, executive order of the Governor of Pennsylvania, statement of policy, management directive or any other published standard of the Commonwealth in connection with performance of work under this contract, except as provided in this contract.
4. Contractor shall not have a financial interest in any other contractor, subcontractor, or supplier providing services, labor, or material under this contract, unless the financial interest is disclosed to the Commonwealth in writing and the Commonwealth consents to Contractor's financial interest prior to Commonwealth execution of the contract. Contractor

shall disclose the financial interest to the Commonwealth at the time of bid or proposal submission, or if no bids or proposals are solicited, no later than Contractor's submission of the contract signed by Contractor.

5. Contractor certifies to the best of its knowledge and belief that within the last five (5) years Contractor or Contractor Related Parties have not:
    - **i.** been indicted or convicted of a crime involving moral turpitude or business honesty or integrity in any jurisdiction;
    - **ii.** been suspended, debarred or otherwise disqualified from entering into any contract with any governmental agency;
    - **iii.** had any business license or professional license suspended or revoked;
    - **iv.** had any sanction or finding of fact imposed as a result of a judicial or administrative proceeding related to fraud, extortion, bribery, bid rigging, embezzlement, misrepresentation or anti-trust; and
    - **v.** been, and is not currently, the subject of a criminal investigation by any federal, state or local prosecuting or investigative agency and/or civil anti-trust investigation by any federal, state or local prosecuting or investigative agency.

If Contractor cannot so certify to the above, then it must submit along with its bid, proposal a written explanation (Exhibit D) of why such certification cannot be made and the Commonwealth will determine whether a contract may be entered into with the Contractor. The Contractor's obligation pursuant to this certification is ongoing from and after the effective date of the contract through the termination date thereof. Accordingly, the Contractor shall have an obligation to immediately notify the Commonwealth in writing if at any time during the term of the contract if becomes aware of any event which would cause the Contractor's certification or explanation to change. Contractor acknowledges that the Commonwealth may, in its sole discretion, terminate the contract for cause if it learns that any of the certifications made herein are currently false due to intervening factual circumstances or were false or should have been known to be false when entering into the contract.

6. Contractor shall comply with the requirements of the Lobbying Disclosure Act (65 Pa.C.S. §13A01 et seq.) regardless of the method of award. If this contract was awarded on a Non-bid Basis, Contractor must also comply with the requirements of the Section 1641 of the Pennsylvania Election Code (25 P.S. §3260a).
7. When Contractor has reason to believe that any breach of ethical standards as set forth in law, the Governor's Code of Conduct, or these Contractor Integrity Provisions has occurred or may occur, including but not limited to contact by a Commonwealth officer or employee which, if acted upon, would violate such ethical standards, Contractor shall immediately notify the Commonwealth contracting officer or the Office of the State Inspector General in writing.
8. Contractor, by submission of its bid or proposal and/or execution of this contract and by the submission of any bills, invoices or requests for payment pursuant to the contract, certifies and represents that it has not violated any of these Contractor Integrity Provisions in connection with the submission of the bid or proposal, during any contract negotiations or during the term of the contract, to include any extensions thereof. Contractor shall immediately notify the Commonwealth in writing of any actions for occurrences that would result in a violation of these Contractor Integrity Provisions. Contractor agrees to reimburse the Commonwealth for the reasonable costs of investigation incurred by the Office of the State Inspector General for investigations of the Contractor's compliance with the terms of this or any other agreement between the Contractor and the Commonwealth that results in the suspension or debarment of the Contractor. Contractor shall not be responsible for

investigative costs for investigations that do not result in the Contractor's suspension or debarment.

9. Contractor shall cooperate with the Office of the State Inspector General in its investigation of any alleged Commonwealth agency or employee breach of ethical standards and any alleged Contractor non-compliance with these Contractor Integrity Provisions. Contractor agrees to make identified Contractor employees available for interviews at reasonable times and places. Contractor, upon the inquiry or request of an Inspector General, shall provide, or if appropriate, make promptly available for inspection or copying, any information of any type or form deemed relevant by the Office of the State Inspector General to Contractor's integrity and compliance with these provisions. Such information may include, but shall not be limited to, Contractor's business or financial records, documents or files of any type or form that refer to or concern this contract. Contractor shall incorporate this paragraph in any agreement, contract or subcontract it enters into in the course of the performance of this contract/agreement solely for the purpose of obtaining subcontractor compliance with this provision. The incorporation of this provision in a subcontract shall not create privity of contract between the Commonwealth and any such subcontractor, and no third party beneficiaries shall be created thereby.

10. For violation of any of these Contractor Integrity Provisions, the Commonwealth may terminate this and any other contract with Contractor, claim liquidated damages in an amount equal to the value of anything received in breach of these Provisions, claim damages for all additional costs and expenses incurred in obtaining another contractor to complete performance under this contract, and debar and suspend Contractor from doing business with the Commonwealth. These rights and remedies are cumulative, and the use or non-use of any one shall not preclude the use of all or any other. These rights and remedies are in addition to those the Commonwealth may have under law, statute, regulation, or otherwise.

22. CONTRACTOR RESPONSIBILITY PROVISIONS

For the purpose of these provisions, the term contractor is defined as any person, including, but not limited to, a bidder, offeror, loan recipient, grantee or lessor, who has furnished or performed or seeks to furnish or perform, goods, supplies, services, leased space, construction or other activity, under a contract, grant, lease, purchase order or reimbursement agreement with the Commonwealth of Pennsylvania (Commonwealth). The term contractor includes a permittee, licensee, or any agency, political subdivision, instrumentality, public authority, or other public entity in the Commonwealth.

(a) The Contractor certifies, in writing, for itself and its subcontractors required to be disclosed or approved by the Commonwealth, that as of the date of its execution of this Bid/Contract, that neither the Contractor, nor any such subcontractors, are under suspension or debarment by the Commonwealth or any governmental entity, instrumentality, or authority and, if the Contractor cannot so certify, then it agrees to submit, along with its Bid/Contract, a written explanation of why such certification cannot be made.

(b) The Contractor also certifies, in writing, that as of the date of its execution of this Bid/Contract it has no tax liabilities or other Commonwealth obligations, or has filed a timely administrative or judicial appeal if such liabilities of obligations exist, or is subject to a duly approved deferred payment plan if such liabilities exist.

(c) The Contractor's obligations pursuant to these provisions are ongoing from and after the effective date of the Contract through the termination date thereof. Accordingly, the Contractor shall have an obligation to inform the Commonwealth if, at any time during the term of the Contract, it becomes delinquent in the payment of taxes, or other Commonwealth obligations, or if it or, to the best

knowledge of the Contractor, any of its subcontractors are suspended or debarred by the Commonwealth, the federal government, or any other state or governmental entity. Such notification shall be made within 15 days of the date of suspension or debarment.

(d) The failure of the Contractor to notify the Commonwealth of its suspension or debarment by the Commonwealth, any other state, or the federal government shall constitute an event of default of the Contract with the Commonwealth.

(e) The Contractor agrees to reimburse the Commonwealth for the reasonable costs of investigation incurred by the Office of State Inspector General for investigations of the Contractor's compliance with the terms of this or any other agreement between the Contractor and the Commonwealth that results in the suspension or debarment of the contractor. Such costs shall include, but shall not be limited to, salaries of investigators, including overtime; travel and lodging expenses; and expert witness and documentary fees. The Contractor shall not be responsible for investigative costs for investigations that do not result in the Contractor's suspension or debarment.

(f) The Contractor may obtain a current list of suspended and debarred Commonwealth contractors by either searching the Internet at **http://www.dgs.state.ps.us/** or contacting the :

Department of General Services
Office of Chief Counsel
603 North Office Building
Harrisburg, PA 17125
Telephone No: (717) 787-5599
FAX No. (717) 787-9138

23. AMERICANS WITH DISABILITIES ACT

(a) Pursuant to federal regulations promulgated under the authority of The Americans With Disabilities Act, 28 C.F.R. §35.101 et seq., FINANCER understands and agrees that it shall not cause any individual with a disability to be excluded from participation in this Agreement or from activities provided for under this Agreement on the basis of the disability. As a condition of accepting this Agreement, FINANCER agrees to comply with the "General Prohibitions Against Discrimination", 28 C.F.R. §35.130, and all other regulations promulgated under Title II of The Americans With Disabilities Act which are applicable to all benefits, services programs, and activities provided by the Commonwealth of Pennsylvania through the contracts with outside contractors.

(b) FINANCER shall be responsible for and agrees to indemnify and hold harmless the Commonwealth of Pennsylvania from all losses, damages, expenses, claims, demands, suits, and actions brought by any party against the Commonwealth of Pennsylvania as a result of FINANCER's failure to comply with the provisions of subparagraph above.

24. INDEMNIFICATION

Neither the FINANCER nor the Commonwealth assumes any liability for each other. As to liability to each other for injury or death to persons, or damages to property, the Commonwealth and the FINANCER do not waive any defenses as a result of entering into this Agreement. This provision shall not be construed to limit the Commonwealth's rights, claims or defenses which arise as a matter of law pursuant to any provisions of this Agreement. This provision shall not be construed to limit the sovereign immunity of the Commonwealth.

25. RIGHT-TO-KNOW

(a) The Pennsylvania Right-to-Know Law, 65 P.S. §§ 67.101-3104, ("RTKL") applies to this Contract. For the purpose of these provisions, the term "the Commonwealth" shall refer to the contracting Commonwealth agency.

(b) If the Commonwealth needs the Contractor's assistance in a matter arising out of the RTKL related to this Contract, it shall notify the Contractor using the legal contact information provided in this Contract. The Contractor, at any time, may designate a different contact for such purpose upon reasonable prior written notice to the Commonwealth.

(c) Upon written notification from the Commonwealth that it requires the Contractor's assistance in responding to a request under the RTKL for information related to this Contract that may be in the Contractor's possession, constituting, or alleged to constitute, a public record in accordance with the RTKL ("Requested Information"), the Contractor shall:

1. Provide the Commonwealth, within ten (10) calendar days after receipt of written notification, access to, and copies of, any document or information in the Contractor's possession arising out of this Contract that the Commonwealth reasonably believes is Requested Information and may be a public record under the RTKL; and

2. Provide such other assistance as the Commonwealth may reasonably request, in order to comply with the RTKL with respect to this Contract.

(d) If the Contractor considers the Requested Information to include a request for a Trade Secret or Confidential Proprietary Information, as those terms are defined by the RTKL, or other information that the Contractor considers exempt from production under the RTKL, the Contractor must notify the Commonwealth and provide, within seven (7) calendar days of receiving the written notification, a written statement signed by a representative of the Contractor explaining why the requested material is exempt from public disclosure under the RTKL.

(e) E. The Commonwealth will rely upon the written statement from the Contractor in denying a RTKL request for the Requested Information unless the Commonwealth determines that the Requested Information is clearly not protected from disclosure under the RTKL. Should the Commonwealth determine that the Requested Information is clearly not exempt from disclosure, the Contractor shall provide the Requested Information within five (5) business days of receipt of written notification of the Commonwealth's determination.

(f) If the Contractor fails to provide the Requested Information within the time period required by these provisions, the Contractor shall indemnify and hold the Commonwealth harmless for any damages, penalties, costs, detriment or harm that the Commonwealth may incur as a result of the Contractor's failure, including any statutory damages assessed against the Commonwealth.

(g) The Commonwealth will reimburse the Contractor for any costs associated with complying with these provisions only to the extent allowed under the fee schedule established by the Office of Open Records or as otherwise provided by the RTKL if the fee schedule is inapplicable.

(h) The contractor may file a legal challenge to any Commonwealth decision to release a record to the public with the Office of Open Records, or in the Pennsylvania Courts; however, the Contractor shall indemnify the Commonwealth for any legal expenses incurred by the Commonwealth as a result of such a challenge and shall hold the Commonwealth harmless for any damages, penalties, costs, detriment or harm that the Commonwealth may incur as a result of the Contractor's failure, including any statutory damages assessed against the Commonwealth, regardless of the outcome of such legal challenge. As between the parties, the Contractor agrees to waive all rights or remedies

that may be available to it as a result of the Commonwealth's disclosure of Requested Information pursuant to RTKL.

(i) The Contractor's duties relating to the RTKL are continuing duties that survive the expiration of this Contract and shall continue as long as the Contractor has Requested Information in its possession.

26. TAX LIABILITY CERTIFICATION

The Small GESA Contractor, by execution of the Audit Contract:

(a) Certifies that the Contractor has no outstanding tax liability to the Commonwealth of Pennsylvania;

(b) Authorizes the Department of Revenue to release information related to its tax liability to the Department of General Services; and

(c) Authorizes the Commonwealth to set off any state and local tax liabilities of the Contractor or any of its subsidiaries, as well as any other amount due to the Commonwealth from the Contractor, not being contested on appeal by the Contractor, against any payment due to the Contractor under a contract with the Commonwealth.

The certification of no outstanding tax liability is a material representation of fact upon which reliance is placed by the Department in entering into the contract. If it is later determined that the Contractor knowingly rendered an erroneous certification, the Department may find the Contractor in default and terminate the contract. Such erroneous certification may also be grounds for the initiation of civil or criminal proceedings.

27. GOVERNING LAW

This Agreement shall be construed in accordance with, and governed by the laws of, the Commonwealth of Pennsylvania.

28. PARAGRAPH HEADINGS

All section headings contained herein are for the convenience of reference only and are not intended to define or limit the scope of any provision of this Agreement.

29. COUNTERPARTS

This Agreement may be executed in one or more counterparts, each of which is an original, and all of which together are a single agreement.

30. DELIVERY OF RELATED DOCUMENTS

Commonwealth will execute or provide, as requested by FINANCER, such other documents and information as are reasonable necessary with respect to the transaction contemplated by this Agreement.

Commonwealth agrees that, pursuant to Section 149(a) of the Internal "Revenue Code of 1986, as amended (the "Code"), and any temporary and final income tax regulations promulgated thereunder, it shall file the applicable Internal Revenue Service Form 8039G or 8038GC (Information Return for Tax Exempt Governmental Bond Issues). Additionally, Commonwealth, pursuant to Section 149 (a) of the Code, hereby appoints the FINANCER, or any assignee thereof, as "Agent" of the Lessee to keep a record of the assignees who maintain an interest in this Lease. Commonwealth agrees that it shall remit to the Internal Revenue Service any rebates due as provided by the Code.

31. ENTIRE AGREEMENT; WAIVER

This Agreement, together with the Request for Bid Proposals for Financing, the FINANCER's Bid Proposal, the GESA Contract, the Payment Schedule, and the documents delivered pursuant to the requirements of Paragraph 27 of this Agreement, constitute the entire Agreement between the parties with respect to the financing of the GESA Contract, and this Agreement shall not be modified amended, altered, or changed except with the written consent of the FINANCER and the Commonwealth (DGS and Funding Agency). Any provision of this Agreement found to be prohibited by law shall be ineffective to the extent of such prohibition without invalidating the remainder of this Agreement. The waiver by the FINANCER and the Commonwealth (DGS and Funding Agency) of any breach by the other party of any term, covenant, or condition hereof shall not operate as a waiver of any subsequent breach thereof.

SIGNATURE PAGE IMMEDIATELY FOLLOWS

IN WITNESS WHEREOF the parties to this Agreement have executed it through their respective duly authorized officers, to be effective as of the date first above written. This Agreement will not be fully executed and binding on the parties unless and until all signatures are affixed hereto.

ATTEST:

_____
(FINANCER)

_____	**_____**
[NAME]	**[NAME]**
_____	**_____**
Signature	**Signature**
_____	**_____**
Title	**Title**

Federal Identification No. _____
Vender No._____

ATTEST:	**COMMONWEALTH OF PENNSYLVANIA** **Acting through the** **DEPARTMENT OF XXXX**
_____	**_____**
Signature	**Secretary**

APPROVED AS TO FORM AND LEGALITY:

_____	**_____**
Office of Chief Counsel – Funding Agency	**Office of General Counsel**
_____	**_____**
Office of Attorney General	**Comptroller Operations Date**

Exhibit A

Guaranteed Energy Savings Contract

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Exhibit B

Form of Acceptance Certificate

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FORM OF ACCEPTANCE CERTIFICATE

FINANCER ADDRESS
Attn: Contract Administration

Re: Installment Purchase Agreement and Payment Schedule (the "Agreement") dated as of _____ between _____ ("FINANCER") and the Commonwealth of Pennsylvania, Acting through the Department of General Services ("DGS")

Ladies and Gentlemen:

In accordance with the Agreement, the undersigned DGS hereby certifies and represents to, and agrees with Lessor as follows:

1. The implementation/construction of the ECMs (as defined in the Agreement) has been completed by the GESA Contractor (as defined in the Agreement) and such ECMs have been delivered, installed and accepted on the date hereof.

2. Funding Agency has conducted such inspection and/or testing of the ECMs as it deems necessary and appropriate and hereby acknowledges that it accepts the ECMs for all purposes.

3. Funding Agency is self-insured in accordance with Section 13 of the Agreement.

4. Funding Agency hereby reaffirms that the representations, warranties and covenants contained in the Agreement are true and correct as of the date hereof.

5. No event or condition that constitutes, or with notice or lapse of time, or both, would constitute, an Event of Default (as defined in the Agreement) exists at the date hereof under the Agreement.

Date: _____

Commonwealth of Pennsylvania, Acting through the Department of General Services ("DGS")

By: _____

Name: _____

Title: _____

(Seal)

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Exhibit C

Payment Schedule

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APPENDIX N

Investment Grade Audit Contract

INVESTMENT GRADE AUDIT CONTRACT

FOR A SMALL GUARANTEED ENERGY SAVINGS ACT PROJECT

BETWEEN

THE DEPARTMENT OF [FUNDING AGENCY],

THE DEPARTMENT OF GENERAL SERVICES,

AND

THE SMALL GESA CONTRACTOR

This Investment Grade Audit Contract for a Small GESA Project (hereinafter "the Audit Contract"), executed this _____day of _____, 20_____, by and between the Funding Agency (" "),and the Department of General Services ("DGS"), both as executive agencies of the Commonwealth of Pennsylvania authorized to enter into Audit Contracts pursuant to 62 Pa. C. S. §§3751-3758, and

_____

_____

_____

a corporation incorporated under the Laws of the State of _____, its successors and assigns, hereinafter called "the Small GESA Contractor".

OR

This Investment Grade Audit Contract for a Small GESA Project (hereinafter "the Audit Contract") executed this _____day of _____, 20_____, by and between the "Funding Agency (" ") and the Department of General Services ("DGS"), both as executive agencies of the Commonwealth of Pennsylvania authorized to enter into Audit Contracts pursuant to 62 Pa. C. S. §§3751-3758, and

_____

_____

_____

their heirs, executors, administrators and assigns, hereinafter called "the Small GESA Contractor".

WHEREAS, in consideration of the mutual covenants and conditions herein provided, DGS and the Funding Agency do hereby retain the Small GESA Contractor to perform the Investment Grade Audit Report required to satisfactorily complete this portion of the Small GESA Project and the Small GESA Contractor agrees to expeditiously perform such required services and work. Further, the parties covenant and agree as follows:

ARTICLE 1 – THE AUDIT CONTRACT DOCUMENTS

The Audit Contract Documents shall consist of this Investment Grade Audit Contract and all Exhibits hereto, the Request for Proposal ("the RFP"), the Small GESA Contractor's proposal submitted in response to the RFP, all drawings created by or for the Small GESA Contractor and/or their Retained Professional, the specifications created by or for the Small GESA Contractor and/or their Retained Professional, the Scope of Work by ECM (Exhibit 1), and all bulletins and addenda issued prior to execution of the contract. All of these documents form the contract and are as fully part of the contract as if attached to this Audit Contract or repeated herein.

ARTICLE 2 – THE WORK

The Small GESA Contractor shall perform all the work required by the Audit Contract Documents as set forth in the RFP to provide the Investment Grade Audit Report.

ARTICLE 3 – TIME OF COMMENCEMENT AND COMPLETION

3.1 The contract duration for this Audit Contract is 45 calendar days and shall be commenced upon the effective date of the Audit Contract or upon issuance of a Letter of Intent to contract (62 Pa. C.S. § 906), whichever occurs first. This effective date is defined as the date upon which the last Commonwealth official who is required to execute the contract executes the contract.

3.2 The format and scope of the Investment Grade Audit Report shall be as set forth in the RFP.

A. If, after review of the Investment Grade Audit Report, DGS and the Funding Agency accept the Investment Grade Audit Report and mutually agree to terminate the project, the Funding Agency will pay the sum of_____dollars ($ .00) to the

Small GESA Contractor for the cost of the Investment Grade Audit Report and this Audit Contract will terminate upon said payment.

B. If, after review of the Investment Grade Audit Report, DGS and the Funding Agency accept the Investment Grade Audit Report and mutually agree to continue with the Small GESA project, DGS, the Funding Agency, Small GESA Contractor, and, if required, an Investment Grade Financing Provider will enter into other contract(s) to complete the Small GESA project as set forth in the RFP to implement the chosen ECMs.

3.3 Small GESA Contractor further agrees that the time is of the essence on this Audit Contract and that if it fails to complete the work within the time specified above, the Small GESA Contractor will pay the Funding Agency, as Liquidated Damages and not as a penalty for such failure, the sum of_____dollars ($ .00) per day for each and every calendar day after the completion date until the Work is completed and accepted. The DGS may extend the completion date of the Audit Contact for causes that, in fact, delay the completion of said work. If it appears the Investment Grade Audit Report will be delayed, the Small GESA Contractor shall immediately notify DGS and the Funding Agency, in writing, prior to the due date. The Small GESA Contractor shall include in the written notice the reason(s) for the Small GESA Contractor's inability to meet the completion date and a request that DGS extend the due date. In such case, Small GESA Contractor is liable for said Liquidated Damages only after the expiration of the extended period.

ARTICLE 4 – MISCELLANEOUS PROVISIONS

4.1. Terms used in this Audit Contract are defined in the project-specific RFP and have the meanings designated therein. The Standard Contract Provisions are attached as Exhibit 2.

4.2. The Small GESA Contractor agrees to abide by and be bound by the Laws of Pennsylvania including those relating to and regulating the hours and conditions of employment.

4.3. Nothing in this Audit Contract shall be deemed to waive or otherwise affect the sovereign immunity of the Commonwealth, and its agencies, officers, and employees, or to subject any Commonwealth party to any liability not expressly authorized by law.

4.4. The Small GESA Contractor agrees to defend, protect, indemnify, and hold harmless DGS and the Funding Agency from and against any and all liabilities, losses, damages, costs, expenses, reasonable attorney's fees, causes of action, suits, claims, demands, or judgments of any nature arising from a negligent act, error, or omission of the Small GESA Contractor, its employees, its agents or its consultants, arising out of the performance of services under this Audit Contract.

4.5. Any person, co-partnership, association or corporation furnishing labor, material, equipment, or renting equipment or rendering public utility services in connection with the performance of this Audit Contract has a right of action to recover the cost thereof from the Small GESA Contractor for such labor, material, equipment or equipment rental and for services rendered by public utility. The Small GESA Contractor shall include in all of its subcontracts or supply contracts a provision requiring that its subcontractors and suppliers notify, in writing, their subcontractors and suppliers of this requirement. It is hereby agreed that no third party rights arise against the Funding Agency or DGS for any reason under this Article, and the Small GESA Contractor hereby agrees to so inform all subcontractors and suppliers in writing.

4.6. The Small GESA Contractor, DGS, and the Funding Agency each binds itself, its partners, successors, legal representatives and assigns to the other party to this Audit Contract and to the partners, successors, legal representatives and assigns of such other party in respect to all covenants of this Audit Contract. The Small GESA Contractor shall not assign, sublet or transfer any interest in the whole or any part of this Audit Contract without the written consent of DGS and the Funding Agency. DGS and the Funding Agency may assign, sublet or transfer its interest in this Audit Contract explicitly under statutory authority. This provision does not prevent an assignment for financing purposes of amounts, due or to become due under this Audit Contract, nor the retaining, by the Small GESA Contract, on its own responsibility and at its own expense, of such specialized architects or engineers as may be necessary for the proper development of the Work.

4.7. This Audit Contract may be amended by an agreement of the parties, reduced to writing and executed by authorized representatives of the respective parties. The Small GESA Contractor hereby acknowledges receipt of notice that no person has any authority to

amend or modify this Audit Contract or waive any term or provision hereof except by written amendment hereto signed by the Secretary of the DGS or by the Deputy Secretary for Public Works of DGS and the Funding Agency.

4.8. This Audit Contract may be executed in one or more counterparts, each of which is an original, and all of which together are a single contract.

ARTICLE 5 – INSURANCE REQUIREMENTS

5.1 **GESA CONTRACTOR'S LIABILITY INSURANCE**. The GESA Contractor, during the progress of the Work and until the acceptance of the Work, shall purchase and maintain such insurance as will protect it from claims set forth below which may arise out of or result from the GESA Contractor's operations under the Audit Contract, whether such operations by itself or by any Subcontractor:

A. Claims under Worker's Compensation Disability Benefit and other similar employee benefit Acts; and

B. Claims for damages because of bodily injury, occupational sickness or disease, or death of its employees, and claims insured by usual personal injury liability coverage; and

C. Claims for damages because of bodily injury, sickness or disease, or death, of any person other than its employees, and claims insured by usual personal injury liability coverage; and

D. Claims for damages because of injury to or destruction of tangible property including loss of use resulting therefrom.

5.2 **INSURANCE LIMITS**. The insurance required by this Article shall be written for not less than any limits of liability specified in the RFP or required by Law.

5.3 **CERTIFICATES OF INSURANCE**. Certificates of Insurance acceptable to DGS shall be filed with DGS upon GESA Contractor's execution of the Audit Contract. These certificates shall contain a provision that coverages afforded under the policies shall not be canceled or changed until at least ninety (90) calendar days written notice has been given to the Department. Renewal certificates must be provided to DGS prior to the expiration of the prior policy as stated on the certificate. The insurance certificate shall also name the Commonwealth of Pennsylvania as an additional insured.

5.4 **COMPREHENSIVE GENERAL LIABILITY AND AUTOMOBILE LIABILITY INSURANCES.** The Small GESA Contractor's comprehensive general liability insurance and automobile liability insurance shall be in the amounts set forth in the RFP.

A. For Subcontractors, the Small GESA Contractor shall either:

1. Require each of its Subcontractors to procure and to maintain Subcontractors' comprehensive general liability, automobile liability, and property damage liability insurance of the type and in the same amounts as specified in this subsection for the life of its subcontract and/or until the acceptance of all of its on-site physical work, change order work, and/or demobilization;

OR

2. Insure the activity of its Subcontractors in its own policy.

B. The Small GESA Contractor must submit to the Department within ten (10) calendar days from the full execution of this Audit Contract, and prior to the beginning of on-site work, evidence that all subcontractors and sub-subcontractors are covered by insurance.

5.5 **PROPERTY INSURANCE.** The Small GESA Contractor shall, until all Work is complete, maintain insurance on all insurable work included in the Audit Contract against loss or damage by fire and lightning and those perils covered by the extended coverage endorsement. Insurable work includes work both inside and outside of any building. The insurance must be in the names of DGS and the Small GESA Contractor in full insurable value thereof as will fully protect the interests of DGS and the Commonwealth, the Small GESA Contractor, Subcontractors, and Sub-subcontractors.

SIGNATURE PAGE IMMEDIATELY FOLLOWS

REMAINDER OF PAGE INTENTIONALLY LEFT BLANK

IN WITNESS WHEREOF, the Department of_____, the Department of General Services, and the Small GESA Contractor, have caused this contract to be executed on the day and year above written.

Witness: [Small GESA Contractor]

_____ _____

Secretary/Treasurer Date:_____ President Date:_____

COMMONWEALTH OF PENNSYLVANIA
ACTING THROUGH THE DEPARTMENT
OF GENERAL SERVICES

Witness:

_____ _____

Date:_____ Secretary of DGS Date:_____

COMMONWEALTH OF PENNSYLVANIA
ACTING THROUGH THE DEPARTMENT
OF [Funding Agency]

Witness:

_____ _____

Date:_____ Secretary of [Funding Agency] Date:_____

APPROVED AS TO LEGALITY
AND FORM

I hereby certify that funds in the amount of
$_____
Are available under Appropriation Symbol

_____ _____

Office of Chief Counsel – DGS Comptroller Operations

_____

Office of Chief Counsel - Funding Agency

_____

Office of General Counsel

_____

Office of Attorney General

EXHIBIT 1

Scope of Work by ECM

EXHIBIT 2

RIGHT TO KNOW LAW
NONDISCRIMINATION / SEXUAL HARASSMENT CLAUSE
AMERICANS WITH DISABILITIES ACT
CONTRACTOR INTEGRITY PROVISIONS
CONTRACTOR RESPONSIBILITY PROVISIONS
TAX LIABILITY CERTIFICATION
STEEL PRODUCTS PROCUREMENT ACT
ENVIRONMENTAL STATEMENT

RIGHT TO KNOW LAW

A. The PA Right-to-Know Law, 65 P.S. §§ 67.101-3104, applies to this Audit Contract.

B. Unless the Small GESA Contractor provides the Commonwealth, in writing, with the name and contact information of another person, the agency shall notify the Small GESA Contractor using the Small GESA Contractor information provided by the Small GESA Contractor in SRM [*or* "the legal contact information provided in this Contract"] if the agency needs the Small GESA Contractor's assistance in any matter arising out of the Right to Know Law ("RTKL"). The Small GESA Contractor shall notify the agency in writing of any change in the name or the contact information within a reasonable time prior to the change.

C. Upon notification from the Commonwealth that the Commonwealth requires the Small GESA Contractor's assistance in responding to a RTKL request for records in the Small GESA Contractor's possession, the Small GESA Contractor shall provide the Commonwealth, within fourteen (14) calendar days after receipt of such notification, access to, and copies of, any document or information in the Small GESA Contractor's possession which arises out of the Contract that the Commonwealth requests ("Requested Information") and provide such other assistance as the Commonwealth may request in order to comply with the RTKL. If the Small GESA Contractor fails to provide the Requested Information within fourteen (14) calendar days after receipt of such request, the Small GESA Contractor shall indemnify and hold the Commonwealth harmless for any damages, penalties, detriment or harm that the Commonwealth may incur as a result of the Small GESA Contractor's failure, including any statutory damages assessed against the Commonwealth.

D. The Commonwealth's determination as to whether the Requested Information is a public record is dispositive of the question as between the parties. Small GESA Contractor agrees not to challenge the Commonwealth's decision to deem the Requested Information a Public Record. If the Small GESA Contractor considers the Requested Information to include a request for a Trade Secret or Confidential Proprietary Information, as those terms are defined by the RTKL, the Small GESA Contractor will immediately notify the Commonwealth, and will provide a written statement signed by a representative of the Small GESA Contractor explaining why the requested material is exempt from public disclosure under the RTKL within seven (7) calendar days of receiving the request. If, upon review of the Small GESA Contractor written statement, the Commonwealth still decides to provide the Requested Information, Small GESA Contractor will not challenge or in any way hold the Commonwealth liable for such a decision.

E. The Commonwealth will reimburse the Small GESA Contractor for any costs associated with complying with this provision only to the extent allowed under the fee schedule established by the Office of Open Records or as otherwise provided by the RTKL if the fee schedule is inapplicable.

F. Small GESA Contractor agrees to abide by any decision to release a record to the public made by the Office of Open Records, or by the Pennsylvania Courts. The Small GESA Contractor agrees to waive all rights or remedies that may be available to it as a result of the Commonwealth's disclosure of Requested Information pursuant to the RTKL. Small GESA Contractor's duties relating to the RTKL are continuing duties that survive the expiration of this Contract and shall continue as long as the Small GESA Contractor has Requested Information in its possession.

NONDISCRIMINATION/SEXUAL HARASSMENT CLAUSE

During the term of this Contract, Small GESA Contractor agrees as follows:

1. In the hiring of any employee(s) for the manufacture of supplies, performance of work, or any other activity required under the contract or any subcontract, the Contractor, each subcontractor, or any person acting on behalf of the Contractor or subcontractor shall not discriminate in violation of the Pennsylvania Human Relations Act (PHRA) and applicable federal laws against any citizen of this Commonwealth who is qualified and available to perform the work to which the employment relates.

2. Neither the Contractor nor any subcontractor nor any person on their behalf shall in any manner discriminate in violation of the PHRA and applicable federal laws against or intimidate any employee involved in the manufacture of supplies, the performance of work, or any other activity required under the contract.

3. The Contractor and each subcontractor shall establish and maintain a written nondiscrimination and sexual harassment policy and shall inform their employees of the policy. The policy must contain a provision that sexual harassment will not be tolerated and employees who practice it will be disciplined. Posting this Nondiscrimination/Sexual Harassment clause conspicuously in easily-accessible and well-lighted places customarily frequented by employees and at or near where the contract services are performed shall satisfy this requirement.

4. The Contractor and each subcontractor shall not discriminate in violation of PHRA and applicable federal laws against any subcontractor or supplier who is qualified to perform the work to which the contract relates.

5. The Contractor and each subcontractor represents that it is presently in compliance with and will maintain compliance with all applicable federal, state, and local laws and regulations relating to nondiscrimination and sexual harassment. The Contractor and each subcontractor further represents that it has filed a Standard Form 100 Employer Information Report ("EEO-1") with the U.S. Equal Employment Opportunity Commission ("EEOC") and shall file an annual EEO-1 report with the EEOC as required for employers subject to Title VII of the Civil Rights Act of 1964, as amended, that that have 100 or more employees and employers that have federal government contracts or first-tier subcontracts and have 50 or more employees. The Contractor and each subcontractor shall, upon

request and within the time periods requested by the Commonwealth, furnish all necessary employment documents and records, including EEO-1 reports, and permit access to their books, records, and accounts by the contracting agency and the Bureau of Small Business Opportunities (BSBO), for purpose of ascertaining compliance with provisions of this Nondiscrimination/Sexual Harassment Clause.

6. The contractor shall include the provisions of this Nondiscrimination/Sexual Harassment Clause in every subcontract so that those provisions applicable to subcontractors will be binding upon each subcontractor.

7. The Contractor's and each subcontractor's obligations pursuant to these provisions are ongoing from and after the effective date of the contract through the termination date thereof. Accordingly, the Contractor and each subcontractor shall have an obligation to inform the Commonwealth if, at any time during the term of the contract, it becomes aware of any actions or occurrences that would result in violation of the provisions.

8. The Commonwealth may cancel or terminate the contract and all money due or to become due under the contract may be forfeited for the violation of the terms and conditions of this Nondiscrimination/Sexual Harassment Clause. In addition, the agency may proceed with debarment or suspension and may place the Contractor in the Contractor Responsibility File.

AMERICANS WITH DISABILITIES ACT

During the term of this contract, Contractor agrees as follows:

1. Pursuant to federal regulations promulgated under the authority of The Americans with Disabilities Act, 28 C.F.R. § 35.101 et seq., the Contractor understands and agrees that no individual with a disability shall, on the basis of the disability, be excluded from participation in this contract or from activities provided for under this contract. As a condition of accepting and executing this contract, the contractor agrees to comply with the "General Prohibitions Against Discrimination," 28 C.F.R. § 35.130, and all other regulations promulgated under Title II of The Americans with Disabilities Act which are applicable to all benefits, services, programs, and activities provided by the Commonwealth through contracts with outside contractors.

2. The Contractor shall be responsible for and agrees to indemnify and hold harmless the Commonwealth from all losses, damages, expenses, claims, demands, suits, and actions brought by any party against the Commonwealth as a result of the Contractor's failure to comply with the provisions of paragraph 1 above.

CONTRACTOR INTEGRITY PROVISIONS

It is essential that those who seek to contract with the Commonwealth of Pennsylvania ("Commonwealth") observe high standards of honesty and integrity. They must conduct themselves in a manner that fosters public confidence in the integrity of the Commonwealth contracting and procurement process.

1. DEFINITIONS. For purposes of these Contractor Integrity Provisions, the following terms shall have the meanings found in this Section:

a. "Affiliate" means two or more entities where (a) a parent entity owns more than fifty percent of the

voting stock of each of the entities; or (b) a common shareholder or group of shareholders owns more than fifty percent of the voting stock of each of the entities; or (c) the entities have a common proprietor or general partner.

b. "Consent" means written permission signed by a duly authorized officer or employee of the Commonwealth, provided that where the material facts have been disclosed, in writing, by prequalification, bid, proposal, or contractual terms, the Commonwealth shall be deemed to have consented by virtue of the execution of this contract.

c. "Contractor" means the individual or entity, that has entered into this contract with the Commonwealth.

d. "Contractor Related Parties" means any affiliates of the Contractor and the Contractor's executive officers, Pennsylvania officers and directors, or owners of 5 percent or more interest in the Contractor.

e. "Financial Interest" means either:

(1) Ownership of more than a five percent interest in any business; or

(2) Holding a position as an officer, director, trustee, partner, employee, or holding any position of management.

f. "Gratuity" means tendering, giving, or providing anything of more than nominal monetary value including, but not limited to, cash, travel, entertainment, gifts, meals, lodging, loans, subscriptions, advances, deposits of money, services, employment, or contracts of any kind. The exceptions set forth in the Governor's Code of Conduct, Executive Order 1980-18, the 4 Pa. Code §7.153(b), shall apply.

g. "Non-bid Basis" means a contract awarded or executed by the Commonwealth with Contractor without seeking bids or proposals from any other potential bidder or offeror.

2. In furtherance of this policy, Contractor agrees to the following:

a. Contractor shall maintain the highest standards of honesty and integrity during the performance of this contract and shall take no action in violation of state or federal laws or regulations or any other applicable laws or regulations, or other requirements applicable to Contractor or that govern contracting or procurement with the Commonwealth.

b. Contractor shall establish and implement a written business integrity policy, which includes, at a minimum, the requirements of these provisions as they relate to the Contractor activity with the Commonwealth and Commonwealth employees and which is made known to all Contractor employees. Posting these Contractor Integrity Provisions conspicuously in easily-accessible and well-lighted places customarily frequented by employees and at or near where the contract services are performed shall satisfy this requirement.

c. Contractor, its affiliates, agents, employees and anyone in privity with Contractor shall not accept, agree to give, offer, confer, or agree to confer or promise to confer, directly or indirectly, any gratuity or pecuniary benefit to any person, or to influence or attempt to influence any person in violation of any federal or state law, regulation, executive order of the Governor of Pennsylvania, statement of policy, management directive or any other published standard of the Commonwealth in

connection with performance of work under this contract, except as provided in this contract.

d. Contractor shall not have a financial interest in any other contractor, subcontractor, or supplier providing services, labor, or material under this contract, unless the financial interest is disclosed to the Commonwealth in writing and the Commonwealth consents to Contractor's financial interest prior to Commonwealth execution of the contract. Contractor shall disclose the financial interest to the Commonwealth at the time of bid or proposal submission, or if no bids or proposals are solicited, no later than Contractor's submission of the contract signed by Contractor.

e. Contractor certifies to the best of its knowledge and belief that within the last five (5) years Contractor or Contractor Related Parties have not:

(1) been indicted or convicted of a crime involving moral turpitude or business honesty or integrity in any jurisdiction;

(2) been suspended, debarred or otherwise disqualified from entering into any contract with any governmental agency;

(3) had any business license or professional license suspended or revoked;

(4) had any sanction or finding of fact imposed as a result of a judicial or administrative proceeding related to fraud, extortion, bribery, bid rigging, embezzlement, misrepresentation or anti-trust; and

(5) been, and is not currently, the subject of a criminal investigation by any federal, state or local prosecuting or investigative agency and/or civil anti-trust investigation by any federal, state or local prosecuting or investigative agency.

If Contractor cannot so certify to the above, then it must submit along with its bid, proposal or contract a written explanation of why such certification cannot be made and the Commonwealth will determine whether a contract may be entered into with the Contractor. The Contractor's obligation pursuant to this certification is ongoing from and after the effective date of the contract through the termination date thereof. Accordingly, the Contractor shall have an obligation to immediately notify the Commonwealth in writing if at any time during the term of the contract if becomes aware of any event which would cause the Contractor's certification or explanation to change. Contractor acknowledges that the Commonwealth may, in its sole discretion, terminate the contract for cause if it learns that any of the certifications made herein are currently false due to intervening factual circumstances or were false or should have been known to be false when entering into the contract.

f. Contractor shall comply with the requirements of the Lobbying Disclosure Act (65 Pa.C.S. §13A01 et seq.) regardless of the method of award. If this contract was awarded on a Non-bid Basis, Contractor must also comply with the requirements of the Section 1641 of the Pennsylvania ElectionCode (25 P.S. §3260a).

g. When Contractor has reason to believe that any breach of ethical standards as set forth in law, the Governor's Code of Conduct, or these Contractor Integrity Provisions has occurred or may occur, including but not limited to contact by a Commonwealth officer or employee which, if acted upon, would violate such ethical standards, Contractor shall immediately notify the Commonwealth contracting officer or the Office of the State Inspector General in writing.

h. Contractor, by submission of its bid or proposal and/or execution of this contract and by the

submission of any bills, invoices or requests for payment pursuant to the contract, certifies and represents that it has not violated any of these Contractor Integrity Provisions in connection with the submission of the bid or proposal, during any contract negotiations or during the term of the contract, to include any extensions thereof. Contractor shall immediately notify the Commonwealth in writing of any actions for occurrences that would result in a violation of these Contractor Integrity Provisions. Contractor agrees to reimburse the Commonwealth for the reasonable costs of investigation incurred by the Office of the State Inspector General for investigations of the Contractor's compliance with the terms of this or any other agreement between the Contractor and the Commonwealth that results in the suspension or debarment of the Contractor. Contractor shall not be responsible for investigative costs for investigations that do not result in the Contractor's suspension or debarment.

i. Contractor shall cooperate with the Office of the State Inspector General in its investigation of any alleged Commonwealth agency or employee breach of ethical standards and any alleged Contractor non-compliance with these Contractor Integrity Provisions. Contractor agrees to make identified Contractor employees available for interviews at reasonable times and places. Contractor, upon the inquiry or request of an Inspector General, shall provide, or if appropriate, make promptly available for inspection or copying, any information of any type or form deemed relevant by the Office of the State Inspector General to Contractor's integrity and compliance with these provisions. Such information may include, but shall not be limited to, Contractor's business or financial records, documents or files of any type or form that refer to or concern this contract. Contractor shall incorporate this paragraph in any agreement, contract or subcontract it enters into in the course of the performance of this contract/agreement solely for the purpose of obtaining subcontractor compliance with this provision. The incorporation of this provision in a subcontract shall not create privity of contract between the Commonwealth and any such subcontractor, and no third party beneficiaries shall be created thereby.

j. For violation of any of these Contractor Integrity Provisions, the Commonwealth may terminate this and any other contract with Contractor, claim liquidated damages in an amount equal to the value of anything received in breach of these Provisions, claim damages for all additional costs and expenses incurred in obtaining another contractor to complete performance under this contract, and debar and suspend Contractor from doing business with the Commonwealth. These rights and remedies are cumulative, and the use or non-use of any one shall not preclude the use of all or any other. These rights and remedies are in addition to those the Commonwealth may have under law, statute, regulation, or otherwise.

CONTRACTOR RESPONSIBILITY PROVISIONS

For the purpose of these provisions, the term contractor is defined as any person, including, but not limited to, a bidder, offeror, loan recipient, grantee or lessor, who has furnished or performed or seeks to furnish or perform, goods, supplies, services, leased space, construction or other activity, under a contract, grant, lease, purchase order or reimbursement agreement with the Commonwealth of Pennsylvania (Commonwealth). The term contractor includes a permittee, licensee, or any agency, political subdivision, instrumentality, public authority, or other public entity in the Commonwealth.

1. The Contractor certifies, in writing, for itself and its subcontractors required to be disclosed or approved by the Commonwealth, that as of the date of its execution of this Bid/Contract, that neither the Contractor, nor any such subcontractors, are under suspension or debarment by the Commonwealth or any governmental

entity, instrumentality, or authority and, if the Contractor cannot so certify, then it agrees to submit, along with its Bid/Contract, a written explanation of why such certification cannot be made.

2. The Contractor also certifies, in writing, that as of the date of its execution of this Bid/Contract it has no tax liabilities or other Commonwealth obligations, or has filed a timely administrative or judicial appeal if such liabilities or obligations exist, or is subject to a duly approved deferred payment plan if such liabilities exist.

3. The Contractor's obligations pursuant to these provisions are ongoing from and after the effective date of the Contract through the termination date thereof. Accordingly, the Contractor shall have an obligation to inform the Commonwealth if, at any time during the term of the Contract, it becomes delinquent in the payment of taxes, or other Commonwealth obligations, or if it or, to the best knowledge of the Contractor, any of its subcontractors are suspended or debarred by the Commonwealth, the federal government, or any other state or governmental entity. Such notification shall be made within 15 days of the date of suspension or debarment.

4. The failure of the Contractor to notify the Commonwealth of its suspension or debarment by the Commonwealth, any other state, or the federal government shall constitute an event of default of the Contract with the Commonwealth.

5. The Contractor agrees to reimburse the Commonwealth for the reasonable costs of investigation incurred by the Office of State Inspector General for investigations of the Contractor's compliance with the terms of this or any other agreement between the Contractor and the Commonwealth that results in the suspension or debarment of the contractor. Such costs shall include, but shall not be limited to, salaries of investigators, including overtime; travel and lodging expenses; and expert witness and documentary fees. The Contractor shall not be responsible for investigative costs for investigations that do not result in the Contractor's suspension or debarment.

6. The Contractor may obtain a current list of suspended and debarred Commonwealth contractors by either searching the Internet at h**ttp://www.dgs.state.pa.us/** or contacting the:

Department of General Services
Office of Chief Counsel
603 North Office Building
Harrisburg, PA 17125
Telephone No: (717) 783-6472
FAX No: (717) 787-9138

TAX LIABILITY CERTIFICATION

The Small GESA Contractor, by execution of the Audit Contract:

a. Certifies that the Contractor has no outstanding tax liability to the Commonwealth of Pennsylvania;

b. Authorizes the Department of Revenue to release information related to its tax liability to the Department of General Services; and

c. Authorizes the Commonwealth to set off any state and local tax liabilities of the Contractor or any of its subsidiaries, as well as any other amount due to the Commonwealth from the Contractor, not being contested on appeal by the Contractor, against any payment due to the Contractor under a contract with the Commonwealth.

The certification of no outstanding tax liability is a material representation of fact upon which reliance is placed by the Department in entering into the contract. If it is later determined that the Contractor knowingly rendered an erroneous certification, the Department may find the Contractor in default and terminate the contract. Such erroneous certification may also be grounds for the initiation of civil or criminal proceedings.

STEEL PRODUCTS PROCUREMENT ACT – CERTIFICATIONS

In accordance with the Steel Products Procurement Act of March 3, 1978, P.L. 6 as amended (73 P.S. Sections 1881 et seq.), only steel products as defined in the Act shall be used or supplied in the performance of the contract or any subcontracts thereunder.

In the performance of the Contract the Contractor, subcontractors, materialmen or suppliers shall use only: 1) steel products, rolled, formed, shaped, drawn, extruded, forged, cast, fabricated, or otherwise similarly processed by a combination of two or more of such operations, from steel made in the United States by the open hearth, basic oxygen, electric furnace, bessemer or other steel making process; and 2) cast iron products made in the United States.

The Contractor shall certify that all steel and cast iron products to be used or supplied in the performance of the Contract comply with this Act. No payment will be made to the Contractor for steel and cast iron products until such certification has been received.

This section shall not apply in any case where the Deputy Secretary for Public Works of the Department, in writing, determines that steel and/or cast iron products as herein described are not produced in the United States in sufficient quantities to meet the Contract needs.

The Department shall not provide for, or make any payments to any person who has not complied with the Act. Any such payments made by the Department to anyone that should not have been made as a result of the Act, shall be recoverable directly from the Contractor, subcontractor, manufacturer or supplier that did not comply with the Act.

In addition to the withholding of payments, any person who willfully violates any of the provisions of the Act shall be prohibited from submitting any bids to any public agency for a period of five (5) years from the date of the determination that a violation has occurred. In the event the person who violates the provisions of the Act is a subcontractor, manufacturer or supplier, such person shall be prohibited from performing any work or supplying any materials to a public agency for a period of five (5) years from the date of the determination that a violation has occurred.

The Contractor shall include the provisions of the Steel Products Procurement Act in every subcontract and supply contract, so that the provisions of the Act shall be binding upon each subcontractor and supplier.

Where trade names, catalog numbers and manufacturers of material or equipment are specified, they are mentioned therein for the purpose of establishing a standard of quality, performance and appearance, and for establishing a standard of competitive bidding. The use of this descriptive information will not relieve the contractor from compliance with all aspects of the Act.

ENVIRONMENTAL STATEMENT

According to the Commonwealth Procurement Code, Act of May 15, 1998, P.L. 358, No. 57, 62 Pa. C.S. §§ 101-4509, all Requests for Proposals for construction projects issued by any government agency shall set forth any provision of Federal and State statutes, rules and regulations dealing with the prevention of environmental pollution and the preservation of public natural resources that affect the projects.

The Small GESA Contractor is hereby notified that this Project is subject to those statutes, rules and regulations shown on the following list, and the Work must be carried out in compliance with these statutes, rules and regulations.

STATE LAW

I. Purdon's Statutes - Title 3 (Agriculture)

Fertilizer Act, Act of Dec. 13, 2001, 3 Pa. C.S.A. § 6701, et seq.

Soil and Plant Amendment Act, Act of Dec. 13, 2001, 3 Pa. C.S.A. § 6901, et seq.

PA Pesticide Control Act of 1973, Act of March 1, 1974 as amended, 3 P.S. § 111.21, et seq.

Agricultural Liming Materials Act, Act of March 17, 1978, as amended, 3 P.S. § 132-1, et seq.

The PA Plant Pest Act of 1992, Act of December 16, 1992 as amended, 3 P.S. § 258.1, et seq.

Noxious Weed Control Law, Act of April 7, 1982 as amended, 3 P.S. § 255.1, et seq.

Conservation District Law, Act of May 15, 1945 as amended, 3 P.S. § 849, et seq.

(Relating to weather modification), Act of January 19, 1968, as amended, 3 P.S. § 1101, et seq.

II. Purdon's Statutes - Title 16 (Counties)

(Relating to land use), Act of January 13, 1966 as amended, 16 P.S. § 11941, et seq.

III. Purdon's Statutes - Title 18 (Crimes and Offenses)

The Crimes Code, Act of December 6, 1972, as amended, 18 Pa. C.S.A. § 101, et seq.

IV. Purdon's Statutes - Title 24 (Education)

Public School Code of 1949, Act of March 10, 1949, as amended, 24 P.S. § 7-731, et seq.

V. Purdon's Statutes - Title 30 (Fish)

The Fish and Boat Code, Act of October 16, 1980, as amended, 30 Pa. C.S.A. § 101, et seq.

VI. Purdon's Statutes - Title 32 (Forests, Waters and State Parks)

(Relating to water power and water supply permits), Act of June 14, 1923, as amended, 32 P.S. § 591, et seq.

Water Well Drillers License Act, Act of May 29, 1956, as amended, 32 P.S. § 645.1, et sec.

(Relating to Flood Control Districts), Act of August 7, 1936, as amended, 32 P.S. § 653, et seq.

Flood Plain Management Act, Act of October 4, 1978, as amended, 32 P.S. § 679.101, et seq.

Storm Water Management Act, Act of October 4, 1978, as amended, 32 P.S. § 680.1, et seq.

Dam Safety and Encroachments Act, Act of November 26, 1978, as amended, 32 P.S. § 693.1, et seq.

(Relating to Stream Clearance), Act of June 5, 1947, as amended, 32 P.S. § 701, et seq.

(Relating to Potomac River Pollution), Act of May 29, 1945 (P.L. 1134, § 1), as amended, 32 P.S. 741 et seq. *Repealed in Part*. Section 4 of Act 1981, May 1, P.L. 22 No. 9, repeals this section to "the extent it required one of the members of the Interstate Commission on the Potomic River Basin to be a member of the Pennsylvania Commission on Interstate Cooperation."

(Relating to Schuylkill River pollution), Act of June 4, 1945, as amend., 32 P.S. § 751.1, et seq.

(Relating to Delaware River pollution) Act of April 19, 1945 as amend.32 P.S. § 815.31, et seq.

Delaware River Basin Compact, Act of July 7, 1961, as amended, 32 P.S. § 815.101, et seq.

Ohio River Valley Water Sanitation Compact, Act of April 2, 1945, as amended, 32 P.S. § 816.1, et seq.

Great Lakes Basin Compact, Act of March 22, 1956, as amended, 32 P.S. § 817.1, et seq.

Brandywine River Valley Compact, Act of September 9, 1959, as amend. 32 P.S. § 818, et seq.

Wheeling Creek Watershed Protection and Flood Prevention District Compact, Act of August 2, 1967, as amended, 32 P.S. § 819.1, et seq.

Susquehanna River Basin Compact, Act of July 17, 1968, as amended, 32 P.S. § 820.1, et seq.

Chesapeake Bay Commission Agreement, Act of June 25, 1985, as amended, 32 P.S. § 820.11, et seq.

(Relating to Preservation and Acquisition of Land for Open Space Uses), Act of January 19, 1968, as amended, 32 P.S. § 5001, et seq.

Land and Water Conservation and Reclamation Act, Act of January 19, 1968, § 2), as amended, 32 P.S. § 5101, et seq.

Bluff Recession and Setback Act, Act of May 13, 1980, as amended, 32 P.S. § 5201, et seq.

Wild Resource Conservation Act, Act of June 23, 1982, as amended, 32 P.S. § 5301, et seq.

VII. Purdon's Statutes - Title 34 (Game)

The Game and Wildlife Code, Act of July 8, 1986, as amended, 34 Pa. C.S.A. § 101, et seq.

VIII. Purdon's Statutes - Title 35 (Health and Safety)

(Related to public eating and drinking places), Act of May 23, 1945, as amended, 35 P.S. 655.1 et seq. *Repealed in Part.* Section 6(b) of Act 1994, repealed this section in so far as it is inconsistent with said act (3 Pa. C.S.A. § 6501, et seq.). §§ 655.1 to 655.11. §§ 655.12a to 655.13a repealed by 2010, Nov. 23, P.L. 1039, No.106, § 8(2)(ii), effective in 60 days [Jan.24, 2011]

The Public Bathing Law, Act of June 23, 1931, as amended, 35 P.S. § 672, et seq.

The Clean Streams Law (Related to the protection of public water supply), Act of June 22, 1937, as amended, 35 P.S. § 691.1, et seq.

PA Safe Drinking Water Act, Act of May 1, 1984, as amended, 35 P.S. § 721.1, et seq.

PA Sewage Facilities Act, Act of January 24, 1966 as amended, 35 P.S. § 750.1, et seq. Repealed in Part. Section 15 of Act 1990, July 1, repealed this section insofar as it relates to fee payments.

PA Solid Waste-Resource Recovery Development Act, Act of July 20, 1974, as amended, 35 P.S. § 755.1, et seq.

(Related to pollution from abandoned coal mines), Act of December 15, 1965 as amended, 35 P.S. § 760.1, et seq.

Low-Level Radioactive Waste Disposal Act, Act of February 9, 1988, as amended, 35 P.S. § 7130.101, et seq.

(Related to Camp Regulation), Act of November 10, 1959 as amended 35 P.S. § 3001, et seq.

Air Pollution Control Act, Act of January 8, 1960, as amended 35 P.S. § 4001, et seq.

Solid Waste Management Act, Act of July 7, 1980 as amended, 35 P.S. § 6018.101, et seq. *Repealed in Part.* Section 905(b) of Act 1988, Feb. 9, the Low-Level Radioactive Waste Disposal Act (35 P.S. § 7130.101, et seq.), repealed this section insofar as it is inconsistent with said act.

Radiation Protection Act, Act of July 10, 1984, as amended, 35 P.S. 7110.101, et seq. *Repealed in Part.* Section 17(b) of Act 1992, Dec. 18, provides that this section is repealed insofar as it is inconsistent with said act. Section 6(3) of 2007, July 13, P.L. 95, No. 31, imd. Effective, provides that "[a]ll other acts and parts of acts are repealed insofar as they are inconsistent with this act.

Worker and Community Right-to-Know Act, Act of October 5, 1984 as amended, 35 P.S. § 7301, et seq.

IX. Purdon's Statutes - Title 36 (Highways and Bridges)

State Highway Law, Act of June 1, 1945, as amended, 36 P.S. § 670-101, et seq. *Repealed in Part*. Section 4 of Act 1985, July 3, repealed this act insofar as it's inconsistent with said act.

Junkyards and Automotive Recycler Screen Law, Act of July 28, 1966, as amended, 36 P.S. § 2719.1, et seq.

Highway Vegetation Control Act of December 20, 1983 as amended, 36 P.S. § 2720.1, et seq.

X. Purdon's Statutes – Title 37 APPENDIX (Historical & Museums)

History Code, Act of May 26, 1988, as amd, 37 Pa.C.S.A. § 101, et seq.

XI. Purdon's Statutes - Title 43 (Labor)

General Safety Law
(Related to General Safety), Act of May 18, 1937, as amended, 43 P.S. § 25-1, et seq.

Seasonal Farm Labor Act, Act of June 23, 1978, as amended, 43 P.S. § 1301.101, et seq.

XII. Purdon's Statutes - Title 52 (Mines and Mining)

Coal Refuse Disposal Control Act of September 24, 1968, as amended, 52 P.S. § 30.51, et seq.

Surface Mine Land Acquisition & Reclamation Law
(Related to Coal Land Improvement), Act of July 19, 1965, as amended, 52 P.S. § 30.101, et seq.

Mine Fire and Subsidence Remedial Project Indemnification Law
(Related to Mine Fires & Subsidence),Act of April 3,1968, as amd. 52 P.S. § 30.201, et seq.

PA Anthracite Coal Mine Act, Act of November 10, 1965 as amended, 52 P.S. § 70-101, et seq.

(Related to discharge of coal into streams), Act of June 27, 1913 as amended, 52 P.S. § 631, et seq.

(Caving-in, Collapse, Subsidence), Act of May 27, 1921, as amended, 52 P.S. § 661, et seq.

Anthracite Coal Mining Regulation Law
(Related to Subsidence), Act of September 20, 1961 as amended, 52 P.S. § 672.1, et seq.

Anthracite Strip Mining and Conservation Act, Act of June 27, 1947 as amended, 52 P.S. § 681.1, et seq. Repealed in Part. Section 16 of Act 1971, Nov. 30, provided that this section repealed insofar as it is inconsistent with Act No. 147.

Anthracite Mine Drainage Law
(Related to control and drainage of water from coal formations), Act of July 7, 1955 as amended, 52 P.S. § 682, et seq.

Bituminous Coal Mine Safety Act, Act of July 7, 2008, 52 P.S. § 690-101, et seq.

(Related to Abandoned Mines – abandoned mines; sealing entries and air shafts), Act of May 7, 1935, as amended, 52 P.S. § 809, et seq.

(Related to maps and plans of mines), Act of June 15, 1911, as amended, 52 P.S. § 823.

Surface Mining Conservation and Reclamation Act, Act of May 31, 1945 as amended, 52 P.S. § 1396.1 et seq. *Repealed in Part.* Section 27 of Act 1984, Dec. 19, provides that, except as provided in § 3304 of this title, this section "is repealed to the extent that it applies to the surface mining of minerals other than bituminous and anthracite coal."

The Bituminous Mine Subsidence and Land Conservation Act, Act of April 27, 1966, as amended, 52 P.S. § 1406.1, et seq

Bituminous Mine Subsidences in Counties of the Second Class. (Related to cave-in or subsidence of surface above mines), Act of July 2, 1937, as amended, 52 P.S. § 1407, et seq.

(Related to Coal Stripping – Coal stripping Operation Defined), Act of June 18, 1941 as amended, 52 P.S. § 1471, et seq.

(Related to Coal under State Lands – Easements and Rights of Way), Act of June 1, 1933 as amended, 52 P.S. § 1501, et seq.

(Related to Mining Safety Zones – Establishment of Safety Zones), Act of Dec. 22, 1959 as amended, 52 P.S. § 3101, et seq. *Repealed in Part* – Act 1959, Dec. 22, P.L. 1994, No. 729 [52 P.S. §§3101 TO 3109], is repealed to the extent applicable to bituminous coal mines by 2008, July 7, P.L. 654, No. 55, §3101(b)(3), effective in 180 days [Jan. 5, 2009]

(Coal and Clay Mine Coal Subsidence Insurance Fund Law), Act of August 23, 1961 as amended, 52 P.S. § 3201, et seq.

Interstate Mining Compact, Act of May 5, 1966 as amended, 52 P.S. § 3251, et seq.

Noncoal Surface Mining Conservation and Reclamation Act, Act of December 19, 1984, as amended, 52 P.S. § 3301, et seq.

XIII. Purdon's Statutes - Title 58 (Oil and Gas)

Oil and Gas Conservation Law, Act of July 25, 1961 as amended, 58 P.S. § 401, et seq.

PA Used Oil Recycling Act, Act of April 9, 1982, as amended, 58 P.S. § 471, et seq.

Coal & Gas Resource Coord.Act, Act of Dec.18, 1984, as amended, 58 P.S. § 501, et seq.

(Relates to oil and gas), Act of February 14, 2012, 58 Pa. C.S.A. § 3201, et seq.

XIV. Purdon's Statutes Title 63 (Professions and Occupations)

Water and Wastewater Systems Operators' Certification Act, Act of November 18, 1968 as amended, 63 P.S. § 1001, et seq.

XV. Purdon's Statutes - Title 64 (Public Lands)

PA Appalachian Trail Act, Act of April 28, 1978, as amended, 64 P.S. § 801, et seq.

XVI. Purdon's Statutes - Title 71 (State Government)

The Administrative Code of 1929, Act of April 9, 1929 as amended, 71 P.S. § 51, et seq.

XVII. Purdon's Statutes - Title 72 (Taxation and Fiscal Affairs)

Project 70 Land Acquisition and Borrowing Act, Act of June 22, 1964 as amended, 72 P.S. § 3946.1, et seq.

(Related to pollution control services), Act of March 4, 1971 as amended, 72 P.S. § 7602.1, et seq. Deleted Section 7602.5 by the Act 2000, May 24. *Repealed in Part.* Section 7602.3 of the Act 2007, Dec. 18, was repealed to effectuate the enactment of 35 P.S. § 6021.4.

XVIII. Purdon's Statutes - Title 73 (Trade and Commerce)

Infrastructure Development Act, Act of July 11, 1996, as amended, 73 P.S. § 393.21, et seq.

(Related to Explosives), Act of July 1, 1937 as amended, 73 P.S. § 151, et seq.; *Suspended in Part*. This section is suspended insofar as it is in conflict with the provisions of Reorganization Plan No. 8 of 1981. *See* 71 P.S. § 751-35.

(Related to Explosives), Act of July 10, 1957 as amended, 73 P.S. § 164, et seq. *Suspended in Part*. Section 164 is suspended insofar as it is in conflict with the provisions of Reorganization Plan No. 8 of 1981. *See* 71 P.S. § 751-35.

Purchase of Black Powder in Contiguous States
(Related to Black Powder), Act of May 31, 1974, 73 P.S. § 169 et seq.
(Related to excavation and demolition), Act of Dec.10, 1974 as amended, 73 P.S. § 176, et seq.

XIX. Purdon's Statutes - Title 75 (Vehicles)

Vehicle Code, Act of June 17, 1976, as amended., 75 Pa. C.S.A. § 101, et seq.
Snowmobile and All-Terrain Vehicle Law, Act of June 17, 1976, as amended, 75 Pa. C.S.A. § 7701, et seq.

(Related to hazardous materials transportation), Act of June 30, 1984, 75 Pa. C.S.A. § 8301, et seq.

XX. Purdon's Statutes - Title 77 (Workmen's Compensation)

Workers' Compensation Act, Act of June 2, 1915 as amended, 77 P.S. § 1, et seq.
PA Occupational Disease Act, Act of June 21, 1939, as amended, 77 P.S. § 1201, et seq.

XXI. . Other Statutes

Infectious and Chemotherapeutic Waste Disposal
(Relating to Medical Waste-Manifesting and Transporter Licensing), Act of July 13, 1988, 35 P.S. § 6019.1, et seq.

Municipal Waste Planning, Recycling and Waste Reduction Act, Act of July 28, 1988, 53 P.S. § 4000.1501.

Hazardous Sites Cleanup Act, Act of October 18, 1988, 35 P.S. § 6020.101. Repealed insofar as inconsistent with the Hazardous Sites Cleanup Fund Funding Act, 35 P.S. § 6021.1 ET SEQ., PURSUANT TO 2007, Dec. 18, P.L. 486, No. 77, § 18(b) imd. effective

XXII. . Pennsylvania Constitution - Article I, Section 27 (Adopted May 18, 1971)

FEDERAL LAW

Acid Precipitation Act of 1980 (42 U.S.C. § 8901-8912).

Act to Prevent Pollution from Ships (33 U.S.C. § 1901-1915).

Americans with Disabilities Act of 1990, (42 U.S.C. § 12101-12213 and 47 U.S.C. § 225 and 611).
Asbestos Hazard Emergency Response Act of 1986 [see Toxic Substances Control Act secs. 201-214 (15 U.S.C. § 2641-2656)].

Atomic Energy Act of 1954 (42 U.S.C. § 2014, 2021, 2021a, 2022, 2111, 2113, 2114).

Aviation Safety and Noise Abatement Act of 1979 (49 U.S.C. § 47501-47510).

Clean Air Act (42 U.S.C. § 7401-7642).

Clean Water Act [see Federal Water Pollution Control Act].

Coastal Zone Management Act of 1972 (16 U.S.C. § 1451-1466).

Comp.Env.Response, Compensation, and Liability Act of 1980 (42 U.S.C. § 9601-9675).

Emergency Planning and Community Right-to-Know Act of 1986 (42 U.S.C. § 11001-11050).

Energy Supply and Environmental Coordination Act of 1974 (15 U.S.C. § 791-798).

Environmental Quality Improvement Act of 1970 (42 U.S.C. § 4371-4375).

Federal Insecticide, Fungicide, and Rodenticide Act (7 U.S.C. § 136-136y).

Federal Land Policy and Management Act of 1976 (43 U.S.C. § 1701-1784).

Federal Water Pollution Control Act (33 U.S.C. § 1251-1387).

Geothermal Energy R& Development, Demonstration Act of 1974 (30 U.S.C. § 1101-1164).

Global Climate Protection Act of 1987 (15 U.S.C. § 2901 note).

Hazardous Substance Response Revenue Act 1980 (see 26 U.S.C. § 4611, 4612, 4661, 4662).

Low-Level Radioactive Waste Policy Act (42 U.S.C. § 2021b-2021d).

Marine Protection, Research, and Sanctuaries Act of 1972 (33 U.S.C. § 1401-1445)

National Climate Program Act (15 U.S.C. § 2901-2908).

National Environmental Policy Act of 1969 (42 U.S.C. § 4321-4370h).
Noise Control Act of 1972 (42 U.S.C. § 4901-4918).

Nuclear Waste Policy Act of 1982 (42 U.S.C. § 10101-10270).

Outer Continental Shelf Land Act Amendments of 1978 (43 U.S.C. § 1801-1866).

Public Health Service Act (42 U.S.C. § 300f-300j-11).

Safe Drinking Water Act [Public Health Service Act 1401-1451 (42 U.S.C. § 300f-300j-26)].

Soil and Water Resources Conservation Act of 1977 (16 U.S.C. § 2001-2009).

Solid Waste Disposal Act (42 U.S.C. § 6901-6991i).

Surface Mining Control and Reclamation Act of 1977 (30 U.S.C. § 1201-1328)

Toxic Substances Control Act (15 U.S.C. § 2601-2695d).
Uranium Mill Tailings Radiation Control Act of 1978 (42 U.S.C. § 7901-7942).

Water Resources Research Act of 1984 (42 U.S.C. § 10301-10309).

APPENDIX O

- Prevailing Wage Rates

BUREAU OF LABOR LAW COMPLIANCE
PREVAILING WAGES PROJECT RATES

Project Name:	DGS Small GESA 3
Awarding Agency:	DGS
Contract Award Date:	3/17/2017
Serial Number:	16-06994
Project Classification:	Building
Determination Date:	12/27/2016
Assigned Field Office:	Harrisburg
Field Office Phone Number:	(717)787-4763
Toll Free Phone Number:	(800)932-0665
Project County:	Snyder County

BUREAU OF LABOR LAW COMPLIANCE
PREVAILING WAGES PROJECT RATES

Project: 16-06994 - Building	Effective Date	Expiration Date	Hourly Rate	Fringe Benefits	Total
Asbestos & Insulation Workers	6/26/2017		$33.90	$24.61	$58.51
Asbestos & Insulation Workers	6/27/2016		$32.00	$25.51	$57.51
Boilermaker (Commercial, Institutional, and Minor Repair Work)	3/1/2018		$29.52	$18.22	$47.74
Boilermaker (Commercial, Institutional, and Minor Repair Work)	3/1/2017		$28.52	$18.22	$46.74
Boilermaker (Commercial, Institutional, and Minor Repair Work)	3/1/2016		$27.52	$18.22	$45.74
Boilermakers	1/1/2018		$46.26	$33.36	$79.62
Boilermakers	1/1/2017		$44.26	$33.36	$77.62
Boilermakers	1/1/2016		$42.26	$33.36	$75.62
Bricklayers, Stone Masons, Pointers, Caulkers, Cleaners	5/1/2016		$30.81	$17.11	$47.92
Carpenters, Drywall Hangers, Framers, Instrument Men, Lathers, Soft Floor Layers	6/1/2016		$28.40	$15.23	$43.63
Carpenters, Drywall Hangers, Framers, Instrument Men, Lathers, Soft Floor Layers	6/1/2017		$28.88	$15.75	$44.63
Cement Finishers	5/1/2016		$26.40	$22.35	$48.75
Cement Finishers	5/1/2017		$26.40	$23.25	$49.65
Drywall Finisher	5/1/2017		$27.31	$18.67	$45.98
Drywall Finisher	5/1/2016		$27.31	$17.47	$44.78
Electric Lineman	9/4/2016		$54.43	$21.39	$75.82
Electric Lineman	1/1/2016		$53.02	$20.78	$73.80
Electric Lineman	1/1/2017		$54.20	$21.63	$75.83
Electric Lineman	9/1/2014		$52.19	$17.09	$69.28
Electric Lineman	9/3/2017		$55.66	$22.25	$77.91
Electricians	9/1/2016		$31.05	$23.37	$54.42
Electricians	9/1/2017		$32.15	$23.42	$55.57
Electricians	9/1/2015		$30.40	$22.95	$53.35
Elevator Constructor	1/1/2016		$43.05	$31.11	$74.16
Elevator Constructor	1/1/2017		$43.98	$31.89	$75.87
Glazier	5/1/2012		$26.14	$9.44	$35.58
Glazier	5/1/2016		$24.80	$10.78	$35.58
Iron Workers (Bridge, Structural Steel, Ornamental, Precast, Reinforcing)	1/1/2017		$30.02	$29.42	$59.44
Iron Workers (Bridge, Structural Steel, Ornamental, Precast, Reinforcing)	7/1/2016		$30.02	$28.71	$58.73
Laborers (Class 01 - See notes)	5/1/2016		$20.21	$12.93	$33.14
Laborers (Class 02 - See notes)	5/1/2016		$22.21	$12.93	$35.14
Laborers (Class 03 - See notes)	5/1/2016		$23.66	$13.11	$36.77
Laborers (Class 04 - See notes)	5/1/2016		$25.16	$13.11	$38.27
Laborers (Class 05 - See notes)	5/1/2016		$25.66	$13.11	$38.77
Laborers (Class 06 - See notes)	5/1/2016		$22.21	$12.93	$35.14
Millwright	5/1/2016		$33.59	$17.51	$51.10
Millwright	5/1/2017		$33.79	$18.16	$51.95
Operators (Building, Class 01 - See Notes)	5/1/2016		$34.46	$23.35	$57.81
Operators (Building, Class 01A - See Notes)	5/1/2016		$36.71	$24.01	$60.72

BUREAU OF LABOR LAW COMPLIANCE
PREVAILING WAGES PROJECT RATES

Project: 16-06994 - Building	Effective Date	Expiration Date	Hourly Rate	Fringe Benefits	Total
Operators (Building, Class 02 - See Notes)	5/1/2016		$34.18	$23.26	$57.44
Operators (Building, Class 02A - See Notes)	5/1/2016		$36.43	$23.93	$60.36
Operators (Building, Class 03 - See Notes)	5/1/2016		$31.46	$22.45	$53.91
Operators (Building, Class 04 - See Notes)	5/1/2016		$30.33	$22.11	$52.44
Operators (Building, Class 05 - See Notes)	5/1/2016		$29.87	$28.99	$58.86
Operators (Building, Class 06 - See Notes)	5/1/2016		$29.00	$21.73	$50.73
Operators (Building, Class 07A- See Notes)	5/1/2016		$41.36	$26.81	$68.17
Operators (Building, Class 07B- See Notes)	5/1/2016		$41.02	$26.70	$67.72
Operators (Heavy, Class 01 - See Notes)	5/1/2016		$33.06	$22.92	$55.98
Operators (Heavy, Class 01 - See Notes)	5/1/2015		$32.70	$22.61	$55.31
Operators (Heavy, Class 01A - See Notes)	5/1/2016		$35.31	$23.56	$58.87
Operators (Heavy, Class 01A - See Notes)	5/1/2015		$34.95	$23.27	$58.22
Operators (Heavy, Class 02 - See Notes)	5/1/2015		$32.40	$22.54	$54.94
Operators (Heavy, Class 02 - See Notes)	5/1/2016		$32.77	$22.84	$55.61
Operators (Heavy, Class 02A - See Notes)	5/1/2016		$35.02	$23.50	$58.52
Operators (Heavy, Class 02A - See Notes)	5/1/2015		$34.65	$23.21	$57.86
Operators (Heavy, Class 03 - See Notes)	5/1/2016		$29.84	$21.97	$51.81
Operators (Heavy, Class 03 - See Notes)	5/1/2015		$29.49	$21.67	$51.16
Operators (Heavy, Class 04 - See Notes)	5/1/2016		$28.70	$21.64	$50.34
Operators (Heavy, Class 04 - See Notes)	5/1/2015		$28.35	$21.34	$49.69
Operators (Heavy, Class 05 - See Notes)	5/1/2016		$28.25	$21.51	$49.76
Operators (Heavy, Class 05 - See Notes)	5/1/2015		$27.90	$21.21	$49.11
Operators (Heavy, Class 06 - See Notes)	5/1/2016		$27.37	$21.25	$48.62
Operators (Heavy, Class 06 - See Notes)	5/1/2015		$27.02	$20.95	$47.97
Operators (Heavy, Class 07A - See Notes)	5/1/2016		$39.68	$26.28	$65.96
Operators (Heavy, Class 07A - See Notes)	5/1/2015		$39.24	$25.94	$65.18
Operators (Heavy, Class 07B - See Notes)	5/1/2015		$38.89	$25.84	$64.73
Operators (Heavy, Class 07B - See Notes)	5/1/2016		$39.32	$26.19	$65.51
Painters Class 1 (see notes)	5/1/2017		$26.75	$18.67	$45.42
Painters Class 1 (see notes)	5/1/2016		$26.75	$17.47	$44.22
Painters Class 2 (see notes)	5/1/2017		$29.30	$19.02	$48.32
Painters Class 2 (see notes)	5/1/2016		$29.30	$17.47	$46.77
Painters Class 3 (see notes)	5/1/2017		$34.45	$19.97	$54.42
Painters Class 3 (see notes)	5/1/2016		$34.45	$17.47	$51.92
Pile Driver Divers (Building, Heavy, Highway)	1/1/2016		$48.10	$17.37	$65.47
Piledrivers	1/1/2016		$32.03	$17.37	$49.40
Plasterers	5/1/2016		$24.23	$20.48	$44.71
Plasterers	5/1/2017		$24.23	$21.38	$45.61
Plumber/Pipefitter	5/1/2017		$37.77	$22.56	$60.33
Plumber/Pipefitter	5/1/2016		$35.22	$23.61	$58.83
Roofers (Composition)	5/1/2015		$33.65	$28.65	$62.30
Roofers (Composition)	5/1/2014		$32.15	$28.65	$60.80
Roofers (Composition)	5/1/2016		$35.15	$29.19	$64.34
Roofers (Shingle)	5/1/2016		$25.70	$19.17	$44.87

BUREAU OF LABOR LAW COMPLIANCE
PREVAILING WAGES PROJECT RATES

Project: 16-06994 - Building	Effective Date	Expiration Date	Hourly Rate	Fringe Benefits	Total
Roofers (Slate & Tile)	5/1/2016		$28.70	$19.17	$47.87
Sheet Metal Workers	5/1/2016		$30.33	$22.43	$52.76
Sprinklerfitters	4/1/2018		$38.80	$22.74	$61.54
Sprinklerfitters	4/1/2016		$36.05	$21.02	$57.07
Sprinklerfitters	4/1/2017		$37.40	$21.74	$59.14
Terrazzo Finisher	5/1/2017		$31.64	$15.62	$47.26
Terrazzo Finisher	5/1/2018		$32.35	$15.91	$48.26
Terrazzo Finisher	5/1/2019		$33.04	$16.22	$49.26
Terrazzo Finisher	5/1/2016		$30.17	$16.09	$46.26
Terrazzo Setter	5/1/2017		$30.63	$18.85	$49.48
Terrazzo Setter	5/1/2016		$30.00	$18.48	$48.48
Terrazzo Setter	5/1/2019		$31.81	$19.67	$51.48
Terrazzo Setter	5/1/2018		$31.23	$19.25	$50.48
Tile & Marble Finisher	5/1/2016		$26.19	$13.56	$39.75
Tile & Marble Layer	5/1/2016		$28.64	$15.25	$43.89
Truckdriver class 1(see notes)	5/1/2016		$33.57	$0.00	$33.57
Truckdriver class 1(see notes)	5/1/2018		$35.32	$0.00	$35.32
Truckdriver class 1(see notes)	5/1/2017		$34.47	$0.00	$34.47
Truckdriver class 1(see notes)	5/1/2019		$36.12	$0.00	$36.12
Truckdriver class 2 (see notes)	5/1/2017		$34.54	$0.00	$34.54
Truckdriver class 2 (see notes)	5/1/2016		$33.64	$0.00	$33.64
Truckdriver class 2 (see notes)	5/1/2019		$36.19	$0.00	$36.19
Truckdriver class 2 (see notes)	5/1/2018		$35.39	$0.00	$35.39
Truckdriver class 3 (see notes)	5/1/2018		$35.88	$0.00	$35.88
Truckdriver class 3 (see notes)	5/1/2017		$35.03	$0.00	$35.03
Truckdriver class 3 (see notes)	5/1/2016		$34.13	$0.00	$34.13
Truckdriver class 3 (see notes)	5/1/2019		$36.68	$0.00	$36.68

BUREAU OF LABOR LAW COMPLIANCE
PREVAILING WAGES PROJECT RATES

Project: 16-06994 - Heavy/Highway	Effective Date	Expiration Date	Hourly Rate	Fringe Benefits	Total
Carpenters	5/1/2016		$29.67	$14.54	$44.21
Carpenters	5/1/2017		$30.12	$15.34	$45.46
Cement Finishers	5/1/2016		$26.40	$22.35	$48.75
Iron Workers	1/1/2017		$30.02	$29.42	$59.44
Laborers (Class 01 - See notes)	5/1/2016		$19.81	$15.79	$35.60
Laborers (Class 01 - See notes)	5/1/2018		$20.96	$16.79	$37.75
Laborers (Class 01 - See notes)	5/1/2017		$20.36	$16.29	$36.65
Laborers (Class 01 - See notes)	5/1/2019		$21.61	$17.29	$38.90
Laborers (Class 02 - See notes)	5/1/2019		$28.23	$17.29	$45.52
Laborers (Class 02 - See notes)	5/1/2016		$26.43	$15.79	$42.22
Laborers (Class 02 - See notes)	5/1/2017		$26.98	$16.29	$43.27
Laborers (Class 02 - See notes)	5/1/2018		$27.58	$16.79	$44.37
Laborers (Class 03 - See notes)	5/1/2019		$25.22	$17.29	$42.51
Laborers (Class 03 - See notes)	5/1/2016		$23.42	$15.79	$39.21
Laborers (Class 03 - See notes)	5/1/2017		$23.97	$16.29	$40.26
Laborers (Class 03 - See notes)	5/1/2018		$24.57	$16.79	$41.36
Laborers (Class 04 - See notes)	5/1/2017		$24.32	$16.29	$40.61
Laborers (Class 04 - See notes)	5/1/2018		$24.92	$16.79	$41.71
Laborers (Class 04 - See notes)	5/1/2016		$23.77	$15.79	$39.56
Laborers (Class 04 - See notes)	5/1/2019		$25.57	$17.29	$42.86
Laborers (Class 05 - See notes)	5/1/2019		$26.24	$17.29	$43.53
Laborers (Class 05 - See notes)	5/1/2018		$25.59	$16.79	$42.38
Laborers (Class 05 - See notes)	5/1/2017		$24.99	$16.29	$41.28
Laborers (Class 05 - See notes)	5/1/2016		$24.44	$15.79	$40.23
Laborers (Class 06 - See notes)	5/1/2016		$23.86	$15.79	$39.65
Laborers (Class 06 - See notes)	5/1/2017		$24.41	$16.29	$40.70
Laborers (Class 06 - See notes)	5/1/2018		$25.01	$16.79	$41.80
Laborers (Class 06 - See notes)	5/1/2019		$25.66	$17.29	$42.95
Laborers (Class 07 - See notes)	5/1/2017		$24.70	$16.29	$40.99
Laborers (Class 07 - See notes)	5/1/2019		$25.95	$17.29	$43.24
Laborers (Class 07 - See notes)	5/1/2018		$25.30	$16.79	$42.09
Laborers (Class 07 - See notes)	5/1/2016		$24.15	$15.79	$39.94
Laborers (Class 08 - See notes)	5/1/2019		$26.43	$17.29	$43.72
Laborers (Class 08 - See notes)	5/1/2018		$25.78	$16.79	$42.57
Laborers (Class 08 - See notes)	5/1/2017		$25.18	$16.29	$41.47
Laborers (Class 08 - See notes)	5/1/2016		$24.63	$15.79	$40.42
Operators (Highway, Class 01 - See Notes)	5/1/2016		$32.16	$22.64	$54.80
Operators (Highway, Class 01a - See Notes)	5/1/2016		$34.41	$23.32	$57.73
Operators (Highway, Class 02 - See Notes)	5/1/2016		$30.98	$22.31	$53.29
Operators (Highway, Class 03 - See Notes)	5/1/2016		$30.28	$22.10	$52.38
Operators (Highway, Class 04 - See Notes)	5/1/2016		$29.82	$21.98	$51.80
Operators (Highway, Class 05 - See Notes)	5/1/2016		$29.31	$21.83	$51.14
Operators (Highway, Class 06 - See Notes)	5/1/2016		$32.40	$22.70	$55.10
Operators (Highway, Class 06/A - See Notes)	5/1/2016		$34.65	$23.36	$58.01

BUREAU OF LABOR LAW COMPLIANCE
PREVAILING WAGES PROJECT RATES

Project: 16-06994 - Heavy/Highway	Effective Date	Expiration Date	Hourly Rate	Fringe Benefits	Total
Operators (Highway, Class 07/A - See Notes)	5/1/2016		$38.56	$25.99	$64.55
Operators (Highway, Class 07/B - See Notes)	5/1/2016		$37.17	$25.57	$62.74
Piledrivers	5/1/2017		$30.12	$15.34	$45.46
Piledrivers	1/1/2016		$29.67	$14.54	$44.21
Steamfitters (Heavy and Highway - Gas Distribution)	5/1/2016		$39.62	$31.18	$70.80
Truckdriver class 1(see notes)	5/1/2018		$35.32	$0.00	$35.32
Truckdriver class 1(see notes)	5/1/2017		$34.47	$0.00	$34.47
Truckdriver class 1(see notes)	5/1/2016		$33.57	$0.00	$33.57
Truckdriver class 1(see notes)	5/1/2019		$36.12	$0.00	$36.12
Truckdriver class 2 (see notes)	5/1/2019		$36.19	$0.00	$36.19
Truckdriver class 2 (see notes)	5/1/2017		$34.54	$0.00	$34.54
Truckdriver class 2 (see notes)	5/1/2016		$33.64	$0.00	$33.64
Truckdriver class 2 (see notes)	5/1/2018		$35.39	$0.00	$35.39
Truckdriver class 3 (see notes)	5/1/2019		$36.68	$0.00	$36.68
Truckdriver class 3 (see notes)	5/1/2017		$35.03	$0.00	$35.03
Truckdriver class 3 (see notes)	5/1/2016		$34.13	$0.00	$34.13
Truckdriver class 3 (see notes)	5/1/2018		$35.88	$0.00	$35.88

WEEKLY PAYROLL CERTIFICATION FOR PUBLIC WORKS PROJECTS

☐ Contractor or ☐ Subcontractor (Please check one) ALL INFORMATION MUST BE COMPLETED

CONTRACTOR		SUBCONTRACTOR	
ADDRESS		ADDRESS	
PAYROLL NUMBER	WEEK ENDING DATE	PROJECT AND LOCATION	
		PROJECT SERIAL #	PROJECT #

LABOR & INDUSTRY
BUREAU OF LABOR LAW COMPLIANCE
PREVAILING WAGE DIVISION
7TH & FORSTER STREETS
HARRISBURG, PA 17120
(717) 772-0685

EMPLOYEE NAME	APPR. RATE (%)	WORK CLASSIFICATION	DAY AND DATE / HOURS WORKED EACH DAY	S-TIME O-TIME	BASE HOURLY RATE	TOTAL FRINGE BENEFITS (C=Cash, FB=Contributions)*	TOTAL DEDUCTIONS	GROSS PAY FOR PREVAILING RATE JOB(S)	CHECK #
						C: FB:			
						C: FB:			
						C: FB:			
						C: FB:			
						C: FB:			

*SEE REVERSE SIDE PAGE NUMBER ___ ___ OF ___

LLC-25 REV TD-03 (Page 1)

THE NOTARIZATION MUST BE COMPLETED ON FIRST AND LAST SUBMISSIONS ONLY. ALL OTHER INFORMATION MUST BE COMPLETED WEEKLY.

*FRINGE BENEFITS EXPLANATION (FB): Bona fide benefits contribution, except those required by Federal or State Law (unemployment tax, workers' compensation, income taxes, etc.)

Please specify the type of benefits provided and contributions per hour:

1) Medical or hospital care _____
2) Pension or retirement _____
3) Life insurance _____
4) Disability _____
5) Vacation, holiday _____
6) Other (please specify) _____

CERTIFIED STATEMENT OF COMPLIANCE

1. The undersigned, having executed a contract with _____ (AWARDING AGENCY, CONTRACTOR OR SUBCONTRACTOR) _____ for the construction of the above-identified project, acknowledges that:
   (a) The prevailing wage requirements and the predetermined rates are included in the aforesaid contract.
   (b) Correction of any infractions of the aforesaid conditions is the contractor's or subcontractor's responsibility.
   (c) It is the contractor's responsibility to include the Prevailing Wage requirements and the predetermined rates in any subcontract or lower tier subcontract for this project.
2. The undersigned certifies that:
   (a) Neither he nor his firm, nor any firm, corporation or partnership in which he or his firm has an interest is debarred by the Secretary of Labor and Industry pursuant to Section 11(e) of the PA Prevailing Wage Act, Act of August 15, 1961, P.L. 987 as amended, 43 P.S.§ 165-11(e).
   (b) No part of this contract has been or will be subcontracted to any subcontractor if such subcontractor or any firm, corporation or partnership in which such subcontractor has an interest is debarred pursuant to the aforementioned statute.
3. The undersigned certifies that:
   (a) the legal name and the business address of the contractor or subcontractor are: _____
   (b) The undersigned is: ☐ a single proprietorship ☐ a corporation organized in the state of _____ ☐ a partnership ☐ other organization (describe) _____
   (c) The name, title and address of the owner, partners or officers of the contractor/subcontractor are:

NAME	TITLE	ADDRESS

The willful falsification of any of the above statements may subject the contractor to civil or criminal prosecution, provided in the PA Prevailing Wage Act of August 15, 1961, P.L. 987, as amended, August 9, 1963, 43 P.S. § 165.1 through 165.17.

_____ (DATE)

_____ (SEAL)

_____ (SIGNATURE)

_____ (TITLE)

Taken, sworn and subscribed before me this _____ Day of _____ A.D., _____

ASBESTOS REMOVAL -- ASBESTOS WORKER/LABORER

AMENDED FOR 11/21/97

The removal of asbestos containing materials should be handled as follows:

1. The removal of all insulation materials, whether they contain asbestos or not, from mechanical systems (pipes, boilers, ducts, flues, breachings, etc.) will be recognized as work to be classified as Asbestos Worker.
2. On all mechanical systems (pipes, boilers, ducts, flues, breachings, etc.) that are going to be scrapped, the removal of all insulating material, whether they contain asbestos or not, will be classified as Laborers.
3. The removal of all asbestos containing materials from walls, ceilings, floors, columns and all other non-mechanical structures and surfaces, etc., will be held to the classification of Laborers (with the exception of roofing materials).
4. The term "removal" shall not include sealing, labeling and dropping of scrap material into appropriate containers. After the drop, the final disposal will be classified as Laborers.
5. The loading at the designated area of all materials that have been removed, bagged and tagged, as well as clean-up and all unloading, burying and other work required at the disposal site should be classified as Laborers.

The following percentages may be used to pay apprentices ... REGISTERED WITH THE COMMONWEALTH OF PENNSYLVANIA IN AN APPROVED PROGRAM.
The employer may also pay the apprentice the percentages listed in the state approved program under which the apprentice is registered.

The rates are listed in % of Journeyman rate and in six-month intervals.

Asbestos and Insulation Workers	45	45	48	50	55	60	65	70	75	80
Boilermakers	60	65	70	75	80	85	90	95		
Bricklayers	50	50	60	65	70	75	80	90		
Carpenters	35	40	45	50	60	65	75	80	85	90
Cement Finishers	50	50	75	75	90	90				
Dockbuilders/Piledrivers	60	65	70	75	80	85				
Drywall Finishers	40	50	60	70	80	90				
Electricians (1500 hour periods)	30	35	40	50	60	75				
Floor Layers	45	51	57	63	69	75	82	88		
Glaziers	35	40	50	55	60	70	80	90		
Iron Workers	55	55	65	65	75	75	85	85		
Building Laborers	50	60	70	80						
Painters	40	55	65	75	85	90				
Plasterers	50	60	65	70	75	80	85	90		
Plumbers	40	45	55	65	80	90				
Roofers	47	47	52	52	60	60	75	75		
Sheetmetal	40	45	50	55	60	65	70	80		
Sprinklerfitters	35	40	45	50	55	60	65	70	75	80
Steamfitters	34	39	44	48	53	58	63	68	73	80
Tile Layers	50	50	60	65	70	75	80	90		

APPENDIX P

Site Plans

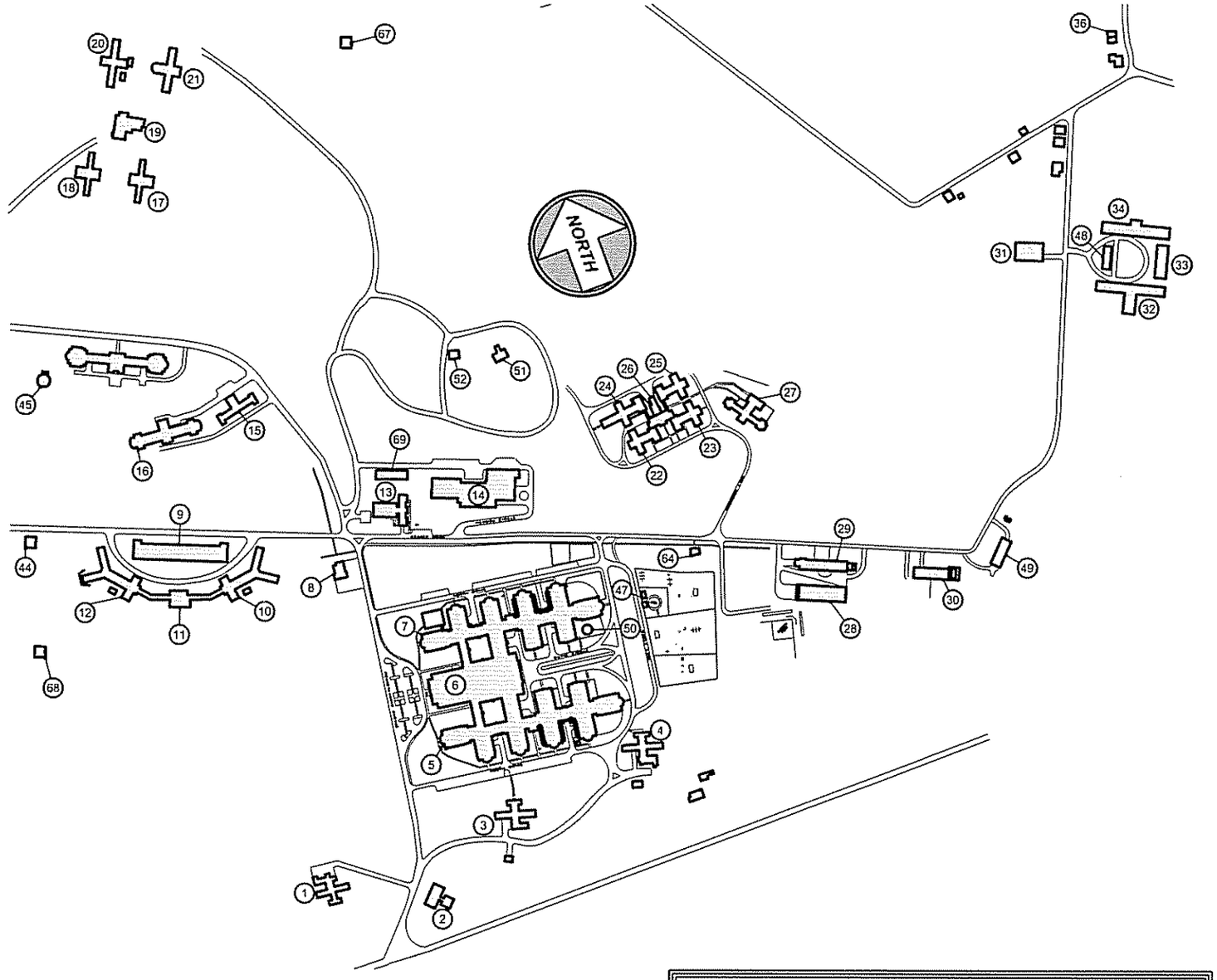
DHS Selinsgrove Center

LEGEND

Bldg. No.	Building Name
1.	Arbor Cottage and Garage
2.	Administrative Annex
3.	Bell Cottage and Garage
4.	Cedar Cottage and Garage
5.	CM Side - Central Building Complex
6.	Administrative and Dietary-Central Building Complex
7.	CF Side - Central Building Complex
8.	Fire House
9.	Training Center - School Building
10.	Harmony Hall and Horizons
11.	Dining Area
12.	Hickory Hall and Hemlock Manor
13.	Chapel & T-1 Apartment
14.	Recreation Building and TAS
15.	Beechwood - Terrace-Third Floor
16.	Applewood
17.	E-1 - Evening Star Manor
18.	E-2 - Echo Hall
19.	Program Area
20.	E-3 - Elm Cottage
21.	E-4 - Evergreen Manor
22.	Clearview
23.	Day Care
24.	Cottonwood

LEGEND

Bldg. No.	Building Name
25.	Dogwood
26.	Dining Area/Clinic/Offices
27.	D-5 (not occupied)
28.	Maintenance Building
29.	Laundry
30.	Power Plant
31.	Automotive Garage
32.	Carpenter Shop (Scale House & Hose Shed)
33.	Grounds and Welding Shop
34.	Mechanical Stores
36.	Agriculture Activities Center
44.	Water Treatment Plant
45.	Scout Camp
47.	Wading Pool Room
48.	Lumber Storage
50.	Greenhouse
51.	Director's Residence
52.	Residence No. 2
64.	Residence No. 23
67.	Pump House No. 4, Well No. 6
68.	Pump House No. 5, Well No. 7
69.	D.G.S Building



MAIN CAMPUS

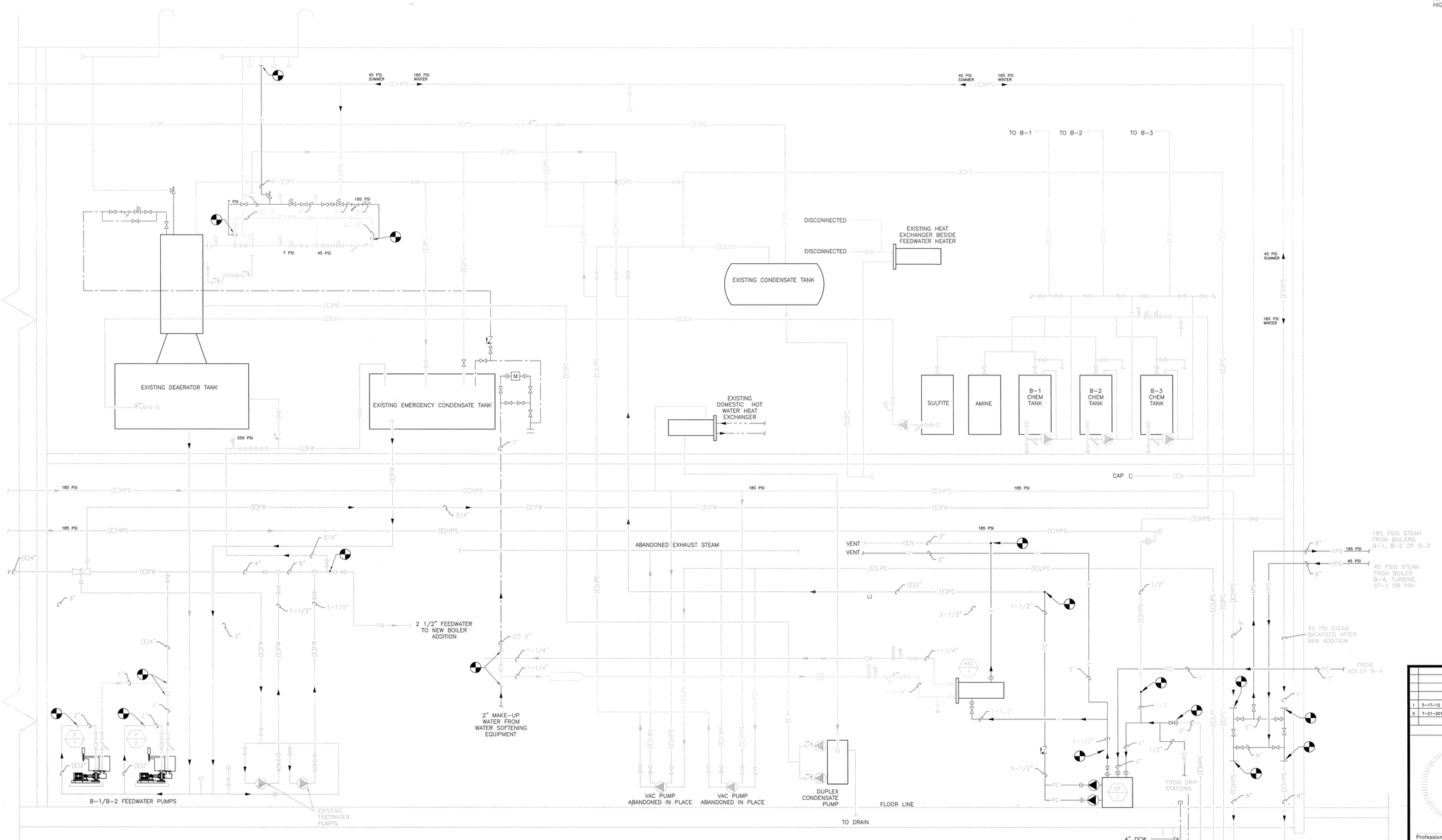
SELINSGROVE CENTER

SELINSGROVE, SNYDER COUNTY, PA.

DEPARTMENT OF PUBLIC WELFARE
DIVISION OF FACILITIES AND SPACE MANAGEMENT November 2003

KEYED DRAWING NOTES:

(1) PROVIDE 3/4" DRAIN VALVE WITH HOSE END CONNECTION, CAP, AND CHAIN AT BASE OF ALL PIPE RISERS AND SYSTEM LOW POINTS. PROVIDE MANUAL AIR VENTS AT TOP OF ALL PIPE RISERS AND SYSTEM HIGH POINTS.



POWER HOUSE – SCHEMATIC DIAGRAM – NEW WORK

NO SCALE:

AS-BUILT DRAWING

1	5-17-12 ISSUED ASBUILT	
0	7-21-2011 ISSUE FOR CONSTRUCTION	
	DESCRIPTION	DESCRIPTION

DESIGN REVISIONS

Professional's Signature Date Consultant's Signature Date

mcclure company
MECHANICAL CONTRACTORS AND ENGINEERS
4101 NORTH SIXTH ST.
HARRISBURG, PA 17110
TEL: (717) 232-8743
FAX: (717) 236-5239
http://www.mcclureco.com
a PPL company

COMMONWEALTH OF PENNSYLVANIA
DEPARTMENT OF PUBLIC WELFARE
HARRISBURG, PENNSYLVANIA

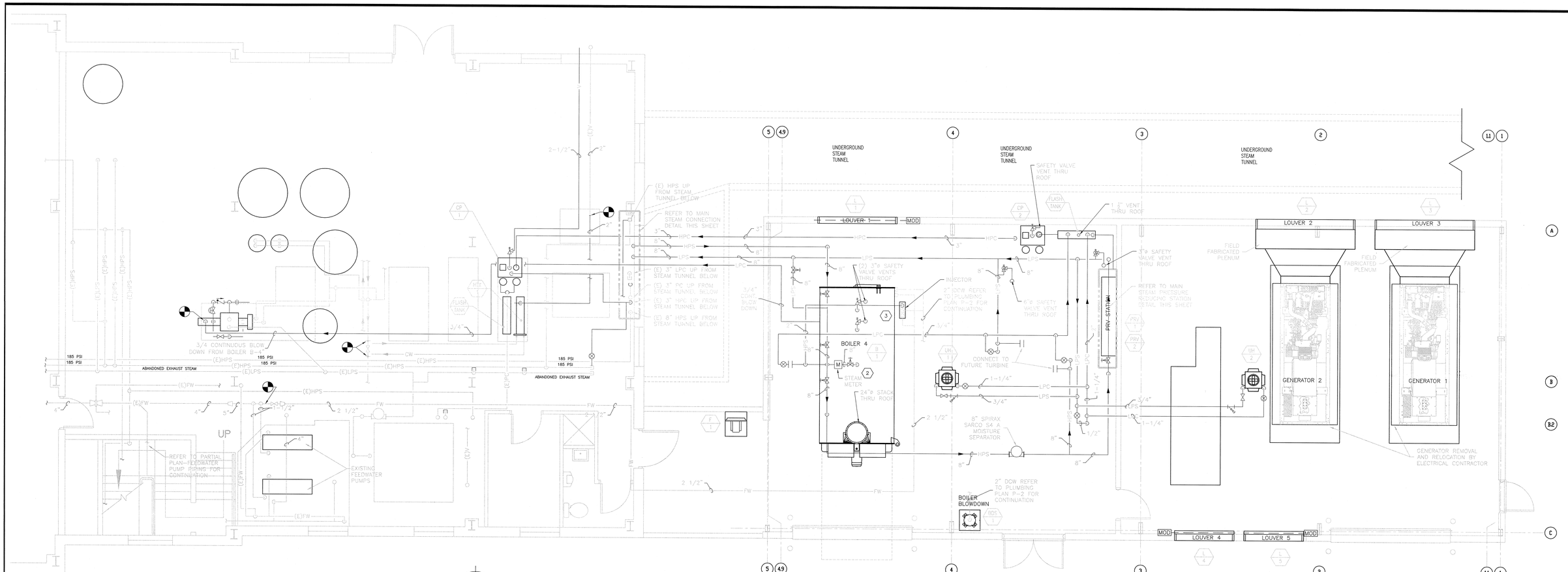
PROJECT: RFP # DPW-SEL-8/2009

ADDITIONS & ALTERATIONS TO THE SELINSGROVE CENTER
BUILDING 30 - POWER HOUSE

PENN TOWNSHIP SNYDER COUNTY, PENNSYLVANIA

POWER HOUSE - SCHEMATIC DIAGRAM - NEW WORK

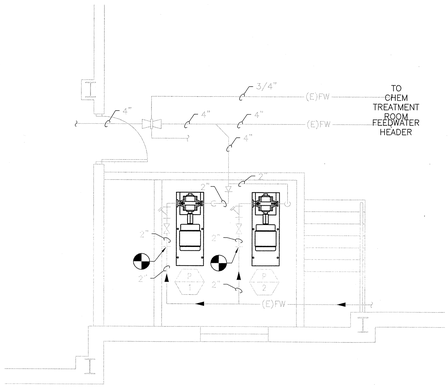
DRAWN BY: AJB	DATE: 09-25-10	DRAWING: M-1.0
CHECKED BY: MGT	SCALE: AS NOTED	



PARTIAL LOWER LEVEL FLOOR PLAN – POWER HOUSE – PIPING

SCALE: 1/4" = 1'-0"

1



PARTIAL PLAN – FEEDWATER PUMP – PIPING

SCALE: 1/4" = 1'-0"

PENNSYLVANIA DEPARTMENT OF LABOR AND INDUSTRY: CHAPTER 3A BOILER AND UNFIRED PRESSURE VESSEL REGULATIONS

§ 3A.36. CLEARANCES.

A. THE FOLLOWING CLEARANCES APPLY FOR BOILERS INSTALLED AFTER JANUARY 1, 1960:
   1. THE MINIMUM CLEARANCE AROUND EACH BOILER MUST BE 30 INCHES WITH AT LEAST 6 FEET CLEARANCE FROM THE FLOOR TO OVERHEAD OBSTRUCTIONS.
   2. THE MINIMUM CLEARANCE AROUND EACH UNFIRED PRESSURE VESSEL MUST BE 18 INCHES. THE MINIMUM CLEARANCE IN FRONT OF A MANHOLE COVER SHALL BE 30 INCHES.
   3. A CLEARANCE OF AT LEAST 12 INCHES MUST BE PROVIDED BETWEEN THE FLOOR AND LOWER HEAD OR THE UNDERSIDE OF THE SHELL OF AN UNFIRED PRESSURE VESSEL. THE CLEARANCE DISTANCE MUST BE THE MEASUREMENT FROM A VESSEL APPENDAGE TO THE NEXT OBJECT.

B. THE FOLLOWING REQUIREMENTS APPLY TO A SINGLE INSTALLATION OR ASSEMBLY OF STORAGE WATER HEATERS OR INSTANTANEOUS WATER HEATERS, WHICH OPERATE AS A UNIT:
   1. THE UNIT MAY BE ARRANGED WITH A MINIMUM CLEARANCE OF 6 INCHES BETWEEN COMPONENTS IF AN 18-INCH CLEARANCE SHALL BE MAINTAINED AROUND THE ASSEMBLY. THE CLEARANCE IN FRONT OF A MANHOLE OPENING IS A MINIMUM OF 30 INCHES.
   2. AN ASSEMBLY MAY NOT EXCEED 9 MILLION BTU INPUT.
   3. CASINGS MUST BE READILY REMOVABLE FOR INSPECTION PURPOSES, IF CASINGS ARE PROVIDED.

C. A NEW BUILDING CONTAINING MULTIPLE BOILER INSTALLATIONS MUST MEET THE FOLLOWING MINIMUM OVERHEAD CLEARANCE REQUIREMENTS:
   1. BETWEEN THE BOILER PLATFORM AND THE CEILING: 7 FEET.
   2. BETWEEN THE TOP OF THE BOILER PROPER AND THE CEILING FOR ALL INSTALLATIONS: 3 1/2 FEET.
   3. BETWEEN THE HIGHEST POINT OF ANY VALVE OR FITTING AND THE CEILING: 6 INCHES.

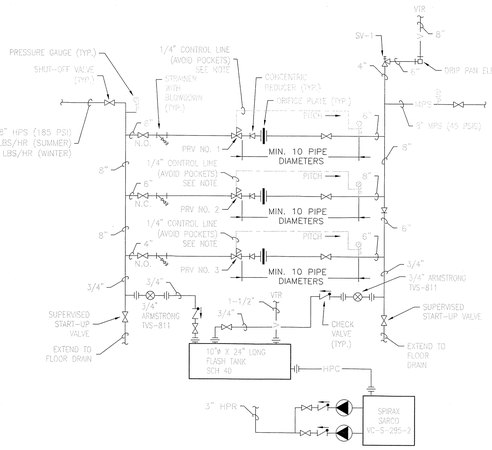
D. (SUBSECTIONS (A) AND (B) DO NOT APPLY TO PRESSURE VESSELS OF FACTORY ASSEMBLED PACKAGE UNITS THAT ARE GOVERNED BY § 3A.111 (RELATING TO FIELD INSPECTIONS) IF THERE IS ADEQUATE CLEARANCE FOR OPERATION AND INSPECTION. SUBSECTION (A) APPLIES TO THE ENTIRE FACTORY ASSEMBLED UNIT.

E. THE MINIMUM CLEARANCE AROUND A WALL-HUNG BOILER MUST BE 30 INCHES EXCEPT FOR THE WALL MOUNT SIDE.

F. THE CLEARANCE BETWEEN MODULES IN A MODULAR SYSTEM MAY BE REDUCED TO THE MANUFACTURER'S RECOMMENDATIONS IF THE ENTIRE MODULAR BOILER SYSTEM MEETS THE 30-INCH CLEARANCE REQUIREMENT OF SUBSECTION (A)(1).

G. THIS SECTION DOES NOT APPLY TO A MINIATURE BOILER IF THE BOILER CAN BE SAFELY INSPECTED AS INSTALLED.

H. TRIPPING HAZARDS ARE NOT PERMITTED.



PRV 1: 4" SIZE, CAPACITY: 28862#/HR (MAXIMUM), 12075#/HR (MINIMUM) CV= 92, SET AT 46 PSI
PRV 2: 4" SIZE (100% REDUNDANCY), CAPACITY: 28862#/HR (MAXIMUM), 12075#/HR (MINIMUM) CV= 92, SET AT 46 PSI. NORMALLY CLOSED.
PRV 3: 2-1/2" SIZE, CAPACITY: 12075#/HR (MAXIMUM), 2400#/HR (MINIMUM) CV= 60, SET AT 44 PSI
SV-1: 4"x4"x4", SET AT 55 PSIG, 41331#/HR CAPACITY AT 10% ACCUMULATION, 12.155 SQ. IN. ORIFICE

SINGLE STAGE PRV STATION
185 PSI TO 45 PSI

STEAM PRESSURE REDUCING STATION

SCALE: NOT TO SCALE

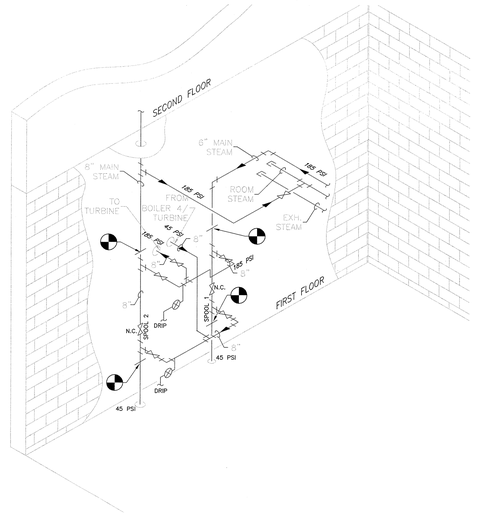
1

NOTE: CONTROL PRESSURE TRANSMITTED THROUGH THE 1/4" CONTROL LINE. SHALL CONNECT AT A POINT OF MINIMUM TURBULENCE. AVOID AREAS IMMEDIATELY AFTER VALVES, ELBOWS OR OTHER FITTINGS. ADHERE TO MINIMUM STRAIGHT RUN NOTED ON SCHEMATIC.

AS-BUILT DRAWING

KEYED DRAWING NOTES:

1. PROVIDE 3/4" DRAIN VALVE WITH HOSE END CONNECTION, CAP, AND CHAIN AT BASE OF ALL PIPE RISERS AND SYSTEM LOW POINTS. PROVIDE MANUAL AIR VENTS AT TOP OF ALL PIPE RISERS AND SYSTEM HIGH POINTS.
2. FLOW METER MUST BE INSTALLED A MINIMUM OF 10 PIPE DIAMETERS DOWNSTREAM OF AN ELBOW, TRANSITION, OR FITTING; AND 30 PIPE DIAMETERS DOWNSTREAM OF A VALVE. A MINIMUM OF 12" CLEARANCE FROM OVERHEAD OBSTRUCTIONS MUST BE MAINTAINED. REFER TO INSTALLATION AND OPERATION MANUAL FOR CORRECT INSTALLATION PRACTICES.
3. PENBERTHY VALVE MUST BE INSTALLED AT A HEIGHT THAT ALLOWS ACCESS TO STEAM SUPPLY VALVE AND WATER FEED VALVES. OVERFLOW DRAIN PIPING MUST BE ROUTED THAT DISCHARGE OCCURS AT A SAFE DISTANCE FROM PENBERTHY VALVE OPERATOR. REFER TO INSTALLATION AND OPERATION MANUAL FOR CORRECT ORIENTATION.



NEW BOILER AND TURBINE PIPING CONNECTION TO EXISTING STEAM MAIN

SCALE: NOT TO SCALE

1

1	5-17-12 ISSUED ASBUILT	
0	7-21-2011 ISSUE FOR CONSTRUCTION	
	DESCRIPTION	DESCRIPTION

DESIGN REVISIONS

Professional's Signature Date Consultant's Signature Date

mcclure company
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COMMONWEALTH OF PENNSYLVANIA
DEPARTMENT OF PUBLIC WELFARE
HARRISBURG, PENNSYLVANIA

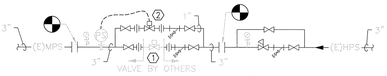
PROJECT: RFP # DPW-SEL-8/2009

ADDITIONS & ALTERATIONS TO
THE SELINSGROVE CENTER
BUILDING 30 - POWER HOUSE

PENN TOWNSHIP SNYDER COUNTY, PENNSYLVANIA

PARTIAL LOWER LEVEL FLR PLAN
POWER HOUSE AND BOILER ADDT'N

DRAWN BY:	DATE:	DRAWING:
AJB	09-25-10	M-1.1
CHECKED BY:	SCALE:	

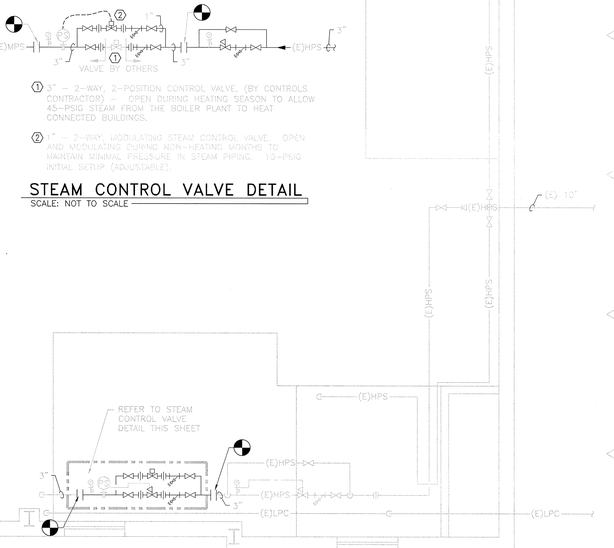


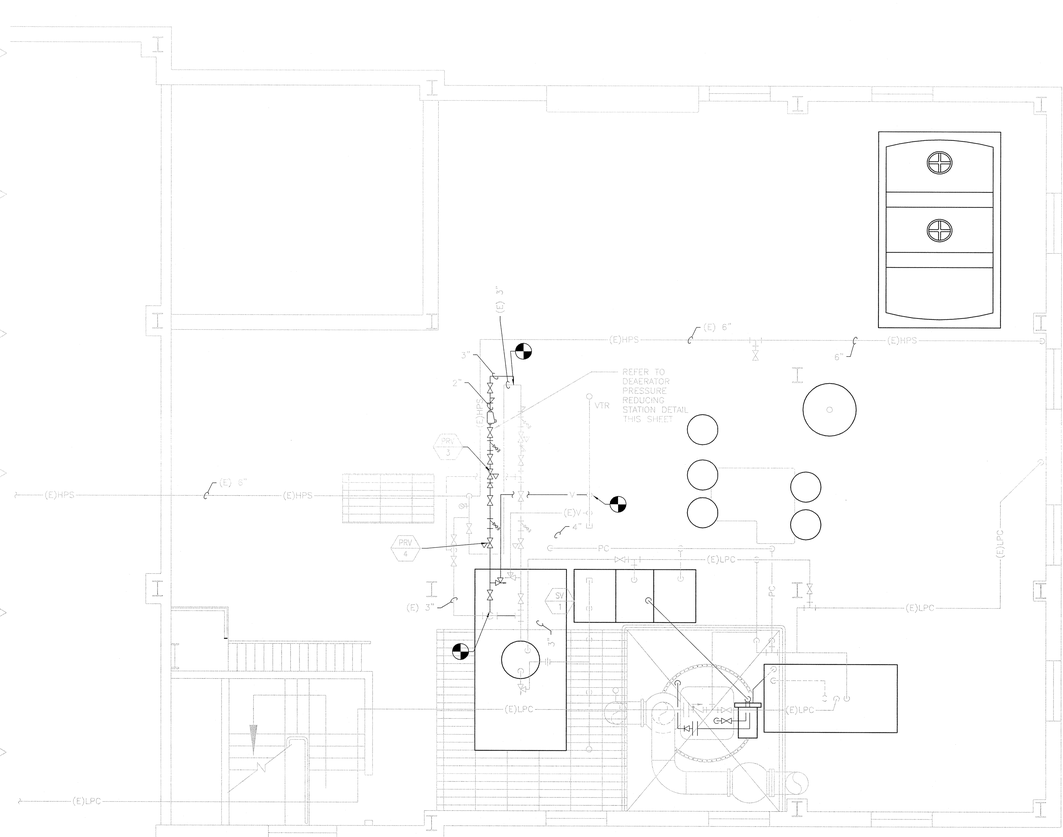
① 3" – 2-WAY, 2-POSITION CONTROL VALVE, (BY CONTROLS CONTRACTOR) – OPEN DURING HEATING SEASON TO ALLOW 45-PSIG STEAM FROM THE BOILER PLANT TO HEAT CONNECTED BUILDINGS.

② 1" – 2-WAY, MODULATING STEAM CONTROL VALVE. OPEN AND MODULATING DURING NON-HEATING MONTHS TO MAINTAIN MINIMAL PRESSURE IN STEAM PIPING, 10-PSIG INITIAL SETUP (ADJUSTABLE).

STEAM CONTROL VALVE DETAIL

SCALE: NOT TO SCALE



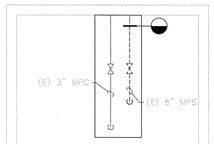


KEYED DRAWING NOTES:

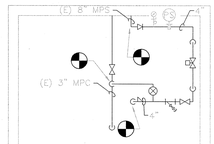
1. PROVIDE 3/4" DRAIN VALVE WITH HOSE END CONNECTION, CAP, AND CHAIN AT BASE OF ALL PIPE RISERS AND SYSTEM LOW POINTS. PROVIDE MANUAL AIR VENTS AT TOP OF ALL PIPE RISERS AND SYSTEM HIGH POINTS.

PARTIAL UPPER LEVEL FLOOR PLAN – POWER HOUSE – PIPING

SCALE: 1/4" = 1'-0"



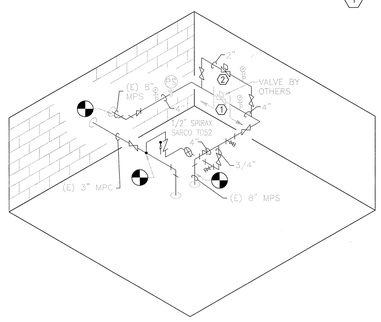
DEMOLITION



NEW WORK

PARTIAL FLOOR PLANS – STEAM VALVE BUILDING – DEMOLITION AND NEW WORK

SCALE: 1/4" = 1'-0"

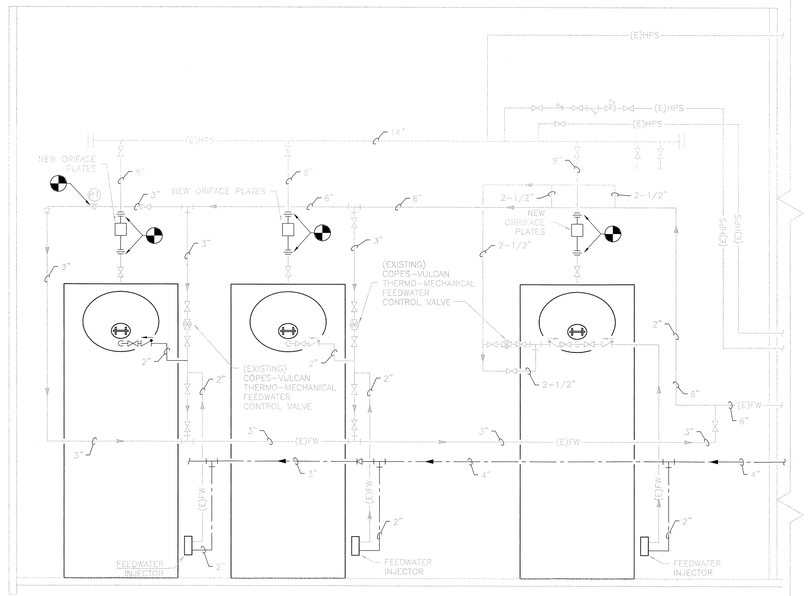


STEAM VALVE BUILDING STEAM CONTROL VALVE DETAIL

NO SCALE:

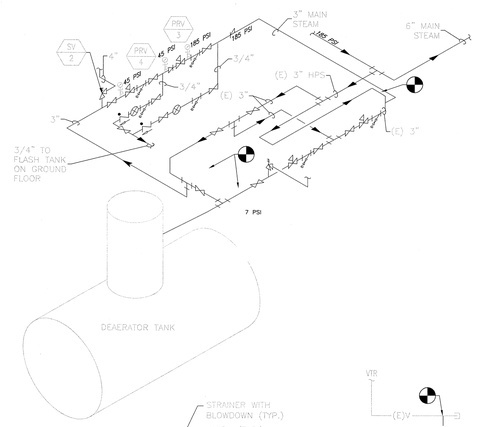
① 3" – 2-WAY, 2-POSITION CONTROL VALVE, (BY CONTROLS CONTRACTOR) – OPEN DURING HEATING SEASON TO ALLOW 45-PSIG STEAM FROM THE BOILER PLANT TO HEAT CONNECTED BUILDINGS.

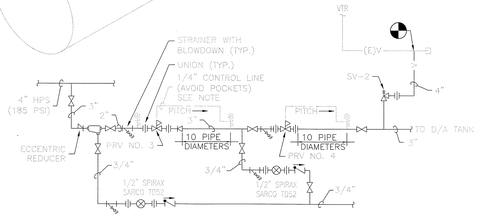
② 1-1/4" – 2-WAY, MODULATING STEAM CONTROL VALVE. OPEN AND MODULATING DURING NON-HEATING MONTHS TO MAINTAIN MINIMAL PRESSURE IN STEAM PIPING. 10-PSIG INITIAL SETUP (ADJUSTABLE).



POWER HOUSE – BOILER ROOM – SCHEMATIC DIAGRAM – NEW WORK

NO SCALE:





PRV 3: 2" SIZE, CAPACITY: 3168#/HR CV= 74, SET AT 45 PSI
PRV 4: 3" SIZE, CAPACITY: 3260#/HR CV= 74, SET AT 3 PSI
SV 2: 3"x4", SET AT 15 PSIG, 4415#/HR CAPACITY AT 10% ACCUMULATION, 3.055 SQ. IN. ORIFICE

TWO STAGE PRV STATION
185 PSI TO 3 PSI

DEAERATOR TANK PRESSURE REDUCING STATION

SCALE: NOT TO SCALE

NOTE: CONTROL PRESSURE TRANSMITTED THROUGH THE 1/4" CONTROL LINE, SHALL CONNECT AT A POINT OF MINIMUM TURBULENCE, AVOID AREAS IMMEDIATELY AFTER VALVES, ELBOWS OR OTHER FITTINGS, ADHERE TO MINIMUM STRAIGHT RUN NOTED ON SCHEMATIC.

AS-BUILT DRAWING

1	5-17-12 ISSUED ASBUILT		
0	7-21-2011 ISSUE FOR CONSTRUCTION		
	DESCRIPTION		DESCRIPTION

DESIGN REVISIONS

Professional's Signature Date Consultant's Signature Date

mcclure company
MECHANICAL CONTRACTORS AND ENGINEERS
4101 NORTH SIXTH ST.
HARRISBURG, PA 17110
TEL: (717) 232-9743
FAX: (717) 236-5039
http://www.mcclureco.com
a PPL company

COMMONWEALTH OF PENNSYLVANIA
DEPARTMENT OF PUBLIC WELFARE
HARRISBURG, PENNSYLVANIA

PROJECT: RFP # DPW-SEL-8/2009

ADDITIONS & ALTERATIONS TO
THE SELINSGROVE CENTER
BUILDING 30 - POWER HOUSE

PENN TOWNSHIP SNYDER COUNTY, PENNSYLVANIA

PARTIAL UPPER LEVEL FLR PLAN
POWER HOUSE AND BOILER ADDT'N

DRAWN BY:	DATE:	DRAWING:
AJB	09-25-10	M-1.2
CHECKED BY:	SCALE:	
MGT	AS NOTED	

APPENDIX Q

Hazardous Material

ENVIRONMENTAL
MANAGEMENT
I N C

ASBESTOS IDENTIFICATION, ASSESSMENT AND MANAGEMENT PLAN FOR

DEPARTMENT OF PUBLIC WELFARE
SELINSGROVE CENTER
POWER PLANT
SELINSGROVE, PA 17870

INSTALLATION NO. 00885
BUILDING No. 089

Prepared For:

COMMONWEALTH OF PENNSYLVANIA
DEPARTMENT OF GENERAL SERVICES
515 North Office Building
Harrisburg, PA 17125

Prepared By:

NORTHEAST ENVIRONMENTAL MANAGEMENT INC
Ten Penn Center
1801 Market Street
Suite 1000
Philadelphia, PA 19103

April 1990

Task Order Number 89003 EMI
Contract Number ME815208

TABLE 1

RESPONSE ACTION PROGRAM

POWER PLANT (089)

DESCRIPTION OF FUNCTIONAL SPACE	HOMOGE-NEOUS AREA NO.	FUNCTIONAL SPACE NO.(S)	DESCRIPTION OF MATERIAL	HAZARD RANK	RESPONSE ACTION	ASBESTOS PRESENT	QUANTITY OF ACM	RESPONSE ACTION COST ($)	REMOVAL/ REPLACEMENT COST ($)	COMMENTS
Power Plant	1	1A	1"-4" Pipe insulation	2	Repair	YES	500 LF	540	6,500/3,675	Good condition
Power Plant	2	1A	8"-12" Pipe insulation	2	Repair	YES	600 LF	960	11,700/6,470	Good condition
Power Plant	3	1A	Pipe fitting insulation	2	Repair	YES	75 EA	290	3,415/1,985	Good condition
Power Plant	4	1A	Pipe fitting insulation	2	Repair	YES	75 EA	290	3,415/1,985	Good condition
Power Plant	5	1A	Pipe insulation	2	Repair	YES	100 LF	110	1,300/735	Good condition
Power Plant	6	1A	Pipe insulation	2	Repair	YES	275 LF	300	3,575/2,025	Good condition
Power Plant	7	1A	Pipe fitting insulation	2	Repair	YES	50 EA	190	2,275/1,325	Good condition
Power Plant	8	1A	Boiler insulation	2	Repair	YES	45 SF	95	1,055/665	Damaged condition

N/A = Not analyzed

TABLE 1 (Continued)

RESPONSE ACTION PROGRAM

POWER PLANT (089)

DESCRIPTION OF FUNCTIONAL SPACE	HOMOGE-NEOUS AREA NO.	FUNCTIONAL SPACE NO.(S)	DESCRIPTION OF MATERIAL	HAZARD RANK	RESPONSE ACTION	ASBESTOS PRESENT	QUANTITY OF ACM	RESPONSE ACTION COST ($)	REMOVAL/ REPLACEMENT COST ($)	COMMENTS
Power Plant	9	1A	Fiberglass pipe insulation	N/A	N/A	NO	N/A	N/A	N/A	None
Power Plant	10	1A	Pipe fitting insulation on fiberglass	2	Repair	YES	15 EA	60	685/400	Good condition
Power Plant	12	1A	Tank #1 insulation	5	Repair	YES	25 SF	60	585/370	Damaged condition
Power Plant	13	1A	Tank #2 insulation	2	Repair	YES	180 SF	360	4,215/2,650	Good condition
Power Plant	14	1A	Tank #3 insulation	5	Repair	YES	250 SF	500	5,850/3,675	Damaged condition

N/A = Not analyzed

TABLE 1 (Continued)

RESPONSE ACTION PROGRAM

POWER PLANT (089)

DESCRIPTION OF FUNCTIONAL SPACE	HOMOGENEOUS AREA NO.	FUNCTIONAL SPACE NO.(S)	DESCRIPTION OF MATERIAL	HAZARD RANK	RESPONSE ACTION	ASBESTOS PRESENT	QUANTITY OF ACM	RESPONSE ACTION COST ($)	REMOVAL/ REPLACEMENT COST ($)	COMMENTS
Power Plant	15	1A	Boiler flue insulation	2	Repair	YES	1300 SF	2,600	30,420/19,110	Good condition
							Subtotals	$6,355	$74,990/$45,070	
							Removal and Replacement Combined Total		$120,060	
							Contingency (10%)		12,006	
							A/E Design (10%)		12,006	
							Construction Admin. (4%)		4,802	
							Daily Air Monitoring (16%)*		19,210	
							GRAND TOTAL		$168,084	

* Does not include TEM analyses
N/A = Not analyzed

ENVIRONMENTAL MANAGEMENT I N C

ASBESTOS IDENTIFICATION, ASSESSMENT AND MANAGEMENT PLAN FOR

SELINSGROVE CENTER
CENTRAL ADMINISTRATION AREA
SELINSGROVE, PA 17870

INSTALLATION NO. 00885
BUILDING No. 006

Prepared For:

COMMONWEALTH OF PENNSYLVANIA
DEPARTMENT OF GENERAL SERVICES
515 North Office Building
Harrisburg, PA 17125

Prepared By:

NORTHEAST ENVIRONMENTAL MANAGEMENT INC
Ten Penn Center
1801 Market Street
Suite 1000
Philadelphia, PA 19103

April 1990

Task Order Number 89003 EMI
Contract Number ME815208

2700 Northeast Expressway
Building C, Suite 700
Atlanta, Georgia 30345
404 633-9946
800 542-5244

TABLE 1

RESPONSE ACTION PROGRAM

CENTRAL ADMINISTRATION AREA (006)

DESCRIPTION OF FUNCTIONAL SPACE	HOMOGE-NEOUS AREA NO.	FUNCTIONAL SPACE NO.(S)	DESCRIPTION OF MATERIAL	HAZARD RANK	RESPONSE ACTION	ASBESTOS PRESENT	QUANTITY OF ACM	RESPONSE ACTION COST ($)	REMOVAL/ REPLACEMENT COST ($)	CONDITION
Basement	1	1A	9"x9" floor tile	N/A	O&M	Yes	3,940 SF	1,340	15,365/11,425	Good
1st floor	1	1C	9"x9" floor tile	N/A	O&M	Yes	12,920 SF	4,395	50,390/37,470	Good
Basement	2	1A	12"x12" off-white floor tile	N/A	O&M	Yes	550 SF	190	2,145/1,595	Good
1st floor	2	1C	12"x12" off-white floor tile	N/A	O&M	Yes	500 SF	170	1,950/1,450	Good
Basement	3	1A	12"x12" off-white with colored floor tile	N/A	O&M	Yes	2,350 SF	800	9,165/6,815	Good
Basement, 1st floor	4	1A,1C	2'x4' rough ceiling tile	N/A	N/A	No	N/A	N/A	N/A	None
Basement, 1st floor	5	1A,1C	1'x1' rough ceiling tile	N/A	N/A	No	N/A	N/A	N/A	None

N/A=Not applicable

TABLE 1 (con't)

RESPONSE ACTION PROGRAM

CENTRAL ADMINISTRATION AREA (006)

DESCRIPTION OF FUNCTIONAL SPACE	HOMOGENEOUS AREA NO.	FUNCTIONAL SPACE NO.(S)	DESCRIPTION OF MATERIAL	HAZARD RANK	RESPONSE ACTION	ASBESTOS PRESENT	QUANTITY OF ACM	RESPONSE ACTION COST ($)	REMOVAL/ REPLACEMENT COST ($)	CONDITION
Basement	6	1A	2'x4' smooth ceiling tile	N/A	N/A	No	N/A	N/A	N/A	None
Basement, 1st floor, kitchen	7	1A,1C, 1D	Plaster	N/A	N/A	No	N/A	N/A	N/A	None
1st floor,	8	1C	Spray-applied ceiling material	3	Repair	Yes	43,200	42,640	561,600/250,560	Good
Kitchen	8	1D	Spray-applied ceiling material	6	Removal	Yes	3,400	63,920	44,200/19,720	Damaged
1st floor	9	1C	1'x1' ceiling tile	N/A	N/A	No	N/A	N/A	N/A	None
1st floor	10	1C	1'x1' ceiling tile	N/A	N/A	No	N/A	N/A	N/A	None
Basement	11	1A	Aircell-like pipe insulation	2	Repair	Yes	1,900	2,340	29,640/14,900	Good
1st floor	11	1C	Aircell-like pipe insulation	2	Repair	Yes	150	185	2,340/1,180	Good
Pipe chase/ pipe tunnel	11	1E	Aircell-like pipe insulation	4	Repair	Yes	30	40	470/235	Damaged

N/A = Not applicable

TABLE 1 (con't)

RESPONSE ACTION PROGRAM

CENTRAL ADMINISTRATION AREA (006)

DESCRIPTION OF FUNCTIONAL SPACE	HOMOGENEOUS AREA NO.	FUNCTIONAL SPACE NO.(S)	DESCRIPTION OF MATERIAL	HAZARD RANK	RESPONSE ACTION	ASBESTOS PRESENT	QUANTITY OF ACM	RESPONSE ACTION COST ($)	REMOVAL/ REPLACEMENT COST ($)	CONDITION
Basement	12	1A	Paper-wrap pipe insulation	2	Repair	Yes	2,150	2,650	33,540/16,860	Good
Supply plenum	12	1B	Paper-wrap pipe insulation	3	Repair	Yes	110	135	1,720/860	Good
1st floor	12	1C	Paper-wrap pipe insulation	2	Repair	Yes	120	150	1,870/940	Good
Pipe chase/ pipe tunnel	12	1E	Paper-wrap pipe insulation	4	Repair	Yes	400	495	6,240/3,140	Damaged
Basement	13	1A	Pipe fitting insulation on paper-wrap	2	Repair	Yes	275 EA	1,175	14,300/8,085	Good
Supply plenum	13	1B	Pipe fitting insulation on paper-wrap	3	Repair	Yes	10 EA	45	520/295	Good
1st floor	13	1C	Pipe fitting insulation on paper-wrap	2	Repair	Yes	40 EA	170	2,080/1,180	Good
Pipe chase/ pipe tunnel	13	1E	Pipe fitting insulation on paper-wrap	4	Repair	Yes	130 EA	555	6,760/3,820	Good

N/A = Not applicable

TABLE 1 (con't)

RESPONSE ACTION PROGRAM

CENTRAL ADMINISTRATION AREA (006)

DESCRIPTION OF FUNCTIONAL SPACE	HOMOGENEOUS AREA NO.	FUNCTIONAL SPACE NO.(S)	DESCRIPTION OF MATERIAL	HAZARD RANK	RESPONSE ACTION	ASBESTOS PRESENT	QUANTITY OF ACM	RESPONSE ACTION COST ($)	REMOVAL/ REPLACEMENT COST ($)	CONDITION
Basement	14	1A	Magnesia-type pipe insulation	4	Repair	Yes	575 LF	710	8,970/4,510	Damaged
Pipe chase/ pipe tunnel	16	1E	Fiberglass pipe insulation with canvas wrap	N/A	N/A	No	N/A	N/A	N/A	None
Pipe chase/ pipe tunnel	17	1E	Pipe fitting insulation on fiberglass	2	Repair	Yes	75 EA	320	3,900/2,205	Good
Basement	18	1A	Black cork pipe insulation	N/A	N/A	No	N/A	N/A	N/A	None
Basement	19	1A	Tank insulation	4	Repair	Yes	400 SF	800	9,360/5,880	Damaged
1st floor	20	1C	12"x12" red floor tile	N/A	N/A	No	N/A	N/A	N/A	None
1st floor	21	1C	Gypsum wall-board	N/A	N/A	No	N/A	N/A	N/A	None

N/A = Not applicable

TABLE 1 (con't)

RESPONSE ACTION PROGRAM

CENTRAL ADMINISTRATION AREA (006)

DESCRIPTION OF FUNCTIONAL SPACE	HOMOGENEOUS AREA NO.	FUNCTIONAL SPACE NO.(S)	DESCRIPTION OF MATERIAL	HAZARD RANK	RESPONSE ACTION	ASBESTOS PRESENT	QUANTITY OF ACM	RESPONSE ACTION COST ($)	REMOVAL/ REPLACEMENT COST ($)	CONDITION
Basement	22	1A	Pipe fitting insulation on black cork pipe	N/A	N/A	No	N/A	N/A	N/A	None
							Subtotals	$123,225	$806,525/$393,125	
							Removal and Replacement Combined Total		$1,199,650	
							Contingency (10%)		119,965	
							A/E Design (10%)		119,965	
							Construction Admin. (4%)		47,990	
							Daily Air Monitoring (16%)*		191,945	
							GRAND TOTAL		$1,679,515	

* Does not include TEM analyses
N/A = Not applicable

ENVIRONMENTAL MANAGEMENT INC

ASBESTOS IDENTIFICATION, ASSESSMENT AND MANAGEMENT PLAN FOR

DEPARTMENT OF PUBLIC WELFARE
SELINSGROVE CENTER
CENTRAL MALE HOSPITAL
SELINSGROVE, PA 17870

INSTALLATION NO. 00885
BUILDING Nos. 038 - 049

Institution # 005

Prepared For:

COMMONWEALTH OF PENNSYLVANIA
DEPARTMENT OF GENERAL SERVICES
515 North Office Building
Harrisburg, PA 17125

Prepared By:

NORTHEAST ENVIRONMENTAL MANAGEMENT INC
Ten Penn Center
1801 Market Street
Suite 1000
Philadelphia, PA 19103

April 1990

Task Order Number 89003 EMI
Contract Number ME815208

TABLE 1

RESPONSE ACTION PROGRAM

CENTRAL MALE HOSPITAL (05)

DESCRIPTION OF FUNCTIONAL SPACE	HOMOGENEOUS AREA NO.	FUNCTIONAL SPACE NO.(S)	DESCRIPTION OF MATERIAL	HAZARD RANK	RESPONSE ACTION	ASBESTOS PRESENT	QUANTITY OF ACM	RESPONSE ACTION COST ($)	REMOVAL/ REPLACEMENT COST ($)	CONDITION
Mechanical room	1	1A	Paper-wrap pipe insulation	2	Repair	Yes	150 LF	160	1,950/1,100	Good
Pipe chase	1	1B	Paper-wrap pipe insulation	4	Repair	Yes	775 LF	955	12,090/6,075	Good
Basement corridors, storage and patient areas	1	1C	Paper-wrap pipe insulation	3	Repair	Yes	2,000 LF	2,460	31,200/15,680	Good
Mechanical room	2	1A	Pipe fitting insulation on paper-wrap	2	Repair	Yes	20 EA	25	260/150	Good
Pipe chase	2	1B	Pipe fitting insulation on paper-wrap	2	Repair	Yes	185 EA	790	9,620/5,440	Good
Basement corridors, storage and patient areas	2	1C	Pipe fitting insulation on paper-wrap	3	Repair	Yes	125 EA	535	6,500/3,675	Good

N/A = Not applicable

TABLE 1 (con't)

RESPONSE ACTION PROGRAM

CENTRAL MALE HOSPITAL (05)

DESCRIPTION OF FUNCTIONAL SPACE	HOMOGENEOUS AREA NO.	FUNCTIONAL SPACE NO.(S)	DESCRIPTION OF MATERIAL	HAZARD RANK	RESPONSE ACTION	ASBESTOS PRESENT	QUANTITY OF ACM	RESPONSE ACTION COST ($)	REMOVAL/ REPLACEMENT COST ($)	CONDITION
Pipe chase, basement corridors, storage and patient areas	3	1B,1C	Magnesia-type pipe insulation	N/A	N/A	No	N/A	N/A	N/A	None
Mechanical room	5	1A	Aircell-like pipe insulation	2	Repair	Yes	3,275 LF	3,500	42,575/24,070	Good
Pipe chase	5	1B	Aircell-like pipe insulation	4	Repair	Yes	2,100 LF	2,585	32,760/16,465	Damaged
Basement corridors, storage and patient areas	5	1C	Aircell-like pipe insulation	2	Repair	Yes	3,875 LF	4,770	60,450/30,380	Good
Mechanical room	6	1A	Tank insulation	5	Repair	Yes	20 SF	40	470/295	Good
1st floor	7	1D	Spray-applied fireproofing	N/A	N/A	No	N/A	N/A	N/A	None
Mechanical room	8	1A	Tank insulation	5	Repair	Yes	50 SF	100	1,170/735	Good
Mechanical room	9	1A	Tank insulation	5	Repair	Yes	340 SF	680	7,960/5,000	Good
Mechanical room	10	1A	Tank insulation	5	Repair	Yes	20 SF	40	470/295	Good

N/A= Not applicable

TABLE 1 (con't)

RESPONSE ACTION PROGRAM

CENTRAL MALE HOSPITAL (05)

DESCRIPTION OF FUNCTIONAL SPACE	HOMOGE-NEOUS AREA NO.	FUNCTIONAL SPACE NO.(S)	DESCRIPTION OF MATERIAL	HAZARD RANK	RESPONSE ACTION	ASBESTOS PRESENT	QUANTITY OF ACM	RESPONSE ACTION COST ($)	REMOVAL/ REPLACEMENT COST ($)	CONDITION
Mechanical room	11	1A	Tank insulation	5	Repair	Yes	20 SF	40	470/295	Good
Basement corridors, storage and patient areas	12	1C,1D	Plaster	N/A	N/A	No	N/A	N/A	N/A	None
1st floor	13	1D	Spray-applied ceiling material	N/A	N/A	No	N/A	N/A	N/A	None
1st floor	14	1D	Blue linoleum	N/A	N/A	No	N/A	N/A	N/A	None
1st floor	15	1D	Green linoleum	N/A	N/A	No	N/A	N/A	N/A	None
1st floor	16	1D	Red linoleum	N/A	N/A	No	N/A	N/A	N/A	None
Basement corridors, storage, and patient areas	17	1C	12"x12" off-white floor tile	N/A	N/A	No	N/A	N/A	N/A	None
1st floor	18	D	2'x4' pitted rough ceiling tile	N/A	N/A	No	N/A	N/A	N/A	None

N/A = Not applicable

TABLE 1 (con't)

RESPONSE ACTION PROGRAM

CENTRAL MALE HOSPITAL (05)

DESCRIPTION OF FUNCTIONAL SPACE	HOMOGE-NEOUS AREA NO.	FUNCTIONAL SPACE NO.(S)	DESCRIPTION OF MATERIAL	HAZARD RANK	RESPONSE ACTION	ASBESTOS PRESENT	QUANTITY OF ACM	RESPONSE ACTION COST ($)	REMOVAL/ REPLACEMENT COST ($)	CONDITION
1st floor	19	1D	2'x4' rough ceiling tile	N/A	N/A	No	N/A	N/A	N/A	None
Elevator	20	1E	6"x6" lime floor tile	N/A	N/A	No	N/A	N/A	N/A	None
Basement corridors, storage and patient areas	21	1C	2'x4' pitted ceiling tile	N/A	N/A	No	N/A	N/A	N/A	None
Basement corridors, storage and patient areas	22	1C	Gypsum board	N/A	N/A	No	N/A	N/A	N/A	None
Basement corridors, storage and patient areas	23	1C	Brown linoleum	N/A	N/A	No	N/A	N/A	N/A	None
Mechanical room	24	1A	Pipe fitting insulation on aircell-like pipe	2	Repair	Yes	360 EA	1,360	16,380/9,525	Good

N/A = Not applicable

TABLE 1 (con't)

RESPONSE ACTION PROGRAM

CENTRAL MALE HOSPITAL (05)

DESCRIPTION OF FUNCTIONAL SPACE	HOMOGENEOUS AREA NO.	FUNCTIONAL SPACE NO.(S)	DESCRIPTION OF MATERIAL	HAZARD RANK	RESPONSE ACTION	ASBESTOS PRESENT	QUANTITY OF ACM	RESPONSE ACTION COST ($)	REMOVAL/ REPLACEMENT COST ($)	CONDITION
Pipe chase	24	1B	Pipe fitting insulation on aircell-like pipe	4	Repair	Yes	450 EA	1,925	23,400/13,230	Damaged
Basement corridors, storage and patient areas	24	1C	Pipe fitting insulation on aircell-like pipe	2	Repair	YEs	335 EA	1,430	17,420/9,850	Good
1st floor	26	1D	Troweled-on ceiling material	N/A	N/A	No	N/A	N/A	N/A	None
1st floor	27	1D	1'x1' ceiling tile	N/A	N/A	No	N/A	N/A	N/A	None
							Subtotals	$21,395	$265,145/$142,260	

Removal and Replacement Combined Total	$407,405
Contingency (10%)	40,741
A/E Design (10%)	40,741
Construction Admin. (4%)	16,296
Daily Air Monitoring (I6%)*	65,185
GRAND TOTAL	$162,965

* Does not include TEM analyses
N/A = Not applicable

NEA ENVIRONMENTAL MANAGEMENT INC

ASBESTOS IDENTIFICATION, ASSESSMENT AND MANAGEMENT PLAN FOR

DEPARTMENT OF PUBLIC WELFARE
SELINSGROVE CENTER
CENTRAL FEMALE HOSPITAL
SELINSGROVE, PA 17870

INSTALLATION NO. 00885
BUILDING No. 028 - 037

Institution # 007

Prepared For:

COMMONWEALTH OF PENNSYLVANIA
DEPARTMENT OF GENERAL SERVICES
515 North Office Building
Harrisburg, PA 17125

Prepared By:

NORTHEAST ENVIRONMENTAL MANAGEMENT INC
Ten Penn Center
1801 Market Street
Suite 1000
Philadelphia, PA 19103

April 1990

Task Order Number 89003 EMI
Contract Number ME815208

TABLE 1

RESPONSE ACTION PROGRAM

Central Female Hospital (028 - 037)

SPACE	HOMOGENEOUS AREA NO.	FUNCTIONAL SPACE NO.(S)	DESCRIPTION OF MATERIAL	HAZARD RANK	RESPONSE ACTION	ASBESTOS PRESENT	QUANTITY OF ACM	RESPONSE ACTION COST ($)	REMOVAL/ REPLACEMENT COST ($)	CONDITION
Mechanical rooms	1	1A	Paper-wrap pipe insulation	2	Repair	Yes	150 LF	160	1,950/1,100	Good
Pipe chase	1	1B	Paper-wrap pipe insulation	4	Repair	Yes	775 LF	955	12,090/6,028 - 0375	Damaged
Basement, corridor, storage areas, patient areas	1	1C	Paper-wrap pipe insulation	3	Repair	Yes	2,000 LF	2,460	31,200/15,600	Good
Mechanical rooms	2	1A	Pipe fitting insulation on paper-wrap pipe	2	Repair	Yes	20 EA	25	260/150	Good
Pipe chase	2	1B	Pipe fitting insulation on paper-wrap pipe	4	Repair	Yes	185 EA	790	9,620/5,440	Good
Basement corridor storage areas, and patient areas	2	1C	Pipe fitting insulation on paper-wrap pipe	3	Repair	Yes	125 EA	535	6,500/3,675	Good
Mechanical rooms	3	1A	Magnesia-type pipe insulation	2	Repair	Yes	25 LF	30	325/185	Good

N/A = Not applicable

TABLE 1 (Continued)

RESPONSE ACTION PROGRAM

Central Female Hospital (028 - 037)

DESCRIPTION OF FUNCTIONAL SPACE	HOMOGENEOUS AREA NO.	FUNCTIONAL SPACE NO.(S)	DESCRIPTION OF MATERIAL	HAZARD RANK	RESPONSE ACTION	ASBESTOS PRESENT	QUANTITY OF ACM	RESPONSE ACTION COST ($)	REMOVAL/ REPLACEMENT COST ($)	CONDITION
Basement corridor storage areas, and patient areas	3	1C	Magnesia-type pipe insulation	3	Repair	Yes	100 LF	125	1,560/785	Good
Mechanical rooms	5	1A	Aircell-like pipe insulation	2	Repair	Yes	3,275 LF	3,500	42,575/24,070	Good
Pipe chase	5	1B	Aircell-like pipe insulation	4	Repair	Yes	2,100 LF	2,585	32,760/16,465	Damaged
Basement corridor storage areas, and patient areas	5	1C	Aircell-like pipe insulation	2	Repair	Yes	3,625 LF	4,990	56,550/38,420	Good
Plenum	5	1E	Aircell-like pipe insulation	3	Repair	Yes	250 LF	310	3,900/1,960	Good
Mechanical rooms	6	1A	Tank insulation insulation	5	Repair	Yes	40 SF	80	940/590	Good
1st floor	7	1D	12"x12" off white with brown specks	NA	O&M	Yes	4,150 SF	1,410	16,185/12,035	Good
Mechanical rooms	8	1A	Spray-applied fireproofing	NA	NA	No	NA	NA	NA	None

N/A = Not applicable

TABLE 1 (Continued)

RESPONSE ACTION PROGRAM

Central Female Hospital (028 - 037)

DESCRIPTION OF FUNCTIONAL SPACE	HOMOGENEOUS AREA NO.	FUNCTIONAL SPACE NO.(S)	DESCRIPTION OF MATERIAL	HAZARD RANK	RESPONSE ACTION	ASBESTOS PRESENT	QUANTITY OF ACM	RESPONSE ACTION COST ($)	REMOVAL/ REPLACEMENT COST ($)	CONDITION
Mechanical rooms	9	1A	Tank insulation	5	Repair	Yes	360 SF	720	8,425/5,290	Good
1st floor	10	1D	Red linoleum	NA	O&M	Yes	600 SF	205	2,340/1,740	Good
Mechanical rooms	11	1A	Tank insulation	5	Repair	Yes	20 SF	40	470/295	Good
Elevator	12	1F	6"x6" lime floor tile	N/A	N/A	No	N/A	N/A	N/A	None
Basement corridor storage areas, and patient areas	13	1C	Off white linoleum	N/A	N/A	No	N/A	N/A	N/A	None
Basement corridor storage areas, and patient areas	14	1C	Wood-like linoleum	N/A	N/A	No	N/A	N/A	N/A	None
Basement corridor storage areas, and patient areas	15	1C	9"x9" gray, pink and green patterned floor tile	N/A	O&M	Yes	1,500 SF	510	5,850/4,350	Good
Mechanical rooms	16	1A	Tank insulation	5	Repair	Yes	25 SF	50	585/370	Damaged

N/A = Not applicable

TABLE 1 (Continued)

RESPONSE ACTION PROGRAM

Central Female Hospital (028 - 037)

TION TIONAL SPACE	HOMOGE-NEOUS FUNCTIONAL AREA NO.	SPACE NO.(S)	DESCRIPTION OF MATERIAL	HAZARD RANK	RESPONSE ACTION	ASBESTOS PRESENT	QUANTITY OF ACM	RESPONSE ACTION COST ($)	REMOVAL/ REPLACEMENT COST ($)	CONDITION
Basement corridor storage areas, and patient areas	17	1C	Blue linoleum	N/A	N/A	No	N/A	N/A	N/A	None
1st floor	18	1D	Spray applied ceiling material	N/A	N/A	No	N/A	N/A	N/A	None
Basement corridor storage areas, and patient areas	19	1C, 1D	Plaster	N/A	N/A	No	N/A	N/A	N/A	None
Basement corridor storage areas, and patient areas	20	1C	2'x4' pitted ceiling tile	N/A	N/A	No	N/A	N/A	N/A	None
Basement corridor storage areas, and patient areas	21	1C	2'x4' foil ceiling tile	N/A	N/A	No	N/A	N/A	N/A	None
Basement corridor storage areas, and patient areas	22	1C	2'x2' slats-pattern ceiling tile	N/A	N/A	No	N/A	N/A	N/A	None
Basement corridor storage areas, and patient areas	23	1C	1'x1' rough ceiling tile	N/A	N/A	No	N/A	N/A	N/A	None

N/A = Not applicable

TABLE 1 (Continued)

RESPONSE ACTION PROGRAM

Central Female Hospital (028 - 037)

DESCRIPTION OF FUNCTIONAL SPACE	HOMOGENEOUS AREA NO.	FUNCTIONAL SPACE NO.(S)	DESCRIPTION OF MATERIAL	HAZARD RANK	RESPONSE ACTION	ASBESTOS PRESENT	QUANTITY OF ACM	RESPONSE ACTION COST ($)	REMOVAL/ REPLACEMENT COST ($)	CONDITION
Basement corridor storage areas, and patient areas	24	1C	2'x4' smooth ceiling tile	N/A	N/A	No	N/A	N/A	N/A	None
Basement corridor storage areas, and patient areas	25	1C	2'x4' rough ceiling tile	N/A	N/A	No	N/A	N/A	N/A	None
Mechanical rooms	26	1A	Pipe fitting insulation on aircell-type pipe	2	Repair	Yes	360 EA	1,360	16,380/9,525	Good
Pipe chase	26	1B	Pipe fitting insulation on aircell-type pipe	4	Repair	Yes	450 EA	1,925	23,400/13,230	Damaged
Basement corridor storage areas, and patient areas	26	1C	Pipe fitting insulation on aircell-type pipe	2	Repair	Yes	315 EA	1,350	16,380/9,260	Good
1st floor	26	1D	Pipe fitting insulation on aircell-type pipe	3	Repair	Yes	20 EA	90	1,040/590	Good

N/A = Not applicable

TABLE 1 (Continued)

RESPONSE ACTION PROGRAM

Central Female Hospital (07)

DESCRIPTION OF FUNCTIONAL SPACE	HOMOGENEOUS AREA NO.	FUNCTIONAL SPACE NO.(S)	DESCRIPTION OF MATERIAL	HAZARD RANK	RESPONSE ACTION	ASBESTOS PRESENT	QUANTITY OF ACM	RESPONSE ACTION COST ($)	REMOVAL/ REPLACEMENT COST ($)	CONDITION
Mechanical rooms	27	1A	Pipe fitting insulation on fiberglass	2	Repair	Yes	35 EA	130	1,590/930	Good
Mechanical rooms	28	1A	Tank insulation	5	Repair	Yes	20 SF	40	470/295	Good
Mechanical rooms	29	1D	Trowel-applied ceiling material	3	Repair	Yes	950 SF	560	7,410/3,310	Good
							Subtotals	$24,935	$300,755/$175,735	
							Removal and Replacement Combined Total		$476,490	
							Contingency (10%)		47,650	
							A/E Design (10%)		47,650	
							Construction Admin. (4%)		19,060	
							Daily Air Monitoring (16%)*		76,240	
							GRAND TOTAL		$667,090	

ot include TEM analyses
t applicable

APPENDIX R

Supplemental Provisions for DHS Facilities

SUPPLEMENTAL PROVISIONS
CONTRACTOR BEHAVIOR AND ACTIVITIES AT DEPARTMENT OF HUMAN SERVICES YOUTH DEVELOPMENT
CENTERS, MENTAL HEALTH AND MENTAL RETARDATION FACILITIES

PART 1 – GENERAL

1.1 STIPULATIONS

A. The specifications sections " General Conditions of the Construction Contract ", "Special Conditions", and "Division 1 - General Requirements" form a part of this Section by this reference thereto, and shall have the same force and effect as if printed herewith in full.

1.2 PERSONAL BEHAVIOR

A. Contractors are responsible for disseminating to their employees the special restrictions on personal behavior and the procedures/potential penalties for violations.

B. Identification tags or badges to be furnished by the facility must be worn at all times while on facility property.

C. Smoking is not permitted in any facility building.

1.3 VEHICLES

A. A. Construction vehicles and employee's vehicles will be parked in an area designated by the Department and locked at all times. The license numbers of vehicles to be left overnight will be reported to the security office at the facility on a daily basis by the Contractors.

B. Vehicles may not be operated or parked on any lawn areas, unless otherwise permitted.

1.4 TOOLS

A. A. Tools shall be kept in a secure (locked) area when not in use and inventoried to insure complete and total accountability at the end of each shift. While being used, tools shall be kept in view or on person. Broken or non-usable tools are to be disposed of away from the facility property. Any missing tools are to be reported promptly to the Facility Maintenance Manager. Particular attention should be paid to tools, which may be used as weapons or instruments of escape. Special procedures will be developed with the facility's Maintenance/Engineering DGS 557-19 Phase 1 01115-2 Department concerning cutting pliers, bolt cutters, hacksaws and welding or cutting equipment. UNDER NO CIRCUMSTANCES WILL CUTTING TORCHES OR WELDING EQUIPMENT BE LEFT INSIDE THE PERIMETER SECURITY ENCLOSURE (at facilities with enclosures) OVERNIGHT, ON WEEKENDS OR ON HOLIDAYS.

B. No ladders may be left upright and accessible to residents. If not in use, ladders must be taken down and secured. Scaffolding must be secured to guard against unauthorized use.

1.5 WORK AREAS

A. All work areas are to be kept safe and orderly at all times.

B. All doors are to be kept locked to ensure resident safety. Doors normally unlocked are excluded, unless safety becomes an issue.

C. Passenger elevators are not to be used to transport materials, unless written authorization is given specifying dates and times when it is permissible.

D. Flammable liquids are not to be stored inside occupied buildings.

E. Do not compromise Life Safety Code requirements without prior written consent of the facility's Safety Manager, who will develop and implement alternate plans.

F. Facility supplies are not to be utilized by Contractors, unless called for in the project specifications.

G. Contractors are to be aware of the locations of fire alarms, fire extinguishers and related equipment. The facility Fire Marshal is available to instruct the Contractors in the proper operation of fire safety equipment.

1.6 FRATERNIZATION

A. There shall be no fraternization or private relationships of Contractors' employees with residents. This includes, but is not limited to trading, bartering or receiving gifts, money, or favors from the residents or the residents' friends, relatives or representatives.

1.7 ALCOHOL AND CONTROLLED SUBSTANCES

A. Alcoholic beverages and controlled substances shall not be carried, stored or consumed on facility property nor left in any vehicle.

1.8 GAMBLING

A. Gambling or wagering of any type is not permitted on facility property.

1.9 WEAPONS OR IMPLEMENTS FOR ESCAPE

A. Weapons or implements of escape (other than tools applicable in Paragraph 9.04) shall not be permitted on facility property. Non-compliance with this policy may result in criminal charges.

B. Offense Defined - A person commits a 2nd degree felony if that person unlawfully introduces within a Youth Development Center or MH/MR facility or unlawfully

provides a resident thereof with any weapon, tool, implement or other item which may be used for escape.

C. Definitions:

1. As used in this section, the word "unlawfully" means surreptitiously or contrary to law, regulation, or order of the detaining authority.

2. As used in this section, the word "weapon" means any implement readily capable of lethal use and shall include any firearm, knife, dagger, razor, other cutting or stabbing implement or club, including any item which has been modified or adapted so that it can be used as a firearm, knife, dagger, razor, other cutting or stabbing implement or club. The word "firearm" includes any unloaded firearm and the unassembled components of a firearm.

1.10 CONTRABAND

A. Contraband shall not be permitted on facility property. Non-compliance with this policy may result in criminal charges.

B. Contraband to confined persons is prohibited. A person commits a misdemeanor of the first degree if that person sells, gives or furnishes to any resident in a Youth Development Center or MH/MR Facility, or gives away or brings into any Youth Development Center or MH/MR facility or any building appurtenant thereto, or on the land granted to or owned or leased by the Commonwealth for the use and benefit of the residents, or puts in a place where it may be secured by a resident or employee thereof, any kind of spirituous or fermented liquor, drug, medicine, poison, opium, morphine, or other kind of narcotics (except the ordinary hospital supply) without a written permit signed by a physician of such facility, specifying the quantity and quality of the liquor or narcotic which may be furnished to any resident or employee; the name of the resident or employee for whom it is prescribed; and the time when the same may be furnished, which permit shall be delivered to and kept by the superintendent of the facility.

C. Money to residents is prohibited. A person commits a misdemeanor of the third degree if that person gives or furnishes money to any resident of a Youth DGS 557-19 Phase 1 01115-4 Development Center or MH/MR facility, PROVIDED NOTICE OF THIS PROHIBITION IS ADEQUATELY POSTED AT THE FACILITY. A person may, however, deposit money with the superintendent, or other authorized individual of the facility, for the benefit and use of a resident confined therein, which shall be credited to the resident's account and expended in accordance with the rules and regulations of the facility. The person making the deposit shall be provided with a written receipt for the amount deposited.

1.11 SEARCH

A. Any person entering this facility is subject to a search of his or her person at any time. While the person may refuse, such refusal may be cause for denial of further entrance.

1.12 ORIENTATION PROGRAM

A. The facility agrees to provide an orientation program for covering security rules and regulations for the Contractors' personnel, if so requested.

1.13 EMPLOYEE CRIMINAL RECORD CHECK

A. The Prime Contractor must obtain a criminal record check for all of its employees as well as the employees of Subcontractors or suppliers who will be required to enter the building as part of this project.

B. The criminal record check must be requested from the Pennsylvania State Police by completing a 'REQUEST FOR CRIMINAL RECORD CHECK' FORM and submitting it to the Pennsylvania State Police.

C. As required by the Department of Aging, regulating Pennsylvania Skilled Nursing Homes, if the contractor or his employees reside out of the state of Pennsylvania, a criminal record check must be obtained from the Federal Bureau of Investigation (FBI).

D. All Prime Contractors are responsible for the costs incurred with the record check including the processing fee for all of their employees as well as the employees of Subcontractors or suppliers who will be required to enter the building as part of this project.

E. The forms must be obtained directly from the Pennsylvania State Police or FBI if from out of state.

F. If the Criminal Record Check discloses a criminal record for a Contractor, Subcontractor or supplier employee, the Contractor shall not allow the employee access to the building unless authorized by the Department.

G. Contractors must submit the request for criminal record check to the Pennsylvania State Police with a copy to the Department not less than twenty-four (24) hours prior to individual starting work on the project.

H. The Contractor shall provide each individual with a photo identification card or badge issued by the Contractor or Subcontractors. The identification card shall include the individual's name, address, telephone number, date of birth, driver's license number and date of issuance of the card.

Volume I Technical Submission

Response to
Small GESA Request for Proposals

For A Guaranteed Energy Savings Contractor For:

Small GESA-3 Project for
Department of General Services at

Department of Human Services
Selinsgrove Center

Commonwealth of Pennsylvania
Department of General Services
Harrisburg, PA

March 17, 2017

Submitted by:

Company Name: McClure Company
Company Address: 4101 North Sixth Street, Harrisburg, PA 17110
Contact Person: Alyssa Wingenfield, Account Executive
(717) 514-0576 (phone)
(717) 236-5239 (fax)
alyssawingenfield@mcclureco.com

Table of Contents

ATTACHMENTS

Proposal Signature

Proposer's Representations and Authorizations. Proposer by signing on the signature page and submitting its proposal understands, represents, acknowledges and certifies that:

a. All information provided by, and representations made by, the Proposer in the proposal are material and important and will be relied upon by the Issuing Office in awarding the contract(s). Any misstatement shall be treated as fraudulent concealment from the Issuing Office of the true facts relating to the submission of this proposal. A misrepresentation shall be punishable under 18 Pa. C.S. § 4904.

b. No attempt has been made or will be made to induce any firm or person to refrain from submitting a proposal on this contract, or to submit a proposal higher than this proposal, for to submit any intentionally high or noncompetitive proposal or other form of complementary proposal.

c. The proposal is made in good faith and not pursuant to any agreement or discussion with, for inducement from, any firm or person to submit a complementary or other noncompetitive proposal.

d. To the best of the Company's knowledge, neither the Company nor any of its affiliates, subsidiaries, officers, directors or employees are currently under investigation by any governmental agency regarding a matter concerning conspiracy or collusion with respect to proposing and/or bidding on any public contracts, and have not been convicted or found liable for any act prohibited by state or federal law in any jurisdiction regarding conspiracy or collusion with respect to proposing and/or bidding on any public contracts.

e. To the best of the knowledge of the person signing the proposal for the Proposer and except as otherwise disclosed by the Proposer in its proposal, the Proposer has no outstanding, delinquent obligations to the Commonwealth including, but not limited to, any state tax liability not being contested on appeal or other obligation of the Proposer that is owed to the Commonwealth.

f. The Proposer is not currently under suspension or debarment by the Commonwealth, or any other state, or the federal government. If the Proposer has received, within three years of the issuance of this RFP, a Notice of Default from the Commonwealth, other state or the federal government, then the Proposer shall submit, as part of the Technical Submission, seven copies of a written explanation of why such Notice of Default was issued. This written explanation shall not exceed 1 sheet (2 pages) and shall not count towards the sheet and page limit established for the Technical Submission of the proposal.

g. The Proposer has not, under separate contract with the Issuing Office, made any recommendations to the Issuing Office concerning the need for the services described in the proposal or the specifications for the services described in the proposal.

h. Each Proposer, by submitting its proposal, authorizes all Commonwealth agencies to release to the Commonwealth information related to liabilities to the Commonwealth including, but not limited to, taxes, unemployment compensation, and workers' compensation liabilities.

i. Until the awarded Small GESA Contractor receives a fully executed and approved written contract from the Issuing Office there is no legal and valid contract, in law or in equity, and the Small GESA Contractor should not begin to perform.

j. The total energy savings projected in the final scope of work will be at least 95% of the savings projected in the proposal and that the project will be self-funded over the financial term of the project (maximum term of 20 years.)

k. Proposer agrees and certifies in accordance with the enclosed Commonwealth of Pennsylvania:

- Nondiscrimination/Sexual Harassment Clause
- Tax Liability Certification
- Americans Disabilities Act
- GESA Contractor Integrity Provisions
- GESA Contractor Responsibility Provisions
- Environmental Statement
- Compliance with State and Federal Statutes, Rules and Regulations
- Non-Collusion Affidavit

I am authorized to sign this proposal on behalf of the Proposer and I agree and state that McCLURE COMPANY (Name of Firm) understands and acknowledges that the above representations are material and important, and will be relied upon by the Department of General Services in awarding the contract(s) for which this proposal is submitted. I understand and my firm understands that any misstatement shall be treated as fraudulent concealment from the Department of General Services of the true facts relating to the submission of this proposal.

Signature

SHAYNE A. HOMAN, P.E.
Print Name Legibly

DIRECTOR OF ENERGY SERVICES
Title

INSTRUCTIONS FOR NONCOLLUSION AFFIDAVIT

1. This Non-collusion Affidavit is material to any contract awarded pursuant to this proposal. According to §4507 of the Commonwealth Procurement Code, 62 Pa.C.S. §4507, governmental agencies may require Noncollusion Affidavits to be submitted with proposals.

2. This Non-collusion Affidavit must be executed by the member, officer, or employee of the Proposer who makes the final decision on prices and the amount quoted in the proposal.

3. Bid rigging and other efforts to restrain competition, and the making of false sworn statements in connection with the submission of proposals are unlawful and may be subject to criminal prosecution. The person who signs the affidavit should examine it carefully before signing and assure himself or herself that each statement is true and accurate, making diligent inquiry, as necessary, of all other persons employed by or associated with the Proposer with responsibilities for the preparation, approval or submission of the proposal.

4. In the case of a proposal submitted by a joint venture, each party to the venture must be identified in the proposal documents and an affidavit must be submitted separately on behalf of each party to the joint venture.

5. The term "complementary proposal" as used in the affidavit has the meaning commonly associated with that term in the proposal process, and includes the knowing submission of proposals higher than the proposal of another firm, any intentionally high or noncompetitive proposal, and any other form of proposal submitted for the purpose of giving a false appearance of competition.

6. Failure to submit an affidavit with the Proposal in compliance with these instructions may result in disqualification of the proposal.

NONCOLLUSION AFFIDAVIT

DGS Project Number: Small GESA – 3

State of Pennsylvania :

County of Dauphin : ss

I state that I am the Executive Vice President (Title) of McClure Company (Name of Firm) and that I am authorized to make this affidavit on behalf of my firm, and its owners, directors, and officers. I am the person responsible in my firm for the prices(s) and the amount of this proposal.

I state that:

1. The price(s) and amount of this proposal have been arrived at independently and without consultation, communication or agreement with any other contractor, proposer, or potential proposer.
2. Neither the price(s) nor the amount of this proposal, and neither the approximate price(s) nor approximate amount of this proposal, have been disclosed to any other firm or person who is a proposer or potential proposer, and they will not be disclosed before the proposal submission date.
3. No attempt has been made or will be made to induce any firm or person to refrain from proposing on this contract, or to submit a proposal higher than this proposal, or to submit any intentionally high or noncompetitive proposal or other form of complementary proposal.
4. The proposal of my firm is made in good faith and not pursuant to any agreement or discussion with, or inducement from, any firm or person to submit a complementary or other noncompetitive proposal.
5. To the best of the Company's knowledge, neither the Company nor any of its affiliates, subsidiaries, officers, directors or employees are currently under investigation by any governmental agency regarding a matter concerning conspiracy or collusion with respect to proposing and/or bidding on any public contracts, and have not been convicted or found liable for any act prohibited by state or federal law in any jurisdiction regarding conspiracy or collusion with respect to proposing and/or bidding on any public contracts.

I state that McClure Company (Name of Firm) understands and acknowledges that the above representations are material and important, and will be relied upon by the Department of General Services in awarding the contract(s) for which this proposal is submitted. I understand and my firm understands that any misstatement in this affidavit is and shall be treated as fraudulent concealment from the Department of General Services of the true facts relating to the submission of this proposal.

(Signature)

Todd C. Ray, P.E.
(Signatory's Printed Name)

Executive Vice President
(Signatory's Title)

SWORN TO AND SUBSCRIBED
BEFORE ME THIS 17 DAY OF
March, 2017

Notary Public

My Commission Expires 12/14/19

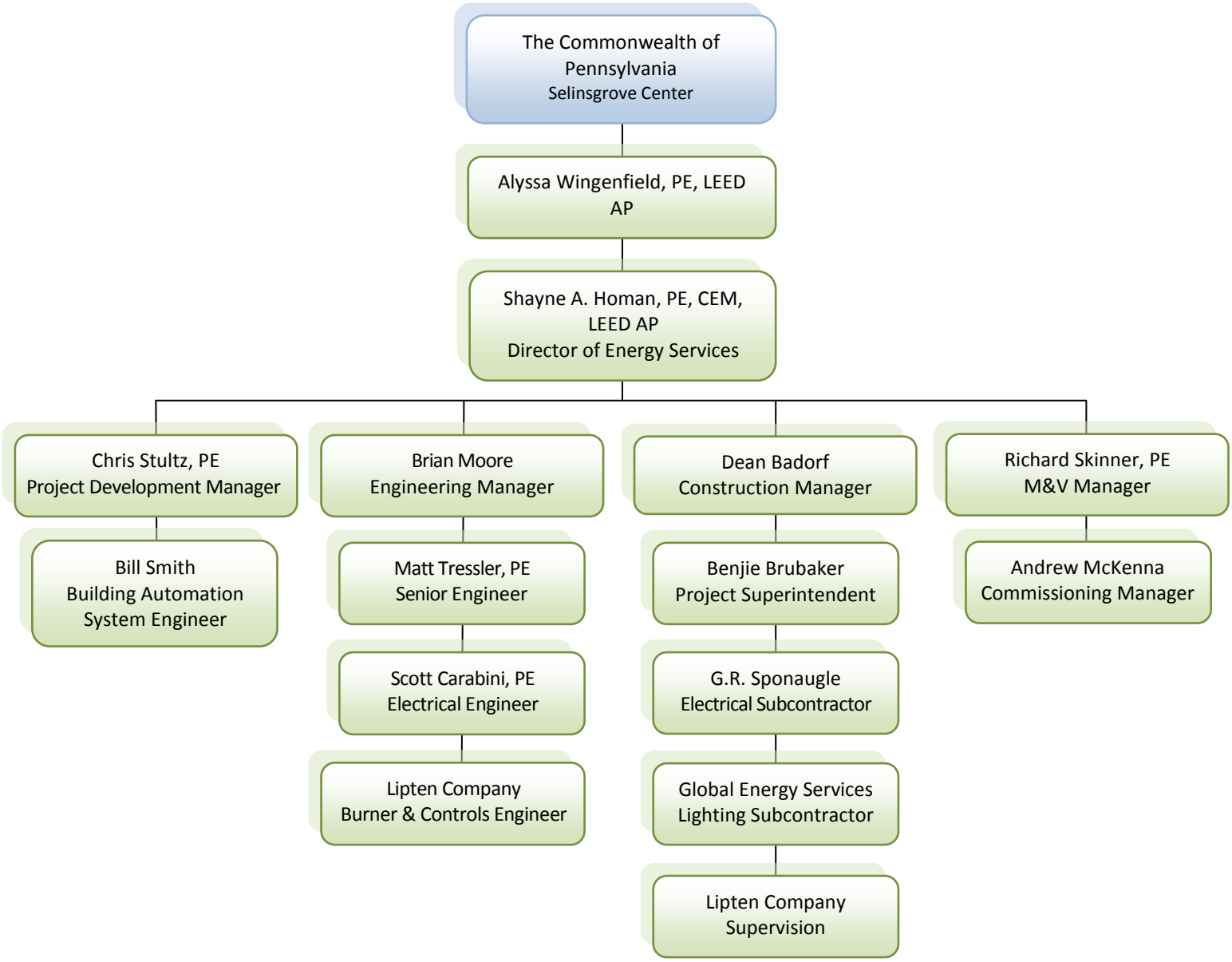
COMMONWEALTH OF PENNSYLVANIA
NOTARIAL SEAL
Roxann E. Maxwell, Notary Public
Susquehanna Twp., Dauphin County
My Commission Expires Dec. 14, 2019
MEMBER, PENNSYLVANIA ASSOCIATION OF NOTARIES

1 Project Management Team

1.1 Project Team Organization Chart

McClure has provided an *Organizational Chart* (Figure 1) that clearly depicts hierarchy and reporting structure of the core project team members, with specific individuals named with roles, and it can be found at the end of this section. McClure Company (McClure) has extensive experience with Guaranteed Energy Savings within the Commonwealth and has performed a previous energy savings project at Selinsgrove Center in 2010. McClure's project team has familiarity and firsthand knowledge of the energy systems at the Selinsgrove Center, which is a crucial component to ensure continuity for another successful project.

Figure 1 – Project Team Organization Chart



1.2 History of Working Relationships on Past Projects by Core Team Members

McClure's project team has a successful history of working relationships on past projects by core project team members. McClure's has selected a robust team of engineers, managers, and project developers to ensure the Selinsgrove Center project is seamless. Most of the core team members were a part of the 2010 Selinsgrove Center project, so there will be a continuity of knowledge and experience.

Below is a chart depicting our core successful history of working relationships on previous successful projects, including the 2010 DPW Selinsgrove Center project. The projects listed below were all completed on time, on budget and the projected energy savings met or exceeded the guarantee.

Core Team Member	DPW Selinsgrove Center	DPW White Haven Center	East Lycoming SD	Northampton County	York County
Was the project completed on time?	YES	YES	YES	YES	YES
Was the project completed on budget?	YES	YES	YES	YES	YES
Did the project savings meet and/or exceed the guaranteed?	YES	YES	YES	YES	YES
Alyssa Wingenfield, *Acct. Executive*					
Shayne Homan, *Department Director*					
Christopher Stultz, *Project Develop.*					
William Smith, *BAS Engineer*					
Brian Moore, *Engineering Manager*					
Matthew Tressler, *Senior Engineer*					
Dean Badorf, *Construction Manager*					
Richard Skinner, *M&V Manager*					
Andrew McKenna, *Commissioning*					

1.3 Specific and Meaningful Roles Fulfilled by Core Team Members

Each core team member has a specific and meaningful role that will be fulfilled on this project. Below is chart describing the specific and meaningful role of each member and the interrelationship and management structure of the team overall.

Core Team Member	Specific and Meaningful Role Fulfilled by Core Team Member	Interrelationship & Management Structure
Alyssa Wingenfield, P.E., LEED AP® *Account Executive*	Alyssa is the primary point of contact for the Department of General Services' (DGS) and Department of Health Services (DHS). Alyssa will form and maintain the partnership between the Commonwealth, Selinsgrove Center and other project stakeholders.	Conduit between the Commonwealth/DHS and McClure
Shayne Homan, P.E., LEED AP® *Department Director*	Having led multiple Commonwealth GESA projects, Shayne will ensure that the team has adequate resources to meet performance, financial, and scheduling goals.	Directly Manages all Team Members
Christopher Stultz, P.E. *Project Development Manager*	Chris will perform utility analysis and energy audits to identify and qualify technical energy conservation measures (ECMs). Chris will design the ECMs, with focus on the performance savings, costs, and technical specifications.	Directly Manages all Project Development Team Members
William Smith *Building Automation System Engineer*	William will oversee the building automation system design and sequencing of the selected energy conservation measures (ECMs). He also works closely with the Commissioning manager.	Reports to the Project Development Manager
Brian Moore *Engineering Manager*	Brian will utilize his 20+ years of engineering experience to oversee all the engineering activities associated with the project. Brian's responsibilities include design assistance and equipment selection.	Directly Manages all Engineering Team Members
Matthew Tressler, P.E., CEM *Senior Engineer*	Matthew will utilize his 15+ years of engineering experience to will develop all mechanical engineering designs. His responsibilities include development, design, specification and layout of systems.	Reports to the Engineering Manager
Dean Badorf *Construction Manager*	Dean will oversee the field supervision and coordinate manpower to accommodate requirements during the construction phase. Dean oversaw the project manager who led the DPW White Haven Center project in 2010 and has managed other DGS projects.	Directly Manages all Construction Team Members and Subcontractors

Richard Skinner, P.E. *M&V Manager*	Richard will manage the measurement and verification of the ECMs and accurately record and analyze pre- and post-retrofit energy use. Over the last five years, Richard has administered the M&V reports for the Selinsgrove Center and DPW White Haven.	Directly Manages all M&V and Post Construction Team Members
Andrew McKenna *Project Commissioning*	Andrew will coordinate the commissioning of the ECMs and accurately record results, analyze the entire process, and oversee all subcontractors commissioning collection.	Reports to M&V Manager

McClure Company's core team members will effectively manage the Selinsgrove Center project through (5) specific project phases: RFP Phase, Final Development Phase, Pre-Construction Phase, Construction Phase, and Post-Construction Phase. Below is a summary of the various project tasks and the specific core members responsible for each task through the duration of the project.

Project Phases	Project Responsibilities	Core Team Member Assigned to Project Responsibility					
		Alyssa Wingenfield	Shayne Homan	Chris Stultz	Brian Moore	Dean Badorf	Richard Skinner
RFP Phase	Prelim. Facility Audit	■	■	■	■		
	Prelim. Energy Analysis		■	■			■
	Prelim. Cost Estimating				■		
	Prelim Subcontractor Selection			■		■	
	RFP Assembly	■	■				
Final Development Phase	Detailed Facility Audit	■	■	■	■		
	Detailed Energy Analysis		■	■			■
	Final Cost Estimating				■		
	Final Subcontractor Selection			■		■	
	Energy Audit Report Assembly	■	■				
	Contract Administration	■	■				
Pre-construction Phase	Engineering Design Phase				■		
	Equipment Procurement				■		
	Subcontractor Design Phase			■		■	
	Design Review & Permitting	■	■	■	■	■	■
	Owner Coordination Meeting	■	■			■	
Construction Phase	Mobilization			■		■	
	Project Installation		■			■	
	Project Meetings	■	■			■	
	Project Safety Analysis		■			■	
	Quality Control / QA Testing				■	■	■
Post - Construction Phase	Punch list & Project Closeout		■			■	
	Commissioning			■		■	■
	As-Built Drawings				■		
	Owner Training	■				■	
	On-Going M&V	■	■				■

1.4 History of Working Relationship on GESA Projects

McClure has a history of working relationship with the proposed Retained Professionals and selected subcontractors on GESA project. Subcontractors are selected through a competitive selection process that evaluates experience, performance, and other important metrics. Below is a chart depicting the selected McClure's experience working together on previous successful projects with the proposed retain professionals and subcontractors. The projects listed below were all completed on time, on budget and the projected energy savings met or exceeded the guarantee.

Core Team Member	DPW Selinsgrove Center	DPW White Haven Center	East Lycoming SD	Northampton County	York County
Was the project completed on time?	YES	YES	YES	YES	YES
Was the project completed on budget?	YES	YES	YES	YES	YES
Project met the savings guarantee?	YES	YES	YES	YES	YES
Lipten Company	NO	NO	NO	NO	NO
Global Energy Solutions	NO	NO	NO	NO	NO

G.R. Sponaugle	YES	YES	YES	YES	YES

2 Work Plan for This Project

2.1 Coordination with DGS and Funding Agency

McClure will coordinate with DGS and the Funding Agency, the Department of Health Services, as described below. Having completed a previous energy project at the Selinsgrove Center, McClure Company's team is very familiar with managing and executing a project that will minimize DGS' and Department of Health Services' risk. McClure's management team will be structured the same as the 2010 project

McClure Company's construction manager and field superintendent will coordinate all project tasks and installation and will work closely with the local facility staff and DGS as described below:

- Execute the project by fulfilling all contract actual obligations, policies, and procedures
- Facilitate DGS, Department of Human Services, Selinsgrove Center, and other major project stakeholder's goals, objectives, requirements and installation requests.
- Safely and responsibly coordinate and complete daily tasks in a continuously occupied facility
- Supervise daily labor and safety of all subcontractors, installers, and field personnel
- Ensure major equipment and materials that arrive on site are stored and installed correctly
- Follow the project schedule closely to ensure major milestones are met
- Monitor and ensure all quality control and quality assurance protocols are being followed and met
- Lead progress construction meetings by reviewing schedule, construction challenges, safety protocols and project opportunities
- Identify and rectify any project-related deficiencies or risks to the Commonwealth

2.2 Design Process and Retained Professional Coordination

McClure has a thorough understanding of the design process and will coordinate the design with our Retained Professionals. The Design Process between McClure, Department of Human Services, Selinsgrove Center and the Commonwealth shall commence as follows:

- Initial Design Process Meeting: introduction and review of requirements, procedures and approval process
- Re-occurring Design Meetings: presentation and facilitation of design decisions and energy measures
- Design Progress Meetings: strategic review of detailed design work, project schedule, and installation
- Design Approval: obtain approval of all local, state, federal and other regulatory agencies with jurisdiction
- Energy Audit Report: submission of final design, costs, and savings of each measure
- Final Project Acceptance: Commonwealth accepts the final project

McClure Company will oversee and procure the services of multiple Retained Professionals to prepare the plans and specifications for the energy conservation measures proposed, reviewed and accepted by the Commonwealth.

McClure will oversee all engineering coordination. For the burner retrofit, Lipten will provide the necessary engineering, equipment and supervision to convert two boilers from firing Coal to Natural Gas or No. 2 Oil. During design, Lipten and McClure Company will jointly provide all the engineering development and documentation, including demolition, mechanical, electrical, and controls drawings and equipment submittals. Lipten Company's engineering scope pertains the boiler conversion proper starting at the inlet to the fuel trains. Lipten will also provide the combustion air requirement calculations and ensure the building modifications required to support the conversion are met. McClure will coordinate the environmental and construction permitting and related inspections. McClure's mechanical engineers will design the fuel oil tank, pumps, utilities tie-in locations, hangers, insulation, tubing, valves, conduit and wire.

McClure will rely on a partnering structural engineer to design the platform system. G.R. Sponaugle will design on the electrical engineering required for the burner project. Global Energy Solutions will design the lighting retrofit. All engineering will be fully coordinated and submitted for Commonwealth and Code Approval as one cohesive set of drawings.

2.3 Small GESA Design Process Understanding

McClure has a thorough understanding of the design process on small GESA projects using the DGS Procedure Manual. McClure will utilize the 'Small GESA Project Design Manual', 2014 Edition, which was found in Appendix J of the RFP.

For project administration, McClure will incorporate the manual into the Small GESA project documents. All correspondence will be handled per DGS' Administrative Procedures and all minutes will be furnished by McClure. Progress reports will be emailed monthly as a part of the invoice. The design submission will be approved by the Funding agency following the review conference. McClure will obtain the design and approval of all Local, State, Federal and other regulatory agencies having jurisdiction over the work of the project.

For the construction document submission, McClure will provide 100% complete final construction drawings, including an electronic set submitted on disc, to DGS' Bureau of Engineering & Architecture (E/A). McClure will also coordinate with Pa. Department of Labor and Industry. A review conference will be scheduled with the Funding Agency and E/A group. McClure will follow Section 301'Construction Documents Submission' of Small GESA Project Design Manual for the construction documents submission package, specifications, drawings, site plans, engineering analysis utility services, and construction schedule. McClure will obtain formal approval from Department of Health Services, Engineering and Architecture, and other DGS final approval parties before starting the project. For drawings, McClure will provide CADD-generated drawings and an 'As-built' record set. The drawings will include a cover sheet and a professional seal and signature. Legends showing symbols will be provided, as well as industry recognized reference standards and schedules. Individual engineering trade swill show the minimum drawing requirements referenced in Section 403 'Miscellaneous' of Small GESA Project Design Manual For project specification McClure will provide a consistent project manual format in CSI or AIA Master Spec format.

For DGS Standard design practices, McClure will utilize Section 602 'Civil/Structural, 603 'Heating, Ventilating and Air-Conditioning', Section 604 'Plumbing' and Section 605 'Electrical' from the Small GESA Project Design Manual for engineering standards and best practices throughout the design.

2.4 Design Issues, Project Management and Project Execution

McClure has identified design issues and has established a plan to manage and execute the Project. McClure Company has identified potential design issues utilizing 60+ years of design/build construction experience. Our design approach will strike a balance between the complex array of interdependent activities and close relationship between design and construction.

Issues	Proposed Solutions
Design Team Collaboration & Communication	• Early identification of priorities, resources and budget will be established with the design team • McClure's expansive engineering team will resolve design related challenges which result in savings and improved outcomes, utilizing 360° peer reviews for immediate quality cost control review, open communication between the trades, and increased project understanding throughout the entire construction team
Subcontractor Involvement	• Construction insight from subcontractors and their specialized knowledge will be employed early on in addition to comprehensive safety / asbestos plans • Teamwork and clear, continuous communication will prevail throughout the entire project life cycle
Constructability, Sizing and Installation of HVAC Burners	• Engineers will locate the burners, taking into account boiler size, clearances, removal of hazardous materials, and accessibility • Selecting the correct size of burner to ensure each boiler is capable of handling the full facility heating load • Identification and proper removal of asbestos and other hazardous containing materials during the project demolition phase
Deign of Facility LED Lighting	• Glare and luminous efficacy shall be carefully considered, in addition to maximizing lumens per watt, while maintaining specified color temperatures • Budget and integration into certain spaces are carefully considered during the lighting design

2.5 Construction Challenges and Proposed Solutions

McClure has identified construction challenges and is proposing the following solutions as described in thorough detail below.

Construction Challenges	Proposed Solutions
Modifications for the new burners	• Survey the existing steam systems and site logistics to design the burner installation • Consideration of site slope, connections, pathways, and existing site equipment will addressed
Mission Critical Facility	• Understanding of facility operation procedures in order to develop an accurate schedule and implementation plan • Communicate and coordinate with Selinsgrove Center staff to safely and securely complete work in occupied areas of the facilities
Hazardous / Asbestos Materials	• Utilize prior identification and removal experience of Asbestos and Hazardous material to safely and securely remediate affected materials • Coordinate all testing and sampling with the state's environmental consultant and budget the costs of testing / sampling into project cost
Utilizing Existing Equipment and Systems	• Carefully survey and test all existing equipment and tie-in locations to ensure all components are functional and safe • Closely monitor startup and commissioning of major systems to ensure all system components are fully operational and functioning

2.6 Construction Plan

With past experience with DGS and Selinsgrove, McClure has a thorough construction plan that includes site operations, logistics, and lay down areas. McClure also has a detailed plan on project execution, which is described below:

Topic	Detailed Discussion
Site Operations / Layout	• All site operations will be communicated and coordinated with staff, including work hours, weekly meetings, critical work, site layout, and other construction-related activities. • Site Layout will be pre-planned and revisited, per phase, to ensure proper location and coordination
Logistics	• Logistics will be based upon phase and number of escorts available to ensure maximum productivity • Phasing will be based on the final energy conservation measures selected
Lay Down Area / Offices / Parking	• Lay down area, similar to last project and upon approval, can be located on grassy area to right of boiler house • A trailer of offices and parking can be located in close proximity to boiler plant or near/in a vacant mission ready facility, similar to last project and upon Selinsgrove Center approval
Fully Occupied Environment	• Temporary measures, including power, temperature and air movement, will be agreed upon to ensure minimal disruption in the fully occupied environment. • Review of the facilities security and safety policies / procedures will occur for all project staff

McClure has a detailed plan for project execution. McClure Company has identified early construction packages, long lead items and phases of construction utilizing internal standards and best practices, which will ensure successful project planning.

Construction packages have been assembled and estimated among multiple local manufacturers and vendors during the RFP phase. This amount of research and due diligence allows McClure Company to provide the Commonwealth with accurate pricing and construction planning. During the design phase, construction packages will be reassessed and estimated. Preliminary construction packages already identified include:

- Burner equipment, accessories and materials
- Lighting and lighting sensor equipment and materials

Lead times have also been assessed, especially for sophisticated boiler equipment and accessories, and these durations have been factored into preliminary construction schedules. McClure Company will regularly check in with equipment and material vendors, suppliers and manufacturers to ensure lead times are accurate and on schedule. During the design phase, lead times and schedule will be reassessed. Preliminary lead times already identified include:

- HVAC equipment
- Lighting equipment

Phasing of the project has been an early focus of McClure Company. Depending on the final scope agreed upon, McClure Company may need to phase the burner work portion of the project to minimize disruption of the Selinsgrove Center campus.

2.7 Scheduling and Construction Practices

McClure Company has a thorough understanding of scheduling and construction practices using DGS' General Conditions and Administrative Procedures as described below.

For *scheduling*, McClure will reference Article 7 of PA Department of General Services General Conditions for Small GESA Projects 2016 manual, which was found in Appendix H of the RFP. Article 7 outlines the requirements of the Baseline project submission, which shall be submitted within 30 days of the Contract Start Date in Primavera format (.XER) and P6 compatible software. The Critical Path Method (CPM) project schedule calculation shall be utilities and final acceptance by the Funding Agency will be required. While the project schedule is being developed, McClure will proceed with other work associated with the project. McClure will meet the schedule requirements, including 30 day activity limit, identify subcontractor progress, include UCC inspections and testing, facilitate utilization of required metrics, include no more than 15% critical activities, highlight milestones, and disregard any resources leveling or float suppression techniques. McClure will show design activities, construction activities, procurement activities, and will anticipate weather delays and allow the funding agency to control any float time. McClure will ensure the schedule is accepted and will maintain and update the schedule accordingly.

For *construction practices*, McClure will reference the PA Department of General Services General Conditions for Small GESA Projects 2016 manual, which was found in Appendix H of the RFP. For use of site, job conferences, drawings, performance of work, permits and fees, existing utilities, interruption of services, warranties, and more, McClure will follow Article 5. For subcontractor construction management, McClure will reference Article 6. For submittals and protection of property, insurance and indemnification, McClure has reviewed Article 8 and Article 9. Changes in work and non-confirming work and corrections, McClure will reference Article 10 and 11. Article 12 'Payments and Completion', will be closely reviewed with McClure's accounting team and project closeout in Article 13 will be reviewed by Dean Badorf, project manager. Legal Matters, which is outlined in Article 14 through 17, will be closely reviewed by McClure's team to ensure compliance and expectations of McClure are met.

2.8 Project Safety Plan and Monitoring

McClure has a project safety and monitoring plan to ensure safety for all building occupants and workers. Below is a description of the safety plan, management and monitoring.

A *Safety Plan* will be developed to ensure safety for all building occupants and workers. McClure's safety management policy will assign and hold employees accountable for safe work practices. Audits will occur periodically to ensure compliance with OSHA safety guidelines and McClure safety policies. Safety management for the project will be completed by the onsite foreman and overall project manager, Dean Badorf. This will be accomplished through weekly tool box training and site specific safety notifications and discussions, based upon phase and the working environment. We have a full-time safety director, Tom Scott, who has overseen our safety program.

Safety monitoring of energy use will be provided by our onsite foreman and company safety director, Tom Scott. Daily walkthroughs to document investigate and train personnel on proper safety guidelines will occur. Lockout tag procedures, fall protection procedures, confined spaces training and abatement for hazardous materials will be closely monitored.

2.9 Quality Control Plan

McClure Company has an effective Quality Control plan for procurement and construction, as described below.

McClure's effective *procurement quality control plan* includes*:* Review, approve and submit construction submittals to all team members; create special approval methodologies given to project engineers to ensure a streamlined approach; and facilitate an adequate review timeline, approval process, and delivery mechanism for submittal materials.

McClure's effective *construction quality control plan* includes*:* Ensure work is performed in compliance with contract requirements, code, recommendations and construction industry standards; develop a training plan for personnel; manage and coordinate all QC activities and documentation; ensure proper document control; hold weekly job meetings; and institute a phased inspection plan with major stakeholders.

2.10 Commissioning Methodology

McClure has a specific methodology for commissioning this project as clearly described below. McClure's team will develop commissioning specifications and complete a commissioning report at the end of the project. Our commissioning plan will specify:

- General commissioning requirements common to all systems and assemblies
- Detailed description of the responsibilities of all parties
- Details of the commissioning process (i.e. schedule and sequence of activities)
- Reporting & documentation requirements
- Alternatives to coordination issues
- Deficiency resolution
- Commissioning meetings
- Submittals
- O & M Manuals
- Construction Checklists
- Functional testing process and specific functional test requirements including acceptance criteria
- Occupancy & Final Inspections
- As-built drawings

Each measure will undergo one of three levels of commissioning, each with specific requirements and deliverables. While much more complex, the overview of these levels is as follows, with each level including the necessary documentation from the previous level:

- Level 1 - System Readiness and Start-Up; a basic inspection of the equipment to ensure the contractual obligations have been met, including equipment specific specification and warranty data
- Level 2 - Initial Operation; a pre-start check out and test of the equipment to ensure required components are functioning properly. Equipment specific, detailed start up sheets become an addition to the Level 1 documentation
- Level 3 - Functional System Test; the most rigorous commissioning level, this includes full performance testing of the equipment to verify it operates as designed and provides the necessary levels of operation based on actual environmental parameters. Included with the Level 1 & 2 documentation is a granular level document indicating specific operation of the equipment including the environmental conditions.

The final commissioning report will serve as a reference and benchmark document for future re-commissioning of each facility. The commissioning supervisor assures the design updates to the As-Built drawings have been completed.

2.11 Final Close-Out Approach

McClure has an understanding of the close out process for training of Funding Agency personnel, manuals, occupancy permits, commissioning and final closeout, as shown below. These items will be expanded upon during IGA.

- *Training:* Train and repurpose the current staff to operate, utilize, monitor, and maintain the installed systems.
- *Manuals:* By combining new & existing O&Ms, a master operation & maintenance manual will be created
- *Occupancy Permits:* McClure will facilitate all code required inspections for legal compliance.
- *Commissioning:* McClure will develop, optimize, and implement a commissioning plan by ECM. This process will focus and ensure system functionality, optimization, longevity, reliability and efficiency.
- *Final Close-Out: All undocumented changes post-design will be recorded and delivered at project closeout.*

McClure will reference Article 13: Project Closeout of the PA Department of General Services General Conditions for Small GESA Projects 2016 manual, which was found in Appendix H of the RFP. Dean Badorf will ensure the project closeout consists of:

- An occupancy permit from Labor and Industry prior to Final Inspection
- Funding Agency, retained professionals, and McClure all approve substantial completion
- Final Set of Contract prints documenting as-built conditions
- Punch List items are complete
- Final inspection report coordination with Department of Health Services

2.12 Measurement and Verification Plan

McClure has a specific methodology for creating the appropriate Measurement and Verification plan, as clearly described below.

First, McClure ensures the M&V Plan adheres to all DGS' M&V protocol standards. Listed below are the procedures and guidelines for quantifying savings resulting from the installation of ECMs under energy performance contracts and is intended to comply with the International Performance Measurement & Verification Protocol (IPMVP):

- **Option A – Partially Measured Retrofit Isolation**
  Key performance factors (lighting wattage or chiller efficiency) are determined with spot or short-term measurements and operational factors (lighting hours of operation or cooling ton-hours) are stipulated based on analysis of historical data or spot/short term measurements. The savings are determined using spot or short-term measurements, which would occur in both the pre and post retrofit installation periods. An example of the measurements will be measuring the wattage use of fixed number of samples of lighting fixtures both before and after the lighting retro-fit. In the lighting retro fit example the light burn hours are mutually agreed upon variable.
- **Option B – Retrofit Isolation**
  The energy savings are determined by field measurement of the energy use of the systems to which the ECM was applied separate from the energy use of the rest of the facility. Short-term, long-term or continuous measurements are taken throughout the pre and post-retrofit periods. Engineering calculations using the short term, long term or continuous measured variables determine both the baseline energy use and post installation energy use. The savings are determined by comparison of the pre-installation measurements to the post-installation measurements results.
- **Option C – Whole Building**
  Often referred to as the "whole house" method to determine savings, this option uses the current year utility bills as compared to historical bills determined to be the baseline. The historical bills are adjusted to account for factors such as weather, outdoor air increases, changes in facility use, and other baseline adjustments outlined in the Energy Audit Report. The savings are determined by analysis of utility meter (or sub-meter) data using techniques from simple comparison to regression analysis
- **Option D - Calibrated Building Simulation (Prohibited)**
  Option D is not an option for DGS Small GESA projects.

McClure has a full time, locally residing engineer assigned to manage the measurement and verification process of this contract. Richard Skinner, P.E., the Measurement and Verification (M&V) manager, will be the supervisor responsible for all ongoing M&V. Richard will also have a support staff of technicians and engineers that will be assigned to this project to perform the necessary functions to accurately determine the reduction in energy use and provide the required reports in the timely fashion.

In a post-installation M&V verification, McClure Company and the customer agree that the proper equipment components or systems were installed, are operating correctly and have the potential to generate the predicted savings. Verification methods may include surveys, inspections and/or continuous metering. McClure Company is expected to complete the system/equipment commissioning. McClure Company and the customer will determine energy savings in accordance with an agreed-upon M&V method using verification techniques defined in this M&V plan.

3 Critical Path Schedule

3.1 Project Schedule Narrative

McClure Company has identified critical aspects of the schedule, including the associated risks and how our team's process will ensure achievement of critical milestone dates. McClure has assembled a project schedule narrative, below, which discusses the challenges of the schedule and proposed solutions. McClure will provide project milestones and complete the project with minimal or no disruption to agency daily operations. Our Project Manager, Dean Badorf, will assume responsibility to coordinate the Project Schedule and track and manage the critical path milestones. Within 30 days of the contract start date, McClure will furnish an updated CPM (Critical Path Method (CPM) Schedule of the forecasted construction progress schedule.

Critical aspects of the schedule have been identified and will be carefully planned, executed and expedited to ensure the project schedule stays on track. The critical activities (with target start dates) include:

1. *Review and Notice of Award:* Evaluation of Proposals and Notice of Award within 60 calendar days of proposal submission. **Target: 4/7/17**
2. *Energy Audit (EA) Report*: The final audit report will be submitted within 60 calendar days upon a Notice of Award. We will perform detailed engineering, on site equipment testing, live metering and hard cost estimating to include energy baseline data, measurement and verification plan, financing, detailed descriptions of each ECM, commissioning plan and the contract. **Target: 6/30/17**
3. *Contract Procurement*: Review of EA, execution of GESA contract and award of GESA within 60 calendar days of EA submission. **Target: 9/1/17**
4. Engineering & Major Equipment Procurement: Final mechanical, electrical and building engineering as well as project permits and coordination with utilities. McClure will also prepare and submit equipment submittals. Long lead equipment, coordination with utilities, subcontractors, equipment suppliers and DGS facility personnel.
5. Pre-Construction: Review scope of work, general conditions, work sequences, early startup requirements, and commissioning requirements to develop a baseline work flow at a pre-construction and orientation meeting.
6. *Critical Path Coordination*: Long lead equipment, coordination with utilities, subcontractors, equipment suppliers and DGS facility personnel.
    a. *Completion of Energy Audit Report* **Target: 6/30/17**
    b. *DGS Review/Contract Procurement* **Target: 9/1/17**
    c. *New Burner Installation* **Target: 8/10/18**
    d. *As-Built and O&M documentation* **Target: 10/10/18**
7. *Construction milestones/Fixed dates set*: With the understanding that no activity, aside from design/procurement shall exceed 30 days, the following are established: Start date, substantial completion, daily hours, commencement tasks, subcontractor awards, engineering, procurement of major material, site approvals, permits, site mobilization and preparation, electrical shutdown, site and installation work, inspections, testing, training and commissioning. Although show as one continuous activity, construction is the combination of activities to complete all recommended core ECM's. Each ECM's duration will be less than 30 days; however, specific project implementation timelines have not yet been established. More coordination is required from DGS.
8. *Irregular circumstances*: As atypical conditions arise, the Project Manager will determine task priorities and make adjustments. The start-finish relationships for each task are adjusted accordingly to meet specific deadlines.
9. *Weekly construction and safety meetings established*: Consistent communication will mitigate potential issues.

Associated Risks with schedule, which are identified below, will be identified, monitored, and mitigated by the following risk mitigation techniques:

Associated Risks	Risk Mitigation Techniques to be Employed
Hazardous Materials	• Prior to construction, McClure's construction experts will locate hazardous materials • McClure will identify, tag and communicate all hazardous materials affected during construction
Weather Impacts	• 2-week look ahead schedules, with built-in schedule flexibility, will mitigate weather impacts • Weekly schedule updates and communication will allow for adjustments and sequence changes

Occupied Facility	• Weekly communication with Selinsgrove Center staff will ensure coordination by ECM, space & trade • McClure will be flexible and schedule construction activities around occupancy needs

McClure's team process to ensure achievement of critical milestone dates is paramount. One critical step in the team process approach is to review the final schedule with Selinsgrove Center. This step will help develop and confirm the best means, methods, and durations to execute each schedule task and the effect of the task in the facilities' occupied areas. Each energy conservation measure (ECM) will be carefully coordinated and executed, by phase, with all parties and subcontractors involved through weekly project meetings and on-going group communication. McClure understands that proper planning and increased communication are two major factors in ensuring a successful, expedited schedule.

3.2 Critical Path Method (CPM) Schedule

McClure Company has created a project schedule graphic, or critical path method (CPM) schedule, which sets forth a logical progression of critical path activities, including:

- the Notice of Selection
- duration and submission of the Energy Audit Report
- full execution of Energy Contract
- permit submission and approval dates, including L&I, DEP Title V, and Insurance
- durations of on-site work
- scheduling of start-up and testing of equipment
- commissioning
- training of personnel

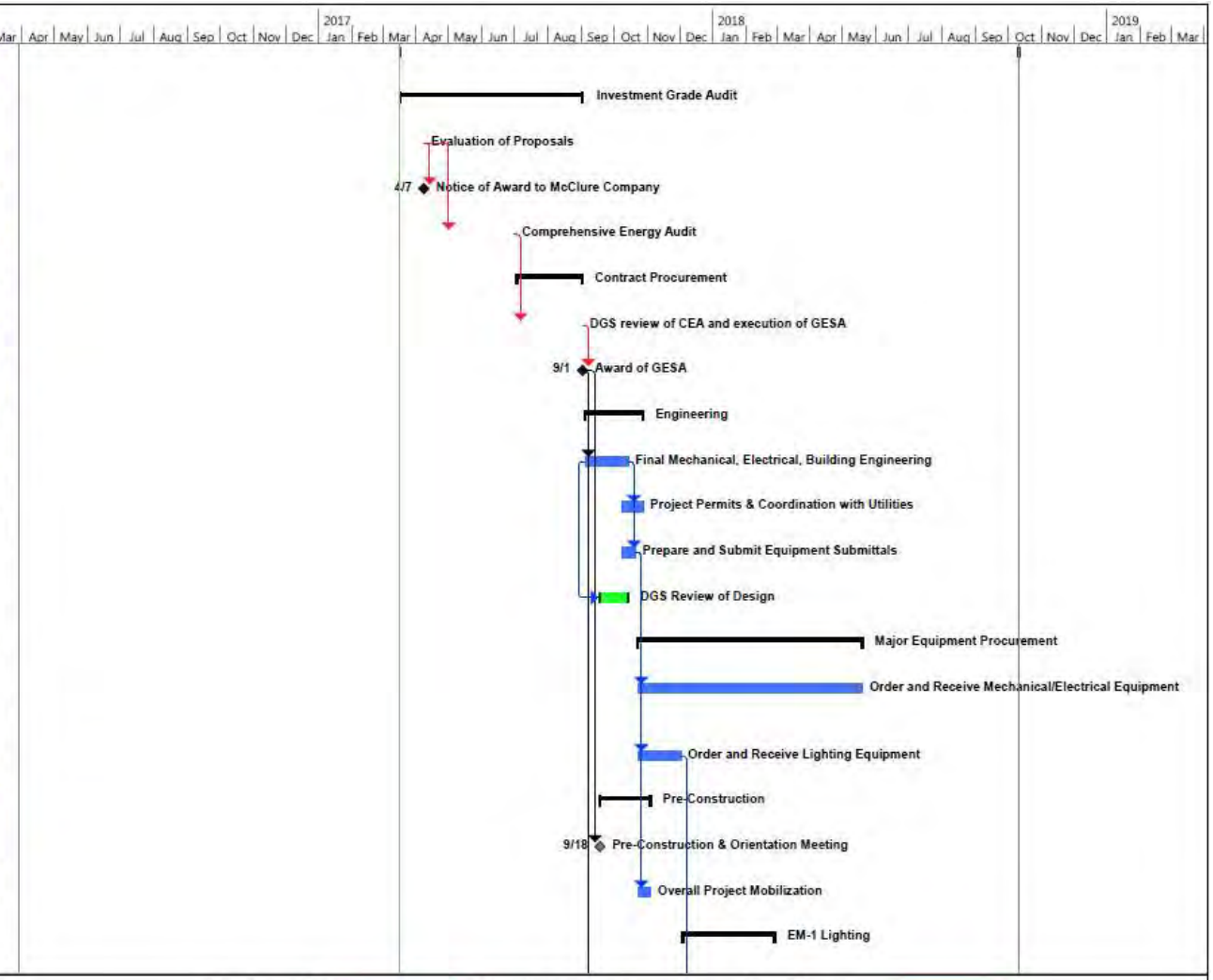
The project schedule graphic can be found in Figure 2 – Project Schedule, located at the end of this section.

3.3 Project Coordination

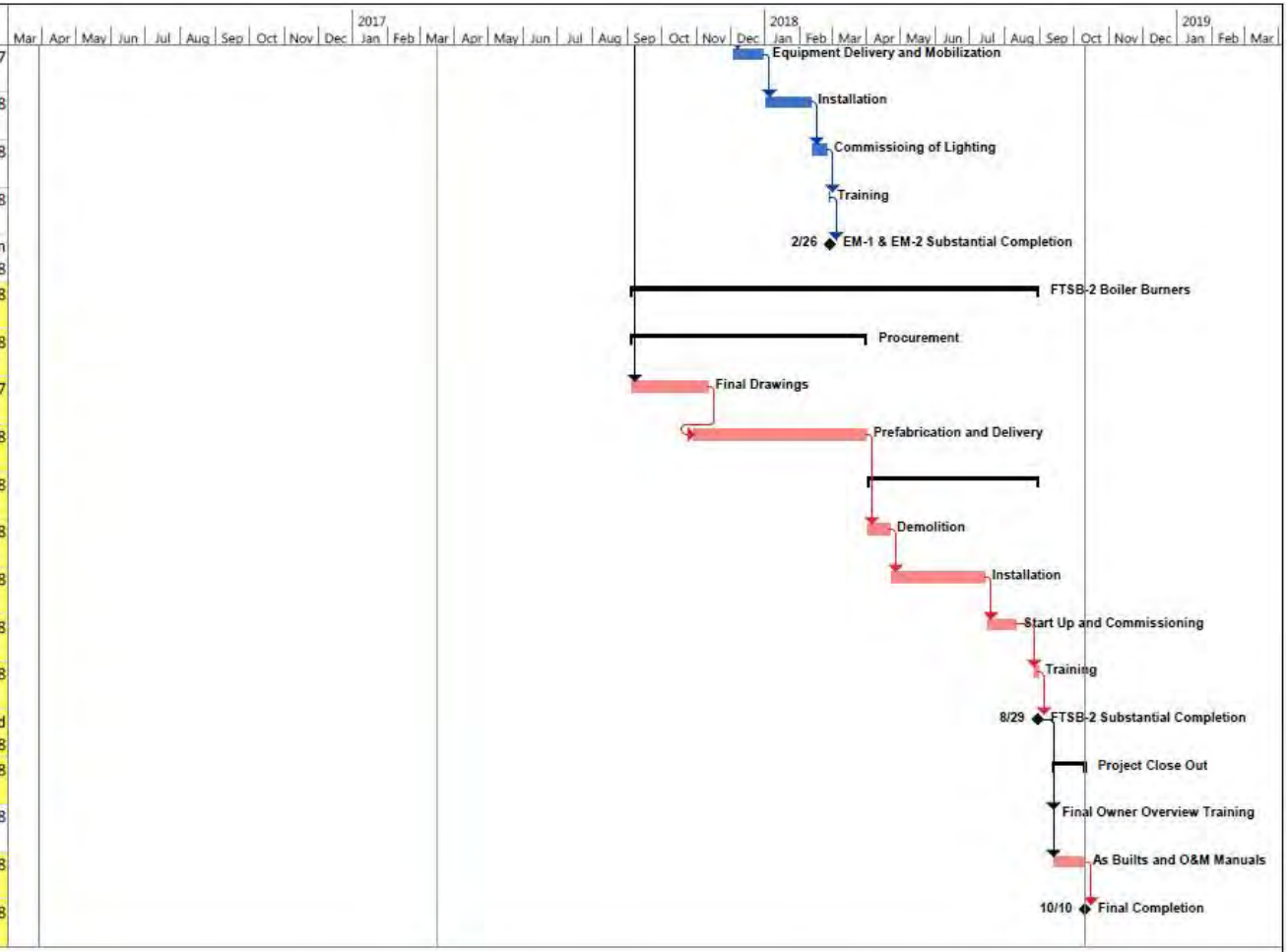
McClure Company's critical path method (CPM) schedule integrates and coordinates construction with local utilities, subcontractors, equipment suppliers and Selinsgrove Center facility personnel. Below is a table summarizing the integration and coordination techniques with the respective project entities:

Entity	Project Schedule Integration and Coordination Techniques
Local Utilities	• McClure Company will assist with UGI Utility on final design, including capacity and pressure required as well as the gas line extension and final meter location • McClure will assist with the service rate types, suppliers, and financial options available
Subcontractors	• McClure will incorporate and coordinate subcontractor schedules and critical path items • McClure will communicate and revise the schedule weekly and create a forum for open issues
Equipment Suppliers	• Equipment submittal review and lead times will be evaluated and integrated into the schedule • Equipment production, shipping, and site arrival will be carefully monitored and documented
Selinsgrove Center Personnel	• Selinsgrove Center personnel and other project stakeholders will be invited to attend weekly construction meetings where schedule updates and planning will occur • Activities performed in occupied areas will be closely coordination with Selinsgrove Center

ID	Task Name	Duration	Start	Finish
0	Selinsgrove Center Preliminary Schedule	409 days?	Fri 3/17/17	Wed 10/10/18
1	Investment Grade Audit	121 days	Fri 3/17/17	Fri 9/1/17
2	Evaluation of Proposals	16 days	Fri 3/17/17	Fri 4/7/17
3	Notice of Award to McClure Company	0 days	Fri 4/7/17	Fri 4/7/17
4	Comprehensive Energy Audit	45 days	Mon 5/1/17	Fri 6/30/17
5	Contract Procurement	45 days	Mon 7/3/17	Fri 9/1/17
6	DGS review of CEA and execution of GESA	45 days	Mon 7/3/17	Fri 9/1/17
7	Award of GESA	0 days	Fri 9/1/17	Fri 9/1/17
8	**Engineering**	**40 days**	**Mon 9/4/17**	**Fri 10/27/17**
9	Final Mechanical, Electrical, Building Engineering	30 days	Mon 9/4/17	Fri 10/13/17
10	Project Permits & Coordination with Utilities	15 days	Mon 10/9/17	Fri 10/27/17
11	Prepare and Submit Equipment Submittals	10 days	Mon 10/9/17	Fri 10/20/17
12	DGS Review of Design	20 days	Mon 9/18/17	Fri 10/13/17
13	**Major Equipment Procurement**	**150 days**	**Mon 10/23/17**	**Fri 5/18/18**
14	Order and Receive Mechanical/Electrical Equipment	150 days	Mon 10/23/17	Fri 5/18/18
15	Order and Receive Lighting Equipment	30 days	Mon 10/23/17	Fri 12/1/17
16	Pre-Construction	35 days	Mon 9/18/17	Fri 11/3/17
17	Pre-Construction & Orientation Meeting	0 days	Mon 9/18/17	Mon 9/18/17
18	Overall Project Mobilization	10 days	Mon 10/23/17	Fri 11/3/17
19	**EM-1 Lighting**	**61 days**	**Mon 12/4/17**	**Mon 2/26/18**



ID	Task Name	Duration	Start	Finish
20	Equipment Delivery and Mobilization	20 days	Mon 12/4/17	Fri 12/29/17
21	Installation	30 days	Mon 1/1/18	Fri 2/9/18
22	Commissioing of Lighting	10 days	Mon 2/12/18	Fri 2/23/18
23	Training	1 day	Mon 2/26/18	Mon 2/26/18
24	EM-1 & EM-2 Substantial Completion	0 days	Mon 2/26/18	Mon 2/26/18
25	FTSB-2 Boiler Burners	258 days	Mon 9/4/17	Wed 8/29/18
26	Procurement	150 days	Mon 9/4/17	Fri 3/30/18
27	Final Drawings	50 days	Mon 9/4/17	Fri 11/10/17
28	Prefabrication and Delivery	110 days	Mon 10/30/17	Fri 3/30/18
29	Installation	108 days	Mon 4/2/18	Wed 8/29/18
30	Demolition	15 days	Mon 4/2/18	Fri 4/20/18
31	Installation	60 days	Mon 4/23/18	Fri 7/13/18
32	Start Up and Commissioning	20 days	Mon 7/16/18	Fri 8/10/18
33	Training	3 days	Mon 8/27/18	Wed 8/29/18
34	FTSB-2 Substantial Completion	0 days	Wed 8/29/18	Wed 8/29/18
35	Project Close Out	20 days?	Thu 9/13/18	Wed 10/10/18
36	Final Owner Overview Training	1 day?	Thu 9/13/18	Thu 9/13/18
37	As Builts and O&M Manuals	20 days	Thu 9/13/18	Wed 10/10/18
38	Final Completion	0 days	Wed 10/10/18	Wed 10/10/18



Project: Selinsgrove Center Preliminar
Date: Thu 3/16/17

Task
Split
Milestone
Summary
Project Summary
Inactive Task
Inactive Milestone
Inactive Summary
Manual Task
Duration-only
Manual Summary Rollup
Manual Summary
Start-only
Finish-only
External Tasks
External Milestone
Deadline
Critical
Critical Split
Progress
Manual Progress

Page 2

4 Qualifications, Experience & Past Performance

4.1 Qualifications and Experience of All Core Members

McClure's core team members have the qualifications and experience necessary to perform this project. Below is a non-generalized description of each team member's project specific role. The majority of the core team was involved in the Selinsgrove Center project in 2010, so each member is familiar with the site, design, and facility requirements. Below are brief resumes of all the core team members.

Alyssa Wingenfield, P.E., LEED AP BD+C
Account Executive

Project Responsibilities	**Time with Firm: 8 years**

Primary contact responsible for engineering, design and coordination tasks for successful project completion. Alyssa will communicate District project goals to the entire team, including all listed subcontractors, as well as manage the engineering effort, assist with securing project financing, and negotiate the contract.

Educational or Technical Training

Bachelor of Architectural Engineering, Architectural Engineering, The Pennsylvania State University

Experience with GESA and LEED Accredited Projects (all LEED projects are designated by an asterisk*)

Project	*Type*	*Year*	*Cost*	*Role*
Lehighton Area School District*	K-12	2015	$7.7 M	Sustainability Coord.
Southern Columbia Area SD, Catawissa, PA	K-12	2014	$4.6 M	Account Manager
Danville Area School District, Danville, PA	K-12	2014	$6.2 M	Account Manager
Northampton County, Easton, PA	Gov't	2011	$19 M	Design Engineer
York County, York, PA	Gov't	2010-13	$9.5 M	Design Engineer
DPW Selinsgrove Center, Selinsgrove, PA	Gov't	2010	$12 M	Design Engineer
DPW White Haven, White Haven, PA	Gov't	2010	$9 M	Design Engineer
East Lycoming School District, Hughesville, PA	K-12	2002-11	$11 M	Design Engineer

Shayne Homan, P.E., CEM, LEED AP
Department Director

Project Responsibilities	**Time with Firm: 15 years**

Shayne is responsible for all project services, from engineering to construction. After 15 years, Shayne is experienced in the entire engineering and design work for large, complex institutional work, overseeing all phases from initial concept and design to implementation and construction monitoring.

Educational or Technical Training

Bachelor of Science, Mechanical Engineering Technology, The Pennsylvania State University

Experience with GESA and LEED Accredited Projects (all LEED projects are designated by an asterisk*)

Project	*Type*	*Year*	*Cost*	*Role*
Lehighton Area School District*	K-12	2015	$7.7 M	Director
Williamsport Area SD, Williamsport, PA	K-12	2014	$9.1 M	Director
Susquehanna Twp SD, Harrisburg, PA	K-12	2014	$7.8 M	Director
York County, York, PA	Government	2010-13	$9.5 M	Account Manager
Northampton County, Easton, PA	Government	2011	$19 M	Account Manager
DPW Selinsgrove Center, Selinsgrove, PA	Government	2010	$12 M	Account Manager
DPW White Haven, White Haven, PA	Government	2010	$9 M	Account Manager

Brian Moore
Engineering Manager

Project Responsibilities	**Time with Firm: 5 years**

Brian is responsible for the day to day management of our engineering efforts

Educational Background

Mechanical Design Technology Degree, Thompson Institute

Recent Projects

Project	*Type*	*Year*	*Cost*	*Role*
Northern York SD, Dillsburg, PA	K-12	2015	$3.9 M	Engineering Manager
Williams Valley SD, Tower City, PA	K-12	2015	$3.8 M	Engineering Manager
Greencastle-Antrim SD, Chambersburg, PA	K-12	2015	$7.9 M	Engineering Manager
East Lycoming SD, Hughesville, PA	K-12	2002-12	$14 M	Senior Engineer
York County, York, PA	Gov't	2010-13	$9.5 M	Design Engineer
Northampton County, Easton, PA	Gov't	2011	$19 M	Senior Engineer

Christopher Stultz, P.E., CEM
Project Development Manager

Project Responsibilities | **Time with Firm: 9 years**

Chris is responsible for facility scoping and investment grade audits to identify and qualify technical energy conservation measures.

Educational or Technical Training

Master of Architectural Engineering, Architectural Engineering, The Pennsylvania State University
Bachelor of Architectural Engineering, Architectural Engineering, The Pennsylvania State University

Experience with GESA and LEED Accredited Projects (all LEED projects are designated by an asterisk*)

Project	Type	Year	Cost	Role
York County, York, PA	Government	2010-13	$9.5 M	Energy Engineer
Northampton County, Easton, PA	Government	2011	$19 M	Energy Engineer
DPW Selinsgrove Center, Selinsgrove, PA	Government	2010	$12 M	Energy Engineer
DPW White Haven, White Haven, PA	Government	2010	$9 M	Energy Engineer

Matthew Tressler, P.E., CEM
Senior Engineer

Project Responsibilities | **Time with Firm: 16 years**

Responsible for the day to day management of our engineering efforts. Matt has 16 years of engineering, design, and construction experience.

Educational or Technical Training

Bachelor of Architectural Engineering, Architectural Engineering, The Pennsylvania State University

Experience with GESA and LEED Accredited Projects (all LEED projects are designated by an asterisk*)

Northampton County, Easton, PA	Government	2011	$19 M	Senior Engineer
DPW Selinsgrove Center, Selinsgrove, PA	Government	2010	$12 M	Senior Engineer
DPW White Haven, White Haven, PA	Government	2010	$9 M	Senior Engineer
East Lycoming SD, Hughesville, PA	K-12	2002-12	$14 M	Senior Engineer

Dean Badorf
Construction Manager

Project Specific Role | **Experience with GESA: 36 years**

Dean will oversee the field supervision and coordinate manpower and site planning requirements during the construction phase. Dean brings with him over 38 years of experience as a project manager and field supervisor in the construction field and labor force management. Dean will be in charge of the overall management of the projects including the coordination of subcontractors.

Educational Background

Associates Degree, Engineering Drafting , Pennsylvania College of Technology (formerly Williamsport Area Community College)

Experience with GESA and LEED Accredited Projects (all LEED projects are designated by an asterisk*)				
Project	Type	Year	Cost	Role
DPW White Haven, White Haven, PA	Gov't	2010	$9 M	Project Manager
Millville Area SD, Millville, PA	K-12	2005-16	$8.1 M	Project Manager
Bedford County, Bedford, PA	Gov't	2015	$1.7 M	Project Manager
Williamsport Area SD, Williamsport, PA	K-12	2014	$9.1 M	Project Manager

Richard Skinner, P.E., CEM, CPQ
Measurement and Verification Manager

Project Specific Role | **Experience with GESA: 11 years**

Richard will generate the energy saving reports and document the performance guarantees. Richard will extend his experience to provide the technical engineering support for the energy-related issues and energy cost savings.

Educational Background

Bachelor of Science, Mechanical Engineering, University of Maryland

Experience with GESA and LEED Accredited Projects (all LEED projects are designated by an asterisk*)				
Project	Type	Year	Cost	Role
West Branch Area SD, Morrisdale, PA	K-12	2015	$2.2 M	M&V Specialist
East Lycoming SD, Hughesville, PA	K-12	2002-13	$18 M	M&V Specialist
DPW Selinsgrove Center, Selinsgrove, PA	Government	2010	$12 M	M&V/Cx
DPW White Haven, White Haven, PA	Government	2010	$9 M	M&V/Cx

4.2 Core Team Member Qualifications and Experience on LED/HVAC Projects

McClure's core team members have the qualifications and experience necessary to perform the LED conversions and HVAC control projects. Below is a chart depicting the selected core team's experience working together on previous successful project involving lighting conversion and HVAC control projects. The projects listed below were all completed on time, on budget and the projected energy savings met or exceeded the guarantee.

Core Team Member	DPW Selinsgrove Center	DPW White Haven Center	Northampton County	York County
Alyssa Wingenfield, *Acct Executive*				
Shayne Homan, *Department Director*				
Christopher Stultz, *Project Develop.*				
William Smith, *BAS Engineer*				
Brian Moore, *Engineering Manager*				
Matthew Tressler, *Senior Engineer*				
Dean Badorf, *Construction Manager*				
Richard Skinner, *M&V Manager*				
Andrew McKenna, *Commissioning*				

Below is a summary of McClure's experience on the four (4) GESA projects referenced in the table above. The project scope items referring to lighting conversions or HVAC controls conversions are bolded for quick reference.

Department of Human Services – Selinsgrove Center	
Date(s)	June 2010 – June 2011
Location	Selinsgrove Center Facility
Owner	Pennsylvania Department of Public Work
Contact Information	1000 Route 522, Selinsgrove, PA 17870 Roger Long, (570) 372-5602

Capital Cost, Proposal	$ 11,903,563
Capital Cost, Contract	$ 11,903,563
Proposed Energy & Operational Savings	$ 537,445
Actual Year 1 Energy & Operational Savings	$ 473,452

Project Scope:
Boiler Controls, Steam Turbine, Steam Trap Retrofit, Valve Cover Jackets, **Central Complex HVAC**, Dietary Kitchen Hoods, Cond & Evap Fan Motors, DDC – Unoccupied Buildings, Vending Misers, Flash Steam Heat Recovery, Pool Cover, Leak Repair – Water Main, Boiler Feed Water Pumps, Summer Gas Boiler, Pool Solar Heating, Exterior Pipe Insulation, Steam Pipe Isolation, Floating Head Pressure Control, **Lighting Upgrades,** Roof Replacement

Did the project meet the targeted energy savings? If not, explain why & any legal actions taken place.	Yes
Was the project completely on time and on budget? If project is incomplete, please declare status.	Yes

Department of Human Services – White Haven

Date(s)	July 2010 – July 2011
Location	White Haven Center
Owner	Pennsylvania Department of Public Work
Contact Information	827 Oley Valley Road, White Haven, PA 18661 Aaron Floryshck, (570) 443-4244
Capital Cost, Proposal	$ 8,494,911
Capital Cost, Contract	$ 8,494,911
Proposed Energy & Operational Savings	$ 570,863
Actual Year 1 Energy & Operational Savings	$ 592,475

Project Scope:
Dual Fuel Summer Boiler and Building Addition, South Side Steam and Condensate Line Replacement, Steam Trap Retrofits, Steam Insulation Jackets, Campus Wide Energy Management System, Residence Central Air Conditioning, Condensing Unit Replacements, Continuous Blowdown Heat Recovery, Water Tank Partial Refurbishment, Automatic Pool Cover, Boiler Controls, Boiler Feed Water Pump Replacement, Dining Room Central Air Conditioning, Central Refrigeration Upgrades, **Lighting Upgrades**, Building Envelope Enhancements, Adjustments – Controls in Unoccupied Buildings

Did the project meet the targeted energy savings? If not, explain why & any legal actions taken place.	Yes
Was the project completely on time and on budget? If project is incomplete, please declare status.	Yes

County of Northampton, PA

Date(s)	June 2010 – October 2012
Location	Easton, PA
Owner	County of Northampton
Contact Information	669 Washington Street, Easton, PA 18042 Steve DeSalva, (610) 217-7893
Capital Cost, Proposal	$ 19,089,413
Capital Cost, Contract	$ 19,089,413
Proposed Energy & Operational Savings	$ 1,545,917
Actual Year 1 Energy & Operational Savings	$ 1,802,502

Project Scope:
County Wide Lighting Upgrades & Steam Trap Replacement, Prison RTU and Boiler Replacement, Automation System, Window and Plumbing Fixture Replacement, Building Envelope and Laundry System Upgrades **Courthouse Boiler and Chiller Replacement**, Nursing Home Roof and Boiler Replacement, Switchgear Replacement and Underground Sewer Line Installation, HVAC System Replacement

Did the project meet the targeted energy savings? If not, explain why & any legal actions taken place.	Yes

Was the project completely on time and on budget? If project is incomplete, please declare status.	Yes

County of York, PA	
Date(s)	May 2010 – June 2013 (3 Phases)
Location	County Facilities
Owner	York County Government
Contact Information	28 East Market Street, York, PA 17401 Scott Cassel, (717) 771-4388
Capital Cost, Proposal	$ 9,539,807
Capital Cost, Contract	$ 9,539,807
Proposed Energy & Operational Savings	$ 592,007
Actual Year 1 Energy & Operational Savings	$ 830,014
Project Scope: **County Wide Lighting Upgrades**, Prison HVAC System, **Boiler** and Chiller Replacement, Automatic Shower and Hand Sink Controls, Plumbing Fixture Replacement, Building Envelope and Laundry System Upgrades, Prison and Admin **Building Automation System**, Courthouse HVAC Re-Commissioning, Admin Building Heat Pump Replacement, Annex Building Boiler, Chiller and Window Replacement	
Did the project meet the targeted energy savings? If not, explain why & any legal actions taken place.	Yes
Was the project completely on time and on budget? If project is incomplete, please declare status.	Yes

4.3 Retained Professional's Core Personnel & Abilities

McClure has selected two retained professionals, Lipten Company and Global Energy Services, which have extensive experience with LED conversions and HVAC controls. Below is a summary of each retained professional, their core team, and their ability to complete their portion of the energy project.

McClure's *LED Conversion* retained professional is Global Energy Services (GES). GES is a national full service turn-key energy saving company that specializes in lighting retrofits, controls & design, water conservation and building envelope. Global Energy Services is a seasoned industry leader with over 100 years' combined experience and expertise within our auditing/engineering staff and over 60 installers working in the field. GES has experience dealing with Fortune 500 companies, Federal & Local Government Agencies, Healthcare facilities, schools, Universities, Municipalities and Correctional Institutions.

Global Energy Services (GES) has identified core personnel to complete the LED conversion portion of the project. GES core team members include Ron Fox (VP, oversight), Matthew Saboy (Lighting Engineering), Roy Marshall (Energy Engineering), and Pat McKenzie (Operations). Refer to 'Attachment 1 – Retained Professionals & Subcontractor Resumes' for a full list of resumes. Global Energy Services has the ability to efficiently and effectively complete their portion of the energy project

McClure's *HVAC Controls retained professional* is the Lipten Company. The Lipten Company is an engineering, procurement and construction firm that specializes in central energy plant general contracting. Lipten systems are custom designed to match the unique requirements converting or upgrading existing boiler central plant facilities, namely burners and controls. Lipten is an industry leader in the design and development of central energy plant control systems. Lipten has experience installation control systems with color touch screen interfaces complete with trending, data logging, intuitive controls, rugged NEMA enclosures and the use of non-proprietary, off-the-shelf PLC components. Lipten has experience with the following controls systems: burner management system, combustion control system, plant master control, feed water control, water treatment control, balance of plant monitor and control and SCADA systems.

Lipten Company has identified core personnel to complete the HVAC portion of the project. Lipten's core team members include Jim Marshall (President & Chief Operations Officer), Randy Flanagan, PE (Sr. Mechanical Engineer), and Frank Hrlic, PE (Director of Procurement). Refer to 'Attachment 1 – Retained Professionals & Subcontractor Resumes' for a full list of resumes. Lipten has the ability to efficiently and effectively complete their portion of the energy project.

4.4 Retained Professional's Readiness and Commitment of Personnel

McClure has selected two retained professionals, Lipten Company and Global Energy Services, that have demonstrated readiness and commitment of personnel to this project as described below.

Global Energy Services confirms the persons identified in this RFP are available and will be ready and committed to the Project for the time periods referenced in the Project Schedule.

Lipten Company confirms the persons identified in this RFP are available and will be ready and committed to the Project for the time periods referenced in the Project Schedule.

4.5 Subcontractors' Core Personnel & Abilities

McClure has selected a design/build electrical subcontractor, G.R. Sponaugle, who has the ability to complete Small GESA projects since 2010 with the team identified in this proposal as described below.

Since 2010, Sponaugle has partnered with McClure Company in a design build arrangement to complete the electrical engineering and construction on numerous GESA projects, including the 2010 Selinsgrove Center project. Below is table summarizing the McClure GESA projects in which G.R. Sponaugle served as the design/build electrical subcontractor. All projects were completed on time, on budget, and the energy savings met or exceeded the guarantee.

Project Name	Electrical Cost	Scope	Year
Selinsgrove Center	$1,339,500	Installed two (2) 1MW, 1.25MVA, 2.4KV emergency generators, to allow the facility to operate in-case of catastrophic failure of both utility services or to supplement the utility. They are used for demand response program. To utilize steam to supplement the electric usage of the facility; a 360KW, 2.4KV, 3-phase steam turbine generator was installed. Upgrade the existing lighting from T12 fluorescent lamps to 25W T8 fluorescent lamps and LED lighting. Vacancy sensors were also installed which also added to the reduction in energy usage.	2010
Greencastle-Antrim SD	$389,800	Boiler, RTU, and chiller upgrades	2015-17
Williams Valley School District	$278,320	Boiler, RTU, and transformer upgrades	2015
West Branch School District	$161,000	Provided electrical for new biomass boiler addition and wiring for boiler and control system.	2015
Minersville School District	$234,500	Boiler, RTU, and AHU upgrades	2014
Susquehanna Township SD	$279,000	Boiler, RTU, and transformer upgrades	2014
Southern Columbia SD	$250,000	Boiler, RTU, and AHU upgrades	2014
Williamsport Area SD	$391,780	Boiler, RTU, and AHU upgrades.	2014
Upper Dauphin School District	$218,140	Boiler and RTU upgrades for geothermal system.	2013
Tamaqua Area School District	$314,000	Boiler, RTU, and AHU upgrades for geothermal system.	2009-11
Wallenpaupack School District	$636,500	Boiler, RTU, and transformer upgrades for geothermal system.	2012
Waynesboro School District	$213,500	Boiler, RTU, and AHU upgrades at multiple schools.	2010-12

In addition, G.R. Sponaugle has the ability to complete Small GESA projects with the team identified in this proposal. G.R. Sponaugle has identified core personnel to complete the electrical portion of the project. G.R. Sponaugle core team members include Scot Carabini (electrical engineer), Tim Zimmerman (electrical superintendent), Ed Rhoades (electrical foreman), and Dave Mengle (electrical foreman). Refer to 'Attachment 1 – Retained Professionals & Subcontractor Resumes' for a full list of resumes. G.R. Sponaugle has the ability to efficiently and effectively complete their portion of the energy project.

4.6 Subcontractor's Readiness and Commitment of Personnel

G.R. Sponaugle confirms the persons identified in this RFP are available and will be ready and committed to the Project for the time periods referenced in the Project Schedule.

4.7 Retro-burner Installation Firm's Qualifications

McClure has selected the Lipten Company to complete the retro burner installation due to their qualifications and history of similar scope of work for the proposed project boilers. McClure has vetted out three separate firms and selected Lipten based on their qualifications, experience, readiness, commitment, approach, cost, project management and other important factors.

The Lipten Company is an engineering, procurement and construction firm that specializes in central energy plant general contracting. Lipten systems are custom designed to match the unique requirements converting or upgrading existing boiler central plant facilities, namely burners and controls.

Lipten had a long client list with similar projects similar to the scope being recommended at Selinsgrove Center. Lipten client list includes over one hundred fifty four (154) large-scale institutional, industrial and municipal boiler installations across the United States, with over 20% of projects including a coal fired boiler retrofit application. See Attachment 2 – Lipten Company Case Study & References.

McClure reached out to four references to ensure Lipten Company delivered. Below are the interview results for all four references:

Reference 1: General Motors (GM) Wentzville, Ron Jones, Site Utilities Manager, Wentzville, MO, 636-327-2326

Reference 2: Nexteer Automation (NA), Pat Ross, Asst. Site Utilities Mgr., Saginaw, MI , (989) 757-5349

Reference 3: Holy Cross Services – St. Mary's College (SMC), Chris Cullsin, Facility Director, Indiana, 574-284-5778

Reference 4: BASF Corporation (BASF), John M Sirko, Project Manager, Wyandotte, MI, 734 324-2691

Reference Question	Reference Answer
1. What was your experience working with Lipten?	**GM:** Fantastic job, very capable, worked well with owner, very good, highly recommended, controls worked well, got the boiler o2/CO/NOX outputs within range, beautiful system **NA:** Project went pretty good, pretty good experience working with Lipten, very timely, had an onsite construction engineer, 1.5 hours away so very supportive no big hiccups, Lipten had to do some serious tuning to meet EPA limits but it worked out **SMC**: Quick, professional, great documents provided at the end, high quality, didn't cut corners **BASF:** Did a good job, system running well, committed team, hard working, very happy, was able to get boilers to operate according to spec after CO levels issues arose at start up, good engineering, took care of everything
2. Did you research or price out other manufacturers?	**GM:** Yes, 4 companies **NA:** Yes, 2 companies **SMC:** Yes, several **BASF:** Yes, several
3. Why did you select Lipten?	**GM:** GM had used Lipten before at another power house. 4 companies bid on the project. Lipten had the best plan, most cost effective bid, and best schedule. **NA:** Purely priced based. Lipten and Detroit were the only ones that submitted bids and Lipten was lowest by $400k. **SMC:** Several companies' proposed, other firms were cheaper; we selected Lipten due to schedule, quality of burners, design. The whole project was a plug and play and they had the capacities and staff we were looking for. **BASF:** Each of the contracts were bid out. Lipten was low cost and met other criterion such as scope and location.

Attachments

Response to
Small GESA Request for Proposals

For A Guaranteed Energy Savings Contractor For:

Small GESA-3 Project for
Department of General Services at

Department of Human Services
Selinsgrove Center

Commonwealth of Pennsylvania
Department of General Services
Harrisburg, PA

ATTACHMENT 1 – RETAINED PROFESSIONALS & SUBCONTRACTOR RESUMES

G. R. Sponaugle

Experience on GESA Projects.

Selinsgrove Center
Date: 2011
Owner: PA Dept of Human Services
Contact:
Amount: $1.34 million
Description: Replace Owner supplied 5KV switchgear, installed two (2) Owner supplied 1MW generators for demand response, provide electrical for new summer boiler, upgraded lighting throughout the complex.
Status: Completed

Hughesville School District
Date: 2011
Owner: Hughesville School District
Amount: $660,000.00
Description: Electrical design and install for new Biomass Boiler addition and 500KW solar farm.
Contact:
Status: Completed

Northampton County
Date: 2012
Owner: Northampton County
Contact:
Amount: $1.2 million
Description: Electrical design and installation to replace HVAC equipment at prison, courthouse, and nursing home. Included upgrade electrical distribution equipment at nursing home.
Status: Completed

York County
Date: 2014
Owner: York County
Contact:
Amount: $488,000.00
Description: Electrical design and installation to replace HVAC equipment at prison, courthouse, and nursing home. Included upgrade electrical distribution equipment at the prison and courthouse.
Status: Completed

Lackawanna Prison
Date: 2015
Owner: Lackawanna County
Contact:
Amount: $880,000

Statement of Readiness and Commitment of Resources:

G.R. Sponaugle & Sons, Inc. is committed to providing required man-power, material, and all required resources to complete the Project in the time period(s) referenced in the RFP's Project Schedule.

Our goal is to ensure that all work is of the best quality from design to construction.

We are signed with IBEW Local 609 to draw any and all required additional man-power as the project requires.

Subcontractor EMR

Year:	Rating:
2015	.749
2014	.820
2013	.796
2012	.832

No Defaults or Debarment in the last five (5) years

Description: Electrical design and installation to upgrade generator to 600KW and wiring three (3) 75KVA CHPs to offset electrical usage. Also, electrical work to replace HVAC units and lighting fixtures.
Status: Completion

Diversity in the Workplace Policy:
It is the intent and resolve of G.R. Sponaugle to comply with the requirements and the spirit of the law in the implementation of all facets of equal opportunity / nondiscrimination. There will be no discrimination on the basis of race, color, religion /creed, gender, marital status, age, pregnancy, national origin, ancestry, non-job related disability, possession of a general education development certificate as compared to a high-school diploma, veteran, or any other legally protected status in the recruitment, selection, training utilization, promotion, termination, or any other personnel action. All matters relating to employment are based upon ability to perform the essential functions of the job, as well as dependability and reliability once hired.

G.R. Sponaugle seeks to provide its employees with fair and reasonable wages and benefits which fit the needs of its employees and which are comparable to other organizations that are in this same geographical area. In return for this compensation, the Company expects its employees to put in a full day's work for a full day's pay. The Company also expects its employees to be prompt and on time each day. As a professional employee, G.R. Sponaugle also expects that you will adhere to established guidelines and policies and that you will be courteous to your fellow employees.

G.R. Sponaugle does realize that circumstances may arise outside of the work environment that can cause conflict with scheduled hours. The Company understands the importance of providing and caring for one's family members and has attempted to establish a system for allowing adequate time to deal with such matters. Under these circumstances, G.R. Sponaugle does expect its employees to treat us with courtesy by keeping us (your supervisor) informed of any problems and how they affect your work.

G.R. Sponaugle retains its rights as an organization to hire, fire, and discipline its employees, according to the established guidelines. The Company also reserves the right to change policies as necessary to keep up with current Company needs. All employees will be informed of these changes and any questions can be directed to your supervisor.

In order to accomplish its business goals, G.R. Sponaugle retains the right to assign, adjust, or amend the duties and responsibilities of individual positions or employees within the organization. The Company will be responsible for any such changes and will evaluate any impact such changes would have on the amount of adequate compensation.

Scot M. Carabini, PE, LC, LEED AP BD+C – Electrical Engineer

Scot Carabini brings over 25 years of experience to the G.R. Sponaugle & Sons, Inc. team. His background includes a broad range of technical capabilities related to engineering design, managing engineering services, project management, construction administration, and short-circuit/coordination/arc-hazard studies.

Scot obtained a BS in Electrical Engineering from Penn State University. He has professional registrations in Pennsylvania, and Maryland. In addition, he has an NCEES Certificate, NABCEP PV Entry Level Certificate, is lighting certified through NCQLP and is a LEED AP. Scot is affiliated with the Illuminating Engineering Society of North America (IESNA).

Some of Scot's most notable projects include: Dickinson College (New Central Energy Plant); Pinnacle Health Systems-CGOH (Central Energy Plant); PA Credit Union Association (Emergency Generator Study and Design); TYCO Electronics (15-KV Primary Electric Service for Manufacturing and Office Campus); Butler County (911 Center); New Cumberland Army Depot (Project Management); Hershey Medical Center (Design/Build Project); American Cancer Society (Design/Build Project); Campus Square (Design/Build with Project Management), ELSD-Solar Project (Project Management).

Tim Zimmerman – Electrical Superintendent

Tim Zimmerman has been part of G. R. Sponaugle & Sons, Inc. since 1983. Prior to becoming a superintendent, Tim held several other positions within the Company including foreman, electrician and project manager.

Having a broad range of skills and experience, Tim has been responsible for the installation of a wide array of electrical systems including high-voltage distribution and interior electrical systems, lighting systems, sound systems, fire alarm systems, security systems, CCTV systems, and telephone and data wiring.

In addition, Tim's experience includes servicing manpower requirements and distribution on numerous projects such as schools (including various colleges and universities), hospitals, warehouses (basic and refrigerated), manufacturing structures, telephone buildings, and residential and commercial properties.

Some of Tim's notable projects as Foreman include: York Hospital, Harrisburg University, Chambersburg Hospital, Lutheran Social Services, various jobs at Hershey Medical Center and The Pennsylvania State University.

Tim has had the opportunity to develop his skills through the International Brotherhood of Electrical Workers (IBEW) apprentice training, as well as through on-the-job experience. Currently, Tim is an active member of IBEW Local 143.

Ed Rhoades – Electrical Foreman

Ed has been with G.R. Sponaugle & Sons, Inc. since 1996. He started as an apprentice and has worked his way to foreman during that time.

Ed has worked on numerous projects. Most recent are the East Juniata High School, the Harrisburg University, The Osteopathic Hospital renovations, and numerous projects at the Hershey Medical Center. He was also the assistant project manager at the Harrisburg Hospital.

As a graduate of East Pennsboro High School, Ed entered the International Brotherhood of Electrical Workers' Apprenticeship Training Course through Local Union #143. His ethic of working hard and getting the job done right makes Ed a valued member of the G.R. Sponaugle & Sons, Inc. team.

Dave Mengle – Electrical Foreman

Dave has been with G.R. Sponaugle & Sons, Inc. since March of 2000. He started as a journeyman and worked his way to foreman by 2002. Prior to starting with G.R. Sponaugle & Sons, Inc., Dave worked for General Electrical service Company and spent seven years working at Hershey Food plants.

While at G.R. Sponaugle, Dave worked as a foreman on numerous projects including Messiah College Natural History Museum, Hershey Cancer Center, Harrisburg State Hospital, Selinsgrove State School Project, HACC Blocker Hall Remodel, WHTM Channel 27 Transmitter and Penn State University's East Plant Service Upgrade.

Dave completed his Apprenticeship with IBEW Local #143 in 1994 and has continued to further his education by participating additional training throughout the years. Notably, he has completed OSHA 10-hour, OSHA 30-hour, Built Rite, 3M Fire Sealant and Confined Space training.

Global Energy Services

Experience on GESA Projects.

State Corrections Institute Dallas
Date: 2015
Owner: State of Pennsylvania
Contact: Marcel Tassin, Director, (717) 728-0375
Amount: $1,100,000
Description: LED Lighting Retrofit
Status: Completed as Scheduled

Town of Ocean City, MD
Date: 2016
Owner: City of Ocean City
Contact: Terry McGean, City Engineer, (410) 289-8845
Amount: $1,684,994
Description: 18 Buildings & Boardwalk LED Lighting Retrofit
Status: Currently being installed

Strawberry Square
Date: 2015
Owner: Harristown Development Corporation
Contact: Bradley Jones, President and CEO, (717) 255-1025
Amount: $3,128,179
Description: Custom Design LED Lighting Retrofit
Status: Completed as Scheduled

Diversity in the Workplace Policy:
The purpose of this policy is to provide diversity and equality to all in employment, respective of their gender, race, ethnic origin, disability, age, nationality, national origin, sexuality, religion or belief, marital status and social class. We oppose all forms of unlawful and unfair discrimination.

All employees, whether part time, full time or temporary, will be treated fairly and equally and with respect.

Selection for employment, promotion, training or any other benefit will be on the basis of aptitude and ability.

All employees will be helped and encouraged to develop their full potential and the talents and resources of the workforce will be fully utilized to maximize the efficiency of the organization.

Statement of Readiness and Commitment of Resources:

GES is committed to provide the services for this project. GES has over 80 employees including installers, engineers and project managers. We have the capacity and ability to complete the IGA audit, design and installation process needed to complete this project efficiently from start to finish.

Subcontractor EMR

Year:	Rating:
2015	.85
2014	.98
2013	.98
2012	1.0

No Defaults or Debarment in the last five (5) years

Global Energy Services is a national full service turn-key energy saving company that specializes in Lighting Retrofits, Controls & Design, Water Conservation and Building Envelope. Global Energy Services is a seasoned industry leader with over 100 years' combined experience and expertise within our auditing/engineering staff and over 60 installers working in the field. We are currently serving customers throughout North America. We have experience dealing with Fortune 500 companies, Federal & Local Government Agencies, Healthcare facilities, schools, Universities, Municipalities and Correctional Institutions.

Global Energy Services Key Employees

Ron Fox - Vice President, Building Envelope Division

- Employed by Global Energy Services for the past 2 years
- Responsibilities: Supervision of the Audit & Design Phase for the Building Envelope Division.
- Over 25 years of experience in the auditing, design and implementation of over $125 million in energy efficient building envelope projects.
- Bachelor's Degree Loyola College in Business Degree.
- Forensic Sciences Building Scientist
- Themographer, Energy Auditor, Senior Building Inspector

Matthew Saboy – Vice President of Engineering

- Responsibilities: Supervision of the audit and design phase for Lighting Division.
- Over 13 years of experience in the auditing, design and implementation of over $100 million in energy efficient lighting projects. (Employed by Global Energy Services for the past 7 years)
- Recognized by the Environmental Protection Agency as a: Surveyor Ally
- Audited, Designed the Lighting portion of GESA – SCI Dallas Project
- Member of AEE - Association of Energy Engineers
- Member of NAESCO – National Association of Energy Service Companies.
- Manufactures Design Training Certification: Lutron, Sensor Switch, GE, Sylvania, Phillips,
- Acuity and Cooper Lighting
- Currently Studying for CLEP & LC certification exams

Roy Marshall – Vice President, Master Plumber

- Responsibilities: Supervision of the audit / design / installation in the Water Division (construction) phase including but not limited to labor, safety, quality control, scheduling, logistics, and material/equipment procurement.
- Over 20 years of experience in the plumbing/mechanical industry auditing, designing and installing water efficiency ECM's (Employed by Global Energy Services for the past 3 years)
- Consulted and helped on the installation of Mock-ups on the Water portion of the GESA – SCI Dallas
- Association of Energy Engineers: Certified Water Efficiency Professional

Pat McKenzie – Vice President of Operations

- Responsibilities: Supervision of the installation (construction) phase including but not limited to labor, safety, quality control, scheduling, logistics, and material/equipment procurement.
- Over 25 years of experience in the electrical/lighting industry. (Employed by Global Energy Services for the past 5 years)
- Project managed over $100 million in electrical/lighting projects.
- Over 60 full time project managers, project coordinators and installers directly under his management.
- Licensed journeyman for over 20 years.

Lipten Company

Experience on boiler fuel conversion and rehabilitation projects:

GM Assembly Plant, Wentzville, MO
Date: 2012 & 2013
Owner: General Motors
Contact: Ron Jones, Site Utilities Manager
(636) 327-2326
Amount: $3.9M
Description: Complete conversion of three 210,000 lb/hr steam boilers from coal to natural gas including burners and controls
Status: Completed as Scheduled

Nexteer World Headquarters, Saginaw, MI
Date: 2014
Owner: Nexteer Automotive
Contact: Pat Ross, Asst. Site Utilities Mgr. (989) 757-5349
Amount: $2.6M
Description: Complete conversion of two 150,000 lb/hr steam boilers from coal to natural gas including burners and controls
Status: Completed as Scheduled

BASF, Wyandotte, MI
Date: 2016
Owner: BASF Corporation
Contact: John M Sirko, Project Manager (734) 324-6121
Amount: $2.2M
Description: Restoration of four 40,000lb/hr water tube boilers including new natural gas burners and controls
Status: Completed as Scheduled

Lipten is an Engineering, Procurement and Construction (EPC) Company specializing in Energy Centers. Lipten has been providing Energy Center engineering, procurement and construction services since 1969. Lipten services encompass all aspects related to the generation of Power- steam, hot water, electricity, cogeneration and compressed air systems as well as ancillary equipment required of these major systems.

The Boiler conversion experts:

- Lipten pioneered the boiler conversion concept more than 30 years ago.
- Lipten has completed more stoker boiler conversions than any company in North America.
- Lipten is the authority for such boiler conversions. Having presented at boiler owners conferences, provided press interviews on the subject of boiler conversion and authoring the following article for POWER magazine. http://www.powermag.com/practical-considerations-for-converting-industrial-coal-boilers-to-natural-gas/

Statement of Readiness and Commitment of Resources:

Lipten is committed to provide the services for this project. Lipten has engineers, technicians and project managers as well as contract employees typically totaling 17-32 people depending on project requirements. We have the capacity and ability to complete the IGA audit, design and installation process needed to complete this project efficiently from start to finish.

Subcontractor EMR

Year:	Rating:
2016	.89
2015	.95
2014	.95
2013	.94
2012	.95

No Defaults or Debarment in the last five (5) years

Lipten Company Key Employees

James M. Spencer, CEO and General Manager

Expertise

- Corporate Management
- Project Management
- Project Estimating
- Facilities Design
- Instrumentation Design
- Fuel Conversions
- Energy Center Design
- Powerhouse Analysis
- Powerhouse Design

Education/Training

- Bachelor of Industrial Engineering
  Northern Michigan University
- Associates in Electronic Technology
  Community College of the Air Force
- Senior Management Training
  Community College of the Air Force
- Missile Systems Training
  Community College of the Air Force

Jim Marshall, President & Chief Operations Officer

Expertise

- Company Management
- Project Management
- Project Estimating
- Project Scheduling
- Technical Specifications
- Project Specifications
- Energy Center Design
- Biomass/Nat Gas/Oil/Biogas
- Instrumentation/Application

Education/Training

- Bachelor of Electronic Engineering
  University of Dayton
- Moore Industries
  University of Product Knowledge
- FlowServe/Valtek
  Control Valves 101 & 301 Training
- Dale Carnegie & Gerry Weinberg
  Sales & Development Training

Randy Flanagan, P.E., Senior Mechanical Engineer / Project Manger

Expertise

- Mechanical Engineering
- Steam Systems Design
- Piping System Design & Stress Analysis
- Manage Capital Project work for Design, Demolition and Installation
- Manage & Coordinate Outage Projects and Major Component Maintenance
- Generation of Bid Specifications
- Natural Gas, Coal, and Oil Fired Systems
- Combined Heat and Power Applications
- Coal Fired Boilers
- Generate plans for and perform Utility Boiler Inspections
- Generate plans for Utility Turbine/Generator Inspections
- Predictive Maintenance Leader

Frank F. Hrlic, P.E., Director of Procurement & Contract Manager

Expertise

- Project Management
- Project Scheduling
- Technical Specifications
- Estimating
- Control Systems
- Material Handling Systems
- Equipment Installation
- Electrical Engineering

Education/Training

- Master of Science in Business Administration
  Lawrence Technological University
- Associate Degree in Engineering
  Lawrence Technological University
- Bachelor of Science in Electrical Engineering
  Lawrence Technological University
- Safe-to-Work safety training series

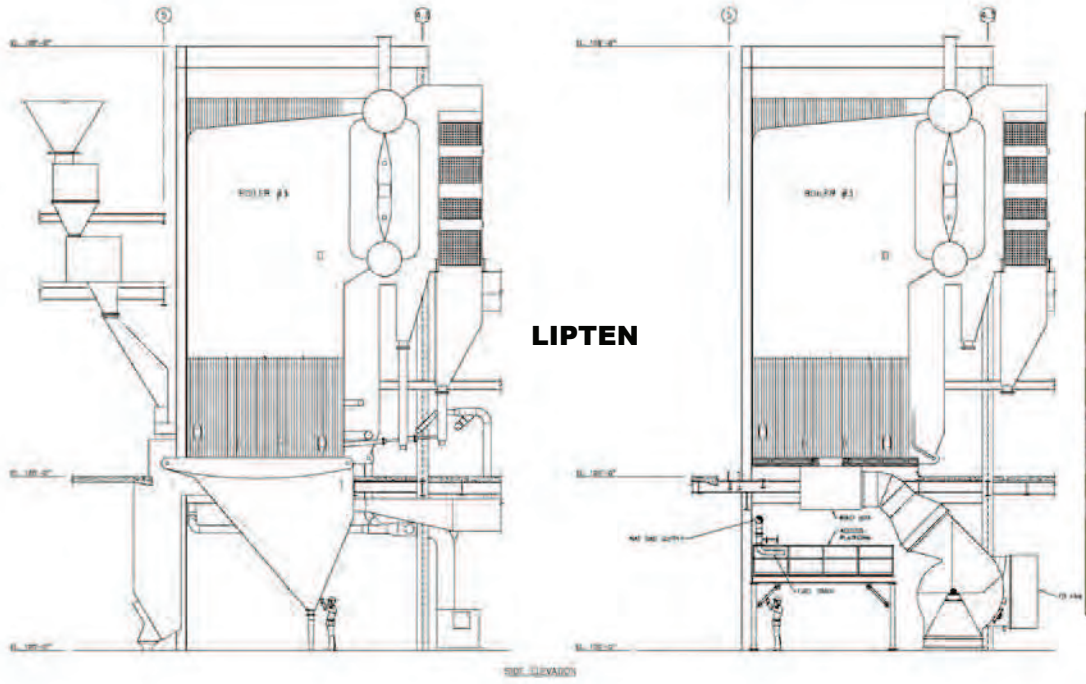
ATTACHMENT 2 – LIPTEN COMPANY CASE STUDY & REFERENCES

Lipten had a long client list with similar projects similar to the scope being recommended at Selinsgrove Center. Lipten client list includes over one hundred fifty four (154) large-scale institutional, industrial and municipal boiler installations across the United States, with over 20% of projects including a coal fired boiler retrofit application.

General Motors – Wentzville, MS

Lipten is converting two coal-fired boilers to fire natural gas at the GM Wentzville assembly facility in Missouri. Lipten has converted many boilers from coal to natural gas firing; several of them at GM facilities.

The project includes installation of new vertical-firing natural gas burners. Vertical burners were chosen instead of horizontal burners for this application to provide: optimum flame geometry for the specific furnace configuration, improved water circulation patterns, improved thermal efficiency, better overall boiler performance, avoidance of flame impingement and simplified operation. The project also includes new forced draft fans, natural gas supply systems, electrical modifications, custom Programmable Logic Controller (PLC) control systems from Lipten's Controls Division and additional system modifications required to convert coal boilers to fire natural gas. This project will be completed by the end of 2013.



Headquarters:

28054 Center Oaks

Wixom, MI 48393

P: 800-860-0790

www.lipten.com

Client: General Motors

In Progress: 2013

Nexteer Boiler Conversion – Saginaw, MI

Lipten provided a design-build coal to natural gas conversion of two 150,000 lb/hr coal fired Riley Boilers. Lipten was also responsible for all engineering, design, equipment, materials, demolition, construction and startup.

The stoker was removed and replaced with a floor built of plate steel and refractory. This image shows the vertically mounted burner and new floor.

New fan for a converted boiler.

The project included new fuel trains, burners, forced draft fans, induced draft fans, VFD's, instruments and controls. Lipten also provided significant exhaust ducting modifications to bypass the coal exhaust gas emissions treatment equipment that was no longer needed when burner natural gas. Prior to Lipten converting these two boilers, another firm attempted to convert a third boiler. The boiler was unable to achieve capacity and exceeded the emissions limitations. The boiler had to be derated and significant costs were incurred as a result of excess NOx. The boilers converted by Lipten met full capacity and strict NOx limitations upon startup. Lipten's experience in boiler conversions provided a superior design at a lower cost.

LIPTEN™ ENERGY SOLUTIONS

***Headquarters*:**

28054 Center Oaks

Wixom, MI 48393

P: 800-860-0790

www.lipten.com

Client: Nexteer

Completed: 2015

LIPTEN™
ENERGY SOLUTIONS

Headquarters:

28054 Center Oaks

Wixom, MI 48393

P: 800-860-0790

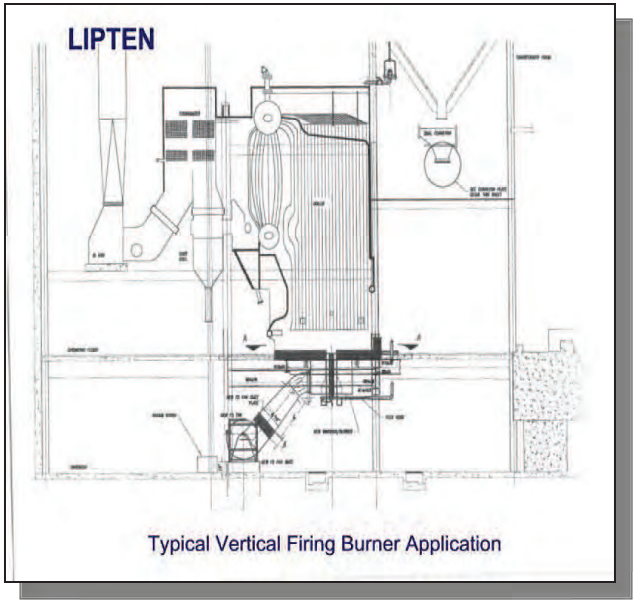
www.lipten.com

Client: Ford Motor

Completed: 2007

FORD MOTOR COMPANY:

Lipten was contracted by Ford to furnish complete EPC (Engineering, Procurement and Construction) services for a boiler coal-to-gas conversion. The project consisted of converting two 100,000 pph stoker coal fired boilers to natural gas using vertically up-fired natural gas burners. The scope of work included the demolition of the existing grates, stokers, coal & ash hoppers and combustion air fans.



Typical Vertical Firing Burner Application

The new installation items included furnace floors, support plates and a structural steel systems required to support the new vertically fired burners. Lipten installed a low NO_X gas burner, wind box, fuel train, forced draft fans for each boiler and new VFD's plus two new PLC based control systems via Lipten's CombustionPac™ series control products.

Lipten also provided rental boiler connections necessary for future boilers. The project was completed on time and performance guarantees were achieved.

General Motors Corporation - Swartz Creek, MI

Lipten Company was contracted to Design & Build a Turnkey Coal-to-Gas Conversion and complete powerhouse renovation. Within this scope, Lipten converted three 45,000-pph Field Erected Coal fired Boilers to Front Wall fired Low NO_X Natural Gas Fired, with new FD Fans, VFD's, Fuel Trains, Extensive Tube Repairs & Modifications, Spray-Tray Deaerator System w/Feedwater Pumps, Duplex Softener System, Chemical Feed Systems and a Blowdown Heat Recovery System. Three new Burner Management & Combustion Control Systems, a Boiler Plant Master Control System, complete controls & instrumentation package and a PC based Plant Monitoring System were also provided and installed allowing for a complete replacement of the powerhouse control & monitoring systems.

New Burner, Windbox and FD Fan along with a new Deaerator

New Instruments

New Controls

Installed Rental Boilers and Feedwater Trailer

Lipten also provided full Design, Engineering, Project Management, Site Management, Startup and Commissioning services for the systems as well as operator training. Local skilled trades were utilized for Demolition, Asbestos Abatement, Cement Work, Boilermakers, Pipe Fitters, Mechanical Rigging & Installation, Electrical Installation, Painting and Insulation. Two Rental Boilers, a Feedwater Trailer and tie-ins were included to allow for complete powerplant shutdown during the conversion.

LIPTEN™ ENERGY SOLUTIONS

Headquarters:

28054 Center Oaks

Wixom, MI 48393

P: 800-860-0790

www.lipten.com

Client: GM

Completed: 2006

LIPTEN™ ENERGY SOLUTIONS

Holy Cross Services- St. Mary's College:

Lipten was contracted to provide full Design & Build Turn-key Coal-to-Gas Conversion, and powerhouse renovations. Lipten converted two 50,000 pph field erected coal boilers to vertically up-fired natural gas with fuel oil backup. In addition, a new 30,000 gallon fuel oil storage system, a new diesel generator backup system and a new deaerator system were installed.

Lipten's scope also included a re-furbished triplex softener system, a new power distribution system, three new burner management & combustion control systems, a plant master system and a dual PLC based plant monitoring system. An entirely new instrumentation control valve and control device package was also included. Lipten provided engineering, project management, start-up, training and commissioning.

Headquarters:

28054 Center Oaks

Wixom, MI 48393

P: 800-860-0790

www.lipten.com

Client: Holy Cross

Completed: 2004

LIPTEN COMPANY

SELECTED POWER GENERATION EXPERIENCE

Project Name & Location	Client	Scope	Description	Fuel Type	Equip. Capacity
Asphalt Facility Detroit, MI	Asphalt Facility	EPC, I	One (1) Thermal Oxidizer Rebuild and Combustion Control and BMS Upgrade	Gas	
Asphalt Facility Minneapolis, MN	Asphalt Facility	EPC, I	One (1) Thermal Oxidizer Performance Evaluation and Enhancements	Gas	
Asphalt Facility Denver, CO	Asphalt Facility	EPC, I	One (1) Thermal Oxidizer Inspection	Gas	
Asphalt Facility Denver, CO	Asphalt Facility	EPC, I	One (1) Thermal Oxidizer Rebuild and Combustion Control and BMS Upgrade	Gas	
Asphalt Facility Jacksonville, FL	Asphalt Facility	EPC, I	One (1) Thermal Oxidizer Rebuild and Combustion Control and BMS Upgrade	Gas	
Asphalt Facility Oklahoma City, OK	Asphalt Facility	EPC, I	One (1) Thermal Oxidizer Inspection	Gas	
Asphalt Facility Summit, IL	Asphalt Facility	EPC, I	Two (2) Thermal Oxidizer Rebuild and Combustion Control and BMS Upgrade	Gas	
Asphalt Facility Detroit, MI	Asphalt Facility	EPC, I	One (1) New Thermal Oxidizer, Asphalt Preheater and Combustion Control and BMS Systems	Gas	
Asphalt Facility Summit, IL	Asphalt Facility	EPC, I	One (1) Thermal Oxidizer Performance Evaluation and Enhancements	Gas	
Asphalt Facility Jacksonville, FL	Asphalt Facility	EPC, I	One (1) Thermal Oxidizer Inspection	Gas	
Asphalt Facility Kearny, NJ	Asphalt Facility	EPC, I	One (1) New Thermal Oxidizer, WHRSG and Combustion Control and BMS Systems	Gas	
Asphalt Facility Oklahoma City, OK	Asphalt Facility	EPC, I	One (1) Thermal Oxidizer Rebuild and Combustion Control and BMS Upgrade	Gas	
Asphalt Facility Jacksonville, FL	Asphalt Facility	EPC, I	One (1) Thermal Oxidizer Rebuild and Combustion Control and BMS Upgrade	Gas	
Battle Creek Waste Water Treatment Plant Battle Creek, MI	City of Battle Creek	EPC,I	CEMS and DAS for two (2) Incinerators. (40 CFR Part 503)	SLUDGE/ GAS	
Blue Moon/Rose Acre Farms Francesville, IN	Rose Acre Farms	EPC,I	Wood Combustor and Air Preheater Control System, Instrumentation and all auxiliaries.	WOOD	
Bowling Green State University Bowling Green, OH	Bowling Green University	EPC,I	CEMS and DAS for three (3) Boilers. (40 CFR Part 60)	GAS/NO.2 OIL	
Bowling Green State University Bowling Green, OH	Bowling Green University	EPC,I	Three (3) Boilers, Low Nox Burners, Combustion and BMS Control System, Feedwater Equipment and Facilities Controls, Instrumentation, complete CEMS Package and all auxiliaries.	GAS/NO.2 OIL	85,000 lb/hr
Cargill Beardstown, IL	Cargill Beardstown,IL	EPC	Engineering, Procurement and Construction of a new boiler and control systems.	Gas	51,750 lb/hr

JV = Joint Venture **E/P/C = Engineer/Procure/Construct** **I = Instrumentation** **SA= Site Audits**

LIPTEN COMPANY

SELECTED POWER GENERATION EXPERIENCE

Project Name & Location	Client	Scope	Description	Fuel Type	Equip. Capacity
Cargill Fresno, CA	Cargill Fresno, California	SA	Site audit	Gas	
Cargill Friona, TX	Cargill Fresno, California	SA	Site audit	Gas	
Cargill Plainview, TX	Cargill Plainview, TX	EPC	Site Audit	TBD	
Central Michigan University Mt. Pleasant, MI	Central Michigan University	EPC,I	One (1) Plant Master Feedwater, Deaerator, and Condensate System Controls Package	Gas	
Central Soya Kankakee, IL	Central Soya	EPC,I	One (1) Boiler, Low Nox Burner, Combustion and BMS Control System, Feedwater Equipment and Facilities Controls, Instrumentation and all auxiliares.	GAS/NO.2 OIL	50,000 lb/hr
Cincinnati Waster Water Treatment Plant Cincinnati, OH	City of Cincinnati	EPC,I	CEMS and DAS for Eight (8) Incinerators. (40 CFR Part 503)	SLUDGE/ GAS	
Consumers Power Company Jackson, MI	Consumers Power Company	EPC,I	Opacity and Flow for Twenty-One (21) Boilers (40 CFR Part 75)	COAL	
Cornhusker Energy Center	Cornhusker Nebraska	SA	Site Audit	Gas	
Daimler Chrysler Corporation Belvidere, IL	Daimler Chrysler Corporation	EPC,I	Three (3) Boilers, Combustion Controls Systems, Instrumentation, and Auxiliaries	Gas	85,000 lb/hr
Daimler Chrysler Corporation Detroit Axle Detroit, MI	Daimler Chrysler Corporation	EPC, I	Eight (8) Coil tube Steam Generator Control Upgrades and Balance of Plant	Gas	10,000 lb/hr
Daimler Chrysler Corporation Kokomo, IN	Daimler Chrysler Corporation	EPC,I	Three (3) Boilers, Combustion and BMS Control System, Instrumentation, and all auxiliaries.	GAS/NO.2 OIL	85,000 lb/hr
Daimler Chrysler Corporation Kokomo, IN	Daimler Chrysler Corporation	EPC,I	One (1) Feedwater Control System, Instrumentation and all auxiliaries.		
Daimler Chrysler Corporation McGraw Glass Detroit, MI	Daimler Chrysler Corporation	EPC	Two (2) Boiler Control Upgrades, Two (2) Deaerators and Feedwater Pumps	GAS	80,000 LB/HR
Daimler Chrysler Corporation New Castle, IN	Daimler Chrysler Corporation	EPC,I	Three (3) Boilers, Low Nox Gas/Oil Burners, Combustion and BMS Control System, Feedwater Equipment and Controls, Instrumentation and all auxiliaries.	GAS/NO.2 OIL	30,000 lb/hr

JV = Joint Venture **E/P/C = Engineer/Procure/Construct** **I = Instrumentation** **SA= Site Audits**

LIPTEN COMPANY

SELECTED POWER GENERATION EXPERIENCE

Project Name & Location	Client	Scope	Description	Fuel Type	Equip. Capacity
Daimler Chrysler Corporation Newark, NJ	Daimler Chrysler Corporation	EPC,I	Five (5) Coal to Low Nox Gas Burner Conversions, Combustion and BMS Control Systems, Instrumentation and all auxiliaries.	GAS	50,000 lb/hr
Daimler Chrysler Corporation Perrysburg, OH	Daimler Chrysler Corporation	EPC,I	One (1) Boiler Low Nox Burner, Combustion and BMS Control System, Instrumentation and all auxiliaries.	GAS	100,000 lb/hr
Daimler Chrysler Corporation Windsor, Ontario	Daimler Chrysler Corporation	EPC	Eight (8) 100' Dual Wall Stainless Steel Exhaust Stacks		
Daimler Chrysler Tech Center Auburn Hills, MI	Daimler Chrysler Corporation	EPC,I	Two (2) Hot Water Generators, Low Nox Burners, Combustion and BMS Control System	GAS/NO.2 OIL	45,000 mmbtu
DCP Midstream Heat Recovery Turbine Okarche, OK	DCP Midstream	E,C	New Heat recovery Steam Generator and Turbine	Flue gas Stream	15,100 lbs/hr, 2,000 HP Turbine
Detroit Metropolitan Airport Detroit, MI	Wayne County	EPC,I	Four (4) Boilers, Low Nox Burners, Combustion and BMS Control System	GAS/NO.2 OIL	40,000 lb/hr
Detroit Midfield Terminal Detroit, MI	DQE	EPC, I	Three (3) High Temperature Hot Water Generators, Low Nox Burners, Combustion and BMS Control System, Instrumentation.	GAS/NO.2 OIL	45,000 mmbtu
DTE Energy Services Ann Arbor, MI	Ford - Cleveland	SA	Site audit - De-Centralization of Steam and Air Systems	Oil	
DTE Energy Services Ann Arbor, MI	GM Lordstown	SA	Site audit - Controls Upgrades	Oil	
Durr Environmental Wixom, MI	Durr Environmental	EPC,I	CEMS and DAS for Ten (10) Diesel Engines (40 CFR Part 60)	DIESEL	
Eastern Michigan University Ypsilanti, MI	Eastern Michigan University	I	One (1) Boiler, Burner Oil Firing System Modifications	Gas/No. 2 Oil	80,000 lb/hr
Ethanol Facility Engineering	Ethanol Facility	E	Engineering for new Ethanol facility	Natural Gas/Biogas	525,000 lb/hr
Ethanol Facility Engineering	Ethonal Facility	E	Engineering for new Ethanol facility Energy Center	TBD	
Ethanol Facility Madison, Illinois	Ethanol Facility	EPC	Design and build new Energy Center including water treatment, chillers (6,000 Ton), air compressors (3,382 SCFM) and boilers.	Gas	300,000 lb/hr
Ethanol Facility West Franklin, Illinois	Ethanol Facility	EPC	Design and build new Energy Center including water treatment, chillers (6,000 Ton), air compressors (3,382 SCFM) and boilers.	Gas	300,000 lb/hr

JV = Joint Venture **E/P/C = Engineer/Procure/Construct** **I = Instrumentation** **SA= Site Audits**

LIPTEN COMPANY

SELECTED POWER GENERATION EXPERIENCE

Project Name & Location	Client	Scope	Description	Fuel Type	Equip. Capacity
Euclid Waste Water Treatment Plant Euclid, OH	City of Euclid	EPC,I	CEMS and DAS for Two (2) Incinerators (40 CFR Part 503)	SLUDGE/ GAS	
Ferris State University Big Rapids, MI	Ferris State University	EPC,I	One (1) Boiler, Low Nox Burners, Combustion and BMS Control System, Feedwater Equipment and Controls, Instrumentation and all auxiliaries.	GAS/NO.2 OIL	75,000 lb/hr
Flint Waste Water Treatment Plant Flint, MI	City of Flint	EPC,I	CEMS and DAS for four (4) Incinerators. (40 CFR Part 503)	SLUDGE/ GAS	
Ford Motor Company Wayne, MI	Ford Motor Company	EPC,I	One (1) Boiler, Combustion and BMS Control System, Instrumentation and all auxiliares.	GAS/LFG	45,000 lb/hr
Ford Motor Company Ypsilanti, MI	Ford Motor Company	EPC,I	One (1) Boiler, Combustion and BMS Control System, Instrumentation and all auxiliaries.	GAS	50,000 lb/hr
Ford Motor Company Ypsilanti, MI	Ford Motor Company	EPC,I	Three (3) Boiler Combustion and BMS Control System, Feedwater Control System, Instrumentation and all auxiliaries	GAS/NO.2 OIL	40,000 lb/hr
Ford Motor Company Livonia, MI	Ford Motor Company	EPC, I	Boiler Feedwater Equipment and all Auxiliaries		
Ford Motor Company Livonia, MI	Ford Motor Company	EPC,I	Two (2) Boilers Coal to Gas Low Nox Burner Conversions, Combustion and BMS Control Systems, Instrumentation and all auxiliaries.	GAS	90,000 lb/hr
Ford Motor Company Livonia, MI	Ford Motor Company	EPC,I	One (1) Boiler Gas Low Nox Burner Conversion, Combustion and BMS Control System, Instrumentation and all auxiliares.	GAS	120,000 lb/hr
Ford Motor Company Monroe, MI	Ford Motor Company	EPC,I	Remove two (2) Coal Fired Boilers, furnish and install two (2) Boilers, Gas Burners, Combustion and BMS Control Systems, Instrumentation and all auxiliares	GAS	70,000 lb/hr
Ford Motor Company Rawsonville, MI	Ford Motor Company	EPC,I	One (1) Waste Heat Recovery Boiler for One (1) GE Gas Turbine, Combustion and BMS Control System, Instrumentation and all auxiliaries	GAS	80,000 lb/hr
Ford Motor Company Rawsonville, MI	Ford Motor Company	EPC,I	Six (6) Boiler Combustion and BMS Control Systems, Feedwater Control System, Instrumentation and all auxiliaries.	GAS	80,000 lb/hr
Ford Motor Company Wayne, MI	Ford Motor Company	EPC,I	Two (2) Boilers, Combustion and BMS Control System, Instrumentation and all auxiliares.	GAS/LFG	70,000 lb/hr
Ford Motor Company Van Dyke	Ford Motor Company	EPC	One (1) Boiler, Combustion and BMS Control System, Instrumentation and all auxiliares.	GAS	
Ford Motor Company Cleveland, OH	Ford Motor Company	EPC	Two (2) Boilers Coal to Gas Low Nox Burner Conversions, Combustion and BMS Control Systems.	Gas	100,000 lb/hr

JV = Joint Venture **E/P/C = Engineer/Procure/Construct** **I = Instrumentation** **SA= Site Audits**

LIPTEN COMPANY

SELECTED POWER GENERATION EXPERIENCE

Project Name & Location	Client	Scope	Description	Fuel Type	Equip. Capacity
Ford Motor Company Chicago, IL	Ford Motor Company	EPC,I	Three (3) Boiler Combustion and BMS Control System, Feedwater Control System, Instrumentation and all auxiliaries	GAS/NO.2 OIL	50,000 lb/hr
Ford Motor Company Dearborn, MI	Ford Motor Company	EPC,I	Three (3) Burner Conversions, Combustion and BMS Control Systems, Instrumentation and all auxiliaries	GAS/NO.2 OIL	
Ford Motor Company Cleveland, OH	Ford Motor Company	EPC	Three (3) Boiler Combustion and BMS Control System, Feedwater Control System, Instrumentation and all auxiliaries		
Ford Motor Company Sharonville, OH	Ford Motor Company	EPC,I	Two (2) Boilers, Combustion and BMS Control System, Instrumentation and all auxiliares.	GAS	30,000 lb/hr
General Mills	General Mills C	E	Engineering for a new wood chip central energy plant	Wood	
General Motors Canada Oshawa, Ontario	General Motors Limited Canada	EPC,I	One (1) Coal Boiler Firing Modifications Four (4) Coal Boiler Combustion Control Upgrades	Coal	150,000 lb/hr
General Motors Corporation Lake Orion, MI	General Motors Corporation	EPC, I	Three (3) Boilers, Combustion Control Systems, Instrumentation and all auxiliaries.	COAL/ GAS	150,000 lb/hr
General Motors Corporation Lake Orion, MI	General Motors Corporation	EPC, I	One (1) Boiler, Combustion Control Systems, Instrumentation and all auxiliaries.	COAL/ GAS	40,000 lb/hr
General Motors Corporation Livonia, MI	General Motors Corporation	EPC, I	One (1) Boiler, Combustion Control Systems, Instrumentation and all auxiliaries.	GAS	80,000 lb/hr
General Motors Corporation Lordstown, OH	General Motors Corporation	EPC, I	Three (3) Shop Assembled Boilers, Combustion and BMS Control Systems, Instrumentation and all auxiliaries	GAS	60,000 lb/hr
General Motors Corporation Massena, NY	General Motors Corporation	EPC, I	One (1) Boiler, Combustion Control Systems, Instrumentation and all auxiliaries.	GAS	40,000 lb/hr
General Motors Corporation Oklahoma City, OK	Cinergy	EPC, I	Three (3) Boiler Combustion and BMS Control Systems, Instrumentation and all auxiliaries	GAS	100,000 lb/hr
General Motors Corporation Pittsburgh, PA	General Motors Corporation	EPC, I	Two (2) Boiler Combustion Control Systems, Instrumentation and all auxiliaries.	GAS	25,000 lb/hr
General Motors Corporation Pontiac, MI	General Motors Corporation	EPC, I	One (1) CFB Boiler, Combustion Control Systems, Instrumentation and all auxiliaries.	COAL/ GAS	300,000 lb/hr

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LIPTEN COMPANY

SELECTED POWER GENERATION EXPERIENCE

Project Name & Location	Client	Scope	Description	Fuel Type	Equip. Capacity
General Motors Corporation Saginaw, MI	General Motors Corporation	EPC, I	Two (2) Boilers, Combustion and BMS Control Systems, Instrumentation and all auxiliaries.	GAS	90,000 lb/hr
General Motors Corporation Tarrytown, NY	General Motors Corporation	EPC, I	Two (2) Boilers, Combustion and BMS Control Systems, Instrumentation and all auxiliaries.	GAS	80,000 lb/hr
General Motors Corporation Warren, MI	General Motors Corporation	EPC, I	One (1) Boiler, Combustion and BMS Control System, Instrumentation and all auxiliaries.	GAS	90,000 lb/hr
General Motors Corporation Warren, MI	General Motors Corporation	EPC, I	One (1) Boiler, Combustion and BMS Control System, Instrumentation and all auxiliaries.	GAS	120,000 lb/hr
General Motors Corporation Wentzville, MS	General Motors Corporation	EPC, I	Three (3) Boilers, Combustion and BMS Control Systems, Instrumentation and all auxiliaries.	COAL/ GAS	150,000 lb/hr
General Motors Corporation Wentzville, MS	General Motors Corporation	EPC, I	One (1) Boiler, Combustion and BMS Control System, Instrumentation and all auxiliaries.	COAL/ GAS	40,000 lb/hr
General Motors Corporation Willow Run, MI	General Motors Corporation	EPC, I	Opacity for six (6) Boilers (40 CFR PART 60)		
General Motors Corporation Willow Run, MI	General Motors Corporation	EPC, I	Six (6) Boilers, Combustion and BMS Control Systems, Feedwater Control System, Instrumentation and all auxiliaries.	COAL/ GAS	80,000 lb/hr
General Motors Corporation Willow Run, MI	General Motors Corporation	EPC, I	Four (4) Combustion and BMS Control Systems, Feedwater Control System, Instrumentation and all auxiliaries.	COAL/ GAS	80,000 lb/hr
General Motors Corporation Ypsilanti, MI	General Motors Corporation	EPC, I	Three (3) Boilers, Combustion and BMS Control Systems, Feedwater Control System, Instrumentation and all auxiliaries.	GAS	60,000 lb/hr
General Motors Corporation Ypsilanti, MI	General Motors Corporation	EPC, I	One (1) Boiler, Combustion and BMS Control System, Feedwater Control System, Instrumentation and all auxiliaries.	GAS	150,000 lb/hr
General Motors Corporation Ypsilanti, MI	General Motors Corporation	EPC, I	Opacity for three (3) Boilers (40 CFR PART 60)	COAL	
General Motors Corporation Arlington, TX	GM	EPC	Three (3) Field Erect Boiler Gas/Oil Fired Combustion and BMS Control Systems, Instrumentation and all auxiliaries.	GAS/NO.2 OIL	60,000/hr

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SELECTED POWER GENERATION EXPERIENCE

Project Name & Location	Client	Scope	Description	Fuel Type	Equip. Capacity
General Motors Corporation Janesville, WI	General Motors Corporation	P	Two (2) Boilers, Combustion and BMS Control Systems, Instrumentation and all auxiliaries.	GAS	80,000 lb/hr
General Motors Corporation Anderson, IN	GM	EPC,I	One (1) Boiler Coal to Gas Low Nox Burner conversion, Combustion and BMS Control System, Instrumentation & aux	GAS	250,000 lb/hr
General Motors Corporation Brussels, Belgium	GM	EPC	One (1) Boiler, Combustion and BMS Control System, Instrumentation and all auxiliaries.	NO.2 OIL	90,000 lb/hr
General Motors Corporation Cincinnati, OH	General Motors Corporation	EPC,I	Three (3) Boilers, Combustion and BMS Control System, Instrumentation and all auxiliaries.	GAS/NO.2 OIL	90,000 lb/hr
General Motors Corporation Detroit, MI	General Motors Corporation	EPC,I	One (1) Boiler, Combustion and BMS Control System, Instrumentation and all auxiliaries.	GAS/NO.2 OIL	90,000 lb/hr
General Motors Corporation Flint, MI	General Motors Corporation	EPC,I	Three (3) Boilers, Combustion Control Systems, Instrumentation and all auxiliaries.	GAS	100,000 lb/hr
General Motors Corporation Flint, MI	General Motors Corporation	EPC, I	Four (4) PLC Based Combustion/BMS and Plant Master Control Systems, Instrumentation and all auxiliaries	GAS	100,000 lb/hr
General Motors Corporation Indianapolis, IN	General Motors Corporation	EPC,I	One (1) Boiler, BMS Control System, Fuel Train and all auxiliaries	GAS/NO.2 OIL	70,000 lb/hr
General Motors Corporation Delphi Flint, MI	General Motors Corporation	EPC,I	Six (6) Boiler, Combustion and BMS Control System, Instrumentation and all auxiliaries.	GAS	150,000 lb/hr
General Motors Corporation Delphi Flint, MI	General Motors Corporation	EPC	One (1) Boiler Coal to Gas Low Nox Burner Conversions, Combustion and BMS Control Systems, Feedwater Equipment, Instrumentation and all auxiliaries.	GAS	150,000 lb/hr
General Motors Corporation Delphi Hamtramck, MI	General Motors Corporation	EPC	Opacity for four (4) Boilers. (40 CFR Part 60)	COAL	
General Motors Corporation Delphi Hamtramck, MI	General Motors Corporation	EPC	Three (3) Boilers, Combustion Control Systems, Instrumentation and all auxiliaries.	COAL/ GAS	150,000 lb/hr
General Motors Corporation Delphi Hamtramck, MI	General Motors Corporation	EPC	One (1) Boilers, Combustion Control Systems, Instrumentation and all auxiliaries.	COAL/ GAS	40,000 lb/hr

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SELECTED POWER GENERATION EXPERIENCE

Project Name & Location	Client	Scope	Description	Fuel Type	Equip. Capacity
General Motors Corporation Harrison Radiator Lockford, NY	General Motors Corporation	EPC, I	One (1) Boiler, Combustion Control Systems, Instrumentation and all auxiliaries.	GAS/NO.2 OIL	200,000 lb/hr
General Motors Corporation Service Parts Operation Flint, MI	General Motors Corporation	EPC	Three (3) Boilers Coal to Gas Low Nox Burner Conversions, Combustion and BMS Control Systems, Feedwater Equipment, Instrumentation and all auxiliaries.	GAS	45,000 lb/hr
General Motors Corporation Service Parts Operation Flint, MI	General Motors Corporation	EPC	Three (3) Feedwater Pump systems, Instrumentation and all auxiliaries.	GAS	45,000 lb/hr
Gerber Food Products Freemont, MI	Gerber Foods	EPC, I	One (1) Boiler, Combustion and BMS Control System, Feedwater Control System, Instrumentation and all auxiliaries.	COAL/ GAS	60,000 lb/hr
Grayling Generating Station Grayling, MI	City of Grayling	EPC, I	One (1) Boiler, 950 deg. Steam, Wood Fired	WOOD	315,000 lb/hr
Holland Power Holland, MI	City of Holland	EPC, I	CEMS and DAS for two (2) Boilers (40 CFR PART 75)	COAL/ GAS	
Holland Power Holland, MI	City of Holland	EPC, I	CEMS and DAS for two (2) Gas Turbines (40 CFR PART 75)	GAS/NO.2 OIL	
IBM Corporation Fishkill, NY	Whiting Turner	JV, EPC, I	Opacity for One (1) Boiler (40 CFR Part 60)	GAS/NO.2 OIL	
IBM Corporation Fishkill, NY	Whiting Turner	JV, EPC, I	Seven (7) Low NOx Burner Upgrades, PLC Based Combustion Controls and Burner Management System	GAS/NO.2 OIL	60,000 mmbtu
IBM Corporation Fishkill, NY	Whiting Turner	JV, EPC, I	One (1) Hot Water Generator, Low Nox Burner	GAS/NO.2 OIL	60,000 mmbtu
IBM Corporation Fishkill, NY	Whiting Turner	JV, EPC, I	One (1) PLC based Combustion Control and Burner Management Panel	GAS/NO.2 OIL	60,000 mmbtu
IBM Corporation Fishkill, NY	Whiting Turner	JV, EPC, I	Opacity for seven (7) Boilers (40 CFR Part 60)	GAS/NO.2 OIL	
LaFarge Cement Alpena, MI	LaFarge Cement	EPC, I	Opacity for Two (2) Cement Kilns (40 CFR Part 60)	COAL	
LaFarge Cement Paulding, OH	LaFarge Cement	EPC, I	Opacity for Two (2) Cement Kilns (40 CFR Part 60)	COAL	
Lansing Board of Power and Light Lansing, MI	City of Lansing	EPC, I	Opacity and Flow for five (5) Boilers (40 CFR Part 75)	Coal	
Lansing Waste Water Treatment Plant Lansing, MI	City of Lansing	EPC, I	CEMS and DAS for two (2) Incinerators (40 CFR Part 503)	SLUDGE/ GAS	

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LIPTEN COMPANY

SELECTED POWER GENERATION EXPERIENCE

Project Name & Location	Client	Scope	Description	Fuel Type	Equip. Capacity
Lincoln Generating Station Lincoln, MI	City of Lincoln	EPC, I	One (1) Boiler 950 deg Steam, Wood Fired	WOOD	315,000 lb/hr
MacSteel Jackson, MI	MacSteel Jackson, MI	E, I	Engineering and Instrumentation		
MacSteel Monroe, MI	MacSteel Monroe, MI	E, I	Engineering and Instrumentation		
McBain Generating Station McBain, MI	City of McBain	EPC, I	One (1) Boiler 950 deg Steam, Wood Fired	WOOD	315,000 lb/hr
Medusa Cement Charlevois, MI	Medusa Cement	EPC, I	Opacity for Two (2) Cement Kilns (40 CFR Part 60)	COAL	
Michigan South Central Litchfield, MI	Michigan South Central	EPC, I	CEMS and DAS for one (1) Boiler (40 CFR Part 75)	COAL/ GAS	
Milton Power Hamilton,OH	Milton Power	EPC, I	CEMS and DAS for two (2) Boilers (40 CFR Part 75)	COAL/ GAS	
National Steel Corporation Ecorse, MI	National Steel Corporation	EPC, I	Two (2) Boilers SLC based Combustion Controls and Burner Management Panels	GAS/BFG	90,000 lb/hr
Noresco Rockview, IL	Noresco Rockview	E	Engineering for new Central Energy Plant		
Oakwood Annapolis Hospital Wayne, MI	Crothell Asset Management	EPC, I	Feedwater Deaerator and Controls		
Oakwood Annapolis Hospital Wayne, MI	Crothell Asset Management	EPC, I	One (1) Boiler, Combustion and BMS Control System	GAS/NO.2 OIL	25,000 lb/hr
OC Chester, SC	Asphalt Facility	EPC, I	Three (3) post core Oven Performance Evaluations and Enhancements	Gas	
OHM Corporation Owosso, MI	OHM Corporation	EPC, I	CEMS for three (3) De-Noxing Systems (40 CFR PART 60)		
Pennsylvania, State of	Hamburg Center Hospital	EPC	Controls Provided and Installed, 20,000/lb/hr coal fired/ two (2) field erected boiler, One (1) 50,000 lb/hr package oil fired	Coal Oil	20,000 and 50,000
Pennsylvania, State of	Allentown State Hospital	EPC	750 Lp package boiler Lox Burner, new combustion controls		
Pfizer, Inc. Kalamazoo, MI	Pfizer, Inc.	EPC, I	One (1) Boiler, Low Nox Burner, Combustion and BMS Control System, Feedwater Equipment and Facilities Controls, Instrumentation and all auxiliares.	GAS/NO.2 OIL	90,000 lb/hr
Pfizer, Inc. Kalamazoo, MI	Pfizer, Inc.	EPC	Low Nox Burner Modifications and Engineering Report	GAS/NO.2 OIL	90,000 lb/hr
Proctor & Gamble	Proctor & Gamble	E, I	De-Superheater		

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SELECTED POWER GENERATION EXPERIENCE

Project Name & Location	Client	Scope	Description	Fuel Type	Equip. Capacity
Providence Hospital Southfield, MI	Providence Hospital	EPC, I	One (1) Boiler, Combustion and BMS Control System	GAS/NO.2 OIL	25,000 lb/hr
Raytheon Corporation River Rouge, MI	Raytheon Corporation	EPC, I	Utility Feedwater Sampling System with Analyzers		
Renova Digester	Renova	E, I	Burner Management System Controls for Digester Facility	TBD	
Rose Acre Farms Francesville, IN	Rose Acre Farms	EPC,I	Wood Combustor / Air Preheater System, Instrumentation and all auxiliaries.	WOOD	
Sisters, Servants of the Immaculate Heart Monroe, MI	Sisters, Servnats of the Immaculate Heart	EPC, I	Two (2) Boilers, Combustion and BMS Control Systems, Feedwater Control System, Instrumentation and all auxiliaries.	GAS/NO.2 OIL	50,000 lb/hr
Sisters, Servants of the Immaculate Heart Monroe, MI	Sisters, Servnats of the Immaculate Heart	EPC, I	Two (2) SLC based Combustion Control and Burner Management Panels	GAS/NO.2 OIL	50,000 lb/hr
St. Mary's College Notre Dame, IN	Holy Cross Services	EPC, I	Two (2) Boilers Coal to Gas Low Nox Burner Conversions, Combustion and BMS Control Systems.	GAS/NO.2 OIL	50,000 lb/hr
St. Mary's College Notre Dame, IN	Holy Cross Services	EPC, I	One (1) Boiler Gas Low Nox Burner Conversion, Combustion and BMS Control System, Feedwater Equipment, Instrumentation and all auxiliares.	GAS/NO.2 OIL	25,000 lb/hr
Toyota Corporation Springhill, Kentucky	Toyota Corporation	EPC, I	CEMS and DAS for six (6) Boilers (40 CFR Part 60)	GAS/NO.2 OIL	
Trenton Waste Water Treatment Trenton, MI	City of Trenton	EPC, I	CEMS and DAS for two (2) Incinerators (40 CFR Part 503)	SLUDGE/ GAS	
Tri-Mer Corporation Owosso, MI	Tri-Mer Corporation	EPC,I	Cems for three (3) De-Noxing Systems (40 CFR Part 60)		
Unilever Kilbourn New Energy Center Chicago, IL	Unilever	E	Detailed design for new steam and chilled water plant	Gas	62,100 lbs/hr, 600 Ton Chiller
United States Gypsum Galena Park, TX	United States Gypsum	EPC, I	One (1) Boiler, Ultra Low NOx Burner, Controls, Building	Gas	75,000 lb/hr
University of Louisville Louisville, Kentucky	University of Louisville	EPC, I	One (1) Boiler, Combustion Control System, Instrumentation and all Auxiliaries	COAL	50,000 lb/hr

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SELECTED POWER GENERATION EXPERIENCE

Project Name & Location	Client	Scope	Description	Fuel Type	Equip. Capacity
University of Michigan Ann Arbor, MI	University of Michigan	EPC, I	Two (2) Waste Heat Recovery Boilers for Two (2) Solar Taurus Gas Turbines, Burners, Combustion, and BMS Control System	GAS	75,000 lb/hr
Warren Waste Water Treatment Plant Warren, MI	City of Warren	EPC, I	CEMS and DAS for two (2) Incinerators (40 CFR Part 503)	SLUDGE/ GAS	
Wheeling Pittsburgh Steel Corporation Wheeling, West Virginia	Wheeling Pittsburgh Steel Corporation	EP, I	Two (2) Boilers, Low NOx Burners, Forced Draft Fans, BMS Control Systems, and Deaerator	Coke Oven Gas/Gas	75,000 Lb/hr
Wyandotte Waste Water Treatment Plant Wyandotte, MI	City of Wyandotte	EPC, I	CEMS for eight (8) Incinerators (40 CFR Part 503)	SLUDGE/ GAS	

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Attachments

1 Energy Conservation Measures

1.1 Energy Conservation Measure Summary

McClure Company has investigated each of the Core Energy Conservation Measures found in the RFP Appendix L 'Core Energy Conservation Measures' section. McClure has either calculated the energy conservation measure into the project scope or has set forth a detailed justification for the exclusion of the energy conservation measure (ECM) as described below. The calculations for each energy conservation measure can be found in *'ATTACHMENT 1 – ENERGY CALCULATIONS'*.

Table 1 - Proposed Core Energy Conservation Measures Summary (taken from RFP, Appendix L)

Category	Energy Conservation Measure	Calculated in Scope?
Electrical Measure	Facility Lighting Fixture Conversion to LED	Yes
Electrical Measure	Lighting Sensors	No
Facility Thermal Building Systems	Energy Management System Implementation & Upgrades	No
Facility Thermal Building Systems	High-Efficiency Duel Fired Oil/Gas Burners Conversion	Yes
Building Envelope	Weatherization and Sealing of Building Envelope	No
Water Conservation	Low Flow Faucet Aerators, Flush Valves and Faucets	No

Preliminary Energy Baselines

Baselines for this proposal are based on fiscal year 2015, (July 2015 through June 2016) as the most current fiscal year of data available at the time of this proposal. See *ATTACHMENT 2 – ENERGY BASELINE* for baseline usage by utility type.

1.1.1 EM-1: Facility Lighting Fixture Conversion to LED (Recommended)

Existing Conditions

As part of the 2010 GESA project, McClure Company surveyed all buildings revealing a total of 10,602 fixtures that contained a combination T-12 and T-8 fluorescent lighting, incandescent lighting and high intensity discharge mercury vapor and metal halide fixtures. Fixtures were overall in fair condition but were starting to show signs of age. It was noted during this survey that several "high bay" areas have previously been converted to T8 fixtures, however, numerous T12 and incandescent fixtures were still remaining. In general, all fluorescent fixtures were replaced with 25W lamps and instant start electronic ballasts (some fixtures were de-lamped), incandescent were replaced with compact fluorescent lamps, and exit signs with LED equivalents. Many of the high intensity discharge (HID) fixtures were retrofit to T5 fluorescent. Limited exterior lighting retrofits were included in this 2010 project.

Proposed Solution

McClure Company is proposing to retrofit the existing exterior fixtures and interior fluorescent fixtures with new LED lamps. Please refer to *ATTACHMENT 3 – LIGHTING SCPOE OF WORK.*

Assumptions

No corrections to existing code violations or deficiencies were found during survey; however, these system deficiencies will be brought to the attention of customer at the conclusion of the Energy Audit

Includes cost for EPA approved recycling of fluorescent and HID lamps/ballasts

New LED lamps to be direct wired to existing fixture socket

Existing fixtures are in good, serviceable condition

'ixtures will be checker-board switched following retrofit

Lighting Burn Hours are based on occupancy hours from Bulletin 3. Individual space hours within the buildings will be required during the Energy Audit

Savings / Benefits

Energy savings are calculated using wattage reductions from the manufacturer's provided specification sheets for the applicable lamp. These reductions are multiplied by the stipulated hours provided in Bulleting 3 to generate the kWh savings. The cost savings are calculated using this kWh savings multiplied by each buildings baseline electric rate.

1.1.2 EM-2: Lighting Sensors (Not Recommended)

Existing Conditions

As detailed above, McClure Company performed a lighting retrofit in 2010, during which no lighting sensors or controls were included due to payback criteria given the nearly 24 hour operation of the facility. McClure Company has re-evaluated the opportunity, targeting only select areas that would benefit from the lighting sensors.

Proposed Solution

McClure Company is not recommending lighting sensors for this project. After targeting the most advantageous locations, the return on investment falls outside the project parameters for payback. The major factor contributing to the poor payback is the operation of the facility and its nearly 24 hour operational schedule limiting the impact of lighting sensors for unoccupied periods.

1.1.3 FTBS-1: Energy Management System Implementation & Upgrades (Not Recommended)

Existing Conditions

Many of the buildings on the Selinsgrove Center's campus have been upgraded with electronic control, although not all controls communicate back into a front end graphical user interface. As part of the 2010 GESA project, McClure Company installed a direct digital control system, including a standalone fiber optic network, for increased control of the buildings.

Fiber optic network was installed from the Central Complex (Buildings 5, 6, & 7) to the Maintenance Building (Building 28) and finally ending in the Central Power Plant (Building 30). This allowed for remote viewing of the system from the Maintenance Building for the above buildings.

Other buildings on campus received localized control, allowing the systems to operate on a defined occupied/unoccupied schedule. Proper operating schedules and set backs were installed to meet the operating conditions of the buildings at the time of the project. Controls of the buildings' steam stations were also included to reduce steam use during unoccupied times. Unoccupied or Mission Ready buildings also received control upgrades to the main stream control stations to enable a building wide set back program for steam reduction during the winter. The buildings have the minimal controls necessary to maintain a setback during the winter for a mission ready status. Should the building become occupied, localized control can be enabled to allow for full steam flow and the facility to return to its terminal control devices, primarily pneumatic, for operational control.

Also, as part of the 2010 project, all new and select existing HVAC equipment for the Central Complex received controls integrated into a new front end graphical user interface. The new Honeywell boiler control system is not integrated into the building automation system at the request of the facility. The Central Complex buildings did not receive advanced scheduling as this facility is a 24/7 operation.

The final part of the 2010 GESA control upgrades included provisions to maintain summer loop steam pressure in steam piping known to experience issues with expansion/contraction due to shut down. Steam lines serving Building 17-21 and 31-35 maintain a lower pressure steam in the piping distribution network during summer operation to avoid piping issues from expansion/contraction.

Proposed Solution

McClure Company is not recommending any new implementation of controls or upgrades to the existing system, as there minimal energy savings associated with the upgrade resulting in poor payback outside the project parameters. Given the localized control already present in the facilities, the opportunity to gain any additional savings from implementing a new system is minimal.

1.1.4 FTBS-2: High-Efficiency Duel Fired Oil/Gas Burners Conversion (Recommended)

Existing Conditions

The boiler plant for the Selinsgrove Center was built in 1937 as a coal burning, high pressure steam plant, currently housing (2) 610 BHP boilers installed in 1947 and (1) 513 BHP boiler installed in the 1950's. The boiler plant also houses all steam ancillary equipment. Located behind the existing building are a flue gas recirculation (FGR) system and a bag house/core separator system. While currently not operating, the FGR system is an integral part of the boiler plant and should be operating when using the coal boilers.

As part of a previous GESA project in 2010, McClure Company constructed an addition to the existing brick building to house a new boiler sized for the facilities summer load. The boiler is a 350 BHP, natural gas fired, high pressure steam boiler. The new building also houses a high pressure steam turbine.

The current boiler plant utilizes the gas fired boiler during the summer and the shoulder months, with the 513 BHP coal boilers on line as backup. Steam pressure generated during the summer is 65 PSI, which is equal to the pressure delivery requirements of the facility. During the winter, the 610 BHP coal boilers are brought on line and operate in a duty/standby arrangement. A steam pressure of 180 PSI is generated to maintain proper firing. This higher pressure steam is used to operate the steam turbine, reducing steam to 65 PSI, which is then distributed to the facility. A pressure reducing station is located in the new building should the turbine be off line for any reason.

The coal fired boilers are presently controlled by industrial level Honeywell controls. The complexity of the coal fired operation and the experience of Honeywell's industrial division for such systems led to their selection for the 2010 GESA project. However, given the inherent difficulties in modernizing controls on a 60+ year old system and the complexity of coal fired boilers, the system has been operational, but difficult to maintain.

The coal boilers and associated infrastructure date largely from the 1950's and, at 60 years old, are far past their useful life. By modern standards, it is inefficient and labor intensive to operate. Additionally, because of the age of the plant, many components are constructed of, or contain hazardous materials including asbestos and lead paint. This potentially exposes workers to these materials and makes maintenance and upgrades complicated and expensive. The plant does not have the operational equipment and systems required to meet the current EPA air emissions standards.

Proposed Solution

McClure Company is proposing to retrofit two of the existing coal fired boilers to operate with dual fuel capabilities (natural gas and fuel oil), including the necessary flue gas recirculation (FGR) system, properly sized variable speed forced draft and induced draft fans, and elimination of the complex exhaust routing through the outdoor, abandoned equipment. The third boiler will be abandoned in place.

New, front mounted, dual fuel burners will be installed above the existing coal grate system on a service platform that also houses the forced draft fan. The existing coal chute and hopper on the front of the boilers will be removed, as well as the existing operator platform. The existing mobile coal trolley system will be abandoned in place. The service platform will be tied to the existing catwalk platform with a direct access from the boiler room floor. The existing wind box will be sealed using fire brick and refractory in order to create a new boiler throat.

Natural gas and oil will be supplied to the burners via new skid mounted fuel trains located adjacent to each boiler. The required natural gas pressure is 20 PSIG to the trains with 10 PSIG at the burners. New natural gas piping will be extended from the burners to the gas train skid and from the skid to the natural gas meter (meter by others). New fuel oil piping will also be extended to new fuel oil pumps and day tanks (one for each boiler), with piping to a new 12,000 gallon tank located near the existing coal storage pile. The fuel oil will be atomized via the existing compressed air service in the central plant.

New forced draft and induced draft fans will also be provided, both with variable speed capabilities in order to balance boiler draft for optimal conditions with the new burners and to avoid pressurizing the boiler fire box creating an unsafe environment.

The existing exhaust system within the boiler plant will be removed along the rear wall. New exhaust duct work will be routed to the new induced draft fans and then directly to the stack. The FGR system will be installed on the boiler exhaust

ducts and routed to the front service platform where the forced draft fan is located. The existing FGR and bag house will be abandoned in place.

As the firing of the boilers is switched from coal to natural gas/fuel oil, the control system becomes less complicated and requires less industrial level, customized control. The control of each boiler will include a local control panel replacing the Honeywell boiler controllers. The new control panel will include Fireye BurnerLogix for combustion control and an Allen-Bradley PLC system for overall burner control. Each boiler controller will also have a touch screen for direct operator interface.

The Honeywell master controller will also be replaced, effectively removing Honeywell control from the boiler plant. The new master controller will also include Allen-Bradley PLC controls matching the boiler controls. The control logic in the master controller will include all functions currently performed by the Honeywell master controller. The master controller will also have touch screen for direct operator interface.

The new Allen-Bradley PLC system is less complicated, given the new burner types, and is not as proprietary in nature. There are multiple companies with experience in Allen-Bradley PLC control and with experience in boiler control using Allen-Bradley PLC controls, allowing Selinsgrove Center choices not currently available when choosing a service provider.

Hazardous waste removal is included for the removal of the existing exhaust ductwork, modifications to the existing catwalk/service platforms, cutting of existing refractory and brickwork for burner installation, and for relocation of select service lines located in the front of the boilers. Other materials not requiring modifications in order for installation will be not be disturbed as part of the project.

Assumptions

- The remaining coal in the bunker behind the boiler addition shall be removed by the Owner prior to the installation of the 12,000 gallon fuel oil tank.
- The existing compressed air system can be retained and used to serve the new equipment.
- All existing boilers, equipment, piping, etc. will be abandoned in place except as needed for the installation of the new work proposed above.

Savings / Benefits

Energy savings are calculated using the increased efficiency of the burners over the existing coal system, along with the cost reduction in materials for maintaining coal boiler operation.

1.1.5 BE-1: Weatherization and Sealing of Building Envelope (Not Recommended)

Existing Conditions

All the occupied and mission ready facilities were surveyed for areas of infiltration that would result in unnecessary load for the mechanical system. Infiltration can be defined as unregulated outside air entering a building unintentionally. This air must be treated (heated or cooled) by the building's heating or cooling system to maintain acceptable indoor temperatures.

Proposed Solution

McClure Company is not recommending weatherization and sealing of building envelope for this project. After targeting the most advantageous locations, the return on investment falls outside the project parameters for payback.

1.1.6 WC-1: Water Conservation (Not Recommended)

Existing Conditions

The survey for water conservation largely targeted the Central Complex, as it is the most heavily used and occupied facility. Approximately 180 fixtures were evaluated with 79 requiring no retrofit given the existing fixture or use. While water is billed as a separate utility and based on usage, the sewer is a flat rate quarterly bill, which when evaluated as a unit cost using the facility's water usage, is on the low end of the expected cost range for similar facilities. This data

indicates that if the facility would switch to a unit cost structure similar to the water service, the overall utility spend would increase.

Proposed Solution

Given our preliminary investigation, the low water rate creates a less than desirable payback for the program. The sewer rate was not included, as the facility is currently on a fixed rate fee described above.

While detailed surveys were performed in select locations on campus, the existing water utility rate and fixed sewer utility rate do not provide adequate savings to justify a water conservation project.

McClure Company is not recommending this measure due to its extended payback. Given the fixed cost sewer utility rate, there is no incentive from that utility to lower usage for conservation savings, limiting any savings to the water utility only. Furthermore, when evaluated as a unit cost (total sewer cost/total water usage), the resulting sewer rate is relatively low when compared with similar facilities and their utility rate cost. Given the supplied information on the water and sewer rates, it is not recommended to perform the water conservation upgrades.

1.2 Energy Conservation Measure Preliminary Assessment Cost & Savings

McClure Company has provided a preliminary assessment for each energy conservation measure (ECM) opportunity, including a detailed estimate of implementation costs and energy cost savings. Detailed calculations for the energy cost savings can be found in the Attachment 1. The preliminary assessment of the energy efficiency opportunities available the Selinsgrove Center is based upon the information provided in the RFP and a tour of the facility.

Below is a general list of assumptions for this RFP followed by the preliminary assessment, Table 2, of each of the energy conservation measures:

- Full access, escorts and parking to be provided by owner
- Existing steam distributions systems are in good condition and are adequately sized to supply heating to the campus
- Existing electrical system are in good condition and is adequate for new equipment and interconnection
- Existing structure and load bearing capability are adequate
- Existing controls, valves, dampers, safeties and wiring, if reused, are assumed to be functional
- Design, submittal review and approval, and construction shall occur within two (2) years from notice to proceed

Table 2- Proposed Energy Conservation Measures Cost and Savings

	ECM Type	ECM ID	ECM Description	Total Cost	Electric (kWh/yr)	Electric ($/yr)	Natural Gas (CCF/yr)	Natural Gas ($/yr)	Coal (Ton/yr)	Coal ($/yr)	Water (kgal/yr)	Water ($/yr)	Total Cost Savings*
Recommended ECMs	Electrical Measures	EM-1	Facility Lighting Fixture Conversion to LED	$639,312	723,426	$63,053							$ 63,053
	Facility Thermal Building Systems	FTBS-2	High-Efficiency Duel Fired Oil/Gas Burners Conversion	$3,716,332			(757,229)	($333,837)	4,140	$498,572			$ 164,735
Subtotal				**$4,355,644**	**723,426**	**$63,053**	**-757,229**	**-$333,837**	**4,140**	**$498,572**	-	**$ -**	**$227,788**
ECMs Not Recommended	Electrical Measures	EM-2	Lighting Sensors	$6,137	15,129	$1,321							$ 1,321
	Facility Thermal Building Systems	FTBS-1	Energy Management System Upgrades	$94,294			11,668	$6,486					$ 6,486
	Building Envelope	BE-1	Weatherization and Sealing of Building Envelope	$274,688	1,850	$162	27,011	$15,015					$ 15,177
	Water Conservation	WC-1	Low Flow Fixtures, Valves, and Faucets	$352,326							6,665	$15,507	$15,507

*Total cost savings are energy related only and do not include the capital cost avoidance for temporary boiler rental, operational and maintenance savings associated with coal boiler operation and lighting warranty, or utility related rebates. For detailed cash analysis, see Table 7.

1.3 Technical Feasibility, Suitability, Reasonableness, Comprehensiveness and Acceptability of the Proposed ECMs

McClure has thoroughly described below the technical feasibility, suitability, reasonableness, comprehensiveness and acceptability of the proposed Energy Conservation Measures (ECMs), including the proposed equipment and level of quality of the equipment for the proposed ECMs. McClure has completed a rigorous evaluation of each energy conservation measures (ECMs) included in this proposal and has proposed options for the Commonwealth to consider based on multiple criterion.

The *technical feasibility* of the ECMs proposed was taken from McClure's vast energy project experience on past projects, both at the Selinsgrove Center and across the Commonwealth. Many of the ECMs proposed for this phase were designed specifically for immediate care facilities, specifically the boiler burner replacement, where fuel supply redundancy is a code requirement. The lighting system scope was also customized for an immediate care facility, to ensure light levels met code requirements and industry standard best practices. While the systems proposed were created with the Selinsgrove specifically in mind, these system types have been instituted across other McClure projects. With the knowledge of design, implementation, and post construction monitoring of these systems, McClure's expertise and comfort with these systems will ensure a successful final product for the Selinsgrove Center.

The *suitability* of the ECMs proposed shall be confirmed during the Energy Audit phase of the project. A kickoff meeting, interim meeting(s) and final meeting will ensure the ECMs proposed are suitable for the Commonwealth and Selinsgrove Center staff's goals, needs, and future facility requirements. For each ECM, the following review criteria will be utilized to ensure each ECM is suitable for the Selinsgrove Center:

- Goals Achieved and Suitability of ECM Implementation
- Energy, Maintenance and Operational Saving Potential of ECM
- Cost-Effectiveness and Life Cycle Cost of ECM
- Condition of Existing Conditions and Installation Replacement Plan Surrounding the ECM
- Construction Plan and Considerations of ECM
- Post construction commissioning and measurement & verification of energy savings of ECM
- Personnel Training, Maintaining, and Support for Operation and Maintenance of ECM

The *reasonableness* of the ECMs proposed will be identified, quantified and communicated to the project team through a variety of metrics. These metrics will ensure optimization of the ECM at each level, from each ECM unit to the full ECM system. This protocol is essential to ensuring the ECMs proposed not only meet the goals of Selinsgrove Center and the Commonwealth, but are reasonable and make implementation sense from multiple metric aspects. Theses reasonableness metrics include, but are not limited to:

- simple payback
- life cycle cost
- net present value
- energy savings potential
- operational and maintenance savings
- labor reallocation opportunities
- government and utility incentives available
- overall cost to build and maintain

The *comprehensiveness* of the ECMs proposed starts with the Energy Audit. McClure understands that the scope of each ECM shall not be applied without careful monitoring, understanding and dissecting of each ECM system in place. A blanket solution is not always viable or does not make financial, economical or physical sense. McClure's approach to ECM identification and scope determination is comprehensive, time intensive, and extensive. Not only is every ECM system reviewed, but each system component is carefully analyzed, measured, metered and/or evaluated for reasonableness, suitability and technical feasibility. This upfront qualification ensures a fully customized product of our Energy Audit, in addition to multiple ECM options presented to the Commonwealth and Selinsgrove Center for review. An additional bi-product of this multiple tier investigation approach is a granular, unit level understanding of each ECM

system, which allows for better design, implementation and scheduling techniques to be communicated and employed by the project team. Below is a summary of the comprehensive approach McClure will take for each of the ECMs identified:

ECM	Comprehensiveness of Design for Proposed ECM
EM-1: Facility Lighting LED Conversion	Each fixture will be evaluated and designed for cost effectiveness with consideration of design characteristics including light level, efficacy, efficiency, task luminance, quality, flexibility, day light integration, glare, controllability, light trespass, and illumination.
FTBS-2: Burner Retrofit	For the design of the new boiler burners, the following design characteristics will be evaluated: system and equipment design integration, system dependability, operability, working efficiency, cost of operation, facility load factors, and future system serviceability.

The *acceptability* of the ECMs proposed is an important step for a successful project. A kickoff meeting, interim meeting(s) and final meeting will ensure the ECMs proposed are suitable for the Commonwealth and Selinsgrove Center staff's goals, needs, and future facility requirements. In addition, McClure will meet the following project compliance requirements of the Commonwealth:

- Lead Paint, Asbestos and Hazardous Materials compliance and action plan upon project award
- Insurance, Performance Bond, Payment Bond, Engineering Services and Post Construction Services compliance and plan upon project award
- Energy Audit (EA) report upon project award
- PA State Acts, including but not limited to, Coal Act, Steel Product Procurement Act, Public Works Employment Verification Act, and PA Prevailing Wage Act

The proposed equipment for the proposed ECMs can be found in the table below.

ECM	**Proposed Equipment**
EM-1: Facility Lighting LED Conversion	• Direct Drive/Wire T8 LED Lamp for 1x3/1x4/2X2/2X4 fixtures • LED A21 Lamps to replace incandescent A-lamp fixtures • LED Flood fixture to replace metal halide flood fixtures • LED A19 lamps to replace canopy and other compact fluorescent fixtures • LED Plug-In Lamps to replace compact fluorescent canopy, down light, wall pack, drum, jelly jar and sconce fixtures. • LED Post Top fixture to replace high pressure sodium post tops • LED dusk to dawn barnyard fixture to replace Metal Halide fixtures • LED Omni-cob lamp fixture to replace square down light incandescent fixture • LED BR20/30/40 and Candelabra lamps to replace down light and candelabra fixtures • LED High Bay Fixtures to replace fluorescent high bay fixtures
FTBS-2: Boiler Replacement	• Dual Fuel Burners with Special Class 3 Direct Spark Ignitor and windbox • New Force Draft (FD) fan • New Induced Draft (ID) Fan • Boiler Controls (UL/NFPA 85 compliant) • Natural Gas Fuel Train (NFPA 85 compliant) • No 2. Oil Train (NFPA 31 & 85 compliant) • Atomizing Air Train (NFPA 31 & 85 compliant) • FGR duct • New Instruments and Devices, including water column with Level Probes: High Water Alarm, Low Water, Alarm, Low Water Cut-off, Aux Low Water Cut Off Float Switch, Water Column blow down bypass switch, Purge Airflow Differential Pressure Switch, Steam high pressure cut off switch, Steam excessive high pressure cut off switch, High Furnace Pressure Cut-off Switch, Low Instrument Air Pressure Switch, FGR damper and actuator, and ID damper and actuator.

The level of quality of the equipment for the proposed ECMs is medium to high quality. The equipment proposed has been installed on similar energy saving projects. References can be made available by request and site visits can be coordinated for the Commonwealth, in order to see other local installations. The equipment has warranties and has been tested and is in compliance with industry standards.

1.4 Additional Energy Conservation Measures (ECMs)

McClure Company is not recommending any additional ECM's at this time.

2 Energy Audit

2.1 Energy Audit Scope

McClure Company has provided below a clear and thorough description of the scope of the Energy Audit, including systems covered, personnel, methodology, and schedule milestones.

McClure Company's systematic approach to a guaranteed energy saving project is divided into three major phases:

1. *Scoping Audit Phase / RFP:* McClure will conduct an initial feasibility study. The study includes, but not limited to, a review of the utility bills, site surveys, interview of major stakeholders and personnel, preliminary energy conservation cost / savings estimates, and financial models. This RFP Response is the result of the scoping audit phase.
2. *Energy Audit (EA)/ Investment Grade Audit Phase:* The Energy Audit is a detailed study of the energy conservation measures identified. Detailed in the sections below, McClure Company will perform an Energy Audit in accordance with the RFP and timeline schedule requirements.
3. *Final Scope Selection & Design Phase:* McClure Company will complete the final engineering and design phase coordination with DGS' Bureau of Engineering & Architecture (E/A).

The *systems covered* during the Energy Audit (EA) based on this RFP response include:

System Covered	Energy Audit (EA) Process Overview
EM-1: Facility Lighting Fixture Conversion to LED	• Audit fixture counts, foot-candle measurements, voltage, wattage and fixture/ballast equipment types • Record operation and maintenance items and hours of occupancy per space • Select new fixtures based upon facility goals, feedback, and cost effectiveness
TBS-2: High-Efficiency Duel Fired Oil/Gas Burners Conversion	• Audit existing equipment and systems for location, nameplate data, etc. • Identify demolition and new construction scope around existing infrastructure • Coordinate with UGI to define scope, meter placement, schedule, etc.

The *personnel* for the Energy Audit will be primarily managed by Chris Stultz (Project Development Manager), with support from Scot Carabini (Professional Lighting Designer), and William Smith (Building Automation System Engineer) for lighting and building automation related measures, along with Brian Moore (Engineering Manager) for any boiler-related items. Richard Skinner (M&V) will begin the commissioning plan in this phase as well. The team will still be ultimately overseen by Shayne Homan (Director of Energy Services) and Alyssa Wingenfield (Account Executive).

The *methodology* for the Energy Audit (EA) includes, but not limited to:

- Kickoff meeting to review the RFP Response with the Commonwealth and Selinsgrove Center
- Analysis of utility bills, past Measurement and Verification studies and overall facility benchmarking
- Select Energy Conservation Measures (ECMs) that meet the needs and goals of Selinsgrove Center Collection of general information for each building on campus (square footage, floors, hours, etc.)
- Site surveys to audit and inspect buildings on campus, focusing on the major ECMs
- Understanding of operating characteristics for lighting and boilers, analyze energy consumption of equipment and systems.
- Perform energy calculations, methodology, assumptions along with rebates / incentive calculations
- Identify any additional cost saving opportunities that may have a cost effective impact to the program
- Iterative review with the Commonwealth and Selinsgrove Center to show progress and ensure goals are met
- Perform simple payback and life cycle cost analysis on each ECM and the associated equipment
- Develop a commissioning and M&V plan for proposed ECMs
- Internal design peer reviews, estimating reviews, and 360° risk reviews completed by the project team
- Provide definitive cost and savings estimates for proposed final energy conservation measures (ECMs)
- Complete a final project cash flow with revised cost/savings for each ECM identified
- Final review with the Commonwealth and Selinsgrove Center

Below are *schedule milestones* for the Energy Audit (EA):

Milestone	Timeline
Kick-off Meeting upon Selection	April 2017
Project Development and Final Design	May 2017-October 2017
Completion of Energy Audit	July 2017
Design Review and DGS Approval	July 2017-September 2017
Major Equipment Procurement	October 2017-May 2018
Mobilization & Kick-off	October 2017

2.2 Energy Audit Compliance with DGS' Energy Audit Format

McClure's approach to the Energy Audit will comply with DGS' Energy Audit format. For the energy audit, McClure's approach will closely follow the 'Small GESA Project Design Manual', 2014 Edition, which was found in Appendix J of the RFP. Chapter 2 summarized the framework for energy audit activities. McClure shall visit the site during the project-specific RFP process and as needed during the investigation and preparation of the Energy Audit Report. McClure will verify the existing conditions during these visits. McClure will leverage internal drawings and documentation from the 2010 Selinsgrove Center project. Variances will be avoided unless absolutely necessary and the project design and construction will conform to PA's Uniform Construction Code (ICC) adopted under Act No. 45 of 1999. McClure will complete the required site investigations for above ground fuel oil tanks, which will be located on a concrete pad. Steel procurement will comply with the Steel Products Procurement Act.

For the proposal, McClure will include information on the systems that will be covered, the personnel to be involved, the general method to be used and the time frame for the completion of each item. The proposal will detail the methodology for the calculation of the baseline and show the utility usage data that was provided in the RFP Appendix and Bulletins. The proposal will also describe, in detail, the method used to compute the energy baseline and the timeline to commence nd complete the audit.

2.3 Reasonable and Transparent Approach to Energy Audit Pricing

McClure has a *reasonable approach* to Energy Audit pricing. McClure is committed to completing all engineering and administrative tasks required to produce a comprehensive energy audit report in expeditious manner and in accordance with this project specific RFP and relative sections in the PA DGS Small GESA Project Design Manual. Utilizing this information, McClure is able to develop a fee by estimating engineering, administrative and sub-consultant fees required for a comprehensive analysis of the recommended energy conservation measures (ECMs). Our professional engineering and administrative rates are listed below and in accordance with our rates previously submitted and approved through the Small GESA process. Table 3 below shows the engineering and administrative rates.

McClure has a *transparent approach* to pricing. Subcontractor quotes, supplier quotes, management labor fees, and other project related costs and fees can be shared with the Commonwealth in an open book arrangement for both the Energy Audit phase and the Construction phase. For the Energy Audit, McClure self performs the majority of the auditing activities in house. McClure will rely on subcontractors and retained professionals to provide additional auditing capabilities for specialized systems outside McClure's expertise, such as specialized burner installations, lighting retrofit design, and electrical engineering. Auditing activities McClure can provide include mechanical design engineering, energy calculations, project development, construction management, commissioning and measurement and verification. The rates are in line with McClure's AFQ submission on August 7, 2014.

Table 3 – Engineering and Administrative Rates

Description/Title	Hourly Rate
Senior Level Manager	$130
Project Developer, P.E., CEM	$100
Sr. Energy Manager, P.E. CEM	$110
Jr. Energy Engineer	$85

Sr. Construction Manager	$95
Jr. Construction Manager	$75
Account Executive	$65
Administrative Support	$45

3 Costs

3.1 Sound Engineering Principles and Reasonableness of Proposed Savings

McClure has proposed an energy analysis, at a high degree, that demonstrates sound engineering principles and reasonable proposed savings. The detailed energy analysis can be found in Attachment 1 – Energy Calculations, located at the end of Volume II.

Sound engineering principles were utilized to analyze the energy savings associated with the Selinsgrove Center project. One internal process utilized by McClure is to compare cost reduction to typical, comparable past GESA project comparison. McClure's proposed cost savings for the Selinsgrove Center reduces the baseline annual utility expenses by $227,788. This project focuses on more capital intensive equipment with a lower return on energy savings. When evaluated with the 2010 GESA (results shown in the table 4 below), the holistic effect of the energy savings can be seen. The total reduction for both projects fall into typical GESA project costs savings range of 20%-40%. Energy savings beyond 40% are indicative of capital intensive upgrades with diminishing returns on energy savings. Below is a table that summarizes the percentage of energy savings by utility.

Table 4 – Sound Energy Principles: Annual Energy Use and Savings Summary

Utility	Baseline		Post-Project		Annual Savings*		% Energy Savings $
	Unit	$	Unit	$	Unit	Unit	
Electric	6,044,560 kWh	$521,617	5,321,134 kWh	$458,564	723,426 kWh	$63,053	12%
Natural Gas	296,780 CCF	$129,545	1,054,009 CCF	$463,382	(757,229 CCF)	($333,837)	8%
Coal	4,140 Tons	$498,572	0 Tons	$0	4,140 Tons	$498,572	
Subtotal		$1,149,734		$921,946	Subtotal	$227,788	**20%**
2010 GESA Savings		$1,380,528		$1,085,939	2010 GESA Savings	$294,589	**21%**
Total Savings: ($227,788 + $294,589)/ $1,380,528=							***38%***
Sound Engineering Principles: Typical GESA Project % Energy Savings Range							***20%-40%***

**Rates have been escalated by 1% to account for construction year*

The reasonableness of the proposed savings is evident by further examining the energy conservation measures selected for this project. The methodology for calculating savings follows fundamental engineering principles and balances the energy savings against the baseline. Below is a table summarizing the savings in comparison to a range on similar projects. This data indicates the associated cost savings are in a high degree of reasonableness.

Table 5 – Reasonableness of Proposed Savings: ECM Cost Savings Summary

ECM	Electric Savings	Fuel Savings	Total Savings	% of Total Energy Savings	***Reasonableness of Proposed Savings: Typical Project Savings Range by ECM***
Lighting, EM-1	$63,053	$0	$63,053	**27.7%**	***10% - 30%***
Mechanical, MTBS-2	$0	$164,735	$164,735	**72.3%**	***70% - 90%***
Subtotal	**$63,053**	**$164,735**	**$227,788**		

3.2 Reasonable Cost for Preparing the Energy Audit

McClure has established a reasonable cost for preparing and Energy Audit for this scope of work in compliance with the methodology discussed in this Cost Submission. In addition, McClure plans to thoroughly discuss and support the costs in this section during an interview, if required.

Based on the scope of the Selinsgrove Center, coupled with our experience on the 2010 project, McClure has estimated the cost to complete an Energy Audit Report. McClure estimates the audit will take approximately 45 days to complete. Table 6 contains the estimate developed to complete the Energy Audit Report in compliance with this RFP and correlating Core ECMs, including the lighting and HVAC burner upgrades.

Table 6 – Energy Audit Report Cost Breakdown – Core ECMs

ID	TASK	PRIMARY PERSONNEL	COST
1	Iterative Meetings with DGS	Team	$1,600
2	Lighting Engineering Surveys	Lighting Engineer Lighting Designer	$6,800
3	Lighting Technical Engineering	Lighting Engineer Lighting Designer	$8,000
4	Lighting Energy Engineering	Lighting Engineer Lighting Designer	$4,000
5	Lighting Design Documentation	Lighting Engineer Lighting Designer	$1,200
6	Lighting Administrative	Administrator	$520
7	HVAC Overall System Surveys	Mechanical Engineer Energy Engineer	$11,500
8	HVAC Control System Surveys	Mechanical Engineer Energy Engineer	$2,400 $2,400
9	Field Measurements	Technician	$3,000
10	Meter Deployment & Retrieval	Technician	$6,000
11	HVAC Control System Engineering	Mechanical Engineer Energy Engineer	$4,500
12	HVAC System Energy Engineering	Energy Engineer	$6,000
13	Commissioning Plan Development	Commissioning Manager	$1,200
14	M&V Plan Development	M&V Manager	$1,200
15	McClure Internal Planning	Team	$2,080
16	Project Execution Planning	Project Manager	$1,040
17	Overall Administrative	Administrator	$1,560
Energy Audit Report Fee			**$65,000**

3.3 Annual Financial Projections

McClure has provided an annual financial projection for the length of the contract and each projection appears in the proper format listed in the RFP, as described below. McClure has provided the annual financial projections for 15 year length of the GESA Contract, which can be found in *Table 7 - Annual Financial Projections for the GESA Contract,* located at the end of this section.

Based on our preliminary analysis, in addition to information provided in the RFP and Bulletins, McClure has identified the preliminary project financial summary listed below.

EM-1 Cost	$639,312
FTBS-2 Cost	$3,716,332
Total Project Cost	$4,355,644
Total Year 1 Energy Savings:	$227,788
Act 129 Rebates	$32,892

Table 7 - Annual Financial Projections for the GESA Contract provides the summary of the costs, savings, and simple payback for the core energy conservation measures outlined in the RFP. Each measure is listed separately to show the individual energy and cost impact. All savings shown on this table are guaranteed. McClure Company's overall assumptions applicable to *ECM Cost and Savings Summary* include:

- Annual Financial Projections are based upon the recommended Core ECMs only
- Construction period savings are based on 50% of the Year 1 Guaranteed Savings. This value will be adjusted upon confirmation of a defined project schedule.
- Financing payments are based on an annual interest rate of 3%. Issuance costs have not been included in the financial model.
- Financing payments have been shown at the minimum amount of whole years, which result in a positive net savings. Upon selection of the final scope of work and financing mechanism, this structure can be modified accordingly.
- Capitalized Interest cost has been estimated based on a 12 month construction period. This value will be adjusted upon confirmation of a defined project schedule.
- M&V fee has been escalated at 1% per year.
- Act 129 Rebates are assumed to be deferred to the ESCO in order to reduce the overall project cost.

Detailed energy and cost calculations can be found in Attachment A. For purposes of developing this proposal and the many assumed variables at this point, we have de-rated the calculated savings for an added level of conservatism. When the Energy Audit (EA) is conducted, many variables will be measured and verified and the savings will be adjusted accordingly.

Table 7: Annual Financial Projections for GESA Contract

Project Cost	$4,355,644	Interest Rate	3%
Act 129 Rebate	$32,892	Discount Rate	3%
Net Project Cost to be Financed	$4,322,752	Energy Cost Escalation Rate	1%
First Year Energy Savings	$227,788		
First Year Operational Savings	$155,877		

	A	B	C	D	E	F	G	H	I	J
Year	Annual Energy Costs without Improvements	Annual Energy Costs with Improvements	Annual Energy Cost Savings (A-B)	Annual Maintenance Cost Savings	Capital Cost Avoidance	Payments for Financing Equipment	Payments for Monitoring and Maintenance Services	Net Annual Benefit (C+D+E-F-G)	Cumulative Cash Flow	Net Present Cash Flow
Const	$1,244,381	$1,131,615	$112,766		$0	$0	$0	$112,766	$112,766	$109,482
1	$1,256,825	$1,029,037	$227,788	$155,877	$120,000	$442,376	$25,000	$36,290	$149,056	$144,714
2	$1,269,393	$1,039,327	$230,066	$122,985	$120,000	$442,376	$25,750	$4,925	$153,981	$149,496
3	$1,282,087	$1,049,721	$232,366	$122,985	$120,000	$442,376	$26,523	$6,454	$160,435	$155,762
4	$1,294,908	$1,060,218	$234,690	$121,616	$120,000	$442,376	$0	$33,930	$194,365	$188,704
5	$1,307,857	$1,070,820	$237,037	$121,616	$120,000	$442,376	$0	$36,277	$230,643	$223,925
6	$1,320,936	$1,081,528	$239,407	$121,616	$0	$357,376	$0	$3,648	$234,290	$227,466
7	$1,334,145	$1,092,344	$241,801	$121,616	$0	$357,376	$0	$6,042	$240,332	$233,332
8	$1,347,486	$1,103,267	$244,219	$121,616	$0	$357,376	$0	$8,460	$248,792	$241,545
9	$1,360,961	$1,114,300	$246,662	$121,616	$0	$357,376	$0	$10,902	$259,694	$252,130
10	$1,374,571	$1,125,443	$249,128	$121,616	$0	$357,376	$0	$13,369	$273,062	$265,109
11	$1,388,316	$1,136,697	$251,619	$116,000	$0	$332,376	$0	$35,244	$308,306	$299,326
12	$1,402,200	$1,148,064	$254,136	$116,000	$0	$332,376	$0	$37,760	$346,066	$335,986
13	$1,416,222	$1,159,545	$256,677	$116,000	$0	$332,376	$0	$40,301	$386,367	$375,114
14	$1,430,384	$1,171,140	$259,244	$116,000	$0	$332,376	$0	$42,868	$429,236	$416,734
15	$1,444,688	$1,182,852	$261,836	$116,000	$0	$224,484	$0	$120,461	$549,696	$533,686
	$21,475,359	**$17,695,917**	**$3,779,442**	**$1,833,160**	**$600,000**	**$5,552,742**	**$30,301**	**$549,696**		

4 Measurement and Verification

4.1 Measurement & Verification Plan Adherence to Standards and Scalability

McClure, to a high degree, has proposed a measurement and verification plan that adheres to all M&V protocol standards and demonstrates scalability for measurement and verification of the proposed energy baseline, adjustment factors and energy cost savings as described below.

The M&V Plan Adheres to All M&V Protocol Standards. Listed below are the procedures and guidelines for quantifying savings resulting from the installation of ECMs under energy performance contracts and is intended to comply with the International Performance Measurement & Verification Protocol (IPMVP) and/or the Federal Energy Management Program (FEMP). Below are the four M&V options considered for energy conversation measures:

- **Option A – Partially Measured Retrofit Isolation**
  Key performance factors (lighting wattage or chiller efficiency) are determined with spot or short-term measurements and operational factors (lighting hours of operation or cooling ton-hours) are stipulated based on analysis of historical data or spot/short term measurements. The savings are determined using spot or short-term measurements, which would occur in both the pre and post retrofit installation periods. An example of the measurements will be measuring the wattage use of fixed number of samples of lighting fixtures both before and after the lighting retro-fit. In the lighting retro fit example the light burn hours are mutually agreed upon variable.
- **Option B – Retrofit Isolation**
  The energy savings are determined by field measurement of the energy use of the systems to which the ECM was applied separate from the energy use of the rest of the facility. Short-term, long-term or continuous measurements are taken throughout the pre and post-retrofit periods. Engineering calculations using the short term, long term or continuous measured variables determine both the baseline energy use and post installation energy use. The savings are determined by comparison of the pre-installation measurements to the post-installation measurements results.
- **Option C – Whole Building**
  Often referred to as the "whole house" method to determine savings, this option uses the current year utility bills as compared to historical bills determined to be the baseline. The historical bills are adjusted to account for factors such as weather, outdoor air increases, changes in facility use, and other baseline adjustments outlined in the Energy Audit. The savings are determined by analysis of utility meter (or sub-meter) data using techniques from simple comparison to regression analysis
- **Option D - Calibrated Building Simulation**
  Option D is not an option for DGS Small GESA projects.

ECM Number	ECM Title	M&V Methodology
EM-1	Facility Lighting Fixture Conversion to LED	IPMVP Option A
FTBS-2	High-Efficiency Duel Fired Oil/Gas Burners Conversion	IPMVP Option C

McClure has a full time, locally residing engineer assigned to manage the measurement and verification process of this contract. Richard Skinner, P.E., the Measurement and Verification (M&V) manager, will be the supervisor responsible for all ongoing M&V. Richard will also have a support staff of technicians and engineers that will be assigned to this project to perform the necessary functions to accurately determine the reduction in energy use and provide the required reports in the timely fashion.

In a post-installation M&V verification, McClure Company and the customer agree that the proper equipment components or systems were installed, are operating correctly and have the potential to generate the predicted savings. Verification methods may include surveys, inspections and/or continuous metering. McClure Company is expected to complete the system/equipment commissioning. McClure Company and the customer will determine energy savings in accordance with an agreed-upon M&V method using verification techniques defined in this M&V plan.

The Scalability for Measurement and Verification Plan of the Proposed Energy Baseline, Adjustment Factors and Energy Cost Savings has been quantified. McClure's M&V plan is scalable for one Energy Conservation Measure (ECM) measurement and verification criteria to the entire program. Scaling allows McClure's team to separately measure each ECM and calculate the aggregate of savings attributed to the program. Below is a summary of the scalability components of the plan:

- *Proposed Energy Baseline*: During the performance period it may be necessary to adjust the baseline for changes in the facilities use. Common adjustments are made for items such as:
  - Changes in building occupancy
  - Additions to the building foot print
  - Weather
  - Operational (schedule and /or temperature set point, equipment operation, etc) changes
  - Equipment maintenance changes
- *Adjustment Factors:* McClure Company has adjusted the annual electrical use to account for the operation of the flue gas recirculation system (FGR). The system was installed to mitigate flue exhaust gases when firing the coal boilers; however, it is not currently in operation. The adjustment is 507,767 kWh and has been calculated using a custom weather bin analysis and boiler operational parameters.
  - There may be other circumstances that require the baseline to be adjusted during the Energy Audit (EA) period. These circumstances include, but are not limited to, changes in the facilities use, changes in occupancy, adjustments for weather compared to the baseline heating and cooling degree days as provided by NOAA, and modification to the outside air ventilation flow rates as required by code.
- *Energy Cost Savings:* To calculate the energy cost savings, McClure will conduct building surveys, monitor the facilities, and verify the energy savings. There are four industry-accepted options to verifying energy savings that were created as part of the International Performance Measurement and Verification Protocol (IPMVP); Option A, B, C & D.

4.2 Reasonable and Transparent Cost Approach to M&V Plan

McClure has a reasonable and transparent approach to pricing the costs to measure and verify the guaranteed savings as described clearly and thoroughly below.

McClure's has determined a *reasonable cost approach* for one year M&V of $25,000. This cost was determined by using the Table 8 below is a breakdown of the anticipated M&V tasks and associated costs. The first ECM, EM-1: Facility Lighting Fixture Conversion to LED will be measured and verified through IPMVP Option A. The second ECM, FTBS-2: High-Efficiency Duel Fired Oil/Gas Burners Conversion will be measured and verified through IPMVP Option C.

McClure has a *transparent cost approach* to measure and verify the guaranteed savings. McClure will review the tasks and timelines with the Commonwealth prior to final selection of M&V options for each Energy Conservation Measure. McClure will provide the hourly rates and the estimated time and scope of M&V implementation to the Commonwealth, for a complete open-book pricing review.

Table 8 – M&V Cost Breakdown

ECM	TASK DESCRIPTION	COST
M-1: Facility Lighting Fixture Conversion to LED	✓ Spot metering of select circuits to include at minimum 10% of all building fixtures scheduled for retrofit completed by M&V Technician pre and post installation. ✓ Site verification of failed lighting fixtures and lamps (burnouts) by M&V Technician during spot metering ✓ Analysis of metered results and site verification using stipulated hours to develop energy use baseline and post project energy use of the same circuits by M&V Specialist.	$17,000

FTBS-2: High-Efficiency Duel Fired Oil/Gas Burners Conversion	✓ Compare historical energy use to post installation energy use. The actual utility bills will provide the basis of comparison. ✓ The baseline energy use will be adjusted to account for changes in the weather between the baseline year and current year of measurement and verification. ✓ Along with a comparison of baseline energy use to post installation energy use, the post installation energy can be compared to the expected savings on a monthly basis. The equations below represent the format that will be used to determine energy savings. Savings Calculation: o HDD Impact = Percentage Adjusted Baseline Impacted by Heating Degree Days (HDD) o Weather ADJ = Current Month HDD/ Current Month Baseline HDD o ADJ Baseline = (Contract Baseline * Weather Adj * HDD impact) + ((1 – HDD Impact)*Contract o Baseline) + OA ADJ Gas Determination o Measured Savings = Adj. Baseline – Year One Electric Determination o Measured Savings = (Adj. Baseline – (Lighting savings +other savings)) – Year One	$8,000
	ANNUAL MEASUREMENT AND VERIFICATION FEE:	**$25,000**

1.3 M&V Plan DGS and IPMVP Compliance

As indicated below, McClure's M&V pricing is premised upon design and construction in compliance with DGS' Design Manual and General Conditions and also in compliance with the International Performance Measurement and Verification Protocol (IPMVP).

McClure's plan is *compliant with DGS' Design Manual and General Conditions* requirements. Upon completion of the design and construction phase, McClure will perform ongoing services to assure savings and guarantees are met, together with the required and appropriate staff training, maintenance services, and measurement and verification (M&V) services. The M&V services will adhere to all federal M&V protocol standards and scalability for M&V of the energy baseline, adjustment factors, and energy cost savings. M&V costs are included in our cost submission for the first three years. McClure's Assured Performance Guarantee (APG) will meet the criterion located in the Small GESA Contract, as outlined in McClure's AFQ submission on August 7, 2014.

McClure's plan is *complaint with International Performance Measurement and Verification Protocol* (IPMVP). IPMVP is the industry standard for developing and implementing M&V for guaranteed energy saving projects. McClure, with over ten years of experience implementing energy projects, is very familiar with designing and implementing the four options of determining savings (A-D). McClure plans to develop and review the plan with the funding agency, DGS and other project stake holders to ensure the plan is acceptable and in compliance with DGS Design Manual and General Conditions, International Performance Measurement and Verification Protocol (IPMVP) and/or the Federal Energy Management Program (FEMP).

4.4 Measurement & Verification Methods, Schedule, Scope and Personnel

McClure approach to Measurement and Verification, including methods, schedule, scope and personnel is thoroughly described below.

lethods for providing ongoing project monitoring and maintenance services through McClure Company are extensive. For project monitoring, McClure will monitor the energy use of the facility throughout the construction year. This benchmarking provides an early indicator of whether the Year 1 savings will be fully realized. This step allows McClure

to successfully understand the energy saving characteristics, and if any problems are discovered, ample time to correct the problem. For ongoing maintenance services, McClure has an in-house 24- hour mechanical emergency service department, which has over fifteen full time field service technicians. The service department works closely with Energy Services team to insure the project is operating in accordance with the expectation of achieving the energy savings guaranteed. McClure Company has full service office locations in: Harrisburg, Wilkes-Barre, Williamsport and State College. Being able to provide 24 hour emergency service is an important element to performance contracting, as McClure is not reliant on subcontractors to respond to a situation.

Schedule for the ongoing project monitoring is critical in ensuring the project energy savings calculated are realized in Year 1. Below is a summary of the project monitoring schedule:

Milestone	Timeline
Construction Period Start	October 2017
Construction Period End	October 2018
Project Monitoring for Construction Year Report Delivery	December 2018
First Year Energy Savings Start	November 2018
First Year Energy Savings End	October 2019
Project Monitoring for Year 1 Report Delivery	December 2019

Scope for the ongoing project monitoring includes all the energy conservation measures (ECMs) and the associated equipment, including lighting, lighting controls, building management system and components, boiler and new steam accessories and all building envelope installations. The scope for the project monitoring includes measuring and verifying the associated savings for each ECM. The protocol to complete this is identified and outlined in the next section, *X. Measurement and Verification*. The goal is to successfully measure and verify the energy savings calculated after one year of the systems being in place. All savings projected for the project are guaranteed.

Personnel for the ongoing project monitoring are critical in quantifying and calculating the total energy savings associated with the project. Richard Skinner, P.E., the Measurement and Verification (M&V) manager, will be the supervisor responsible for all ongoing project monitoring. Shayne Homan, Department Director, will oversee Richard's work and manages the entire process.

The conditions for project monitoring a fully occupied facility will need to be carefully coordinated with the Selinsgrove Center. Most facilities McClure Company monitors are occupied. McClure will leverage this expertise and present innovative ways to complete the necessary monitoring without disrupting the occupied environment.

The extra costs of providing scheduled preventive maintenance, warranty work, emergency service, additional training of Selinsgrove Center staff will be minimal and can be discussed in more detailed once the Energy Audit (EA) is complete. Any extra costs will be directly linked to project scope, which will be more defined once the final Energy Conservation Measures (ECMs) are identified.

Attachments

Response to
Small GESA Request for Proposals

For A Guaranteed Energy Savings Contractor For:

Small GESA-3 Project for
Department of General Services at

Department of Human Services
Selinsgrove Center

Commonwealth of Pennsylvania
Department of General Services
Harrisburg, PA

ATTACHMENT 1 – ENERGY CALCULATIONS

McClure Company has provided a preliminary assessment for each energy conservation measure (ECM) opportunity, including a detailed estimate of implementation costs and energy cost savings. Detailed calculations for the energy cost savings can be found in this Attachment. The preliminary assessment of the energy efficiency opportunities available the Selinsgrove Center is based upon the information provided in the RFP and a tour of the facility.

Boiler Fuel Conversion

4,140	Tons Coal FY 2015	48.86%	Existing Boiler Efficiency	$ 119.24	per ton
296,780	CCF Gas FY 2015	77.00%	Existing Boiler Efficiency	$ 0.44	per CCF

**values calculated from Monthly Utilities Usage Report in RFP*

Utility Cost Existing	Utility Cost Proposed	Savings
$ 493,636.00	$ -	$ 493,636.00
$ 129,545.00	$ 416,966.08	$ (287,421.08)
		$ 206,214.92

25,000,000	BTU/Ton Coal
102,400	BTU/CCF Gas
50,370	MMBTU Campus Load
658,465	CCF Gas
65,946	MCF Proposed
29,578	MCF Existing
95,524	MCF Total

Burners	1	2	
Input	20.1	16.7	MMBTU/Hr
SCFH	20085	16729	
BTU/SCF	1000	1000	
BTU	20085000	16729000	
QTY	2	2	
Total BTU	40170000	33458000	
PPH	30000	25000	
BTU/Lb @ 180 PSI	1198	1198	
BTU/Hr	35940000	29950000	
Combustion Efficiency	89%	90%	
Proposed System Efficiency	75%	75%	

Boiler Operation Projections

Month	Make-Up Water (lbs)	Make-Up %	Peak Steam	HDD	CDD	Coal Steam Produced (lbs)	Fuel Consumed (Tons)	Coal Efficiency	Gas Steam Produced (lbs)	Fuel Consumed (MCF)	Gas Efficiency	LBS/MCF	MCF (Estimated)	Total Steam	Parts	Misc	Service	Repair	Wages	Wages Adjusted	Adjustment	Total
						Coal		48.08%	Gas		77.72%	894										
Jan-14	3,258,438	23.87%	23,500	1353	0	13,651,443	937	49.24%					15,267	13,651,443	$22	$3,639	$68	$0	$68,818	$68,818	$0	$72,547
Feb-14	3,252,600	27.68%	21,500	1120	0	11,751,267	845	47.01%					13,142	11,751,267	$2,693	$3,232	$73	$0	$67,018	$67,018	$0	$73,016
Mar-14	2,830,596	24.64%	21,500	992	0	11,489,641	815	47.65%					12,849	11,489,641	$2,318	$4,235	$85	$0	$67,919	$67,919	$0	$74,557
Apr-14	1,774,752	23.56%	14,500	480	3	7,252,223	506.54	48.39%					8,110	7,252,223					$61,837	$61,837	$0	$61,837
May-14	1,256,838	24.65%	10,500	129	55	903,426	63	48.47%	4,194,932	4618	79.04%	908	4,618	5,098,358	$24,987	$266	$51		$99,700	$61,700	$38,000	$125,004
Jun-14	1,002,468	28.92%	7,000	3	217	0			4,065,188	4542.5	77.87%	895	4,543	4,065,188					$94,966	$61,966	$33,000	$94,966
Jul-14	922,404	22.79%	6,500	0	283	0	0		4,047,079	4562	77.19%	887	4,562	4,047,079	$327	$4,755	$0	$0	$62,666	$62,666	$0	$67,748
Aug-14	858,186	21.77%	8,000	3	164	0	0		3,942,510	4444	77.19%	887	4,444	3,942,510	$4,655	$856	$0	$0	$60,605	$60,605	$0	$66,116
Sep-14	793,134	19.33%	9,500	80	84	0	0		4,103,776	4629	77.14%	887	4,629	4,103,776	$279	$2,843	$0	$0	$65,480	$65,480	$0	$68,602
Oct-14	1,015,812	17.84%	12,500	303	5	2,197,774	158	47.02%	3,495,754	3753	81.05%	931	3,753	5,693,528	$136	$644	$0	$7,450	$101,091	$63,091	$38,000	$109,321
Nov-14	1,193,454	13.56%	19,000	787	0	8,801,516	551	53.99%	0	0			9,843	8,801,516	$2,141	$95	$4,058	$0	$62,661	$62,661	$0	$68,955
Dec-14	1,617,128	17.38%	19,000	930	0	10,463,641	725.71	48.73%	0	0			11,702	10,463,641					$66,604	$66,604	$0	$66,604
Jan-15	1,951,560	23.87%	22,000	1241	0	12,689,214	884.12	48.51%	0	0			14,191	12,689,214					$66,604	$66,604	$0	$66,604
Feb-15	2,107,518	27.68%	23,500	1267	0	12,500,842	886.08	47.69%	0	0			13,980	12,500,842					$66,604	$66,604	$0	$66,604
Mar-15	2,335,200	24.64%	21,000	972	0	10,809,166	778.15	46.95%	0	0			12,088	10,809,166					$66,604	$66,604	$0	$66,604
Apr-15	1,778,088	23.56%	16,500	409	0	7,547,135	509	50.12%					8,440	7,547,135	$1,546	$2,759	$73	$0	$61,837	$61,837	$0	$66,215
May-15	1,383,606	26.98%	9,500	64	162	1,233,829	88	47.39%	3,895,177	4374	77.49%	891	4,374	5,129,006	$625	$1,595	$34	$2,572	$94,966	$64,966	$30,000	$99,792
Jun-15	1,263,510	28.92%	7,500	14	228	0	0		4,368,708	4929	77.12%	886	4,929	4,368,708	$562	$2,696	$6,200	$0	$94,966	$64,966	$30,000	$104,424
Jul-15	1,276,020	29.79%	6,500	0	315	0	0		4,283,585	4851	76.83%	883	4,851	4,283,585	$128	$410	$0	$0	$58,676	$58,676	$0	$59,214
Aug-15	768,114	20.06%	6,000	0	218	0	0		3,828,446	4297	77.52%	891	4,297	3,828,446	$274	$277	$0	$0	$58,642	$58,642	$0	$59,193
Sep-15	707,232	18.78%	7,000	30	150	0	0		3,766,689	4230	77.48%	890	4,230	3,766,689	$8,489	$693	$0	$1,425	$59,833	$59,833	$0	$70,440
Oct-15	1,143,414	18.95%	12,500	392	0	3,841,866	267	48.63%	2191994	2487	76.69%	881	2,487	6,033,860	$3,523	$165	$784	$3,520	$92,428	$62,428	$30,000	$99,418
Nov-15	1,281,024	18.62%	15,500	526	0	6,879,309	481	48.34%	0	0			7,693	6,879,309	$11,008	$146	$101	$0	$64,302	$64,302	$0	$75,557
Dec-15	1,601,280	17.26%	16,000	702	0	9,278,106	667	47.02%	0	0			10,376	9,278,106	$71	$85	$140	$0	$62,463	$62,463	$0	$62,759
Jan-16	2,276,820	18.39%	22,500	1163	0	12,378,754	928	45.09%	0	0			13,843	12,378,754	$146	$108	$6,302	$0	$61,366	$61,366	$0	$67,922
Feb-16	1,919,034	16.89%	23,000	961	0	11,360,403	800	48.00%	0	0			12,705	11,360,403	$38	$6,506	$0	$0	$61,920	$61,920	$0	$68,464
Mar-16	1,418,634	15.83%	18,000	598	0	8,959,076	669	45.26%	0	0			10,019	8,959,076	$54	$366	$400	$0	$64,065	$64,065	$0	$64,885
Apr-16	1,155,924	15.34%	17,500	469	0	4,968,562	328	51.20%	2567887	2739	81.58%	938	2,739	7,536,449	$4,050	$3,142	$79	$0	$89,209	$64,209	$25,000	$96,480
May-16	990,792	17.26%	10,500	175	87	0	0		5741792	6231	80.18%	921	6,231	5,741,792	$4,725	$1,123	$29,900	$0	$59,086	$59,086	$0	$94,844
Jun-16	865,692	20.20%	8,500	16	236	0	0		4285516	4843	77.00%	885	4,843	4,285,516	$1,304	$276	$8,350	$0	$60,853	$60,853	$0	$70,783
Jul-16	894,882	21.41%	6,000	0	430	0	0		4179041	4711	77.19%	887	4,711	4,179,041	$1,565	$6,266	$0	$7,550	$59,898	$59,898	$0	$75,619
Aug-16	855,684	21.37%	6,500	0	399	0	0		4004490	4490	77.60%	892	4,490	4,004,490	$4,026	$338	$0	$0	$60,576	$60,576	$0	$64,940
Sep-16																						
Oct-16																						
Nov-16																						
Dec-16																						

$101,896 Summer Boiler Operation
$14,216 Coal Boiler Operaton

Water Analysis

Month	kGal Total	Boiler Make Up kGal	Facility Use kGal	Water Cost	Water $/kGal	Sewer Cost	Sewer $/kGal	Total Cost	Total $/kGal	$/kGal for Facility Use (exclude Boiler Make Up)	
Jan-13	3,518	312	3,206	$ 6,348.00	$ 1.80	$ 20,607.00	$ 5.86	$ 26,955.00	$ 7.66	$ 8.41	$ 2.10
Feb-13	3,591	321	3,270	$ 6,332.00	$ 1.76	$ 20,607.00	$ 5.74	$ 26,939.00	$ 7.50	$ 8.24	$ 5.41
Mar-13	4,039	309	3,730	$ 7,285.00	$ 1.80	$ 20,607.00	$ 5.10	$ 27,892.00	$ 6.91	$ 7.48	
Apr-13	3,581	213	3,368	$ 6,815.00	$ 1.90	$ 20,607.00	$ 5.75	$ 27,422.00	$ 7.66	$ 8.14	
May-13	3,443	158	3,285	$ 9,603.00	$ 2.79	$ 20,607.00	$ 5.99	$ 30,210.00	$ 8.77	$ 9.20	
Jun-13	3,573	136	3,437	$ 5,354.00	$ 1.50	$ 20,607.00	$ 5.77	$ 25,961.00	$ 7.27	$ 7.55	
Jul-13	3,113	132	2,981	$ 7,650.00	$ 2.46	$ 20,607.00	$ 6.62	$ 28,257.00	$ 9.08	$ 9.48	
Aug-13	3,666	97	3,569	$ 7,658.00	$ 2.09	$ 20,607.00	$ 5.62	$ 28,265.00	$ 7.71	$ 7.92	
Sep-13	3,350	90	3,260	$ 5,223.00	$ 1.56	$ 20,607.00	$ 6.15	$ 25,830.00	$ 7.71	$ 7.92	
Oct-13	3,069	122	2,947	$ 7,820.00	$ 2.55	$ 20,607.00	$ 6.71	$ 28,427.00	$ 9.26	$ 9.64	
Nov-13	3,600	143	3,457	$ 9,435.00	$ 2.62	$ 20,607.00	$ 5.72	$ 30,042.00	$ 8.35	$ 8.69	
Dec-13	4,204	194	4,010	$ 8,397.00	$ 2.00	$ 20,607.00	$ 4.90	$ 29,004.00	$ 6.90	$ 7.23	
Jan-14	4,343	390	3,953	$ 5,247.00	$ 1.21	$ 20,607.00	$ 4.74	$ 25,854.00	$ 5.95	$ 6.54	
Feb-14	4,311	390	3,921	$ 8,475.00	$ 1.97	$ 20,607.00	$ 4.78	$ 29,082.00	$ 6.75	$ 7.42	
Mar-14	4,571	339	4,232	$ 8,139.00	$ 1.78	$ 20,607.00	$ 4.51	$ 28,746.00	$ 6.29	$ 6.79	
Apr-14	3,839	213	3,626	$ 5,248.00	$ 1.37	$ 20,607.00	$ 5.37	$ 25,855.00	$ 6.73	$ 7.13	
May-14	3,735	151	3,584	$ 10,189.00	$ 2.73	$ 20,607.00	$ 5.52	$ 30,796.00	$ 8.25	$ 8.59	
Jun-14	3,502	120	3,382	$ 10,584.00	$ 3.02	$ 20,607.00	$ 5.88	$ 31,191.00	$ 8.91	$ 9.22	
Jul-14	3,396	110	3,286	$ 7,341.00	$ 2.16	$ 20,607.00	$ 6.07	$ 27,948.00	$ 8.23	$ 8.51	
Aug-14	3,688	103	3,585	$ 7,577.00	$ 2.05	$ 20,607.00	$ 5.59	$ 28,184.00	$ 7.64	$ 7.86	
Sep-14	3,230	95	3,135	$ 7,786.00	$ 2.41	$ 20,607.00	$ 6.38	$ 28,393.00	$ 8.79	$ 9.06	
Oct-14	3,587	122	3,465	$ 9,668.00	$ 2.70	$ 20,607.00	$ 5.74	$ 30,275.00	$ 8.44	$ 8.74	
Nov-14	3,932	143	3,789	$ 7,693.00	$ 1.96	$ 20,607.00	$ 5.24	$ 28,300.00	$ 7.20	$ 7.47	
Dec-14	4,082	194	3,888	$ 7,674.00	$ 1.88	$ 20,607.00	$ 5.05	$ 28,281.00	$ 6.93	$ 7.27	
Jan-15	4,456	234	4,222	$ 5,471.00	$ 1.23	$ 20,607.00	$ 4.62	$ 26,078.00	$ 5.85	$ 6.18	
Feb-15	4,107	252	3,855	$ 9,040.00	$ 2.20	$ 20,607.00	$ 5.02	$ 29,647.00	$ 7.22	$ 7.69	
Mar-15	4,796	280	4,516	$ 7,453.00	$ 1.55	$ 20,607.00	$ 4.30	$ 28,060.00	$ 5.85	$ 6.21	
Apr-15	3,753	213	3,540	$ 13,709.00	$ 3.65	$ 20,607.00	$ 5.49	$ 34,316.00	$ 9.14	$ 9.69	
May-15	4,276	166	4,110	$ 10,966.00	$ 2.56	$ 20,607.00	$ 4.82	$ 31,573.00	$ 7.38	$ 7.68	
Jun-15	3,164	151	3,013	$ 13,733.00	$ 4.34	$ 20,607.00	$ 6.51	$ 34,340.00	$ 10.85	$ 11.40	
Jul-15	2,085	153	1,932	$ 7,574.00	$ 3.63	$ 20,607.00	$ 9.88	$ 28,181.00	$ 13.52	$ 14.59	
Aug-15	1,762	92	1,670	$ 5,759.00	$ 3.27	$ 20,607.00	$ 11.70	$ 26,366.00	$ 14.96	$ 15.79	
Sep-15	2,112	85	2,027	$ 9,171.00	$ 4.34	$ 20,607.00	$ 9.76	$ 29,778.00	$ 14.10	$ 14.69	
				2014 Average	$ 2.10		$ 5.41				

Estimated Water Rate
Estimated Sewer Rate

Facility Savings %	Proposed Facility Use kGal	Estimated Water Savings	Estimated Water Cost @ $2.1 /kGal	Estimated Sewer Cost @ $5.41 /kGal	Estimated Total Cost	Estimated Water/ Sewer Savings	Estimated Water Only Savings
25%	2,405	1,113	$5,049	$13,008	$18,058	$ 8,897.07	$ 2,338.31
25%	2,453	1,138	$5,150	$13,268	$18,418	$ 8,520.53	$ 2,390.80
25%	2,797	1,242	$5,874	$15,133	$21,007	$ 6,884.63	$ 2,607.67
25%	2,526	1,055	$5,305	$13,667	$18,972	$ 8,450.30	$ 2,215.10
25%	2,464	979	$5,174	$13,328	$18,502	$ 11,707.86	$ 2,056.60
25%	2,578	995	$5,414	$13,947	$19,361	$ 6,600.34	$ 2,089.53
25%	2,236	877	$4,696	$12,097	$16,792	$ 11,464.50	$ 1,841.66
25%	2,676	990	$5,621	$14,480	$20,100	$ 8,164.77	$ 2,078.03
25%	2,445	905	$5,135	$13,228	$18,363	$ 7,467.16	$ 1,900.25
25%	2,211	858	$4,642	$11,959	$16,601	$ 11,826.07	$ 1,802.83
25%	2,593	1,007	$5,445	$14,027	$19,472	$ 10,570.05	$ 2,115.11
25%	3,008	1,196	$6,316	$16,272	$22,588	$ 6,415.81	$ 2,512.13
25%	2,965	1,378	$6,226	$16,038	$22,264	$ 3,590.03	$ 2,894.69
25%	2,941	1,370	$6,176	$15,911	$22,088	$ 6,994.34	$ 2,876.79
25%	3,174	1,397	$6,665	$17,171	$23,837	$ 4,909.22	$ 2,933.69
25%	2,720	1,119	$5,712	$14,714	$20,426	$ 5,428.99	$ 2,350.23
25%	2,688	1,047	$5,646	$14,544	$20,190	$ 10,606.41	$ 2,197.94
25%	2,536	966	$5,327	$13,722	$19,049	$ 12,142.20	$ 2,027.64
25%	2,464	932	$5,175	$13,331	$18,506	$ 9,442.24	$ 1,956.89
25%	2,689	999	$5,647	$14,547	$20,194	$ 7,990.23	$ 2,098.07
25%	2,351	879	$4,938	$12,720	$17,658	$ 10,735.03	$ 1,845.35
25%	2,599	988	$5,458	$14,061	$19,519	$ 10,756.44	$ 2,074.78
25%	2,842	1,090	$5,968	$15,374	$21,342	$ 6,958.06	$ 2,289.41
25%	2,916	1,166	$6,124	$15,777	$21,901	$ 6,379.97	$ 2,448.08
25%	3,167	1,289	$6,650	$17,132	$23,782	$ 2,296.01	$ 2,707.51
25%	2,891	1,216	$6,071	$15,640	$21,711	$ 7,935.95	$ 2,553.70
25%	3,387	1,409	$7,113	$18,325	$25,438	$ 2,621.74	$ 2,958.37
25%	2,655	1,098	$5,576	$14,364	$19,939	$ 14,376.64	$ 2,305.71
25%	3,083	1,193	$6,474	$16,678	$23,151	$ 8,421.74	$ 2,505.88
25%	2,260	904	$4,745	$12,224	$16,969	$ 17,371.07	$ 1,899.43
25%	1,449	636	$3,043	$7,840	$10,883	$ 17,297.98	$ 1,335.31
25%	1,253	509	$2,630	$6,776	$9,406	$ 16,959.67	$ 1,069.93
25%	1,520	592	$3,193	$8,226	$11,419	$ 18,359.22	$ 1,242.20

PRELIMINARY AUDIT				EXISTING FIXTURES							PROPOSED FIXTURE UPGRADE								
ID #	Facility Name	Phase	Room Description	ECM Code	Qty	Description	Watts	kW	Pre Burn Hours	kWh	Qty	New Code	Description	Watts	kW	KW Saved	KW Cost Savings	Post Burn Hours	kWh	kWh Saved
1	BLDG 44	INTERIOR	SUMMARY	CF65RLM	14	65 Watt Compact Fluorescent RLM Fixture	65	0.910	1500	1,365	14	N 2L-12.5LED	New 1x4 2-Lamp Industrial Fixture with (2) 12.5 Watt LED T8 4' Lamp, Direct Wire to Socket	25	0.350	0.560	$ -	1,500	525	840
2	BLDG 44	INTERIOR	SUMMARY	CF23	6	23 Watt Compact Fluorescent Fixture	23	0.138	1500	207	6	LED 10A	Re-Lamp with (1) 10 Watt LED A19	10	0.060	0.078	$ -	1,500	90	117
3	BLDG 44	INTERIOR	SUMMARY	2EG34	1	T12 1x4 2-Lamp Egg Crate Fixture	72	0.072	1500	104	1	R 2L-12.5LED	Retrofit with (2) 12.5 Watt LED T8 4' Lamps, Direct Wire to Socket	25	0.025	0.047	$ -	1,500	38	71
4	BLDG 44	INTERIOR	SUMMARY	2PL13SC	2	13 Watt Plug-In CFL sconce Fixture	26	0.056	1500	84	2	R 2PL-6LED	Re-Lamp with (2) 6 Watt LED Plug-In Lamps; Existing CFL Ballast Remains	12	0.024	0.032	$ -	1,500	36	48
5	BLDG 44	EXTERIOR	EXTERIOR	2PL26WP	1	26 Watt Plug-In CFL 2-Lamp Wall Pack Fixture	58	0.058	1500	87	1	R 2PL-11LED	Re-Lamp with (2) 11 Watt LED Plug-In Lamps, Existing CFL Ballast Remains	26	0.020	0.032	$ -	1,500	30	48
6	BLDG 34	INTERIOR	SUMMARY	1I25	31	T8 1x4 1-Lamp Industrial Fixture with 25 Watt 4' Lamps	22	0.682	2860	1,951	31	R 1L-12.5LED	Retrofit with (1) 12.5 Watt LED T8 4' Lamps; Direct Wire to Socket	12.5	0.388	0.295	$ -	2,860	1,108	842
7	BLDG 34	INTERIOR	SUMMARY	1W25	17	T8 1x4 1-Lamp Wrap Fixture with 25 Watt 4' Lamps	22	0.374	2860	1,070	17	R 1L-12.5LED	Retrofit with (1) 12.5 Watt LED T8 4' Lamps; Direct Wire to Socket	12.5	0.213	0.162	$ -	2,860	608	462
8	BLDG 34	INTERIOR	SUMMARY	2PL13SC	2	13 Watt Plug-In CFL sconce Fixture	26	0.056	2860	160	2	R 2PL-6LED	Re-Lamp with (2) 6 Watt LED Plug-In Lamps; Existing CFL Ballast Remains	12	0.024	0.032	$ -	2,860	68	92
9	BLDG 34	INTERIOR	SUMMARY	4EG25	1	T8 1x4 4-Lamp Egg Crate Fixture with 25 Watt 4' Lamps	85	0.085	2860	243	1	R 4L-12.5LED	Retrofit with (4) 12.5 Watt LED T8 4' Lamps; Direct Wire to Socket	50	0.050	0.035	$ -	2,860	143	100
10	BLDG 34	INTERIOR	SUMMARY	1I25	10	T8 1x4 1-Lamp Industrial Fixture with 25 Watt 4' Lamps	22	0.220	2860	629	10	R 1L-12.5LED	Retrofit with (1) 12.5 Watt LED T8 4' Lamps; Direct Wire to Socket	12.5	0.125	0.095	$ -	2,860	358	272
11	BLDG 34	INTERIOR	SUMMARY	2PL13SC	4	13 Watt Plug-In CFL sconce Fixture	28	0.112	2860	320	4	R 2PL-6LED	Re-Lamp with (2) 6 Watt LED Plug-In Lamps; Existing CFL Ballast Remains	12	0.048	0.064	$ -	2,860	137	183
12	BLDG 34	INTERIOR	SUMMARY	4W25	10	T8 1x4 4-Lamp Wrap Fixture with 25 Watt 4' Lamps	85	0.850	2860	2,431	10	R 4L-12.5LED	Retrofit with (4) 12.5 Watt LED T8 4' Lamps; Direct Wire to Socket	50	0.500	0.350	$ -	2,860	1,430	1,001
13	BLDG 34	INTERIOR	SUMMARY	2EG25	10	T8 1x4 2-Lamp Egg Crate Fixture with 25 Watt 4' Lamps	43	0.430	2860	1,230	10	R 2L-12.5LED	Retrofit with (2) 12.5 Watt LED T8 4' Lamps; Direct Wire to Socket	25	0.250	0.180	$ -	2,860	715	516
14	BLDG 34	INTERIOR	SUMMARY	4EG25	1	T8 1x4 4-Lamp Egg Crate Fixture with 25 Watt 4' Lamps	85	0.085	2860	243	1	R 4L-12.5LED	Retrofit with (4) 12.5 Watt LED T8 4' Lamps; Direct Wire to Socket	50	0.050	0.035	$ -	2,860	143	100
15	BLDG 34	EXTERIOR	EXTERIOR	2PL26WP	6	26 Watt Plug-In CFL 2-Lamp Wall Pack Fixture	58	0.348	2860	995	6	R 2PL-11LED	Re-Lamp with (2) 11 Watt LED Plug-In Lamps; Existing CFL Ballast Remains	26	0.156	0.192	$ -	2,860	446	549
16	BLDG 32	INTERIOR	SUMMARY	4W25	7	T8 1x4 4-Lamp Wrap Fixture with 25 Watt 4' Lamps	85	0.595	2860	1,702	7	R 4L-12.5LED	Retrofit with (4) 12.5 Watt LED T8 4' Lamps; Direct Wire to Socket	50	0.350	0.245	$ -	2,860	1,001	701
17	BLDG 32	INTERIOR	SUMMARY	1I25	39	T8 1x4 1-Lamp Industrial Fixture with 25 Watt 4' Lamps	22	0.858	2860	2,454	39	R 1L-12.5LED	Retrofit with (1) 12.5 Watt LED T8 4' Lamps; Direct Wire to Socket	12.5	0.488	0.371	$ -	2,860	1,394	1,060
18	BLDG 32	INTERIOR	SUMMARY	2PL13SC	14	13 Watt Plug-In CFL sconce Fixture	28	0.392	2860	1,121	14	R 2PL-6LED	Re-Lamp with (2) 6 Watt LED Plug-In Lamps; Existing CFL Ballast Remains	12	0.168	0.224	$ -	2,860	480	641
19	BLDG 32	INTERIOR	SUMMARY	1W25	3	T8 1x4 1-Lamp Wrap Fixture with 25 Watt 4' Lamps	22	0.066	2860	189	3	R 1L-12.5LED	Retrofit with (1) 12.5 Watt LED T8 4' Lamps; Direct Wire to Socket	12.5	0.038	0.029	$ -	2,860	107	82
20	BLDG 32	INTERIOR	SUMMARY	4L25	2	T8 2x4 4-Lamp Troffer Fixture with 25 Watt 4' Lamps	85	0.170	2860	486	2	R 4L-12.5LED	Retrofit with (4) 12.5 Watt LED T8 4' Lamps; Direct Wire to Socket	50	0.100	0.070	$ -	2,860	286	200
21	BLDG 32	INTERIOR	SUMMARY	2L25	2	T8 2x4 2-Lamp Troffer Fixture with 25 Watt 4' Lamps	43	0.086	2860	246	2	R 2L-12.5LED	Retrofit with (2) 12.5 Watt LED T8 4' Lamps; Direct Wire to Socket	25	0.050	0.036	$ -	2,860	143	103
22	BLDG 32	INTERIOR	SUMMARY	3L25	3	T8 2x4 2-Lamp Troffer Fixture with 25 Watt 4' Lamps	43	0.129	2860	369	3	R 2L-12.5LED	Retrofit with (2) 12.5 Watt LED T8 4' Lamps; Direct Wire to Socket	25	0.075	0.054	$ -	2,860	215	154
23	BLDG 32	INTERIOR	SUMMARY	2EG25	2	T8 1x4 2-Lamp Egg Crate Fixture with 25 Watt 4' Lamps	43	0.086	2860	246	2	R 2L-12.5LED	Retrofit with (2) 12.5 Watt LED T8 4' Lamps; Direct Wire to Socket	25	0.050	0.036	$ -	2,860	143	103
24	BLDG 32	INTERIOR	SUMMARY	150A	2	150 Watt Incandescent A-Lamp Fixture	150	0.300	2860	858	2	LED 18A	Re-Lamp with (1) 18 Watt LED A21	18	0.036	0.264	$ -	2,860	103	755
25	BLDG 32	INTERIOR	SUMMARY	4EG25	2	T8 1x4 4-Lamp Egg Crate Fixture with 25 Watt 4' Lamps	85	0.170	2860	486	2	R 4L-12.5LED	Retrofit with (4) 12.5 Watt LED T8 4' Lamps; Direct Wire to Socket	50	0.100	0.070	$ -	2,860	286	200
26	BLDG 31	INTERIOR	SUMMARY	1W25	12	T8 1x4 1-Lamp Wrap Fixture with 25 Watt 4' Lamps	22	0.264	2860	755	12	R 1L-12.5LED	Retrofit with (1) 12.5 Watt LED T8 4' Lamps; Direct Wire to Socket	12.5	0.150	0.114	$ -	2,860	429	326
27	BLDG 31	INTERIOR	SUMMARY	2W25	9	T8 1x4 2-Lamp Wrap Fixture with 25 Watt 4' Lamps	43	0.387	2860	1,107	9	R 2L-12.5LED	Retrofit with (2) 12.5 Watt LED T8 4' Lamps; Direct Wire to Socket	25	0.225	0.162	$ -	2,860	644	463
28	BLDG 31	INTERIOR	SUMMARY	2W25	46	T8 1x4 2-Lamp Wrap Fixture with 25 Watt 4' Lamps	43	2.064	2860	5,903	46	R 2L-12.5LED	Retrofit with (2) 12.5 Watt LED T8 4' Lamps; Direct Wire to Socket	25	1.200	0.864	$ -	2,860	3,432	2,471

PRELIMINARY AUDIT				EXISTING FIXTURES								PROPOSED FIXTURE UPGRADE							
ID #	Facility Name	Phase	Room Description	ECM Code	Qty	Description	Watts	kW	Pre Burn Hours	kWh	Qty	New Code	Description	Watts	kW	KW Saved	KW Cost Savings	Post Burn Hours	kWh	kWh Saved
29	BLDG 31	INTERIOR	SUMMARY	3HB54	6	T5HO 2x4 3-Lamp High Bay Fixture	172	1.032	2860	3,123	6	N RLED05HB	New 95 Watt LED High Bay Fixture	93	0.558	0.534	$ -	2,860	1,596	1,527
30	BLDG 31	INTERIOR	SUMMARY	4L26	3	T8 2x4 4-Lamp Troffer Fixture with 25 Watt 4' Lamps	85	0.255	2860	729	3	R 4L-12.5LED	Retrofit with (4) 12.5 Watt LED T8 4' Lamps, Direct Wire to Socket	50	0.150	0.105	$ -	2,860	429	300
31	BLDG 31	INTERIOR	SUMMARY	4W26	4	T8 1x4 4-Lamp Wrap Fixture with 25 Watt 4' Lamps	85	0.340	2860	972	4	R 4L-12.5LED	Retrofit with (4) 12.5 Watt LED T8 4' Lamps; Direct Wire to Socket	50	0.200	0.140	$ -	2,860	572	400
32	BLDG 31	INTERIOR	SUMMARY	1W17	1	T8 2x2 1-Lamp Wrap Fixture	22	0.022	2860	63	1	R 1L-10LED2'	Retrofit with (1) 10 Watt LED T8 2' Lamp; Direct Wire to Socket	10	0.010	0.012	$ -	2,860	29	34
33	BLDG 31	EXTERIOR	EXTERIOR	2PL26WP	11	26 Watt Plug-In CFL 2-Lamp Wall Pack Fixture	58	0.638	2860	1,825	11	R 2PL-11LED	Re-Lamp with (2) 11 Watt LED Plug-In Lamps, Existing CFL Ballast Remains	26	0.286	0.352	$ -	2,860	818	1,007
34	BLDG 31	EXTERIOR	EXTERIOR	2PL13CPY	1	13 Watt Plug-In CFL 2-Lamp Canopy Fixture	28	0.028	2860	80	1	R 2PL-6LED	Re-Lamp with (2) 6 Watt LED Plug-In Lamps; Existing CFL Ballast Remains	12	0.012	0.016	$ -	2,860	34	46
35	BLDG 1	INTERIOR	SUMMARY	4W26	30	T8 1x4 4-Lamp Wrap Fixture with 25 Watt 4' Lamps	85	2.550	4576	11,680	30	R 4L-12.5LED	Retrofit with (4) 12.5 Watt LED T8 4' Lamps, Direct Wire to Socket	50	1.500	1.050	$ -	4,576	6,864	4,805
36	BLDG 1	INTERIOR	SUMMARY	2CC25	14	T8 1x4 2-Lamp Egg Crate Fixture with 25 Watt 4' Lamps	43	0.602	4576	2,755	14	R 2L-12.5LED	Retrofit with (2) 12.5 Watt LED T8 4' Lamps, Direct Wire to Socket	25	0.350	0.252	$ -	4,576	1,602	1,153
37	BLDG 1	INTERIOR	SUMMARY	4CC25	1	T8 1x4 4-Lamp Egg Crate Fixture with 25 Watt 4' Lamps	85	0.085	4576	389	1	R 4L-12.5LED	Retrofit with (4) 12.5 Watt LED T8 4' Lamps; Direct Wire to Socket	50	0.050	0.035	$ -	4,576	229	160
38	BLDG 1	INTERIOR	SUMMARY	EX-VEND	1	Vending Machine with Existing VendMiser Control	400	0.400	4576	1,830	1	ZZ DD	No Retrofit	400	0.400	0.000	$ -	4,576	1,830	0
39	BLDG 1	INTERIOR	SUMMARY	EX-VEND	1	Vending Machine with Existing VendMiser Control	400	0.400	4576	1,830	1	ZZ DD	No Retrofit	400	0.400	0.000	$ -	4,576	1,830	0
40	BLDG 1	INTERIOR	SUMMARY	1W17	1	T8 2x2 1-Lamp Wrap Fixture	22	0.022	4576	101	1	R 1L-10LED2'	Retrofit with (1) 10 Watt LED T8 2' Lamp; Direct Wire to Socket	10	0.010	0.012	$ -	4,576	46	55
41	BLDG 1	INTERIOR	SUMMARY	2D17	5	T8 2x2 2-Lamp Surface Mount Troffer Fixture	36	0.180	4576	824	5	R 2L-10LED2'	Retrofit with (2) 10 Watt LED T8 2' Lamps; Direct Wire to Socket	20	0.100	0.080	$ -	4,576	458	366
42	BLDG 1	INTERIOR	SUMMARY	2W26	4	T8 1x4 2-Lamp Wrap Fixture with 25 Watt 4' Lamps	43	0.172	4576	787	4	R 2L-12.5LED	Retrofit with (2) 12.5 Watt LED T8 4' Lamps; Direct Wire to Socket	25	0.100	0.072	$ -	4,576	458	329
43	BLDG 1	INTERIOR	SUMMARY	2V17	3	T8 2x2 2-Lamp Vandal Proof Fixture	36	0.108	4576	494	3	R 2L-10LED2'	Retrofit with (2) 10 Watt LED T8 2' Lamps; Direct Wire to Socket	20	0.060	0.048	$ -	4,576	275	220
44	BLDG 1	INTERIOR	SUMMARY	2PL13SC	30	13 Watt Plug-In CFL sconce Fixture	28	0.840	4576	3,844	30	R 2PL-6LED	Re-Lamp with (2) 6 Watt LED Plug-In Lamps; Existing CFL Ballast Remains	12	0.360	0.480	$ -	4,576	1,647	2,196
45	BLDG 1	INTERIOR	SUMMARY	CF13	5	13 Watt Compact Fluorescent Fixture	13	0.065	4576	297	5	LED 10A	Re-Lamp with (1) 10 Watt LED A19	10	0.050	0.015	$ -	4,576	229	69
46	BLDG 1	EXTERIOR	EXTERIOR	2PL13WP	2	13 Watt Plug-In CFL 2-Lamp Wall Pack Fixture	28	0.056	4576	256	2	R 2PL-6LED	Re-Lamp with (2) 6 Watt LED Plug-In Lamps; Existing CFL Ballast Remains	12	0.024	0.032	$ -	4,576	110	146
47	BLDG 1	EXTERIOR	EXTERIOR	2PL26WP	1	26 Watt Plug-In CFL 2-Lamp Wall Pack Fixture	58	0.058	4576	265	1	R 2PL-11LED	Re-Lamp with (2) 11 Watt LED Plug-In Lamps; Existing CFL Ballast Remains	26	0.026	0.032	$ -	4,576	119	146
48	BLDG 1	EXTERIOR	EXTERIOR	2PL13CPY	1	13 Watt Plug-In CFL 2-Lamp Canopy Fixture	28	0.028	4576	128	1	R 2PL-6LED	Re-Lamp with (2) 6 Watt LED Plug-In Lamps; Existing CFL Ballast Remains	12	0.012	0.016	$ -	4,576	55	73
49	BLDG 30	INTERIOR	SUMMARY	3W26	1	T8 1x4 3-Lamp Industrial Fixture with 25 Watt 4' Lamps	85	0.085	8736	568	1	R 3L-12.5LED	Retrofit with (3) 12.5 Watt LED T8 4' Lamps; Direct Wire to Socket	37.5	0.038	0.026	$ -	8,736	328	240
50	BLDG 30	INTERIOR	SUMMARY	2W26	30	T8 1x4 2-Lamp Wrap Fixture with 25 Watt 4' Lamps	43	1.290	8736	11,269	30	R 2L-12.5LED	Retrofit with (2) 12.5 Watt LED T8 4' Lamps; Direct Wire to Socket	25	0.750	0.540	$ -	8,736	6,552	4,717
51	BLDG 30	INTERIOR	SUMMARY	CF45RLM	4	45 Watt Compact Fluorescent RLM Fixture	65	0.260	8736	2,271	4	N 2L-12.5LED	New 1x4 2-Lamp Industrial Fixture with (2) 12.5 Watt LED T8 4' Lamp, Direct Wire to Socket	25	0.100	0.160	$ -	8,736	874	1,396
52	BLDG 30	INTERIOR	SUMMARY	150A	12	150 Watt Incandescent A-Lamp Fixture	150	1.800	8736	15,725	12	LED 18A	Re-Lamp with (1) 18 Watt LED A21	18	0.216	1.584	$ -	8,736	1,887	13,838
53	BLDG 30	INTERIOR	SUMMARY	4HB54	9	T5HO 2x4 4-Lamp High Bay Fixture	241	2.169	8736	18,949	9	N RLED05HB	New 95 Watt LED High Bay Fixture	93	0.837	1.332	$ -	8,736	7,312	11,636
54	BLDG 30	INTERIOR	SUMMARY	2L26	2	T8 2x4 2-Lamp Troffer Fixture with 25 Watt 4' Lamps	43	0.086	8736	751	2	R 2L-12.5LED	Retrofit with (2) 12.5 Watt LED T8 4' Lamps; Direct Wire to Socket	25	0.050	0.036	$ -	8,736	437	314
55	BLDG 30	INTERIOR	SUMMARY	1W26	6	T8 1x4 1-Lamp Wrap Fixture with 25 Watt 4' Lamps	22	0.132	8736	1,153	6	R 1L-12.5LED	Retrofit with (1) 12.5 Watt LED T8 4' Lamps; Direct Wire to Socket	12.5	0.075	0.057	$ -	8,736	655	498
56	BLDG 30	INTERIOR	SUMMARY	1I26	5	T8 1x4 1-Lamp Industrial Fixture with 25 Watt 4' Lamps	22	0.110	8736	961	5	R 1L-12.5LED	Retrofit with (1) 12.5 Watt LED T8 4' Lamps; Direct Wire to Socket	12.5	0.063	0.048	$ -	8,736	546	415

PRELIMINARY AUDIT				EXISTING FIXTURES							PROPOSED FIXTURE UPGRADE								
ID #	Facility Name	Phase	Room Description	ECM Code	Qty	Description	Watts	kW	Pre Burn Hours	kWh	Qty	New Code	Description	Watts	kW	KW Saved	KW Cost Savings	Post Burn Hours	kWh	kWh Saved
57	BLDG 30	INTERIOR	SUMMARY	2PL13WP	3	13 Watt Plug-In CFL 2-Lamp Wall Pack Fixture	28	0.084	8736	734	3	R 2PL-6LED	Re-Lamp with (2) 6 Watt LED Plug-In Lamps; Existing CFL Ballast Remains	12	0.036	0.048	$ -	8,736	314	419
58	BLDG 30	EXTERIOR	EXTERIOR	2PL13CPY	2	13 Watt Plug-In CFL 2-Lamp Canopy Fixture	28	0.056	8736	489	2	R 2PL-6LED	Re-Lamp with (2) 6 Watt LED Plug-In Lamps; Existing CFL Ballast Remains	12	0.024	0.032	$ -	8,736	210	280
59	BLDG 2	INTERIOR	SUMMARY	2W26	16	T8 1x4 2-Lamp Wrap Fixture with 25 Watt 4' Lamps	43	0.688	2860	1,968	16	R 2L-12.5LED	Retrofit with (2) 12.5 Watt LED T8 4' Lamps; Direct Wire to Socket	25	0.400	0.288	$ -	2,860	1,144	824
60	BLDG 2	INTERIOR	SUMMARY	2PL13SC	6	13 Watt Plug-In CFL sconce Fixture	28	0.224	2860	641	6	R 2PL-6LED	Re-Lamp with (2) 6 Watt LED Plug-In Lamps; Existing CFL Ballast Remains	12	0.096	0.128	$ -	2,860	275	366
61	BLDG 2	INTERIOR	SUMMARY	1W17	11	T8 2x2 1-Lamp Wrap Fixture	22	0.242	2860	692	11	R 1L-10LEDZ	Retrofit with (1) 10 Watt LED T8 2' Lamp; Direct Wire to Socket	10	0.110	0.132	$ -	2,860	315	378
62	BLDG 2	INTERIOR	SUMMARY	2EG25	1	T8 1x4 2-Lamp Egg Crate Fixture with 25 Watt 4' Lamps	43	0.043	2860	123	1	R 2L-12.5LED	Retrofit with (2) 12.5 Watt LED T8 4' Lamps; Direct Wire to Socket	25	0.025	0.018	$ -	2,860	72	51
63	BLDG 2	INTERIOR	SUMMARY	1V17	1	T8 2x2 1-Lamp Vanity Fixture	22	0.022	2860	63	1	R 1L-10LEDZ	Retrofit with (1) 10 Watt LED T8 2' Lamp; Direct Wire to Socket	10	0.010	0.012	$ -	2,860	29	34
64	BLDG 2	INTERIOR	SUMMARY	1W25	13	T8 1x4 1-Lamp Wrap Fixture with 25 Watt 4' Lamps	22	0.286	2860	818	13	R 1L-12.5LED	Retrofit with (1) 12.5 Watt LED T8 4' Lamps; Direct Wire to Socket	12.5	0.163	0.124	$ -	2,860	465	353
65	BLDG 2	EXTERIOR	EXTERIOR	2PL26WP	1	26 Watt Plug-In CFL 2-Lamp Wall Pack Fixture	58	0.058	2860	166	1	R 2PL-11LED	Re-Lamp with (2) 11 Watt LED Plug-In Lamps; Existing CFL Ballast Remains	26	0.026	0.032	$ -	2,860	74	92
66	BLDG 2	EXTERIOR	EXTERIOR	2PL13WP	3	13 Watt Plug-In CFL 2-Lamp Wall Pack Fixture	28	0.084	2860	240	3	R 2PL-6LED	Re-Lamp with (2) 6 Watt LED Plug-In Lamps; Existing CFL Ballast Remains	12	0.036	0.048	$ -	2,860	103	137
67	BLDG 2	INTERIOR	SUMMARY	2W25	10	T8 1x4 2-Lamp Wrap Fixture with 25 Watt 4' Lamps	43	0.430	2860	1,230	10	R 2L-12.5LED	Retrofit with (2) 12.5 Watt LED T8 4' Lamps; Direct Wire to Socket	25	0.250	0.180	$ -	2,860	715	515
68	BLDG 2	INTERIOR	SUMMARY	2PL13DR	2	13 Watt Plug-In CFL Drum Fixture	28	0.056	2860	160	2	R 2PL-6LED	Re-Lamp with (2) 6 Watt LED Plug-In Lamps; Existing CFL Ballast Remains	12	0.024	0.032	$ -	2,860	69	92
69	BLDG 2	INTERIOR	SUMMARY	2PL13SC	8	13 Watt Plug-In CFL sconce Fixture	28	0.224	2860	641	8	R 2PL-6LED	Re-Lamp with (2) 6 Watt LED Plug-In Lamps; Existing CFL Ballast Remains	12	0.096	0.128	$ -	2,860	275	366
70	BLDG 2	INTERIOR	SUMMARY	CF13	4	13 Watt Compact Fluorescent Fixture	13	0.052	2860	149	4	LED 10A	Re-Lamp with (1) 10 Watt LED A19	10	0.040	0.012	$ -	2,860	114	34
71	BLDG 2	INTERIOR	SUMMARY	100A	2	100 Watt Incandescent A-Lamp Fixture	100	0.200	2860	572	2	LED 18A	Re-Lamp with (1) 18 Watt LED A21	18	0.036	0.164	$ -	2,860	103	469
72	BLDG 3	INTERIOR	SUMMARY	1W26	1	T8 1x4 1-Lamp Wrap Fixture with 25 Watt 4' Lamps	22	0.022	0	0	1	R 1L-12.5LED	Retrofit with (1) 12.5 Watt LED T8 4' Lamps; Direct Wire to Socket	12.5	0.013	0.010	$ -	0	0	0
73	BLDG 3	INTERIOR	SUMMARY	3W26	43	T5 1x4 3-Lamp Industrial Fixture with 25 Watt 4' Lamps	65	2.795	0	0	43	R 3L-12.5LED	Retrofit with (3) 12.5 Watt LED T8 4' Lamps; Direct Wire to Socket	37.5	1.613	1.183	$ -	0	0	0
74	BLDG 3	INTERIOR	SUMMARY	2PL13SC	6	13 Watt Plug-In CFL sconce Fixture	28	0.168	0	0	6	R 2PL-6LED	Re-Lamp with (2) 6 Watt LED Plug-In Lamps; Existing CFL Ballast Remains	12	0.072	0.096	$ -	0	0	0
75	BLDG 3	INTERIOR	SUMMARY	2PL13DR	1	13 Watt Plug-In CFL Drum Fixture	28	0.028	0	0	1	R 2PL-6LED	Re-Lamp with (2) 6 Watt LED Plug-In Lamps; Existing CFL Ballast Remains	12	0.012	0.016	$ -	0	0	0
76	BLDG 3	EXTERIOR	EXTERIOR	2PL13WP	12	13 Watt Plug-In CFL 2-Lamp Wall Pack Fixture	28	0.336	0	0	12	R 2PL-6LED	Re-Lamp with (2) 6 Watt LED Plug-In Lamps; Existing CFL Ballast Remains	12	0.144	0.192	$ -	0	0	0
77	BLDG 3	EXTERIOR	EXTERIOR	2PL13CPY	5	13 Watt Plug-In CFL 2-Lamp Canopy Fixture	28	0.140	0	0	5	R 2PL-6LED	Re-Lamp with (2) 6 Watt LED Plug-In Lamps; Existing CFL Ballast Remains	12	0.060	0.080	$ -	0	0	0
78	BLDG 3	EXTERIOR	EXTERIOR	2PL26WP	2	26 Watt Plug-In CFL 2-Lamp Wall Pack Fixture	58	0.116	0	0	2	R 2PL-11LED	Re-Lamp with (2) 11 Watt LED Plug-In Lamps; Existing CFL Ballast Remains	26	0.052	0.064	$ -	0	0	0
79	BLDG 3	EXTERIOR	EXTERIOR	MH150DTD	1	150 Watt Metal Halide Dusk to Dawn Fixture	180	0.180	0	0	1	N RLED26DY	New 26 Watt LED Dusk to Dawn Barnyard Fixture	26	0.026	0.154	$ -	0	0	0
80	BLDG 3	INTERIOR	BASEMENT	4EG25	1	T8 1x4 4-Lamp Egg Crate Fixture with 25 Watt 4' Lamps	65	0.065	0	0	1	R 4L-12.5LED	Retrofit with (4) 12.5 Watt LED T8 4' Lamps; Direct Wire to Socket	50	0.050	0.035	$ -	0	0	0
81	BLDG 3	INTERIOR	BASEMENT	2EG25	1	T8 1x4 2-Lamp Egg Crate Fixture with 25 Watt 4' Lamps	43	0.043	0	0	1	R 2L-12.5LED	Retrofit with (2) 12.5 Watt LED T8 4' Lamps; Direct Wire to Socket	25	0.025	0.018	$ -	0	0	0
82	BLDG 3	INTERIOR	BASEMENT	1W25	3	T8 1x4 1-Lamp Wrap Fixture with 25 Watt 4' Lamps	22	0.066	0	0	3	R 1L-12.5LED	Retrofit with (1) 12.5 Watt LED T8 4' Lamps; Direct Wire to Socket	12.5	0.038	0.029	$ -	0	0	0
83	BLDG 3	INTERIOR	BASEMENT	2W25	1	T8 1x4 2-Lamp Wrap Fixture with 25 Watt 4' Lamps	43	0.043	0	0	1	R 2L-12.5LED	Retrofit with (2) 12.5 Watt LED T8 4' Lamps; Direct Wire to Socket	25	0.025	0.018	$ -	0	0	0
84	BLDG 9	INTERIOR	SUMMARY	1W25	38	T8 1x4 1-Lamp Wrap Fixture with 25 Watt 4' Lamps	22	0.792	2860	2,266	38	R 1L-12.5LED	Retrofit with (1) 12.5 Watt LED T8 4' Lamps; Direct Wire to Socket	12.5	0.450	0.342	$ -	2,860	1,267	978

	PRELIMINARY AUDIT			EXISTING FIXTURES							PROPOSED FIXTURE UPGRADE								
ID #	Facility Name	Phase	Room Description	ECM Code	Qty	Description	Watts	kW	Pre Burn Hours	kWh	Qty	New Code	Description	Watts	kW	KW Saved	KW Cost Savings	Post Burn Hours	kWh	kWh Saved
85	BLDG 9	INTERIOR	SUMMARY	4L26	44	T8 2x4 4-Lamp Troffer Fixture with 25 Watt 4' Lamps	85	3.740	2860	10,696	44	R 4L-12.5LED	Retrofit with (4) 12.5 Watt LED T8 4' Lamps; Direct Wire to Socket	50	2.200	1.540	$ -	2,860	6,292	4,404
86	BLDG 9	INTERIOR	SUMMARY	2EG26	58	T8 1x4 2-Lamp Egg Crate Fixture with 25 Watt 4' Lamps	43	2.494	2860	7,133	58	R 2L-12.5LED	Retrofit with (2) 12.5 Watt LED T8 4' Lamps; Direct Wire to Socket	25	1.450	1.044	$ -	2,860	4,147	2,986
87	BLDG 9	INTERIOR	SUMMARY	4EG26	12	T8 1x4 4-Lamp Egg Crate Fixture with 25 Watt 4' Lamps	85	1.020	2860	2,917	12	R 4L-12.5LED	Retrofit with (4) 12.5 Watt LED T8 4' Lamps; Direct Wire to Socket	50	0.600	0.420	$ -	2,860	1,715	1,201
88	BLDG 9	INTERIOR	SUMMARY	60A	10	60 Watt Incandescent A-Lamp Fixture	60	0.600	2860	1,716	10	LED 10A	Re-Lamp with (1) 10 Watt LED A19	10	0.100	0.500	$ -	2,860	286	1,430
89	BLDG 9	INTERIOR	SUMMARY	CF20SQDL	38	20 Watt Compact Fluorescent Square Downlight Fixture	20	0.760	2860	2,174	38	LED 10A	Re-Lamp with (1) 10 Watt LED A19	10	0.380	0.380	$ -	2,860	1,087	1,087
90	BLDG 9	INTERIOR	SUMMARY	2PL13DR	18	13 Watt Plug-in CFL Drum Fixture	26	0.504	2860	1,441	18	R 2PL-6LED	Re-Lamp with (2) 6 Watt LED Plug-in Lamps; Existing CFL Ballast Remains	12	0.216	0.288	$ -	2,860	618	824
91	BLDG 9	INTERIOR	SUMMARY	2W26	574	T8 1x4 2-Lamp Wrap Fixture with 25 Watt 4' Lamps	43	24.682	2860	70,591	574	R 2L-12.5LED	Retrofit with (2) 12.5 Watt LED T8 4' Lamps; Direct Wire to Socket	25	14.350	10.332	$ -	2,860	41,041	29,550
92	BLDG 9	INTERIOR	SUMMARY	CF13CPY	10	13 Watt Compact Fluorescent Canopy Fixture	13	0.130	2860	372	10	LED 10A	Re-Lamp with (1) 10 Watt LED A19	10	0.100	0.030	$ -	2,860	266	86
93	BLDG 9	INTERIOR	SUMMARY	1W17	16	T8 2x2 1-Lamp Wrap Fixture	22	0.396	2860	1,133	16	R 1L-10LED2'	Retrofit with (1) 10 Watt LED T8 2' Lamp, Direct Wire to Socket	10	0.160	0.216	$ -	2,860	515	618
94	BLDG 9	INTERIOR	SUMMARY	4W26	20	T8 1x4 4-Lamp Wrap Fixture with 25 Watt 4' Lamps	85	1.700	2860	4,862	20	R 4L-12.5LED	Retrofit with (4) 12.5 Watt LED T8 4' Lamps; Direct Wire to Socket	50	1.000	0.700	$ -	2,860	2,860	2,002
95	BLDG 9	INTERIOR	SUMMARY	CF13	14	13 Watt Compact Fluorescent Fixture	13	0.182	2860	521	14	LED 10A	Re-Lamp with (1) 10 Watt LED A19	10	0.140	0.042	$ -	2,860	400	120
96	BLDG 9	INTERIOR	SUMMARY	2PL13SC	18	13 Watt Plug-in CFL sconce Fixture	26	0.504	2860	1,441	18	R 2PL-6LED	Re-Lamp with (2) 6 Watt LED Plug-in Lamps; Existing CFL Ballast Remains	12	0.216	0.288	$ -	2,860	618	824
97	BLDG 9	INTERIOR	SUMMARY	65P38DL-DIM	36	65 Watt Incandescent PAR38 6" Downlight Fixture; Dimming	65	2.340	2860	6,692	36	LED 10DR30	Re-Lamp with (1) 10 Watt LED BR30	10	0.360	1.080	$ -	2,860	1,030	5,663
98	BLDG 9	INTERIOR	SUMMARY	2S25-3FT	2	T8 1x3 2-Lamp Strip Fixture	49	0.098	2860	280	2	R 2L-12LED3'	Retrofit with (2) 12 Watt LED T8 3' Lamps; Direct Wire to Socket	24	0.048	0.050	$ -	2,860	137	143
99	BLDG 9	EXTERIOR	EXTERIOR	2PL26WP	4	26 Watt Plug-in CFL 2-Lamp Wall Pack Fixture	66	0.232	2860	664	4	R 2PL-11LED	Re-Lamp with (2) 11 Watt LED Plug-in Lamps; Existing CFL Ballast Remains	26	0.104	0.128	$ -	2,860	297	366
100	BLDG 13	INTERIOR	GUEST HOUSING	1W17	20	T8 2x2 1-Lamp Wrap Fixture	22	0.440	0	0	20	R 1L-10LED2'	Retrofit with (1) 10 Watt LED T8 2' Lamp, Direct Wire to Socket	10	0.200	0.240	$ -	0	0	0
101	BLDG 13	INTERIOR	GUEST HOUSING	1W26	16	T8 1x4 1-Lamp Wrap Fixture with 25 Watt 4' Lamps	22	0.352	0	0	16	R 1L-12.5LED	Retrofit with (1) 12.5 Watt LED T8 4' Lamps; Direct Wire to Socket	12.5	0.200	0.152	$ -	0	0	0
102	BLDG 13	INTERIOR	SUMMARY	1W26	4	T8 1x4 1-Lamp Wrap Fixture with 25 Watt 4' Lamps	22	0.088	0	0	4	R 1L-12.5LED	Retrofit with (1) 12.5 Watt LED T8 4' Lamps; Direct Wire to Socket	12.5	0.050	0.038	$ -	0	0	0
103	BLDG 13	INTERIOR	SUMMARY	1W17	18	T8 2x2 1-Lamp Wrap Fixture	22	0.396	0	0	18	R 1L-10LED2'	Retrofit with (1) 10 Watt LED T8 2' Lamp, Direct Wire to Socket	10	0.180	0.216	$ -	0	0	0
104	BLDG 13	INTERIOR	SUMMARY	2PL13WP	8	13 Watt Plug-in CFL 2-Lamp Wall Pack Fixture	26	0.224	0	0	8	R 2PL-6LED	Re-Lamp with (2) 6 Watt LED Plug-in Lamps; Existing CFL Ballast Remains	12	0.096	0.128	$ -	0	0	0
105	BLDG 13	INTERIOR	SUMMARY	CF13	10	13 Watt Compact Fluorescent Fixture	13	0.130	0	0	10	LED 10A	Re-Lamp with (1) 10 Watt LED A19	10	0.100	0.030	$ -	0	0	0
106	BLDG 13	INTERIOR	SUMMARY	2PL13DR	4	13 Watt Plug-in CFL Drum Fixture	26	0.112	0	0	4	R 2PL-6LED	Re-Lamp with (2) 6 Watt LED Plug-in Lamps, Existing CFL Ballast Remains	12	0.048	0.064	$ -	0	0	0
107	BLDG 13	INTERIOR	SUMMARY	2EG26	2	T8 1x4 2-Lamp Egg Crate Fixture with 25 Watt 4' Lamps	43	0.086	0	0	2	R 2L-12.5LED	Retrofit with (2) 12.5 Watt LED T8 4' Lamps; Direct Wire to Socket	25	0.050	0.036	$ -	0	0	0
108	BLDG 13	INTERIOR	SUMMARY	2PL13WP	72	13 Watt Plug-in CFL 2-Lamp Wall Pack Fixture	26	2.016	0	0	72	R 2PL-6LED	Re-Lamp with (2) 6 Watt LED Plug-in Lamps, Existing CFL Ballast Remains	12	0.864	1.152	$ -	0	0	0
109	BLDG 13	INTERIOR	SUMMARY	1W17	16	T8 2x2 1-Lamp Wrap Fixture	22	0.352	0	0	16	R 1L-10LED2'	Retrofit with (1) 10 Watt LED T8 2' Lamp, Direct Wire to Socket	10	0.160	0.192	$ -	0	0	0
110	BLDG 13	INTERIOR	SUMMARY	2W26	12	T8 1x4 2-Lamp Wrap Fixture with 25 Watt 4' Lamps	43	0.516	0	0	12	R 2L-12.5LED	Retrofit with (2) 12.5 Watt LED T8 4' Lamps; Direct Wire to Socket	25	0.300	0.216	$ -	0	0	0
111	BLDG 13	INTERIOR	SUMMARY	2PL13DR	44	13 Watt Plug-in CFL Drum Fixture	28	1.232	0	0	44	R 2PL-6LED	Re-Lamp with (2) 6 Watt LED Plug-in Lamps, Existing CFL Ballast Remains	12	0.528	0.704	$ -	0	0	0
112	BLDG 13	INTERIOR	OCCUPIED OFFICES	1W26	20	T8 1x4 1-Lamp Wrap Fixture with 25 Watt 4' Lamps	22	0.440	0	0	20	R 1L-12.5LED	Retrofit with (1) 12.5 Watt LED T8 4' Lamps; Direct Wire to Socket	12.5	0.250	0.190	$ -	0	0	0

PRELIMINARY AUDIT				EXISTING FIXTURES							PROPOSED FIXTURE UPGRADE								
ID #	Facility Name	Phase	Room Description	ECM Code	Qty	Description	Watts	kW	Pre Burn Hours	kWh	Qty	New Code	Description	Watts	kW	KW Saved	KW Cost Savings	Post Burn Hours	kWh	kWh Saved
113	BLDG 13	INTERIOR	OCCUPIED OFFICES	1W17	6	T8 2x2 1-Lamp Wrap Fixture	22	0.176	0	0	6	R 1L-10LED2'	Retrofit with (1) 10 Watt LED T8 2' Lamp; Direct Wire to Socket	10	0.060	0.096	$ -	0	0	0
114	BLDG 13	INTERIOR	OCCUPIED OFFICES	2PL13DR	64	13 Watt Plug-In CFL Drum Fixture	28	1.792	0	0	64	R 2PL-6LED	Re-Lamp with (2) 6 Watt LED Plug-In Lamps; Existing CFL Ballast Remains	12	0.768	1.024	$ -	0	0	0
115	BLDG 13	EXTERIOR	EXTERIOR	2PL13WP	96	13 Watt Plug-In CFL 2-Lamp Wall Pack Fixture	28	2.688	0	0	96	R 2PL-6LED	Re-Lamp with (2) 6 Watt LED Plug-In Lamps; Existing CFL Ballast Remains	12	1.152	1.536	$ -	0	0	0
116	BLDG 13	EXTERIOR	EXTERIOR	2PL26WP	24	26 Watt Plug-In CFL 2-Lamp Wall Pack Fixture	58	1.392	0	0	24	R 2PL-11LED	Re-Lamp with (2) 11 Watt LED Plug-In Lamps; Existing CFL Ballast Remains	26	0.624	0.768	$ -	0	0	0
117	BLDG 8	INTERIOR	SUMMARY	4W25	12	T8 1x4 4-Lamp Wrap Fixture with 25 Watt 4' Lamps	85	1.020	2860	2,917	12	R 4L-12.5LED	Retrofit with (4) 12.5 Watt LED T8 4' Lamps; Direct Wire to Socket	50	0.600	0.420	$ -	2,860	1,716	1,201
118	BLDG 8	INTERIOR	SUMMARY	2PL13SC	4	13 Watt Plug-In CFL sconce Fixture	28	0.112	2860	320	4	R 2PL-6LED	Re-Lamp with (2) 6 Watt LED Plug-In Lamps; Existing CFL Ballast Remains	12	0.048	0.064	$ -	2,860	137	183
119	BLDG 8	INTERIOR	SUMMARY	2PL13DR	4	13 Watt Plug-In CFL Drum Fixture	28	0.112	2860	320	4	R 2PL-6LED	Re-Lamp with (2) 6 Watt LED Plug-In Lamps; Existing CFL Ballast Remains	12	0.048	0.064	$ -	2,860	137	183
120	BLDG 8	INTERIOR	SUMMARY	1W25	4	T8 1x4 1-Lamp Wrap Fixture with 25 Watt 4' Lamps	22	0.088	2860	252	4	R 1L-12.5LED	Retrofit with (1) 12.5 Watt LED T8 4' Lamps; Direct Wire to Socket	12.5	0.050	0.038	$ -	2,860	143	109
121	BLDG 8	INTERIOR	SUMMARY	1W17	8	T8 2x2 1-Lamp Wrap Fixture	22	0.176	2860	503	8	R 1L-10LED2'	Retrofit with (1) 10 Watt LED T8 2' Lamp; Direct Wire to Socket	10	0.080	0.096	$ -	2,860	229	275
122	BLDG 8	EXTERIOR	EXTERIOR	2PL26WP	16	26 Watt Plug-In CFL 2-Lamp Wall Pack Fixture	58	0.928	2860	2,654	16	R 2PL-11LED	Re-Lamp with (2) 11 Watt LED Plug-In Lamps; Existing CFL Ballast Remains	26	0.416	0.512	$ -	2,860	1,190	1,464
123	BLDG 8	EXTERIOR	EXTERIOR	2PL13CPY	16	13 Watt Plug-In CFL 2-Lamp Canopy Fixture	28	0.448	2860	1,281	16	R 2PL-6LED	Re-Lamp with (2) 6 Watt LED Plug-In Lamps; Existing CFL Ballast Remains	12	0.192	0.256	$ -	2,860	549	732
124	BLDG 8	EXTERIOR	EXTERIOR	MH1000FL-Y	44	1000 Watt Metal Halide Flood Fixture, Yoke	1085	47.740	2860	136,536	44	N RLED300FL	New 300 Watt LED Flood Fixture	315	13.860	33.840	$ -	2,860	39,640	96,897
125	BLDG 14	INTERIOR	SUMMARY	2S25	32	T8 2x4 2-Lamp Surface Mouth Troffer Fixture with 25 Watt 4' Lamps	43	1.376	5096	7,012	32	R 2L-12.5LED	Retrofit with (2) 12.5 Watt LED T8 4' Lamps; Direct Wire to Socket	25	0.800	0.576	$ -	5,096	4,077	2,935
126	BLDG 14	INTERIOR	SUMMARY	2W25	48	T8 1x4 2-Lamp Wrap Fixture with 25 Watt 4' Lamps	43	2.064	5096	10,518	48	R 2L-12.5LED	Retrofit with (2) 12.5 Watt LED T8 4' Lamps; Direct Wire to Socket	25	1.200	0.864	$ -	5,096	6,115	4,403
127	BLDG 14	INTERIOR	SUMMARY	1V25	4	T8 1x4 1-Lamp Vanity Fixture with 25 Watt 4' Lamps	22	0.088	5096	448	4	R 1L-12.5LED	Retrofit with (1) 12.5 Watt LED T8 4' Lamps; Direct Wire to Socket	12.5	0.050	0.038	$ -	5,096	255	194
128	BLDG 14	INTERIOR	SUMMARY	2TL25	8	T8 1x4 3-Lamp Troffer Fixture with 25 Watt 4' Lamps	43	0.344	5096	1,753	8	R 2L-12.5LED	Retrofit with (2) 12.5 Watt LED T8 4' Lamps; Direct Wire to Socket	25	0.200	0.144	$ -	5,096	1,019	734
129	BLDG 14	INTERIOR	SUMMARY	CF13	12	13 Watt Compact Fluorescent Fixture	13	0.156	5096	795	12	LED 10A	Re-Lamp with (1) 10 Watt LED A19	10	0.120	0.036	$ -	5,096	612	183
130	BLDG 14	INTERIOR	SUMMARY	1V17	6	T8 2x2 1-Lamp Vanity Fixture	22	0.132	5096	673	6	R 1L-10LED2'	Retrofit with (1) 10 Watt LED T8 2' Lamp; Direct Wire to Socket	10	0.060	0.072	$ -	5,096	306	367
131	BLDG 14	INTERIOR	SUMMARY	4L25	108	T8 2x4 4-Lamp Troffer Fixture with 25 Watt 4' Lamps	86	0.180	5096	40,781	108	R 4L-12.5LED	Retrofit with (4) 12.5 Watt LED T8 4' Lamps; Direct Wire to Socket	50	5.400	3.780	$ -	5,096	27,516	19,263
132	BLDG 14	INTERIOR	SUMMARY	2PL13SC	96	13 Watt Plug-In CFL sconce Fixture	28	2.688	5096	13,698	96	R 2PL-6LED	Re-Lamp with (2) 6 Watt LED Plug-In Lamps; Existing CFL Ballast Remains	12	1.152	1.536	$ -	5,096	5,871	7,827
133	BLDG 14	INTERIOR	SUMMARY	2TL25	120	T8 1x4 2-Lamp Troffer Fixture with 25 Watt 4' Lamps	43	5.160	5096	26,295	120	R 2L-12.5LED	Retrofit with (2) 12.5 Watt LED T8 4' Lamps; Direct Wire to Socket	25	3.000	2.160	$ -	5,096	15,288	11,007
134	BLDG 14	INTERIOR	SUMMARY	1W17	12	T8 2x2 1-Lamp Wrap Fixture	22	0.264	5096	1,345	12	R 1L-10LED2'	Retrofit with (1) 10 Watt LED T8 2' Lamp; Direct Wire to Socket	10	0.120	0.144	$ -	5,096	612	734
135	BLDG 14	INTERIOR	SUMMARY	2PL13DR	72	13 Watt Plug-In CFL Drum Fixture	28	2.016	5096	10,274	72	R 2PL-6LED	Re-Lamp with (2) 6 Watt LED Plug-In Lamps; Existing CFL Ballast Remains	12	0.864	1.152	$ -	5,096	4,403	5,871
136	BLDG 14	INTERIOR	SUMMARY	6S25	36	T8 2x4 6-Lamp Surface Mount Troffer Fixture with 25 Watt 4' Lamps	128	4.608	5096	23,482	36	R 6L-12.5LED	Retrofit with (6) 12.5 Watt LED T8 4' Lamps; Direct Wire to Socket	75	2.700	1.908	$ -	5,096	13,759	9,723
137	BLDG 14	INTERIOR	GYM	4HD54	24	T5HO 2x4 4-Lamp High Bay Fixture	241	5.784	5096	29,475	24	N RLED95HB	New 95 Watt LED High Bay Fixture	93	2.232	3.552	$ -	5,096	11,374	18,101
138	BLDG 14	INTERIOR	GYM	4L25	8	T8 2x4 4-Lamp Troffer Fixture with 25 Watt 4' Lamps	86	0.688	5096	2,600	8	R 4L-12.5LED	Retrofit with (4) 12.5 Watt LED T8 4' Lamps; Direct Wire to Socket	50	0.400	0.288	$ -	5,096	1,629	1,070
139	BLDG 14	INTERIOR	BASEMENT	1W17	24	T8 2x2 1-Lamp Wrap Fixture	22	0.528	5096	2,691	24	R 1L-10LED2'	Retrofit with (1) 10 Watt LED T8 2' Lamp; Direct Wire to Socket	10	0.240	0.288	$ -	5,096	1,223	1,468
140	BLDG 14	INTERIOR	BASEMENT	2S25	42	T8 1x4 2-Lamp Industrial Fixture with 25 Watt 4' Lamps	43	1.806	5096	9,203	42	R 2L-12.5LED	Retrofit with (2) 12.5 Watt LED T8 4' Lamps; Direct Wire to Socket	25	1.050	0.756	$ -	5,096	5,351	3,853

	PRELIMINARY AUDIT			EXISTING FIXTURES								PROPOSED FIXTURE UPGRADE								
ID #	Facility Name	Phase	Room Description	EGM Code	Qty	Description	Watts	kW	Pre Burn Hours	kWh	Qty	New Code	Description	Watts	kW	KW Saved	KW Cost Savings	Post Burn Hours	kWh	kWh Saved
141	BLDG 14	EXTERIOR	EXTERIOR	HPS150PT	6	150 Watt High Pressure Sodium Post Top Fixture	188	1.128	5096	5,748	6	N RLED42SPD	New 52 Watt LED Spider Mount Post Top Fixture	58	0.354	0.774	$ -	5,096	1,804	3,944
142	BLDG 14	EXTERIOR	EXTERIOR	2PL26WP	6	26 Watt Plug-In CFL 2-Lamp Wall Pack Fixture	58	0.348	5096	1,773	6	R 2PL-11LED	Re-Lamp with (2) 11 Watt LED Plug-In Lamps; Existing CFL Ballast Remains	26	0.156	0.192	$ -	5,096	795	978
143	BLDG 20	INTERIOR	SUMMARY	2DG26	16	T8 1x4 2-Lamp Egg Crate Fixture with 25 Watt 4' Lamps	43	0.688	2860	1,968	16	R 2L-12.5LED	Retrofit with (2) 12.5 Watt LED T8 4' Lamps; Direct Wire to Socket	25	0.400	0.288	$ -	2,860	1,144	824
144	BLDG 20	INTERIOR	SUMMARY	CF13	8	13 Watt Compact Fluorescent Fixture	13	0.104	2860	297	8	LED 10A	Re-Lamp with (1) 10 Watt LED A19	10	0.080	0.024	$ -	2,860	229	68
145	BLDG 20	INTERIOR	SUMMARY	4L26	2	T8 2x4 4-Lamp Troffer Fixture with 25 Watt 4' Lamps	85	0.170	2860	486	2	R 4L-12.5LED	Retrofit with (4) 12.5 Watt LED T8 4' Lamps; Direct Wire to Socket	50	0.100	0.070	$ -	2,860	286	200
146	BLDG 20	INTERIOR	SUMMARY	1W26	30	T8 1x4 1-Lamp Wrap Fixture with 25 Watt 4' Lamps	22	0.660	2860	1,888	30	R 1L-12.5LED	Retrofit with (1) 12.5 Watt LED T8 4' Lamps; Direct Wire to Socket	12.5	0.375	0.285	$ -	2,860	1,073	810
147	BLDG 20	INTERIOR	SUMMARY	1W17	2	T8 2x2 1-Lamp Wrap Fixture	22	0.044	2860	126	2	R 1L-10LED2'	Retrofit with (1) 10 Watt LED T8 2' Lamp; Direct Wire to Socket	10	0.020	0.024	$ -	2,860	57	69
148	BLDG 20	INTERIOR	SUMMARY	2L26	10	T8 2x4 2-Lamp Troffer Fixture with 25 Watt 4' Lamps	43	0.430	2860	1,230	10	R 2L-12.5LED	Retrofit with (2) 12.5 Watt LED T8 4' Lamps; Direct Wire to Socket	25	0.250	0.180	$ -	2,860	715	515
149	BLDG 29	INTERIOR	SUMMARY	2PL13SC	8	13 Watt Plug-In CFL sconce Fixture	28	0.224	2860	641	8	R 2PL-6LED	Re-Lamp with (2) 6 Watt LED Plug-In Lamps; Existing CFL Ballast Remains	12	0.096	0.128	$ -	2,860	275	366
150	BLDG 29	INTERIOR	SUMMARY	3W26	48	T8 1x4 3-Lamp Industrial Fixture with 25 Watt 4' Lamps	85	3.120	2860	8,923	48	R 3L-12.5LED	Retrofit with (3) 12.5 Watt LED T8 4' Lamps; Direct Wire to Socket	37.5	1.800	1.320	$ -	2,860	5,148	3,775
151	BLDG 29	INTERIOR	SUMMARY	4D26	24	T8 2x4 4-Lamp Surface Mount Troffer Fixture with 25 Watt 4' Lamps	85	2.040	2860	5,834	24	R 4L-12.5LED	Retrofit with (4) 12.5 Watt LED T8 4' Lamps; Direct Wire to Socket	50	1.200	0.840	$ -	2,860	3,432	2,402
152	BLDG 29	EXTERIOR	EXTERIOR	2PL13CPY	12	13 Watt Plug-In CFL 2-Lamp Canopy Fixture	28	0.336	2860	961	12	R 2PL-6LED	Re-Lamp with (2) 6 Watt LED Plug-In Lamps; Existing CFL Ballast Remains	12	0.144	0.192	$ -	2,860	412	549
153	BLDG 29	EXTERIOR	EXTERIOR	2PL13WP	28	13 Watt Plug-In CFL 2-Lamp Wall Pack Fixture	28	0.784	2860	2,242	28	R 2PL-6LED	Re-Lamp with (2) 6 Watt LED Plug-In Lamps; Existing CFL Ballast Remains	12	0.336	0.448	$ -	2,860	961	1,281
154	BLDG 28	INTERIOR	SUMMARY	2PL13SC	2	13 Watt Plug-In CFL sconce Fixture	28	0.056	2860	160	2	R 2PL-6LED	Re-Lamp with (2) 6 Watt LED Plug-In Lamps; Existing CFL Ballast Remains	12	0.024	0.032	$ -	2,860	69	92
155	BLDG 28	INTERIOR	SUMMARY	1W26	4	T8 1x4 1-Lamp Wrap Fixture with 25 Watt 4' Lamps	22	0.088	2860	252	4	R 1L-12.5LED	Retrofit with (1) 12.5 Watt LED T8 4' Lamps; Direct Wire to Socket	12.5	0.050	0.038	$ -	2,860	143	109
156	BLDG 28	INTERIOR	SUMMARY	2W26	8	T8 1x4 2-Lamp Wrap Fixture with 25 Watt 4' Lamps	43	0.344	2860	984	8	R 2L-12.5LED	Retrofit with (2) 12.5 Watt LED T8 4' Lamps; Direct Wire to Socket	25	0.200	0.144	$ -	2,860	572	412
157	BLDG 28	INTERIOR	SUMMARY	2L26	4	T8 2x4 2-Lamp Troffer Fixture with 25 Watt 4' Lamps	43	0.172	2860	492	4	R 2L-12.5LED	Retrofit with (2) 12.5 Watt LED T8 4' Lamps; Direct Wire to Socket	25	0.100	0.072	$ -	2,860	286	206
158	BLDG 28	INTERIOR	SUMMARY	CF23	18	23 Watt Compact Fluorescent Fixture	23	0.414	2860	1,184	18	LED 10A	Re-Lamp with (1) 10 Watt LED A19	10	0.180	0.234	$ -	2,860	515	669
159	BLDG 28	INTERIOR	SUMMARY	60JJ	2	60 Watt Incandescent A-Lamp Jelly Jar Fixture	60	0.120	2860	343	2	LED 10A	Re-Lamp with (1) 10 Watt LED A19	10	0.020	0.100	$ -	2,860	57	286
160	BLDG 28	INTERIOR	SUMMARY	3W26	16	T8 1x4 3-Lamp Industrial Fixture with 25 Watt 4' Lamps	85	1.040	2860	2,974	16	R 3L-12.5LED	Retrofit with (3) 12.5 Watt LED T8 4' Lamps; Direct Wire to Socket	37.5	0.600	0.440	$ -	2,860	1,716	1,258
161	BLDG 28	INTERIOR	SUMMARY	2DG26	2	T8 1x4 2-Lamp Egg Crate Fixture with 25 Watt 4' Lamps	43	0.086	2860	246	2	R 2L-12.5LED	Retrofit with (2) 12.5 Watt LED T8 4' Lamps; Direct Wire to Socket	25	0.050	0.036	$ -	2,860	143	103
162	BLDG 28	INTERIOR	SUMMARY	1W17	16	T8 2x2 1-Lamp Wrap Fixture	22	0.352	2860	1,007	16	R 1L-10LED2'	Retrofit with (1) 10 Watt LED T8 2' Lamp; Direct Wire to Socket	10	0.160	0.192	$ -	2,860	458	549
163	BLDG 28	INTERIOR	SUMMARY	150A	2	100 Watt Incandescent A-Lamp Fixture	150	0.300	2860	858	2	LED 18A	Re-Lamp with (1) 18 Watt LED A21	18	0.036	0.264	$ -	2,860	103	755
164	BLDG 28	INTERIOR	SUMMARY	4W26	16	T8 1x4 4-Lamp Wrap Fixture with 25 Watt 4' Lamps	85	1.360	2860	4,378	16	R 4L-12.5LED	Retrofit with (4) 12.5 Watt LED T8 4' Lamps; Direct Wire to Socket	50	0.800	0.560	$ -	2,860	2,574	1,802
165	BLDG 28	INTERIOR	SUMMARY	CF13	4	13 Watt Compact Fluorescent Fixture	13	0.052	2860	149	4	LED 10A	Re-Lamp with (1) 10 Watt LED A19	10	0.040	0.012	$ -	2,860	114	34
166	BLDG 28	INTERIOR	SUMMARY	4L26	16	T8 2x4 4-Lamp Troffer Fixture with 25 Watt 4' Lamps	85	1.360	2860	4,378	16	R 4L-12.5LED	Retrofit with (4) 12.5 Watt LED T8 4' Lamps; Direct Wire to Socket	50	0.800	0.560	$ -	2,860	2,574	1,802
167	BLDG 28	EXTERIOR	EXTERIOR	2PL13CPY	8	13 Watt Plug-In CFL 2-Lamp Canopy Fixture	28	0.224	2860	641	8	R 2PL-6LED	Re-Lamp with (2) 6 Watt LED Plug-In Lamps; Existing CFL Ballast Remains	12	0.096	0.128	$ -	2,860	275	366
168	BLDG 28	EXTERIOR	EXTERIOR	2PL26WP	2	26 Watt Plug-In CFL 2-Lamp Wall Pack Fixture	58	0.116	2860	332	2	R 2PL-11LED	Re-Lamp with (2) 11 Watt LED Plug-In Lamps; Existing CFL Ballast Remains	26	0.052	0.064	$ -	2,860	149	183

	PRELIMINARY AUDIT			EXISTING FIXTURES								PROPOSED FIXTURE UPGRADE							
ID #	Facility Name	Phase	Room Description	ECM Code	Qty	Description	Watts	kW	Pre Burn Hours	kWh	Qty	New Code	Description	Watts	kW	KW Saved	KW Cost Savings	Post Burn Hours	kWh	kWh Saved
169	BLDG 2R	EXTERIOR	EXTERIOR	2PL13WP	2	13 Watt Plug-In CFL 2-Lamp Wall Pack Fixture	28	0.056	2600	160	2	R 2PL-9LED	Re-Lamp with (2) 4 Watt LED Plug-In Lamps; Existing CFL Ballast Remains	12	0.024	0.032	$ -	2,600	69	92
170	BLDG 5,6,7	INTERIOR	SUMMARY	2IL26	2	T8 1x4 2-Lamp Troffer Fixture with 25 Watt 4' Lamps	43	0.086	8736	751	2	R 2L-12.5LED	Retrofit with (2) 12.5 Watt LED T8 4' Lamps; Direct Wire to Socket	25	0.050	0.036	$ -	8,736	437	314
171	BLDG 5,6,7	INTERIOR	LOBBY	2IL26	2	T8 1x4 2-Lamp Troffer Fixture with 25 Watt 4' Lamps	43	0.086	8736	751	2	R 2L-12.5LED	Retrofit with (2) 12.5 Watt LED T8 4' Lamps; Direct Wire to Socket	25	0.050	0.036	$ -	8,736	437	314
172	BLDG 5,6,7	INTERIOR	HALL	2L26	2	T8 2x4 2-Lamp Troffer Fixture with 25 Watt 4' Lamps	43	0.086	8736	751	2	R 2L-12.5LED	Retrofit with (2) 12.5 Watt LED T8 4' Lamps; Direct Wire to Socket	25	0.050	0.036	$ -	8,736	437	314
173	BLDG 5,6,7	INTERIOR	HALL	2EG26	36	T8 1x4 2-Lamp Egg Crate Fixture with 25 Watt 4' Lamps	43	1.634	8736	14,276	36	R 2L-12.5LED	Retrofit with (2) 12.5 Watt LED T8 4' Lamps; Direct Wire to Socket	25	0.950	0.684	$ -	8,736	8,299	5,975
174	BLDG 5,6,7	INTERIOR	SUMMARY	1W26	2	T8 1x4 1-Lamp Wrap Fixture with 25 Watt 4' Lamps	22	0.044	8736	384	2	R 1L-12.5LED	Retrofit with (1) 12.5 Watt LED T8 4' Lamps; Direct Wire to Socket	12.5	0.025	0.019	$ -	8,736	218	166
175	BLDG 5,6,7	INTERIOR	SUMMARY	1V17	4	T8 2x2 1-Lamp Vanity Fixture	22	0.088	8736	768	4	R 1L-10LED2'	Retrofit with (1) 10 Watt LED T8 2' Lamp; Direct Wire to Socket	10	0.040	0.048	$ -	8,736	349	419
176	BLDG 5,6,7	INTERIOR	SUMMARY	40C	10	40 Watt Incandescent Candelabra Fixture	40	0.400	8736	3,494	10	LED 5CAND	Re-Lamp with (1) 5 Watt LED Candelabra	5	0.050	0.350	$ -	8,736	437	3,058
177	BLDG 5,6,7	INTERIOR	SUMMARY	2W26	10	T8 1x4 2-Lamp Wrap Fixture with 25 Watt 4' Lamps	43	0.430	8736	3,756	10	R 2L-12.5LED	Retrofit with (2) 12.5 Watt LED T8 4' Lamps; Direct Wire to Socket	25	0.250	0.180	$ -	8,736	2,144	1,572
178	BLDG 5,6,7	INTERIOR	SUMMARY	2PL13WP	12	13 Watt Plug-In CFL 2-Lamp Wall Pack Fixture	28	0.336	8736	2,935	12	R 2PL-9LED	Re-Lamp with (2) 4 Watt LED Plug-In Lamps; Existing CFL Ballast Remains	12	0.144	0.192	$ -	8,736	1,258	1,677
179	CM-2	INTERIOR	SUMMARY	2L26	2	T8 2x4 2-Lamp Troffer Fixture with 25 Watt 4' Lamps	43	0.086	3500	301	2	R 2L-12.5LED	Retrofit with (2) 12.5 Watt LED T8 4' Lamps; Direct Wire to Socket	25	0.050	0.036	$ -	3,500	175	126
180	CM-2	INTERIOR	SUMMARY	2PL13SC	12	13 Watt Plug-In CFL sconce Fixture	28	0.336	3500	1,176	12	R 2PL-9LED	Re-Lamp with (2) 4 Watt LED Plug-In Lamps; Existing CFL Ballast Remains	12	0.144	0.192	$ -	3,500	504	672
181	CM-2	INTERIOR	SUMMARY	2PL13DR	2	13 Watt Plug-In CFL Drum Fixture	28	0.056	3500	196	2	R 2PL-9LED	Re-Lamp with (2) 4 Watt LED Plug-In Lamps; Existing CFL Ballast Remains	12	0.024	0.032	$ -	3,500	84	112
182	CM-2	INTERIOR	SUMMARY	2VT26	2	T8 1x4 2-Lamp Vaportight Fixture	43	0.086	3500	301	2	R 2L-12.5LED	Retrofit with (2) 12.5 Watt LED T8 4' Lamps; Direct Wire to Socket	25	0.050	0.036	$ -	3,500	175	126
183	CM-2	INTERIOR	SUMMARY	1V17	8	T8 2x2 1-Lamp Vanity Fixture	22	0.176	3500	616	8	R 1L-10LED2'	Retrofit with (1) 10 Watt LED T8 2' Lamp; Direct Wire to Socket	10	0.080	0.096	$ -	3,500	280	336
184	CM-2	INTERIOR	SUMMARY	CF13DL	4	13 Watt Compact Fluorescent Downlight Fixture	13	0.052	3500	182	4	ZZ DD	No Retrofit	13	0.052	0.000	$ -	3,500	182	0
185	CM-2	INTERIOR	SUMMARY	1W17	4	T8 2x2 1-Lamp Wrap Fixture	22	0.088	3500	308	4	R 1L-10LED2'	Retrofit with (1) 10 Watt LED T8 2' Lamp; Direct Wire to Socket	10	0.040	0.048	$ -	3,500	140	168
186	CM-2	INTERIOR	SUMMARY	60SC	8	60 Watt Incandescent Sconce Fixture	60	0.480	3500	1,680	8	LED 10A	Re-Lamp with (1) 10 Watt LED A19	10	0.080	0.400	$ -	3,500	280	1,400
187	CM-2	INTERIOR	SUMMARY	2IL26	2	T8 1x4 2-Lamp Troffer Fixture with 25 Watt 4' Lamps	43	0.086	3500	301	2	R 2L-12.5LED	Retrofit with (2) 12.5 Watt LED T8 4' Lamps; Direct Wire to Socket	25	0.050	0.036	$ -	3,500	175	126
188	CM-2	INTERIOR	SUMMARY	2EG26	6	T8 1x4 2-Lamp Egg Crate Fixture with 25 Watt 4' Lamps	43	0.258	3500	903	6	R 2L-12.5LED	Retrofit with (2) 12.5 Watt LED T8 4' Lamps; Direct Wire to Socket	25	0.150	0.108	$ -	3,500	525	378
189	CM-2	INTERIOR	SUMMARY	CF23	6	23 Watt Compact Fluorescent Fixture	23	0.138	3500	483	6	LED 10A	Re-Lamp with (1) 10 Watt LED A19	10	0.060	0.078	$ -	3,500	210	273
190	CM-2	INTERIOR	SUMMARY	2PL13WP	4	13 Watt Plug-In CFL 2-Lamp Wall Pack Fixture	28	0.112	3500	392	4	R 2PL-9LED	Re-Lamp with (2) 4 Watt LED Plug-In Lamps; Existing CFL Ballast Remains	12	0.048	0.064	$ -	3,500	168	224
191	CM-2	INTERIOR	SUMMARY	CF13	2	13 Watt Compact Fluorescent Fixture	13	0.026	3500	91	2	LED 10A	Re-Lamp with (1) 10 Watt LED A19	10	0.020	0.006	$ -	3,500	70	21
192	CM-2	INTERIOR	SUMMARY	4EG26	16	T8 1x4 4-Lamp Egg Crate Fixture with 25 Watt 4' Lamps	85	1.360	3500	4,760	16	R 4L-12.5LED	Retrofit with (4) 12.5 Watt LED T8 4' Lamps; Direct Wire to Socket	50	0.800	0.560	$ -	3,500	2,800	1,960
193	CM-2	INTERIOR	SUMMARY	2VT26	4	T8 1x4 2-Lamp Vaportight Fixture	43	0.172	3500	602	4	R 2L-12.5LED	Retrofit with (2) 12.5 Watt LED T8 4' Lamps; Direct Wire to Socket	25	0.100	0.072	$ -	3,500	350	252
194	CM-2	INTERIOR	SUMMARY	2PL13DR	4	13 Watt Plug-In CFL Drum Fixture	28	0.112	3500	392	4	R 2PL-9LED	Re-Lamp with (2) 4 Watt LED Plug-In Lamps; Existing CFL Ballast Remains	12	0.048	0.064	$ -	3,500	168	224
195	CM-2	INTERIOR	SUMMARY	1W17	72	T8 2x2 1-Lamp Wrap Fixture	22	1.584	3500	5,544	72	R 1L-10LED2'	Retrofit with (1) 10 Watt LED T8 2' Lamp; Direct Wire to Socket	10	0.720	0.864	$ -	3,500	2,520	3,024
196	CM-2	INTERIOR	SUMMARY	2SD-3FT	16	T8 1x3 2-Lamp Strip Fixture	49	0.784	3500	2,744	16	R 2L-12LED3'	Retrofit with (2) 12 Watt LED T8 3' Lamps; Direct Wire to Socket	24	0.384	0.400	$ -	3,500	1,344	1,400

PRELIMINARY AUDIT				EXISTING FIXTURES								PROPOSED FIXTURE UPGRADE								
ID #	Facility Name	Phase	Room Description	ECM Code	Qty	Description	Watts	kW	Pre Burn Hours	kWh	Qty	New Code	Description	Watts	kW	KW Saved	KW Cost Savings	Post Burn Hours	kWh	kWh Saved
197	CM-2	INTERIOR	SUMMARY	2EG26	16	T8 1x4 2-Lamp Egg Crate Fixture with 25 Watt 4' Lamps	43	0.688	3500	2,408	16	R 2L-12.5LED	Retrofit with (2) 12.5 Watt LED T8 4' Lamps; Direct Wire to Socket	25	0.400	0.288	$ -	3,500	1,400	1,008
198	CM-2	INTERIOR	SUMMARY	CF13SDL	116	13 Watt Compact Fluorescent Square Downlight Fixture	13	1.508	3500	5,278	116	ZZ DD	No Retrofit	13	1.508	0.000	$ -	3,500	5,278	0
199	CM-2	INTERIOR	SUMMARY	4W26	128	T8 1x4 4-Lamp Wrap Fixture with 25 Watt 4' Lamps	86	10.880	3500	38,080	128	R 4L-12.5LED	Retrofit with (4) 12.5 Watt LED T8 4' Lamps; Direct Wire to Socket	60	6.400	4.480	$ -	3,500	22,400	15,680
200	CM-4	INTERIOR	NURSE STATION	2EG25	32	T8 1x4 2-Lamp Egg Crate Fixture with 25 Watt 4' Lamps	43	1.376	3500	4,816	32	R 2L-12.5LED	Retrofit with (2) 12.5 Watt LED T8 4' Lamps; Direct Wire to Socket	25	0.800	0.576	$ -	3,500	2,800	2,016
201	CM-4	INTERIOR	JANITOR	CF13	38	13 Watt Compact Fluorescent Fixture	13	0.494	3500	1,636	38	LED 10A	Re-Lamp with (1) 10 Watt LED A19	10	0.380	0.114	$ -	3,500	1,330	378
202	CM-4	INTERIOR	OPEN PATIENT ROOM	3L26	32	T8 2x4 3-Lamp Troffer Fixture	65	2.080	3500	7,280	32	R 3L-12.5LED	Retrofit with (3) 12.5 Watt LED T8 4' Lamps; Direct Wire to Socket	37.5	1.200	0.880	$ -	3,500	4,200	3,080
203	CM-4	INTERIOR	BEDG	1W17	12	T8 2x2 1-Lamp Wrap Fixture	22	0.264	3500	924	12	R 1L-10LED2'	Retrofit with (1) 10 Watt LED T8 2' Lamp; Direct Wire to Socket	10	0.120	0.144	$ -	3,500	420	504
204	CM-4	INTERIOR	BEDG	60SC	4	60 Watt Incandescent Sconce Fixture	60	0.240	3500	840	4	LED 10A	Re-Lamp with (1) 10 Watt LED A19	10	0.040	0.200	$ -	3,500	140	700
205	CM-4	INTERIOR	OPEN PATIENT ROOM	2PL13DR	20	13 Watt Plug-in CFL Drum Fixture	26	0.520	3500	1,820	20	R 2PL-6LED	Re-Lamp with (2) 6 Watt LED Plug-In Lamps; Existing CFL Ballast Remains	12	0.240	0.320	$ -	3,500	840	1,120
206	CM-4	INTERIOR	RESTROOM	2VT26	16	T8 1x4 2-Lamp Vaportight Fixture	43	0.688	3500	2,408	16	R 2L-12.5LED	Retrofit with (2) 12.5 Watt LED T8 4' Lamps; Direct Wire to Socket	25	0.400	0.288	$ -	3,500	1,400	1,008
207	CM-4	INTERIOR	RESTROOM	1W17	6	T8 2x2 1-Lamp Vanity Fixture	22	0.132	3500	616	6	R 1L-10LED2'	Retrofit with (1) 10 Watt LED T8 2' Lamp; Direct Wire to Socket	10	0.060	0.072	$ -	3,500	210	252
208	CM-4	INTERIOR	SHOWER	CF13DL	8	13 Watt Compact Fluorescent Downlight Fixture	13	0.104	3500	364	8	ZZ DD	No Retrofit	13	0.104	0.000	$ -	3,500	364	0
209	CM-4	INTERIOR	SHOWER	2PL13WP	12	13 Watt Plug-in CFL 2-Lamp Wall Pack Fixture	26	0.336	3500	1,176	12	R 2PL-6LED	Re-Lamp with (2) 6 Watt LED Plug-In Lamps; Existing CFL Ballast Remains	12	0.144	0.192	$ -	3,500	504	672
210	CM-4	INTERIOR	OPEN PATIENT ROOM	2PL13WP	4	13 Watt Plug-in CFL 2-Lamp Wall Pack Fixture	26	0.112	3500	392	4	R 2PL-6LED	Re-Lamp with (2) 6 Watt LED Plug-In Lamps; Existing CFL Ballast Remains	12	0.048	0.064	$ -	3,500	168	224
211	CM-4	INTERIOR	SOLARIUM / DAY ROOM	2TL26	4	T8 1x4 2-Lamp Troffer Fixture with 25 Watt 4' Lamps	43	0.172	3500	602	4	R 2L-12.5LED	Retrofit with (2) 12.5 Watt LED T8 4' Lamps; Direct Wire to Socket	25	0.100	0.072	$ -	3,500	350	252
212	CM-4	INTERIOR	OFFICE	2EG25	32	T8 1x4 2-Lamp Egg Crate Fixture with 25 Watt 4' Lamps	43	1.376	3500	4,816	32	R 2L-12.5LED	Retrofit with (2) 12.5 Watt LED T8 4' Lamps; Direct Wire to Socket	25	0.800	0.576	$ -	3,500	2,800	2,016
213	CM-4	INTERIOR	BED OFF DAY ROOM	2EG26	4	T8 1x4 2-Lamp Egg Crate Fixture with 25 Watt 4' Lamps	43	0.172	3500	602	4	R 2L-12.5LED	Retrofit with (2) 12.5 Watt LED T8 4' Lamps; Direct Wire to Socket	25	0.100	0.072	$ -	3,500	350	252
214	BLDG 5 CM-5	INTERIOR	SUMMARY	2PL13WP	36	13 Watt Plug-in CFL 2-Lamp Wall Pack Fixture	26	1.008	5736	5,806	36	R 2PL-6LED	Re-Lamp with (2) 6 Watt LED Plug-In Lamps; Existing CFL Ballast Remains	12	0.432	0.576	$ -	5,736	3,774	5,032
215	BLDG 5 CM-5	INTERIOR	SUMMARY	4EG26	52	T8 1x4 4-Lamp Egg Crate Fixture with 25 Watt 4' Lamps	85	4.420	5736	38,013	52	R 4L-12.5LED	Retrofit with (4) 12.5 Watt LED T8 4' Lamps; Direct Wire to Socket	60	2.600	1.820	$ -	5,736	22,714	15,080
216	BLDG 5 CM-5	INTERIOR	SUMMARY	2PL13SC	16	13 Watt Plug-in CFL sconce Fixture	26	0.448	5736	3,014	16	R 2PL-6LED	Re-Lamp with (2) 6 Watt LED Plug-In Lamps; Existing CFL Ballast Remains	12	0.192	0.256	$ -	5,736	1,077	2,236
217	BLDG 5 CM-5	INTERIOR	SUMMARY	1W17	4	T8 2x2 1-Lamp Wrap Fixture	22	0.088	5736	769	4	R 1L-10LED2'	Retrofit with (1) 10 Watt LED T8 2' Lamp; Direct Wire to Socket	10	0.040	0.048	$ -	5,736	349	419
218	BLDG 5 CM-5	INTERIOR	SUMMARY	1I25	28	T8 1x4 1-Lamp Industrial Fixture with 25 Watt 4' Lamps	22	0.616	5736	5,381	28	R 1L-12.5LED	Retrofit with (1) 12.5 Watt LED T8 4' Lamps; Direct Wire to Socket	12.5	0.350	0.266	$ -	5,736	3,058	2,324
219	BLDG 5 CM-5	INTERIOR	SUMMARY	1V17	4	T8 2x2 1-Lamp Vanity Fixture	22	0.088	5736	769	4	R 1L-10LED2'	Retrofit with (1) 10 Watt LED T8 2' Lamp; Direct Wire to Socket	10	0.040	0.048	$ -	5,736	349	419
220	BLDG 5 CM-5	INTERIOR	SUMMARY	2EG26	94	T8 1x4 2-Lamp Egg Crate Fixture with 25 Watt 4' Lamps	43	4.042	5736	35,311	94	R 2L-12.5LED	Retrofit with (2) 12.5 Watt LED T8 4' Lamps; Direct Wire to Socket	25	2.350	1.692	$ -	5,736	20,530	14,781
221	CM-7	INTERIOR	SUMMARY	2EG26	266	T8 1x4 2-Lamp Egg Crate Fixture with 25 Watt 4' Lamps	43	11.438	3500	40,033	266	R 2L-12.5LED	Retrofit with (2) 12.5 Watt LED T8 4' Lamps; Direct Wire to Socket	25	6.650	4.788	$ -	3,500	23,275	16,758
222	CM-7	INTERIOR	SUMMARY	2PL13DR	18	13 Watt Plug-in CFL Drum Fixture	26	0.504	3500	1,764	18	R 2PL-6LED	Re-Lamp with (2) 6 Watt LED Plug-In Lamps; Existing CFL Ballast Remains	12	0.216	0.288	$ -	3,500	756	1,008
223	CM-7	INTERIOR	SUMMARY	2V17	28	T8 2x2 2-Lamp Vandal Proof Fixture	36	1.008	3500	3,528	28	R 2L-10LED2'	Retrofit with (2) 10 Watt LED T8 2' Lamps; Direct Wire to Socket	20	0.560	0.448	$ -	3,500	1,960	1,568
224	CM-7	INTERIOR	SUMMARY	2L17	152	T8 2x2 2-Lamp Troffer Fixture	36	5.472	3500	19,152	152	R 2L-10LED2'	Retrofit with (2) 10 Watt LED T8 2' Lamps; Direct Wire to Socket	20	3.040	2.432	$ -	3,500	10,640	8,512

	PRELIMINARY AUDIT			EXISTING FIXTURES								PROPOSED FIXTURE UPGRADE							
ID #	Facility Name	Phase	Room Description	EGM Code	Qty	Description	Watts	kW	Pre Burn Hours	kWh	Qty	New Code	Description	Watts	kW	KW Saved	KW Cost Savings	Post Burn Hours	kWh	kWh Saved
225	CM-7	INTERIOR	SUMMARY	CF13	6	13 Watt Compact Fluorescent Fixture	13	0.078	3500	273	6	LED 10A	Re-Lamp with (1) 10 Watt LED A19	10	0.060	0.018	$ -	3,500	210	63
226	CM-7	INTERIOR	SUMMARY	1W20	46	T8 1x4 1-Lamp Wrap Fixture with 25 Watt 4' Lamps	22	1.012	3500	3,542	46	R 1L-12.5LED	Retrofit with (1) 12.5 Watt LED T8 4' Lamps; Direct Wire to Socket	12.5	0.575	0.437	$ -	3,500	2,013	1,530
227	CM-7	INTERIOR	SUMMARY	1W17	12	T8 2x2 1-Lamp Wrap Fixture	22	0.264	3500	924	12	R 1L-10LED2'	Retrofit with (1) 10 Watt LED T8 2' Lamp; Direct Wire to Socket	10	0.120	0.144	$ -	3,500	420	504
228	CM-7	INTERIOR	SUMMARY	5CF23CHAND	4	23 Watt Compact Fluorescent 5-Lamp Chandelier Fixture	115	0.460	3500	1,610	4	ZZ DO	No Retrofit	115	0.460	0.000	$ -	3,500	1,610	0
229	CM-7	INTERIOR	SUMMARY	2L25	6	T8 2x4 2-Lamp Troffer Fixture with 25 Watt 4' Lamps	43	0.258	3500	903	6	R 2L-12.5LED	Retrofit with (2) 12.5 Watt LED T8 4' Lamps; Direct Wire to Socket	25	0.150	0.108	$ -	3,500	525	378
230	CM-7	INTERIOR	SUMMARY	3L17	4	T8 2x2 3-Lamp Troffer Fixture	55	0.220	3500	812	4	R 2L-10LED2'	Retrofit with (2) 10 Watt LED T8 2' Lamps; Direct Wire to Socket	20	0.080	0.152	$ -	3,500	280	532
231	CM-7	INTERIOR	SUMMARY	2VT25	2	T8 1x4 2-Lamp Vaportight Fixture	43	0.086	3500	301	2	R 2L-12.5LED	Retrofit with (2) 12.5 Watt LED T8 4' Lamps; Direct Wire to Socket	25	0.050	0.036	$ -	3,500	175	126
232	CM-7	INTERIOR	SUMMARY	CF13SQDL	6	13 Watt Compact Fluorescent Square Downlight Fixture	13	0.078	3500	273	6	ZZ DO	No Retrofit	13	0.078	0.000	$ -	3,500	273	0
233	CM-7	INTERIOR	ELEVATORS	2026-3FT	6	T8 1x3 2-Lamp Strip Fixture	49	0.294	3500	1,029	6	R 2L-12LED3'	Retrofit with (2) 12 Watt LED T8 3' Lamps; Direct Wire to Socket	24	0.144	0.150	$ -	3,500	504	525
234	CM-8	INTERIOR	SUMMARY	2W20	16	T8 1x4 2-Lamp Wrap Fixture with 25 Watt 4' Lamps	43	0.688	3500	2,408	16	R 2L-12.5LED	Retrofit with (2) 12.5 Watt LED T8 4' Lamps; Direct Wire to Socket	25	0.400	0.288	$ -	3,500	1,400	1,008
235	CM-8	INTERIOR	SUMMARY	2EG25	4	T8 1x4 2-Lamp Egg Crate Fixture with 25 Watt 4' Lamps	43	0.172	3500	602	4	R 2L-12.5LED	Retrofit with (2) 12.5 Watt LED T8 4' Lamps; Direct Wire to Socket	25	0.100	0.072	$ -	3,500	350	252
236	CM-8	INTERIOR	SUMMARY	4W25	2	T8 1x4 4-Lamp Wrap Fixture with 25 Watt 4' Lamps	85	0.170	3500	595	2	R 4L-12.5LED	Retrofit with (4) 12.5 Watt LED T8 4' Lamps; Direct Wire to Socket	50	0.100	0.070	$ -	3,500	350	245
237	CM-8	INTERIOR	SUMMARY	1W17	9	T8 2x2 1-Lamp Wrap Fixture	22	0.198	3500	693	9	R 1L-10LED2'	Retrofit with (1) 10 Watt LED T8 2' Lamp; Direct Wire to Socket	10	0.090	0.108	$ -	3,500	315	378
238	CM-8	INTERIOR	SUMMARY	2IL25	4	T8 1x4 2-Lamp Troffer Fixture with 25 Watt 4' Lamps	43	0.172	3500	602	4	R 2L-12.5LED	Retrofit with (2) 12.5 Watt LED T8 4' Lamps; Direct Wire to Socket	25	0.100	0.072	$ -	3,500	350	252
239	CM-8	INTERIOR	NURSING	4EG25	1	T8 1x4 4-Lamp Egg Crate Fixture with 25 Watt 4' Lamps	85	0.085	3500	298	1	R 4L-12.5LED	Retrofit with (4) 12.5 Watt LED T8 4' Lamps; Direct Wire to Socket	50	0.050	0.035	$ -	3,500	175	123
240	CM-8	INTERIOR	NURSING	2EG25	1	T8 1x4 2-Lamp Egg Crate Fixture with 25 Watt 4' Lamps	43	0.043	3500	151	1	R 2L-12.5LED	Retrofit with (2) 12.5 Watt LED T8 4' Lamps; Direct Wire to Socket	25	0.025	0.018	$ -	3,500	88	63
241	CM-8	INTERIOR	NURSING	CF13JJ	1	13 Watt Compact Fluorescent Jelly Jar Fixture	13	0.013	3500	46	1	ZZ DO	No Retrofit	13	0.013	0.000	$ -	3,500	46	0
242	CM-8	INTERIOR	NURSING	CF13SC	1	13 Watt Compact Fluorescent Sconce Fixture	13	0.013	3500	46	1	ZZ DO	No Retrofit	13	0.013	0.000	$ -	3,500	46	0
243	CM-8	INTERIOR	NURSING	60SC	1	60 Watt Incandescent Sconce Fixture	60	0.060	3500	210	1	LED 10A	Re-Lamp with (1) 10 Watt LED A19	10	0.010	0.050	$ -	3,500	35	175
244	CM-8	INTERIOR	HALL	3L25	10	T8 2x4 3-Lamp Troffer Fixture	85	1.235	3500	4,323	10	R 3L-12.5LED	Retrofit with (3) 12.5 Watt LED T8 4' Lamps; Direct Wire to Socket	37.5	0.713	0.523	$ -	3,500	2,494	1,829
245	CM-8	INTERIOR	HALL	2W20	1	T8 1x4 2-Lamp Wrap Fixture with 25 Watt 4' Lamps	43	0.043	3500	151	1	R 2L-12.5LED	Retrofit with (2) 12.5 Watt LED T8 4' Lamps; Direct Wire to Socket	25	0.025	0.018	$ -	3,500	88	63
246	CM-8	INTERIOR	HALL	2PL13DR	2	13 Watt Plug-In CFL Drum Fixture	26	0.056	3500	196	2	R 2PL-9LED	Re-Lamp with (2) 6 Watt LED Plug-In Lamps; Existing CFL Ballast Remains	12	0.024	0.032	$ -	3,500	84	112
247	CM-8	INTERIOR	RESTROOM	2W25	5	T8 1x4 2-Lamp Wrap Fixture with 25 Watt 4' Lamps	43	0.215	3500	753	5	R 2L-12.5LED	Retrofit with (2) 12.5 Watt LED T8 4' Lamps; Direct Wire to Socket	25	0.125	0.090	$ -	3,500	438	315
248	CM-8	INTERIOR	RESTROOM	1V25	5	T8 1x4 1-Lamp Vanity Fixture with 25 Watt 4' Lamps	22	0.110	3500	385	5	R 1L-12.5LED	Retrofit with (1) 12.5 Watt LED T8 4' Lamps; Direct Wire to Socket	12.5	0.063	0.048	$ -	3,500	219	166
249	CM-8	INTERIOR	DAY / TV	3L25D	5	T8 2x4 3-Lamp Troffer Fixture with 25 Watt 4' Lamps; Bi-Level	65	0.390	3500	1,365	5	R 3L-12.5LED	Retrofit with (3) 12.5 Watt LED T8 4' Lamps; Direct Wire to Socket	37.5	0.225	0.165	$ -	3,500	788	578
250	CM-8	INTERIOR	RESTROOM	1V25-3FT	1	T8 1x3 1-Lamp Vanity Fixture	22	0.022	3500	77	1	R 1L-12LED3'	Retrofit with (1) 12 Watt LED T8 3' Lamp; Direct Wire to Socket	12	0.012	0.010	$ -	3,500	42	35
251	CM-8	INTERIOR	DAY ROOM	21L25	6	T8 1x4 2-Lamp Troffer Fixture with 25 Watt 4' Lamps	43	0.258	3500	903	6	R 2L-12.5LED	Retrofit with (2) 12.5 Watt LED T8 4' Lamps; Direct Wire to Socket	25	0.150	0.108	$ -	3,500	525	378
252	CM-8	INTERIOR	OFFICE	1W25	1	T8 1x4 1-Lamp Wrap Fixture with 25 Watt 4' Lamps	22	0.022	3500	77	1	R 1L-12.5LED	Retrofit with (1) 12.5 Watt LED T8 4' Lamps; Direct Wire to Socket	12.5	0.013	0.010	$ -	3,500	44	33

	PRELIMINARY AUDIT		EXISTING FIXTURES								PROPOSED FIXTURE UPGRADE								
ID #	Facility Name	Phase	Room Description	EDM Code	Qty	Description	Watts	kW	Pre Burn Hours	kWh	Qty	New Code	Description	Watts	kW	KW Saved	KW Cost Savings	Post Burn Hours	kWh	kWh Saved
253	CM-4	INTERIOR	JANITOR	PL13DL	1	13 Watt Plug-In CFL Downlight Fixture	13	0.013	3500	46	1	R 1PL-9LED	Re-Lamp with (1) 9 Watt LED Plug-In Lamps; Existing CFL Ballast Remains	9	0.009	0.007	$ -	3,500	21	25
254	CM-4	INTERIOR	NURSING STATION	3L25	4	T8 2x4 3-Lamp Troffer Fixture	85	0.260	3500	910	4	R 3L-12.5LED	Retrofit with (3) 12.5 Watt LED T8 4' Lamps; Direct Wire to Socket	37.5	0.150	0.110	$ -	3,500	525	385
255	CM-4	INTERIOR	BREAK ROOM	4L25DI	2	T8 2x4 4-Lamp Troffer Fixture with 25 Watt 4' Lamps; Di-Level	85	0.170	3500	595	2	R 4L-12.5LED	Retrofit with (4) 12.5 Watt LED T8 4' Lamps; Direct Wire to Socket	50	0.100	0.070	$ -	3,500	350	245
256	CM-4	INTERIOR	MEDICATION	4L25DI	2	T8 2x4 4-Lamp Troffer Fixture with 25 Watt 4' Lamps; Di-Level	85	0.170	3500	595	2	R 4L-12.5LED	Retrofit with (4) 12.5 Watt LED T8 4' Lamps; Direct Wire to Socket	50	0.100	0.070	$ -	3,500	350	245
257	CM-4	INTERIOR	STORAGE	2W25	4	T8 1x4 2-Lamp Wrap Fixture with 25 Watt 4' Lamps	43	0.172	3500	602	4	R 2L-12.5LED	Retrofit with (2) 12.5 Watt LED T8 4' Lamps; Direct Wire to Socket	25	0.100	0.072	$ -	3,500	350	252
258	CM-4	INTERIOR	STORAGE	2LU32	1	T8 2x2 2-Lamp U-Lamp Troffer Fixture with 4' Lamps	62	0.062	3500	217	1	RF 2LR-10LEDZ	Retrofit with (2) 10 Watt LED T8 2' Lamps and (1) 2x2 2-Lamp White Reflector Kit; Direct Wire to Socket	20	0.020	0.042	$ -	3,500	70	147
259	CM-4	INTERIOR	STORAGE	1V25	3	T8 1x4 1-Lamp Vanity Fixture with 25 Watt 4' Lamps	22	0.066	3500	231	3	R 1L-12.5LED	Retrofit with (1) 12.5 Watt LED T8 4' Lamps; Direct Wire to Socket	12.5	0.038	0.028	$ -	3,500	131	100
260	CM-4	INTERIOR	STORAGE	2PL13SQDL	3	13 Watt Plug-In CFL 2-Lamp Square Downlight Fixture	28	0.084	3500	294	3	R 2PL-9LED	Re-Lamp with (2) 9 Watt LED Plug-In Lamps; Existing CFL Ballast Remains	12	0.036	0.048	$ -	3,500	126	168
261	CM-4	INTERIOR	STORAGE	2PL13DR	2	13 Watt Plug-In CFL Drum Fixture	28	0.056	3500	196	2	R 2PL-9LED	Re-Lamp with (2) 9 Watt LED Plug-In Lamps; Existing CFL Ballast Remains	12	0.024	0.032	$ -	3,500	84	112
262	CM-4	INTERIOR	JANITOR	CF23	1	23 Watt Compact Fluorescent Fixture	23	0.023	3500	81	1	LED 10A	Re-Lamp with (1) 10 Watt LED A19	10	0.010	0.013	$ -	3,500	35	46
263	CM-9	INTERIOR	SUMMARY	CF13	8	13 Watt Compact Fluorescent Fixture	13	0.104	3500	364	8	LED 10A	Re-Lamp with (1) 10 Watt LED A19	10	0.080	0.024	$ -	3,500	280	84
264	CM-9	INTERIOR	SUMMARY	CF13WP	2	13 Watt Compact Fluorescent Wall Pack Fixture	13	0.026	3500	91	2	ZZ DD	No Retrofit	13	0.026	0.000	$ -	3,500	91	0
265	CM-9	INTERIOR	SUMMARY	CF13WP	2	13 Watt Compact Fluorescent Wall Pack Fixture	13	0.026	3500	91	2	ZZ DD	No Retrofit	13	0.026	0.000	$ -	3,500	91	0
266	CM-9	INTERIOR	SUMMARY	3L25	38	T8 2x4 3-Lamp Troffer Fixture	85	2.340	3500	8,190	38	R 3L-12.5LED	Retrofit with (3) 12.5 Watt LED T8 4' Lamps; Direct Wire to Socket	37.5	1.350	0.990	$ -	3,500	4,725	3,465
267	CM-9	INTERIOR	SUMMARY	2PL13DR	6	13 Watt Plug-In CFL Drum Fixture	28	0.224	3500	784	6	R 2PL-9LED	Re-Lamp with (2) 9 Watt LED Plug-In Lamps; Existing CFL Ballast Remains	12	0.096	0.128	$ -	3,500	336	448
268	CM-9	INTERIOR	SUMMARY	CF23LANTERN	8	23 Watt Compact Fluorescent Lantern Fixture	23	0.184	3500	644	8	ZZ DD	No Retrofit	23	0.184	0.000	$ -	3,500	644	0
269	CM-9	INTERIOR	SUMMARY	1W17	58	T8 2x2 1-Lamp Wrap Fixture	22	1.276	3500	4,466	58	R 1L-10LEDZ	Retrofit with (1) 10 Watt LED T8 2' Lamp; Direct Wire to Socket	10	0.580	0.696	$ -	3,500	2,030	2,436
270	CM-9	INTERIOR	SUMMARY	60SC	64	60 Watt Incandescent Sconce Fixture	60	3.840	3500	13,440	64	LED 10A	Re-Lamp with (1) 10 Watt LED A19	10	0.640	3.200	$ -	3,500	2,240	11,200
271	CM-9	INTERIOR	HALL	2L25	16	T8 1x4 2-Lamp Troffer Fixture with 25 Watt 4' Lamps	43	0.688	3500	2,408	16	R 2L-12.5LED	Retrofit with (2) 12.5 Watt LED T8 4' Lamps; Direct Wire to Socket	25	0.400	0.288	$ -	3,500	1,400	1,008
272	CM-9	INTERIOR	HALL	2W25	18	T8 1x4 2-Lamp Wrap Fixture with 25 Watt 4' Lamps	43	0.774	3500	2,709	18	R 2L-12.5LED	Retrofit with (2) 12.5 Watt LED T8 4' Lamps; Direct Wire to Socket	25	0.450	0.324	$ -	3,500	1,575	1,134
273	CM-9	INTERIOR	HALL	2EGG	16	T8 1x4 2-Lamp Egg Crate Fixture with 25 Watt 4' Lamps	43	0.688	3500	2,408	16	R 2L-12.5LED	Retrofit with (2) 12.5 Watt LED T8 4' Lamps; Direct Wire to Socket	25	0.400	0.288	$ -	3,500	1,400	1,008
274	CM-9	INTERIOR	HALL	1V17	6	T8 2x2 1-Lamp Vanity Fixture	22	0.132	3500	462	6	R 1L-10LEDZ	Retrofit with (1) 10 Watt LED T8 2' Lamp; Direct Wire to Socket	10	0.060	0.072	$ -	3,500	210	252
275	CM-9	INTERIOR	HALL	2V25	2	T8 1x4 2-Lamp Vanity Fixture with 25 Watt 4' Lamps	43	0.086	3500	301	2	R 2L-12.5LED	Retrofit with (2) 12.5 Watt LED T8 4' Lamps; Direct Wire to Socket	25	0.050	0.036	$ -	3,500	175	126
276	CM-9	INTERIOR	HALL	2PL13SQDL	10	13 Watt Plug-In CFL 2-Lamp Square Downlight Fixture	28	0.280	3500	980	10	R 2PL-9LED	Re-Lamp with (2) 9 Watt LED Plug-In Lamps; Existing CFL Ballast Remains	12	0.120	0.160	$ -	3,500	420	560
277	CM-9	INTERIOR	HALL	1V25	8	T8 1x4 1-Lamp Vanity Fixture with 25 Watt 4' Lamps	22	0.176	3500	616	8	R 1L-12.5LED	Retrofit with (1) 12.5 Watt LED T8 4' Lamps; Direct Wire to Socket	12.5	0.100	0.076	$ -	3,500	350	266
278	CM-9	INTERIOR	HALL	7CF13CHAND	4	13 Watt Compact Fluorescent 7-Lamp Chandelier Fixture	91	0.364	3500	1,274	4	ZZ DD	No Retrofit	91	0.364	0.000	$ -	3,500	1,274	0
279	CM-9	INTERIOR	HALL	4EGG	4	T8 1x4 4-Lamp Egg Crate Fixture with 25 Watt 4' Lamps	85	0.340	3500	1,190	4	R 4L-12.5LED	Retrofit with (4) 12.5 Watt LED T8 4' Lamps; Direct Wire to Socket	50	0.200	0.140	$ -	3,500	700	490
280	CM-9	INTERIOR	HALL	1I25	6	T8 1x4 1-Lamp Industrial Fixture with 25 Watt 4' Lamps	22	0.132	3500	462	6	R 1L-12.5LED	Retrofit with (1) 12.5 Watt LED T8 4' Lamps; Direct Wire to Socket	12.5	0.075	0.057	$ -	3,500	263	200

	PRELIMINARY AUDIT			EXISTING FIXTURES								PROPOSED FIXTURE UPGRADE								
ID #	Facility Name	Phase	Room Description	ECM Code	Qty	Description	Watts	kW	Pre Burn Hours	kWh	Qty	New Code	Description	Watts	kW	KW Saved	KW Cost Savings	Post Burn Hours	kWh	kWh Saved
281	CM-9	INTERIOR	HALL	CF13SQDL	2	13 Watt Compact Fluorescent Square Downlight Fixture	13	0.026	3500	91	2	ZZ DD	No Retrofit	13	0.026	0.000	$ -	3,500	91	0
282	CM-9	INTERIOR	HALL	CF23	2	23 Watt Compact Fluorescent Fixture	23	0.046	3500	161	2	LED 10A	Re-Lamp with (1) 10 Watt LED A19	10	0.020	0.026	$ -	3,500	70	91
283	CM-9	INTERIOR	ELEVATORS	1025-JFT	16	T8 1x3 1-Lamp Strip Fixture	22	0.352	3500	1,232	16	R 1L-12LEDT	Retrofit with (1) 12 Watt LED T8 3' Lamp, Direct Wire to Socket	12	0.192	0.160	$ -	3,500	672	560
284	BLDG 5	INTERIOR	HALL	1W17	2	T8 2x2 1-Lamp Wrap Fixture	22	0.044	8736	384	2	R 1L-10LED2'	Retrofit with (1) 10 Watt LED T8 2' Lamp, Direct Wire to Socket	10	0.020	0.024	$ -	8,736	175	210
285	BLDG 5	INTERIOR	SUMMARY	2IL26	18	T8 1x4 2-Lamp Troffer Fixture with 25 Watt 4' Lamps	43	0.774	8736	6,762	18	R 2L-12.5LED	Retrofit with (2) 12.5 Watt LED T8 4' Lamps; Direct Wire to Socket	25	0.450	0.324	$ -	8,736	3,931	2,830
286	BLDG 5	INTERIOR	SUMMARY	CF13	26	13 Watt Compact Fluorescent Fixture	13	0.338	8736	2,953	26	LED 10A	Re-Lamp with (1) 10 Watt LED A19	10	0.260	0.078	$ -	8,736	2,271	681
287	BLDG 5	INTERIOR	SUMMARY	CF13RLM	8	13 Watt Compact Fluorescent RLM Fixture	13	0.104	8736	909	8	ZZ DD	No Retrofit	13	0.104	0.000	$ -	8,736	909	0
288	BLDG 5	INTERIOR	SUMMARY	CF23	2	23 Watt Compact Fluorescent Fixture	23	0.046	8736	402	2	LED 10A	Re-Lamp with (1) 10 Watt LED A19	10	0.020	0.026	$ -	8,736	175	227
289	BLDG 5	INTERIOR	SUMMARY	2PL13DN	14	13 Watt Plug-In CFL Drum Fixture	24	0.392	8736	3,425	14	R 2PL-6LED	Re-Lamp with (2) 6 Watt LED Plug-In Lamps, Existing CFL Ballast Remains	12	0.168	0.224	$ -	8,736	1,468	1,957
290	BLDG 5	INTERIOR	SUMMARY	60A	2	60 Watt Incandescent A-Lamp Fixture	60	0.120	8736	1,048	2	LED 10A	Re-Lamp with (1) 10 Watt LED A19	10	0.020	0.100	$ -	8,736	175	874
291	BLDG 5	INTERIOR	SUMMARY	4CG26	47	T8 1x4 4-Lamp Egg Crate Fixture with 25 Watt 4' Lamps	85	3.995	8736	34,900	47	R 4L-12.5LED	Retrofit with (4) 12.5 Watt LED T8 4' Lamps; Direct Wire to Socket	50	2.350	1.645	$ -	8,736	20,530	14,371
292	BLDG 5	INTERIOR	SUMMARY	2IL26	133	T8 1x4 2-Lamp Troffer Fixture with 25 Watt 4' Lamps	43	5.719	8736	49,961	133	R 2L-12.5LED	Retrofit with (2) 12.5 Watt LED T8 4' Lamps; Direct Wire to Socket	25	3.325	2.394	$ -	8,736	29,047	20,914
293	BLDG 5	INTERIOR	SUMMARY	4W26	9	T8 1x4 4-Lamp Wrap Fixture with 25 Watt 4' Lamps	85	0.765	8736	6,683	9	R 4L-12.5LED	Retrofit with (4) 12.5 Watt LED T8 4' Lamps; Direct Wire to Socket	50	0.450	0.315	$ -	8,736	3,931	2,752
294	BLDG 5	INTERIOR	SUMMARY	3W26	14	T8 1x4 3-Lamp Industrial Fixture with 25 Watt 4' Lamps	85	0.910	8736	7,950	14	R 3L-12.5LED	Retrofit with (3) 12.5 Watt LED T8 4' Lamps; Direct Wire to Socket	37.5	0.525	0.385	$ -	8,736	4,586	3,363
295	BLDG 5	INTERIOR	SUMMARY	2CG26	75	T8 1x4 2-Lamp Egg Crate Fixture with 25 Watt 4' Lamps	43	3.258	8736	28,549	75	R 2L-12.5LED	Retrofit with (2) 12.5 Watt LED T8 4' Lamps; Direct Wire to Socket	25	1.900	1.368	$ -	8,736	16,598	11,951
296	BLDG 5	INTERIOR	SUMMARY	4L26	3	T8 2x4 4-Lamp Troffer Fixture with 25 Watt 4' Lamps	85	0.255	8736	2,228	3	R 4L-12.5LED	Retrofit with (4) 12.5 Watt LED T8 4' Lamps; Direct Wire to Socket	50	0.150	0.105	$ -	8,736	1,310	917
297	BLDG 5	INTERIOR	SUMMARY	1W17	23	T8 2x2 1-Lamp Wrap Fixture	22	0.506	8736	4,420	23	R 1L-10LED2'	Retrofit with (1) 10 Watt LED T8 2' Lamp, Direct Wire to Socket	10	0.230	0.276	$ -	8,736	2,009	2,411
298	BLDG 5	INTERIOR	SUMMARY	1I26	6	T8 1x4 1-Lamp Industrial Fixture with 25 Watt 4' Lamps	22	0.132	8736	1,153	6	R 1L-12.5LED	Retrofit with (1) 12.5 Watt LED T8 4' Lamps; Direct Wire to Socket	12.5	0.075	0.057	$ -	8,736	655	498
299	BLDG 5	INTERIOR	SUMMARY	2PL13WP	2	13 Watt Plug-In CFL 2-Lamp Wall Pack Fixture	24	0.048	8736	420	2	R 2PL-6LED	Re-Lamp with (2) 6 Watt LED Plug-In Lamps, Existing CFL Ballast Remains	12	0.024	0.032	$ -	8,736	210	280
300	BLDG 5	INTERIOR	SUMMARY	3L26	3	T8 2x4 2-Lamp Troffer Fixture with 25 Watt 4' Lamps	43	0.129	8736	1,127	3	R 2L-12.5LED	Retrofit with (2) 12.5 Watt LED T8 4' Lamps; Direct Wire to Socket	25	0.075	0.054	$ -	8,736	655	472
301	BLDG 5	INTERIOR	SUMMARY	1V17	2	T8 2x2 1-Lamp Vanity Fixture	22	0.044	8736	384	2	R 1L-10LED2'	Retrofit with (1) 10 Watt LED T8 2' Lamp, Direct Wire to Socket	10	0.020	0.024	$ -	8,736	175	210
302	BLDG 5	INTERIOR	SUMMARY	2-60A	1	60 Watt Incandescent 2-Lamp Fixture	120	0.120	8736	1,048	1	LED 2-10A	Re-Lamp with (2) 10 Watt LED A19	20	0.020	0.100	$ -	8,736	175	874
303	BLDG 5	INTERIOR	SUMMARY	3PL13SQDL	3	13 Watt Plug-In CFL 2-Lamp Square Downlight Fixture	26	0.084	8736	734	3	R 2PL-6LED	Re-Lamp with (2) 6 Watt LED Plug-In Lamps, Existing CFL Ballast Remains	12	0.036	0.048	$ -	8,736	314	419
304	BLDG 5	INTERIOR	SUMMARY	3W26	3	T8 1x4 2-Lamp Wrap Fixture with 25 Watt 4' Lamps	43	0.129	8736	1,127	3	R 2L-12.5LED	Retrofit with (2) 12.5 Watt LED T8 4' Lamps; Direct Wire to Socket	25	0.075	0.054	$ -	8,736	655	472
305	BLDG 5	INTERIOR	SUMMARY	XCF9DECDR	6	9 Watt Compact Fluorescent 3-Lamp Decorative Drum Fixture	27	0.216	8730	1,887	6	ZZ DD	No Retrofit	27	0.216	0.000	$ -	8,736	1,887	0
306	BLDG 5	INTERIOR	SUMMARY	CF13SQDL	2	13 Watt Compact Fluorescent Square Downlight Fixture	13	0.026	8730	227	2	ZZ DD	No Retrofit	13	0.026	0.000	$ -	8,736	227	0
307	BLDG 5	INTERIOR	SUMMARY	4-60V	1	60 Watt Incandescent 4-Lamp Vanity Fixture	240	0.240	8736	2,097	1	LED 4-10A	Re-Lamp with (4) 10 Watt LED A19	40	0.040	0.200	$ -	8,736	349	1,747
308	BLDG 5,6,7	EXTERIOR	EXTERIOR	60A	4	60 Watt Incandescent A-Lamp Fixture	60	0.240	8730	2,097	4	LED 10A	Re-Lamp with (1) 10 Watt LED A19	10	0.040	0.200	$ -	8,736	349	1,747

PRELIMINARY AUDIT				EXISTING FIXTURES								PROPOSED FIXTURE UPGRADE								
ID #	Facility Name	Phase	Room Description	EDM Code	Qty	Description	Watts	kW	Pre Burn Hours	kWh	Qty	New Code	Description	Watts	kW	KW Saved	KW Cost Savings	Post Burn Hours	kWh	kWh Saved
309	BLDG 5,6,7	EXTERIOR	EXTERIOR	MH400FL	4	400 Watt Metal Halide Flood Fixture	455	1.820	8736	15,900	4	N CLED123FL	New 129 Watt LED Flood Fixture	129	0.516	1.304	$ -	8,736	4,508	11,392
310	BLDG 5,6,7	EXTERIOR	EXTERIOR	2PL26WP	20	26 Watt Plug-In CFL 2-Lamp Wall Pack Fixture	58	1.160	8736	10,134	20	R 2PL-11LED	Re-Lamp with (2) 11 Watt LED Plug-In Lamps; Existing CFL Ballast Remains	26	0.520	0.640	$ -	8,736	4,543	5,591
311	BLDG 5,6,7	EXTERIOR	EXTERIOR	2PL13WP	60	13 Watt Plug-In CFL 2-Lamp Wall Pack Fixture	26	1.560	8736	14,674	60	R 2PL-6LED	Re-Lamp with (2) 6 Watt LED Plug-In Lamps; Existing CFL Ballast Remains	12	0.720	0.960	$ -	8,736	6,290	8,387
312	BLDG 5,6,7	EXTERIOR	EXTERIOR	MH175FL	1	175 Watt Metal Halide Flood Fixture	213	0.213	8736	1,861	1	N CLED65FL	New 65 Watt LED Flood Fixture	65	0.065	0.128	$ -	8,736	743	1,118
313	BLDG 5,6,7	EXTERIOR	EXTERIOR	PL13JJ	2	13 Watt Plug-In CFL Jelly Jar Fixture	14	0.028	8736	246	2	R 1PL-6LED	Re-Lamp with (1) 6 Watt LED Plug-In Lamps; Existing CFL Ballast Remains	6	0.012	0.016	$ -	8,736	105	140
314	BLDG 5,6,7	EXTERIOR	EXTERIOR	LEDP38	11	LED PAR38 Fixture	17	0.187	8736	1,634	11	ZZ DD	No Retrofit	17	0.187	0.000	$ -	8,736	1,634	0
315	BLDG 5,6,7	EXTERIOR	EXTERIOR	MH175FL	10	175 Watt Metal Halide Flood Fixture	213	2.130	8736	18,608	10	N CLED65FL	New 65 Watt LED Flood Fixture	65	0.650	1.280	$ -	8,736	7,426	11,182
316	BLDG 5,6,7	EXTERIOR	EXTERIOR	CF13JJ	15	13 Watt Compact Fluorescent Jelly Jar Fixture	13	0.195	8736	1,704	15	ZZ DD	No Retrofit	13	0.195	0.000	$ -	8,736	1,704	0
317	BLDG 5,6,7	EXTERIOR	EXTERIOR	2PL13CPY	4	13 Watt Plug-In CFL 2-Lamp Canopy Fixture	28	0.112	8736	978	4	R 2PL-6LED	Re-Lamp with (2) 6 Watt LED Plug-In Lamps, Existing CFL Ballast Remains	12	0.048	0.064	$ -	8,736	419	559
318	BLDG 5,6,7	INTERIOR	AUDITORIUM COVE	2926-3FT	32	T8 1x3 2-Lamp Strip Fixture	46	1.056	8736	13,696	32	R 2L-12LED3'	Retrofit with (2) 12 Watt LED T8 3' Lamps; Direct Wire to Socket	24	0.768	0.800	$ -	8,736	6,709	6,988
319	BLDG 5,6,7	INTERIOR	AUDITORIUM COVE	CF13SQDL	12	13 Watt Compact Fluorescent Square Downlight Fixture	13	0.156	8736	1,363	12	ZZ DD	No Retrofit	13	0.156	0.000	$ -	8,736	1,363	0
320	BLDG 5,6,7	INTERIOR	AUDITORIUM COVE	300SQDL	60	300 Watt Incandescent Square Downlight Fixture	300	18.000	8736	157,248	60	LED 39COB	Re-Lamp with (1) 39 Watt LED Omni-Cob Lamp, Hardwire Ballast	39	2.190	15.840	$ -	8,736	19,670	137,578
321	BLDG 5,6,7	INTERIOR	HALL	2W25	20	T8 1x4 2-Lamp Wrap Fixture with 25 Watt 4' Lamps	43	0.860	8736	7,513	20	R 2L-12.5LED	Retrofit with (2) 12.5 Watt LED T8 4' Lamps; Direct Wire to Socket	25	0.500	0.360	$ -	8,736	4,368	3,145
322	BLDG 5,6,7	INTERIOR	HALL	50MR16	12	50 Watt Incandescent MR16 Fixture	50	0.600	8736	5,242	12	ZZ DD	No Retrofit	50	0.600	0.000	$ -	8,736	5,242	0
323	BLDG 5,6,7	INTERIOR	HALL	40DL4	6	40 Watt Incandescent 4" Downlight Fixture	40	0.240	8736	2,097	6	LED HDR20	Re-Lamp with (1) 8 Watt LED BR20	8	0.048	0.192	$ -	8,736	419	1,677
324	BLDG 5,6,7	INTERIOR	CHAPEL	2W25	88	T8 1x4 2-Lamp Wrap Fixture with 25 Watt 4' Lamps	43	3.784	8736	33,057	88	R 2L-12.5LED	Retrofit with (2) 12.5 Watt LED T8 4' Lamps; Direct Wire to Socket	25	2.200	1.584	$ -	8,736	19,218	13,838
325	BLDG 5,6,7	INTERIOR	CONFERENCE	2L26	13	T8 2x4 2-Lamp Troffer Fixture with 25 Watt 4' Lamps	43	0.559	8736	4,883	13	R 2L-12.5LED	Retrofit with (2) 12.5 Watt LED T8 4' Lamps; Direct Wire to Socket	25	0.325	0.234	$ -	8,736	2,839	2,044
326	BLDG 5,6,7	INTERIOR	CONFERENCE	90PAR	18	90 Watt Incandescent PAR38 Downlight Fixture	90	1.620	8736	14,152	18	LED 17DR40	Re-Lamp with (1) 17 Watt LED BR40	17	0.306	1.314	$ -	8,736	2,673	11,479
327	BLDG 5,6,7	INTERIOR	KITCHEN	4L26	75	T8 2x4 4-Lamp Troffer Fixture with 25 Watt 4' Lamps	85	6.375	8736	55,692	75	R 4L-12.5LED	Retrofit with (4) 12.5 Watt LED T8 4' Lamps; Direct Wire to Socket	50	3.750	2.625	$ -	8,736	32,760	22,932
328	BLDG 5,6,7	INTERIOR	KITCHEN	CF23JJ	8	23 Watt Compact Fluorescent Jelly Jar Fixture	23	0.184	8736	1,607	8	ZZ DD	No Retrofit	23	0.184	0.000	$ -	8,736	1,607	0
329	BLDG 5,6,7	INTERIOR	KITCHEN	60JJ	8	60 Watt Incandescent A-Lamp Jelly Jar Fixture	60	0.480	8736	4,193	8	LED 10A	Re-Lamp with (1) 10 Watt LED A19	10	0.080	0.400	$ -	8,736	699	3,494
330	BLDG 5,6,7	INTERIOR	KITCHEN	2W25	28	T8 1x4 2-Lamp Wrap Fixture with 25 Watt 4' Lamps	43	1.204	8736	10,518	28	R 2L-12.5LED	Retrofit with (2) 12.5 Watt LED T8 4' Lamps; Direct Wire to Socket	25	0.700	0.504	$ -	8,736	6,115	4,403
331	BLDG 5,6,7	INTERIOR	OFFICE	2EG26	4	T8 1x4 2-Lamp Egg Crate Fixture with 25 Watt 4' Lamps	43	0.172	8736	1,503	4	R 2L-12.5LED	Retrofit with (2) 12.5 Watt LED T8 4' Lamps; Direct Wire to Socket	25	0.100	0.072	$ -	8,736	874	629
332	BLDG 5,6,7	INTERIOR	OFFICE	2L26	4	T8 1x4 2-Lamp Troffer Fixture with 25 Watt 4' Lamps	43	0.172	8736	1,503	4	R 2L-12.5LED	Retrofit with (2) 12.5 Watt LED T8 4' Lamps; Direct Wire to Socket	25	0.100	0.072	$ -	8,736	874	629
333	BLDG 17	INTERIOR	SUMMARY	1I25	2	T8 1x4 1-Lamp Industrial Fixture with 25 Watt 4' Lamps	22	0.044	0	0	2	R 1L-12.5LED	Retrofit with (1) 12.5 Watt LED T8 4' Lamps; Direct Wire to Socket	12.5	0.025	0.019	$ -	0	0	0
334	BLDG 17	INTERIOR	SUMMARY	1V25	3	T8 1x4 1-Lamp Vanity Fixture with 25 Watt 4' Lamps	22	0.066	0	0	3	R 1L-12.5LED	Retrofit with (1) 12.5 Watt LED T8 4' Lamps; Direct Wire to Socket	12.5	0.038	0.029	$ -	0	0	0
335	BLDG 17	INTERIOR	SUMMARY	1W17	30	T8 2x2 1-Lamp Wrap Fixture	22	0.660	0	0	30	R 1L-10LED2'	Retrofit with (1) 10 Watt LED T8 2' Lamp; Direct Wire to Socket	10	0.300	0.360	$ -	0	0	0
336	BLDG 17	INTERIOR	SUMMARY	1W25	28	T8 1x4 1-Lamp Wrap Fixture with 25 Watt 4' Lamps	22	0.616	0	0	28	R 1L-12.5LED	Retrofit with (1) 12.5 Watt LED T8 4' Lamps; Direct Wire to Socket	12.5	0.350	0.266	$ -	0	0	0

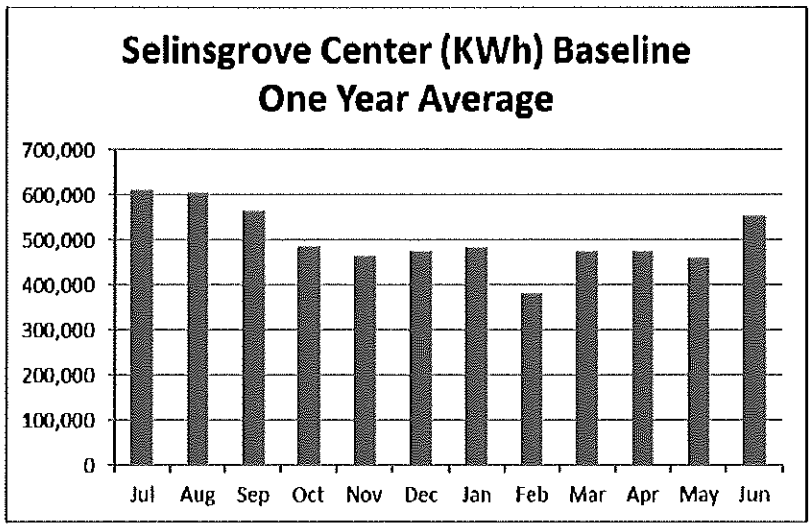
PRELIMINARY AUDIT				EXISTING FIXTURES								PROPOSED FIXTURE UPGRADE							
ID #	Facility Name	Phase	Room Description	ECM Code	Qty	Description	Watts	kW	Pre Burn Hours	kWh	Qty	New Code	Description	Watts	kW	KW Saved	KW Cost Savings	Post Burn Hours	kWh	kWh Saved
337	BLDG 17	INTERIOR	SUMMARY	2PL13SC	48	13 Watt Plug-In CFL sconce Fixture	28	1.344	0	0	48	R 2PL-9LED	Re-Lamp with (2) 6 Watt LED Plug-In Lamps; Existing CFL Ballast Remains	12	0.576	0.768	$ -	0	0	0
338	BLDG 17	INTERIOR	SUMMARY	2W25	16	T8 1x4 2-Lamp Wrap Fixture with 25 Watt 4' Lamps	43	0.688	0	0	16	R 2L-12.5LED	Retrofit with (2) 12.5 Watt LED T8 4' Lamps, Direct Wire to Socket	25	0.400	0.288	$ -	0	0	0
339	BLDG 17	INTERIOR	SUMMARY	4W25	9	T8 1x4 4-Lamp Wrap Fixture with 25 Watt 4' Lamps	85	0.765	0	0	9	R 4L-12.5LED	Retrofit with (4) 12.5 Watt LED T8 4' Lamps, Direct Wire to Socket	50	0.450	0.315	$ -	0	0	0
340	BLDG 17	INTERIOR	SUMMARY	XLED	11	3 Watt LED 2-Lamp Exit Sign	3	0.033	0	0	11	ZZ DD	No Retrofit	3	0.033	0.000	$ -	0	0	0
341	BLDG 17	EXTERIOR	EXTERIOR	2PL26WP	6	26 Watt Plug-In CFL 2-Lamp Wall Pack Fixture	58	0.348	0	0	6	R 2PL-11LED	Re-Lamp with (2) 11 Watt LED Plug-In Lamps; Existing CFL Ballast Remains	26	0.156	0.192	$ -	0	0	0
342	BLDG 17	EXTERIOR	EXTERIOR	2PL13WP	4	13 Watt Plug-In CFL 2-Lamp Wall Pack Fixture	28	0.112	0	0	4	R 2PL-9LED	Re-Lamp with (2) 6 Watt LED Plug-In Lamps; Existing CFL Ballast Remains	12	0.048	0.064	$ -	0	0	0
343	BLDG 17	EXTERIOR	EXTERIOR	PL26DL	1	26 Watt Plug-In CFL Downlight Fixture	29	0.029	0	0	1	R 2PL-11LED	Re-Lamp with (2) 11 Watt LED Plug-In Lamps; Existing CFL Ballast Remains	26	0.026	0.003	$ -	0	0	0
344	BLDG 19	INTERIOR	SUMMARY	1W17	22	T8 2x2 1-Lamp Wrap Fixture	22	0.484	8736	4,226	22	R 1L-10LED2'	Retrofit with (1) 10 Watt LED T8 2' Lamp; Direct Wire to Socket	10	0.220	0.264	$ -	8,736	1,922	2,305
345	BLDG 19	INTERIOR	SUMMARY	1W25	3	T8 1x4 1-Lamp Wrap Fixture with 25 Watt 4' Lamps	22	0.066	8736	577	3	R 1L-12.5LED	Retrofit with (1) 12.5 Watt LED T8 4' Lamps, Direct Wire to Socket	12.5	0.038	0.029	$ -	8,736	328	249
346	BLDG 19	INTERIOR	SUMMARY	2EG25	2	T8 1x4 2-Lamp Egg Crate Fixture with 25 Watt 4' Lamps	43	0.086	8736	751	2	R 2L-12.5LED	Retrofit with (2) 12.5 Watt LED T8 4' Lamps, Direct Wire to Socket	25	0.050	0.036	$ -	8,736	437	314
347	BLDG 19	INTERIOR	SUMMARY	2PL13SC	19	13 Watt Plug-In CFL sconce Fixture	28	0.532	8736	4,648	19	R 2PL-9LED	Re-Lamp with (2) 6 Watt LED Plug-In Lamps; Existing CFL Ballast Remains	12	0.228	0.304	$ -	8,736	1,992	2,656
348	BLDG 19	INTERIOR	SUMMARY	2V25	5	T8 1x4 2-Lamp Vanity Fixture with 25 Watt 4' Lamps	43	0.215	8736	1,878	5	R 2L-12.5LED	Retrofit with (2) 12.5 Watt LED T8 4' Lamps; Direct Wire to Socket	25	0.125	0.090	$ -	8,736	1,092	786
349	BLDG 19	INTERIOR	SUMMARY	2W25	41	T8 1x4 2-Lamp Wrap Fixture with 25 Watt 4' Lamps	43	1.763	8736	15,402	41	R 2L-12.5LED	Retrofit with (2) 12.5 Watt LED T8 4' Lamps; Direct Wire to Socket	25	1.025	0.738	$ -	8,736	8,954	6,447
350	BLDG 19	INTERIOR	SUMMARY	4EG25	19	T8 1x4 4-Lamp Egg Crate Fixture with 25 Watt 4' Lamps	85	0.850	8736	7,426	19	R 4L-12.5LED	Retrofit with (4) 12.5 Watt LED T8 4' Lamps; Direct Wire to Socket	50	0.500	0.350	$ -	8,736	4,368	3,058
351	BLDG 19	INTERIOR	SUMMARY	CF20	9	20 Watt Compact Fluorescent	20	0.180	8736	1,572	9	ZZ DD	No Retrofit	20	0.180	0.000	$ -	8,736	1,572	0

ATTACHMENT 2 – ENERGY BASELINE

Baselines for this proposal are based on fiscal year 2015 (July 2015 through June 2016), as the most current fiscal year of data available at the time of this proposal.

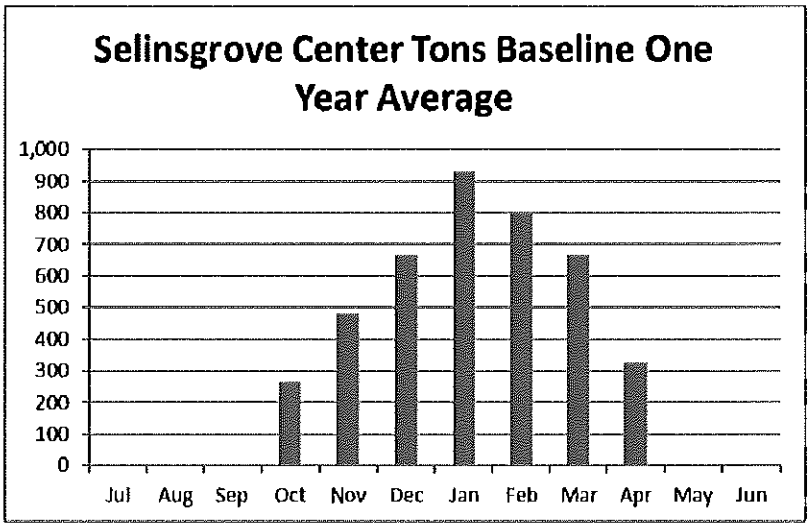
Electricity:

Selinsgrove Center (KWh) Baseline One Year Average	
Month	(KWh)
Jul	613,800
Aug	604,800
Sep	565,360
Oct	487,880
Nov	465,280
Dec	475,240
Jan	485,360
Feb	383,160
Mar	475,360
Apr	474,240
May	460,600
Jun	553,480
Total	6,044,560



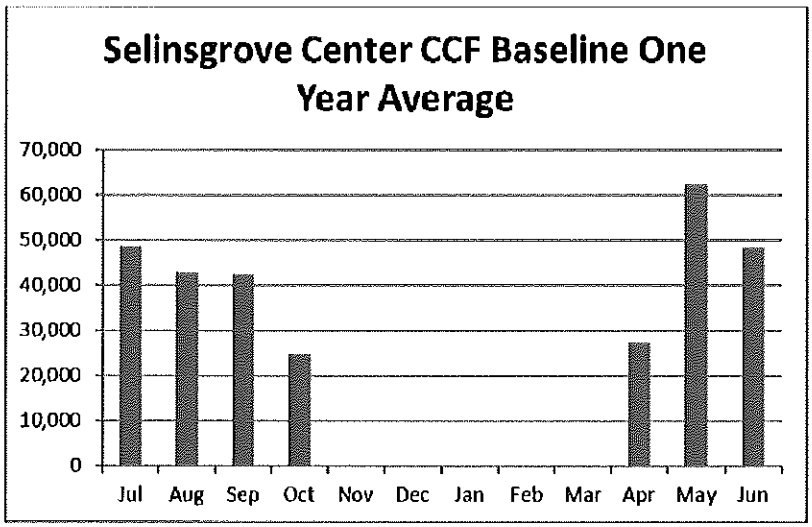
Coal:

Selinsgrove Center Tons Baseline One Year Average	
Month	Tons
Jul	0
Aug	0
Sep	0
Oct	267
Nov	481
Dec	667
Jan	928
Feb	800
Mar	669
Apr	328
May	0
Jun	0
Total	4,140



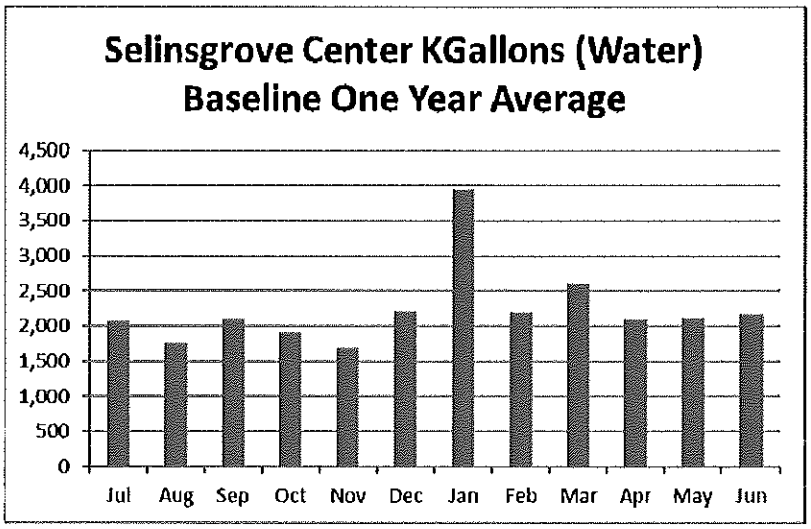
Natural Gas:

Selinsgrove Center CCF Baseline One Year Average	
Month	CCF
Jul	48,510
Aug	42,970
Sep	42,300
Oct	24,870
Nov	0
Dec	0
Jan	0
Feb	0
Mar	0
Apr	27,390
May	62,310
Jun	48,430
Total	296,780



Water:

Selinsgrove Center KGallons (Water) Baseline One Year Average	
Month	KGallons
Jul	2,085
Aug	1,762
Sep	2,112
Oct	1,910
Nov	1,690
Dec	2,213
Jan	3,943
Feb	2,204
Mar	2,617
Apr	2,102
May	2,128
Jun	2,164
Total	26,930



ATTACHMENT 3 – LIGHTING SCOPE

McClure Company is proposing to retrofit the existing exterior fixtures and interior fluorescent fixtures with new LED lamps.

Scope of Work:		
EXISTING FIXTURE DESCRIPTION	**PROPOSED RETROFIT DESCRIPTION**	**QTY**
100 Watt Incandescent A-Lamp Fixture	Re-Lamp with (1) 18 Watt LED A21	2
1000 Watt Metal Halide Flood Fixture; Yoke	New 300 Watt LED Flood Fixture	44
13 Watt CFL 7-Lamp Chandelier Fixture	No Retrofit	4
13 Watt CFL Canopy Fixture	Re-Lamp with (1) 10 Watt LED A19	10
13 Watt CFL Downlight Fixture	No Retrofit	12
13 Watt CFL Fixture	Re-Lamp with (1) 10 Watt LED A19	135
13 Watt CFL Jelly Jar Fixture	No Retrofit	16
13 Watt CFL RLM Fixture	No Retrofit	8
13 Watt CFL Sconce Fixture	No Retrofit	1
13 Watt CFL Square Downlight Fixture	No Retrofit	138
13 Watt CFL Wall Pack Fixture	No Retrofit	4
13 Watt Plug-In CFL 2-Lamp Canopy Fixture	Re-Lamp (2) 6 Watt LED Plug-In Lamps; Existing CFL Ballast Remains	49
13 Watt Plug-In CFL 2-Lamp Square Fixture	Re-Lamp (2) 6 Watt LED Plug-In Lamps; Existing CFL Ballast Remains	16
13 Watt Plug-In CFL 2-Lamp Wall Pack Fixture	Re-Lamp (2) 6 Watt LED Plug-In Lamps; Existing CFL Ballast Remains	360
13 Watt Plug-In CFL Downlight Fixture	Re-Lamp (1) 6 Watt LED Plug-In Lamps; Existing CFL Ballast Remains	1
13 Watt Plug-In CFL Drum Fixture	Re-Lamp (2) 6 Watt LED Plug-In Lamps; Existing CFL Ballast Remains	279
13 Watt Plug-In CFL Jelly Jar Fixture	Re-Lamp (1) 6 Watt LED Plug-In Lamps; Existing CFL Ballast Remains	2
13 Watt Plug-In CFL sconce Fixture	Re-Lamp (2) 6 Watt LED Plug-In Lamps; Existing CFL Ballast Remains	297
150 Watt High Pressure Sodium Post Top Fixture	New 52 Watt LED Spider Mount Post Top Fixture	6
150 Watt Incandescent A-Lamp Fixture	Re-Lamp with (1) 18 Watt LED A21	16
150 Watt Metal Halide Dusk to Dawu Fixture	New 26 Watt LED Dusk to Dawn Barnyard Fixture	1
175 Watt Metal Halide Flood Fixture	New 85 Watt LED Flood Fixture	11
20 Watt CFL	No Retrofit	9
20 Watt CFL Square Downlight Fixture	Re-Lamp with (1) 10 Watt LED A19	38
23 Watt CFL 5-Lamp Chandelier Fixture	No Retrofit	4
23 Watt CFL Fixture	Re-Lamp with (1) 10 Watt LED A19	35
23 Watt CFL Jelly Jar Fixture	No Retrofit	8
23 Watt CFL Lantern Fixture	No Retrofit	8
6 Watt Plug-In CFL 2-Lamp Wall Pack ixture	Re-Lamp (2) 11 Watt LED Plug-In Lamps; Existing CFL Ballast Remains	100
26 Watt Plug-In CFL Downlight Fixture	Re-Lamp (2) 11 Watt LED Plug-In Lamps; Existing CFL Ballast Remains	1

3 Watt LED 2-Lamp Exit Sign	No Retrofit	11
300 Watt Incandescent Square Fixture	Re-Lamp with (1) 36 Watt LED Omni-Cob Lamp; Hardwire Ballast	60
40 Watt Incandescent 4" Downlight Fixture	Re-Lamp with (1) 8 Watt LED BR20	6
40 Watt Incandescent Candelabra Fixture	Re-Lamp with (1) 5 Watt LED Candelabra	10
400 Watt Metal Halide Flood Fixture	New 129 Watt LED Flood Fixture	4
50 Watt Incandescent MR16 Fixture	No Retrofit	12
60 Watt Incandescent 2-Lamp Fixture	Re-Lamp with (2) 10 Watt LED A19	1
60 Watt Incandescent 4-Lamp Vanity Fixture	Re-Lamp with (4) 10 Watt LED A19	1
60 Watt Incandescent A-Lamp Fixture	Re-Lamp with (1) 10 Watt LED A19	16
60 Watt Incandescent A-Lamp Jelly Jar Fixture	Re-Lamp with (1) 10 Watt LED A19	10
60 Watt Incandescent Sconce Fixture	Re-Lamp with (1) 10 Watt LED A19	77
65 Watt CFL RLM Fixture	New 1x4 2-Lamp Industrial Fixture with (2) 12.5 Watt LED T8 4' Lamp; Direct Wire to Socket	18
65 Watt Incandescent PAR38 6" Downlight Fixture; Dimming	Re-Lamp with (1) 10 Watt LED BR30	36
9 Watt CFL 3-Lamp Decorative Drum Fixture	No Retrofit	8
90 Watt Incandescent PAR38 Fixture	Re-Lamp with (1) 17 Watt LED BR40	18
LED PAR38 Fixture	No Retrofit	11
T12 1x4 2-Lamp Egg Crate Fixture	Retrofit with (2) 12.5 Watt LED T8 4' Lamps; Direct Wire to Socket	1
T5HO 2x4 3-Lamp High Bay Fixture	New 95 Watt LED High Bay Fixture	6
T5HO 2x4 4-Lamp High Bay Fixture	New 95 Watt LED High Bay Fixture	33
T8 1x3 1-Lamp Strip Fixture	Retrofit with (1) 12 Watt LED T8 3' Lamp; Direct Wire to Socket	16
T8 1x3 1-Lamp Vanity Fixture	Retrofit with (1) 12 Watt LED T8 3' Lamp; Direct Wire to Socket	1
T8 1x3 2-Lamp Strip Fixture	Retrofit with (2) 12 Watt LED T8 3' Lamps; Direct Wire to Socket	56
T8 1x4 1-Lamp Industrial Fixture with 25 Watt 4' Lamps	Retrofit with (1) 12.5 Watt LED T8 4' Lamps; Direct Wire to Socket	127
T8 1x4 1-Lamp Vanity Fixture with 25 Watt 4' Lamps	Retrofit with (1) 12.5 Watt LED T8 4' Lamps; Direct Wire to Socket	23
T8 1x4 1-Lamp Wrap Fixture with 25 Watt 4' Lamps	Retrofit with (1) 12.5 Watt LED T8 4' Lamps; Direct Wire to Socket	249
T8 1x4 2-Lamp Egg Crate Fixture with 25 Watt 4' Lamps	Retrofit with (2) 12.5 Watt LED T8 4' Lamps; Direct Wire to Socket	697
T8 1x4 2-Lamp Industrial Fixture with 25 Watt 4' Lamps	Retrofit with (2) 12.5 Watt LED T8 4' Lamps; Direct Wire to Socket	42
T8 1x4 2-Lamp Troffer Fixture with 25 Watt 4' Lamps	Retrofit with (2) 12.5 Watt LED T8 4' Lamps; Direct Wire to Socket	319
T8 1x4 2-Lamp Vanity Fixture with 25 Watt 4' Lamps	Retrofit with (2) 12.5 Watt LED T8 4' Lamps; Direct Wire to Socket	7
T8 1x4 2-Lamp Vapor tight Fixture	Retrofit with (2) 12.5 Watt LED T8 4' Lamps; Direct Wire to Socket	24
T8 1x4 2-Lamp Wrap Fixture with 25 Watt 4' Lamps	Retrofit with (2) 12.5 Watt LED T8 4' Lamps; Direct Wire to Socket	1010
T8 1x4 3-Lamp Industrial Fixture with 25 Watt	Retrofit with (3) 12.5 Watt LED T8 4' Lamps; Direct Wire to Socket	122

4' Lamps		
T8 1x4 4-Lamp Egg Crate Fixture with 25 Watt 4' Lamps	Retrofit with (4) 12.5 Watt LED T8 4' Lamps; Direct Wire to Socket	148
T8 1x4 4-Lamp Wrap Fixture with 25 Watt 4' Lamps	Retrofit with (4) 12.5 Watt LED T8 4' Lamps; Direct Wire to Socket	249
T8 2x2 1-Lamp Vanity Fixture	Retrofit with (1) 10 Watt LED T8 2' Lamp; Direct Wire to Socket	39
T8 2x2 1-Lamp Wrap Fixture	Retrofit with (1) 10 Watt LED T8 2' Lamp; Direct Wire to Socket	403
T8 2x2 2-Lamp Surface Mount Troffer Fixture	Retrofit with (2) 10 Watt LED T8 2' Lamps; Direct Wire to Socket	5
T8 2x2 2-Lamp Troffer Fixture	Retrofit with (2) 10 Watt LED T8 2' Lamps; Direct Wire to Socket	152
T8 2x2 2-Lamp U-Lamp Troffer Fixture with 6" Lamps	Retrofit with (2) 10 Watt LED T8 2' Lamps and (1) 2x2 2-Lamp White Reflector Kit; Direct Wire to Socket	1
T8 2x2 2-Lamp Vandal Proof Fixture	Retrofit with (2) 10 Watt LED T8 2' Lamps; Direct Wire to Socket	31
T8 2x2 3-Lamp Troffer Fixture	Retrofit with (2) 10 Watt LED T8 2' Lamps; Direct Wire to Socket	4
T8 2x4 2-Lamp Surface Mount Troffer Fixture with 25 Watt 4' Lamps	Retrofit with (2) 12.5 Watt LED T8 4' Lamps; Direct Wire to Socket	32
T8 2x4 2-Lamp Troffer Fixture with 25 Watt 4' Lamps	Retrofit with (2) 12.5 Watt LED T8 4' Lamps; Direct Wire to Socket	47
T8 2x4 3-Lamp Troffer Fixture	Retrofit with (3) 12.5 Watt LED T8 4' Lamps; Direct Wire to Socket	91
T8 2x4 3-Lamp Troffer Fixture with 25 Watt 4' Lamps; Bi-Level	Retrofit with (3) 12.5 Watt LED T8 4' Lamps; Direct Wire to Socket	6
T8 2x4 4-Lamp Surface Mount Troffer Fixture with 25 Watt 4' Lamps	Retrofit with (4) 12.5 Watt LED T8 4' Lamps; Direct Wire to Socket	24
T8 2x4 4-Lamp Troffer Fixture with 25 Watt 4' Lamps	Retrofit with (4) 12.5 Watt LED T8 4' Lamps; Direct Wire to Socket	261
T8 2x4 4-Lamp Troffer Fixture with 25 Watt 4' Lamps; Bi-Level	Retrofit with (4) 12.5 Watt LED T8 4' Lamps; Direct Wire to Socket	4
T8 2x4 6-Lamp Surface Mount Troffer Fixture with 25 Watt 4' Lamps	Retrofit with (6) 12.5 Watt LED T8 4' Lamps; Direct Wire to Socket	36
Vending Machine with Existing VendMiser Control	No Retrofit	2
Grand Total		**6,182**

Small Diverse Business Submission Form

Submit 1 original in a sealed envelope separate from the Technical Submission and the ECM/Cost Submission

After examination of the contract documents, which are made a part hereof as if fully set forth herein, the Proposer commits to the following percentage for Small Diverse Business participation on this project. The Proposer understands the language in the RFP regarding the calculation of the percentage.

Project: Small GESA Project 3

Proposer (Firm) Name

McClure Company (Vendor #117-888)

Commitment for Small Diverse Businesses for each ECM: (FILL IN)

ECM	Dollar Value of ECM	% SDB Commitment	Dollar Value SDB Commitment ($ Value of ECM x % Commitment)
EM-1	$639,312	70%	$450,000
FTSB-2	$3,716,332	4%	$165,000
Total	**$4,355,644**	**N/A**	**$ 615,000**

Proposer's SDB % = 100 X Total Dollar Value SDB Commitment / Total Dollar Value of ECMs

14.1 % (Figure) Fourteen Point One Percent (Written)

DATE OF ISSUE: JANUARY 5, 2017

DEPARTMENT OF GENERAL SERVICES
RESOURCE AND ENERGY MANAGEMENT OFFICE
401 NORTH STREET
HARRISBURG, PENNSYLVANIA

BULLETIN NO. 1
on

Project No. Small GESA-3 – REQUEST FOR PROPOSALS FOR A GUARANTEED ENERGY SAVINGS PROJECT AT: DEPT. OF HUMAN SERVICES, SELINSGROVE CENTER, SNYDER COUNTY, PENNSYLVANIA, Department of General Services, Energy & Resource Management, 401 North Street, Room 403, Harrisburg, Pennsylvania, 17120.

PROPOSAL SUBMISSION DEADLINE, FRIDAY FEBRUARY 17, 2017
TIME OF OPENING: 11:00 AM

QUESTIONS/ANSWERS

1. It seems as if there is only one site visit permitted (Wednesday, 1/11 following the pre-proposal meeting, 3 hours maximum). Is that correct?

Answer: A total of two site visits (3 hours maximum per visit for a total of 6 hours maximum) will be permitted and can be scheduled either at the pre-proposal meeting on 1/11/17 or by contacting Tony Kern at 570-372-5610.

2. Is there any way possible that a change to the Simple Payback requirements for the PA Small GESA program could be raised from 10 years to 14 or 15 years?

Answer: DGS will consider increasing the payback limitations if the ESCO discovers a savings opportunity that has a proven method and is desired by the funding agency.

R. Tomlinson

_____

Rebecca Tomlinson, RFP Coordinator
ENERGY & RESOURCE MANAGEMENT OFFICE

PLEASE ACKNOWLEDGE RECEIPT OF BULLETIN WITHIN 24 HOURS BY EMAIL RESPONSE TO REBECCA TOMLINSON AT retomlinso@pa.gov

NAME	TITLE	DATE

FIRM

DATE OF ISSUE: JANUARY 24, 2017

DEPARTMENT OF GENERAL SERVICES
ENERGY AND RESOURCE MANAGEMENT OFFICE
401 NORTH STREET
HARRISBURG, PENNSYLVANIA

BULLETIN NO. 2
on

Project No. Small GESA-3 – REQUEST FOR PROPOSALS FOR A GUARANTEED ENERGY SAVINGS PROJECT AT: DEPT. OF HUMAN SERVICES, SELINSGROVE CENTER, SNYDER COUNTY, PENNSYLVANIA, Department of General Services, Energy & Resource Management, 401 North Street, Room 403, Harrisburg, Pennsylvania, 17120.

PROPOSAL SUBMISSION DEADLINE, FRIDAY FEBRUARY 17, 2017
TIME OF OPENING: 11:00 AM

QUESTIONS/ANSWERS

1. Is there any way possible that a change to the Simple Payback requirements for the PA Small GESA program could be raised from 10 years to 14 or 15 years?

Answer: DGS will consider increasing the payback limitations if the ESCO discovers a savings opportunity that has a proven method and is desired by the funding agency. **UPDATED TO ADD:** The Funding Agency will accept proposals using the avoided costs for a rental boiler ($600,000) and are willing to extend the payback and financing up to 15 years.

2. Could we please get a copy of the 2016 utility bills for the Selinsgrove Center?

Answer: The Funding Agency has provided the past 3 years of utility bills, however; the files are too large to send via email. If you would like a copy of the invoices, please contact Becky Tomlinson at retomlinso@pa.gov ASAP to obtain the information.

R. Tomlinson

_____

Rebecca Tomlinson, RFP Coordinator
ENERGY & RESOURCE MANAGEMENT OFFICE

PLEASE ACKNOWLEDGE RECEIPT OF BULLETIN WITHIN 24 HOURS BY EMAIL RESPONSE TO REBECCA TOMLINSON AT retomlinso@pa.gov

NAME	TITLE	DATE

FIRM

DATE OF ISSUE: FEBRUARY 7, 2017

DEPARTMENT OF GENERAL SERVICES
ENERGY AND RESOURCE MANAGEMENT OFFICE
401 NORTH STREET
HARRISBURG, PENNSYLVANIA

BULLETIN NO. 3
on

Project No. Small GESA-3 – REQUEST FOR PROPOSALS FOR A GUARANTEED ENERGY SAVINGS PROJECT AT: DEPT. OF HUMAN SERVICES, SELINSGROVE CENTER, SNYDER COUNTY, PENNSYLVANIA, Department of General Services, Energy & Resource Management, 401 North Street, Room 403, Harrisburg, Pennsylvania, 17120.

PROPOSAL SUBMISSION DEADLINE, FRIDAY MARCH 17, 2017
TIME OF OPENING: 11:00 AM

RFP CHANGES:

1. The Funding Agency & DGS have agreed to extend the project by one month (four weeks). The new calendar of events is as follows:

1.36 Calendar of Events:

Activity	Date
Notice to Proposers and RFP Issued	December 29, 2016
Pre-Proposal Conference Room 150 of the Training Center, 1000 Route 522, Selinsgrove, Pennsylvania 17870	*10:00 AM on* *January 11, 2017*
Proposers' Deadline to Submit Questions	*March 8, 2017*
DGS' Deadline to Issue Bulletins	*March 10, 2017*
Proposal Submission Deadline Rebecca Tomlinson Issuing Officer 403 North Office Building 401 North Street Harrisburg, PA 17120	*By 11:00 a.m. on* *March 17, 2017*
Anticipated Date for Interviews with Proposers who received sufficient Technical Submission points	*March 30 & 31, 2017*
Anticipated Date for Announcement of Successful Proposer	*April 7, 2017*

QUESTIONS/ANSWERS

1. Could you please clarify if the $600,000 is one-time capital cost avoidance for the first year or a capital cost avoidance to be applied every year of the GESA contract?

Answer: The $600,000 is a cumulative cost. The Funding Agency would pay $20K/month for a rental boiler for 6 months per year and would only need it for 5 years until a capital project would be able to replace the boiler so $20,000*6 months*5 years = $600,000.

2. In Appendix K, the Commonwealth supplied a spread sheet of utility data and the "monthly utilities usage report". Currently, there are a couple pages missing from the Monthly Utilities Usage Report and it only shows data up to Sept 2015. Could the Commonwealth supply updated information through the end of 2016?

Answer: The Funding Agency has provided the missing utility information up to August/September of 2016 which is attached at the end of this bulletin on pages 5-24.

3. Appendix P has a site plan of all DHS Selinsgrove Center buildings. Which buildings on campus are considered occupied, mission ready, and unoccupied? For buildings considered occupied, what are the hours of operation? Should elements in the mission ready buildings or the unoccupied buildings be addressed?

   Answer: Please refer to the chart on page 25 of this bulletin.

4. Per RFP Part 1, page 1-3, 1.4.C "In addition to the time limit of a 10-year payback period, any Small GESA Contract issued under this RFP may not exceed a total dollar value limit of $5,000,000." Is the Commonwealth open to RFP responses that have a total value over $5,000,000?

   Answer: No

5. Is it correct to assume that the gas supply service and meter (by others) will support the new burner load?

   Answer: Yes, the line and sizing will be done by the gas company. The cost for the gas line will be worked into a new utility agreement.

6. Is it correct to assume that 2 boilers will be converted and 1 boiler will be abandoned and, following the project, coal will no longer be utilized at the plant?

   Answer: Yes, Coal will no longer be used.

7. Can we get a copy of the most recent (one year's worth) of maintenance costs for the boilers?

   Answer: No, not at this time.

8. What is the expected level of demolition (interior and exterior) for the coal feed systems (ie: overhead Lorry bucket system), ash handling systems and other coal specific components that will no longer be needed?

   Answer: To minimize project cost/ payback, restrict demolition of two coal boilers up to the breaching only and other items needed for the installation of this project.

9. Can we obtain the most recent copy of the gas line agreement letter from UGI to DGS? What will be the gas rate and tariff structure most likely to be in place UGI post-project implementation?

   Answer: Not at this time, a study is to be performed to evaluate gas line installation.

10. Are we to assume all ancillary steam components such as: deaerator tank, condensate transfer systems, etc. are in good operating condition and existing and are "existing to remain"? Or should it be assumed all ancillary steam components are in need of replacement?

    Answer: At this time, assume all ancillary equipment is to remain.

11. Appendix L is a list of the Core Energy Conservation Measures, including the 'retrofit boiler suggested/proposed scope". Are ESCOs able to deviate from the suggested scope in order to provide a creative solution or is it encouraged for ESCOs to replicate the scope verbatim?

    Answer: The suggested scope is just a suggestion developed to ensure a standard of work is done. The GESA contractor may deviate from this scope. If a new plan is suggested, the GESA contractor shall use proven concept and methods and describe them in the submission.

12. Since some of the equipment at the Center is in need of replacement, can ESCOs list the cost of the placement as "Capital Cost Avoidance" on our GESA project Cash Flow?

    Answer: No.

13. Who is responsible for the asbestos abatement?

Answer: The GESA Contractor.

14. Appendix L, 'Retrofit Boiler Suggested/Proposed Scope', 'Boiler Retrofit Summary of Work', Item 2 states: "“Gas/#2 Oil Low NOx Burners, swirl flame design, rated at 36,500 MBH input for the larger 30,000 PPH Keeler Boiler (Boiler #2) and 31,250 MBH input for the smaller 25,000 PPH Keeler Boiler (Boiler #3)…” However, the physical nameplates read as follows: Boiler #2: Keeler 610 BHP which equates to approximately 21kpph Boiler #3: 1955 Keeler, 513 BHP which equates to approximately 17.7 kpph. The proposed specified boilers are roughly 30% larger than existing. Is it the goal of the Commonwealth to increase the burner size or match the existing?

    Answer:

    A. The Commonwealth design specifications for coal boilers required 10 square feet of heating surface area per boiler horsepower (BHP). The typical boiler is manufactured at 5 square feet of heating surface per boiler horsepower. Therefore, in theory, these coal boilers could support twice the nameplate BHP output rating when firing gas.

    B. Selinsgrove Center has two different load conditions that must be accounted for: normal, and when activated as an emergency facility (residents are brought in from other facilities which means additional building heat would be required). Under normal load conditions turndown is an important consideration. This is to ensure that either one of the converted boilers would be able to sustain loads low enough to support operations until the existing small gas boiler could be brought on line and solely support existing loads.

    C. The pph/MBH values of 30,000/36,500 and 25,000/31,250 for the two boilers were provided as guidelines only (the pph values were approximately 1.5 times the nameplate horsepower ratings). A detailed examination of steam load requirements has not been conducted. The successful ESCO will be responsible for performing this evaluation, determining what steam capacities are needed for Boilers #2 and #3, and determining the appropriate burner MBH ratings to support. The steam capacity contribution from the existing small gas boiler should be included in all evaluations to determine required overall capacity requirements.

Rebecca Tomlinson, RFP Coordinator
ENERGY & RESOURCE MANAGEMENT OFFICE

PLEASE ACKNOWLEDGE RECEIPT OF BULLETIN WITHIN 24 HOURS BY EMAIL RESPONSE TO REBECCA TOMLINSON AT retomlinso@pa.gov

MONTHLY UTILITIES USAGE REPORT

Facility	Selinsgrove Center	Date (Month and Year of Report)	Dec-14
Total Facility Square Feet	987,572	Total Vacant Square Feet *(DPW only)*	253,653
Total Facility Occupied Square Feet *(DPW only)*	707,652	Total Leased Square Feet *(DPW only)*	26,267
Residents: 251		Staff: 838	

BOILER PLANT DATA & COSTS

1. Boiler Operating Pressure	175 psig	4. Makeup %	15.45%
2. Average Feedwater Temp.	220 °F	5. Peak Steam	19,000
3. Makeup Water Used (lbs) ☐ If no meter, check here	1,617,126 lb	6. Degree Days	930 HDD 0 CDD

	Coal	Gas (or Purchased Steam)	Oil	Total
Type of Coal ☑ Anthracite ☐ Bituminous				
7. Steam Produced (or Purchased)	10,463,641 lb	lb	lb	10,463,641
8. Fuel Consumed	726 ton	0 mcf	gal	
9. Evaporation (col.7 ÷ col. 8)	7.21 lb/lb	#DIV/0! lb/mcuft	No Oil lb/gal	
10. Unit Fuel Cost	95.00 $/ton	#DIV/0! $/mcuft	$/gal	
11. Fuel (or Steam) Cost	68,970 $	530 $	No Oil $	$
12. Fuel (or Steam) Cost per mlb Steam	6.59 $/mlb	No Gas or Steam $/mlb	No Oil $/mlb	$ 69,500

13. Parts Used	$	2,802
Miscellaneous Supplies	$	3,227
Service Contracts ☐ If yearly, check here	$	85
Repair Contracts ☐ If yearly, check here	$	0
Wages & Salaries (Including Benefits)	$	61,726
Sub Total	$	137,340

OTHER DATA

14. Miscellaneous Fuels	Natural Gas (mcuft)		mcuft	$/mcuft	0	Cost	$
	Propane (mcuft) [gal x 0.0894=mcuft]		mcuft	$/mcuft	0	Cost	$
	Total Gas mcuft	0		Total Gas Cost			$ 0
	Oil (gal)	573	gal	$/gal	2.19	Cost	$ 1,254
15. Facility Electric	Generated	0	kWh				
	Total Purchased	482,640	kWh	Total Electric Cost			$ 45,370
	Billing Demand	904	KW	$/kWh			$ 0.094
	Load Factor	0.73	hr				

16. Sewage	Total Quantity Sewage ☐ If No Meter, check here 2,584 mgal	Cost of Sewage Plant Operation (Including wages & benefits)		$ 0
		Sewage Charges Paid to Municipal Authority		$ 61,821
		$/mgal 23.92	Total Sewage Cost	$ 61,821

17. Comments	18. Water ☐ If No Meter, check here	Total Used 4,082 mgal	$/mgal 1.88 Total	$ 7,674
#16 sewage paid quarterly.			**Grand Total**	$ 253,459

Signature: Kolyn Kahley Date: 3/12/15

Approved: Date:

Revised 2/19/07

MONTHLY UTILITIES USAGE REPORT

Facility	Selinsgrove Center	Date (Month and Year of Report)	Jan-15
Total Facility Square Feet	987,572	Total Vacant Square Feet *(DPW only)*	253,653
Total Facility Occupied Square Feet *(DPW only)*	707,652	Total Leased Square Feet *(DPW only)*	26,267
Residents: 250		Staff: 834	

BOILER PLANT DATA & COSTS

1. Boiler Operating Pressure	175 psig	4. Makeup %	15.38%
2. Average Feedwater Temp.	220 °F	5. Peak Steam	22,000
3. Makeup Water Used (lbs) ☐ If no meter, check here	1,951,560 lb	6. Degree Days	1241 HDD 0 CDD

Type of Coal ☑ Anthracite ☐ Bituminous	Coal	Gas (or Purchased Steam)	Oil	Total
7. Steam Produced (or Purchased)	12,689,214 lb	lb	lb	12,689,214
8. Fuel Consumed	884 ton	0 mcf	gal	
9. Evaporation (col.7 ÷ col. 8)	7.18 lb/lb	#DIV/0! lb/mcuft	No Oil lb/gal	
10. Unit Fuel Cost	92.89 $/ton	#DIV/0! $/mcuft	$/gal	
11. Fuel (or Steam) Cost	82,115 $	512 $	No Oil $	$
12. Fuel (or Steam) Cost per mlb Steam	6.47 $/mlb	No Gas or Steam $/mlb	No Oil $/mlb	$ 82,627

13. Parts Used	$	207
Miscellaneous Supplies	$	3,020
Service Contracts ☐ If yearly, check here	$	68
Repair Contracts ☐ If yearly, check here	$	0
Wages & Salaries (Including Benefits)	$	61,181
Sub Total	$	147,103

OTHER DATA

14. Miscellaneous Fuels	Natural Gas (mcuft)		mcuft	$/mcuft	0	Cost	$
	Propane (mcuft) [gal x 0.0894=mcuft]		mcuft	$/mcuft	0	Cost	$
	Total Gas mcuft	0		Total Gas Cost			$ 0
	Oil (gal)	762	gal	$/gal	1.94	Cost	$ 1,482
15. Facility Electric	Generated	20,960	kWh				
	Total Purchased	542,920	kWh	Total Electric Cost			$ 49,491
	Billing Demand	886	KW	$/kWh			$ 0.091
	Load Factor	0.84	hr				

16. Sewage	Total Quantity Sewage ☐ If No Meter, check here 2,770 mgal	Cost of Sewage Plant Operation (Including wages & benefits)		$ 0
		Sewage Charges Paid to Municipal Authority		$ 0
		$/mgal 0	Total Sewage Cost	$ 0

17. Comments	18. Water ☐ If No Meter, check here	Total Used	$/mgal		
#16 sewage paid quarterly.		4,456 mgal	1.23	Total	$ 5,471
				Grand Total	$ 203,547
	Signature				
	Kolyn Kahley		Date	6/9/15	
	Approved				
			Date		

Revised 2/19/07

MONTHLY UTILITIES USAGE REPORT

Facility	Selinsgrove Center	Date (Month and Year of Report)	Feb-15
Total Facility Square Feet	987,572	Total Vacant Square Feet *(DPW only)*	253,653
Total Facility Occupied Square Feet *(DPW only)*	707,652	Total Leased Square Feet *(DPW only)*	26,267
Residents: 250		Staff: 827	

BOILER PLANT DATA & COSTS

1. Boiler Operating Pressure	175 psig	4. Makeup %	16.86%
2. Average Feedwater Temp.	220 °F	5. Peak Steam	23,500
3. Makeup Water Used (lbs) ☐ If no meter, check here	2,107,518 lb	6. Degree Days	1267 HDD 0 CDD

Type of Coal ☑ Anthracite ☐ Bituminous	Coal	Gas (or Purchased Steam)	Oil	Total
7. Steam Produced (or Purchased)	12,500,842 lb	lb	lb	12,500,842
8. Fuel Consumed	886 ton	0 mcf	gal	
9. Evaporation (col.7 ÷ col. 8)	7.05 lb/lb	#DIV/0! lb/mcuft	No Oil lb/gal	
10. Unit Fuel Cost	92.29 $/ton	#DIV/0! $/mcuft	$/gal	
11. Fuel (or Steam) Cost	81,769 $	512 $	No Oil $	$
12. Fuel (or Steam) Cost per mlb Steam	6.54 $/mlb	No Gas or Steam $/mlb	No Oil $/mlb	$ 82,281

13. Parts Used	$	202
Miscellaneous Supplies	$	3,431
Service Contracts ☐ If yearly, check here	$	68
Repair Contracts ☐ If yearly, check here	$	0
Wages & Salaries (Including Benefits)	$	66,209
Sub Total	$	152,191

OTHER DATA

14. Miscellaneous Fuels	Natural Gas (mcuft)		mcuft	$/mcuft	0	Cost	$
	Propane (mcuft) [gal x 0.0894=mcuft]		mcuft	$/mcuft	0	Cost	$
	Total Gas mcuft	0		Total Gas Cost			$ 0
	Oil (gal)	879	gal	$/gal	2.31	Cost	$ 2,032
15. Facility Electric	Generated	69,500	kWh				
	Total Purchased	374,040	kWh	Total Electric Cost			$ 16,468
	Billing Demand	862	KW	$/kWh			$ 0.044
	Load Factor	0.59	hr				

16. Sewage	Total Quantity Sewage ☐ If No Meter, check here 2,099 mgal	Cost of Sewage Plant Operation (Including wages & benefits)		$ 0
		Sewage Charges Paid to Municipal Authority		$ 0
		$/mgal 0	Total Sewage Cost	$ 0

17. Comments	18. Water ☐ If No Meter, check here	Total Used	$/mgal		
#16 sewage paid quarterly.		4,107 mgal	2.20	Total	$ 9,040
				Grand Total	$ 179,731
	Signature				
	Kolyn Kahley		Date	6/9/15	
	Approved				
			Date		

Revised 2/19/07

MONTHLY UTILITIES USAGE REPORT

Facility	Selinsgrove Center	Date (Month and Year of Report)	Mar-15
Total Facility Square Feet	987,572	Total Vacant Square Feet *(DPW only)*	253,653
Total Facility Occupied Square Feet *(DPW only)*	707,652	Total Leased Square Feet *(DPW only)*	26,267
Residents: 250		Staff: 830	

BOILER PLANT DATA & COSTS

1. Boiler Operating Pressure	175 psig	4. Makeup %	21.60%
2. Average Feedwater Temp.	220 °F	5. Peak Steam	21,000
3. Makeup Water Used (lbs) ☐ If no meter, check here	2,335,200 lb	6. Degree Days	972 HDD 0 CDD

	Coal	Gas (or Purchased Steam)	Oil	Total
Type of Coal ☑ Anthracite ☐ Bituminous				
7. Steam Produced (or Purchased)	10,809,166 lb	lb	lb	10,809,166
8. Fuel Consumed	778 ton	0 mcf	gal	
9. Evaporation (col.7 ÷ col. 8)	6.95 lb/lb	#DIV/0! lb/mcuft	No Oil lb/gal	
10. Unit Fuel Cost	93.79 $/ton	#DIV/0! $/mcuft	$/gal	
11. Fuel (or Steam) Cost	72,969 $	512 $	No Oil $	$
12. Fuel (or Steam) Cost per mlb Steam	6.75 $/mlb	No Gas or Steam $/mlb	No Oil $/mlb	$ 73,481

13. Parts Used	$	51
Miscellaneous Supplies	$	2,765
Service Contracts ☐ If yearly, check here	$	85
Repair Contracts ☐ If yearly, check here	$	0
Wages & Salaries (Including Benefits)	$	63,022
Sub Total	$	139,404

OTHER DATA

14. Miscellaneous Fuels	Natural Gas (mcuft)		mcuft	$/mcuft	0	Cost	$
	Propane (mcuft) [gal x 0.0894=mcuft]		mcuft	$/mcuft	0	Cost	$
	Total Gas mcuft	0		Total Gas Cost			$ 0
	Oil (gal)	455	gal	$/gal	1.89	Cost	$ 860
15. Facility Electric	Generated	49,720	kWh				
	Total Purchased	388,200	kWh	Total Electric Cost			$ 37,099
	Billing Demand	781	KW	$/kWh			$ 0.096
	Load Factor	0.68	hr				

16. Sewage	Total Quantity Sewage ☐ If No Meter, check here 3,295 mgal	Cost of Sewage Plant Operation (Including wages & benefits)		$ 0
		Sewage Charges Paid to Municipal Authority		$ 61,821
		$/mgal 18.76	Total Sewage Cost	$ 61,821

17. Comments	18. Water ☐ If No Meter, check here	Total Used 4,796 mgal	$/mgal 1.55 Total	$ 7,453
#16 sewage paid quarterly.			**Grand Total**	$ 246,636
	Signature			
	Kolyn Kahley		Date	6/9/15
	Approved			
			Date	

Revised 2/19/07

MONTHLY UTILITIES USAGE REPORT

Facility	Selinsgrove Center	Date (Month and Year of Report)	Oct-15
Total Facility Square Feet	987,572	Total Vacant Square Feet *(DPW only)*	253,199
Total Facility Occupied Square Feet *(DPW only)*	707,652	Total Leased Square Feet *(DPW only)*	26,721
Residents: 239		Staff: 799	

BOILER PLANT DATA & COSTS

1. Boiler Operating Pressure	185 psig	4. Makeup %	18.95%
2. Average Feedwater Temp.	220 °F	5. Peak Steam	12,500
3. Makeup Water Used (lbs) ☐ If no meter, check here	1,143,414 lb	6. Degree Days	392 HDD 0 CDD

	Coal	Gas (or Purchased Steam)	Oil	Total
Type of Coal ☑ Anthracite ☐ Bituminous				
7. Steam Produced (or Purchased)	3,841,866 lb	2,191,994 lb	lb	6,033,860
8. Fuel Consumed	267 ton	2,487 mcf	gal	
9. Evaporation (col.7 ÷ col. 8)	7.19 lb/lb	881 lb/mcuft	No Oil lb/gal	
10. Unit Fuel Cost	120.10 $/ton	4.65 $/mcuft	$/gal	
11. Fuel (or Steam) Cost	32,067 $	11,574 $	No Oil $	$
12. Fuel (or Steam) Cost per mlb Steam	8.35 $/mlb	5.28 $/mlb	No Oil $/mlb	$ 43,641

13. Parts Used	$	2,521
Miscellaneous Supplies	$	165
Service Contracts ☐ If yearly, check here	$	784
Repair Contracts ☐ If yearly, check here	$	3,520
Wages & Salaries (Including Benefits)	$	92,428
Sub Total	$	143,059

OTHER DATA

14. Miscellaneous Fuels	Natural Gas (mcuft)		mcuft	$/mcuft	0	Cost	$
	Propane (mcuft) [gal x 0.0894=mcuft]		mcuft	$/mcuft	0	Cost	$
	Total Gas mcuft	0		Total Gas Cost			$ 0
	Oil (gal)		gal	$/gal	0	Cost	$
15. Facility Electric	Generated	0	kWh				
	Total Purchased	487,880	kWh	Total Electric Cost			$ 44,010
	Billing Demand	921	KW	$/kWh			$ 0.090
	Load Factor	0.73	hr				

16. Sewage	Total Quantity Sewage ☐ If No Meter, check here 1,354 mgal	Cost of Sewage Plant Operation (Including wages & benefits)		$ 0
		Sewage Charges Paid to Municipal Authority		$ 0
		$/mgal 0	Total Sewage Cost	$ 0

17. Comments	18. Water ☐ If No Meter, check here	Total Used	$/mgal		
#16 sewage paid quarterly.		1,910 mgal	5.53	Total	$ 10,557
				Grand Total	$ 197,626
	Signature				
	Kolyn Kahley			Date	3/31/16
	Approved				
				Date	

Revised 2/19/07

MONTHLY UTILITIES USAGE REPORT

Facility	Selinsgrove Center	Date (Month and Year of Report)	Nov-15
Total Facility Square Feet	987,572	Total Vacant Square Feet *(DPW only)*	253,199
Total Facility Occupied Square Feet *(DPW only)*	707,652	Total Leased Square Feet *(DPW only)*	26,721
Residents: 237		Staff: 812	

BOILER PLANT DATA & COSTS

1. Boiler Operating Pressure	185 psig	4. Makeup %	18.62%
2. Average Feedwater Temp.	220 °F	5. Peak Steam	15,500
3. Makeup Water Used (lbs) ☐ If no meter, check here	1,281,024 lb	6. Degree Days	526 HDD 0 CDD

Type of Coal ☑ Anthracite ☐ Bituminous	Coal	Gas (or Purchased Steam)	Oil	Total
7. Steam Produced (or Purchased)	6,879,309 lb	0 lb	lb	6,879,309
8. Fuel Consumed	481 ton	0 mcf	gal	
9. Evaporation (col.7 ÷ col. 8)	7.15 lb/lb	#DIV/0! lb/mcuft	No Oil lb/gal	
10. Unit Fuel Cost	120.10 $/ton	#DIV/0! $/mcuft	$/gal	
11. Fuel (or Steam) Cost	57,768 $	519 $	No Oil $	$
12. Fuel (or Steam) Cost per mlb Steam	8.40 $/mlb	#DIV/0! $/mlb	No Oil $/mlb	$ 58,288

13. Parts Used	$	11,008
Miscellaneous Supplies	$	146
Service Contracts ☐ If yearly, check here	$	101
Repair Contracts ☐ If yearly, check here	$	0
Wages & Salaries (Including Benefits)	$	64,302
Sub Total	$	133,845

OTHER DATA

14. Miscellaneous Fuels	Natural Gas (mcuft)		mcuft	$/mcuft	0	Cost	$
	Propane (mcuft) [gal x 0.0894=mcuft]		mcuft	$/mcuft	0	Cost	$
	Total Gas mcuft	0		Total Gas Cost			$ 0
	Oil (gal)	150	gal	$/gal	1.75	Cost	$ 262
15. Facility Electric	Generated	0	kWh				
	Total Purchased	465,280	kWh	Total Electric Cost			$ 44,189
	Billing Demand	864	KW	$/kWh			$ 0.095
	Load Factor	0.74	hr				

16. Sewage	Total Quantity Sewage ☐ If No Meter, check here 1,362 mgal	Cost of Sewage Plant Operation (Including wages & benefits)	$ 0
		Sewage Charges Paid to Municipal Authority	$ 0
		$/mgal 0 — Total Sewage Cost	$ 0

17. Comments

#16 sewage paid quarterly.

18. Water ☐ If No Meter, check here	Total Used 1,690 mgal	$/mgal 3.64	Total	$ 6,158
			Grand Total	$ 184,454

Signature

Kolyn Kahley — Date 3/31/16

Approved — Date

Revised 2/19/07

MONTHLY UTILITIES USAGE REPORT

Facility	Selinsgrove Center	Date (Month and Year of Report)	Dec-15
Total Facility Square Feet	987,572	Total Vacant Square Feet *(DPW only)*	253,199
Total Facility Occupied Square Feet *(DPW only)*	707,652	Total Leased Square Feet *(DPW only)*	26,721
Residents: 236		Staff: 806	

BOILER PLANT DATA & COSTS

1. Boiler Operating Pressure	185 psig	4. Makeup %	17.26%
2. Average Feedwater Temp.	220 °F	5. Peak Steam	16,000
3. Makeup Water Used (lbs) ☐ If no meter, check here	1,601,280 lb	6. Degree Days	702 HDD 0 CDD

Type of Coal ☑ Anthracite ☐ Bituminous	Coal	Gas (or Purchased Steam)	Oil	Total
7. Steam Produced (or Purchased)	9,278,106 lb	0 lb	lb	9,278,106
8. Fuel Consumed	667 ton	0 mcf	gal	
9. Evaporation (col.7 ÷ col. 8)	6.96 lb/lb	#DIV/0! lb/mcuft	No Oil lb/gal	
10. Unit Fuel Cost	119.80 $/ton	#DIV/0! $/mcuft	$/gal	
11. Fuel (or Steam) Cost	79,907 $	521 $	No Oil $	$
12. Fuel (or Steam) Cost per mlb Steam	8.61 $/mlb	#DIV/0! $/mlb	No Oil $/mlb	$ 80,427

13. Parts Used	$	71
Miscellaneous Supplies	$	85
Service Contracts ☐ If yearly, check here	$	140
Repair Contracts ☐ If yearly, check here	$	0
Wages & Salaries (Including Benefits)	$	62,463
Sub Total	$	143,186

OTHER DATA

14. Miscellaneous Fuels	Natural Gas (mcuft)		mcuft	$/mcuft	0	Cost	$
	Propane (mcuft) [gal x 0.0894=mcuft]		mcuft	$/mcuft	0	Cost	$
	Total Gas mcuft	0		Total Gas Cost			$ 0
	Oil (gal)	342	gal	$/gal	1.56	Cost	$ 534
15. Facility Electric	Generated	0	kWh				
	Total Purchased	475,240	kWh	Total Electric Cost			$ 42,799
	Billing Demand	844	KW	$/kWh			$ 0.090
	Load Factor	0.77	hr				

16. Sewage	Total Quantity Sewage ☐ If No Meter, check here: 2,042 mgal	Cost of Sewage Plant Operation (Including wages & benefits)		$ 0
		Sewage Charges Paid to Municipal Authority		$ 61,821
		$/mgal 30.27	Total Sewage Cost	$ 61,821

17. Comments	18. Water ☐ If No Meter, check here	Total Used	$/mgal		
#16 sewage paid quarterly.		2,213 mgal	3.23	Total	$ 7,150
				Grand Total	$ 255,490
	Signature				
	Kolyn Kahley		Date	3/31/16	
	Approved				
			Date		

Revised 2/19/07

MONTHLY UTILITIES USAGE REPORT

Facility	Selinsgrove Center	Date (Month and Year of Report)	Jan-16
Total Facility Square Feet	987,572	Total Vacant Square Feet *(DPW only)*	253,199
Total Facility Occupied Square Feet *(DPW only)*	707,652	Total Leased Square Feet *(DPW only)*	26,721
Residents:	236	Staff:	803

BOILER PLANT DATA & COSTS

1. Boiler Operating Pressure	185 psig	4. Makeup %	18.39%		
2. Average Feedwater Temp.	220 °F	5. Peak Steam	22,500		
3. Makeup Water Used (lbs) ☐ If no meter, check here	2,276,820 lb	6. Degree Days	1163 HDD	0	CDD

Type of Coal ☑ Anthracite ☐ Bituminous

	Coal	Gas (or Purchased Steam)	Oil	Total
7. Steam Produced (or Purchased)	12,378,754 lb	0 lb	lb	12,378,754
8. Fuel Consumed	928 ton	0 mcf	gal	
9. Evaporation (col.7 ÷ col. 8)	6.67 lb/lb	#DIV/0! lb/mcuft	No Oil lb/gal	
10. Unit Fuel Cost	118.90 $/ton	#DIV/0! $/mcuft	$/gal	
11. Fuel (or Steam) Cost	110,393 $	524 $	No Oil $	$
12. Fuel (or Steam) Cost per mlb Steam	8.92 $/mlb	#DIV/0! $/mlb	No Oil $/mlb	$ 110,917

13. Parts Used	$	146
Miscellaneous Supplies	$	108
Service Contracts ☐ If yearly, check here	$	6,302
Repair Contracts ☐ If yearly, check here	$	0
Wages & Salaries (Including Benefits)	$	61,366
Sub Total	$	178,840

OTHER DATA

14. Miscellaneous Fuels	Natural Gas (mcuft)		mcuft	$/mcuft	0	Cost	$
	Propane (mcuft) [gal x 0.0894=mcuft]		mcuft	$/mcuft	0	Cost	$
	Total Gas mcuft	0		Total Gas Cost			$ 0
	Oil (gal)	480	gal	$/gal	1.36	Cost	$ 653
15. Facility Electric	Generated	60,070	kWh				
	Total Purchased	485,360	kWh	Total Electric Cost			$ 43,832
	Billing Demand	855	KW	$/kWh			$ 0.090
	Load Factor	0.78	hr				

16. Sewage	Total Quantity Sewage ☐ If No Meter, check here: 2,868 mgal	Cost of Sewage Plant Operation (Including wages & benefits)		$ 0
		Sewage Charges Paid to Municipal Authority		$ 0
		$/mgal 0	Total Sewage Cost	$ 0

17. Comments	18. Water ☐ If No Meter, check here	Total Used	$/mgal		
#16 sewage paid quarterly.		3,943 mgal	2.24	Total	$ 8,840
				Grand Total	$ 232,165

Signature

Kolyn Kahley Date 6/28/16

Approved

Date

Revised 2/19/07

MONTHLY UTILITIES USAGE REPORT

Facility	Selinsgrove Center	Date (Month and Year of Report)	Feb-16
Total Facility Square Feet	987,572	Total Vacant Square Feet *(DPW only)*	253,199
Total Facility Occupied Square Feet *(DPW only)*	707,652	Total Leased Square Feet *(DPW only)*	26,721
Residents: 233		Staff: 796	

BOILER PLANT DATA & COSTS

1. Boiler Operating Pressure	185 psig	4. Makeup %	16.89%
2. Average Feedwater Temp.	220 °F	5. Peak Steam	23,000
3. Makeup Water Used (lbs) ☐ If no meter, check here	1,919,034 lb	6. Degree Days	961 HDD 0 CDD

Type of Coal ☑ Anthracite ☐ Bituminous	Coal	Gas (or Purchased Steam)	Oil	Total
7. Steam Produced (or Purchased)	11,360,403 lb	0 lb	lb	11,360,403
8. Fuel Consumed	800 ton	0 mcf	gal	
9. Evaporation (col.7 ÷ col. 8)	7.10 lb/lb	#DIV/0! lb/mcuft	No Oil lb/gal	
10. Unit Fuel Cost	118.60 $/ton	#DIV/0! $/mcuft	$/gal	
11. Fuel (or Steam) Cost	94,859 $	520 $	No Oil $	$
12. Fuel (or Steam) Cost per mlb Steam	8.35 $/mlb	#DIV/0! $/mlb	No Oil $/mlb	$ 95,379

13. Parts Used	$	38
Miscellaneous Supplies	$	6,506
Service Contracts ☐ If yearly, check here	$	0
Repair Contracts ☐ If yearly, check here	$	0
Wages & Salaries (Including Benefits)	$	61,920
Sub Total	$	163,843

OTHER DATA

14. Miscellaneous Fuels	Natural Gas (mcuft)		mcuft	$/mcuft	0	Cost	$
	Propane (mcuft) [gal x 0.0894=mcuft]		mcuft	$/mcuft	0	Cost	$
	Total Gas mcuft	0		Total Gas Cost			$ 0
	Oil (gal)	585	gal	$/gal	1.45	Cost	$ 848
15. Facility Electric	Generated	56,050	kWh				
	Total Purchased	383,160	kWh	Total Electric Cost			$ 32,757
	Billing Demand	714	KW	$/kWh			$ 0.085
	Load Factor	0.74	hr				

16. Sewage	Total Quantity Sewage ☐ If No Meter, check here 5,208 mgal	Cost of Sewage Plant Operation (Including wages & benefits)		$ 0
		Sewage Charges Paid to Municipal Authority		$ 0
		$/mgal 0	Total Sewage Cost	$ 0

17. Comments	18. Water ☐ If No Meter, check here	Total Used	$/mgal		
#16 sewage paid quarterly.		2,204 mgal	3.12	Total	$ 6,872
				Grand Total	$ 204,321

Signature

Kolyn Kahley — Date 6/28/16

Approved — Date

Revised 2/19/07

MONTHLY UTILITIES USAGE REPORT

Facility	Selinsgrove Center	Date (Month and Year of Report)	Mar-16
Total Facility Square Feet	987,572	Total Vacant Square Feet *(DPW only)*	253,199
Total Facility Occupied Square Feet *(DPW only)*	707,652	Total Leased Square Feet *(DPW only)*	26,721
Residents: 233		Staff: 785	

BOILER PLANT DATA & COSTS

1. Boiler Operating Pressure	185 psig	4. Makeup %	15.83%
2. Average Feedwater Temp.	220 °F	5. Peak Steam	18,000
3. Makeup Water Used (lbs) ☐ If no meter, check here	1,418,634 lb	6. Degree Days	598 HDD 0 CDD

Type of Coal ☑ Anthracite ☐ Bituminous	Coal	Gas (or Purchased Steam)	Oil	Total
7. Steam Produced (or Purchased)	8,959,076 lb	0 lb	lb	8,959,076
8. Fuel Consumed	669 ton	0 mcf	gal	
9. Evaporation (col.7 ÷ col. 8)	6.70 lb/lb	#DIV/0! lb/mcuft	No Oil lb/gal	
10. Unit Fuel Cost	118.90 $/ton	#DIV/0! $/mcuft	$/gal	
11. Fuel (or Steam) Cost	79,544 $	522 $	No Oil $	$
12. Fuel (or Steam) Cost per mlb Steam	8.88 $/mlb	#DIV/0! $/mlb	No Oil $/mlb	$ 80,066

13. Parts Used	$	54
Miscellaneous Supplies	$	366
Service Contracts ☐ If yearly, check here	$	400
Repair Contracts ☐ If yearly, check here	$	0
Wages & Salaries (Including Benefits)	$	64,065
Sub Total	$	144,951

OTHER DATA

14. Miscellaneous Fuels	Natural Gas (mcuft)		mcuft	$/mcuft	0	Cost	$
	Propane (mcuft) [gal x 0.0894=mcuft]		mcuft	$/mcuft	0	Cost	$
	Total Gas mcuft	0		Total Gas Cost			$ 0
	Oil (gal)		gal	$/gal	0	Cost	$
15. Facility Electric	Generated	0	kWh				
	Total Purchased	475,360	kWh	Total Electric Cost			$ 11,387
	Billing Demand	901	KW	$/kWh			$ 0.024
	Load Factor	0.72	hr				

16. Sewage	Total Quantity Sewage ☐ If No Meter, check here 2,040 mgal	Cost of Sewage Plant Operation (Including wages & benefits)		$ 0
		Sewage Charges Paid to Municipal Authority		$ 55,314
		$/mgal 27.11	Total Sewage Cost	$ 55,314

17. Comments	18. Water ☐ If No Meter, check here	Total Used 2,617 mgal	$/mgal 3.14 Total	$ 8,228
#16 sewage paid quarterly. #15 PJM Demand Response Credit applied to this months bill			**Grand Total**	$ 219,880
	Signature			
	Kolyn Kahley		Date	6/28/16
	Approved			
			Date	

Revised 2/19/07

MONTHLY UTILITIES USAGE REPORT

Facility	Selinsgrove Center	Date (Month and Year of Report)	Apr-16
Total Facility Square Feet	987,572	Total Vacant Square Feet *(DPW only)*	253,199
Total Facility Occupied Square Feet *(DPW only)*	707,652	Total Leased Square Feet *(DPW only)*	26,721
Residents: 234		Staff: 788	

BOILER PLANT DATA & COSTS

1. Boiler Operating Pressure	185 psig	4. Makeup %	15.34%
2. Average Feedwater Temp.	220 °F	5. Peak Steam	17,500
3. Makeup Water Used (lbs) ☐ If no meter, check here	1,155,924 lb	6. Degree Days	469 HDD 0 CDD

	Coal	Gas (or Purchased Steam)	Oil	Total
Type of Coal ☑ Anthracite ☐ Bituminous				
7. Steam Produced (or Purchased)	4,968,562 lb	2,567,887 lb	lb	7,536,449
8. Fuel Consumed	328 ton	2,739 mcf	gal	
9. Evaporation (col.7 ÷ col. 8)	7.57 lb/lb	937 lb/mcuft	No Oil lb/gal	
10. Unit Fuel Cost	119.20 $/ton	3.79 $/mcuft	$/gal	
11. Fuel (or Steam) Cost	39,098 $	10,388 $	No Oil $	$
12. Fuel (or Steam) Cost per mlb Steam	7.87 $/mlb	4.05 $/mlb	No Oil $/mlb	$ 49,486

13. Parts Used	$	4,050
Miscellaneous Supplies	$	3,142
Service Contracts ☐ If yearly, check here	$	79
Repair Contracts ☐ If yearly, check here	$	0
Wages & Salaries (Including Benefits)	$	89,209
Sub Total	$	145,966

OTHER DATA

14. Miscellaneous Fuels	Natural Gas (mcuft)		mcuft	$/mcuft	0	Cost	$
	Propane (mcuft) [gal x 0.0894=mcuft]		mcuft	$/mcuft	0	Cost	$
	Total Gas mcuft	0		Total Gas Cost			$ 0
	Oil (gal)	771	gal	$/gal	1.45	Cost	$ 1,118
15. Facility Electric	Generated	0	kWh				
	Total Purchased	474,240	kWh	Total Electric Cost			$ 37,834
	Billing Demand	913	KW	$/kWh			$ 0.080
	Load Factor	0.71	hr				

16. Sewage	Total Quantity Sewage ☐ If No Meter, check here 1,943 mgal	Cost of Sewage Plant Operation (Including wages & benefits)		$ 0
		Sewage Charges Paid to Municipal Authority		$ 0
		$/mgal 0	Total Sewage Cost	$ 0

17. Comments	18. Water ☐ If No Meter, check here	Total Used	$/mgal		
#16 sewage paid quarterly.		2,102 mgal	4.61	Total	$ 9,686
				Grand Total	$ 194,604

Signature

Kolyn Kahley Date 9/6/16

Approved

Date

Revised 2/19/07

MONTHLY UTILITIES USAGE REPORT

Facility	Selinsgrove Center	Date (Month and Year of Report)	May-16
Total Facility Square Feet	987,572	Total Vacant Square Feet *(DPW only)*	253,199
Total Facility Occupied Square Feet *(DPW only)*	707,652	Total Leased Square Feet *(DPW only)*	26,721
Residents:	234	Staff:	817

BOILER PLANT DATA & COSTS

1. Boiler Operating Pressure	90	psig	4. Makeup %	17.26%	
2. Average Feedwater Temp.	220	°F	5. Peak Steam	10,500	
3. Makeup Water Used (lbs) ☐ If no meter, check here	990,792	lb	6. Degree Days	175 HDD	87 CDD

	Coal	Gas (or Purchased Steam)	Oil	Total
Type of Coal ☑ Anthracite ☐ Bituminous				
7. Steam Produced (or Purchased)	0 lb	5,741,792 lb	lb	5,741,792
8. Fuel Consumed	0 ton	6,231 mcf	gal	
9. Evaporation (col.7 ÷ col. 8)	#DIV/0! lb/lb	921 lb/mcuft	No Oil lb/gal	
10. Unit Fuel Cost	0.00 $/ton	3.96 $/mcuft	$/gal	
11. Fuel (or Steam) Cost	0 $	24,663 $	No Oil $	$
12. Fuel (or Steam) Cost per mlb Steam	#DIV/0! $/mlb	4.30 $/mlb	No Oil $/mlb	$ 24,663

13. Parts Used	$	4,725
Miscellaneous Supplies	$	1,133
Service Contracts ☐ If yearly, check here	$	29,900
Repair Contracts ☐ If yearly, check here	$	0
Wages & Salaries (Including Benefits)	$	59,086
Sub Total	$	119,507

OTHER DATA

14. Miscellaneous Fuels	Natural Gas (mcuft)		mcuft	$/mcuft	0	Cost	$
	Propane (mcuft) [gal x 0.0894=mcuft]		mcuft	$/mcuft	0	Cost	$
	Total Gas mcuft	0		Total Gas Cost			$ 0
	Oil (gal)	0	gal	$/gal	0	Cost	$ 0
15. Facility Electric	Generated	0	kWh				
	Total Purchased	460,600	kWh	Total Electric Cost			$ 36,985
	Billing Demand	920	KW	$/kWh			$ 0.080
	Load Factor	0.69	hr				

16. Sewage	Total Quantity Sewage ☐ If No Meter, check here: 1,537 mgal	Cost of Sewage Plant Operation (Including wages & benefits)	$	0
		Sewage Charges Paid to Municipal Authority	$	0
		$/mgal 0 — Total Sewage Cost	$	0

17. Comments	18. Water ☐ If No Meter, check here	Total Used	$/mgal		
#16 sewage paid quarterly.		2,128 mgal	3.04	Total	$ 6,462
				Grand Total	$ 162,954

Signature			
Kolyn Kahley		Date	9/7/16
Approved			
		Date	

Revised 2/19/07

MONTHLY UTILITIES USAGE REPORT

Facility	Selinsgrove Center	Date (Month and Year of Report)	Jun-16
Total Facility Square Feet	987,572	Total Vacant Square Feet *(DPW only)*	253,199
Total Facility Occupied Square Feet *(DPW only)*	707,652	Total Leased Square Feet *(DPW only)*	26,721
Residents:	233	Staff:	804

BOILER PLANT DATA & COSTS

1. Boiler Operating Pressure	90 psig	4. Makeup %	20.20%
2. Average Feedwater Temp.	220 °F	5. Peak Steam	8,500
3. Makeup Water Used (lbs) ☐ If no meter, check here	865,692 lb	6. Degree Days	16 HDD 236 CDD

	Coal	Gas (or Purchased Steam)	Oil	Total
Type of Coal ☑ Anthracite ☐ Bituminous				
7. Steam Produced (or Purchased)	0 lb	4,285,516 lb	lb	4,285,516
8. Fuel Consumed	0 ton	4,843 mcf	gal	
9. Evaporation (col.7 ÷ col. 8)	#DIV/0! lb/lb	885 lb/mcuft	No Oil lb/gal	
10. Unit Fuel Cost	0.00 $/ton	3.59 $/mcuft	$/gal	
11. Fuel (or Steam) Cost	0 $	17,384 $	No Oil $	$
12. Fuel (or Steam) Cost per mlb Steam	#DIV/0! $/mlb	4.06 $/mlb	No Oil $/mlb	$ 17,384

13. Parts Used	$	1,304
Miscellaneous Supplies	$	276
Service Contracts ☐ If yearly, check here	$	8,350
Repair Contracts ☐ If yearly, check here	$	0
Wages & Salaries (Including Benefits)	$	60,853
Sub Total	$	88,167

OTHER DATA

14. Miscellaneous Fuels	Natural Gas (mcuft)		mcuft	$/mcuft	0	Cost	$
	Propane (mcuft) [gal x 0.0894=mcuft]		mcuft	$/mcuft	0	Cost	$
	Total Gas mcuft	0		Total Gas Cost			$ 0
	Oil (gal)	0	gal	$/gal	0	Cost	$ 0
15. Facility Electric	Generated	0	kWh				
	Total Purchased	553,480	kWh	Total Electric Cost			$ 41,940
	Billing Demand	1,069	KW	$/kWh			$ 0.076
	Load Factor	0.71	hr				

16. Sewage	Total Quantity Sewage ☐ If No Meter, check here: 1,483 mgal	Cost of Sewage Plant Operation (Including wages & benefits)		$ 0
		Sewage Charges Paid to Municipal Authority		$ 55,314
		$/mgal 37.30	Total Sewage Cost	$ 55,314

17. Comments	18. Water ☐ If No Meter, check here	Total Used		$/mgal	
#16 sewage paid quarterly.		2,164 mgal	6.07 Total		$ 13,126
				Grand Total	$ 198,546

Signature

Kolyn Kahley Date 9/13/16

Approved

Date

Revised 2/19/07

MONTHLY UTILITIES USAGE REPORT

Facility	Selinsgrove Center	Date (Month and Year of Report)	Jul-16
Total Facility Square Feet	987,572	Total Vacant Square Feet *(DPW only)*	253,199
Total Facility Occupied Square Feet *(DPW only)*	707,652	Total Leased Square Feet *(DPW only)*	26,721
Residents: 233		Staff: 810	

BOILER PLANT DATA & COSTS

1. Boiler Operating Pressure	90 psig	4. Makeup %	21.41%
2. Average Feedwater Temp.	220 °F	5. Peak Steam	6,000
3. Makeup Water Used (lbs) ☐ If no meter, check here	894,882 lb	6. Degree Days	0 HDD 430 CDD

	Coal	Gas (or Purchased Steam)	Oil	Total
Type of Coal ☑ Anthracite ☐ Bituminous				
7. Steam Produced (or Purchased)	0 lb	4,179,041 lb	lb	4,179,041
8. Fuel Consumed	0 ton	4,711 mcf	gal	
9. Evaporation (col.7 ÷ col. 8)	#DIV/0! lb/lb	887 lb/mcuft	No Oil lb/gal	
10. Unit Fuel Cost	0.00 $/ton	3.56 $/mcuft	$/gal	
11. Fuel (or Steam) Cost	0 $	16,788 $	No Oil $	$
12. Fuel (or Steam) Cost per mlb Steam	#DIV/0! $/mlb	4.02 $/mlb	No Oil $/mlb	$ 16,788

13. Parts Used	$	1,565
Miscellaneous Supplies	$	6,206
Service Contracts ☐ If yearly, check here	$	0
Repair Contracts ☐ If yearly, check here	$	7,950
Wages & Salaries (Including Benefits)	$	59,898
Sub Total	$	92,407

OTHER DATA

14. Miscellaneous Fuels	Natural Gas (mcuft)		mcuft	$/mcuft	0	Cost	$
	Propane (mcuft) [gal x 0.0894=mcuft]		mcuft	$/mcuft	0	Cost	$
	Total Gas mcuft	0		Total Gas Cost			$ 0
	Oil (gal)	0	gal	$/gal	0	Cost	$ 0
15. Facility Electric	Generated	0	kWh				
	Total Purchased	574,200	kWh	Total Electric Cost			$ 12,317
	Billing Demand	1,213	KW	$/kWh			$ 0.021
	Load Factor	0.65	hr				

16. Sewage	Total Quantity Sewage ☐ If No Meter, check here: 978 mgal	Cost of Sewage Plant Operation (Including wages & benefits)		$ 0
		Sewage Charges Paid to Municipal Authority		$ 0
		$/mgal 0	Total Sewage Cost	$ 0

17. Comments: #16 sewage paid quarterly.	18. Water ☐ If No Meter, check here	Total Used 1,686 mgal	$/mgal 3.86 Total	$ 6,513
			Grand Total	$ 111,237

Signature: Kolyn Kahley Date: 1/25/17

Approved: Date:

Revised 2/19/07

MONTHLY UTILITIES USAGE REPORT

Facility	Selinsgrove Center	Date (Month and Year of Report)	Aug-16
Total Facility Square Feet	987,572	Total Vacant Square Feet *(DPW only)*	253,199
Total Facility Occupied Square Feet *(DPW only)*	707,652	Total Leased Square Feet *(DPW only)*	26,721
Residents: 233		Staff: 815	

BOILER PLANT DATA & COSTS

1. Boiler Operating Pressure	90 psig	4. Makeup %	21.37%
2. Average Feedwater Temp.	220 °F	5. Peak Steam	6,500
3. Makeup Water Used (lbs) ☐ If no meter, check here	855,684 lb	6. Degree Days	0 HDD 399 CDD

	Coal	Gas (or Purchased Steam)	Oil	Total
Type of Coal ☑ Anthracite ☐ Bituminous				
7. Steam Produced (or Purchased)	0 lb	4,004,490 lb	lb	4,004,490
8. Fuel Consumed	0 ton	4,490 mcf	gal	
9. Evaporation (col.7 ÷ col. 8)	#DIV/0! lb/lb	892 lb/mcuft	No Oil lb/gal	
10. Unit Fuel Cost	0.00 $/ton	3.43 $/mcuft	$/gal	
11. Fuel (or Steam) Cost	0 $	15,423 $	No Oil $	$
12. Fuel (or Steam) Cost per mlb Steam	#DIV/0! $/mlb	3.85 $/mlb	No Oil $/mlb	$ 15,423

13. Parts Used	$	4,026
Miscellaneous Supplies	$	338
Service Contracts ☐ If yearly, check here	$	0
Repair Contracts ☐ If yearly, check here	$	0
Wages & Salaries (Including Benefits)	$	60,576
Sub Total	$	80,363

OTHER DATA

14. Miscellaneous Fuels	Natural Gas (mcuft)		mcuft	$/mcuft	0	Cost	$
	Propane (mcuft) [gal x 0.0894=mcuft]		mcuft	$/mcuft	0	Cost	$
	Total Gas mcuft	0		Total Gas Cost			$ 0
	Oil (gal)	0	gal	$/gal	0	Cost	$ 0
15. Facility Electric	Generated	0	kWh				
	Total Purchased	592,200	kWh	Total Electric Cost			$ 39,387
	Billing Demand	1,189	KW	$/kWh			$ 0.067
	Load Factor	0.68	hr				

16. Sewage	Total Quantity Sewage ☐ If No Meter, check here: 977 mgal	Cost of Sewage Plant Operation (Including wages & benefits)		$ 0
		Sewage Charges Paid to Municipal Authority		$ 0
		$/mgal 0	Total Sewage Cost	$ 0

17. Comments: #16 sewage paid quarterly.	18. Water ☐ If No Meter, check here	Total Used 1,963 mgal	$/mgal 3.16 Total	$	6,212
			Grand Total	$	125,962

Signature: Kolyn Kahley Date: 1/25/17

Approved: Date:

Revised 2/19/07

Standard Fuels for Steam

	Anthracite							Bituminous							Gas						
Date	Steam Ant (mlb)	Qty Ant (Ton)	Evap lbs/lbc	Cost Ant	Cost $/Ton	Steam Cost $/mlb	Energy mmBtu	Steam Bit (mlb)	Qty Bit (Tons)	Evap lbs/lbc	Cost Bit	Cost $/Ton	Steam Cost $/mlb	Energy mmBtu	Steam Gas (mlb)	Qty Gas (mef)	Evap lbs/mcf	Cost Gas	Cost $/mcf	Steam Cost $/mlb	Energy mmBtu
Selinsgrove Center																					
Jul-14	0	0		$0			0	0	0		$0			0	4047	4562	887	$28,370	$6.22	$7.01	4699
Aug-14	0	0		$0			0		0		$0			0	3943	4444	887	$26,099	$5.87	$6.62	4577
Sep-14	0	0		$0			0		0		$0			0	4104	4629	887	$27,330	$5.90	$6.66	4768
Oct-14	2198	158	6.95	$15,010	$95.00	$6.83	3982	0	0		$0			0	3496	3753	931	$19,391	$5.17	$5.55	3866
Nov-14	8802	551	7.99	$52,345	$95.00	$5.95	13885	0	0		$0			0	0	44	0	$756	$17.18		45
Dec-14	10464	726	7.21	$68,970	$95.00	$6.59	18295	0	0		$0			0	0	0		$0			0
Jan-15	12689	884	7.18	$82,115	$92.89	$6.47	22277	0	0		$0			0	0	0		$0			0
Feb-15	12501	886	7.05	$81,769	$92.29	$6.54	22327	0	0		$0			0	0	0		$0			0
Mar-15	10809	778	6.95	$72,969	$93.79	$6.75	19606	0	0		$0			0	0	0		$0			0
Apr-15	7547	509	7.41	$47,128	$92.59	$6.24	12827	0	0		$0			0	0	0		$0			0
May-15	1234	88	7.01	$8,201	$93.19	$6.65	2218	0	0		$0			0	3895	4374	891	$22,267	$5.09	$5.72	4505
Jun-15	0	0		$0			0	0	0		$0			0	4369	4922	888	$22,893	$4.65	$5.24	5070
Sum	*66243*	*4580*		*$428,507*			*115416*	*0*	*0*		*$0*			*0*	*23853*	*26728*		*$147,106*			*27530*
Avg			7.23		$93.56	*$6.47*											892		*$5.50*	*$6.17*	
Max																					
Jul-15	0	0		$0			0	0	0		$0			0	4284	4851	883	$23,647	$4.87	$5.52	4997
Aug-15	0	0		$0			0	0	0		$0			0	3828	4297	891	$20,622	$4.80	$5.39	4426
Sep-15	0	0		$0			0	0	0		$0			0	3767	4230	890	$21,267	$5.03	$5.65	4357
Oct-15	3842	267	7.19	$32,067	$120.10	$8.35	6728	0	0		$0			0	2192	2487	881	$11,574	$4.65	$5.28	2562
Nov-15	6879	481	7.15	$57,768	$120.10	$8.40	12121	0	0		$0			0	0	0		$0			0
Dec-15	9278	667	6.96	$79,907	$119.80	$8.61	16808	0	0		$0			0	0	0		$0			0
Jan-16	12379	928	6.67	$110,393	$118.96	$8.92	23386	0	0		$0			0	0	0		$0			0
Feb-16	11360	800	7.10	$94,859	$118.57	$8.35	20160	0	0		$0			0	0	0		$0			0
Mar-16	8959	669	6.70	$79,544	$118.90	$8.88	16859	0	0		$0			0	0	0		$0			0
Apr-16	4969	328	7.57	$39,098	$119.20	$7.87	8266	0	0		$0			0	2568	2739	938	$10,388	$3.79	$4.05	2821
May-16	0	0		$0			0	0	0		$0			0	5742	6231	921	$24,663	$3.96	$4.30	6418
Jun-16	0	0		$0			0	0	0		$0			0	4286	4843	885	$17,384	$3.59	$4.06	4988
Sum	*57666*	*4140*		*$493,636*			*104328*	*0*	*0*		*$0*			*0*	*26666*	*29678*		*$129,545*			*30568*
Avg			6.96		$119.24	*$8.56*											899		$4.37	$4.86	
Max																					

	Oil							Wood							Purchased			
	Steam Oil (mlb)	Qty Oil (gal)	Evap lbs/gal	Cost Oil	Cost $/gal	Steam Cost $/mlb	Energy mmBtu	Steam Wood (mlb)	Qty Wood (Tons)	Evap lbs/lbc	Cost Wood	Cost $/Ton	Steam Cost $/mlb	Energy mmBtu	Steam Purch (mlb)	Cost Purch	Steam Cost $/mlb	Energy mmBtu
Selinsgrove Center																		
Jul-14	0	0		$0			0	0	0		$0			0	0	$0		0
Aug-14	0	0		$0			0	0	0		$0			0	0	$0		0
Sep-14	0	0		$0			0	0	0		$0			0	0	$0		0
Oct-14	0	0		$0			0	0	0		$0			0	0	$0		0
Nov-14	0	0		$0			0	0	0		$0			0	0	$0		0
Dec-14	0	0		$0			0	0	0		$0			0	0	$0		0
Jan-15	0	0		$0			0	0	0		$0			0	0	$0		0
Feb-15	0	0		$0			0	0	0		$0			0	0	$0		0
Mar-15	0	0		$0			0	0	0		$0			0	0	$0		0
Apr-15	0	0		$0			0	0	0		$0			0	0	$0		0
May-15	0	0		$0			0	0	0		$0			0	0	$0		0
Jun-15	0	0		$0			0	0	0		$0			0	0	$0		0
Sum	*0*	*0*		*$0*			*0*	*0*	*0*		*$0*			*0*	*0*	*$0*		*0*
Avg																		
Max																		
Jul-15	0	0		$0			0	0	0		$0			0	0	$0		0
Aug-15	0	0		$0			0	0	0		$0			0	0	$0		0
Sep-15	0	0		$0			0	0	0		$0			0	0	$0		0
Oct-15	0	0		$0			0	0	0		$0			0	0	$0		0
Nov-15	0	0		$0			0	0	0		$0			0	0	$0		0
Dec-15	0	0		$0			0	0	0		$0			0	0	$0		0
Jan-16	0	0		$0			0	0	0		$0			0	0	$0		0
Feb-16	0	0		$0			0	0	0		$0			0	0	$0		0
Mar-16	0	0		$0			0	0	0		$0			0	0	$0		0
Apr-16	0	0		$0			0	0	0		$0			0	0	$0		0
May-16	0	0		$0			0	0	0		$0			0	0	$0		0
Jun-16	0	0		$0			0	0	0		$0			0	0	$0		0
Sum	*0*	*0*		*$0*			*0*	*0*	*0*		*$0*			*0*	*0*	*$0*		*0*
Avg																		
Max																		

Central Plant Report

Date	Make Up: Mk-Up Water mlb	Make Up: Mk-Up %	Central Plant: Peak Steam lb/hr	Central Plant: Steam Prod mlb	Central Plant: Fuel Used mmbtu	Central Plant: Plant Eff %	Central Plant: Steam Cost $/mlb	Deg Days: Heat Deg Days	Deg Days: Cool Deg Days	Misc Expenses: Parts $	Misc Expenses: Supls $	Misc Expenses: Svc Cont $	Misc Expenses: Rep Cont $	Misc Expenses: Wages $	Misc Expenses: Tll Exp $	Misc Fuels: Misc Gas mcf	Misc Fuels: Cost $	Misc Fuels: Unit Cost $/mcf	Misc Fuels: Misc Oil gal	Misc Fuels: Cost $	Misc Fuels: Unit Cost $/gal	Misc Fuels: Misc Engy mmbtu
Selinsgrove Center																						
Jul-2014	922	23%	6,500	4,047	4,699	86%	$23.75	0	283	$327	$4,755	$0	$0	$62,666	$67,748	0	$0		0	$0		0
Aug-2014	858	22%	8,000	3,943	4,577	86%	$23.39	3	164	$4,655	$856	$0	$0	$60,605	$66,116	0	$0		0	$0		0
Sep-2014	793	19%	9,500	4,104	4,768	86%	$23.38	80	84	$279	$2,843	$0	$0	$65,480	$68,602	0	$0		0	$0		0
Oct-2014	1,016	18%	12,500	5,694	7,847	73%	$25.24	303	5	$136	$644	$0	$7,450	$101,091	$109,321	0	$0		0	$0		0
Nov-2014	1,193	14%	19,000	8,802	13,931	63%	$13.87	787	0	$2,141	$95	$4,058	$0	$62,661	$68,955	0	$0		418	$1,142	$2.73	59
Dec-2014	1,617	15%	19,000	10,464	18,295	57%	$13.07	930	0	$2,802	$3,227	$85	$0	$61,726	$67,840	0	$0		573	$1,254	$2.19	80
Jan-2015	1,952	15%	22,000	12,689	22,277	57%	$11.55	1,241	0	$207	$3,020	$68	$0	$61,181	$64,476	0	$0		762	$1,482	$1.94	107
Feb-2015	2,108	17%	23,500	12,501	22,327	56%	$12.13	1,267	0	$202	$3,431	$68	$0	$66,209	$69,910	0	$0		879	$2,032	$2.31	123
Mar-2015	2,335	22%	21,000	10,809	19,606	55%	$12.85	972	0	$51	$2,765	$85	$0	$63,022	$65,923	0	$0		455	$860	$1.89	64
Apr-2015	1,778	24%	16,500	7,547	12,827	59%	$15.02	409	0	$1,546	$2,759	$73	$0	$61,837	$66,215	0	$0		0	$0		0
May-2015	1,384	27%	9,500	5,129	6,723	76%	$25.40	64	162	$625	$1,595	$34	$2,572	$94,966	$99,792	0	$0		244	$522	$2.14	34
Jun-2015	1,264	29%	7,500	4,369	5,070	86%	$29.14	14	228	$562	$2,696	$6,200	$0	$94,966	$104,424	0	$0		0	$0		0
Sum	17,220			90,096	142,946			6,070	926	$13,533	$28,686	$10,671	$10,022	$856,410	$919,322	0	$0		3,331	$7,292		466
Avg		19%				63%	$16.59														$2.19	
Max			23,500																			
Jul-2015	1,276	30%	6,500	4,284	4,997	86%	$19.34	0	315	$128	$410	$0	$0	$58,676	$59,214	0	$0		0	$0		0
Aug-2015	768	20%	6,000	3,828	4,426	87%	$20.85	0	218	$274	$277	$0	$0	$58,642	$59,193	0	$0		0	$0		0
Sep-2015	707	19%	7,000	3,767	4,357	86%	$24.35	30	150	$8,489	$693	$0	$1,425	$59,833	$70,440	0	$0		0	$0		0
Oct-2015	1,143	19%	12,500	6,034	9,290	65%	$23.71	392	0	$2,521	$165	$784	$3,520	$92,428	$99,418	0	$0		0	$0		0
Nov-2015	1,281	19%	15,500	6,879	12,121	57%	$19.38	526	0	$11,008	$146	$101	$0	$64,302	$75,557	0	$0		150	$262	$1.75	21
Dec-2015	1,601	17%	16,000	9,278	16,808	55%	$15.38	702	0	$71	$85	$140	$0	$62,463	$62,759	0	$0		342	$534	$1.56	48
Jan-2016	2,277	18%	22,500	12,379	23,386	53%	$14.40	1,163	0	$146	$108	$6,302	$0	$61,366	$67,922	0	$0		480	$653	$1.36	67
Feb-2016	1,919	17%	23,000	11,360	20,160	56%	$14.38	961	0	$38	$6,506	$0	$0	$61,920	$68,464	0	$0		585	$848	$1.45	82
Mar-2016	1,419	16%	18,000	8,959	16,859	53%	$16.12	598	0	$54	$366	$400	$0	$64,065	$64,885	0	$0		0	$0		0
Apr-2016	1,156	15%	17,500	7,536	11,087	68%	$19.37	469	0	$4,050	$3,142	$79	$0	$89,209	$96,480	0	$0		771	$1,118	$1.45	108
May-2016	991	17%	10,500	5,742	6,418	89%	$20.81	175	87	$4,725	$1,133	$29,900	$0	$59,086	$94,844	0	$0		0	$0		0
Jun-2016	866	20%	8,500	4,286	4,988	86%	$20.57	16	236	$1,304	$276	$8,350	$0	$60,853	$70,783	0	$0		0	$0		0
Sum	15,404			84,332	134,896			5,032	1,006	$32,808	$13,307	$46,056	$4,945	$792,843	$889,959	0	$0		2,328	$3,415		326
Avg		18%				63%	$17.94														$1.47	
Max			23,000																			

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Electric and Water-Sewage Report

	Electric									Water			Sewage			Population / Area	
Date	*Gen Elec kwh*	*Purch Elec kwh*	*Peak Dmnd kw*	*Load Fctr*	*Cost Elec $*	*Cost Lights $*	*Ttl Cost $*	*Unit Cost cts/kwh*	*Elec Energy mmbtu*	*Water mgal*	*Cost Water $*	*Unit Cost $/mgal*	*Sewg mgal*	*Cost Sewg $*	*Unit Cost $/mgal*	*Popultn*	*Area Sq ft*
Selinsgrove Center																	
Jul-2014	0	613,880	1,248	0.67	$48,996	$0	$48,996	7.98	2,095	3,396	$7,341	$2.16	2,184	$0	$0.00	255	987,572
Aug-2014	0	518,400	1,152	0.62	$41,747	$0	$41,747	8.05	1,769	3,688	$7,577	$2.05	2,107	$0	$0.00	255	987,572
Sep-2014	0	518,800	1,115	0.64	$48,227	$0	$48,227	9.30	1,771	3,230	$7,786	$2.41	2,184	$61,821	$28.31	254	987,572
Oct-2014	0	477,320	812	0.81	$41,285	$0	$41,285	8.65	1,629	3,587	$9,668	$2.70	2,057	$0	$0.00	252	987,572
Nov-2014	0	452,320	874	0.71	$43,002	$0	$43,002	9.51	1,544	3,932	$7,693	$1.96	1,674	$0	$0.00	252	987,572
Dec-2014	0	482,640	904	0.73	$45,370	$0	$45,370	9.40	1,647	4,082	$7,674	$1.88	2,584	$61,821	$23.92	251	987,572
Jan-2015	20,960	542,920	886	0.84	$49,491	$0	$49,491	8.78	1,853	4,456	$5,471	$1.23	2,770	$0	$0.00	250	987,572
Feb-2015	69,500	374,040	862	0.59	$16,468	$0	$16,468	3.71	1,277	4,107	$9,040	$2.20	2,099	$0	$0.00	250	987,572
Mar-2015	49,720	388,200	781	0.68	$37,099	$0	$37,099	8.47	1,325	4,796	$7,453	$1.55	3,295	$61,821	$18.76	250	987,572
Apr-2015	4,750	480,120	875	0.75	$43,852	$0	$43,852	9.04	1,639	3,753	$13,709	$3.65	2,882	$0	$0.00	248	987,572
May-2015	0	503,080	1,161	0.59	$45,998	$0	$45,998	9.14	1,717	4,276	$10,966	$2.56	2,010	$0	$0.00	246	987,572
Jun-2015	0	550,880	1,118	0.67	$48,791	$0	$48,791	8.86	1,880	3,164	$13,733	$4.34	1,671	$61,821	$37.00	247	987,572
Sum	144,930	5,902,600			$510,326	$0	$510,326		20,146	46,467	$108,111		27,517	$247,284			
Avg				0.69				8.44				$2.33			$8.99	251	987,572
Max			1,248														
Jul-2015	0	613,800	1,135	0.74	$53,038	$0	$53,038	8.64	2,095	2,085	$7,574	$3.63	2,684	$0	$0.00	245	987,572
Aug-2015	0	604,800	1,248	0.66	$52,793	$0	$52,793	8.73	2,064	1,762	$5,759	$3.27	1,308	$0	$0.00	243	987,572
Sep-2015	0	565,360	1,243	0.62	$50,053	$0	$50,053	8.85	1,930	2,112	$9,171	$4.34	812	$61,821	$76.13	241	987,572
Oct-2015	0	487,880	921	0.73	$44,010	$0	$44,010	9.02	1,665	1,910	$10,557	$5.53	1,354	$0	$0.00	239	987,572
Nov-2015	0	465,280	864	0.74	$44,189	$0	$44,189	9.50	1,588	1,690	$6,158	$3.64	1,362	$0	$0.00	237	987,572
Dec-2015	0	475,240	844	0.77	$42,799	$0	$42,799	9.01	1,622	2,213	$7,150	$3.23	2,042	$61,821	$30.27	236	987,572
Jan-2016	60,070	485,360	855	0.78	$43,832	$0	$43,832	8.04	1,657	3,943	$8,840	$2.24	2,868	$0	$0.00	236	987,572
Feb-2016	56,050	383,160	714	0.74	$32,757	$0	$32,757	7.46	1,308	2,204	$6,872	$3.12	5,208	$0	$0.00	233	987,572
Mar-2016	0	475,360	901	0.72	$11,387	$0	$11,387	2.40	1,622	2,617	$8,228	$3.14	2,040	$55,314	$27.11	233	987,572
Apr-2016	0	474,240	913	0.71	$37,834	$0	$37,834	7.98	1,619	2,102	$9,686	$4.61	1,943	$0	$0.00	234	987,572
May-2016	0	460,600	920	0.69	$36,985	$0	$36,985	8.03	1,572	2,128	$6,462	$3.04	1,537	$0	$0.00	234	987,572
Jun-2016	0	553,480	1,069	0.71	$41,940	$0	$41,940	7.58	1,889	2,164	$13,126	$6.07	1,483	$55,314	$37.30	233	987,572
Sum	116,120	6,044,560			$491,617	$0	$491,617		20,630	26,930	$99,583		24,641	$234,270			
Avg				0.72				7.98				$3.70			$9.51	237	987,572
Max			1,248														

General Notes

8/31/2007 _ Sewage paid quarterly

9/15/2016 10:35:15 AM

Electric and Water-Sewage Report

	Electric									Water			Sewage			Population / Area	
Date	Gen Elec kwh	Purch Elec kwh	Peak Dmnd kw	Load Fctr	Cost Elec $	Cost Lights $	Ttl Cost $	Unit Cost cts/kwh	Elec Energy mmbtu	Water mgal	Cost Water $	Unit Cost $/mgal	Sewg mgal	Cost Sewg $	Unit Cost $/mgal	Popultn	Area Sq ft

Selinsgrove Center

Fiscal Year Notes

- 12/31/2007 - Anthracite stock pile was burned during November and December 2007. Data was reported under Bituminous.
- 6/30/2008 - Electric bill showed additional billing for 01/18/08-02/15/08
- 7/29/2011 - Sewage paid quarterly. No steam-flow meter installed on gas boiler - all steam caluclated from gas burned. Misc Gas for 100 gal fuel tank for emergency generators.
- 8/31/2011 - Sewage paid quarterly. No steam-flow meter installed on gas boiler - all steam caluclated from gas burned.
- 9/30/2011 - Sewage paid quarterly. No steam-flow meter installed on gas boiler - all steam caluclated from gas burned.
- 1/1/2013 - The total facility square feet changed to 987,572.
- 1/31/2014 - Electric information verified by ERMA.

CAMPUS BUILDING MATRIX - EXISTING CONDITIONS											
ID	NAME	SYSTEM TYPE			STEAM		LIGHTING		OPERATION	
		HEATING	COOLING	DOMESTIC	QTY	TYPES	QTY	TYPES	OCCUPIED	HRS / WEEK
	Steam Tunnels				33	THRMSTC,	90	60W IC		
1	**Arbor Cottage**	Steam	PTAC	Electr	43	THRMSTC,	234	T8-32W, T12-30/34/40W,UT12-40W, 60/100W	Yes	88
2	**Administrative Annex**	Steam	PTAC	Steam	57	THRMSTC,	97	T12-34/40W, 60/100W IC, 175W HID,	Yes	55
3	**Bell Cottage**	Steam	PTAC	Steam	69	THRMSTC,	200	T12-34/40W, UT12-40W, 60/100W IC, 75W FLD,	No	0
4	**Cedar Cottage**	Steam	PTAC	Steam	53	THRMSTC,	163	T12-30/34/40W, 60/100W IC, 100W	Yes	168
5	**Central Complex - CM**	Steam to HW	Split DX,	Steam	25	THRMSTC,	1,6	T8-17/32W, T12-34/40,60/100/150W IC, 75W FLD,	Yes	168
6	**Central Complex -**	Steam to HW	Split DX,	Steam	22	THRMSTC,	1,2	T8-32W, T12-30/34/40W, 60/100/150W	Yes	168
7	**Central Complex - CF**	Steam to HW	Split DX,	Steam	11	THRMSTC,	1,6	T8-17/32W, T12-34/40W, 60/100W IC, 75W FLD,	Yes	168
8	**Team Center - Old Fire**	Steam	PTAC	Electr	12	THRMSTC,	39	T12-34/40W, HID, 60/100W IC, 300W ICHB,	Yes	55
9	**Training Center**	Steam	PTAC	Steam	59	THRMSTC,	581	T8-32W, T12-34/40W, 60/100W IC, 100W DRUM,	Yes	55
10	**Harmony Hall**	Steam to HW	PTAC	Steam	5	THRMSTC,	235	T8-32W, T12-30/34/40W, 60/100W IC, 100W	Yes	168
11	**Dining Hall**	Steam to HW	PTAC	Steam	12	THRMSTC,	133	T8-32W, T12-34/40W, 60/100W IC,	Yes	168
12	**Chapel & T-1 Apartment**	Steam to HW	PTAC	Steam	5	THRMSTC,	235	T8-32W, T12-30/34/40W, 60/100W IC, 100W	Yes	168
13	**Hickory Hall & Hemlock**				68	THRMSTC,	233	T8-32W, T12-30/34/40W, 60/100/250W IC,	Yes	
14	**Recreation Center**	Steam to	Split DX,	Steam	2	THRMSTC,	712	T8-32W, T12-34/40W, 100/250W IC, HID, 100W DRUM,	Yes	98
15	**Beechwood Terrace**	Steam Coil	AHU,	Steam	32	THRMSTC,	294	T8-32W, T12-34/40W, 60/100W IC, 100W DRUM,	No	0
16	**Applewood**	Steam Coil	AHU,	Steam	18	THRMSTC,	398	T8-32W, T12-34/40W, 60/100W IC, 100W	No	0
17	**Evening Star Manor**	Steam	PTAC	Tank	52	THRMSTC,	162	T12-34/40W, 60/100W IC,	No	0
18	**Echo Hall**	Steam	PTAC	None	69	THRMSTC,	162	T12-34/40W, 60/100W IC, 100W	No	0
19	**Server Farm**	Steam	DX	Electr	30	THRMSTC,	128	T8-32W, T12-34/404W, 60/100W IC,	Yes	168
20	**Elm Cottage**	Steam	PTAC	Tank	70	THRMSTC,	168	T12-34/40W, 60/100W IC, 100W	No	0
21	**Evergreen Manor**	Steam	PTAC	Tank	74	THRMSTC,	162	T12-34/40W, 60/100W IC, 100W	No	0
22	**Clearview**	HW	PTAC	From	0		115	T12-34/40W, 60W IC	No	0
23	**Day Care**	HW	PTAC	From	3	F&T	115	T12-30/34/40W, 60/100W IC	No	0
24	**Cottonwood**	HW	PTAC	From	2	F&T	115	T12-30/34/40W, 60/100W IC	No	0
25	**Dogwood**	HW	PTAC	From	1	F&T	115	T12-30/34/40W, 60/100W IC	No	0
26	**Dining Area / Clinic**	HW	PTAC	Instant	12	THRMSTC,	193	T12-34/40W, 60/100W IC,	No	0
27	**D-5**				0				No	0
28	**Maintenance**	Steam	PTAC	Electr	42	THRMSTC,	229	T8-32W, T12-34/40W, 100/150W IC,	Yes	55
29	**Laundry**	Steam	PTAC	Electr	24	THRMSTC,	192	T8-32W, T12-34/40, 100W IC	Yes	55
30	**Power Plant**	Steam	PTAC	Electr	22	THRMSTC,	125	T12-34/40W, 60/100W IC, 300W ICHB, 400W	Yes	168
31	**Garage**	Steam	PTAC	None	10	THRMSTC,	68	T8-96W, T12-34/40W, 100W IC,	Yes	55
32	**Carpenter Shop**	Steam	PTAC	Electr	18	THRMSTC,	66	T12-34/40W, 60/100/150WIC,	Yes	55
33	**Grounds / Welding Shop**	Steam	PTAC	Electr	10	THRMSTC,	43	T8-32W, T12-34/40W, 60/100W IC,	Yes	55
34	**Mechanical Stores**	Steam	PTAC	Electr	9	THRMSTC,	52	T12-34/40W, 150W IC, 175W HID	Yes	55
36	**Agriculture Activities**									
44	**Water Treatment Plant**						30	T12-34/40W, 60/100W IC,		
45	**Scout Camp**						32	T12-34/40W, 60/100W IC, 100W		
46	**Picninc Grove Shed**									
47	**Wading Pool Room**						13	100W IC, 175/250W HID		
48	**Lumber Storage**									
49	**Root Cellar**						27	100/150W, 175W HID		
50	**Greenhouse**									
51	**Director's Residence**	Fuel Oil	PTAC	Electr			33	T12-30/34/40W, 60/100W IC,		
52	**Residence #2**	Fuel Oil	PTAC	Electr			33	T12-30/34/40W, 60/100W IC,		
60	**Oil House**									
67	**Pump House #4 & #6**									
68	**Pump House #5 & #7**									
					97		**10,6**			

DATE OF ISSUE: FEBRUARY 17, 2017

DEPARTMENT OF GENERAL SERVICES
ENERGY AND RESOURCE MANAGEMENT OFFICE
401 NORTH STREET
HARRISBURG, PENNSYLVANIA

BULLETIN NO. 4
on

Project No. Small GESA-3 – REQUEST FOR PROPOSALS FOR A GUARANTEED ENERGY SAVINGS PROJECT AT: DEPT. OF HUMAN SERVICES, SELINSGROVE CENTER, SNYDER COUNTY, PENNSYLVANIA, Department of General Services, Energy & Resource Management, 401 North Street, Room 403, Harrisburg, Pennsylvania, 17120.

PROPOSAL SUBMISSION DEADLINE, FRIDAY MARCH 17, 2017
TIME OF OPENING: 11:00 AM

QUESTIONS/ANSWERS

1. What are the emission requirements, in terms of NOx and CO, for each fuel for the (2) new dual fuel burners?

   Answer: ESCO must sort this out with DEP regarding what is Best Available Technology (BAT) for all pollutants, as this project will be considered a new boiler construction by DEP Air Quality, rather than a modification to an existing coal fired boiler system.

R. Tomlinson

Rebecca Tomlinson, RFP Coordinator
ENERGY & RESOURCE MANAGEMENT OFFICE

PLEASE ACKNOWLEDGE RECEIPT OF BULLETIN WITHIN 24 HOURS BY EMAIL RESPONSE TO REBECCA TOMLINSON AT retomlinso@pa.gov

DATE OF ISSUE: FEBRUARY 23, 2017

DEPARTMENT OF GENERAL SERVICES
ENERGY AND RESOURCE MANAGEMENT OFFICE
401 NORTH STREET
HARRISBURG, PENNSYLVANIA

BULLETIN NO. 5
on

Project No. Small GESA-3 – REQUEST FOR PROPOSALS FOR A GUARANTEED ENERGY SAVINGS PROJECT AT: DEPT. OF HUMAN SERVICES, SELINSGROVE CENTER, SNYDER COUNTY, PENNSYLVANIA, Department of General Services, Energy & Resource Management, 401 North Street, Room 403, Harrisburg, Pennsylvania, 17120.

PROPOSAL SUBMISSION DEADLINE, FRIDAY MARCH 17, 2017
TIME OF OPENING: 11:00 AM

RFP CHANGES

1. Replace *Part One, Sections 1.13- 1.15 Small Diverse Business Information* with the following:

   1.13 Small Diverse Business Information. DGS encourages participation by Small Diverse Businesses as prime contractors, and encourages all prime contractors to make significant commitments to use Small Diverse Businesses as subcontractors and suppliers. In order to be considered a Small Diverse Business, a business must meet the requirements of both a "Small Business" and "Small Diverse Business" set forth below:

   A Small Business must meet each of the following requirements:

   - The business must be a for-profit, United States business;
   - The business must be independently owned;
   - The business may not be dominant in its field of operation;
   - The business may not employ more than 100 full-time or full-time equivalent employees;
   - The business, by type, may not exceed the following three-year average gross sales:
     - Procurement Goods and Services: $20 million
     - Construction: $20 million
     - Building Design Services: $7 million
     - Information Technology Goods and Services: $25 million

   For credit in the RFP scoring process, a Small Business must complete the DGS/BDISBO self-certification process. Additional information on this process can be found at:

http://www.dgs.pa.gov/Businesses/Small%20Business%20Contracting%20Program/Pages/default.aspx.

A Small Diverse Business is a DGS-verified minority-owned small business, woman-owned small business, veteran-owned small business, service-disabled veteran-owned small business, LGBT-owned small business, Disability-owned small business, or other small businesses as approved by DGS, that are owned and controlled by a majority of persons, not limited to members of minority groups, who have been deprived of the opportunity to develop and maintain a competitive position in the economy because of social disadvantages.

For credit in the RFP scoring process, a Small Diverse Business must complete the DGS verification process. Additional information on this process can be found at:
http://www.dgs.pa.gov/Businesses/Minority,%20Women%20and%20Veteran%20Businesses/Pages/default.aspx.

The Department's directory of self-certified Small Businesses and DGS/BDISBO-verified Small Diverse Businesses can be accessed from:
http://www.dgs.pa.gov/Businesses/Minority,%20Women%20and%20Veteran%20Businesses/Small-Diverse-Business-Verification/Pages/Finding-Small-Diverse-Businesses.aspx.

Questions regarding the Small Diverse Business and Small Business Programs, including questions about the self-certification and verification processes can be directed to:

Department of General Services
Bureau of Diversity, Inclusion and Small Business Opportunities (BDISBO)
Room 601, North Office Building
Harrisburg, PA 17125
Phone: (717) 783-3119
Fax: (717) 787-7052
Email: RA-BDISBOVerification@pa.gov
Website: www.dgs.pa.gov

1.14 Small Diverse Businesses that submit a Proposal as a Prime Proposal will not receive credit for their own status as a Small Diverse Businesses.
A Payments to Small Diverse Businesses that are subcontractors of any level to the Small GESA Contractor will count toward the Small Diverse Business participation total based upon the dollar value of their work.

1.15 BDISBO shall provide the awarded Proposer a Small Diverse Business Participation Plan (Plan) Form at the Initial Job Conference. The Plan, which will be completed by the awarded Proposer, shall include a list of proposed DGS-verified SDB subcontractors, manufacturers and suppliers the awarded Proposer will use on the project, along with the scope of work and/or supplies to be

provided by each individual SDB. The awarded Proposer shall provide the completed Small Diverse Business Participation Plan to BDISBO within (30) days of the Initial Job Conference.

2. Replace *Part Two, Section 2.4 Small Diverse Business Submission* with the following:

2.4 Small Diverse Business Submission

Each Proposer shall submit one (1) copy of its Small Diverse Business Submission in a sealed envelope separate from the Technical and ECM/Cost Submissions. The SDB Submittal Form is provided as an appendix to this RFP. A value for each ECM with its associated Small Diverse Business participation percentage should be entered into the Small Diverse Business Submission Form. If no form is submitted or if the submitted form is left blank, DGS will presume that the value is 0% for each ECM and the submission will be scored accordingly. If a Proposer commits to 0%, the proposal will not be rejected as non-responsive, but the Proposer will receive 0 points for their Small Diverse Business Submission.

A. The Small Diverse Business Submission percentage per ECM represents the dollar value the Small GESA Contractor will pay to Small Diverse Businesses for that ECM in accordance with the calculation in section D below.

B. Small Diverse Businesses may provide a wide variety of services and supplies on any Small GESA project. Commitments include payments beyond the initial tier of subcontractors and suppliers ("trickle down" until payments are made to an SDB) and may also include design costs.

C. The Small Diverse Business Submission percentage for each Core ECM will apply to the value of each ECM included in the Small GESA Contract. Deletion of a core ECM will also delete that ECM's SDB percentage. Any SBD commitments on non-core ECM's will not count toward the overall commitment percentage.

D. The Proposer should recognize that:

1. Small Diverse Business subcontractors performing at least 60% of the subcontract with their own employees will be credited toward the provided Small Diverse Business percentage at 100% of the total dollar value of the subcontract/supply contract. Any Small Diverse Business subcontract where the subcontractor performs less than 60% of the subcontract will not be credited.

2. Small Diverse Business manufacturers are credited at 100% of the total cost of the materials or supplies purchased.

3. For each Small Diverse Business which is a supplier, the Proposer shall specify whether that supplier is a stocking or non-stocking supplier.

a. Stocking suppliers will be credited at 60% of the total cost of the materials or supplies purchased.

b. Non-Stocking suppliers, are credited at only the amount of the fee or commission charged by the Small Diverse Business non-stocking supplier for assistance in the procurement of the

materials and supplies provided the fees or commissions are reasonable and not excessive as compared with fees customarily allowed for similar services and with the understanding that under no circumstances shall the credit, for a Small Diverse Business non-stocking supplier, exceed 10% of the purchase order cost.

3. Replace *Part Three, Section 3.3 (C) Proposal Scoring Process, Point 3 (Small Diverse Business Submission Scoring) & Point 4 (Total Proposal Score and Recommendation Memo)* with the following:

3. Small Diverse Business Submission Scoring

a. Proposals shall be scored on an objective basis, based upon their individual commitments to Small Diverse Businesses. The Proposer with the highest Small Diverse Business (SDB) percentage will receive the most points. The other Proposers will receive points based upon the formula set forth below. Proposers acknowledge that this commitment percentage per ECM constitutes a material element of the scoring for this RFP and will be included as the binding percentages of the selected ECMs in the Small GESA Contract. Failure to meet or exceed each ECM percentage included in the Small GESA Contract may be deemed to be a breach of contract.

$$500 - \frac{(500 \times (\text{Highest Proposer's SDB \%} - \text{Proposer's SDB \%}))}{(\text{Highest Proposer's SDB \%})}$$

4. Total Proposal Score and Recommendation Memo

a. After BDISBO calculates the Small Diverse Business Submission scores, the Issuing Officer will calculate the Total Proposal Score using the Selection Formula set forth in this RFP.

4. Please replace *Appendix I, Administrative Procedure #15 Small Diverse Business and Small Business Participation* with the attachment found at the end of this bulletin.

Rebecca Tomlinson, RFP Coordinator
ENERGY & RESOURCE MANAGEMENT OFFICE

PLEASE ACKNOWLEDGE RECEIPT OF BULLETIN WITHIN 24 HOURS BY EMAIL RESPONSE TO REBECCA TOMLINSON AT retomlinso@pa.gov

ADMINISTRATIVE PROCEDURE #15

SMALL DIVERSE BUSINESS and SMALL BUSINESS

PARTICIPATION

A. General Information:

1. The Small GESA Contractor must meet or exceed the participation percentages provided in the Small Diverse Business Submittal for Minority Business Enterprises (MBE), Women Business Enterprises (WBE), Veteran Business Enterprises (VBEs), Service-Disabled Veteran Business Enterprises (SDVBEs), Disability-Owned Business Enterprise (DOBE), and LGBT Business Enterprise (LGBTBE) (together referred to hereinafter as Small Diverse Businesses) on the Project as follows:

2. The participation level for each ECM shall apply to the total ECM value.

3. The Small Diverse Business participation may include all tiers of design and/or construction.

B. Small GESA Contractor's Duty

1. The participation percentage for each ECM provided in the Small Diverse Business Submittal is to be maintained throughout the term of the Contract and shall apply to the ECM value.

2. The Small GESA Contractor shall submit a Small Diverse Business Utilization Report with each Application for Payment (See section C below).

3. The Small GESA Contractor has until the date of the Final Inspection to meet or exceed the participation percentage for the ECM. This will be tracked through the Small Diverse Business Utilization Report.

C. Small Diverse Business Utilization Report

1. This report must be submitted with each Application for Release of Payment.

2. Starting with either the first full month after the Initial Job Conference or the first Application for Release of Payment (whichever is earlier), the Small GESA Contractor must submit a Small Diverse Business Utilization Report. Thereafter, an updated Small Diverse Business Utilization Report shall be submitted with each Application for Release of Payment.

3. Each Small Diverse Business Utilization Report must have current data (totals to date) identifying at least each element as follows:

    a Detailed information including, but not limited to, any subcontracts and purchase orders documenting the dollar value commitments to Small Diverse Business firms to be used toward the satisfaction of the ECM participation percentages provided in the Small Diverse Business Submittal. All Small Diverse Businesses identified on the Utilization Report shall be retained on the Utilization Report throughout the duration of the Project.

b Detailed information regarding any work that is claimed to be self- performed by the GESA Contractor and therefore allegedly not eligible for subcontracting to a Small Diverse Business.

c Construction Subcontracts and Purchase Orders:

i All Subcontract/Purchase Orders awarded to date are $_____

ii Commitment total to Small Diverse Businesses to date:

iii $ _____

iv % _____

v For each subcontract and purchase order awarded since the previous Application for Release of Payment the:

- Identity and status of the Small Diverse Business as a MBE/WBE/VBE/SDVBE that will be performing the work; and
- The ECM for which the work will be performed; and
- The type of work/service/material to be performed/supplied; and
- The amount paid to date on each Small Diverse Business subcontract/purchase order this month.
- The designation of Small Diverse Business Stocking Suppliers as either a MEP (i.e., mechanical, electrical, and plumbing) Stocking Suppliers or a General Construction Stocking Supplier.
- The fee or commission paid to the Nonstocking Supplier. No credit will be given if the fee or commission is not listed and, the maximum credit shall not exceed 10 percent of the purchase order cost.

d Failure to submit a Small Diverse Business Utilization Report with each Application for Release of Payment will result in an incomplete Application for Release of Payment. Such incomplete Application will be returned to the Small GESA Contractor and no payment will be processed until a complete Application is submitted.

D. The Small GESA Contractor's Commitments Toward the Submitted Participation Levels will be Calculated and Credited as follows:

1. Only DGS-certified Small Diverse Businesses can be credited toward satisfying the participation percentages provided in the Small Diverse Business Submittal.

2. Small Diverse Business subcontractor performing at least sixty percent (60%) of the subcontract with their own employees will be credited toward the submitted percentage at 100 percent of the total dollar value of the subcontract/supply contract. Any Small Diverse Business subcontract, where the subcontractor performs less than 60% of the subcontract, will not be credited toward the submitted percentage.

4. Small Diverse Business stocking suppliers are credited at 60 percent of the total cost of the materials or supplies purchased. A stocking supplier is a regular dealer that owns, operates, or maintains a store, warehouse, or other establishment, in which the materials or supplies of the general character described by the specifications and required under the contract are bought, kept in stock, and regularly sold or leased to the public in the usual course of business.

5. Small Diverse Business nonstocking suppliers are credited at only the amount of the fee or commission charged by the Small Diverse Business nonstocking supplier for assistance in the procurement of the materials and supplies provided the fees are reasonable and not excessive as compared with fees customarily allowed for similar services and under no circumstances shall the credit, for a Small Diverse Business nonstocking supplier, exceed 10% of the purchase order cost. A nonstocking supplier does not carry inventory but orders materials from a manufacturer, manufacturer's representative or a stocking supplier. In order for a nonstocking supplier to receive credit, it must perform a useful business function by engaging in meaningful work (i.e., negotiating price; AND determining quality and quantity; AND ordering materials; AND paying for the materials) and the fee or commission must be provided with the purchase order and the Small Diverse Business Utilization Report. Industry practices and other relevant factors will be considered.

6. Small Diverse Business manufacturers are credited at 100 percent of the total cost of the materials or supplies purchased.

7. The Small GESA Contractor is allowed to use contract amounts at any tier of supply or subcontracting; however the dollar value of any commitment to a Small Diverse Business cannot be double counted.

    a If the Small GESA Contractor or any of its non-Small Diverse Business Subcontractors or Suppliers makes a commitment to a Small Diverse Business, the credit for the subcontract/purchase order commitment, regardless of the level or tier, shall be calculated as indicated in Section D and credited toward the participation percentage provided in the Small Diverse Business Submittal.

    b In the event that the Small Diverse Business whose entire subcontract value is counted towards the Small GESA Contractor's Minimum Participation Level and then subcontracts a portion of the work or supplies associated with this subcontract to another Small Diverse Business, the dollar value of the subcontract with/to this lower tier Small Diverse Business is NOT counted in the Small GESA Contractor's Participation Level in order to prevent the duplicate counting of Small Diverse Business commitment dollars. In this case, the dollar value of this subsequent Small Diverse Business subcontract has already been included within the scope of work and dollar value of the Small Diverse Business commitment already counted as a part of the Small GESA Contractor's Minimum Participation Level.

8. All Small Diverse Businesses must present a photocopy of their current Small Diverse Business certificate from DGS to the Small GESA Contractor**. The certificate must be current as of the subcontract / purchase order execution date, not revoked, lapsed or pending, in order to obtain credit for the commitment.**

9. A Small GESA Contractor's Small Diverse Business participation level per ECM is calculated by adding all or a percentage of the dollar commitments (as described in this section D) to DGS-certified Small Diverse Business subcontractor s of all tiers, DGS-certified Small Diverse Business manufacturers, DGS-certified Small Diverse Business stocking suppliers, and the fee or commission paid to the DGS-certified nonstocking supplier and dividing that total amount by the total ECM price.

10. Upon receipt of the Small GESA Contractor Small Diverse Business Utilization Report, DGS will verify the certification status of the subcontractor, manufacturer, stocking supplier, or nonstocking supplier. Once reviewed by DGS, the dollar value of the subcontract or purchase order, or a percentage thereof, shall be calculated as part of the total dollar value of the Small Diverse Business participation level for the ECM.

E. Remedies

10. The DGS may, in accordance with the General Conditions for the GESA Contracts (Payments Withheld), decline to approve an Application for Release of Payment in whole or in part if the Small Diverse Business Utilization Report is not included and return the incomplete Application for Release of Payment.

11. If after the first three months following Contract execution, the Small GESA Contractor fails to progress in achieving the participation percentage provided in the Small Diverse Business Submittal (based upon the data supplied in the Small Diverse Business Utilization Report), the Funding Agency may withhold payments until the GESA Contractor and the Funding Agency discuss the reasons for lack of progress and achieve a resolution. The Small GESA Contractor is not entitled to interest on any funds withheld due to their failure to submit a properly completed Small Diverse Business Utilization Report or their failure to progress in achieving the participation level.

12. The Small GESA Contractor's compliance with requirements of the Small Diverse Business participation component, including the fulfillment of any Small Diverse Business commitments in all subcontracts and purchase orders is material to the contract between the GESA Contractor and the Funding Agency. Any failure to comply with these requirements constitutes a substantial breach of the Contract. It is further understood and agreed that in the event the Funding Agency determines that the Small GESA Contractor has failed to comply with these requirements, the Funding Agency may, in addition to any other rights and remedies the Funding Agency may have under the contract, any bond filed in connection therewith, or at law or in equity, impose remedies as applicable on the Small GESA Contractor. Remedies for breach of this component may include entry into the CRP, termination, suspension, default, penalties, and/or debarment from future contracting opportunities with the Commonwealth of Pennsylvania. The remedies enumerated herein are for the sole benefit of the Funding Agency and the Funding Agency's enforcement of any provision or the Funding Agency's indulgence of any non-compliance with any provision hereunder shall not operate as a waiver of any of the Funding Agency's rights in connection with the Contract, nor shall it give rise to actions by any third parties, including any Small Diverse Business enterprises.

DATE OF ISSUE: FEBRUARY 28, 2017

DEPARTMENT OF GENERAL SERVICES
ENERGY AND RESOURCE MANAGEMENT OFFICE
401 NORTH STREET
HARRISBURG, PENNSYLVANIA

BULLETIN NO. 6
on

Project No. Small GESA-3 – REQUEST FOR PROPOSALS FOR A GUARANTEED ENERGY SAVINGS PROJECT AT: DEPT. OF HUMAN SERVICES, SELINSGROVE CENTER, SNYDER COUNTY, PENNSYLVANIA, Department of General Services, Energy & Resource Management, 401 North Street, Room 403, Harrisburg, Pennsylvania, 17120.

PROPOSAL SUBMISSION DEADLINE, FRIDAY MARCH 17, 2017
TIME OF OPENING: 11:00 AM

QUESTIONS/ANSWERS

1. In the most recent 12 months of data provided from the Monthly Utilities Usage Reports, the facility uses approximately $116,000 for parts, miscellaneous supplies, service contracts, and repair contracts (does not include any associated labor). Is there a portion of this cost that can be claimed as operational and maintenance savings given the switch from coal to natural gas?

Answer: If the $116,000 in parts is generally a reoccurring cost and it is all associated with the coal boiler operation, then yes.

2. Based on the Monthly Utilities Usage Reports, the facility has experienced a significant escalation in coal pricing from fiscal year 2014 to fiscal year 2015 (over 25% increase) Given the current market conditions, is a higher escalation rate for coal permitted?

Answer: For the proposal, there will be no increase in the escalation rate for coal. It may be a factor to consider in the IGA.

Rebecca Tomlinson, RFP Coordinator
ENERGY & RESOURCE MANAGEMENT OFFICE

PLEASE ACKNOWLEDGE RECEIPT OF BULLETIN WITHIN 24 HOURS BY EMAIL RESPONSE TO REBECCA TOMLINSON AT retomlinso@pa.gov

Investment Grade Audit Report

For A Guaranteed Energy Savings Contractor For:

Small GESA-3 Project for
Department of General Services at

Department of Human Services
Selinsgrove Center

Commonwealth of Pennsylvania
Department of General Services
Harrisburg, PA

December 21, 2018

Submitted by:

Company Name: McClure Company
Company Address: 4101 North Sixth Street, Harrisburg, PA 17110
Contact Person: Alyssa Wingenfield, Account Executive
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Table of Contents

ATTACHMENTS

1 Investment Grade Audit Report Overview

McClure Company is pleased to provide an Investment Grade Audit report for the Commonwealth of Pennsylvania, Department of General Services (DGS) Small GESA – 3 Project. This report includes the analysis and proposed solutions for the Selinsgrove Center in accordance with Section 1.25, Part B of the Small GESA -3 RFP issued December 26, 2016. This report's project costs are valid for 90 days from the submission date (November 21, 2018), contingent upon the Commonwealth's ability to obtain financing.

This report will specifically discuss each energy conservation measure that was included in the Investment Grade Audit Contract executed on April 9, 2018. These energy conservation measures, which can be found in Section 2, include:

- Facility lighting fixture (interior and exterior building mounted, and site lighting) conversion to LED. Color Temperature shall be 3,000°K (warm white) except for garages and exterior locations, which shall be 5,000°K. Minimum CRI = 80. Conversion of interior lighting shall be limited to occupied buildings.
- Facility Building Envelope Upgrades
- Central Plant Gas Conversion Upgrade, including (2) dual fuel boilers and new building addition

A detailed projection of energy and cost savings to be obtained as a result of the energy conservation measures and operational changes mentioned above can be found in Section 3. During the Investment Grade Audit, McClure's team physically inspected the major electrical and mechanical systems in the boiler plant, as well as campus lighting and building envelope. McClure specifically analyzed the following:

- Loads
- Proper Sizing
- Current operating conditions
- Efficiencies
- Hours of operation
- McClure interviewed Selinsgrove Center personnel to discuss the current mechanical operating systems, occupancy numbers and use of the facility, and other problems with comfort levels and equipment reliability. DGS / DHS / Selinsgrove Center provided documentation, which can be found in Attachment 4, which became the foundation for the energy and operational savings calculations.

In addition, McClure used the utility bills provided to establish a baseline for annual consumption of electricity, fossil fuels and water utilizing the most representative contiguous 12 months, from July 2016 to June 2017. McClure discussed any deviations or unusual monthly usages that might skew the baseline data with Selinsgrove Center personnel. A summary of the utility baseline analyzed can be found in Section 4.

For the energy conservation measure, McClure has provided the following:

- Recommended list of energy conservation measures for implementation / installation (refer to Section 2.1)
- Cut sheets for proposed equipment (refer to Attachment 1)
- Detailed Cost Estimates including hard costs (Section 3), savings (Section 3), life expectancy (Section 2.1) and commissioning (Section 6) costs
- Specific operations and maintenance procedures (refer to Section 2.3)
- Energy Baseline and Savings Estimate methodology, supporting calculations, and assumptions (refer to Section 2.1, Section 4, and Attachment 3)
- Measurement and Verification (M&V) plan (see Section 5)
- Commissioning plan (see Section 6)
- Detailed Rate Savings calculations (see Section 4)
- Maintenance, Material and Operational Savings supporting calculations (see Section 2.1)
- Environmental Costs and Benefits for each proposed ECM, including emissions reduction data (see Section 7)

2 Recommended Energy Conservation Measures and Cost

During the Investment Grade Audit, McClure consulted with Department of General Services and Selinsgrove Center personnel to develop the list of recommended energy conservation measures below. These measures meet the current and future needs of the Selinsgrove Center campus and the Commonwealth. This section identifies the recommended list of measures and other measures evaluated. A financial summary of the project can be found in Section 3.

2.1 Recommended List of Measures

Below is a table of the recommended energy conservation measures and the anticipated life expectancy studied during the Investment Grade Audit. In addition to the LED lighting conversion and building envelope, McClure recommends a central plant gas conversion, which includes the installation of (2) dual fuel natural gas/ fuel oil boilers and a small building addition to the central plant.

Table 1- Recommended Energy Conservation Measures and Life Expectancy

ECM	Energy Conservation Measure	Life Expectancy
1	Facility Lighting Fixture Conversion to LED	50,000+ Hours
2	Facility Building Envelope Upgrades	20 Years+*
3	Central Plant Gas Conversion Upgrade	25 Years**

* Typical life expectancy of weather-stripping, sealant, and caulk materials
**Based on ASHRAE Equipment Life Expectancy chart for steel fire tube boilers

Equipment cut sheets for the energy conservation measures listed above can be found in 'Attachment 1 – Equipment Cut Sheets'.

2.1.1 ECM-1: Facility Lighting Fixture Conversion to LED

Existing Conditions

As part of the 2010 GESA project, McClure Company surveyed all buildings revealing a total of 10,602 fixtures that contained a combination T-12 and T-8 fluorescent lighting, incandescent lighting and high intensity discharge mercury vapor and metal halide fixtures. Fixtures were overall in fair condition but were starting to show signs of age. It was noted during this survey that several "high bay" areas have previously been converted to T8 fixtures, however, numerous T12 and incandescent fixtures were still remaining. As part of that project, all fluorescent fixtures were replaced with 25W lamps and instant start electronic ballasts (some fixtures were de-lamped), incandescent were replaced with compact fluorescent lamps, and exit signs with LED equivalents. Many of the high intensity discharge (HID) fixtures were retrofit to T5 fluorescent. Limited exterior lighting retrofits were included in this 2010 project.

Proposed Solution

McClure Company is proposing to retrofit interior fixtures in occupied and mission ready buildings, along with associated exterior lighting at those buildings. The interior fixtures for the buildings listed as occupied or mission ready, total approximately 7,946 fixtures. Only common spaces in the mission ready buildings will be addressed, such as vestibules, corridors, and stair towers. The proposed retrofit includes new direct wire, LED lamps. The exterior lighting includes scope for the building mounted exterior lighting systems, totaling approximately 412 fixtures. The proposed retrofit includes replacements of fixtures as necessary to accommodate the LED conversion. Please refer to '*Attachment 2 – Lighting Scope of Work'* for lighting line by lines.

Given the operation of the facility, no occupancy sensors have been proposed.

There is a warranty for a period of 1 year on installation and workmanship.

Assumptions

No corrections to existing code violations or deficiencies were found during survey;

Includes cost for EPA approved recycling of fluorescent and HID lamps/ballasts

New LED lamps to be direct wired to existing fixture socket, tombstones replaced as needed

Existing fixtures are in good, serviceable condition

Fixtures will be checker-board switched following retrofit

Lighting Burn Hours are shown below

Provided lighting specification sheets are based on material selections at the time of this report. These wattages do not exceed those in the calculations allowing for flexibility and potential changes to wattage offerings from the manufacturers. For example, different manufacturers offer 2' lamps in 7w, 8w, 9w or 10w, so to ensure a conservative approach, 10w was used in the analysis. Final selections and as built data will be provided at the close of the project.

Given the nature of the facility, McClure Company will provide mocks ups of the intended installations in up to 5 areas mutually agreed upon by McClure Company and the facility.

Occupancy and Hours

Table 2 - Building Summary

#	Building (List Title)	Map Title	24/7	Occupied	Mission Ready	Assumed hours
1	Arbor Cottage	Children's Discovery Center		x		M-F 6A-6P
2	Administrative Annex	Annex Building		x		M-F 6A-6P
3	Bell Cottage	Bell Cottage Building		x		M-F 6A-6P
4	Cedar Cottage	VH1 Building			x	
5	Central Complex	CM Side Building	x			
6	Central Complex	Administration Office Building	x			
7	Central Complex	CF Side Building	x			
8	Fire House	Unit 1 Team Office Building		x		7 Days 6A-6P
9	Training Center/School	Training Center		x		M-F 6A-6P
10	Harmony Hall & Horizon	Harmony & Horizon			x	
11	Dining Area	Unit 1 Clinic Building			x	
12	Hickory Hall & Hemlock Manor	Hickory & Hemlock			x	
13	13 Chapel & T-1 Apartment	Chapel/Guest House		x		7 Days 6A-6P
14	Recreation & TAS	TAS Recreation Building		x		7 Days 6A-6P
15	Beechwood Terrance	Terrace Building			x	
16	Applewood	Applewood Building			x	
19	Server Farm			x		M-F 6A-6P
28	Maintenance	Maintenance Dept Building		x		7 Days 6A-6P
29	Laundry	Laundry Building		x		M-F 6A-6P
30	Power Plant	Power Plant Building	x			
31	Garage	Garage Building		x		M-F 6A-6P
32	Carpenter Shop	Carpenter Shop Building		x		M-F 6A-6P
33	Grounds/Welding Shop	Grounds/Welding Shop		x		M-F 6A-6P
34	Mechanical Stores	Mechanical Stores Building		x		Storage
35		TAS Recycling Building		x		Storage
44	Water Treatment Plant	Water Treatment Building		x		Storage

Table 3 – Lighting Hours

Burn Code	Area Description	Est. Average Hours BEFORE/AFTER	Est. Average Hours WITH SENSORS
A	AUDITORIUM	1500	1500
BH	AVERAGE BEDROOM BURN HOURS	5460	3822
CPS	CLASSROOM, ELEM SCHOOL	1827	1279
CPS-ES	CLASSROOM, ELEM SCHOOL - EXISTING OCC SENSOR	1279	1279
EX	EXTERIOR	4380	3066
G	GYMNASIUM	3640	2548
H	HALLWAY	3863	2705
K	KITCHEN	1827	1279
LR	LOCKER ROOM	3863	2705
O	OFFICE	2340	1638
O-ES	OFFICE - EXISTING OCC SENS	1638	1638
RR	RESTROOM	3863	2705
RR-ES	RESTROOM - EXISTING OCC SENSOR	2705	2705
RRP	PRIVATE RESTROOM	522	366
RRP-ES	PRIVATE RESTROOM - EXISTING OCC SENSOR	418	293
S	STORAGE	1000	700
S-ES	STORAGE - EXISTING OCC SENSOR	700	490
VEND	VENDING MACHINES	8760	6132
Z	24 HOURS 7 DAYS	8760	6132
Z-MR	MISSION READY	8760	6132

Detailed Energy Savings Calculations

Energy savings are calculated using wattage reductions from the manufacturer's provided specification sheets for the applicable lamp. These reductions are multiplied by the stipulated hours above to generate the kWh savings. The cost savings are calculated using this kWh savings multiplied by each buildings baseline electric rate.

$$kWh\ Savings_t = \sum_u [(kW/fixture_{baseline} \times Quantity_{baseline}) - (kW/Fixture_{post} \times Quantity_{post}) \times Hours\ of\ Operation]_{t,u}$$

Additional Maintenance, Material and Operational Savings

Using industry standard operational assumptions and failure rates, the new LED system is calculated to save approximately $34,391 per year for the 5 years of lamp warranty when compared to the existing system material cost of replacement.

2.1.2 ECM-2: Facility Building Envelope Upgrades

Existing Conditions

All the occupied and mission ready facilities were surveyed for areas of infiltration that would result in unnecessary load for the mechanical system. Infiltration can be defined as unregulated outside air entering a building unintentionally. This air must be treated (heated or cooled) by the building's heating or cooling system to maintain acceptable indoor temperatures.

Proposed Solution

McClure Company is proposing to air seal the following occupied buildings: 1, 2, 3, 5, 6, 7, 13, 14, 19, 29, 31, 32, 33, & 34. Air sealing includes installation of new weather stripping on exterior doors, replacement or installation of window caulking, sealing cracks/penetrations in the envelope with spray foam applications, and sealing building interfaces (roof to wall or soffit overhangs). Scopes by building are listed below.

Building 1

- Weather-strip doors, 13 ea.
- Install interior window caulk, 4,776 LF
- Weather-strip and insulate hatches, 2 ea.

Building 2

- Weather-strip doors, 5 ea.
- Weather-strip and insulate access hatch
- Foam seal terra cotta wall tops, 1,200 LF
- Blank off fan and louver, 15 LF
- Air seal ceiling penetrations, 40 +/-

Building 3

- Weather-strip doors, 13 ea.
- Caulk window frames, 4,776 LF
- Weather-strip and insulate hatches, 2 ea.

Building 5

- Weather-strip doors, 24 ea.

Building 6

- Weather-strip doors, 11 ea.

Building 7

- Weather-strip doors, 25 ea.

Building 13

- Weather-strip 27 doors x 20’ x 1/16”
- Air seal 10,125 SF attic

Building 14

- Weather-strip doors, 30 ea.
- Foam seal roof edge and roof-to-wall, 1,136 LF
- Install 48” sheathing @ entry soffit, 12 LF
- Inspect and seal, if necessary, roof exhaust curbs, 6 ea.

Building 19

- Weather-strip doors, 8 ea.
- Foam seal wall tops, 220 LF
- Install interior window caulk, 1,684 LF
- Foam seal penetrations, 50 ea.

Building 29

- Weather-strip doors, 12 ea.
- Weather-strip oversize doors, 10 ea.
- Cover door louver, 1 ea.
- Attic air seal

Building 31

- Weather-strip doors, 4 ea.
- Foam seal roof edge, roof-to-wall, 580 LF
- Air seal attic
- Install E-foil over rafters at black plastic, 360 SF

Building 32

- Air seal attic
- Build new attic access hatches, 3 ea.
- Weather-strip doors, 7 ea.
- Install radiant barrier on inside of overhead doors, 5 ea.

Building 33

- Install hatches at access holes, 2 ea.
- Cover fan, 1 ea.
- Seal ceiling cracks, 1,776 LF

Building 34

- Weather-strip door, 1 ea.
- Weather-strip overhead doors, 5 ea.
- Seal abandoned ceiling fan holes, 4 ea.
- Install radiant barrier below black plastic ceiling, 1,600 SF
- Install new attic access hatches, 2 ea.
- Air seal ceiling penetrations

There is a warranty for a period of 1 year on installation and workmanship.

Assumptions

Flow factor used in the ASHRAE crack formula calculation is 20 and associated heating degree days for the analysis are 5,819

Detailed Energy Savings Calculations

Energy savings are based on a custom spreadsheet analysis utilizing ASHRAE standard engineering calculations. McClure Company utilizes custom spreadsheet analysis in order to more effectively calibrate to existing conditions and determine individual ECM savings in more detail. The equation used is as follows:

$$Q = \text{Flow Factor} \times (\Delta P)^{n} \times \text{Area}$$

$$(Q \times \text{Degree Days}) / \text{HEF} = \text{Energy}$$

- Flow Factor- based on building type (all Selinsgrove Center buildings selected as type 3
- $(\Delta P)^{n}$- wind pressure based on location (Williamsport) and building type (3)
- Area- calculated based on crack width and length
- HEF- heating efficiency factor based on fuel type and average efficiency

The savings are a result of reducing the infiltration of raw outside air into the building and sealing attic / occupied space thermal boundaries.

Additional Maintenance, Material and Operational Savings

No maintenance, material or operational savings have been included for this scope of work.

2.1.3 ECM-3: Central Plant Gas Conversion Upgrade

Existing Conditions

The boiler plant for the Selinsgrove Center was built in 1937 as a coal burning, high pressure steam plant. It currently houses (2) 610 BHP boilers installed in 1947 and (1) 513 BHP boiler installed in the 1950's. The boiler plant also houses all of the necessary steam ancillary equipment including condensate return pumps and tank, deaerator, boiler feed pumps, chemical treatment equipment, blowdown separator, flash steam tanks, and induced draft fans. Located behind the existing building are a flue gas recirculation (FGR) system and a bag house/core separator system. The bag house/core separator system was abandoned for the FGR system, although some of the circulation fans and duct work were repurposed for the installation of the FGR. While currently not operating, the FGR system is an integral part of the boiler plant and should be operating when using the coal boilers.

As part of a previous GESA project in 2010, McClure Company constructed an addition to the existing brick building to house a new boiler sized for the facilities summer load. The boiler is a 350 BHP, natural gas fired, high-pressure steam boiler configured to operate at 125 PSI. The new building also houses a high pressure steam turbine.

Until the winter of 2017/2018 the boiler plant operated as follows. However, during this past winter a temporary 800 BHP dual-fuel rental boiler was installed, and the coal boilers were minimally fired due to maintenance issues.

The boiler plant method of operation is to utilize the new gas fired boiler during the summer and the shoulder months, with the 513 BHP coal boiler on line as backup. Steam pressure generated during the summer is 45 PSI, which is equal to the pressure delivery requirements of the facility. The steam turbine is off line during this time period. Once the facility steam load exceeds the capacity of the gas boiler, the 610 BHP coal boilers are brought on line and operate in a duty/standby arrangement. A steam pressure of 180 PSI is generated by the coal boilers in order to maintain proper firing. This higher pressure steam is used to operate the steam turbine, reducing steam from 180 PSI to 45 PSI, which is then distributed to the facility. A pressure reducing station is also located in the new building to regulate steam pressure to the facility if the turbine is off line or if the facility demand exceeds the turbines capacity.

The coal boilers and associated infrastructure dates largely from the 1950's and at 60 years old is far past its useful life. By modern standards it is inefficient and labor intensive to operate. Additionally because of the age of the plant, many components are constructed of, or contain hazardous materials including asbestos and lead paint. This potentially exposes workers to these materials and makes maintenance and upgrades complicated and expensive. The plant does not have the operational equipment and systems required to meet the current EPA air emissions standards.

The existing control of the steam boilers was installed and commissioned by Honeywell. The control of the steam boilers was successfully implemented but follow up support was and remains limited. The only available support had to come from New York.

Proposed Solution

McClure Company has extensively evaluated multiple options to achieve the goal of providing new boilers for the Selinsgrove Center. These can be generally categorized as (1) demolish the existing boilers and install new boilers in the same location, and (2) construct a new building to house the new boilers and abandon the existing boilers. The result of the evaluation is that constructing a new building is the more cost effective option. There are several factors that led to that conclusion as follows:

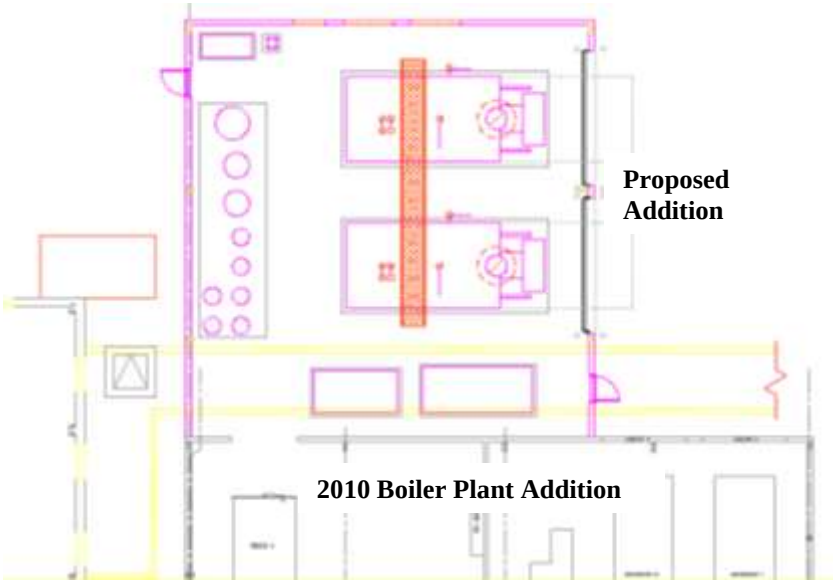
- The demolition costs associated with removing the existing coal boilers.
    - Access: The construction of the existing building does not provide adequately sized access to remove the existing boiler components nor does it provide access to install the new boilers. This existing condition would necessitate removing a substantial portion of the rear wall of the building behind the smaller coal boiler. The removed portion of wall would be permanently replaced with a 16' wide by 16' high roll up door. To facilitate this access, the existing flue gas recirculation system would also need to be removed.

- Floor: The base of the existing boilers extends several feet below the existing finished floor level. Once the existing boilers are removed the remaining pit would need to be in-filled and a suitable floor constructed to support the weight of the new boilers and provide a level bearing surface.
- Support: Much of the building infrastructure in the boiler room proper is supported from the boilers themselves. Therefore all systems and services that are located in that space would need to be individually evaluated made safe and potentially rerouted prior to the commencement of boiler demolition.

- Hazardous material abatement.
  - Asbestos: An asbestos report is included in the original RFP which identifies all know areas of asbestos containing materials (ACM). There is a substantial amount of material identified in the boiler room and on the boilers that will require abatement prior to the start of demolition. However it is unknown the extent of ACM that may be uncovered once demolition of the boilers is started. It is not possible to access and therefore test this material without disassembling the boilers. This unknown condition could delay the demolition schedule and increase project costs.
  - Lead paint: McClure Company as part of our evaluation process performed lead-based paint screening using an x-ray florescence spectrum analyzer (XRF). This screening was performed on sample materials throughout the boiler room. The results of this testing provided positive results for lead based paint on samples of several categories of materials. Not all materials tested were positive, however positive results were found on each category of material tested, i.e.; structural steel, catwalks, boiler structure. These somewhat random results complicate and delay the demolition process because either all materials must be assumed to be lead based or each item must be tested individually prior to demolition.
- Temporary boilers.
  - The nature of the Selinsgrove Center requires 24/7 boiler plant operation and equipment redundancy. To provide this level of boiler plant reliability during the construction process requires the use of temporary boilers. A duty and back-up boiler of adequate size to serve the entire facility would need to be installed, connected to the existing steam distribution system and made operational before demolition of the existing boilers could begin. The temporary boilers would be required to remain in operation until the new boiler plant was fully tested, commissioned and made operational. There are substantial costs associated with providing temporary boilers of this scale for this duration of time.

The alternate option of constructing an addition to the existing building to house the new boilers also has complications and risks associated with it. These include potential site access during construction and building over the existing underground steam tunnel. However as a result of our evaluation process we determined that the benefits and resulting lower costs associated with this option out weight the potential risks. McClure shall contact the local authority and make the authority aware of the changes to the boiler plant structure.

As such, McClure Company proposes to construct an addition to the previous boiler plant expansion building in order to house a new dual-fuel (natural gas/#2 fuel oil) medium pressure (45 PSI) steam boiler plant. The existing coal boilers and all associated infrastructure, except as otherwise noted herein, would be decommissioned and abandoned in place.



The building expansion would be approximately 40’ x 44’ x 20’ high and would connect to the rear of the previously constructed metal building with similar construction details. The new building is not required by Code to have a sprinkler system installed but is required to have a 1-hour separation from this existing building. The existing combustion air intake louver in the rear of the existing expansion will be removed and the opening used as the access between the two buildings. New combustion air intake louvers would be provided in the rear wall of the new building. The finished floor elevation between the two buildings will match and the footing/floor of the new building would be constructed to span above the existing underground steam tunnel. New 10’ wide by 12’ high roll up doors would be provided in front of each new boiler for access and tube pull clearance. Additionally, (2) man doors would be provided on opposite corners of the building for egress. The roof structure would be designed to support the weight of the piping and boiler stacks and would be of sufficient height to accommodate the new boilers, catwalk and required overhead clearance. The building would include all necessary and expected building services including interior and exterior lighting, emergency lighting, exit signs, fire alarm, convenience receptacles, emergency boiler stops, emergency shower/eyewash, backflow preventers, floor drains, hose bibs and downspouts. More detailed drawings can be found in Attachment 2, including layout and site planning. McClure will provide final boiler house plans before L&I submission. The general scope of work is detailed below.

- Building foundations – The concrete foundation supporting the building will be designed based on current design requirement and building codes. The scope of the foundation support system outlined below:
    - Form, reinforce and pour the concrete foundations:
        - Wall footings.
        - Spread footings.
        - Sonotube footings
        - Form, reinforce and pour concrete piers.
        - Form, reinforce and pour concrete slab on grade
        - Thicken slab under boiler locations.
        - 4,000 psi concrete.
- Structure – The structural system being used for this project is a pre-engineered steel frame system designed per the current design and building code requirements. The system involves steel clear span rigid frames sitting on the concrete pier system that support secondary support system of roof purlins and sidewall and end wall columns and girts
- Walls – The exterior walls will consist of as mentioned above, 8” steel wall girts, and architectural III, 26-gauge pre-finished architectural metal panels based on a standard color selection.
- Roof structure – Single slope roof with 24 gauge standing seam metal roofing over 12” steel roof purlins as associated prefinished roof line trim.
- Thermal protection:
    - Wall insulation consists of 6” standard laminated fiberglass.
    - ii. Roof insulation consist of 6” standard fiberglass – Tall panel clips with thermal blocks.
- Building rainwater drainage – Properly sized standard prefinished gutters and downspouts
- Site storm water management:

- Infiltration area with geotextile fabric and #3 stone.
- At grade swales with #3 stone

The new boilers will be Hurst Series 500 (basis of design), four pass, scotch marine style to match the recently installed gas-fired summer boiler. Two boilers will be provided, each nominally 400 BHP (13,800 lbs. per hour), 150 PSI steam pressure (45 PSI operating pressure). They will be provided with dual fuel (natural gas/#2 fuel oil) low NOx burners with Siemens linkageless control system. The boiler system shall be provided with a Siemens Master Panel with touch screen. Each boiler (the 2 new and 1 existing) shall be provided with Siemens feed water level controllers and Siemens touch screen controllers. They shall be capable of meeting PA DEP's current Best Available Technology emission requirements of 30 ppmdv NOx at 3% O2 when firing natural gas, 90 ppmdv NOx at 3% O2 when firing #2 fuel oil, 300 ppmdv CO at 3% O2. Each boiler will be provided with an individual double wall insulated stack through the roof to a stack cap. Boiler stacks shall include suitable test ports to facilitate PADEP emission testing. A code compliant catwalk will be provided above the boilers. Each boiler will be provided with all necessary valving for full Code compliance, safety and maintenance isolation. Each project boiler will be provided with an in-line vortex style steam flow meter with pressure and/or temperature correction.

With the elimination of the coal boilers and their need to produce high pressure steam, the plant pressure will now match the desired delivery pressure of 45 PSI. This elimination of the need for high pressure steam removes the need for and operation of the turbine and pressure reducing stations. These devices will be disconnected, made safe, bypassed, and abandoned in place.

The existing Hurst boiler will be retrofitted to operate at 45 PSI steam pressure. This shall include but not be limited to: replacing the safety valves with valves that lift at 70 psig and provide suitable relief capacity at that lift pressure. Per Hurst this is anticipated to be two Kunkle 2"x3" safety valves (7,936 pph for each valve). Increasing the relief valve discharge piping if needed, replace the boiler outlet nozzle with one suitable for operations at 45 psig, install a new baffle to reduce the incidence of carryover (welded to the inside of the vessel), change the High Limit control to a lower range of operation, replace the existing steam piping, fittings, and valves to support operations at 45 psig if necessary. The existing vortex style steam flow meter will be verified for operation at 45 PSI or replaced with a new meter suitable for proper operation.

A new fuel oil storage tank and supply system shall be provided. This system shall utilize (2) 20,000-gallon aboveground storage tanks recently installed on the site by the Commonwealth. Underground double wall containment piping with leak detection shall run from the tank location into the new building. A new packaged duplex fuel oil transfer pump set shall be provided and located in the new building. A tank level monitoring and leak detection system will be provided that shall include audible/visual alarms. The details of this system will be coordinated with the existing tanks.

New natural gas piping shall connect the new boilers to the existing UGI utility meter which outlets natural gas at 10 PSI. The new natural gas load shall be coordinated with the Utility Company and all required modifications to the existing natural gas infrastructure accounted for. A new carbon monoxide (CO) detector shall be provided with local alarm in the new building.

New boiler chemical water treatment equipment will be provided, including new water softeners and make-up water meter. It is McClure Company's intention to obtain this equipment from Selinsgrove Center's existing chemical treatment provider, Proasys, for continuity of service. This equipment will be located in the new building and connected to the (2) new boilers and (1) existing gas boiler.

A new packaged condensate return/surge tank with duplex pumping will be provided, located in the new building. The surge tank shall be provided with a Siemens touch screen controller. All returned condensate from the system will be routed to this new system which includes flash tanks with heat recovery. The existing duplex condensate receiver and flash tank installed as part of the McClure 2010 GESA project will be retained. The discharge from the 2010 system will be piped to the new condensate return tank and then to the new deaerator system.

A new packaged deaerator system with triplex feed water pumping will be provided in the new building. The package will be capable of removing oxygen to 0.005 cc/liter and include a complete oxygen trim system. The deaerator shall be provided with Siemens feed water level controllers and Siemens touch screen controller.

A new blowdown separator with drain line cooling will be provided in the new building.

New steam, condensate, feedwater, make-up water & chemical treatment piping shall be provided to connect to the existing facility piping at the exit points of the existing boiler plant.

Taps for connection of a rental boiler for emergency use shall be provided on the front side of the 2010 building. These taps will be utilized during the construction of the new building to provide boiler redundancy by relocating the current rental boiler to this location.

Control of the new gas fired boilers will be factory provided controls; the control package is the Siemens LMV52. This is the same control package that was provided with the existing gas boiler. The start up of the new boiler controls will be led by the local Hurst boiler representative. The startup technician has worked in the facility for the start up of the existing gas boiler and has extensive experience in starting the Siemens boiler control package. The Siemens control package will provide all of the actual control including staging and rotating boiler operation. The (2) new and (1) existing boiler will be configured to operate as a unified plant. Because the operating pressure of all boilers will be the same, the designation of “summer” and “winter” boilers will no longer be needed and all boilers will be available at all times.

The LMV52 control systems for each of the two new boilers are to have the same or upgraded components as that on the existing 350 BHP boiler, and be configured similarly.

1. General description: System interface will be provided by a Master HMI with PLC, three remote master HMIs without PLC, and one dedicated PC in the Supervisor’s office, all connected by an internal boiler plant Ethernet network. The Master PLC will pull information from the three boilers’ LMV52/AZLs, the three new steam flow meters, and the new DA Tank/Condensate Tank control panel. The Master PLC will drive all the touchscreen HMIs and the office PC views. The office PC will also run data acquisition software to store desired plant data. The Master PLC will also pass information to the facility Johnson Controls MetaSys BAS for viewing plant operations outside the plant and provide additional data retention. The Master PLC will provide plant master and Lead/Lag control.
2. Master HMI/PLC/Boiler enclosure: will be located on the new boiler closest to the existing boiler to minimize wiring distance from the steam flow meter.
    a. Will contain: LMV52, AZL, Master PLC, 10” touchscreen, and TS-6000 Protocol Converter.
    b. Any necessary communications hardware.
    c. A suitably sized UPS (Uninterruptible Power Supply) and surge protection. The UPS should provide a minimum of 15 minutes of power for connected loads. The objective is to protect sensitive electronics from electrical transients and provide interim power until the emergency generator comes on line in the event of a complete power outage.
    d. All individual steam flow meter signals (3) will be wired to the Master PLC, as will the Master Steam Pressure sensor (1). For steam flows the PLC shall perform the following and show in the touchscreen displays:
        i. Steam flow rate (lbs/hr) for each boiler.
        ii. Totalize each flow rate to obtain lbs generated for each boiler.
        iii. Sum the three individual boiler steam flows to provide a Total Steam Flow lbs/hr.
        iv. Totalize the Total Steam Flow to obtain total lbs generated.
        v. The totalizer values will continue to increment until the maximum possible value is reached and then rollover to zero.
    e. The Master PLC shall receive and display data from the new DA Tank/Condensate Tank control panel.
    f. Alarms, both audible (horn or buzzer that can be heard) and visual (flashing red light elevated well above the panel).

g. Boiler hot standby is to be maintained by temperature, not steam pressure. The appropriate temperature sensor is to be installed in the boiler shell, and the LMV52 controller configured accordingly.

3. Remote Master HMI/Boiler enclosure: located on the other new boiler.
   a. Will contain: LMV52, AZL, and 10" touchscreen.
   b. Any necessary communications hardware.
   c. A suitably sized UPS (Uninterruptible Power Supply) and surge protection. The UPS should provide a minimum of 15 minutes of power for connected loads. The objective is to protect sensitive electronics from electrical transients and provide interim power until the emergency generator comes on line in the event of a complete power outage.
   d. Separate alarms are not required for this enclosure – visual and audible alarms for the new boiler room are provided on the Master HMI/PLC/Boiler enclosure.
   e. Boiler hot standby is to be maintained by temperature, not steam pressure. The appropriate temperature sensor is to be installed in each boiler shell, and the respective LMV52 controller configured accordingly.
4. For the existing 350 BHP boiler: Remote Master HMI/Boiler enclosure:
   a. A new Touch Screen 10" with its own enclosure will be provided Remote Master HMI and meet the requirements of a Remote Master HMI/Boiler enclosure as noted in Item 3.
   b. Alarms, both audible (horn or buzzer that can be heard) and visual (flashing red light elevated well above the panel).
   c. If not already present, provide temperature-controlled hot standby feature for this boiler as well.
5. Remote Master HMI/Operator Interface enclosure.
   a. To be located in the old coal boiler room. Specific location to be provided by the facility.
   b. 10" touchscreen.
   c. Any necessary communications hardware.
   d. A suitably sized UPS (Uninterruptible Power Supply) and surge protection. The UPS should provide a minimum of 15 minutes of power for connected loads. The objective is to protect sensitive electronics from electrical transients and provide interim power until the emergency generator comes on line in the event of a complete power outage.
   e. Alarms, both audible (horn or buzzer that can be heard) and visual (flashing red light elevated well above the panel) for each individual enclosure.
6. Remote Master HMI/PC.
   a. Dedicated PC to be located in the Supervisor's office. Will only be connected to the internal plant boiler control system Ethernet network.
   b. Operating system software and current Microsoft Office.
   c. Shall provide the same interface with the control system as other Remote Masters.
   d. Shall run data acquisition software ACS800 to store plant operating data.
   e. Shall have two 2 TB SSDs. The SSDs shall be partitioned. One partition to contain operating software and configurations (one drive operating, the other backup). The second partition shall be for data storage (the operating drive is primary; the other drive is backup).
   f. A suitably sized UPS (Uninterruptible Power Supply) and surge protection. The UPS should provide a minimum of 15 minutes of power for connected loads. The objective is to protect sensitive electronics from electrical transients and provide interim power until the emergency generator comes on line in the event of a complete power outage.
7. MetaSys connection to the boiler control system: will be interfaced with the MetaSys system through the TS-6000 Protocol Converter.
   a. All pertinent boiler/plant operating parameters and alarms will be passed to MetaSys.
   b. MetaSys data is to be view only. No external communication to boiler controls is to be allowed.

c. Configure boiler plant data view screens in MetaSys, to be viewed on the Facility Maintenance Manager III's office PC that has access to MetaSys.
d. Designated personnel should be provided remote access (for example: from home) to MetaSys boiler plant information.
e. Boiler plant operating data shall be stored and trended in MetaSys. Frequency of logged points to be determined.

In addition, McClure is recommending the following building automation scope of work:

- McClure shall provide all necessary and appropriate wiring, verify proper function of all communications of the boiler management system and the MetaSys interface, provide wiring diagrams and a Process and Instrumentation (PID) for the new boiler management system in as built conditions.
- McClure shall provide two (2) sets of O&M manuals of the new boiler management system.
- McClure shall provide a minimum of 8 hrs. of classroom and/or OJT training on the operation of the new boiler management system for each person designated by the facility.
- The boiler management system shall be programmed so that there will be one boiler in a hot standby condition at all times in addition to the operating boiler(s). For example, during summer time one boiler can adequately support the facility's steam demand (lbs./hr.) and one of the other boilers will be maintained in hot standby. During winter months when it is necessary to operate both of the project boilers to support the facility's steam demand (lbs./hr.) the existing "summer" boiler will be maintained in hot standby. Boiler hot standby is to be maintained by temperature, not steam pressure. The appropriate temperature sensor is to be installed in each boiler shell and the respective Siemens LMV52 controller configured accordingly.

The current Honeywell control package for the coal boilers will be completely eliminated. Johnson controls will extend the campus wide automation system to the power house. The power house will have access to the system directly in the power house and access to the power house operation can remain completely separate from the campus system. Each of the touchscreens in the boiler plant buildings will enable the boiler operators to view that status of all of the boilers and DA/Surge tank display points and to make any necessary adjustments to the Siemens boiler plant control system. The interface of the Johnson MetaSys building management system at the boiler plant will allow personnel at Facility Maintenance Manager Office to view the status of all of the boilers and DA/Surge tank display points.

McClure Company shall include abatement of asbestos containing materials and lead paint as needed to decommission the existing boilers and make connections to existing systems. This abatement shall be limited to disconnection points of piping systems and equipment. Abatement will only be performed as needed to cut and cap abandoned systems or to make new connections. All other materials beyond these immediate connection points will be abandoned in place.

The existing compressed air system will be retained and a new compressed air line extended from this system to the new building. This new compressed air line is intended for staff maintenance use. No new equipment will require compressed air for operation. All branches of the compressed air system serving abandoned equipment shall be disconnected and capped.

Heat will be provided in the existing building to maintain the facility above freezing. The target building temperature is anticipated to be ±50°F. This shall be accomplished via (4) new 150 MBH steam unit heaters operating on 45 PSI steam. Heaters shall be located (2) in the main boiler room, (1) in the lower level feedwater pump area and (1) in the upper level deaerator level.

Electrical service to the new building shall be extended from the existing switchgear located in the boiler plant. The new electrical service shall be run in conduit and include new panel boards, transformer(s) and breakers. There is a warranty for a period of 1 year on installation and workmanship.

Assumptions

- The Rental Company will relocate the rental boiler prior to the start of construction. It shall be moved from its current location in the rear of the building to the front of the building and connected to the new emergency taps provided by McClure as part of this project. The rental boiler shall be available for emergency back up during the construction period. McClure will remove and make safe all existing lines to the current rental boiler location.
- The remaining coal in the bunker behind the boiler addition shall be removed by the Owner prior to start of construction of the new building addition.
- The existing compressed air system can be retained and used to serve the new equipment.
- Temporary access to the back of the existing building will be provided during construction for ash removal. This access will require demolition of a portion of the existing coal bunker.
- All existing boilers, equipment, piping, etc. will be abandoned in place except as needed for the installation of the new work proposed herein.

Proposed HVAC equipment cut sheets can be found in *'Attachment 1 – EQUIPMENT CUT SHEETS'*.

Detailed Energy Calculations and Assumptions

The gas boiler conversion provides many benefits to the facility, including a cleaner burning fuel source, a higher efficiency combustion, increased central plant control, and modern equipment to replace those devices at the end of their useful service life. Additionally, elimination of equipment associated with the coal fired boilers increase the savings.

Additional Maintenance, Material and Operational Savings

Through facility reports provided by the Center, McClure Company was able to include additional operational savings for this scope of work beyond the boiler system efficiency increase for energy savings.

For the fiscal year 2016-2017, the Center spent approximately $82,907 on non-service related items, such as parts and repair, when the coal boilers were offline. These costs were assumed to be used to maintain boiler operation and provide necessary repairs during system down time as related to the coal boilers. The Center also spent approximately $77,390 on service related items during this same time, totaling $160,297 for service, parts, and repairs during the period the coal boilers were offline. McClure has assumed these charges directly relate to the operation of the coal boilers and will be removed through the decommissioning of the coal system.

At the time of this reports, in order to maintain operation of the coal system, the Center must conduct stack testing for each boiler. It has been reported for operation primarily on coal, this occurs on a 3-year rotation totaling approximately $79,400 for the (3) boilers. That results in an average annual cost of $24,467, again applied to the operational savings in decommissioning the coal plant. While the testing requirements may have changed through the use of the temporary boiler, seeing it as a non-permanent solution and that the facility will be realizing the total amount of savings (whether in part to the rental boiler or the proposed scope of work), McClure has applied the full $24,467 per year as operational savings as a result of the new scope and use of the rental boiler in the interim.

Additionally, with the steam turbine no longer in use, the associated maintenance has been estimated as a savings. The value of $6,789 has been applied as the industry standard estimated maintenance cost for this equipment.

The resulting annual operational savings through the duration of the contract is $3,831,060 (annual rate over 20 years non-escalated).

During the most recent heating season, a rental gas boiler was required to maintain campus operation. While not a long-term solution, the facility has agreed that operation of the rental boiler would be needed over the next 5 years. While some costs are non-recoverable, such as freight and initial set up, the month rental fee has been applied as an

annual operational savings of $259,430 to keep the boiler onsite during the entire year. This is applied over 5 years for a total savings of $1,297,150 (annual rate over 5 years non-escalated).

2.2 Recommended Operational Changes

McClure's analysis of the steam turbine operational changes has been submitted to the Commonwealth.

2.3 Recommended Operation and Maintenance Procedures

The measurement and verification (M&V) of the proposed energy conservations measures above will be conducted according to the plan identified in Section 5. McClure, per the RFP requirements, can provide measurement and verification for three years starting at $25,000 for Year 1 and escalated 3% for Year 2 and Year 3. Onsite measurements, field work and report generation will be prepared by Richard Skinner.

It is anticipated that DGS and Selinsgrove Center will incorporate the upgraded system into their preventative maintenance routines. McClure's project management team will be available to assist the Commonwealth with operational and maintenance procedures, as well as warranty claims and repair work. Project training will be scheduled during the construction period.

In order for McClure to guarantee the energy savings projected, the Commonwealth shall maintain all equipment installed in a manner consistent with the manufacturer's recommended maintenance schedules and procedures. The Commonwealth acknowledges and consents to McClure's right to monitor energy conservation measure cost savings and energy management performance by conducting onsite measurements, including but not limited to, reading meters and installing and observing onsite monitoring equipment.

Due to conflicting information in the GESA RFP, McClure is offering preventative maintenance as an additional "add-on" service for DHS Selinsgrove's consideration. The cost of the mechanical service can be included in the GESA contract or can be contracted separately. The scope of the preventive maintenance scope for the boilers, DA tank and associated devices includes:

- One pre-season inspection and one annual inspection
- The annual boiler inspection shall include opening the fire and water sides, clean and flush as required.
- We shall also prepare the Boilers and DA Tank for the Boiler Inspector.
- Once the inspection has been completed, we will close fire & water side and fill to the proper water level.
- McClure shall inspect for leaks.
- McClure shall perform operational test on all controls, safeties and interlocks.
- McClure shall perform combustion analysis and make adjustments as needed for the best possible combustion and efficiency ratings.
- McClure shall provide customer with reports as required.
- All gasket materials will also be included.

The annual cost of the service is shown in the breakdown below.

Year #1 - $14,692.00

Year #2 - $15,133.00

Year #3 - $15,587.00

Year #4 - $16,055.00

Year #5 - $16,537.00

2.4 Energy Conservation Measures Evaluated but Not Included

2.4.1 Replacement of the coal boilers with one large gas boiler with hook ups for a temporary boiler (Not Recommended)

Existing Conditions

A summary of the existing conditions of the boiler plant can be found in Section 2.1.3.

Proposed Solution

McClure Company is not recommending (1) single large boiler installation due to lack of redundancy.

3 Financial Summary

3.1 Project Cost and Savings

The following the total cost and annual energy savings of the proposed project.

Table 4- Proposed Energy Conservation Measures Cost and Savings

ECM	ECM Description	Total Install Cost	Annual Energy Savings*	Annual Electric Savings (kWh/yr)	Annual Electric Savings ($/yr)	Annual Natural Gas Savings (CCF/yr)	Annual Natural Gas Savings ($/yr)	Annual Coal Savings (Ton/yr)	Annual Coal Savings ($/yr)
1	Facility Lighting Fixture Conversion to LED	$ 973,706	$ 59,053	861,242	$ 59,053	-	$ -	-	$ -
2	Facility Building Envelope Upgrade	$ 168,021	$ 9,806	-	$ -	25,522	$ 9,806	-	$ -
3	Central Plant Gas Conversion Upgrade	$ 4,413,500	$ 184,556	29,346	$ 2,012	(775,384)	$ (297,929)	4,101	$ 480,473
Subtotal		**$ 5,555,227**	**$ 253,415**	**890,588**	**$ 61,065**	**(749,862)**	**$ (288,123)**	**4,101**	**$ 480,473**
Energy Audit Report Cost		$ 62,000							
Owner Controlled Contingency Fund (3%)		$ 166,657							
Total Financed Amount		**$ 5,783,884**							

*Note: Total Install Cost includes construction, design, engineering, construction management, commissioning, training, overhead, and profit. Total cost savings are energy related only and do not include the capital cost avoidance for temporary boiler rental, operational and maintenance savings associated with coal boiler operation and lighting warranty.

3.2 RFP Submission Comparison

McClure Company submitted a response to Small GESA-3 Request for Proposal on March 17, 2017. Due to the Commonwealth directed scope changes during the Investment Grade Audit, the project cost and savings comparison to the RFP response is no longer applicable.

In addition, the overall Small Disadvantaged Business (SDB) dollar commitment for all ECMs in this report is 15.03%. This exceeds the amount identified in the March 17, 2017 RFP of 14.1%. Below is a summary of the SDB commitment.

Table 5 – Small Disadvantage Business Commitment

ECM	Dollar Value of ECM	% SDB Commitment	Dollar Value SDB Commitment ($ Value of ECM x % Commitment)
ECM-1	$973,706	46%	$444,722
ECM-2	$168,021	71%	$120,055
ECM-3	$4,413,500	6%	$270,000
Total	**$5,555,227**	**N/A**	**$834,777**

3.3 Annual Financial Projections

McClure has provided an annual financial projection for the length of the contract and each projection appears in the proper format listed in the RFP, as described below.

ECM-1 Cost	$973,706
ECM-2 Cost	$168,021
ECM-3 Cost	$4,413,500
Energy Audit Report	$62,000
Owner Contingency	$166,657
Total Project Cost	$5,783,884
Total Year 1 Energy Savings:	$253,415
Act 129 Rebates (Estimate)	$22,000

The table on the next page provides the summary of the costs, savings, and simple payback for the core energy conservation measures. Each measure is listed separately to show the individual energy and cost impact. All savings shown on this table are guaranteed. McClure Company's overall assumptions applicable to the table include:

- Annual Financial Projections are based upon the recommended ECMs only
- Construction period savings are based on 50% of the Year 1 Guaranteed Savings. This value will be adjusted upon confirmation of a defined project schedule.
- Financing payments are based on an annual interest rate of 3%. Issuance costs have not been included in the financial model.
- The net present value of the excess cash flow is based on a 3% discount rate.
- Energy costs are escalated at a 1% rate.
- Financing payments have been shown over an 18 year term
- M&V fee has been escalated at 3% per year.
- Act 129 Rebates are estimated at the time of this document as the utility program is on hold through a waitlist. Due to the waitlist, the amount financed has not been reduced by the rebate amount, since the availability of these funds is unknown. Applications will still be submitted on the facilities behalf, listing McClure as the payee. Any received rebates will be treated as contingency for the project, although there is no guarantee of receiving funds during the project implementation.
- Annual operational savings are estimated at $485,374 in Year 1
- First Year Operational Savings ($485,374) were calculated based on the following:
    - $34,391 (Section 2.1.1, 5 years of lamp warranty savings)
    - $77,390 (Section 2.1.3, boiler service related items operational savings)
    - $82,907 (Section 2.1.3, boiler non-service related operational savings)
    - $24,467 (Section 2.1.3, stack testing operational savings)
    - $6,789 (Section 2.1.3, steam turbine operational savings)
    - $259,430 (Section 2.1.3, rental boiler operational savings)

Table 6 - Annual Financial Projections

Project Cost	$5,783,884	Interest Rate	3%
Act 129 Rebate	$0 ($22,000 est)	Discount Rate	3%
Net Project Cost to be Financed	$5,783,884	Energy Cost Escalation Rate	1%
First Year Energy Savings	$253,415		
First Year Operational Savings	$485,374		

	A	B	C	D	E	F	G	H	I
Year	Annual Energy Costs without Improvements	Annual Energy Costs with Improvements	Annual Energy Cost Savings (A-B)	Operational & Maintenance Savings	Annual Payments for Financing Equipment	Payments for Monitoring and Maintenance Services	Net Annual Benefit	Cumulative Cash Flow	Net Present Cash Flow
Const	$1,298,291	$1,172,838	$125,453	$0	$0	$0	$125,453	$125,453	$121,799
1	$1,311,274	$1,057,859	$253,415	$485,374	$418,203	$25,000	$295,586	$421,039	$408,776
2	$1,324,387	$1,068,437	$255,949	$485,374	$418,203	$25,750	$297,371	$718,410	$697,485
3	$1,337,631	$1,079,122	$258,509	$485,374	$418,203	$26,523	$299,158	$1,017,568	$987,930
4	$1,351,007	$1,089,913	$261,094	$485,374	$418,203	$0	$328,265	$1,345,833	$1,306,634
5	$1,364,517	$1,100,812	$263,705	$485,374	$418,203	$0	$330,876	$1,676,709	$1,627,873
6	$1,378,162	$1,111,820	$266,342	$191,553	$418,203	$0	$39,692	$1,716,401	$1,666,409
7	$1,391,944	$1,122,939	$269,005	$191,553	$418,203	$0	$42,356	$1,758,757	$1,707,531
8	$1,405,863	$1,134,168	$271,695	$191,553	$418,203	$0	$45,046	$1,803,802	$1,751,264
9	$1,419,922	$1,145,510	$274,412	$191,553	$418,203	$0	$47,763	$1,851,565	$1,797,636
10	$1,434,121	$1,156,965	$277,156	$191,553	$418,203	$0	$50,507	$1,902,072	$1,846,671
11	$1,448,462	$1,168,534	$279,928	$191,553	$418,203	$0	$53,278	$1,955,350	$1,898,398
12	$1,462,947	$1,180,220	$282,727	$191,553	$418,203	$0	$56,078	$2,011,427	$1,952,842
13	$1,477,576	$1,192,022	$285,554	$191,553	$418,203	$0	$58,905	$2,070,332	$2,010,031
14	$1,492,352	$1,203,942	$288,410	$191,553	$418,203	$0	$61,760	$2,132,092	$2,069,993
15	$1,507,276	$1,215,982	$291,294	$191,553	$418,203	$0	$64,644	$2,196,737	$2,132,754
16	$1,522,348	$1,228,141	$294,207	$191,553	$418,203	$0	$67,557	$2,264,294	$2,198,344
17	$1,537,572	$1,240,423	$297,149	$191,553	$418,203	$0	$70,499	$2,334,794	$2,266,790
18	$1,552,948	$1,252,827	$300,121	$191,553	$418,203	$0	$73,471	$2,408,265	$2,338,121
19	$1,568,477	$1,265,355	$303,122	$191,553	$0	$0	$494,675	$2,902,939	$2,818,388
20	$1,584,162	$1,278,009	$306,153	$191,553	$0	$0	$497,706	$3,400,645	$3,301,597
	$30,171,236	**$24,465,838**	**$5,705,399**	**$5,300,165**	**$7,527,646**	**$77,273**	**$3,400,645**		

4 Utility Baseline Analysis

4.1 Methodology

The baseline for this project was calculated using data provided by the facility through the Monthly Utilities Usage Reports. The usage was analyzed on a monthly basis and totaled for the year. Using the reports from previous projects, past measurement and verification analysis, and those supplied for this report, data was available from January 2014 to January 2018. At the request of the RFP, the most recent fiscal year was used as the facility baseline. Other data was analyzed to support the selected baseline. The utility baseline will be July 2016 to June 2017 for electric, natural gas, coal, and fuel oil.

McClure Company may adjust the selected baseline during the measurement and verification process as required to account for variables impacting energy use. These circumstances include, but are not limited to, changes in the facilities use, changes in occupancy, adjustments for weather compared to the baseline heating and cooling degree days as provided by NOAA, and modification to the outside air ventilation flow rates as required by code.

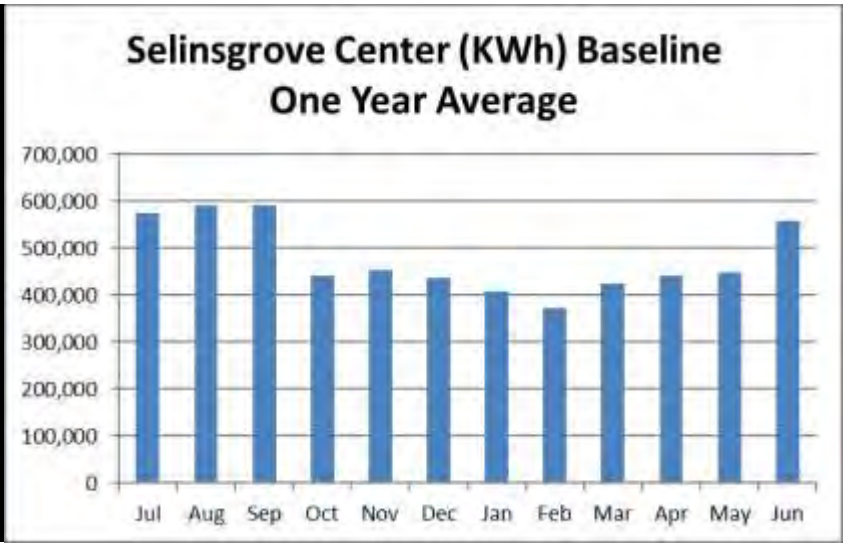
The anticipated utility unit cost is the annual cost divided by the annual usage for the baseline period. It has been assumed for this response that the "all in" natural gas price for the facility will be the same, since the information provided for the increased usage only covers the delivery portion of a typical utility bill. When considering the commodity purchase of natural gas, the anticipated cost falls within an expected range around the current gas cost.

4.2 Supporting Calculations

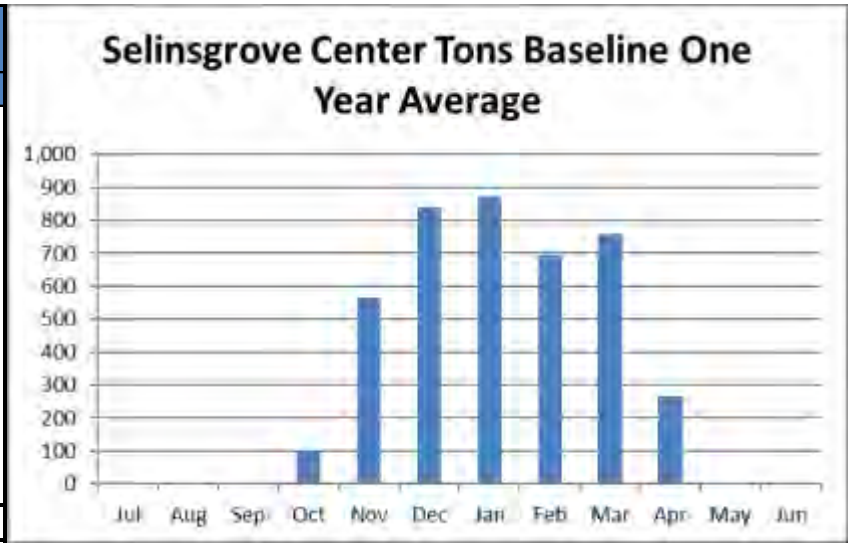
Below are the calculated baselines using the fiscal year 2016-2017 data for each utility. The electrical baseline (kWh) does not include the energy generated onsite by the steam turbine. Since 2014, this value averages approximately 157,216 kWh per year, increasing the facility's annual usage to 5,904,056 kWh for the baseline year. With the proposed scope, this additional 157,216 kWh would now be purchased from the local utility. This increase will be treated as a baseline adjustment.

Table 7 – Utility Baselines

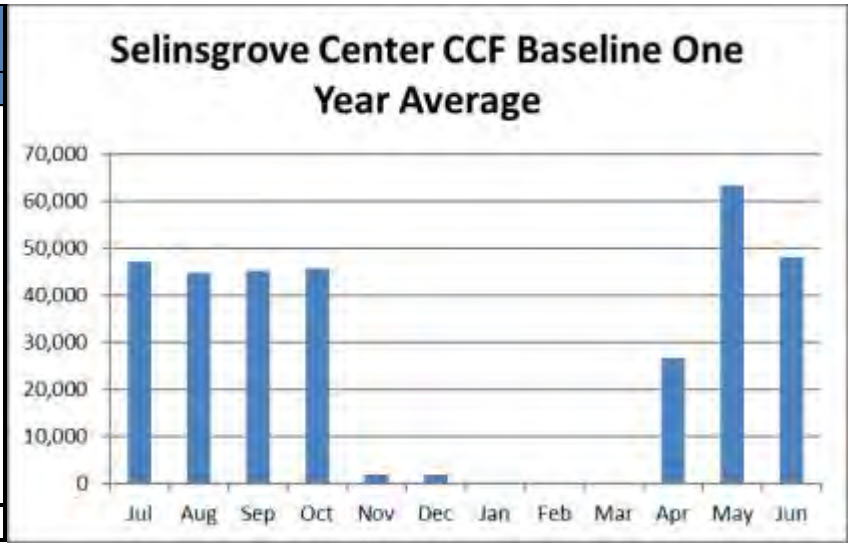
Selinsgrove Center (KWh) Baseline One Year Average	
Month	(KWh)
Jul	574,200
Aug	592,200
Sep	591,600
Oct	442,120
Nov	454,120
Dec	436,000
Jan	407,080
Feb	373,320
Mar	425,920
Apr	441,840
May	449,720
Jun	558,720
Total	5,746,840



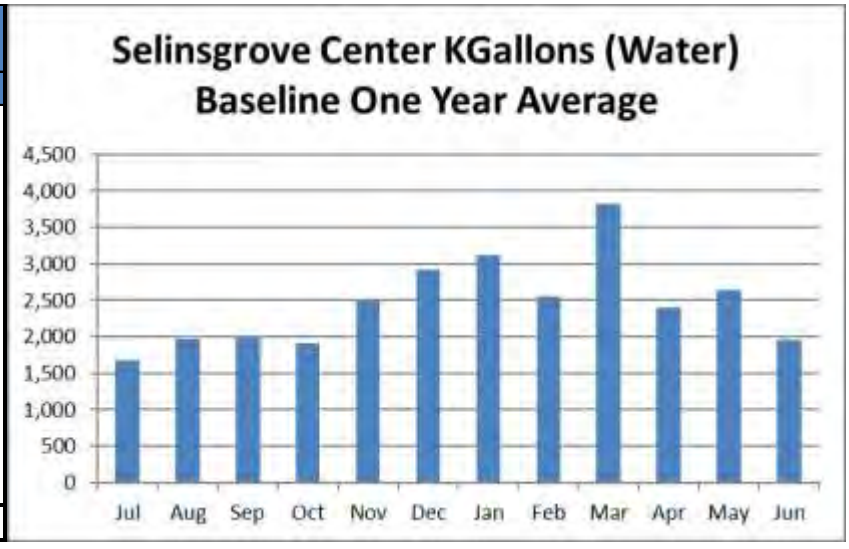
Selinsgrove Center Tons Baseline One Year Average	
Month	Tons
Jul	0
Aug	0
Sep	0
Oct	98
Nov	566
Dec	841
Jan	873
Feb	696
Mar	759
Apr	268
May	0
Jun	0
Total	4,101



Selinsgrove Center CCF Baseline One Year Average	
Month	CCF
Jul	47,110
Aug	44,900
Sep	45,260
Oct	45,750
Nov	2,050
Dec	2,030
Jan	0
Feb	0
Mar	0
Apr	26,780
May	63,450
Jun	48,010
Total	325,340



Selinsgrove Center KGallons (Water) Baseline One Year Average	
Month	KGallons
Jul	1,686
Aug	1,963
Sep	1,981
Oct	1,903
Nov	2,487
Dec	2,920
Jan	3,118
Feb	2,547
Mar	3,816
Apr	2,403
May	2,643
Jun	1,953
Total	29,420



Baseline Utility Unit Cost Data

The following are the rates used to determine cost savings associated with the calculated energy savings. These rates are based on annual cost dividend by annual consumption as provided by the Monthly Utilities Usage Reports. It has been assumed for this response that the "all in" natural gas price for the facility will be the same, since the information provided for the increased usage only covers the delivery portion of a typical utility bill. When considering the commodity purchase of natural gas, the anticipated cost falls within an expected range around the current gas cost.

- Electric- $0.06789/kWh
- Natural Gas- $0.38043/CCF
- Coal- $116.00/Ton

4.3 Assumptions

The following are assumptions used in determining the baseline usage and costs for the Center

- Data provided by the facility in the Monthly Utilities Usage Reports is accurate and representative of the actual facility usages from utility provided bills or deliveries
- While the natural gas service will be upsized by the utility and a new rate tariff will be implemented, the existing unit cost is representative of the anticipated cost of fuel given the information provided by the facility, including the selection of service from the utility letter. The selection used was option 1, with no contribution and a minimum usage level
- Unit costs have been escalated at 1% per the directions in the previous RFP and the escalation takes place in year 1 and for all subsequent years
- The impact to the electrical baseline through the potential elimination of the steam turbine is considered an adjustment of 157,216 kWh per year and is not included in the baseline calculations, usages, or in determining the unit cost or annual cost of the utility. Using the selected rates, the annual impact would be approximately $10,673.

5 Measurement and Verification Plan

McClure Company's proposed Measurement and Verification (M&V) plan, which adheres to the International Performance Measurement and Verification Protocol (IPMVP) is summarized in Table 8 below. There are four accepted options to verifying energy savings that were created as part of the IPMVP; Option A, B, C & D. McClure shall provide measurement and verification services to confirm project savings levels as indicated in the specific M&V plan for each ECM as described below. Due to the seasonal nature of the savings associated with this project, a full operating year will be required to confirm the operating assumptions and annual savings level for the project.

Table 8 - Measurement and Verification Plan Summary

ECM	ECM Description	M&V Methodology
1	Facility Lighting Fixture Conversion to LED	IPMVP Option A
2	Facility Building Envelope Upgrade	IPMVP Option C
3	Central Plant Gas Conversion Upgrade (Gas Savings)	IPMVP Option C
3	Central Plant Gas Conversion Upgrade (Electric Savings)	IPMVP Option B

McClure has a full time, locally residing engineer assigned to manage the measurement and verification process of this contract. Richard Skinner, P.E., CEM, the Measurement and Verification (M&V) manager, will be the supervisor responsible for all ongoing M&V. Richard will also have a support staff of technicians and engineers that will be assigned to this project to perform the necessary functions to accurately determine the reduction in energy use and provide the required reports in the timely fashion.

For this project three specific M&V plans have been created to measure energy savings and are shown below. The first plan was developed to measure the electric savings of the lighting upgrades. The second plan focused on measuring the thermal savings due to the boiler and building envelope upgrades. The third plan was created to measure the electric savings from smaller boiler feed water pumps due to a reduced boiler pressure design.

M&V Plan

Lighting Spot Metering with Stipulated Operating Hours
Based on IPMVP Option: A
Applies to ECM: 1

ECM Definition

The measures covered by this verification plan are lighting retrofits of existing fixtures, lamps, and/or ballasts with an identical number of more energy efficient fixtures, lamps, and/or ballasts. These lighting efficiency projects cause a reduction in demand. However, the fixtures have the same pre- and post-retrofit operating hours.

Verification Method

Surveys will be made of all baseline (existing) and post-installation (new) lighting fixtures. Corrections may be required for non-operating fixtures. The operating hours are stipulated in the contract and were determined during project development in consultation with Center personnel. Fixture wattage will be determined from a combination of documentation on each fixture/ballast/lamp and spot measurements of representative fixtures or lighting circuits. The results of the verification will be presented with the M&V report.

Baseline Demand

The baseline conditions identified in the pre-installation survey have been tabulated and defined by McClure Company and presented to the Client. In the pre-installation survey, the equipment to be changed and the replacement equipment to be installed have been inventoried. The surveys have included, in a set format, fixture, lamp, and ballast types; usage area designations, counts of fixtures; and location of occupancy sensors. For this project no additional cooling savings or heating penalties have been applied.

Fixture Wattage Metering

McClure Company will take true RMS wattage measurements from a proposed representative 10% sample of the baseline and post-installation fixtures. Readings will be averaged to determine per fixture wattage values. Meters used for this task will be calibrated and have an accuracy of +/- 2% of reading or better. Occupancy sensor hour reductions are shown in the line by line; only existing occupancy sensors are included in this project and therefore there are no proposed reduction in hours by occupancy sensors.

Adjustments to Baseline Demand

Prior to installation of new lighting fixtures, adjustments to the baseline demand may be required for non-operating fixtures. In addition, after ECM installation, adjustments to baseline demand may be required because of remodeling or changes in occupancy.

With respect to non-operating fixtures, McClure Company will also identify any non-operating fixtures only as part of the pre and post installation electrical measurements. The report documenting the pre and post electrical readings will also document rooms that were included in the electrical measurements that had lamp or fixture failures. The number of lamps failed for each electrical reading will be documented. Non-operating fixtures are those that are typically operating but that have broken lamps, ballasts, and/or switches that are intended for repair.

For non-operating fixtures, the baseline electrical use is adjusted to account for failed lamps or fixtures for the pre-installation electrical readings. The adjustment is repeated for each failed lamp or fixture. A separate spreadsheet is included with the lighting measurement and verification report to document each instance of adjustment and the amount of the adjustment.

Determining Energy Savings

The annual baseline energy usage is the sum of the baseline kWh for all of the usage areas. The post-retrofit energy usage is calculated similarly. The pre and post electrical readings will sample at the aforementioned rate of the total fixtures to be replaced. The electrical savings are measured as described below. If there is a difference between the estimated consumption and the consumption savings from the sampling after installation of more than 10% on average, McClure must adjust its consumption savings to reflect as a percentage the average difference in savings between the existing savings and the savings determined from the sampling data results. McClure will resample the year following in any year that the estimated savings were not achieved. Any changes to consumption values must be discussed in the annual M&V report. If sample consumption values are less than or equal to 10%, no adjustments shall be made to the existing consumption savings. The stipulated operating hours will be used for both the baseline and post-installation energy calculations. Annually for the first three years, McClure shall conduct operational verification by visual inspection for upgrades at the aforementioned sample rate. The purpose of the annual inspection is to verify whether or not the equipment is still installed and functioning as intended.

$$kWh\ Savings_t = \sum_u [(kW/fixture_{baseline} \times Quantity_{baseline}) - (kW/Fixture_{post} \times Quantity_{post}) \times Hours\ of\ Operation]_{t,u}$$

Where:

$kWh\ Savings_t$ =	kilowatt-hour savings realized during the post-installation time period *t*
$kW/fixture_{baseline}$ =	lighting baseline demand per fixture for usage group *u*
$kW/fixture_{post}$ =	lighting demand per fixture during post-installation period for usage group *u*
$Quantity_{baseline}$ =	quantity of affected fixtures before the lighting retrofit adjusted for inoperative lighting fixtures for usage group *u*
$Quantity_{post}$ =	quantity of affected fixtures after the lighting retrofit for usage group *u* and time period *t*
Hours of Operation =	total number of post-installation operating hours (assumes number is the same before and after the lighting retrofit) for usage

Table 9: Sample Lighting Survey Data Sheet

Selinsgrove Center
LIGHTING MEASUREMENT AND VERIFICATION RESULTS

MEASURMENTS PERFORMED BY: **XYZ Contractor**
MEASURMENTS VERIFIED BY: **McClure Company**

Date of Pre-retrofit Measurements May-19
Date of Post-retrofit Measurements November-19

"x" this test location has been adjusted to account for failed lamps. See Adjustment for failed lamps

IGA Reference #	Lookup #	Location		If Failed x	Quantity Fixtures	Measured Voltage	Measured Amps	Measured Watts/Fixture	IGA Watts/ Fixture	Stipulated Hours	Measured KWH	IGA KWH
141		Meeting Room	Pre-retrofit		17			0	75	2,340	0	2,984
		Building 9	Post retrofit		17			0	17	2,340	0	676
170		Classroom	Pre-retrofit		6			0	43	1,827	0	471
		Building 9	Post retrofit		6			0	25	1,827	0	274
270		Hallway	Pre-retrofit		7			0	22	3,863	0	595
		Building 9	Post retrofit		7			0	10	3,863	0	270
301		Site Exterior	Pre-retrofit		4			0	30	4,380	0	526
		Building 2	Post retrofit		4			0	14	4,380	0	245
335		Breakroom	Pre-retrofit		7			0	65	2,340	0	1,065
		Building 3	Post retrofit		7			0	37.5	2,340	0	614
1023		Bed	Pre-retrofit		4			0	60	5,460	0	1,310
		Building 5	Post retrofit		4			0	9	5,460	0	197
1105		Day Room	Pre-retrofit		18			0	65	5,460	0	6,388
		Building 5	Post retrofit		18			0	37.5	5,460	0	3,686
1355		Dining Room	Pre-retrofit		4			0	85	8,760	0	2,978
		Building 5	Post retrofit		4			0	50	8,760	0	1,752
1795		Office	Pre-retrofit		6			0	43	2,340	0	604
		Building 6	Post retrofit		6			0	25	2,340	0	351
2733		Gym	Pre-retrofit		56			0	106	3,640	0	21,607
		Building 14	Post retrofit		56			0	50	3,640	0	10,192
2734		Gym	Pre-retrofit		8			0	236	3,640	0	6,872
		Building 14	Post retrofit		8			0	183	3,640	0	5,329
2758		Mens Locker Room	Pre-retrofit		12			0	43	3,863	0	1,993
		Building 14	Post retrofit		12			0	25	3,863	0	1,159
2794		Activity Room	Pre-retrofit		50			0	43	3,640	0	7,826
		Building 14	Post retrofit		50			0	25	3,640	0	4,550
2945		Open Office	Pre-retrofit		7			0	20	8,760	0	1,226
		Building 10	Post retrofit		7			0	9	8,760	0	552
2966		Open Area	Pre-retrofit		20			0	22	8,760	0	3,854
		Building 10	Post retrofit		20			0	12.5	8,760	0	2,190
		TOTALS	Pre-retrofit		226			0	958		0	60,300
			Post Installation		226			0	530		0	32,037

M&V Plan
Utility Usage Comparison – Boiler Upgrades and Building Envelope Upgrades
Based on IPMVP Option: C
Applies to ECMs: 2 and 3

ECM Definition
The measures covered by this verification plan are the energy savings associated with the Boiler Upgrades at the Selinsgrove Center Central Plant and the improvements to the building envelope at the various buildings at the Center. The upgrades include the replacement of three coal-fired steam boilers with two dual fuel gas/oil-fired steam boilers. Energy savings will result due to improvements in equipment efficiency and by switching from coal to natural gas/oil. Improvements to the building envelope will result in less air infiltration to the buildings and a small reduction in thermal energy necessary to heat the buildings.

Verification Method Overview
Surveys have been made of all baseline (existing) equipment. Boiler energy consumption has been analyzed from the "Monthly Utilities Usage Report" provided by Selinsgrove Center personnel. These monthly reports provide facility operational data such as: number of residents and staff, square footage occupied, utility data consumption such as electricity purchased/generated, fuel consumption (coal and natural gas), steam production, and water consumption. Savings will be calculated by comparison of the utility consumption data in the "Monthly Utilities Usage Report". It is expected that the coal consumption will be eliminated and that an increase in natural gas consumption will occur. This M&V plan for the boiler and building envelope upgrades is intended to only measure the changes in coal and natural gas (or oil) consumed by the boilers.

Adjustments to Baseline Demand
The baseline energy use will be adjusted to account for changes in the weather between the baseline year and current year of measurement and verification. The utility baseline is July 2016 through June 2017. Review of monthly reports has indicated that occupancy and occupied square footage has remained constant over the base period (and for several years prior to the base period). Therefore no changes in the baseline are expected due to occupancy. Changes in the baseline energy use could occur if there were large changes in occupancy, periods of occupancy, or if the ventilation air volume changed; however this is not anticipated based on review of existing data. The first figure below graphs the relationship between coal use and Heating Degree Days and was created in Excel. The data for this graph was taken from the utility coal baseline shown below and the baseline HDD/CDD data table shown below. The linear equation representing the trend line is also shown on the graph and has an R^2 coefficient of 0.94, which indicated a very strong relationship between coal consumption and HDD (Harrisburg weather station). Baseline annual coal consumption was 4,101 tons for a year where the HDD was 4,181. Future analysis will examine the actual HDD and adjust the baseline up if the HDD is greater than 4,181 and adjust the baseline down, if the HDD is less than 4,181. The equation shown on the graph (y=1.0323x-5.0516) will be used to calculate the weather adjusted coal baseline where y=coal tons and x=HDD.

Table 10 – Coal vs. Heating Degree Days

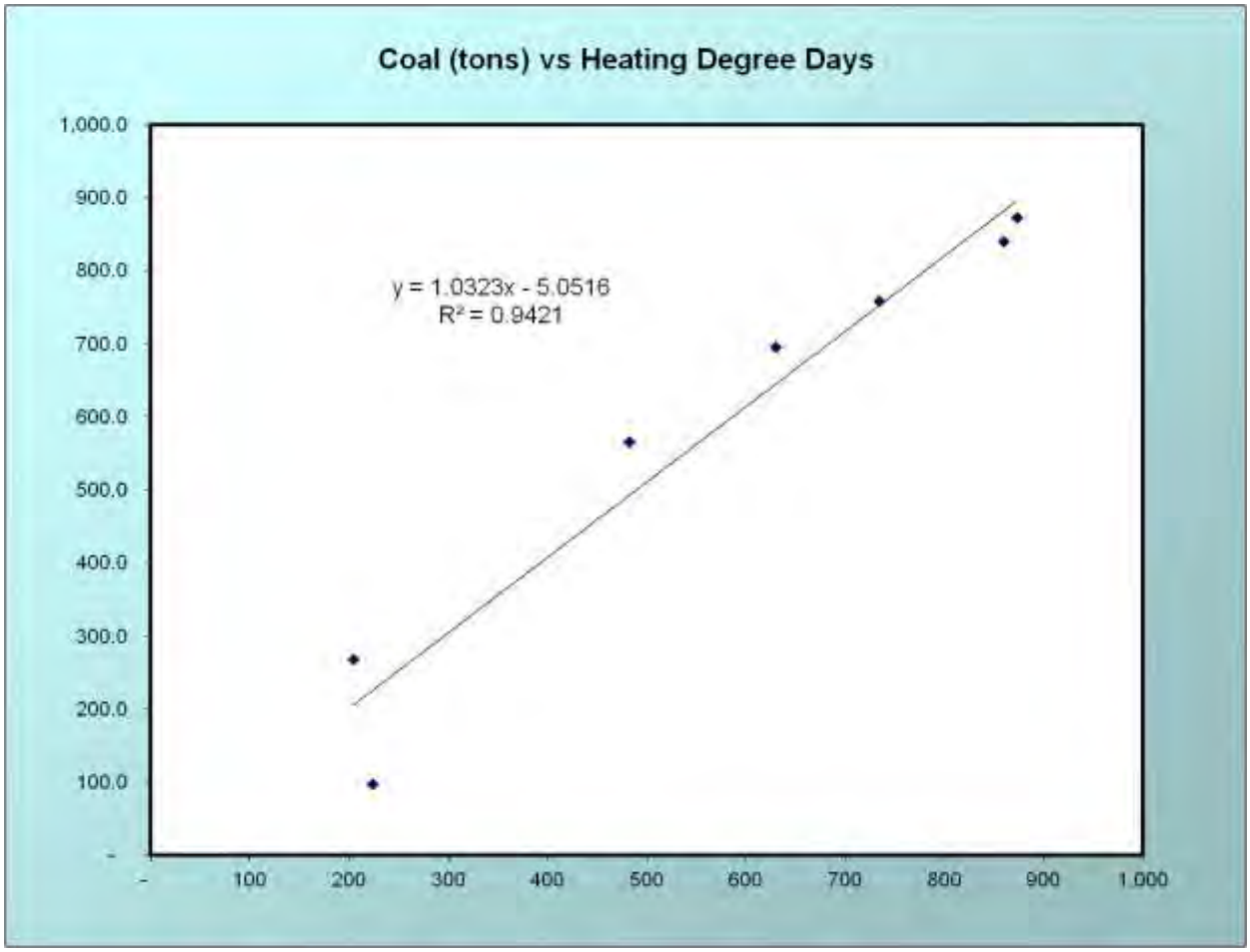


Table 11 – Tons Baseline

Table 12: Heating/Cooling Degree Days

Selinsgrove Center Tons Baseline One Year Average	
Month	Tons
Jul	0
Aug	0
Sep	0
Oct	98
Nov	566
Dec	841
Jan	873
Feb	696
Mar	759
Apr	268
May	0
Jun	0
Total	4,101

Month	Heating Degree Days	Cooling Degree Days
Jul-16	-	463
Aug-16	-	441
Sep-16	23	228
Oct-16	224	35
Nov-16	482	-
Dec-16	860	-
Jan-17	873	-
Feb-17	630	1
Mar-17	734	-
Apr-17	204	31
May-17	143	52
Jun-17	8	264
Totals:	4,181	1,515

The baseline natural gas use occurred primarily from April through October, during the warmest months of the year. During this time period there was a very small amount of Heating Degree Days and a relationship did not exist between existing gas use and HDD. Similarly, a relationship did not exist between the Cooling Degree Days (CDD) and existing gas use. Based on this information, there will not be a weather adjustment made to the existing gas consumption.

Determining Energy Savings

Savings will be determined by subtracting the current year of consumption from the weather adjusted base year consumption. The base year consumption will be adjusted to account for changes in the weather, based on Heating Degree Days (HDD) reported by NOAA and utilizing the trend line shown above. It is anticipated that existing coal use will be eliminated and replaced with an additional amount of natural gas (or oil) consumption. The measured utility savings will provide the total savings for both the boiler upgrades and building envelope improvements. A subsequent calculation can be made to assign the total measured utility savings to the boiler upgrade and building envelope upgrade in proportion to the guaranteed savings. Annually for the first three years, McClure shall analyze and determine the measured energy savings using the methods described in this M&V plan.

M&V Plan

Boiler Feed Water Pumps
Based on IPMVP Option: B
Applies to ECM: 3

ECM Definition

The measures covered by this verification plan are the electric savings with the upgrade of the feed water pumps in association with the boiler upgrade. The existing feed water pumps are large and are sized to work with the existing coal fired 180 psi (nominal) steam boiler. The upgraded feed water pumps will be reduced in size to accompany the lower pressure (45 psi nominal) gas fired boiler. Electric savings will result due to a reduction in electric motor horsepower and kWh consumption.

Verification Method Overview

Surveys will be made of all baseline (existing) equipment. There are two existing feed water pumps; energy use will be determined from short-term measurements of the two existing pumps motors. After the new pumps are installed, there will be short-term data logging of the two upgraded pumps to determine post energy consumption. Savings will be determined from subtracting post energy consumption from pre energy consumption of the pump motors.

Adjustments to Baseline Demand

Adjustments to the baseline, or pre pump electric consumption, is not anticipated. The boiler feed water pumps operate continuously as the system is brought up to design pressure. Previous data logging files from a 2012 measurement and verification report have been included to illustrate and provide initial electric consumption information. Electric motor operational hours will be held constant from pre to post conditions.

Determining Energy Savings

The two existing boiler feed water pump motors will be data logged to determine the existing (pre) electric consumption. After the upgrades are made, post-data loggers will be placed on the boiler feed water pumps to determine the post electric consumption. Energy savings will be determined using the equations found below and applied to the pre and post data logging.

Equations for Calculation of Energy and Demand Savings

Electrical

$KWH_{baseline} = (Volts * Amps * Power\ Factor * 1.732)/1{,}000 * sample\ period\ Interval\ (hr)$

$KWH_{post} = (Volts * Amps * Power\ Factor * 1.732)/1{,}000 * sample\ period\ Interval\ (hr)$

$KWH_{savings} = KWH_{baseline} - KWH_{post}$

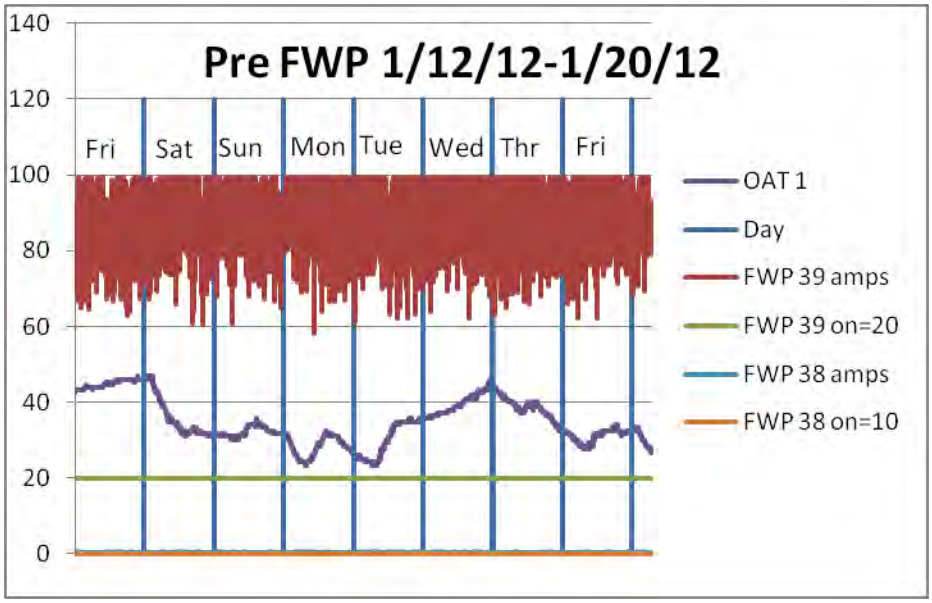
Baseline

Volts = Measured by Fluke voltmeter

Amps = Measured by HOBO data logger

PF (Power Factor)= Measured by a power factor hand held meter

Table 13: Feed Water Pump Data Logging



6 Commissioning Plan

McClure has a specific methodology for commissioning this project as clearly described below. McClure's team will develop commissioning specifications and complete a commissioning report at the end of the project. Below is a summary of each phase.

Final Design: During the design phase, McClure will collect and document owner project requirements and recommendations for basis of design. McClure will develop a commissioning plan and systems operation and maintenance manual, which will provide a "living document" and will become the basis of the final commissioning report.

Project Meetings: McClure will maintain a database of project meeting minutes to ensure that project progress is clearly documented and a timeline for addressing concerns and comments is actively recorded. Project meeting minutes will be circulated within the project construction team in a timely manner after each meeting.

Submittal Review: During the submittal review process, McClure will identify and revise any changes to the commissioning plan based on the final approved materials, equipment and systems. McClure will include submittals, progress reports, shop drawings, installation and O&M manuals in the plan.

Construction/Acceptance Test Phase: During construction, McClure will document and compile startup and check lists, pre-functional tests, functional test, and integrated system tests. Utilizing this information, McClure will assemble a final commissioning report along with training. McClure will present all equipment start-up forms, ATC as-built documentation, functional test reports and training records in a separate O&M volume 2 in line with internal commissioning protocol.

In addition, each measure will undergo one of three levels of commissioning, each with specific requirements and deliverables. While much more complex, the overview of these levels is as follows, with each level including the necessary documentation from the previous level:

- Level 1 - System Readiness and Start-Up; a basic inspection of the equipment to ensure the contractual obligations have been met, including equipment specific specification and warranty data
- Level 2 - Initial Operation; a pre-start check out and test of the equipment to ensure required components are functioning properly. Equipment specific, detailed start up sheets become an addition to the Level 1 documentation
- Level 3 - Functional System Test; the most rigorous commissioning level, this includes full performance testing of the equipment to verify it operates as designed and provides the necessary levels of operation based on actual environmental parameters. Included with the Level 1 & 2 documentation is a granular level document indicating specific operation of the equipment including the environmental conditions.

Below is the commissioning plan for each individual energy conservation measure proposed.

Table 14 - Proposed Commissioning Plan and Costs

ECM	ECM Description	Commissioning Plan
1	Facility Lighting Fixture Conversion to LED	Level 1
2	Facility Building Envelope Upgrade	Level 1
3	Central Plant Gas Conversion Upgrade	Level 3

The commissioning costs are included in the project. The final commissioning report will serve as a reference and benchmark document for future re-commissioning of each facility. The commissioning supervisor assures the design updates to the As-Built drawings have been completed.

7 Environmental Benefits

Below are various annual environmental benefits of the selected project.

Table 15 – Environmental Benefits

Environmental Costs and Benefits	ECM #1	ECM #2	ECM #3	Total
Direct Site CO2 Emission Reduction, equivalent (tons)	707	155	1,173	2,035
Equivalent Trees Seedling Grown for 10 Years	16,611	3,637	27,577	47,825
Equivalent Passenger Vehicles Driven for 1 Year	137	30	228	395

Attachments

Investment Grade Audit Report

For A Guaranteed Energy Savings Contractor For:

Small GESA-3 Project for
Department of General Services at

Department of Human Services
Selinsgrove Center

Commonwealth of Pennsylvania
Department of General Services
Harrisburg, PA

Attachment 1 – Equipment Cut Sheets

HURST

BOILER & WELDING CO., INC.

AVAILABLE WITH LOW NOX

HURST SERIES 500

4-PASS SCOTCH MARINE DESIGN
with Wetback Construction

HIGH PRESSURE BOILER

Capacities From 30 to 1500 BHP.
1004 to 50213 MBTU/HR.

STEAM
Pressures to 15-300 PSI.

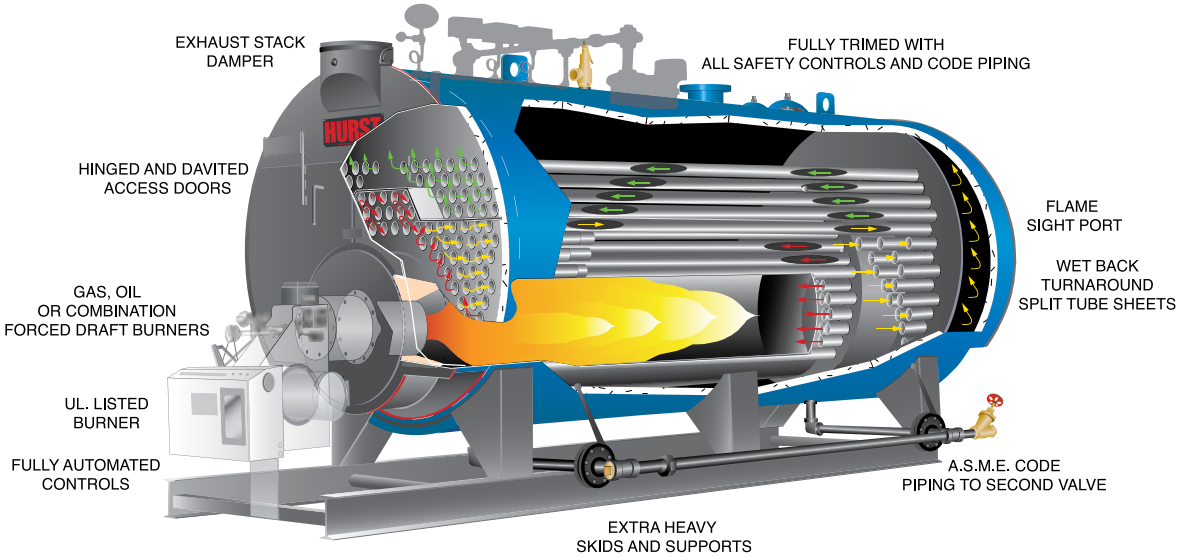
HOT WATER
Section I and Section IV

"Wet back design eliminates, costly deteriorating refractory rear doors and baffles between flue gas passes."

SKID MOUNTED
MODULAR PACKAGED

HURST PERFORMANCE SERIES BOILERS

SERIES 500



BOILER SPECIFICATIONS

SEMI WET BACK

	BOILER HORSEPOWER			30	40	50	60	70	80	100	125	150	200	250	
	HEATING SURFACE	FIRESIDE	SQ. FT.	150	200	250	300	350	400	500	625	750	1000	1250	
	STEAM OUTPUT	FROM &@ 212°	LBS/HR	1035	1380	1725	2070	2415	2760	3450	4313	5175	6900	8625	
	GROSS OUTPUT		MBH	1004	1339	1674	2009	2343	2678	3348	4184	5021	6695	8369	
	FIRING RATE GAS	1,000 BTU/CF	CFH	1260	1680	2100	2520	2940	3360	4200	5250	6300	8400	10500	
	FIRING RATE LP GAS	91,500 BTU	GPH	13.8	18.4	23	27.5	32	36.7	46	57	69	92	115	
	FIRING RATE OIL #2	140,000 BTU	GPH	9	12	15	18	21	24	29.9	37.4	45	60	75	
	FIRING RATE OIL #5 & #6	150,000 BTU	GPH	8.4	11.2	14	16.8	19.6	22.4	28	35	42	56	70	
A	*NOTE: 1 STEAM OUTLET SIZE	150 PSI	IN	1.5	2	2.5	2.5	3	3	4	4	4	4	6	A
A	*NOTE: 2 STEAM OUTLET SIZE	15 PSI	IN	4	4	4	6	6	6	8	8	8	8	10	A
B	*NOTE: 2 WATER SUPPLY SIZE	30 PSI	IN	4	4	4	6	6	6	8	8	8	8	10	B
C	*NOTE: 2 WATER RETURN SIZE	30 PSI	IN	4	4	4	4	4	4	6	6	6	6	8	C
D	FEEDWATER CONNECTION SIZE		IN	0.75	0.75	0.75	1	1	1.25	1.25	1.25	1.25	1.5	1.5	D
E	BLOWDOWN CONNECTION (BTM)	HIGH PRESS.	IN	1	1.25	1.25	1.25	1.25	1.25	2@1.25	2@1.25	2@1.25	2@1.25	2@1.25	E
E	BLOWDOWN CONNECTION (BTM)	LOW PRESS. & HW	IN	1.25	1.25	1.25	1.5	1.5	1.5	2@1.50	2@1.50	2@2.0	2@2.0	2@2.0	E
F	STACK OUTLET SIZE O.D.		IN	10	10	10	12	12	12	14	14	16	16	18	F
G	FURNACE O.D.		IN	14	14	16	18	18	18	22	26	30	30	32	G
H	SHELL I.D.		IN	40	40	44	48	48	48	54	60	66	70	72	H
I	SUPPLY HEIGHT		IN	55.25	55.375	59.75	63.75	66.625	66.625	74.625	81.75	87.75	90.75	93.75	I
J	WIDTH WITHOUT TRIM		IN	46	46	50	54.63	54.63	54.63	60	66.5	72.5	75.75	77.75	J
K	WIDTH WITH TRIM		IN	58	58	60	66	66	66	72	79	84	88	90	K
L	SKID WIDTH		IN	34	34	36	40	40	40	44	48	51	56	57	L
M	END OF SKID FROM FRT. PLATE		IN	13.5	14.25	15.25	15.25	15.25	15.25	21.75	25.13	27.18	34.18	28.63	M
N	SHELL TO FLOOR		IN	12	12	12	12	12	12	14	15	15	14	15	N
O	SKID LENGTH		IN	81	99	102	102	102	114	114	132	147	168	180	O
P	STACK OUTLET HEIGHT		IN	58.63	58.63	62.63	66.63	66.63	66.63	74.63	81.75	87.75	90.75	93.75	P
Q	BLOWDOWN LOCATION		IN	35.75	41	31.75	29.75	29.75	29.75	29.75	32.88	31.81	31.81	33.88	Q
R	STEAM OUTLET LOCATION	15 PSI & UP	IN	38.75	41.75	40.25	49.75	49.75	58.75	55.75	55.88	66.81	72.81	70.38	R
S	SUPPLY LOCATION		IN	20.25	20.25	33.25	37.75	37.75	43.75	32.75	32	34	45.88	49.38	S
T	RETURN LOCATION		IN	59.25	74.25	78.25	85.75	85.75	97.75	90.75	102	82	80	86	T
U	BURNER PROJECTION	STND. BURNER	IN	32	35	35	38	38	42	42	42	45	45	45	U
V	TUBE REMOVAL	FRONT	IN	68	85	88	91	91	102	96	108	127	139	152	V
W	CENTER LINE OF FURNACE	TO FLOOR		27.31	27.31	28.81	31.31	31.31	31.31	29.81	33.75	34.88	34.63	35.63	W
X	APPROX. OVERALL LENGTH		IN	113	130	134	144	144	160	158	189	192	204	219	X
Y	2ND. BLOWDOWN CONNECTION		IN	NA	NA	NA	NA	NA	NA	50	56	93	105	98	Y
	WATER CAPACITY - STEAM	NWL	GALS	215	272	324	389	371	429	482	681	945	1169	1332	
	WATER CAPACITY - HOT WATER	FLOODED	GALS	252	320	382	445	427	492	564	793	1130	1410	1553	
	APPROX. SHIPPING WEIGHT	150 PSI	LBS	3500	4100	4700	6450	6700	7150	8200	10400	13000	16600	20500	
	APPROX. SHIPPING WEIGHT.	15 & 30 PSI	LBS	3400	4000	4500	6200	6400	6850	7200	9400	11750	13700	18500	
	BOILER HORSEPOWER			**30**	**40**	**50**	**60**	**70**	**80**	**100**	**125**	**150**	**200**	**250**	

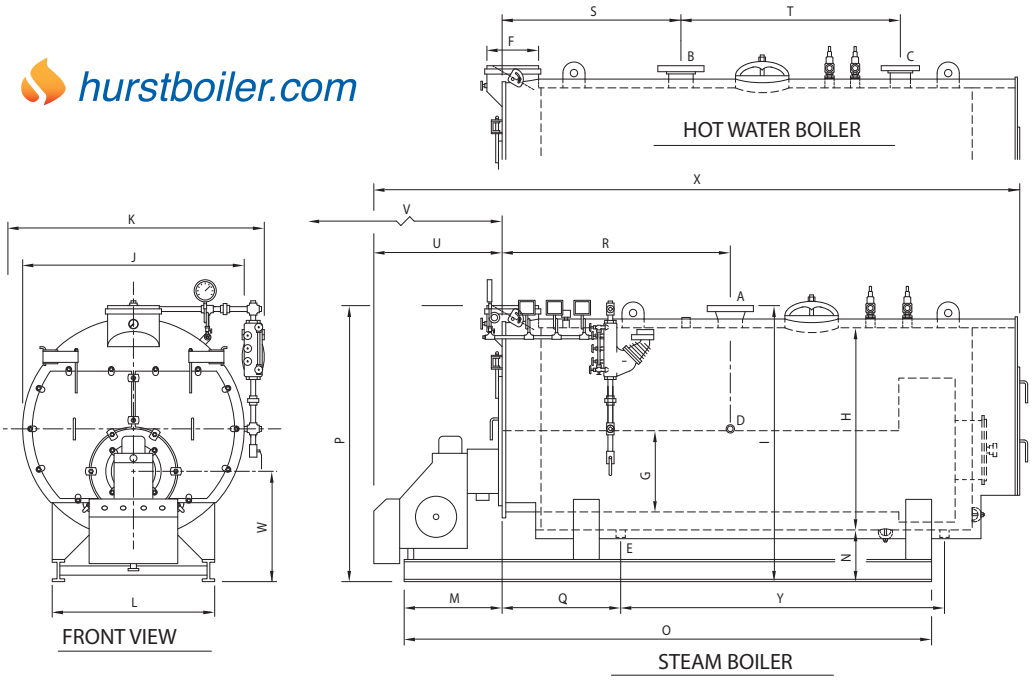
NOTE:1 3"& ABOVE ARE 300# ANSI FLANGE.
NOTE:2 4" & ABOVE ARE 150# ANSI FLANGE.
NOTE: 100 HP & LARGER HAS 12" X 16" MANWAY

ALL DIMENSIONS ARE IN INCHES
CERTIFIED DRAWING AVAILABLE UPON REQUEST.
DIMENSIONS SUBJECT TO CHANGE WITHOUT NOTICE.

Inspected and registered with the National Board of Boiler & Pressure Vessel Inspectors.

Designed, constructed and stamped in accordance with the requirements of the ASME Boiler Codes.

hurstboiler.com



	300	350	400	500	600	700	750	800	900	1000	1200	1500	
	1500	1750	2000	2500	3000	3500	3750	4000	4500	5000	6000	7500	
	10350	12075	13800	17250	20700	24150	25875	27600	31050	34500	41400	51750	
	10043	11716	13390	16738	20085	23432	25106	26780	30128	33475	40170	50213	
	12600	14700	16800	21000	25200	29400	31500	33600	37800	42000	50400	63000	
	138	160	184	230	275	320	344	368	413	460	550	688	
	90	105	120	150	180	210	225	240	270	300	360	450	
	84	98	112	140	168	196	210	224	252	280	336	420	
A	6	6	6	6	8	8	8	8	8	8	10	10	A
AA	10	10	10	10	12	12	12	12	14	14	14	14	AA
AB	10	10	10	10	12	12	12	12	12	12	14	14	AB
AC	8	8	8	8	8	10	10	10	12	12	14	14	AC
AD	2	2	2	2	2.5	2.5	2.5	2.5	2.5	2.5	2.5	2.5	AD
AE	2@1.50	2@1.50	2@1.50	2@1.50	2@1.50	2@2.0	2@2.0	2@2.0	2@2.0	2@2.0	2@2.0	2@2.0	AE
AF	2@2.0	2@2.0	2@2.0	2@2.0	2@2.0	2@2.0	2@2.0	2@2.0	2@2.0	2@2.0	2@2.0	2@2.0	AF
AG	20	20	24	24	28	30	30	30	30	30	32	32	AG
AH	34	34	38	44	46	52	52	52	52	52	56	56	AH
AI	84	84	90	96	102	115	115	115	120	120	132	136	AI
AJ	109	109	115	121	127	140.25	140.25	140.25	146.25	146.25	158.25	162.5	AJ
AK	90.75	90.75	96.25	102.75	108.75	122	122	122	127	127	139.5	143.5	AK
AL	102	102	108	114	121	132	132	132	138	138	150	156	AL
AM	64	64	70	76	78	88	88	88	92	92	104	114	AM
AN	30.63	35.63	32.63	35.63	48.63	41.63	41.63	42.63	48.63	52.63	55.63	54.5	AN
AO	18	18	18	18	18	18	18	18	18	18	18	18	AO
AP	174	204	198	222	252	228	240	252	261	288	294	330	AP
AQ	109	109	115	121	127	140.25	140.25	140.25	145.25	145.25	158.25	162.5	AQ
AR	34.38	40	46	48	49	48	48	50	50	50	58	60	AR
AS	69.88	82.88	91.38	93	96.88	86.88	89.88	91	99.88	105.88	124.88	144	AS
AT	46.38	53.88	51.88	56.88	66	61	61	63.88	63.88	70.88	73.88	74	AT
AU	88	95	95	102	110	110	116	126	126	135	137	160	AU
AV	46	48	54	57	62	62	62	62	68	68	84	84	AV
AW	144	168	168	190	205	188	200	213	216	239	239	276	AW
AX	40.25	40.25	42.63	46.25	47.25	50.5	50.5	50.5	50.5	50.5	52.63	52.75	AX
AY	215	241	246	275	297	283	295	308	317	340	361	402	AY
	96	110	104	120	159	144	156	165	168	191	186	192	
	1628	1925	2250	2780	3707	3019	3758	4017	4504	5010	5762	7121	
	2147	2530	2829	3557	4611	4838	5161	5513	6218	6908	8498	10480	
	25000	27600	30000	37500	44000	52000	58000	60000	62000	68000	82000	98000	
	23000	25500	28000	35000	41000	49000	53500	55000	58000	64500	78000	93000	
	300	350	400	500	600	700	750	800	900	1000	1200	1500	

BOILER DESIGN:
Four-Pass "Scotch Marine" Firetube design with stress relieving "Wetback" construction. Pressure designs for steam are:

30-150 HP. > 450 PSI max.
200-400 HP. > 400 PSI max.
500-600 HP. > 325 PSI max.
700-1000 HP. > 300 PSI max.
1200-1200 HP. > 250 PSI max.
1500-1500 HP. > 250 PSI max.
1600-2000 HP. > 200 PSI max.

Hot Water pressures models are from 30-160 psi. High pressure, high temperature Section I hot water boilers available.
Factory assembled with trim, tested, ASME code, UL, and CSD-1 standards.

STEAM MODEL TRIM: Safety relief valve, operating pressure control, high limit pressure control with manual reset, steam pressure gauge with syphon, combination pump control and low water cut-off with gauge glass assembly and drain valve, auxiliary low water cut-off with manual reset.

HOT WATER MODEL TRIM: Safety relief valve, operating temperature control, high limit temperature control with manual reset, combination pressure & temperature gauge, low water cut-off control with manual reset.

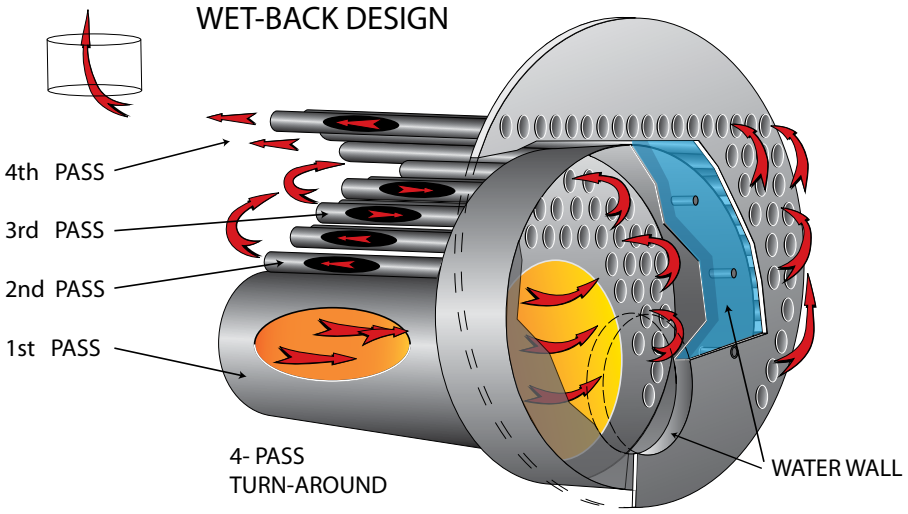
BURNER: Matched UL listed "forced draft" power burners with factory prepiped, wired and tested fuel configurations for natural gas, propane (LP) gas, No. 2 (diesel) oil, or combination of both gas/oil.

HURST

HURST PERFORMANCE SERIES BOILERS

WET BACK ADVANTAGE

Dry backs boilers are subject to deteriorating rear refractory, leaking baffles, leaking door seals, and often found with a heat-stressed rear tube sheet. Fragile refractory baffling and door seals will require continuous monitoring, maintenance, and replacement, costing thousands of dollars in materials and specialized labor costs over the life of the boiler. In addition, broken baffles and leaking seals will short-circuit the boiler's gas flow, causing high stack temperatures and lowering efficiency until repairs can be made. This can bring your production process to a costly halt.



All of those frustrating problems have been designed out of the Hurst Series 500 Wet back. It has a full wet back radiant heat transfer area that promotes superior internal water circulation and rapid heat absorption. Separate rear tube sheets allow each pass of tubes to expand and contract at its own rate without tube-to-sheet stress. Tubes are mechanically rolled, flared and beaded, making any tube service a simple matter. The only rear refractory is a manway plug which allows access to the furnace for inspection.

Stress Relieving "Wet Back" Construction for Extended Life

Standard Steam Trim

- Operating & high limit pressure control
- Modulating pressure control (when appl.)
- Water column with gauge glass, combination low water cut-off & pump control
- Probe Aux, L.W.C.O. w/ Manual Reset Steam pressure gauge, syphon & test cock
- Stack Thermometer, Water column drain valve
- Safety relief valve(s) per ASME Code

Standard Water Trim

- Operating & high limit temperature control
- Modulating temperature control (when appl.)
- Probe type low water cut-off control w/ Manual Reset
- Combination pressure & temperature gauge
- Hot water return baffle for shock resistance
- Safety relief valve(s) per ASME Code
- Stack Thermometer

HBC-09507
07/2014

hurstboiler.com

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email: info@hurstboiler.com

HURST

BOILER & WELDING CO., INC.

HURST SERIES FEEDMISER

BOILER FEEDWATER SYSTEMS
Feedwater Pump Station Condensate Return

OPEN VENT DESIGN

30 to 1000 gallon Tank Capacity.
Optional Steam Pre-Heater.

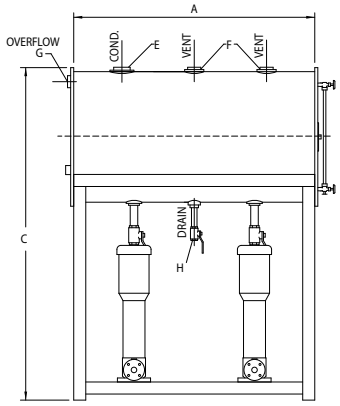
For all types of
Steam Boilers with
pressures to 300 PSI.

SKID MOUNTED
MODULAR PACKAGED

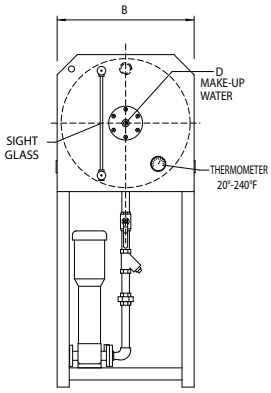
"Expect decades of service with this all steel construction featuring a 3/16" thick rolled tank supported by a robust structural pump station."

HURST PERFORMANCE SERIES BOILERS

HURST PERFORMANCE SERIES BOILERS



FRONT



SIDE

STANDARD TRIM EQUIPMENT

- Automatic, Internal float valve.
- Water gauge glass set w/ brass cock valves.
- Feedwater thermometer.

OPTIONAL TRIM EQUIPMENT

- Primary and secondary feedwater pumps.
- Pump suction piping, valves, strainers, drain.
- Control panel with motor starters & circuit breakers.
- Pump function lights, selector switches.
- Diffuser tube for high temperature condensate return.
- High and low water level alarms.
- Magnesium anti-corrosion probe rods.
- Manhole access (200 gallon & larger).
- Electric solenoid valve make-up water assembly.
- Automated steam heater (pre-heat feedwater).

CERTIFIED DRAWING AVAILABLE UPON REQUEST.

STANDARD FEATURES

Expect decades of service with this all steel construction featuring a 3/16" thick rolled tank supported by a robust structural pump station. All Hurst Feedmiser units are designed to accommodate the NPSH requirements of the pump manufacturer to insure maximum pump efficiency. Factory packaged with optional operating controls, pumps, piping. Installation is made simple in that only service connections are needed.

***CUSTOMER INCOMING SUPPLY WATER PRESS. TO BE LESS THAN 40 PSIG.*

SPECIFICATIONS All Dimensions Are In Inches

BOILER HP	TANK CAPACITY (GAL)	(A) LENGTH	(B) WIDTH	*(C) HEIGHT 15-150 PSI	*(C) HEIGHT 200-250 PSI	*(C) HEIGHT 300 PSI	**(D) WATER SUPPLY	(E) COND. RETURN	(F) VENT	(G) OVER FLOW	(H) DRAIN	150 PSI WEIGHT
15-30	30	30	19	60	68	69	.5	2	2	1.5	.75	625
40-60	60	36	25	67	73	86	.5	2	1.5	1.25	.75	800
70-80	80	46	24	67	75	86	.5	2	1.5	1.25	.75	825
100	100	48	26	74	76	87	.75	2	1.5	1.25	.75	1000
125-150	150	48	31	79	90	93	.75	2	1.5	2	1	1100
200	200	60	34	88	93	96	.75	2.5	1.5	2	1	1385
250	250	72	35	89	93	96	.75	2.5	1.5	2	1	1500
300	300	72	38	92	96	99	.75	2.5	2	2	1	1730
350	350	84	38	92	96	99	.75	2.5	2.5	2	1	1835
400	400	72	44	98	102	114	.75	3	2.5	2	1.25	1950
500	500	84	44	104	110	114	.75	3	2.5	2	1.25	2035
600	600	84	48	108	114	118	.75	3	2.5	2	1.25	2300
700-800	800	114	48	120	118	125	.75	3	2.5	2	1.25	2940
900-1000	1000	96	58	130	135	135	(2) .75	3	4	3	1.5	4200

**OVERALL HEIGHT (C) MAY CHANGE DEPENDING ON (NPSH) REQ'MTS. OF PUMP SELECTED*

DIMENSIONS SUBJECT TO CHANGE WITHOUT NOTICE.

HBC-09516
06/2014

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HURST

BOILER & WELDING CO., INC.

AVAILABLE WITH LOW NOX

HURST SERIES OXYMISER

FEEDWATER DEAERATORS
Available from 5,000 to 200,000 LBS/HR

GUARANTEED
to Remove Oxygen in Boiler Feedwater to .005cc/liter

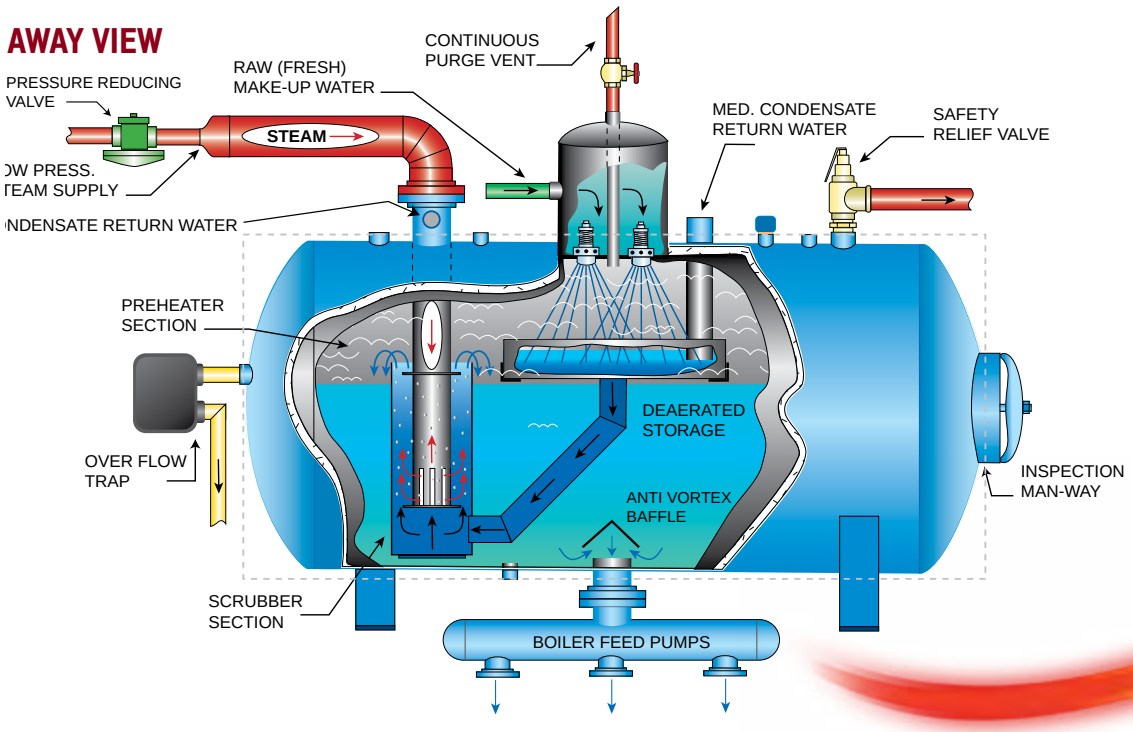
SKID MOUNTED
MODULAR PACKAGED

"Raise Feedwater Temperature and Reduce Operating Costs by Recovering Flash Steam when returned by High Temperature Condensate."

HURST PERFORMANCE SERIES BOILERS

SERIES OXYMISER

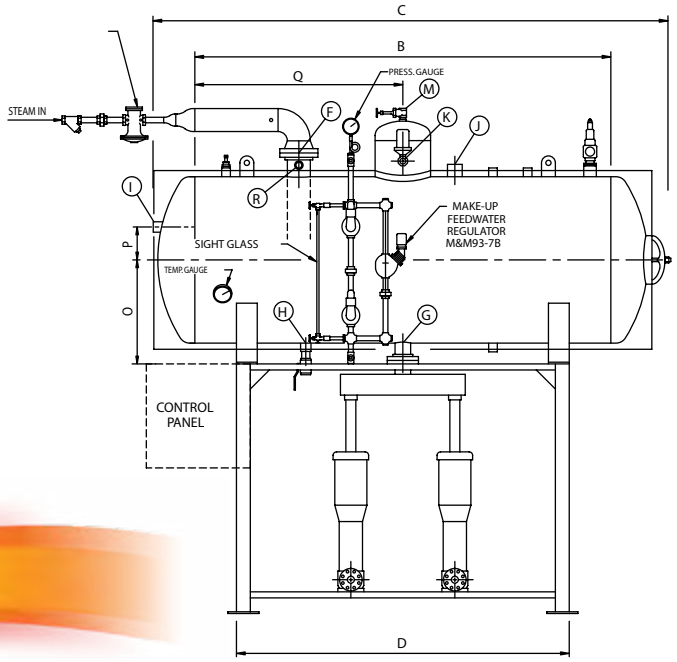
CUT AWAY VIEW



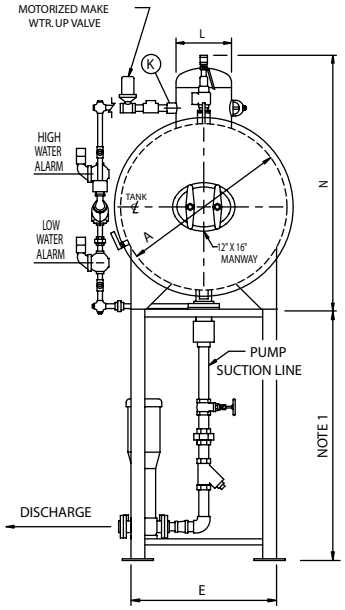
SPECIFICATIONS

	OXYMISER MODEL			OM-5	OM-7	OM-10	OM-12	OM-14	OM-16	OM-19	OM-22	OM-26	
	STORAGE TO OVERFLOW	MINUTES		24.4	17.4	15.4	12.9	14.7	12.9	15.5	13.4	13.9	
	DESIGN CAPACITY		LBS/HR	5000	7000	10000	12000	14000	16000	19000	22000	26000	
	WATER CAPACITY	@ OVERFLOW	GAL	268	268	331	331	456	456	789	789	957	
	WATER CAPACITY	@ NWL	GAL	194	194	233	233	312	312	498	498	609	
	WATER CAPACITY (W/DOME)	FLOODED	GAL	354	354	435	435	565	656	850	850	1033	
	WEIGHT (VESSEL ONLY)		LBS	2400	2400	2700	2700	3100	3100	3750	3750	4150	
A	TANK DIAMETER		IN	42	42	42	42	42	42	48	48	48	A
B	TANK LENGTH		IN	48	48	60	60	84	84	96	96	120	B
C	OVERALL LENGTH	BARE VESSEL	IN	73.5	73.5	86	86	105	105	122	122	142	C
D	SUPPORT STAND LENGTH		IN	46	46	54	54	72	72	84	84	96	D
E	SADDLE WIDTH		IN	36	36	36	36	36	36	42	42	42	E
F	STEAM INLET	150# FLANGE	IN	4	4	4	4	6	6	6	6	6	F
G	WATER OUTLET	150# FLANGE	IN	3	3	3	3	4	4	4	4	6	G
H	TANK DRAIN		IN	1.25	1.25	1.25	1.25	1.5	1.5	2	2	2	H
I	OVERFLOW		IN	1.25	1.25	1.5	1.5	1.5	1.5	2	2	2	I
J	MED. CONDENSATE RETURN	197-227 °F	IN	2	2	2	2	2.5	2.5	3	3	3	J
K	INLET WATER/LOW CONDENSATE	UNDER 197 °F	IN	1.25	1.25	1.25	1.25	1.5	1.5	1.5	1.5	1.5	K
L	DOME DIAMETER		IN	12	12	12	12	14	14	16	16	16	L
M	STEAM PURGE VENT		IN	.75	.75	1	1	1	1	1	1	1	M
N	TANK HEIGHT	FROM SUPPORT	IN	66	66	66	66	72	72	76	76	76	N
O	BASE OF SADDLE TO C/L OF TANK		IN	27	27	27	27	29	29	30	30	30	O
P	C/L TO OVERFLOW		IN	7.5	7.5	7.5	7.5	9	9	9.5	9.5	9.5	P
Q	TO VENT CONNECTION		IN	24	24	30	30	42	42	48	48	60	Q
R	HOT CONDENSATE RETURN	OVER 227 °F	IN	1	1	1	1	1.25	1.25	1.25	1.25	1.25	R
	OXYMISER MODEL			OM-5	OM-7	OM-10	OM-12	OM-14	OM-16	OM-19	OM-22	OM-26	

NOTE: SUPPORT STRUCTURE HEIGHT IS DEPENDENT ON NPSH. OF PUMP REQUIRED.
NOTE: WEIGHT= VESSEL ONLY WITH INSULATED JACKET, & STANDARD TRIM. DOES NOT INCLUDE PUMP STATION



SIDE VIEW



END VIEW

hurstboiler.com

	OM-30	OM-35	OM-40	OM-50	OM-60	OM-80	OM-100	OM-125	OM-150	0M-200	
	12.0	11.3	12.1	12.7	12.7	11.6	9.8	11.3	10.8	10.3	
	30000	35000	40000	50000	60000	80000	100000	125000	150000	200000	
	957	1025	1214	1592	1922	2415	2712	3426	3913	4641	
	609	637	776	1049	1271	1552	1649	2299	2634	3582	
	1033	1091	1305	1673	2022	2521	2832	3935	4499	5956	
	4150	4300	4750	5400	5975	7885	8650	10445	11575	16900	
A	48	54	54	66	66	72	72	84	84	96	A
B	120	96	120	96	120	126	144	144	168	168	B
C	142	126	152	133	156	164	182	187	212	207	C
D	96	84	102	84	108	108	120	132	132	132	D
E	42	48	48	56	56	60	60	66	66	78.5	E
F	6	6	6	8	8	10	10	10	10	10	F
G	6	6	6	6	6	6	6	8	8	8	G
H	2	2	2	2	2.5	2.5	2.5	2.5	3	3	H
I	2	2	2	3	3	3	3	3	3	6	I
J	3	3	3	4	4	4	4	6	6	6	J
K	1.5	1.5	1.5	3	3	2.5	3	3	3	4	K
L	16	18	18	20	20	20	20	24	24	30	L
M	1	1	1	1	1	1	1	1	1	1.25	M
N	76	86	86	98	98	111	111	120	120	134	N
O	30	35	35	41	41	44	44	50	50	56	O
P	9.5	11.75	11.75	16	16	16	16	17	17	24	P
Q	60	48	60	48	60	63	72	72	84	84	Q
R	1.25	1.5	1.5	1.5	1.5	1.5	2.5	2.5	3	4	R
	OM-30	OM-35	OM-40	OM-50	OM-60	OM-80	OM-100	OM-125	OM-150	0M-200	

ALL DIMENSIONS ARE IN INCHES
CERTIFIED DRAWING AVAILABLE UPON REQUEST.
DIMENSIONS SUBJECT TO CHANGE WITHOUT NOTICE.

Inspected and registered with the National Board of Boiler & Pressure Vessel Inspectors.

Designed, constructed and stamped in accordance with the requirements of the ASME Boiler Codes.

HURST PERFORMANCE SERIES BOILERS

WHY DEAERATE?

The use of deaerators has long been used in power plants and water tube type boilers, primarily because they remove undissolved oxygen and raise the temperature of the feedwater. These advantages are important today for firetube boilers as well, due to higher capital investments. Operating costs can be reduced by recovering flash steam when returned by high temperature condensate. This feature also raises the feedwater temperature, thus requiring less boiler fuel to convert the feedwater to usable steam.

Boiler tubes, condensate lines, and process piping have a much longer useful life by eliminating the pitting action of untreated water. This advantage alone justifies the cost of an "OXY-MISER" deaerator.

HOW DOES IT WORK?

Fresh make-up water is fed into the deaerator through the inlet water connection. This water passes through the steam-filled heating and venting section. The water temperature is raised and many of the undissolved gases are released. As the water passes through the assembly, it flows to a scrubber section where final deaeration is accomplished by scrubbing the water with oxygen free steam. This steam is induced through a stainless steel spray valve assembly which causes the high velocity steam to break the water down to a fine mist through a violent scrubbing action. The deaerated water spills over to the tanks storage compartment for use by the boiler, and the gases are vented to the atmosphere.

The *Hurst "Oxy-Miser"* deaerating boiler feedwater system eliminates the need of expensive oxygen scavenger chemicals and also offers the following advantages:

- Removes carbon dioxide as well as oxygen.
- Raises the boiler feedwater temperature, eliminating thermal shock in boilers.
- Improves overall boiler room efficiency.
- Feedwater pumps are sized for each individual application – assuring total compatibility and optimum operation.
- Vessels are ASME Code constructed for 50 psig.
- Compact design means smaller boiler room requirements.

STANDARD EQUIPMENT

- Welded steel tank, designed for 50 psig as per the requirements of ASME Code deaerating section with spray valve.
- Structural steel stand with square tubing and steel pump platform.
- Feedwater pump and motor sets, sized for each application.
- Water inlet valve assembly for condensate return and fresh water.
- Overflow trap, tank thermometer, pressure gauge.
- Steam pressure reducing valve assembly with temperature controller.
- Safety relief valve(s), vent valves, tank drain valve.
- Water gauge glass set with cocks, drain valve, and protection rods.
- Pump suction piping with strainer and shut-off valve.

HBC-09515
05/2014

hurstboiler.com

HURST BOILER
& Welding Co., Inc.
100 Boilermaker Lane • Coolidge, GA 31738-0530
Tel: (229) 346-3545 • Fax: (229) 346-3874
email: info@hurstboiler.com

HURST BOILER & WELDING CO., INC.

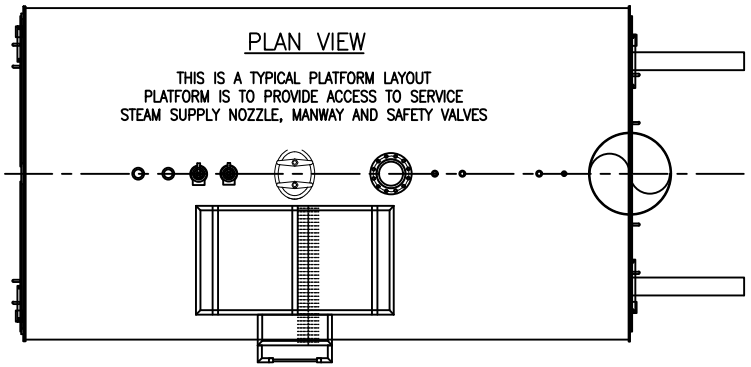
100 BOILERMAKER LANE, COOLIDGE, GA. 31738

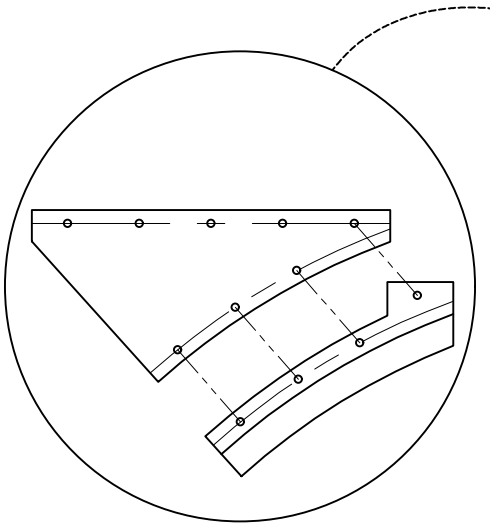
PHONE: 229-346-3545 FAX: 229-356-3874

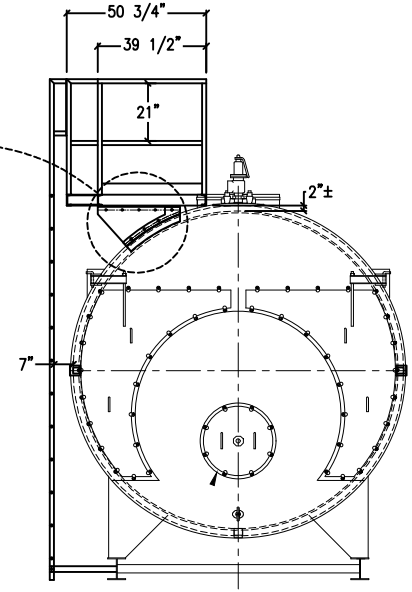
REV	BY	DATE	CHK'D	REASON FOR CHANGE

TYPICAL PLATFORM DETAIL SCOTCH BOILERS

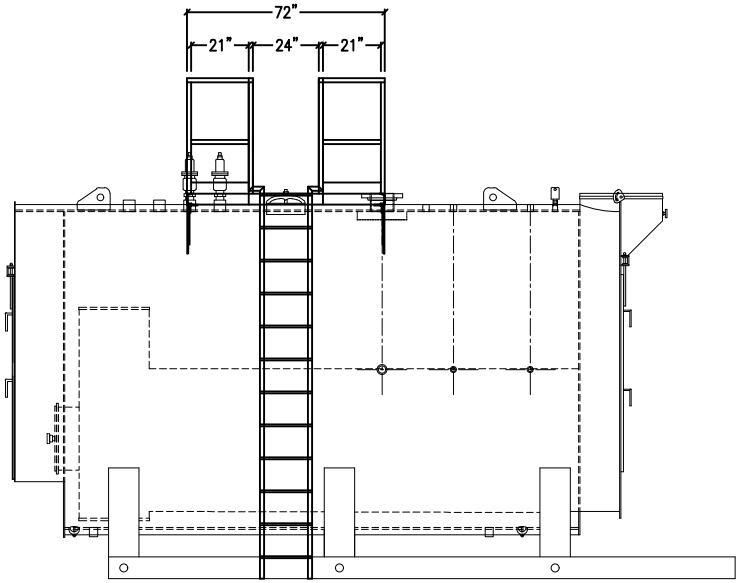
SCALE:	DWN_BY	DWN_DATE	CKD_BY	CKD_DATE	LAST_SAVED	REV
N.T.S.	J.E.H.	3/17/2017	J.A.B.	3/17/2017	JAMES	0
SHT# 1.2 OF:	2	DWG NO:	TYPICAL PLATFORM DETAIL_2017			



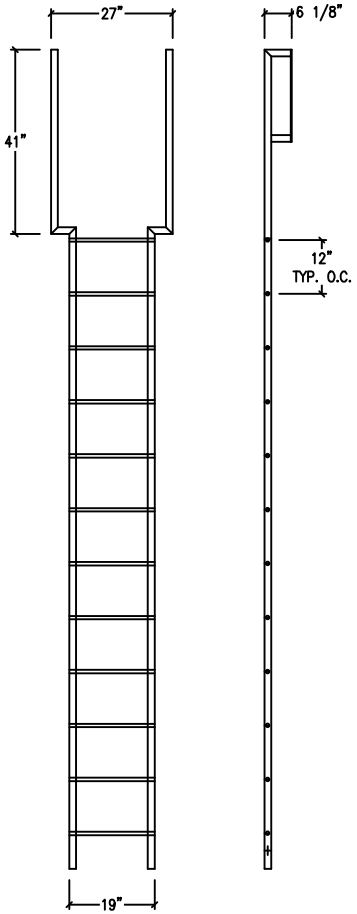




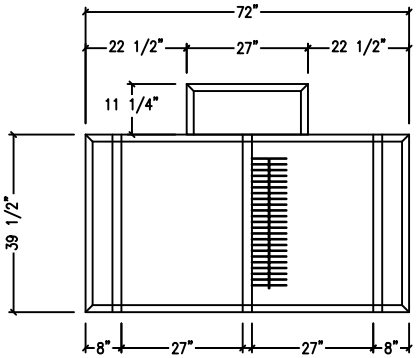
REAR VIEW



LEFT SIDE VIEW

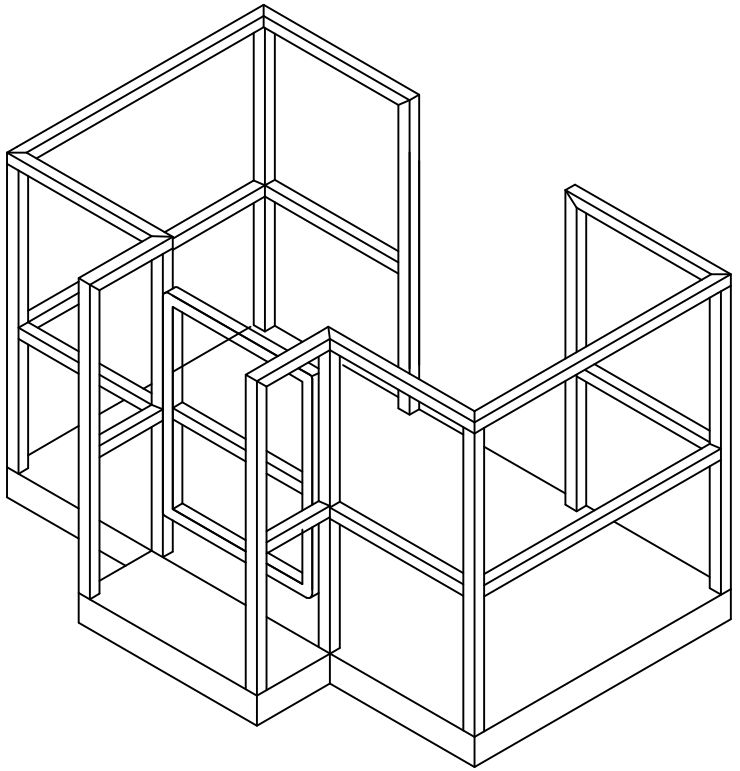


LADDER DETAILS



TOP VIEW OF FRAME FOR WALKWAY

ALL DIMENSIONS ARE OUTSIDE FRAME WORK



PLATFORM ISO VIEW

THIS IS A TYPICAL PLATFORM LAYOUT
IT WILL BE THE SAME FOR ALL SCOTCH BOILERS,
OVERALL DIMENSIONS WILL CHANGE DEPENDANT ON SIZE OF BOILER
STANDARD PLATFORM IS NOT TO EXCEED 72" WIDE, HEIGHT TO BE
APPROXIMATELY 2" OFF BOILER SHELL AND A LADDER IN THE CENTER
OF PLATFORM AT LEAST 7" FROM SIDE OF BOILER

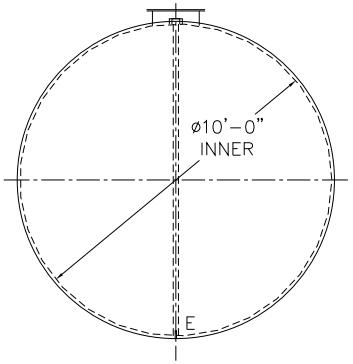
REV	BY	DATE	CHK'D	REASON FOR CHANGE

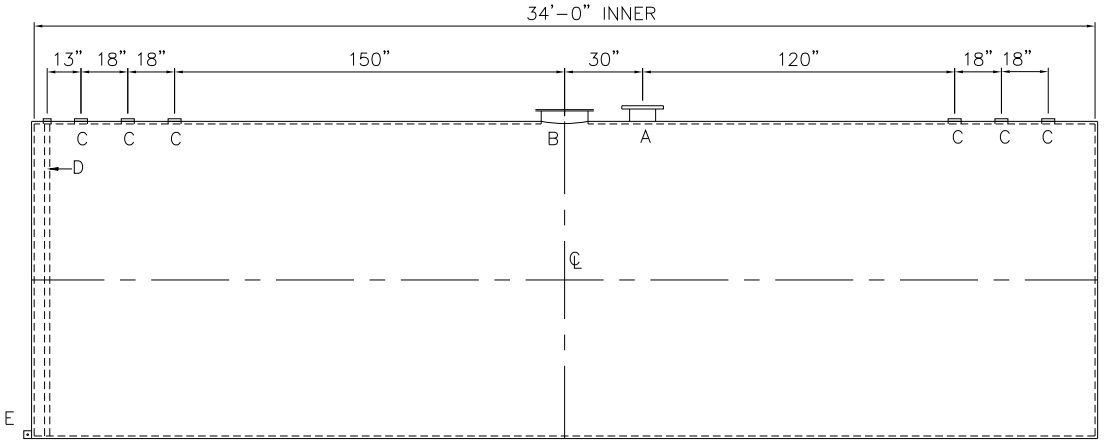
HURST BOILER & WELDING CO., INC.
100 BOILERMAKER LANE, COOLIDGE, GA. 31738
PHONE: 229-346-3545 FAX: 229-356-3874

TYPICAL PLATFORM DETAIL SCOTCH BOILERS

SCALE:	DWN_BY	DWN_DATE	CKD_BY	CKD_DATE	LAST_SAVED	REV
N.T.S.	J.A.B.	3/17/2017	J.A.B.	3/17/2017	JAMES	0
SHT# 1.1 OF:	2	DWG NO:	TYPICAL PLATFORM DETAIL_2017			

TOUCH UP OF FINISHED PAINT IS REQUIRED BY INSTALLATION CONTRACTOR. TOUCH UP PAINT SHIPPED WITH TANK.





DESIGN DATA
CAPACITY – 20,000 GALLONS
TYPE – DOUBLE WALL – TYPE I
NO. REQ. – –
OPERATING PRESSURE – ATMOSPHERIC
SPECIFIC GRAVITY = 1.0
TANK MATERIAL – MILD CARBON STEEL
THICKNESS – INNER– HEADS: 5/16" SHELL: 1/4" THICKNESS – OUTER– HEADS: 1/4" SHELL:7 GA
CONSTRUCTION – INNER – LAP WELD OUTSIDE ONLY OUTER – LAP WELD OUTSIDE ONLY
TANK TEST – INNER – 5 PSIG OUTER – 2 PSIG AND FULL VACUUM
INT. FINISH – NONE –
EXT. FINISH – SHOP PRIMER –
LABEL – UL 142

LEGEND	
A	10" RFSO 150# FLANGE THROUGH OUTER SHELL ONLY– MARK WITH SPECIAL WARNING LABEL – INTERSTITIAL EMERGENCY VENT USE ONLY
B	18" LOOSE BOLT MANWAY – PRIMARY EMERGENCY VENT USE
C	4" FITTING
D	2" INTERNAL INTERSTITIAL MONITOR PIPE
E	3" x 3" PLATE w/ 1/2"ø (MIN.) HOLE ON CENTER (GROUNDING LUG–ONE REQ'D)
F	

Highland Tank®

20,000 GAL 120"ø AG DW HORIZONTAL

CUSTOMER:

PROJECT:

QUOTE NO:

CHK'D BY:

SCALE:	DATE:	DWG. BY:	DWG. NO.:
1/4"=1'-0"			20000AHDW120

METASYS®
MASTER YOUR ENVIRONMENT.

BAS DELIVERS A NEW KIND OF SMART

METASYS® BUILDING AUTOMATION SYSTEM OFFERS THE INTELLIGENCE, EASE OF USE, AND MOBILITY FACILITY OPERATORS NEED TO IMPROVE PRODUCTIVITY AND DRIVE ENERGY AND OPERATIONAL SAVINGS

EXECUTIVE SUMMARY:

Building Automation Systems should help facility operators to solve problems faster. *Metasys* maximizes the return on investment in building automation by supporting facility operators in the way they work today, increasing productivity and efficiency:

- *Metasys*' interface provides facility operators with key information on building performance at a glance and offers additional data with just a few clicks or swipes.
- *Metasys* features an intuitive design, with navigation based in spaces and equipment-serving relationships, helping facility operators identify and correct problems more quickly and making it easier to troubleshoot equipment.
- *Metasys* is optimized for mobility. Facility operators don't spend their days at a desk. The *Metasys* single experience makes a full range of system capabilities available on any device – mobile phone, laptop, tablet – so facility operators can manage their buildings no matter where they are and no matter what device they are using.

CONTENTS

Facility operators' jobs are in the midst of a transformation. They must respond to demands for a comfortable, secure, and productive environment despite increasingly tighter budgets and smaller staffs. The work of the facility staff needs to be streamlined for maximum productivity, and their tools must improve operational and energy efficiency to reduce costs.

As the job has changed, so has *Metasys*. Based on extensive research into how operators do their jobs and what they need to be effective, *Metasys* has raised the bar for building automation systems. It offers a new kind of smart for facility operators.

Essential Data Pinpoints Problems

The advanced capabilities of *Metasys* grew out of extensive observational research. The team behind *Metasys* spent hundreds of hours in the field with facility operators, learning in detail the range of responsibilities facility staffs handle, the challenges they face, and the ways in which they actually spend their days.

One point that research made clear is that the magnitude of information that facility operators are confronted with – from set points to equipment schedules, alarms to energy-use data – can be staggering. In some facilities, the data points can number in the tens of thousands. Facility operators want to know where the problems exist in their buildings. But the challenge of finding that information, quickly, can be overwhelming.

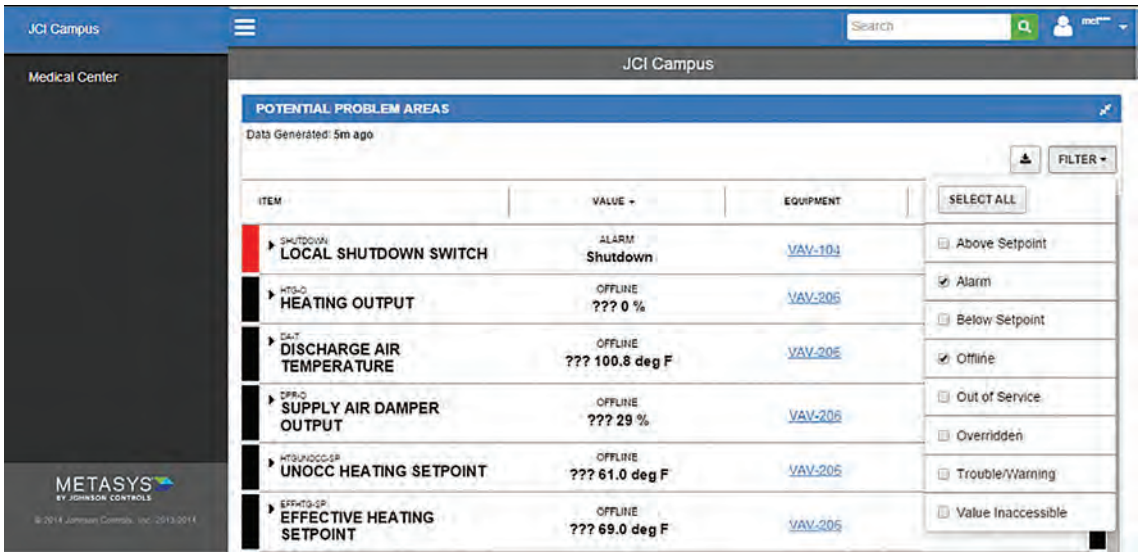
Metasys takes that torrent of data and turns it into actionable information that enables facility operators to reduce costs and be more productive.

One way *Metasys* achieves that goal is by allowing facility operators to easily see where problems are occurring. Operators using *Metasys* have immediate access to a campus-wide summary of any item that is in alarm, overridden, or offline. They can use this interactive summary as their daily "punch list" to manage buildings more effectively. From this Potential Problem Areas list, facility operators can quickly and easily dig deeper to get the additional information about equipment status, history, and trends they need to resolve the issue.

Compared to hardware-focused interfaces, *Metasys*' interface requires **86% FEWER CLICKS** to find critical information.
Source: Johnson Controls internal study

SINGLE EXPERIENCE IS SIMPLE TO LEARN AND USE

For the BAS to benefit all users, it was important to create a device-agnostic interface that is optimized for both mobile and desktop systems. It's a single experience, no matter what device facility operators are using to access the system, whether it's a company-issued laptop or a personal smartphone – with no software installation needed. Because the *Metasys* experience is consistent across all devices, changes are made the same way on all display platforms. Training time is reduced, since facility operators don't have to learn a different way to use the system for each separate device. The result is improved productivity. And regardless of the screen size, charts and graphs are clear and readable; facility operators won't need to squint to see them.



Metasys gives facility operators quick access to a summary of where the problems are in a building or campus. The Potential Problem Areas list shows all items that are in alarm, overridden, or offline.

With capabilities like these, *Metasys* does more than make the facility operator's job easier. *Metasys* helps to save money by reducing the time it takes to solve problems that waste energy. It's a smarter, faster way of working.

Metasys Helps Solve Problems Efficiently

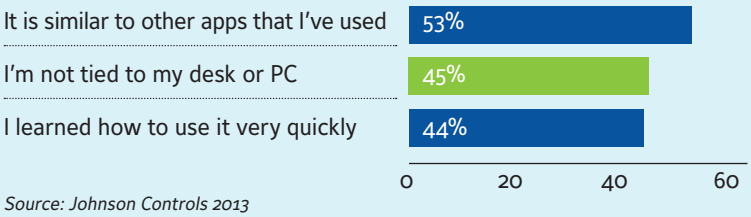
Facility operators are under enormous time pressure, with smaller staffs handling more square feet. Whether a facility operator is responsible for a single facility, a campus, or an enterprise spread across multiple locations, a speedy response is of the essence when a problem occurs. *Metasys* offers the ability to quickly zero in on a specific space and view the devices and equipment serving that space to identify potential issues – a capability that is essential to restoring a building to peak performance as soon as possible.

Let's look at what happens when a facility operator gets a call saying a room is too warm. With *Metasys*, no matter where he is or what device he is on, in one click the operator can call up that room and access both the set point for the space and the actual temperature. If the temperature is too high, the operator can look at the equipment serving that space and spot any abnormalities, allowing him to locate the source of the problem. For example, if the VAV box is blowing out lukewarm air, the operator's mobile device may show that the air handler isn't delivering 55-degree Fahrenheit air. Having that piece of information literally at an operator's fingertips can save hours of time compared to old ways of doing things. Gone are the days of needing to carry "cheat sheets" to figure out which equipment serves each space; the *Metasys* interface simply works the way the operator works.

INTUITIVE DESIGN BOOSTS PRODUCTIVITY

When it comes to navigational capabilities, *Metasys* takes its inspiration from consumer apps and software. Like everyone else, facility operators are accustomed to intuitive, user-friendly applications in their lives outside of work. *Metasys* has a similarly intuitive design – one that is easy to learn, without the time spent sitting in special training sessions or studying manuals. When the Building Efficiency Panel, a group of more than 3,000 building owners, operators, contractors, and equipment specifiers, was asked what aspects of the experience they like about personal applications, the ability to learn applications quickly and without training were among the top responses.

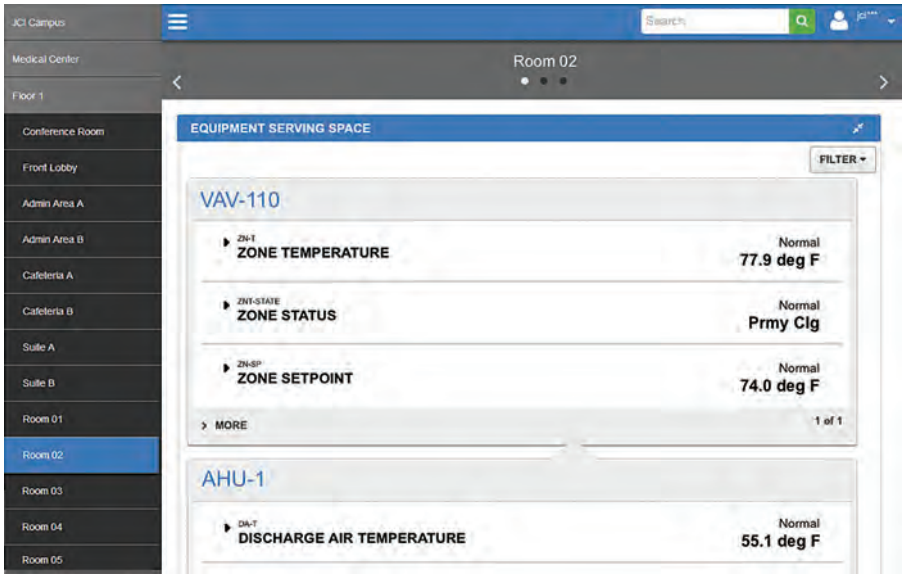
If you were to think about the mobile applications that you use today in both your personal and professional life, what top 3 aspects of those applications do you value the most?



Source: Johnson Controls 2013

With *Metasys*, users become productive quickly, because *Metasys* is designed to work how they work. The data is organized by spaces and equipment, making it naturally familiar because it matches how facility operators do their jobs on a daily basis. There's less need for documentation and support and less time learning to use the system. Facility operators can begin using the system just about as soon as it's installed. That lowers operational expenses and improves productivity.

How do customer insights and workflows lead to product design? See insight become action: johnsoncontrols.com/industryinsights



Using *Metasys*, facility operators can access data for all the equipment serving each space with one click, whether they are using a smart phone, a tablet, or a desktop or laptop computer.

FACILITY STAFFS INCREASING USE OF MOBILE DEVICES

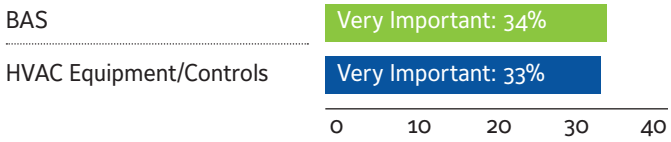
Because facility operators have no time to lose, mobile devices have become essential to their productivity. They enable facility operators to be in control even when they are on the go.

More than 40 percent of respondents to the 2013 Building Efficiency Panel IT Mobility Survey use mobile devices to access their BAS and HVAC equipment and controls. Another one-third of respondents said mobile access would be very important in the future.

Facility operators need to be where the problems are, and the rapidly evolving world of mobile technology is allowing them to streamline their on-the-go workflow. As more systems adapt to take advantage of the broad mobile trend, adoption is set to continue increasing.

Which of the following types of building-related data is accessed today by mobile devices?

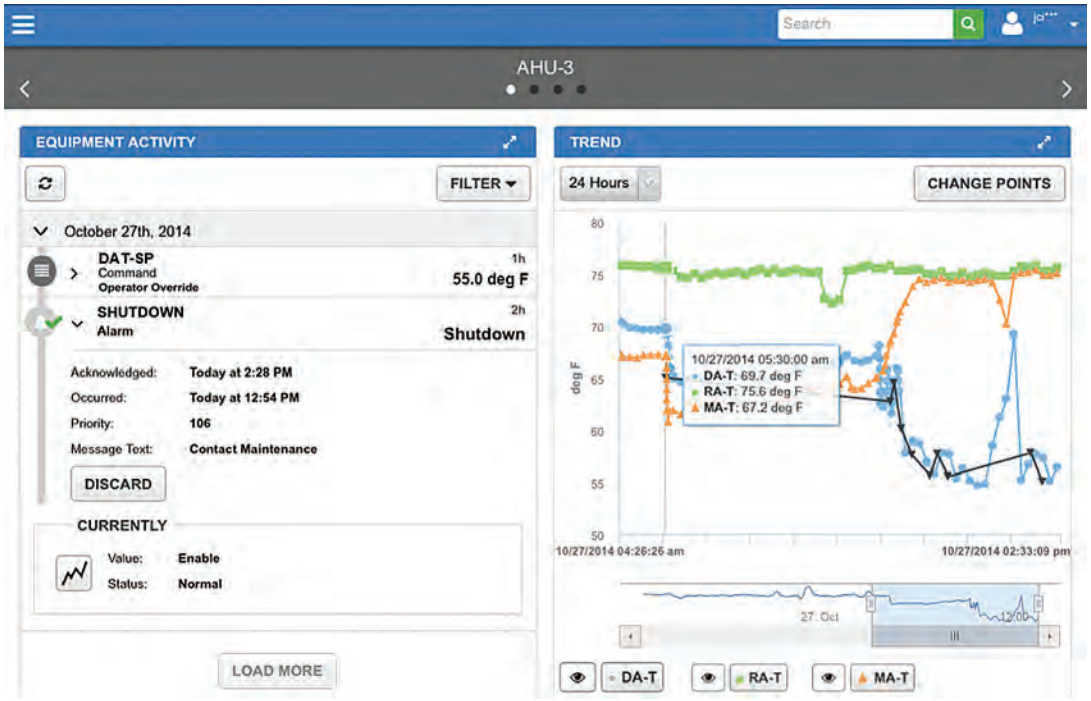
As you look ahead 2 to 3 years down the road, how important will it be to access the following building-related data from a mobile device?



Source: Johnson Controls

Trouble-shooting doesn't stop with identifying equipment that isn't operating normally. *Metasys* enables facility operators to see historical data about any piece of equipment serving the space. They can access the Equipment Activity widget to understand what changes have been made to equipment and if there have been any alarms, all without having to return to a desk to log in at a computer station. In our VAV box example, the operator might see that the problem started a few days ago, after an override by someone else, and set the operation back to normal, fixing the issue and getting the room back to a comfortable temperature, all within a few minutes.

The ability to pinpoint the root cause of a problem no matter where the user is currently located enables facility operators to resolve the issue more rapidly and return the building to optimal performance, saving energy and improving comfort. And thanks to user-friendly navigation, the operator gets in and out of *Metasys* as quickly as possible, providing more time for solving problems.



The Equipment Activity widget enables facility operators to view user changes made to specific pieces of equipment and alarms associated with that equipment.

Mobility Reduces Operating Expenses

The *Metasys* development team talked with facility operators, designers, building engineers, and others who work in a variety of building types, including hospitals, universities, K-12 schools, and office complexes. Their research showed that, no matter what type of building, facilities professionals are on the go. They are in their offices just two hours of the 10- to 12-hour days many of them work. They need a building automation system that enables them to be productive while they are in the field.

With that in mind, work began on enhancing the *Metasys* experience to be consistent, intuitive, and useful across platforms and operating systems. Actionable data and control capabilities are right where facility operators need them, any time they need them. The result is faster problem resolution, lower operating costs, and better building performance.

For example, if a facility operator is looking at a damper, that operator can use voice commands to access the damper's data on his mobile device, then make a change to the damper's operation and watch to see whether that change solved the problem – all without having to call a colleague sitting at a desktop computer and ask that person to make changes in the BAS. They don't have to return to the facility once they've gone home just to make a correction to the system; they can log in and make changes from anywhere with an Internet connection.

Take a tour of *Metasys*:
johnsoncontrols.com/metasystour

Metasys Takes Buildings To Peak Performance

For facility operators, the bar keeps getting set higher on building performance. Their budgets and staffs are shrinking, yet organizations expect their facilities to operate reliably, efficiently, and intelligently. The right BAS helps facility teams deliver their goals: lower operating costs, reduced energy use, increased productivity, and a safe, comfortable building environment. These goals are sometimes at odds, but the key is to streamline work and resolve issues quickly. That means the BAS must be easy to use and provide critical information at a glance. *Metasys* was designed to be the BAS that enables facility operators to work smarter and make the right decisions faster. *Metasys*' advanced technology offers facility operators what they need today to take their buildings to peak performance.

Metasys offers facility operators an experience that is intuitive and consistent no matter what device they are using, enabling them to be productive more quickly.

Discover a new kind of smart at
johnsoncontrols.com/buildings/building-management/building-automation-systems-bas
or talk to a Johnson Controls representative at (844) 883-1291.

Metasys® is the world's leading building automation system. Its advanced technology provides essential instrumentation and control, which saves energy, lowers operational costs and enables productive and secure environments. It provides information to make better building management decisions and save organizations money.

For more information about research cited in this white paper:
"The Move to a Mobile Facilities Team," report based on a survey of members of the Johnson Controls Building Efficiency Panel.

Johnson Controls

Section 1 Overview

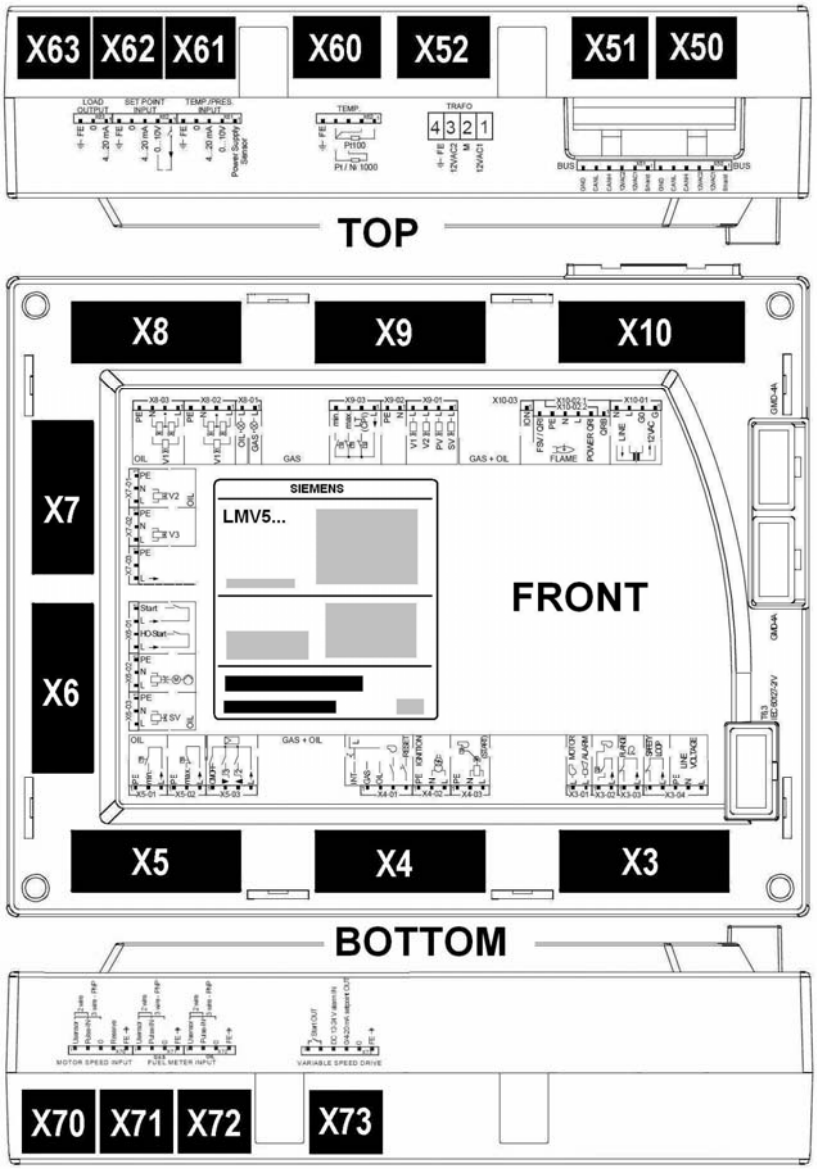
Introduction 1-1

The Siemens LMV5 Burner / Boiler Management System (BMS) combines the functionalities of a flame safeguard and a fuel-air ratio control when it is used in it's most simple form.

This BMS is modular, and can be expanded to encompass features such as load control, integrated O2 trim, Differential Pressure (DP) based feedwater control, Variable Speed Drive (VSD), fuel usage monitoring, efficiency monitoring, simultaneous operation of 5 rotary actuators, Lead / Lag control, Touch Screen Human Machine Interfaces (HMI), ModBUS communications and other advanced features.

These features make the LMV5 extremely flexible, and ideally suited for use with most steam boilers, hot water boilers, thermal fluid heaters, and industrial burners.

Figure 1-1.1 Typical LMV5 Base Unit



Product Offering 1-2

Base Unit Options (All are 120VAC)

LMV51.040C1 The most basic unit contains:
A flame safeguard
Highly accurate fuel air ratio control
A floating-bumping external load controller
is necessary for modulation (RWF40)
Actuators are connected on a CANbus
Can be wired to 4 actuators
Can run 3 actuators simultaneously

LMV51.140C1 Same features as above, plus:
A load controller capable of
reading temperature and / or pressure
Modulates according to setpoint
Thermal shock protection (low fire and / or ramping start)
Remote modulation function

LMV52.240B1 Same features as above, plus:
Integrated O2 trim with efficiency calculation
Closed loop VSD control
Fuel meter reading (gas and oil)
Can be wired to 6 actuators
Can run 5 actuators simultaneously

Display Options

AZL52.40B1 Backlit display connects to the base unit via a 9 pin cable using CANbus protocol and is required for operation of the base unit. ModBUS communication via an RJ45 female jack on the back of the display, using RS-232 protocol, is standard.

One AZL is necessary for each burner.

HMI (Human Machine Interface) Touch Screen display communicates to the required AZL5 via ModBUS communications.

The HMI can provide lead / lag control, trending, internet communications, and boiler room efficiency optimization in addition to many other advanced features.

One HMI can be used to interface with multiple AZL5s. The HMI is not necessary for operation of the base unit.

Actuator Options

SQM45.295A9	27 in / lb of torque	10-120 seconds	10 mm “D” shaped shaft
SQM48.497A9	177 in / lb of torque	30-120 seconds	14 mm round keyed shaft
SQM48.697A9	310 in / lb of torque	60-120 seconds	14 mm round keyed shaft

Note: All actuators offer:
The same case size
Identical actuator mounting holes
Have a 90 degree operating range
Positioning accuracy of 0.1 degree
Rotate either clockwise or counterclockwise

Inquire about TAK and Ruland part numbers — Actuator brackets and zero lash flexible actuator shaft couplings are available and highly recommended to ensure trouble-free operation.

Flame Detector Options and Accessories

QRI2A2.B180B — Sensor is self checking, forward viewing (IR) detector (continuous use)

AGG2.110 — 3/4" threaded holder for QRI2A2. B180B forward viewing scanner having an insulated, protective lens

QRI2B2.B180B — Sensor is self checking, side viewing (IR) detector (continuous use)

AGG2.120 — Conduit connection adapter for QRI 3/4" NPSM thread

5002-01 — Self checking forward viewing Ultra Violet (UV) flame detector (designed for continuous use)

5002-01NC-120V — Non-self checking forward viewing UV flame detector

5000-02/5 — 5 feet of premade cable for either of the UV detectors

5000-02/10 — 10 feet of premade cable for either of the UV detectors

Note: All of the above flame detectors are wired directly to the LMV5 and utilize integral flame signal amplifiers.

Temperature / Pressure Sensor Options

7MF1564 Covers pressures up to 300 PSIG Output signals of 4**-20 mA** or **0-10 VDC**
Sensor connection is male 1/4" NPT

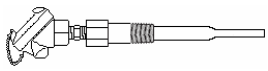
PSIG	4-20 mA	0-10 VDC
0-15	7MF15644 ***BB0*** 03EA1	7MF15644 ***BB1*** 03EA1
0-30	7MF15644 ***BE0*** 03EA1	7MF15644 ***BE1*** 03EA1
0-60	7MF15644 ***BF0*** 03EA1	7MF15644 ***BF1*** 03EA1
0-150	7MF15644 ***CA0*** 03EA1	7MF15644 ***CA1*** 03EA1
0-200	7MF15644 ***CB0*** 03EA1	7MF15644 ***CB1*** 03EA1
0-300	7MF15644 ***CD0*** 03EA1	7MF15644 ***CD1*** 03EA1

QAE2020.005 Two wire Nickel 1000 Ohm RTD immersion temperature sensor, includes thermowell and 3" wire leads.
Can also be used for ambient temperature.
Operating Range is -13 to 266 ^{o}F (Replaces 556-541)

QAC22 Two wire Nickel 1000 Ohm RTD sensor for ambient temperature. Operating Range is -20 to 125 ^{o}F

Stack Sensor Recommend: Pyromation # RBF195M482-010-00-8HN31
1000 ohm 2 wire platnium RTD with weather head
Needed for stack alarm and efficiency calculations
Range -40 to 900 ^{o}F

Temp Sensor Recommend: Pyromation # R1T185M483-004-00-6HN31-SL
100 ohm 3 wire platnium RTD spring loaded w/ weather head
Thermowell, Stainless Steel, Pyromation # SD0408
Needed for temperature based cold start Range -40 to 900 ^{o}F



Note: These sensors can be directly wired to an LMV5 provided it has an internal load controller (at least LMV51.140).

Oxygen Trim Accessories (LMV52)

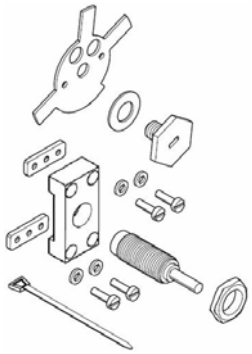
PLL52.110A100 O2 Module, CANbus module that is necessary to connect the flue (stack) mounted O2 sensor (QGO20) to the LMV52.
Sensors for flue temperature and ambient temperature, when used, are also wired to this module.

Note : In most cases, a second transformer will be necessary when using the O2 module.

QGO20.000D17 Internally heated Zirconium Dioxide Oxygen sensor that is mounted into the flue. 575^{o}F max flue gas temp. (Measures the wet Oxygen content in the flue.)

Stainless Steel Flue Gas Collector
AGO20.001A 7-1/4" long for stack diameters up to 16"
AGO20.002A 10-1/2" long for stack diameters larger than 16"

Variable Speed Drive (VSD) Accessories (LMV52)



AGG5.310 — VSD kit includes a speed wheel and sensor, which mounts to a blower motor for the closed loop VSD. (One kit is required)

Note : The sensor wheel normally mounts to the motor cooling fan on the back of the blower motor
This kit is much more difficult to use on motors that do not have a rear mounted cooling fan

General Accessories

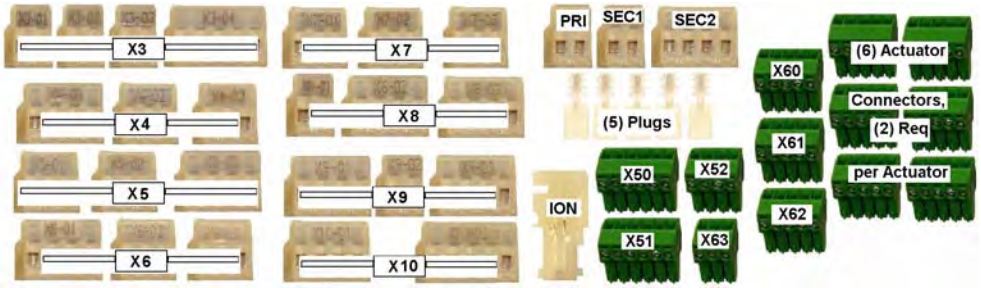
AGG5.210 — 120 VAC to 12VAC Transformer
At least one transformer is required on each BMS
Additional transformers may be necessary depending on the number of actuator / modules connected to the CANbus

AGG5.643 — Special cable for use with the CANbus connections between the LMV5, actuators, and PLL52 module, supplied in a 500' roll

AGG5.635 — A pre-made cable approximately 9 ft for connecting the AZL to the LMV5

AGG5.110 — CANbus strain relief.
If AZL cable AGG5.635 is used only one is required.

AGG5.720 — Base plug kit



AGG5.721 — Extension Plug kit

Inquire about p/n — Cord grip, (2) Req per Actuator, PG11- CANbus cable
Inquire about p/n — Cord grip, (6) Req per PLL52, M16 - CANbus cable

544-023 — Conduit adapter, (2) Req per Actuator, PG11-1/2" NPSM
Inquire about p/n — Conduit adapter, (6) Req per PLL52, M16 -1/2" NPSM

Typical BMS system 1-3

Typical LMV51 BMS System

A typical LMV51 BMS system will include the following components :

LMV51.140xx	Basic unit with load controller
AZL52.xxxx	Display
SQM4x	Actuator for Gas metering valve
SQM4x	Actuator for Oil metering valve
SQM4x	Actuator for Air damper
SQM4x	Actuator for FGR (if equipped)
AGG5.210	Transformer (See CANbus Loading table, Section 3, Figure 3-1.2)
QRI2A2.B180B	Forward viewing IR flame scanner
AGG2.110	Flame scanner adapter
AGG2.120	Conduit connector
Temperature Sensor and /or Pressure Sensor (both can be used for cold start)	
AGG5.643	CANbus cable
AGG5.110	CANbus strain relief
AGG5.720	RAST 5 plug kit
AGG5.635	Pre-made CANbus cable for AZL
	Flexible zero lash actuator shaft couplings (TAK or Ruland)
	Actuator mounting brackets (TAK)
	Cord grips or liquid tight conduit adapters

Typical LMV52 BMS System

A typical LMV52 BMS system will include all of the components of the LMV51 system with the exception of the LMV51.140 base unit. The LMV52 unit can be used the same as a LMV51 BMS system is used, with the additional features disabled.

If the additional features are utilized, additional components typically include:

LMV52.240xx	LMV52 required for O2 Trim or VSD (Replaces the LMV51.140)

O2 Trim:

PLL52.110A100	O2 trim module
QGO20.000D17	O2 Sensor
	Depending on flue size:
AGO20.001A	Flue Gas Collector (up to 16” Dia)
AGO20.002A	Flue Gas Collector (over 16” Dia)
Flue Gas (Stack)	PT-1000 sensor, Pyromation RBF195M482-010-00-8HN31
QAC22	Ambient temperature sensor

VSD:	VSD unit (supplied separately)
AGG5.310	Closed loop VSD control kit (speed wheel and sensor
AGG5.210	Transformer (See CANbus Loading table, Section 3, Figure 3-1.2)
SQM4x	Actuators for additional valves / dampers
AGG5.721	Extension Plug kit (VSD, additional actuators, transformer, etc.)

Important Safety Notes 1 - 4

The LMV5 is a safety device. Under no circumstances should the unit be modified or opened. Siemens Building Technologies, Inc. will not assume responsibility for damage resulting from unauthorized modification of the unit.

After commissioning, and after each service visit, the flue gas values should be checked across the firing range.

All activities (mounting, installation, service work. etc.) must be performed by qualified staff.

Before performing any work in the connection area of the LMV5, disconnect the unit from the main supply (all-polar disconnection).

Protection against electrical shock hazard on the LMV5, and on all connected electrical components must be ensured through good wiring and grounding practices.

Fall or shock can adversely affect the safety functions of an LMV5. Such units must not be put into operation, even if they do not exhibit any apparent damage.

When the LMV5 is running in automatic mode, actuators are continuously monitored by the LMV5.

During commissioning, when the ratio-control curves are being set, the actuator positions are NOT continuously monitored by the LMV5.

The technician is solely responsible for verifying the correct position of each actuator during the ratio-control curve commissioning.

The coupling that is used between the actuator and the driven valve / damper is safety related, and must be of a robust and flexible design. Should this coupling fail during operation, the LMV5 will no longer have control of the burner’s combustion bringing about a hazardous condition.

Condensation and the entry of water into the unit must be avoided.

Approvals 1- 5

Table 1- 5.1 Standards and certificates

CE

Conformity to EEC directives

- Electromagnetic compatibility EMC (immunity)	89 / 336 EEC
- Directive for gas appliances	90 / 396 EEC
- Low-voltage directive	73 / 23 EEC

ISO 9001: 2000
Cert. 00739

ISO 14001: 1996
Cert. 38233

	CSA	FM APPROVED		UL
LMV51.040C1	x	x	x	x
LMV51.140C1	x	x	x	x
LMV52.240B1	x	x	x	x

SCC Inc.

www.scccombustion.com

Total Boiler Solutions

Combustion Controls

World-class system, support and performance

TS... Series control solutions set a new standard for flexible, cost effective, Total Boiler Solutions. Ease of installation, configuration, and commissioning are incorporated into reliable, field proven controls. From single boiler touchscreens to entire boiler room solutions, count on SCC for world-class results.

Key Features and Benefits

TS... touchscreens, with field configurable graphics, interface with Siemens LMV... or RWF... controllers providing:

- Annunciation and monitoring
- Data collection and trending
- Email notifications and text messaging
- BMS communication
- Remote setpoint and firing rate via BMS
- Water level control and status
- Pump and valve control for hydronic boilers
- Many additional features ...

Innovation

TS... Series products provide solutions, from a single boiler retrofit to fully integrated control systems for an entire boiler room.

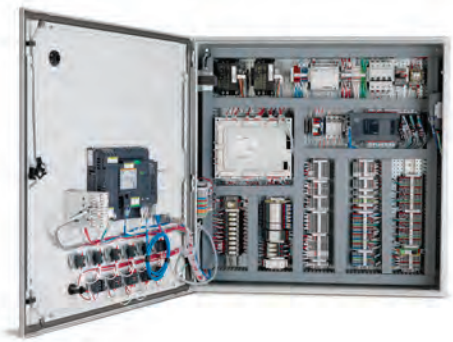
- Precise, Low NOx control
- High turndown control
- Boiler and burner data collection and trending
- Increased boiler control and efficiency

Quality

TS... Series products are designed, manufactured, and tested to the highest standards that provide a quality, seamless, reliable total boiler room solution. This investment in quality permits simple installation and commissioning, resulting in both project installation and operational cost savings.

Engineering

TS... Series products provide flexible solutions that are engineered to integrate together for maximum reliability, efficiency and safety. Intuitive HMI's provide user friendly operation and at-a-glance status.

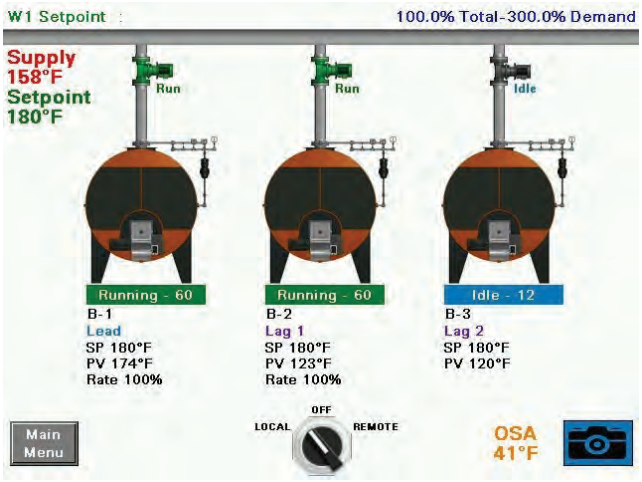


Safety

The Siemens LMV... Linkageless Burner Management System is a fully integrated control that is easy to install and commission. The LMV... delivers improved burner performance and efficiency, while ensuring safe operation.

TS-2000 Master Lead/Lag Panel

TS... Series Master Lead/Lag Panels provide accurate multiple boiler staging and firing rate control, while accurately maintaining the control set point to satisfy load demands. Field configurable for steam or hot water boiler applications, the master panel controls up to eight boilers equipped with TS... Series communication kits, touchscreens or combustion enclosures. Each Master Panel provides a central control system to monitor the operation of boiler room equipment, including deaerators, surge or condensate tanks, feedwater and transfer pumps. Master Panel touchscreens are available with 7.5", 10" or 12" screens.



Panel overview screen

TS-6000 Protocol Converter

TS... series Protocol Converters provide a flexible communications interface to the building management system (BMS) for streamlined data collection and monitoring. Supports LMV3, LMV5, RWF55, and all TS... Series Lead Lag Master Panels, Touchscreen Kits, Combustion Enclosures, and DA/Surge tank panels.

- Converts Modbus/RTU to BACnet/IP, BACnet MS/TP, Metasys N2, Modbus TCP/IP or LonWorks
- Allows simultaneous connection of up to 64 devices via serial connections
- Allows simultaneous connection up to 12 TS... Series devices via Ethernet Modbus

BMS

TS-2000 Master Lead/Lag Panel

OR

TS-6000 Protocol Converter

BMS

TS... Communication Kits

TS... Series communication kits connect any Siemens LMV linkageless control system to any TS... Series Master Lead/Lag Panel with or without a local touchscreen at each boiler.

TS... Series communication kits are suited for hydronic boilers, steam boilers, and other applications utilizing an LMV3 or LMV5 linkageless control system.

TS... Serial Communication Kits

TS... Series serial communication kits connect any LMV linkageless control to any TS... Series Master Lead/Lag Panel without a local touchscreen at each of up to eight boilers.

- TS-3X-KT for each LMV3 system
- TS-3M-KT includes the OCI412.10 Modbus module for each LMV3 system
- TS-5X-KT for each LMV5 system

TS-3X-KT Serial Kit

TS-3M-KT Serial Kit

TS-5X-KT Serial Kit

10” TS Communication Plate Kit

6” TS Communication Enclosure Kit

Touchscreen Communication Kits

TS... series touchscreen kits provide a 6” or 10” touchscreen with either a plate kit to be mounted by others in a control panel or premounted in an enclosure. Each kit provides boiler/burner data collection and trending for a hydronic or steam boiler.

A PLC first-out annunciator provides additional analog, digital, temperature, and/or draft control inputs and outputs.

Flexible communication interface options to the building management system (BMS) provide streamlined data collection, monitoring and control.

TS-CE… Combustion Enclosures

TS-CE... Combustion Enclosures are easy to install. They provide excellent control capability, configuration flexibility, and simple connectivity to a TS-2000 Master Lead/Lag panel. Combined with LMV3 or LMV5 controls, TS-CE combustion enclosures are suited for either hot water or steam boilers.

Options include:

- Touchscreen, 6” or 10”
- Expanded annunciation options
- Load and water level control
- BMS communication
- Integrated draft and economizer control
- Single or three-phase electrical supply
- Many additional options

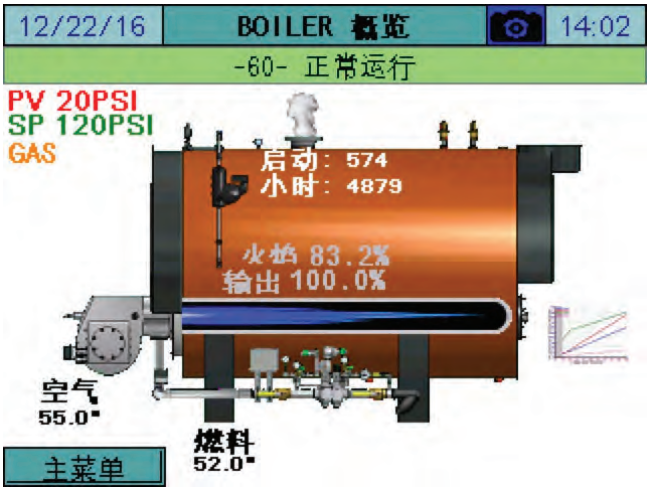
LMV3 Combustion Enclosure

LMV5 Combustion Enclosure

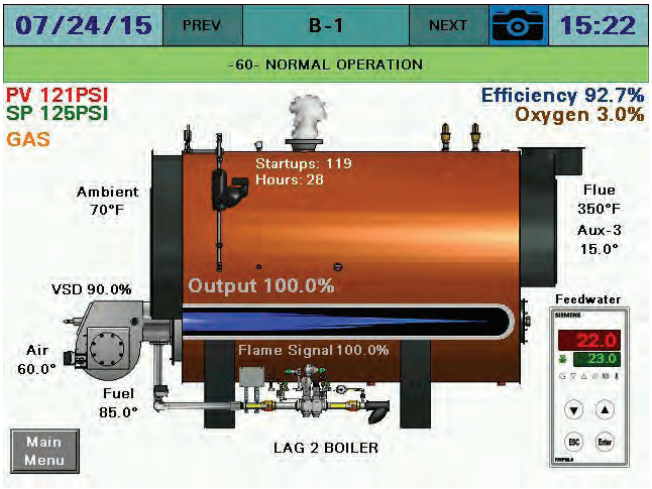
TS... Series touchscreen kits and Combustion Enclosures offer language and unit options:

- English or Spanish
- Metric or Imperial
- Chinese

Boiler Overview Screen – Chinese



Boiler Overview Screen



DA, Surge & Condensate Panels

TS-...Series DA, Surge & Condensate Panels manage lead/lag sequencing and operation of a:

- Deaerator (DA) tank
- Surge tank
- Condensate tank
- Combination DA/Surge tank
- Combination DA/Condensate tank
- Separate DA and Surge tanks

Each panel controls up to six pumps with variable frequency drive or motor starters.

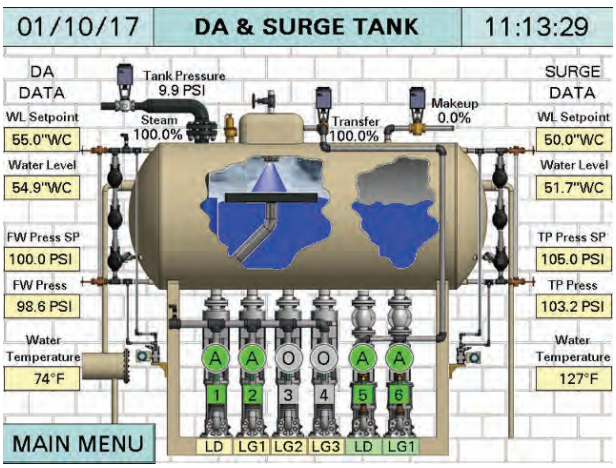
TS-...Series control systems include preprogrammed 6" or 10" touchscreen, PLC, and expandable digital and analog inputs.

- Graphics for individual pump status and self-configuring overview screen
- RWF55.50A9 for DA level control, Backup DA level control, DA pressure control, or Surge tank level control

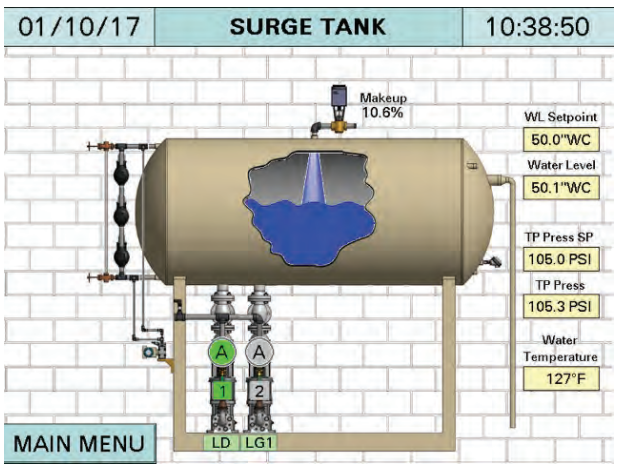
Combination DA/Surge Panel

OR

Deaerator Panel



Surge Panel



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Solution Partner

Combustion Controls

SIEMENS

SCC Inc.

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Modulating Water Level Control System

Combustion Controls

World-class system, support and performance

The Siemens Electronic Water Level Control System sets the standard for maintaining accurate water level in boiler steam drums, deaerating feed water tanks and condensate return tanks. The control system consists of a "SMART" differential pressure transmitter fitted with a 3-valve manifold, an application specific single loop PID controller and an electrically actuated ANSI 250 control valve assembly. The Siemens Electronic Water Level Control System provides precise water level control while ensuring efficient and reliable operation.

Key Features and Benefits

- 100% solid state system
- Ease of installation and commissioning
- Digital display of set-point and actual level
- Local adjustment of set point via key strokes
- Three levels of password protection
- Local/manual control options

Continuous Level Control, Universal Applications

Accurate feed water control is crucial for efficient, reliable boiler operation. Too low of a water level will expose boiler tubes to overheating, possibly damaging them. Too high of a water level can cause water carryover. The Siemens Electronic Water Level Control System maintains a consistent water level that minimizes these potential concerns.

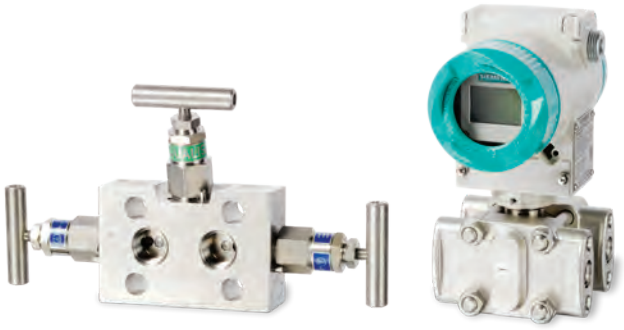
The Siemens Electronic Water Level Control System offers the following advantages:

- More efficient boiler operation
- Minimal boiler water carryover
- Reduced thermal shock to boiler
- Reduced feed water pump wear

For boilers with rapidly fluctuating steam load changes, the system has the capability to include dual-element control, minimizing boiler drum swell and shrink effects.

Differential Pressure Transmitter

- Repeatable and accurate to 0.2" w.c. with a 100" span
- Rugged industrial-grade, explosion-proof construction
- Locally programmable using pushbuttons or externally via HART
- SMART transmitter can be spanned with empty vessel
- Manual output mode for troubleshooting
- Loop powered output signal simplifies wiring



RWF Single Loop PID Controller

- Adjustable PID parameters for precise level control
- Built-in 24 VDC power supply for transmitter power
- Set-point/parameters are adjustable
- Bright display of set point and actual level
- Two configurable built-in relays
- Optional ModBus
- Password protection of programmed parameters

Control Valve Assembly

- High temperature stainless steel trim
- ANSI Class 250 design
- Available in normally open or normally closed configurations
- Field replaceable packing cartridge, valve disc and stem
- High flow, low noise design
- Bolt-on actuator allows for ease of installation
- Self-calibrating electronics simplifies commissioning
- Manual operator allows for local override of actuator in the event of power failure
- Position switches available for pump operation if required
- Flexibility with direct, reverse, linear or equal percentage operation selected via dip switches

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SIEMENS

• F-2600 SERIES • INLINE VORTEX FLOW METER

ONICON
FLOW AND ENERGY MEASUREMENT

Vortex flow meters detect the frequency of alternating low pressure vortices that are formed as flow is diverted around a bluff body. These swirling low pressure zones apply lateral pressure first to one side and then to the other of sensors located downstream of the bluff body. This causes the sensors to vibrate. The frequency of this vibration is directly proportional to the flow velocity.

DESCRIPTION

The ONICON F-2600 series vortex flow meter is a flexible design that provides accurate, reliable flow measurement in steam and high temperature water applications. The F-2600 is designed with a two stage all welded bluff body/sensor design that enhances signal sensitivity and extends the operating range of the meter. This innovative feature also protects the sensors from pressure shocks and solids suspended in the flow stream.

The basic loop powered model provides volumetric flow measurement for water at temperatures up to 500° F. Adding the integral temperature sensor option allows for mass flow measurement of saturated steam. Meters provided with integral pressure and temperature sensors are capable of measuring mass flow of superheated steam. Optional versions of the meter that include serial communications and multiple analog outputs are also available.

APPLICATIONS

- Saturated steam
- Hot water to 500° F (260° C) standard, 750° F (400° C) optional

Applications with optional pressure sensor

- Superheated steam to 500° F (260° C) standard, 750° F (400° C) optional
- Compressed air
- Industrial gases

CALIBRATION

Every ONICON flow meter is wet calibrated in a flow laboratory against standards that are directly traceable to N.I.S.T. A certificate of calibration accompanies every meter.

FEATURES

- Mass flow measurement from a single instrument
- Optional steam energy flow measurement
- Integral 1,000 Ω platinum RTD for precise temperature measurement
- Optional pressure transducer for accurate pressure readings at the meter location
- Maintenance free non-moving parts design
- Wear resistant bluff body/sensor design
- Advanced signal processing algorithms ensure stable flow readings and reject noise
- Easy-to-install meter arrives fully programmed and ready to use

GENERAL SPECIFICATIONS

ACCURACY

Percent of reading accuracy to within:
± 0.7% for liquids (volumetric)
± 1% for steam and gases (volumetric)
± 1.5% for steam and gases (mass)
For Reynolds Number ≥ 10,000
Repeatability: ± 0.2%
Long term stability: ±0.2% over a period of 1 year

11451 Belcher Road South, Largo, FL 33773 • USA • Tel +1 (727) 447-6140 • Fax +1 (727) 442-5699
www.onicon.com • sales@onicon.com

SENSING METHOD
Vortex shedding with integral piezoelectric sensors
Integral 1,000 Ω platinum RTD (optional) provides instantaneous temperature
Integral pressure transducer (optional) provides instantaneous pressure

OPERATING TEMPERATURE RANGE
Ambient: -40° F (-40° C) to 185° F (85° C)
Process: -330° F (-200° C) to 500° F (260° C)
Optional high temperature limit
750° F (400° C)

MAXIMUM OPERATING PRESSURE
≤ Flange rating or 1500 psi (103 bar)

PRESSURE LOSS
Pressure loss varies with meter size and flow rate. Please contact ONICON for detailed information.

CONNECTION TYPE
ANSI Class 150, 300 or 600 flanges
Wafer style

MATERIALS

Sensor Body:	316L Stainless Steel
Bluff/Sensor Body:	316L Stainless Steel
Electronics Enclosure:	Epoxy painted aluminum

ENCLOSURE
NEMA 4X (IP66)

INPUT POWER OPTIONS
Loop power: 14 - 36 VDC, 22 mA maximum current
External DC power: 18 - 36 VDC, 300 mA maximum current
External AC power: 100 - 240 VAC 50/60 Hz, 5 W maximum power

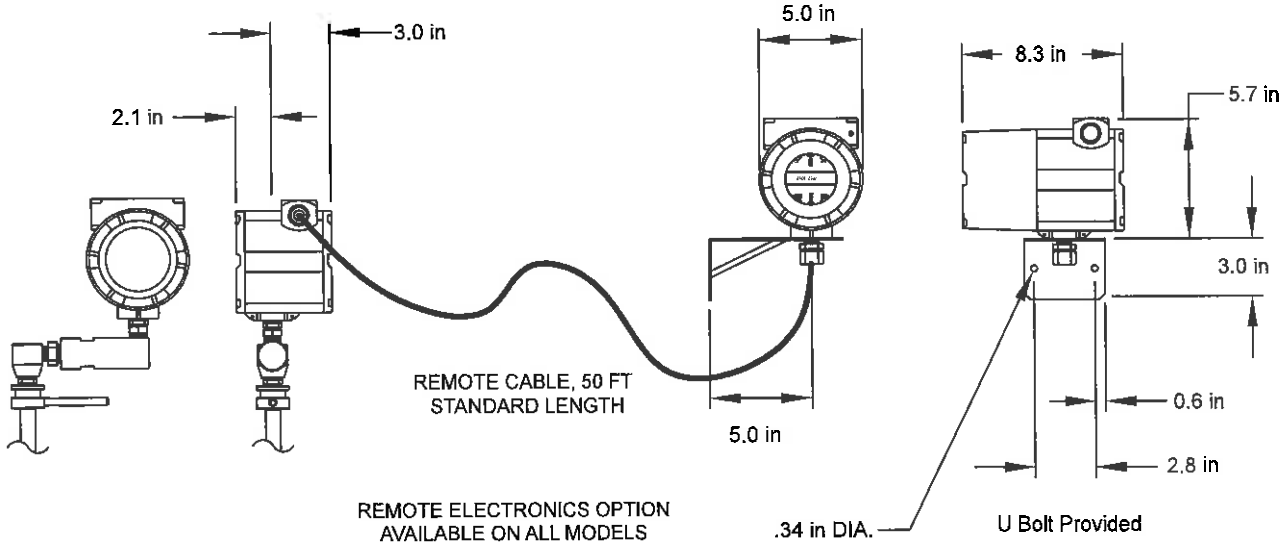
DISPLAY
2-line, 16 character alphanumeric LCD with backlighting option. Standard saturated steam display menu provides: mass flow rate, temperature, pressure (calculated), mass total and alarms (if active).
Optional remote mount transmitter version available (Standard cable length 50 ft., maximum 100 ft.)

OUTPUT SIGNALS PROVIDED
- DC loop powered version (Standard version of meter)
  Analog Rate: 2-wire, 4-20 mA
  Totalization: 2-wire scaled pulse, 50 ms duration, 5 - 36 VDC @ 40 mA maximum
  Frequency: 2-wire, open collector, 10 kHz maximum, 5 - 36 VDC @ 40 mA maximum
  Digital: HART® serial communications
- Optional external DC or AC powered version
  Analog Rate: Up to three 2-wire, 4-20 mA outputs
  Totalization: one 2-wire scaled pulse output, 50 ms duration, 5 - 36 VDC @ 40 mA maximum
  Frequency: one 2-wire, 10 kHz maximum, 5-36 VDC @ 40 mA maximum
  Digital: HART® serial communications
  Alarm: Up to three opto-coupled relay alarm outputs
- Optional on DC or AC powered version
  MODBUS RTU RS485 or BACnet MS/TP serial communications in place of HART®

APPROVALS
FM/FMC Approvals
Class I, Division 1, Groups B, C, & D
Class II/III, Division 1, Groups E, F, & G
Type 4X and IP66, T6, Ta = -40 to 60°C

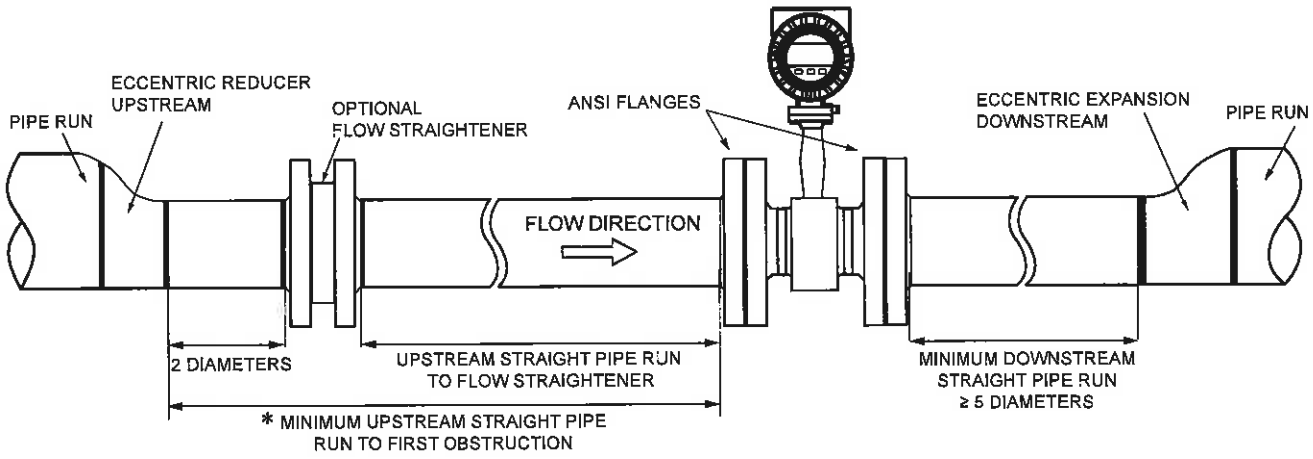
Note: Specifications subject to change without notice.

REMOTE MOUNT INSTALLATION



ONICON
FLOW AND ENERGY MEASUREMENT

Inline Vortex Flow Meter



Obstruction	*Minimum Upstream Straight Pipe Run Requirements	
	Straight pipe run without flow straightener	Straight pipe run to flow straightener
Single bend preceded by ≥ 9 diameters of straight pipe	10 Dia	N/A
Outflowing tee	10 Dia	N/A
Pipe size reduction before meter	10 Dia	N/A
Single bend preceded by ≤ 9 diameters of straight pipe	15 Dia	8 Dia
Expansion before meter	20 Dia	8 Dia
Multiple bends out of plane	30 Dia	13 Dia
Partially open valve	30 Dia	13 Dia
Control valve / P.R.V.	50 Dia	23 Dia

FLOW METER OPERATING RANGES

ONICON
FLOW AND ENERGY MEASUREMENT

Meter Flow Rates for Saturated Steam

Minimum and Maximum Saturated Steam Flow Rates @ Specific Operating Pressures									
Pressure (psig)	**5**	**15**	**50**	**75**	**100**	**150**	**200**	**300**	**Pressure (psig)**
Density (lb/ft³)	**0.0479**	**0.071**	**0.1497**	**0.2042**	**0.2578**	**0.3633**	**0.4680**	**0.6784**	**Density (lb/ft³)**
Meter Size in Inches	**FLOW RATE (lbs / hr)**								
½"	6.5 52	7.8 74	11.3 153	13.2 209	15 271	18 372	20 493	24 716	Minimum Maximum
3/4"	12 122	14.5 195	21 404	24.4 550	27 639	33 980	37 1163	45 1688	Minimum Maximum
1"	20 265	24 324	35 673	41 915	46 1386	54 1631	62 2525	74 3664	Minimum Maximum
1 ½"	49 650	59 955	85 1983	100 2698	112 3402	133 4807	151 6203	182 9000	Minimum Maximum
2"	82 1087	99 1596	143 3313	167 4509	187 5690	222 8033	253 10365	304 15040	Minimum Maximum
3"	183 2431	222 3570	319 7412	373 10085	419 12729	497 17969	565 23184	680 33642	Minimum Maximum
4"	318 4231	386 6214	556 12901	648 17554	728 22156	866 31276	983 40354	1184 58556	Minimum Maximum
6"	722 9594	875 14088	1260 29249	1470 39801	1652 50233	1962 70911	2229 91494	2685 132763	Minimum Maximum
8"	1264 16806	1532 24680	2208 51239	2575 69723	2893 87998	3438 124222	3905 160279	4704 232575	Minimum Maximum

Flow Rates for Water

Water Minimum and Maximum Flow Rates (GPM)									
Rate	**Meter Size (in)**								
	½	**¾**	**1**	**1 ½**	**2**	**3**	**4**	**6**	**8**
Min GPM	0.9	1.4	2.2	5.5	9.2	21	36	81	142
Max GPM	22	40	67	166	276	618	1076	2437	4270

METER ORDERING INFORMATION

Vortex Meter Codification = F-26AA-BCD-EFGH

AA = Meter Size in Inches

05 = ½"	04 = 4"
34 = ¾"	06 = 6"
01 = 1"	08 = 8"
15 = 1½"	10 = 10"
02 = 2"	12 = 12"
03 = 3"	

B = Connection Type

0 = Wafer
1 = ANSI Class 150 flange
3 = ANSI Class 300 flange
6 = ANSI Class 600 flange

C = Integral or Remote Mount Transmitter

1 = Integral Mount
2 = Remote Mount

D = Temperature / Pressure Compensation

0 = Integral temperature compensation
1 = Integral temperature & pressure sensor, 30 psia maximum
2 = Integral temperature & pressure sensor, 100 psia maximum
3 = Integral temperature & pressure sensor, 300 psia maximum
4 = Integral temperature & pressure sensor, 500 psia maximum
5 = Integral temperature & pressure sensor, 1500 psia maximum
9 = None

E = Input Power

0 = Loop powered (Only available with output signals option F=0)
1 = External 12-36 VDC powered
2 = External 85-240 VAC powered

F = Output Signals

0 = 4-20 mA output*, pulse output & frequency output
1 = 4-20 mA output, pulse output & frequency output, alarm output & MODBUS
2 = 4-20 mA output, pulse output & frequency output, alarm output & BACnet
3 = (3) 4-20 mA outputs, (3) alarm outputs, (1) pulse output (1) frequency output & MODBUS
4 = (3) 4-20 mA outputs, (3) alarm outputs, (1) pulse output (1) frequency output & BACnet
5 = (3) 4-20 mA outputs*, (3) alarm outputs, (1) pulse output (1) frequency output

G = Maximum Operating Temperature

0 = 500° F
1 = 750° F

H = Energy Meter

0 = None
1 = Gross energy meter
2 = Net energy meter (requires additional remote temperature sensor)

* Available with HART® serial communications

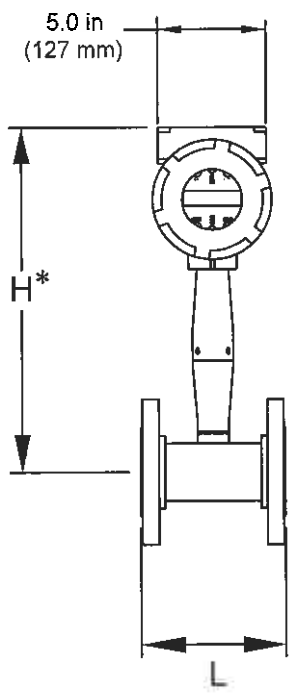
Remote Temperature Sensor and Thermowell Installation Kit

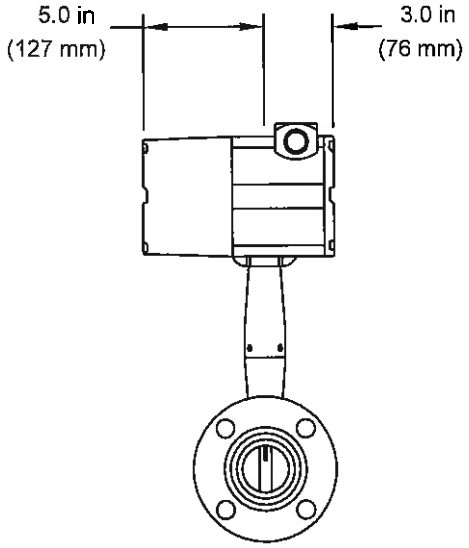
(Required for net energy meter)

Part Number	Description
20100	Remote Temperature Sensor, 1,000 Ω 4-wire Class A Platinum RTD
20101	Remote Thermowell Kit for 1½" Welded Steel Pipe
20102	Remote Thermowell Kit for 2" - 5" Welded Steel Pipe
20103	Remote Thermowell Kit for 6" - 14" Welded Steel Pipe

Note: Net energy meter requires one temperature sensor and one thermowell installation kit sized to pipe.

FLANGED METER DIMENSIONS & WEIGHTS

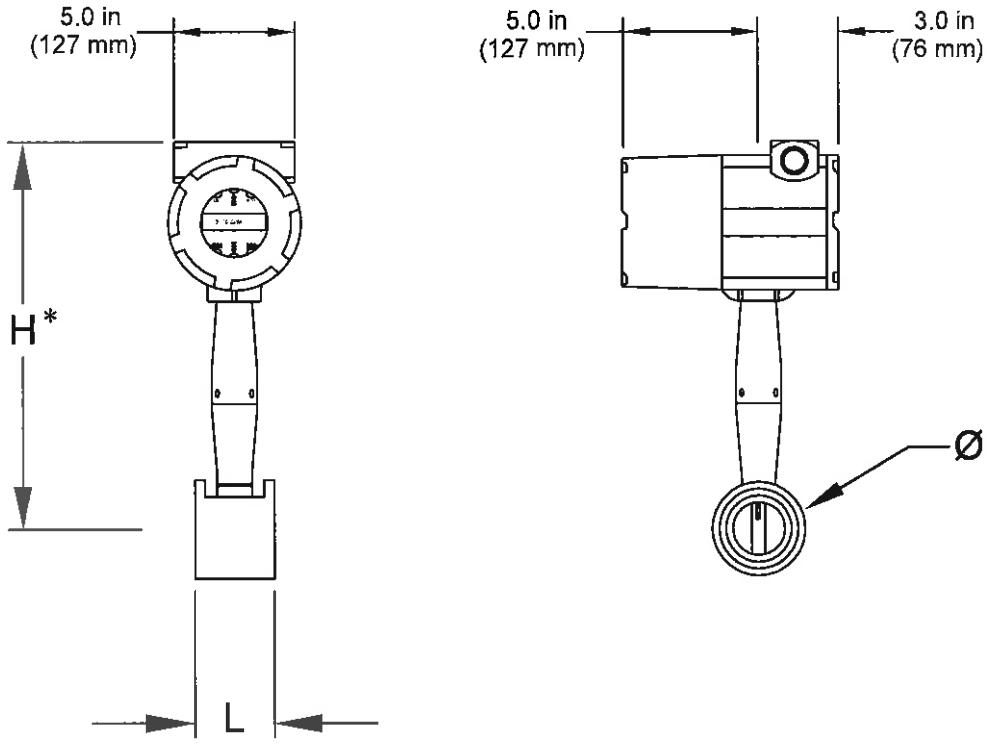




Flow Meter Size	L	H*	Weight		
			ANSI 150 (PN 16)	ANSI 300 (PN 40)	ANSI 600 (PN 64)
½" (15 mm)	7.90 in (200 mm)	13.3 in (338 mm)	13.6 Lb (6.2 Kg)	14.6 Lb (6.6 Kg)	15.2 Lb (6.9 Kg)
¾" (20 mm)	7.9 in (200 mm)	13.4 in (340 mm)	14.7 Lb (6.7 Kg)	17.1 Lb (7.8 Kg)	17.7 Lb (8.0 Kg)
1" (25 mm)	7.9 in (200 mm)	13.5 in (343 mm)	15.6 Lb (7.1 Kg)	18.0 Lb (8.2 Kg)	18.8 Lb (8.5 Kg)
1½" (40 mm)	7.9 in (200 mm)	13.8 in (351 mm)	19.0 Lb (8.6 Kg)	24.2 Lb (11.0 Kg)	26.2 Lb (11.9 Kg)
2" (50 mm)	7.9 in (200 mm)	14.0 in (356 mm)	23.2 Lb (10.5 Kg)	26.8 Lb (12.2 Kg)	30.2 Lb (13.7 Kg)
3" (80 mm)	7.9 in (200 mm)	14.5 in (368 mm)	34.8 Lb (15.8 mm)	43.4 Lb (19.7)	48.6 Lb (22.1 Kg)
4" (100 mm)	9.84 in (250 mm)	15.0 in (381 mm)	47.3 Lb (21.5 Kg)	66.5 Lb (30.2 Kg)	88.5 Lb (40.2 Kg)
6" (150 mm)	11.81 in (300 mm)	15.9 in (404 mm)	73.7 Lb (33.5 Kg)	110.5 Lb (50.2 Kg)	169.1 Lb (78.8 Kg)
8" (200 mm)	11.81 in (300 mm)	16.8 in (427 mm)	113.2 Lb (51.4 Kg)	167.2 Lb (75.9 Kg)	253.6 Lb (115.1 Kg)
10" (200 mm)	15.0 in (380 mm)	18.1 in (460 mm)	177.5 Lb (80.6 Kg)	256.7 Lb (116.5 Kg)	418.9 Lb (190.2 Kg)
12" (200 mm)	17.7 in (450 mm)	19.1 in (485 mm)	278.8 Lb (126.6 Kg)	385.6 Lb (175.1 Kg)	526.2 Lb (238.9 Kg)

*This Dimension is the same for integral and remote mount meters.

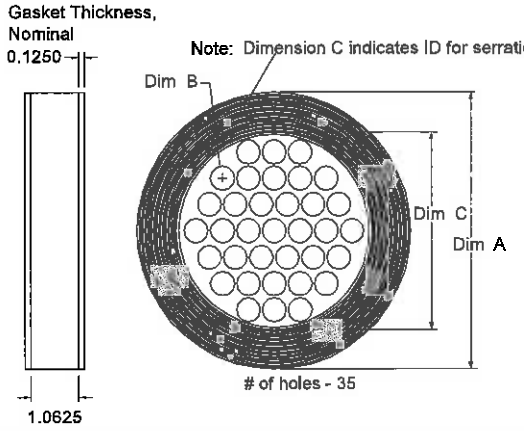
WAFER METER DIMENSIONS & WEIGHTS



				Weight
Flow Meter Size	L	H*	Ø	
½" (15 mm)	2.6 in (65 mm)	13.3 in (338 mm)	1.38 in (35 mm)	11.5 Lb (5.2 Kg)
¾" (20 mm)	2.6 in (65 mm)	13.4 in (340 mm)	1.69 in (42.9 mm)	11.9 Lb (5.4 Kg)
1" (25 mm)	2.6 in (65 mm)	13.5 in (343 mm)	2.00 in (50.8 mm)	12.2 Lb (5.5 Kg)
1½" (40 mm)	2.6 in (65 mm)	13.8 in (351 mm)	2.88 in (73.2 mm)	13.8 Lb (6.3 Kg)
2" (50 mm)	2.6 in (65 mm)	14.0 in (356 mm)	3.62 in (91.9 mm)	15.5 Lb (7.0 Kg)
3" (80 mm)	2.6 in (65 mm)	14.5 in (368 mm)	5.00 in (127.0 mm)	20.6 Lb (9.4 Kg)
4" (100 mm)	2.6 in (65 mm)	15.0 in (381 mm)	6.19 in (157.0 mm)	25.3 Lb (11.5 Kg)

*This Dimension is the same for integral and remote mount meters.

FLOW STRAIGHTENER



Diameter	Dim A	Dim B	Dim C	Part # Each
2" (50mm)	3.93	.28	2.14	14382
3" (80mm)	5.31	.43	3.24	14383
4" (100mm)	6.26	.55	4.22	14384
6" (150mm)	8.50	.78	6.07	14385
8" (200mm)	10.62	1.02	7.98	14386

PRESSURE TRANSDUCER OPTIONS

Full Scale Operating Pressure	Maximum Over Range Pressure
PSIa	PSIa
30	60
100	200
300	600
500	1000
1500	2500

Attachment 2 – Lighting Scope of Work

Building Number	ECM Code	Description	New Code	Description2	Part#	Cut Sheet #	Sum of Qty2
1	1V17	T8 2x2 1-Lamp Vanity Fixture	R 1L-10LED2'	Retrofit with (1) 10 Watt LED T8 2' Lamp; Direct Wire to Socket	KT-LED7T8-24GC-840-D	1	2
	1W17	T8 2x2 1-Lamp Wrap Fixture	R 1L-10LED2'	Retrofit with (1) 10 Watt LED T8 2' Lamp; Direct Wire to Socket	KT-LED7T8-24GC-840-D	1	1
	1W25-4'	T8 1x4 1-Lamp Wrap Fixture	R 1L-12.5LED	Retrofit with (1) 12.5 Watt LED T8 4' Lamps; Direct Wire to Socket	KT-LED10.5T8-48G-840-D	3	4
	2-90PAR38	90 Watt 2-Lamp Incandescent Par38 Fixture	LED 2-17P38	Re-Lamp with (2) 17 Watt LED PAR38	LP38/17/840/FL/D	17	1
	2B17(B)-DROPLENS	T8 2-Lamp Surface Mount Fixture; Drop Lens; Damaged/Missing Lens	N 2B-10LED2'	New 2x2 Box Fixture and (2) 10 Watt 2' LED T8 Lamps; Direct Wire to Socket	SF22-2x2-2-T8LED /// KT-LED7T8-24GC-840-D	44 + 1	1
	2B17-DROPLENS	T8 2-Lamp Surface Mount Fixture; Drop Lens	N 2B-10LED2'	New 2x2 Box Fixture and (2) 10 Watt 2' LED T8 Lamps; Direct Wire to Socket	SF22-2x2-2-T8LED /// KT-LED7T8-24GC-840-D	44 + 1	4
	2EC25-4'	T8 2x4 2-Lamp Egg Crate Fixture	N 2W-12.5LED	New 1x4 2-Lamp Wrap Fixture with (2) 12.5 Watt LED T8 4' Lamp; Direct Wire to Socket	CCW-4'-2-T8LED /// KT-LED10.5T8-48G-840-D	51 + 3	3
					N/A	N/A	2
	2PL13	13 Watt 2-Lamp Plug-In CFL Fixture	ZZ DD	No Retrofit	N/A	N/A	9
	2PL13CPY	13 Watt 2-Lamp Plug-In CFL Canopy Fixture	N RLED10CPY	New 10 Watt LED Canopy Fixture	VANLED10	25	3
	2PL13DR	13 Watt Plug-In CFL Drum Fixture	N LED14DR	New 12" Round 14 Watt LED Drum Fixture	54074143	19	24
	2PL13VAN	13 Watt 2-Lamp Plug-In CFL Vanity Fixture	N 2V-12.5LED	New 1x4 2-Lamp Vanity Fixture with (2) 12.5 Watt LED T8 4' Lamp; Direct Wire to Socket	VWF-4'-2-T8LED /// KT-LED10.5T8-48G-840-D	49 + 3	2
	2PL13WP	13 Watt 2-Lamp Plug-In CFL Wall Pack Fixture	N RLED12TWP	New 12 Watt LED Tall Wall Pack Fixture	ENTRA12	42	12
	2PL18WP	18 Watt 2-Lamp Plug-In CFL Wall Pack Fixture	N RLED12TWP	New 12 Watt LED Tall Wall Pack Fixture	ENTRA12	42	1
	2V17	T8 1x2 2-Lamp Vanity Fixture	R 2L-10LED2'	Retrofit with (2) 10 Watt LED T8 2' Lamps; Direct Wire to Socket	KT-LED7T8-24GC-840-D	1	1
	2W25(W)-4'	T8 1x4 2-Lamp Wrap Fixture; Damaged/Missing Lens	N 2W-12.5LED	New 1x4 2-Lamp Wrap Fixture with (2) 12.5 Watt LED T8 4' Lamp; Direct Wire to Socket	CCW-4'-2-T8LED /// KT-LED10.5T8-48G-840-D	51 + 3	1
	2W25-4'	T8 1x4 2-Lamp Wrap Fixture	R 2L-12.5LED	Retrofit with (2) 12.5 Watt LED T8 4' Lamps; Direct Wire to Socket	KT-LED10.5T8-48G-840-D	3	2
	4EC25-4'	T8 2x4 4-Lamp Egg Crate Fixture	N 4W-12.5LED	New 1x4 4-Lamp Wrap Fixture with (4) 12.5 Watt LED T8 4' Lamp; Direct Wire to Socket	CCW-4'-4-T8LED /// KT-LED10.5T8-48G-840-D	53 + 3	4
	4W25(W)-4'	T8 1x4 4-Lamp Wrap Fixture; Damaged/Missing Lens	N 4W-12.5LED	New 1x4 4-Lamp Wrap Fixture with (4) 12.5 Watt LED T8 4' Lamp; Direct Wire to Socket	CCW-4'-4-T8LED /// KT-LED10.5T8-48G-840-D	53 + 3	1
	4W25-4'	T8 1x4 4-Lamp Wrap Fixture	R 4L-12.5LED	Retrofit with (4) 12.5 Watt LED T8 4' Lamps; Direct Wire to Socket	KT-LED10.5T8-48G-840-D	3	30
	CF13	13 Watt Compact Fluorescent Fixture	LED 9A	Re-Lamp with (1) 9 Watt LED A19 Lamps	LA19/9/40K/D-46	8	7
	CF13RLM	13 Watt Compact Fluorescent RLM Fixture	LED 9A	Re-Lamp with (1) 9 Watt LED A19 Lamps	LA19/9/40K/D-46	8	1
	CF26	26 Watt Compact Fluorescent Fixture	LED 9A	Re-Lamp with (1) 9 Watt LED A19 Lamps	LA19/9/40K/D-46	8	7
	NO ACCESS	No Access	ZZ DD	No Retrofit	N/A	N/A	1
	X	25 Watt Incandescent 2-Lamp Exit Sign	N XLED	New 3 watt LED Exit Sign	ES-LED-RW-B	43	20
	XLED	3 Watt LED 2-Lamp Exit Sign	ZZ DD	No Retrofit	N/A	N/A	2
2	1W17	T8 2x2 1-Lamp Wrap Fixture	R 1L-10LED2'	Retrofit with (1) 10 Watt LED T8 2' Lamp; Direct Wire to Socket	KT-LED7T8-24GC-840-D	1	16
	1W25-4'	T8 1x4 1-Lamp Wrap Fixture	R 1L-12.5LED	Retrofit with (1) 12.5 Watt LED T8 4' Lamps; Direct Wire to Socket	KT-LED10.5T8-48G-840-D	3	9
	2EC25-4'	T8 2x4 2-Lamp Egg Crate Fixture	N 2W-12.5LED	New 1x4 2-Lamp Wrap Fixture with (2) 12.5 Watt LED T8 4' Lamp; Direct Wire to Socket	CCW-4'-2-T8LED /// KT-LED10.5T8-48G-840-D	51 + 3	1
	2L-LEDPAR	2-Lamp LED Par Fixture	ZZ DD	No Retrofit	N/A	N/A	1
	2PL13DR	13 Watt Plug-In CFL Drum Fixture	N LED14DR	New 12" Round 14 Watt LED Drum Fixture	54074143	19	25
	2PL13WP	13 Watt 2-Lamp Plug-In CFL Wall Pack Fixture	N RLED12TWP	New 12 Watt LED Tall Wall Pack Fixture	ENTRA12	42	4
	2PL26WP	26 Watt 2-Lamp Plug-In CFL Wall Pack Fixture	N RLED12TWP	New 12 Watt LED Tall Wall Pack Fixture	ENTRA12	42	1
	2W25-4'	T8 1x4 2-Lamp Wrap Fixture	R 2L-12.5LED	Retrofit with (2) 12.5 Watt LED T8 4' Lamps; Direct Wire to Socket	KT-LED10.5T8-48G-840-D	3	30
	4W25-4'	T8 1x4 4-Lamp Wrap Fixture	R 4L-12.5LED	Retrofit with (4) 12.5 Watt LED T8 4' Lamps; Direct Wire to Socket	KT-LED10.5T8-48G-840-D	3	4
	CF18	18 Watt Compact Fluorescent Fixture	LED 9A	Re-Lamp with (1) 9 Watt LED A19 Lamps	LA19/9/40K/D-46	8	1
	CF26	26 Watt Compact Fluorescent Fixture	LED 9A	Re-Lamp with (1) 9 Watt LED A19 Lamps	LA19/9/40K/D-46	8	1
	CF26RLM	26 Watt Compact Fluorescent RLM Fixture	LED 9A	Re-Lamp with (1) 9 Watt LED A19 Lamps	LA19/9/40K/D-46	8	7
	LOCKED	Locked	ZZ DD	No Retrofit	N/A	N/A	1
	X	25 Watt Incandescent 2-Lamp Exit Sign	N XLED	New 3 watt LED Exit Sign	ES-LED-RW-B	43	3
3	1V17	T8 2x2 1-Lamp Vanity Fixture	R 1L-10LED2'	Retrofit with (1) 10 Watt LED T8 2' Lamp; Direct Wire to Socket	KT-LED7T8-24GC-840-D	1	3
	1W25-4'	T8 1x4 1-Lamp Wrap Fixture	R 1L-12.5LED	Retrofit with (1) 12.5 Watt LED T8 4' Lamps; Direct Wire to Socket	KT-LED10.5T8-48G-840-D	3	8
	2EC25-4'	T8 2x4 2-Lamp Egg Crate Fixture	N 2W-12.5LED	New 1x4 2-Lamp Wrap Fixture with (2) 12.5 Watt LED T8 4' Lamp; Direct Wire to Socket	CCW-4'-2-T8LED /// KT-LED10.5T8-48G-840-D	51 + 3	1
	2L-LEDPAR	2-Lamp LED Par Fixture	ZZ DD	No Retrofit	N/A	N/A	1
	2PL13CPY	13 Watt 2-Lamp Plug-In CFL Canopy Fixture	N RLED10CPY	New 10 Watt LED Canopy Fixture	VANLED10	25	3
	2PL13DR	13 Watt Plug-In CFL Drum Fixture	N LED14DR	New 12" Round 14 Watt LED Drum Fixture	54074143	19	33
	2PL13DR-DA	13 Watt 2-Lamp Plug-In CFL Drum Fixture; Difficult Access	N LED14DR-DA	New 12" Round 14 Watt LED Drum Fixture; Difficult Access	54074143	19	1
	2PL13WP	13 Watt 2-Lamp Plug-In CFL Wall Pack Fixture	N RLED12TWP	New 12 Watt LED Tall Wall Pack Fixture	ENTRA12	42	11
	2PL26WP	26 Watt 2-Lamp Plug-In CFL Wall Pack Fixture	N RLED12TWP	New 12 Watt LED Tall Wall Pack Fixture	ENTRA12	42	2
	2W25-4'	T8 1x4 2-Lamp Wrap Fixture	R 2L-12.5LED	Retrofit with (2) 12.5 Watt LED T8 4' Lamps; Direct Wire to Socket	KT-LED10.5T8-48G-840-D	3	4
	3W25-4'	T8 1x4 3-Lamp Wrap Fixture	R 3L-12.5LED	Retrofit with (3) 12.5 Watt LED T8 4' Lamps; Direct Wire to Socket	KT-LED10.5T8-48G-840-D	3	36
	3W25-4'-DA	T8 1x4 3-Lamp Wrap Fixture; Difficult Access	R 3L-12.5LED-DA	Retrofit with (3) 12.5 Watt LED T8 4' Lamps; Direct Wire to Socket; Difficult Access	KT-LED10.5T8-48G-840-D	3	7
	4W25(W)-4'	T8 1x4 4-Lamp Wrap Fixture; Damaged/Missing Lens	N 4W-12.5LED	New 1x4 4-Lamp Wrap Fixture with (4) 12.5 Watt LED T8 4' Lamp; Direct Wire to Socket	CCW-4'-4-T8LED /// KT-LED10.5T8-48G-840-D	53 + 3	1
	CF18	18 Watt Compact Fluorescent Fixture	LED 9A	Re-Lamp with (1) 9 Watt LED A19 Lamps	LA19/9/40K/D-46	8	2
	MV175DTD	175 Watt Mercury Vapor Dusk to Dawn Fixture	N RLED26BY	New 26 Watt LED Dusk to Dawn Barnyard Fixture	YBLED26/PCT	28	1
	NOT IN USE	Not In Use	ZZ DD	No Retrofit	N/A	N/A	1
	SODA	Soda Vending Machine	VM170	New Soda Machine Vending Miser Occuancy Sensor	VM170	57	1
	X	25 Watt Incandescent 2-Lamp Exit Sign	N XLED	New 3 watt LED Exit Sign	ES-LED-RW-B	43	4
	XLED	3 Watt LED 2-Lamp Exit Sign	ZZ DD	No Retrofit	N/A	N/A	10
4	1W25-4'	T8 1x4 1-Lamp Wrap Fixture	R 1L-12.5LED	Retrofit with (1) 12.5 Watt LED T8 4' Lamps; Direct Wire to Socket	KT-LED10.5T8-48G-840-D	3	10
	2-40CANDLE-SCONCE	40 Watt 2-Lamp Incandescent Candelabra Sconce Fixture	LED 2-5CAND	Re-Lamp with (2) 5 Watt LED Candelabra	LCTC/5/830/D	12	7
	2-LEDPAR38HOLDER	2-Lamp LED Par Holder Fixture	ZZ DD	No Retrofit	N/A	N/A	1
	2PL13CPY-PC	13 Watt 2-Lamp Plug-In CFL Canopy Fixture; Photocell	N RLED10CPY-PC	New 10 Watt LED Canopy Fixture; Photocell	VANLED10/PCS2	26	4
	2PL13DR	13 Watt Plug-In CFL Drum Fixture	N LED14DR	New 12" Round 14 Watt LED Drum Fixture	54074143	19	33
	2PL13DR-DA	13 Watt 2-Lamp Plug-In CFL Drum Fixture; Difficult Access	N LED14DR-DA	New 12" Round 14 Watt LED Drum Fixture; Difficult Access	54074143	19	2
	2PL13SC	13 Watt 2-Lamp Plug-In CFL Sconce Fixture	RK KLED7-REC	Retrofit with (1) 7 Watt LED Rectangular Retrofit Kit	KT-RKIT-RP-6-800-840-UV /G2	54	14
	2PL13SQDR	13 Watt 2-Lamp Plug-In CFL Square Drum Fixture	N LED14SQDR	New Square 14 Watt LED Drum Fixture	54640142	18	4
	2PL13WP-PC-LARGE	13 Watt 2-Lamp Plug-In CFL Large Wall Pack Fixture; Photocell	N RLED12TWP	New 12 Watt LED Tall Wall Pack Fixture	ENTRA12	42	3
	2PL13WP-PC-SMALL	13 Watt 2-Lamp Plug-In CFL Small Wall Pack Fixture; Photocell	N RLED12TWP	New 12 Watt LED Tall Wall Pack Fixture	ENTRA12	42	14
	40CANDLE-SCONCE	40 Watt Incandescent Candelabra Sconce Fixture	LED 5CAND	Re-Lamp with (1) 5 Watt LED Candelabra	LCTC/5/830/D	12	3
	4-40CANDLE-CHAND	40 Watt 4-Lamp Incandescent Candelabra Sconce Fixture	LED 4-5CAND	Re-Lamp with (4) 5 Watt LED Candelabra	LCTC/5/830/D	12	5
	6-40CANDLE-CHAND	40 Watt 6-Lamp Candelabra Chandelier Fixture	LED 6-5CAND	Re-Lamp with (6) 5 Watt LED Candelabra Lamps	LCTC/5/830/D	12	1
	CF20	20 Watt Compact Fluorescent Fixture	LED 9A	Re-Lamp with (1) 9 Watt LED A19 Lamps	LA19/9/40K/D-46	8	1
	CF20JJ	20 Watt Compact Fluorescent Jelly Jar Fixture	LED 9A	Re-Lamp with (1) 9 Watt LED A19 Lamps	LA19/9/40K/D-46	8	6
	X	25 Watt Incandescent 2-Lamp Exit Sign	N XLED	New 3 watt LED Exit Sign	ES-LED-RW-B	43	22
5	100A	100 Watt Incandescent A-Lamp Fixture	LED 15A	Re-Lamp with (1) 15 Watt LED A19 Lamp	LA21/16/40K/D-46	9	3
	100JJ(JJ)	100 Watt Incandescent Jelly Jar Fixture; Damaged/Missing Lens	N LED15AJJ	New Jelly Jar Fixture with (1) 15 Watt LED A19	CJJ/WJJ /// LA21/16/40K/D-46	46 + 9	1
	150A	150 Watt Incandescent A-Lamp Fixture	LED 15A	Re-Lamp with (1) 15 Watt LED A19 Lamp	LA21/16/40K/D-46	9	1
	1I25-4'	T8 1x4 1-Lamp Industrial Strip Fixture	R 1L-12.5LED	Retrofit with (1) 12.5 Watt LED T8 4' Lamps; Direct Wire to Socket	KT-LED10.5T8-48G-840-D	3	7
	1S25	T8 2x3 1-Lamp Strip Fixture	R 1L-12LED3'	Retrofit with (1) 12 Watt LED T8 3' Lamp; Direct Wire to Socket	KT-LED12T8-36GC-840-D	2	4
	1V17	T8 2x2 1-Lamp Vanity Fixture	R 1L-10LED2'	Retrofit with (1) 10 Watt LED T8 2' Lamp; Direct Wire to Socket	KT-LED7T8-24GC-840-D	1	7
	1V25(V)-4'	T8 1x4 1-Lamp Vanity Fixture; Damaged/Missing Lens	N 1V-12.5LED	New 1x4 1-Lamp Vanity Fixture with (1) 12.5 Watt LED T8 4' Lamp; Direct Wire to Socket	VWF-4'-1-T8LED /// KT-LED10.5T8-48G-840-D	48 + 3	2
	1V25-4'	T8 1x4 1-Lamp Vanity Fixture	R 1L-12.5LED	Retrofit with (1) 12.5 Watt LED T8 4' Lamps; Direct Wire to Socket	KT-LED10.5T8-48G-840-D	3	5
	1W17	T8 2x2 1-Lamp Wrap Fixture	R 1L-10LED2'	Retrofit with (1) 10 Watt LED T8 2' Lamp; Direct Wire to Socket	KT-LED7T8-24GC-840-D	1	221
	1W17-DA	T8 1x2 1-Lamp Wrap Fixture; Difficult Access	R 1L-10LED2'-DA	Retrofit with (1) 10 Watt LED T8 2' Lamp; Direct Wire to Socket; Difficult Access	KT-LED7T8-24GC-840-D	1	1
	1W25-4'	T8 1x4 1-Lamp Wrap Fixture	R 1L-12.5LED	Retrofit with (1) 12.5 Watt LED T8 4' Lamps; Direct Wire to Socket	KT-LED10.5T8-48G-840-D	3	6
	2-60DR	60 Watt 2-Lamp Incandescent A-Lamp Drum Fixture	LED 2-9A	Re-Lamp with (2) 9 Watt LED A19 Lamps	LA19/9/40K/D-46	8	1
	2CF18	18 Watt 2-Lamp Compact Fluorescent Fixture	LED 2-9A	Re-Lamp with (2) 9 Watt LED A19 Lamps	LA19/9/40K/D-46	8	1
	2EC25(EC)-4'	T8 2x4 2-Lamp Egg Crate Fixture; Damaged/Missing Lens	N 2W-12.5LED	New 1x4 2-Lamp Wrap Fixture with (2) 12.5 Watt LED T8 4' Lamp; Direct Wire to Socket	CCW-4'-2-T8LED /// KT-LED10.5T8-48G-840-D	51 + 3	1
	2EC25-4'	T8 2x4 2-Lamp Egg Crate Fixture	N 2W-12.5LED	New 1x4 2-Lamp Wrap Fixture with (2) 12.5 Watt LED T8 4' Lamp; Direct Wire to Socket	CCW-4'-2-T8LED /// KT-LED10.5T8-48G-840-D	51 + 3	143
	2EC25-4'-DA	T8 2x4 2-Lamp Egg Crate Fixture; Difficult Access	N 2W-12.5LED-DA	New 1x4 2-Lamp Wrap Fixture with (2) 12.5 Watt LED T8 4' Lamp; Direct Wire to Socket; Difficult Access	CCW-4'-2-T8LED /// KT-LED10.5T8-48G-840-D	51 + 3	2
	2EC40	T12 2x4 2-Lamp Egg Crate Fixture	N 2W-12.5LED	New 1x4 2-Lamp Wrap Fixture with (2) 12.5 Watt LED T8 4' Lamp; Direct Wire to Socket	CCW-4'-2-T8LED /// KT-LED10.5T8-48G-840-D	51 + 3	1
	2L17	T8 2x2 2-Lamp Troffer Fixture	R 1L-10LED2'	Retrofit with (1) 10 Watt LED T8 2' Lamp; Direct Wire to Socket	KT-LED7T8-24GC-840-D	1	2

2L17	T8 2x2 2-Lamp Troffer Fixture	**R 2L-10LED2'**	Retrofit with (2) 10 Watt LED T8 2' Lamps; Direct Wire to Socket	**KT-LED7T8-24GC-840-D**	1	7
2L25(L)-1X4	T8 1x4 2-Lamp Troffer Fixture; Damaged/Missing Lens	**N 2L-12.5LED-1X4**	New 1x4 2-Lamp Lay-In Troffer Fixture with (2) 12.5 Watt LED T8 4' Lamp; Direct Wire to Socket	**RFN14-1X4-2-T8LED /// KT-LED10.5T8-48G-840-D**	47 + 3	9
2L25-1X4	T8 1x4 2-Lamp Troffer Fixture	**R 2L-12.5LED**	Retrofit with (2) 12.5 Watt LED T8 4' Lamps; Direct Wire to Socket	**KT-LED10.5T8-48G-840-D**	3	223
2L25-4'	T8 2x4 2-Lamp Troffer Fixture	**R 2L-12.5LED**	Retrofit with (2) 12.5 Watt LED T8 4' Lamps; Direct Wire to Socket	**KT-LED10.5T8-48G-840-D**	3	21
2LU32	T8 2x2 2-Lamp U-Lamp Troffer Fixture with 6" Lamps	**RF 2LR-10LED2'**	Retrofit with (2) 10 Watt LED T8 2' Lamps and (1) 2x2 2-Lamp White Reflector Kit; Direct Wire to Socket	**KT-LED7T8-24GC-840-D /// R-2-21-2-T8-X-W-X-X**	1 + 55	2
2-PAR-EMPTYHOLDER	2-Lamp Empty Par Holder Fixture	**LED 2-17PAR38**	Re-Lamp with (2) 17 Watt LED PAR38	**LP38/17/840/FL/D**	17	1
2PL13DR	13 Watt Plug-In CFL Drum Fixture	**N LED14DR**	New 12" Round 14 Watt LED Drum Fixture	**54074143**	19	40
2PL13SC	13 Watt Plug-In CFL sconce Fixture	**RK KLED7-REC**	Retrofit with (1) 7 Watt LED Rectangular Retrofit Kit	**KT-RKIT-RP-6-800-840-UV /G2**	54	14
2PL13SQDL-8X8	13 Watt 2-Lamp Plug-In CFL Square Downlight Fixture; 8x8	**RK KLED7-REC**	Retrofit with (1) 7 Watt LED Rectangular Retrofit Kit	**KT-RKIT-RP-6-800-840-UV /G2**	54	23
2PL13SQDL-8X8-(L)	13 Watt 2-Lamp Plug-In CFL Square Downlight Fixture; 8x8; Damaged/Missing Lens	**R GLED13SQDL-8X8**	Retrofit with (1) 13 Watt 8x8 Square LED Downlight	**LRX-S8-10-8-40-MD**	21	1
2PL13WP	13 Watt 2-Lamp Plug-In CFL Wall Pack Fixture	**N RLED12TWP**	New 12 Watt LED Tall Wall Pack Fixture	**ENTRA12**	42	11
2PL13WP-CM	13 Watt 2-Lamp Plug-In CFL Wall Pack Fixture; Ceiling Mount	**N RLED24WP**	New 24 Watt LED Wall Pack Fixture	**WP2LED24**	40	1
2PL26CPY	26 Watt 2-Lamp Plug-In CFL Canopy Fixture	**N RLED20CPY**	New 20 Watt LED Canopy Fixture	**VANLED20**	27	1
2V17	T8 1x2 2-Lamp Vanity Fixture	**R 1L-10LED2'**	Retrofit with (1) 10 Watt LED T8 2' Lamp; Direct Wire to Socket	**KT-LED7T8-24GC-840-D**	1	4
		R 2L-10LED2'	Retrofit with (2) 10 Watt LED T8 2' Lamps; Direct Wire to Socket	**KT-LED7T8-24GC-840-D**	1	31
2V25-4'	T8 1x4 2-Lamp Vanity Fixture	**R 2L-12.5LED**	Retrofit with (2) 12.5 Watt LED T8 4' Lamps; Direct Wire to Socket	**KT-LED10.5T8-48G-840-D**	3	22
2VT25-4'	T8 1x4 2-Lamp Vaportight Fixture	**R 2L-12.5LED**	Retrofit with (2) 12.5 Watt LED T8 4' Lamps; Direct Wire to Socket	**KT-LED10.5T8-48G-840-D**	3	42
2W25(W)-4'	T8 1x4 2-Lamp Wrap Fixture; Damaged/Missing Lens	**N 2W-12.5LED**	New 1x4 2-Lamp Wrap Fixture with (2) 12.5 Watt LED T8 4' Lamp; Direct Wire to Socket	**CCW-4'-2-T8LED /// KT-LED10.5T8-48G-840-D**	51 + 3	5
2W25-4'	T8 1x4 2-Lamp Wrap Fixture	**R 2L-12.5LED**	Retrofit with (2) 12.5 Watt LED T8 4' Lamps; Direct Wire to Socket	**KT-LED10.5T8-48G-840-D**	3	106
3CF13DR-DECO	13 Watt 3-Lamp Compact Fluorescent Decorative Drum Fixture	**LED 3-9A**	Re-Lamp with (3) 9 Watt LED A19 Lamps	**LA19/9/40K/D-46**	8	5
3L17	T8 2x2 3-Lamp Troffer Fixture	**R 3L-10LED2'**	Retrofit with (3) 10 Watt LED T8 2' Lamps; Direct Wire to Socket	**KT-LED7T8-24GC-840-D**	1	8
3L25	T8 2x3 3-Lamp Troffer Fixture	**R 3L-12LED3'**	Retrofit with (3) 12 Watt LED T8 3' Lamps; Direct Wire to Socket	**KT-LED12T8-36GC-840-D**	2	18
3L25-4'	T8 2x4 3-Lamp Troffer Fixture	**R 3L-12.5LED**	Retrofit with (3) 12.5 Watt LED T8 4' Lamps; Direct Wire to Socket	**KT-LED10.5T8-48G-840-D**	3	113
3L25-4'-BI	T8 2x4 3-Lamp Troffer Fixture; Bi-Level	**R 3L-12.5LED**	Retrofit with (3) 12.5 Watt LED T8 4' Lamps; Direct Wire to Socket	**KT-LED10.5T8-48G-840-D**	3	6
3PL13DR	13 Watt 3-Lamp Plug-In CFL Drum Fixture	**N LED22DR**	New 16" Round 22 Watt LED Drum Fixture	**54075142**	20	18
3W25-4'	T8 1x4 3-Lamp Wrap Fixture	**R 3L-12.5LED**	Retrofit with (3) 12.5 Watt LED T8 4' Lamps; Direct Wire to Socket	**KT-LED10.5T8-48G-840-D**	3	17
4EC25(EC)-4'	T8 2x4 4-Lamp Egg Crate Fixture; Damaged/Missing Lens	**N 4W-12.5LED**	New 1x4 4-Lamp Wrap Fixture with (4) 12.5 Watt LED T8 4' Lamp; Direct Wire to Socket	**CCW-4'-4-T8LED /// KT-LED10.5T8-48G-840-D**	53 + 3	2
4EC25-4'	T8 2x4 4-Lamp Egg Crate Fixture	**N 4W-12.5LED**	New 1x4 4-Lamp Wrap Fixture with (4) 12.5 Watt LED T8 4' Lamp; Direct Wire to Socket	**CCW-4'-4-T8LED /// KT-LED10.5T8-48G-840-D**	53 + 3	69
4EC25-4'-DA	T8 2x4 4-Lamp Egg Crate Fixture; Difficult Access	**N 4W-12.5LED-DA**	New 1x4 4-Lamp Wrap Fixture with (4) 12.5 Watt LED T8 4' Lamp; Direct Wire to Socket; Difficult Access	**CCW-4'-4-T8LED /// KT-LED10.5T8-48G-840-D**	53 + 3	1
4L25-4'	T8 2x4 4-Lamp Troffer Fixture	**R 4L-12.5LED**	Retrofit with (4) 12.5 Watt LED T8 4' Lamps; Direct Wire to Socket	**KT-LED10.5T8-48G-840-D**	3	40
4L25-4'-BI	T8 2x4 4-Lamp Troffer Fixture; Bi-Level	**R 4L-12.5LED**	Retrofit with (4) 12.5 Watt LED T8 4' Lamps; Direct Wire to Socket	**KT-LED10.5T8-48G-840-D**	3	2
4L34-BI	T12 2x4 4-Lamp Troffer Fixture; Bi-Level	**R 4L-12.5LED**	Retrofit with (4) 12.5 Watt LED T8 4' Lamps; Direct Wire to Socket	**KT-LED10.5T8-48G-840-D**	3	2
4W25(W)-4'	T8 1x4 4-Lamp Wrap Fixture; Damaged/Missing Lens	**N 4W-12.5LED**	New 1x4 4-Lamp Wrap Fixture with (4) 12.5 Watt LED T8 4' Lamp; Direct Wire to Socket	**CCW-4'-4-T8LED /// KT-LED10.5T8-48G-840-D**	53 + 3	1
4W25-4'	T8 1x4 4-Lamp Wrap Fixture	**R 4L-12.5LED**	Retrofit with (4) 12.5 Watt LED T8 4' Lamps; Direct Wire to Socket	**KT-LED10.5T8-48G-840-D**	3	24
60A	60 Watt Incandescent A-Lamp Fixture	**LED 9A**	Re-Lamp with (1) 9 Watt LED A19 Lamps	**LA19/9/40K/D-46**	8	42
60G	60 Watt Incandescent Globe Fixture	**LED 8GLOBE**	Re-Lamp with (1) 8 Watt LED G25 Globe	**LG25/6/827/D**	13	1
60G-HALO	60 Watt Incandescent Globe Fixture; Halo	**LED 8GLOBE**	Re-Lamp with (1) 8 Watt LED G25 Globe	**LG25/6/827/D**	13	3
60SC	60 Watt Incandescent Sconce Fixture	**LED 9A**	Re-Lamp with (1) 9 Watt LED A19 Lamps	**LA19/9/40K/D-46**	8	203
60SQDL-10X10	60 Watt Incandescent Square Downlight Fixture; 10x10	**LED 9A**	Re-Lamp with (1) 9 Watt LED A19 Lamps	**LA19/9/40K/D-46**	8	1
75JJ(JJ)	75 Watt Incandescent Jelly Jar Fixture; Damaged/Missing Lens	**N LED9AJJ**	New Jelly Jar Fixture with (1) 9 Watt LED A19	**CJJ/WJJ /// LA19/9/40K/D-46**	46 + 8	1
7CF13CHAND	13 Watt 7-Lamp Compact Fluorescent Chandelier Fixture	**LED 7-9A**	Re-Lamp with (7) 9 Watt LED A19 Lamps	**LA19/9/40K/D-46**	8	2
CF13	13 Watt Compact Fluorescent Fixture	**LED 9A**	Re-Lamp with (1) 9 Watt LED A19 Lamps	**LA19/9/40K/D-46**	8	15
CF13CPY-HALO	13 Watt Compact Fluorescent Canopy Fixture; Halo	**LED 9A**	Re-Lamp with (1) 9 Watt LED A19 Lamps	**LA19/9/40K/D-46**	8	7
CF13DL10	13 Watt Compact Fluorescent 10" Downlight Fixture	**R LLED9DL10**	Retrofit with 9 Watt LED 10" Downlight Kit	**LDN10RV 40/05 LR6AR LSS MVOLT EZ10**	23	11
CF13DR-HALO	13 Watt Compact Fluorescent Drum Fixture; Halo	**LED 9A**	Re-Lamp with (1) 9 Watt LED A19 Lamps	**LA19/9/40K/D-46**	8	2
CF13G	13 Watt Compact Fluorescent Globe Fixture	**LED 8GLOBE**	Re-Lamp with (1) 8 Watt LED G25 Globe	**LG25/6/827/D**	13	1
CF13JJ	13 Watt Compact Fluorescent Jelly Jar Fixture	**LED 9A**	Re-Lamp with (1) 9 Watt LED A19 Lamps	**LA19/9/40K/D-46**	8	1
CF13SC	13 Watt Compact Fluorescent Sconce Fixture	**LED 9A**	Re-Lamp with (1) 9 Watt LED A19 Lamps	**LA19/9/40K/D-46**	8	1
CF13SQDL-10X10	13 Watt Compact Fluorescent Square Downlight Fixture; 10x10	**LED 9A**	Re-Lamp with (1) 9 Watt LED A19 Lamps	**LA19/9/40K/D-46**	8	5
CF13SQDL-8X8	13 Watt Compact Fluorescent Square Downlight Fixture; 8x8	**LED 9A**	Re-Lamp with (1) 9 Watt LED A19 Lamps	**LA19/9/40K/D-46**	8	7
CF18	18 Watt Compact Fluorescent Fixture	**LED 9A**	Re-Lamp with (1) 9 Watt LED A19 Lamps	**LA19/9/40K/D-46**	8	14
CF18JJ(JJ)	18 Watt Compact Fluorescent Jelly Jar Fixture; Damaged/Missing Lens	**N LED9AJJ**	New Jelly Jar Fixture with (1) 9 Watt LED A19	**CJJ/WJJ /// LA19/9/40K/D-46**	46 + 8	1
CF18RLM	18 Watt Compact Fluorescent RLM Fixture	**LED 9A**	Re-Lamp with (1) 9 Watt LED A19 Lamps	**LA19/9/40K/D-46**	8	9
CF18SQDL-10X10	18 Watt Compact Fluorescent Square Downlight Fixture; 10x10	**LED 9A**	Re-Lamp with (1) 9 Watt LED A19 Lamps	**LA19/9/40K/D-46**	8	2
CF23	23 Watt Compact Fluorescent Fixture	**LED 9A**	Re-Lamp with (1) 9 Watt LED A19 Lamps	**LA19/9/40K/D-46**	8	2
CF26	26 Watt Compact Fluorescent Fixture	**LED 9A**	Re-Lamp with (1) 9 Watt LED A19 Lamps	**LA19/9/40K/D-46**	8	15
CF26DL-12X12	26 Watt Compact Fluorescent Downlight Fixture; 12x12	**LED 9A**	Re-Lamp with (1) 9 Watt LED A19 Lamps	**LA19/9/40K/D-46**	8	1
CF26DL-8X8	26 Watt Compact Fluorescent Downlight Fixture; 8x8	**LED 9A**	Re-Lamp with (1) 9 Watt LED A19 Lamps	**LA19/9/40K/D-46**	8	2
CF26RLM	26 Watt Compact Fluorescent RLM Fixture	**LED 9A**	Re-Lamp with (1) 9 Watt LED A19 Lamps	**LA19/9/40K/D-46**	8	14
CF65	65 Watt Compact Fluorescent Fixture	**LED 9A**	Re-Lamp with (1) 9 Watt LED A19 Lamps	**LA19/9/40K/D-46**	8	1
LEDWP-DIM	LED Wall Pack Fixture; Dimming	**ZZ DD**	No Retrofit	**N/A**	N/A	5
PL13DL	13 Watt Plug-In CFL Downlight Fixture	**R LLED9DL6**	Retrofit with 9 Watt LED 6" Downlight Kit	**LDN6RV 40/05 LR6AR LSS MVOLT EZ10**	22	8
PL13DR	13 Watt Plug-In CFL Drum Fixture	**N LED14DR**	New 12" Round 14 Watt LED Drum Fixture	**54074143**	19	2
XLED	3 Watt LED 2-Lamp Exit Sign	**ZZ DD**	No Retrofit	**N/A**	N/A	50
100A	100 Watt Incandescent A-Lamp Fixture	**LED 15A**	Re-Lamp with (1) 15 Watt LED A19 Lamp	**LA21/16/40K/D-46**	9	1
100JJ	100 Watt Incandescent A-Lamp Jelly Jar Fixture	**LED 15A**	Re-Lamp with (1) 15 Watt LED A19 Lamp	**LA21/16/40K/D-46**	9	1
100JJ(JJ)	100 Watt Incandescent Jelly Jar Fixture; Damaged/Missing Lens	**N LED15AJJ**	New Jelly Jar Fixture with (1) 15 Watt LED A19	**CJJ/WJJ /// LA21/16/40K/D-46**	46 + 9	2
		N RLED26JJ	New 26 Watt LED Jelly Jar Fixture	**VXBRLED26NDG**	39	4
100SQDL-10X10	100 Watt Incandescent Square Downlight Fixture; 10x10	**LED 15A**	Re-Lamp with (1) 15 Watt LED A19 Lamp	**LA21/16/40K/D-46**	9	1
150JJ	150 Watt Incandescent Jelly Jar Fixture	**LED 15A**	Re-Lamp with (1) 15 Watt LED A19 Lamp	**LA21/16/40K/D-46**	9	5
150JJ(JJ)	150 Watt Incandescent Jelly Jar Fixture; Damaged/Missing Lens	**N LED15AJJ**	New Jelly Jar Fixture with (1) 15 Watt LED A19	**CJJ/WJJ /// LA21/16/40K/D-46**	46 + 9	1
1I25	T8 2x3 1-Lamp Industrial Strip Fixture	**R 1L-12LED3'**	Retrofit with (1) 12 Watt LED T8 3' Lamp; Direct Wire to Socket	**KT-LED12T8-36GC-840-D**	2	1
1S17	T8 2x2 1-Lamp Strip Fixture	**R 1L-10LED2'**	Retrofit with (1) 10 Watt LED T8 2' Lamp; Direct Wire to Socket	**KT-LED7T8-24GC-840-D**	1	16
1S25	T8 2x3 1-Lamp Strip Fixture	**R 1L-12LED3'**	Retrofit with (1) 12 Watt LED T8 3' Lamp; Direct Wire to Socket	**KT-LED12T8-36GC-840-D**	2	32
1UC25	T8 2x3 1-Lamp Under Cabinet Wrap Fixture	**R 1L-12LED3'**	Retrofit with (1) 12 Watt LED T8 3' Lamp; Direct Wire to Socket	**KT-LED12T8-36GC-840-D**	2	5
1V25-4'	T8 1x4 1-Lamp Vanity Fixture	**R 1L-12.5LED**	Retrofit with (1) 12.5 Watt LED T8 4' Lamps; Direct Wire to Socket	**KT-LED10.5T8-48G-840-D**	3	2
1W17	T8 2x2 1-Lamp Wrap Fixture	**R 1L-10LED2'**	Retrofit with (1) 10 Watt LED T8 2' Lamp; Direct Wire to Socket	**KT-LED7T8-24GC-840-D**	1	55
1W17-DA	T8 1x2 1-Lamp Wrap Fixture; Difficult Access	**R 1L-10LED2'-DA**	Retrofit with (1) 10 Watt LED T8 2' Lamp; Direct Wire to Socket; Difficult Access	**KT-LED7T8-24GC-840-D**	1	1
1W20	T12 2x2 1-Lamp Wrap Fixture	**R 1L-10LED2'**	Retrofit with (1) 10 Watt LED T8 2' Lamp; Direct Wire to Socket	**KT-LED7T8-24GC-840-D**	1	1
200RLM	200 Watt Incandescent RLM Fixture	**N 2I-12.5LED**	New 1x4 2-Lamp Industrial Fixture with (2) 12.5 Watt LED T8 4' Lamp; Direct Wire to Socket	**OCF-4'-2-T8LED /// KT-LED10.5T8-48G-840-D**	45 + 3	1
200SQDL-14X14	200 Watt Incandescent Square Downlight Fixture; 14x14	**LED 15A**	Re-Lamp with (1) 15 Watt LED A19 Lamp	**LA21/16/40K/D-46**	9	60
2-60A	60 Watt Incandescent 2-Lamp Fixture	**LED 2-9A**	Re-Lamp with (2) 9 Watt LED A19 Lamps	**LA19/9/40K/D-46**	8	5
2B25-1X4	T8 1x4 2-Lamp Surface Mount Fixture	**R 2L-12.5LED**	Retrofit with (2) 12.5 Watt LED T8 4' Lamps; Direct Wire to Socket	**KT-LED10.5T8-48G-840-D**	3	98
2B25-1X4-DA	T8 1x4 2-Lamp Surface Mount Fixture; Difficult Access	**R 2L-12.5LED-DA**	Retrofit with (2) 12.5 Watt LED T8 4' Lamps; Direct Wire to Socket; Difficult Access	**KT-LED10.5T8-48G-840-D**	3	130
2CF13DR	13 Watt 2-Lamp Compact Fluorescent Drum Fixture	**N LED14DR**	New 12" Round 14 Watt LED Drum Fixture	**54074143**	19	3
2EC25(EC)-4'	T8 2x4 2-Lamp Egg Crate Fixture; Damaged/Missing Lens	**N 2W-12.5LED**	New 1x4 2-Lamp Wrap Fixture with (2) 12.5 Watt LED T8 4' Lamp; Direct Wire to Socket	**CCW-4'-2-T8LED /// KT-LED10.5T8-48G-840-D**	51 + 3	16
2EC25-4'	T8 2x4 2-Lamp Egg Crate Fixture	**N 2W-12.5LED**	New 1x4 2-Lamp Wrap Fixture with (2) 12.5 Watt LED T8 4' Lamp; Direct Wire to Socket	**CCW-4'-2-T8LED /// KT-LED10.5T8-48G-840-D**	51 + 3	162
2EC25-4'-DA	T8 2x4 2-Lamp Egg Crate Fixture; Difficult Access	**N 2W-12.5LED-DA**	New 1x4 2-Lamp Wrap Fixture with (2) 12.5 Watt LED T8 4' Lamp; Direct Wire to Socket; Difficult Access	**CCW-4'-2-T8LED /// KT-LED10.5T8-48G-840-D**	51 + 3	2
2L17	T8 2x2 2-Lamp Troffer Fixture	**R 2L-10LED2'**	Retrofit with (2) 10 Watt LED T8 2' Lamps; Direct Wire to Socket	**KT-LED7T8-24GC-840-D**	1	4
2L25-1X4	T8 1x4 2-Lamp Troffer Fixture	**R 2L-12.5LED**	Retrofit with (2) 12.5 Watt LED T8 4' Lamps; Direct Wire to Socket	**KT-LED10.5T8-48G-840-D**	3	92
2L25-1X4-DA	T8 1x4 2-Lamp Troffer Fixture; Difficult Access	**R 2L-12.5LED-DA**	Retrofit with (2) 12.5 Watt LED T8 4' Lamps; Direct Wire to Socket; Difficult Access	**KT-LED10.5T8-48G-840-D**	3	28
2L25-4'	T8 2x4 2-Lamp Troffer Fixture	**R 2L-12.5LED**	Retrofit with (2) 12.5 Watt LED T8 4' Lamps; Direct Wire to Socket	**KT-LED10.5T8-48G-840-D**	3	19
2L34-1X4	T12 1x4 2-Lamp Fixture	**R 2L-12.5LED**	Retrofit with (2) 12.5 Watt LED T8 4' Lamps; Direct Wire to Socket	**KT-LED10.5T8-48G-840-D**	3	2
2PL13DL	13 Watt Plug-In CFL 2-Lamp Downlight Fixture	**R LLED9DL6**	Retrofit with 9 Watt LED 6" Downlight Kit	**LDN6RV 40/05 LR6AR LSS MVOLT EZ10**	22	4
2PL13DR	13 Watt Plug-In CFL Drum Fixture	**N LED14DR**	New 12" Round 14 Watt LED Drum Fixture	**54074143**	19	15
2PL13WP-CM	13 Watt 2-Lamp Plug-In CFL Wall Pack Fixture; Ceiling Mount	**N RLED24WP**	New 24 Watt LED Wall Pack Fixture	**WP2LED24**	40	2

2S25-4'	T8 1x4 2-Lamp Strip Fixture	**R 2L-12.5LED**	Retrofit with (2) 12.5 Watt LED T8 4' Lamps; Direct Wire to Socket	**KT-LED10.5T8-48G-840-D**	3	4
2W25-4'	T8 1x4 2-Lamp Wrap Fixture	**R 2L-12.5LED**	Retrofit with (2) 12.5 Watt LED T8 4' Lamps; Direct Wire to Socket	**KT-LED10.5T8-48G-840-D**	3	1
3PL13DR	13 Watt 3-Lamp Plug-In CFL Drum Fixture	**N LED22DR**	New 16" Round 22 Watt LED Drum Fixture	**54075142**	20	24
3W25	T8 2x3 3-Lamp Wrap Fixture	**R 3L-12.5LED**	Retrofit with (3) 12.5 Watt LED T8 4' Lamps; Direct Wire to Socket	**KT-LED10.5T8-48G-840-D**	3	2
3W25(W)-4'	T8 1x4 3-Lamp Wrap Fixture; Damaged/Missing Lens	**N 3W-12.5LED**	New 1x4 3-Lamp Wrap Fixture with (3) 12.5 Watt LED T8 4' Lamp; Direct Wire to Socket	**CCW-4'-3-T8LED /// KT-LED10.5T8-48G-840-D**	52 + 3	1
3W25-4'	T8 1x4 3-Lamp Wrap Fixture	**R 3L-12.5LED**	Retrofit with (3) 12.5 Watt LED T8 4' Lamps; Direct Wire to Socket	**KT-LED10.5T8-48G-840-D**	3	16
4B25-4'	T8 2x4 4-Lamp Surface Mount Fixture	**R 4L-12.5LED**	Retrofit with (4) 12.5 Watt LED T8 4' Lamps; Direct Wire to Socket	**KT-LED10.5T8-48G-840-D**	3	7
4EC25(EC)-4'	T8 2x4 4-Lamp Egg Crate Fixture; Damaged/Missing Lens	**N 4W-12.5LED**	New 1x4 4-Lamp Wrap Fixture with (4) 12.5 Watt LED T8 4' Lamp; Direct Wire to Socket	**CCW-4'-4-T8LED /// KT-LED10.5T8-48G-840-D**	53 + 3	10
4EC25-1X4	T8 1x4 4-Lamp Egg Crate Fixture	**N 4W-12.5LED**	New 1x4 4-Lamp Wrap Fixture with (4) 12.5 Watt LED T8 4' Lamp; Direct Wire to Socket	**CCW-4'-4-T8LED /// KT-LED10.5T8-48G-840-D**	53 + 3	1
4EC25-4'	T8 2x4 4-Lamp Egg Crate Fixture	**N 4W-12.5LED**	New 1x4 4-Lamp Wrap Fixture with (4) 12.5 Watt LED T8 4' Lamp; Direct Wire to Socket	**CCW-4'-4-T8LED /// KT-LED10.5T8-48G-840-D**	53 + 3	55
4EC25-4'-DA	T8 2x4 4-Lamp Egg Crate Fixture; Difficult Access	**N 4W-12.5LED-DA**	New 1x4 4-Lamp Wrap Fixture with (4) 12.5 Watt LED T8 4' Lamp; Direct Wire to Socket; Difficult Access	**CCW-4'-4-T8LED /// KT-LED10.5T8-48G-840-D**	53 + 3	1
4L25	T8 2x3 4-Lamp Troffer Fixture	**RF 2LR-12.5LED**	Retrofit with (2) 12.5 Watt LED T8 4' Lamps and (1) 2x4 2-Lamp White Reflector Kit; Direct Wire to Socket	**KT-LED10.5T8-48G-840-D /// R-4-21-2-T8-X-W-X-X**	3 + 56	8
4L25-4'	T8 2x4 4-Lamp Troffer Fixture	**R 4L-12.5LED**	Retrofit with (4) 12.5 Watt LED T8 4' Lamps; Direct Wire to Socket	**KT-LED10.5T8-48G-840-D**	3	112
4L25-4'-DA	T8 2x4 4-Lamp Troffer Fixture; Difficult Access	**R 4L-12.5LED-DA**	Retrofit with (4) 12.5 Watt LED T8 4' Lamps; Direct Wire to Socket; Difficult Access	**KT-LED10.5T8-48G-840-D**	3	24
4L25-4'-DIM	T8 2x4 4-Lamp Troffer Fixture; Dimming	**R 4L-14LED-DIM**	Retrofit with (4) 14 Watt LED T8 4' Lamp and (2) LED Dimming Drivers	**KT-LED14T8-48GC-840-S /// KTLD-2LEDT8-UV-IS-VDIM**	4 + 6	13
4W25-4'	T8 1x4 4-Lamp Wrap Fixture	**R 4L-12.5LED**	Retrofit with (4) 12.5 Watt LED T8 4' Lamps; Direct Wire to Socket	**KT-LED10.5T8-48G-840-D**	3	12
4W25-4'-YELLOW	T8 1x4 4-Lamp Wrap Fixture; Yellow	**R 4L-12.5LED**	Retrofit with (4) 12.5 Watt LED T8 4' Lamps; Direct Wire to Socket	**KT-LED10.5T8-48G-840-D**	3	30
50MR16	50 Watt Incandescent MR16 Fixture	**LED 7MR16**	Re-Lamp with (1) 7 Watt LED MR16	**LM16/8/840/FL/D**	14	14
50PAR20DL4	50 Watt Incandescent 4" Downlight Par20 Fixture	**LED 8P20**	Re-Lamp with (1) 8 Watt LED PAR20	**LP20/7/40K/D**	15	6
5CF5FLAME-CHAND	5 Watt 5-Lamp Compact Fluorescent Chandelier Flame Fixture	**LED 5-5CAND**	Re-Lamp with (5) 5 Watt LED Candelabra	**LCTC/5/830/D**	12	2
60A	60 Watt Incandescent A-Lamp Fixture	**LED 9A**	Re-Lamp with (1) 9 Watt LED A19 Lamps	**LA19/9/40K/D-46**	8	22
60CPY-HALO	60 Watt Incandescent A-Lamp Canopy Fixture; Halo	**LED 9A**	Re-Lamp with (1) 9 Watt LED A19 Lamps	**LA19/9/40K/D-46**	8	1
60G-HALO	60 Watt Incandescent Globe Fixture; Halo	**LED 8GLOBE**	Re-Lamp with (1) 8 Watt LED G25 Globe	**LG25/6/827/D**	13	5
60JJ	60 Watt Incandescent A-Lamp Jelly Jar Fixture	**LED 9A**	Re-Lamp with (1) 9 Watt LED A19 Lamps	**LA19/9/40K/D-46**	8	11
60RLM-DA	60 Watt Incandescent RLM Fixture; Difficult Access	**LED 9A-DA**	Re-Lamp with (1) 9 Watt LED A19 Lamps; Difficult Access	**LA19/9/40K/D-46**	8	4
60SQDL	60 Watt Incandescent Square Downlight Fixture	**LED 9A**	Re-Lamp with (1) 9 Watt LED A19 Lamps	**LA19/9/40K/D-46**	8	4
60SQDL-8X8	60 Watt Incandescent Square Downlight Fixture; 8x8	**LED 9A**	Re-Lamp with (1) 9 Watt LED A19 Lamps	**LA19/9/40K/D-46**	8	7
65PAR30DL	65 Watt Incandescent Par30 Downlight Fixture	**LED 10BR30**	Re-Lamp with (1) 10 Watt LED BR30	**LBR30/9/840/D-46**	10	20
65R30	65 Watt Incandescent R30 Fixture	**LED 10BR30**	Re-Lamp with (1) 10 Watt LED BR30	**LBR30/9/840/D-46**	10	9
65R30DL	65 Watt Incandescent R30 Downlight Fixture	**LED 10BR30**	Re-Lamp with (1) 10 Watt LED BR30	**LBR30/9/840/D-46**	10	1
8-60FL-CAND-CHAND	60 Watt 8-Lamp Candelabra Chandelier Fixture	**LED 8-5CAND**	Re-Lamp with (8) 5 Watt LED Candelabra Lamps	**LCTC/5/830/D**	12	1
95PAR38	95 Watt Incandescent PAR38 Fixture	**LED 17P38**	Re-Lamp with (1) 17 Watt LED PAR38	**LP38/17/840/FL/D**	17	3
95PAR38DL8-GOLD TRIM	95 Watt Incandescent 8" Downlight Fixture; Gold Trim	**LED 17BR40**	Re-Lamp with (1) 17 Watt LED BR40	**LBR40/16/840/D-46**	11	4
CF13	13 Watt Compact Fluorescent Fixture	**LED 9A**	Re-Lamp with (1) 9 Watt LED A19 Lamps	**LA19/9/40K/D-46**	8	1
CF13DR-DEC	13 Watt Compact Fluorescent Decorative Drum Fixture	**LED 9A**	Re-Lamp with (1) 9 Watt LED A19 Lamps	**LA19/9/40K/D-46**	8	4
CF13RLM	13 Watt Compact Fluorescent RLM Fixture	**LED 9A**	Re-Lamp with (1) 9 Watt LED A19 Lamps	**LA19/9/40K/D-46**	8	3
CF13SQDL-8X8	13 Watt Compact Fluorescent Square Downlight Fixture; 8x8	**LED 9A**	Re-Lamp with (1) 9 Watt LED A19 Lamps	**LA19/9/40K/D-46**	8	2
CF18	18 Watt Compact Fluorescent Fixture	**LED 9A**	Re-Lamp with (1) 9 Watt LED A19 Lamps	**LA19/9/40K/D-46**	8	5
CF18RLM	18 Watt Compact Fluorescent RLM Fixture	**LED 9A**	Re-Lamp with (1) 9 Watt LED A19 Lamps	**LA19/9/40K/D-46**	8	3
CF23GLOBE-HALO	23 Watt Compact Fluorescent Globe Fixture; Halo	**LED 9A**	Re-Lamp with (1) 9 Watt LED A19 Lamps	**LA19/9/40K/D-46**	8	1
CF23JJ	23 Watt Compact Fluorescent Jelly Jar Fixture	**LED 9A**	Re-Lamp with (1) 9 Watt LED A19 Lamps	**LA19/9/40K/D-46**	8	11
CF23SC	23 Watt Compact Fluorescent Sconce Fixture	**LED 9A**	Re-Lamp with (1) 9 Watt LED A19 Lamps	**LA19/9/40K/D-46**	8	6
CF26	26 Watt Compact Fluorescent Fixture	**LED 9A**	Re-Lamp with (1) 9 Watt LED A19 Lamps	**LA19/9/40K/D-46**	8	6
CF26JJ	26 Watt Compact Fluorescent Jelly Jar Fixture	**LED 9A**	Re-Lamp with (1) 9 Watt LED A19 Lamps	**LA19/9/40K/D-46**	8	3
CF26JJ(JJ)	26 Watt Compact Fluorescent Jelly Jar Fixture; Damaged/Missing Lens	**N RLED13JJ**	New 13 Watt LED Jelly Jar Fixture	**VXBRLED13NDG**	38	1
CF26RLM	26 Watt Compact Fluorescent RLM Fixture	**LED 9A**	Re-Lamp with (1) 9 Watt LED A19 Lamps	**LA19/9/40K/D-46**	8	2
CF65	65 Watt Compact Fluorescent Fixture	**LED 9A**	Re-Lamp with (1) 9 Watt LED A19 Lamps	**LA19/9/40K/D-46**	8	1
LEDDL	LED Downlight Fixture	**ZZ DD**	No Retrofit	**N/A**	N/A	4
LED-VAN	LED Vanity Fixture	**ZZ DD**	No Retrofit	**N/A**	N/A	1
NO ACCESS	No Access	**ZZ DD**	No Retrofit	**N/A**	N/A	1
XLED	3 Watt LED 2-Lamp Exit Sign	**ZZ DD**	No Retrofit	**N/A**	N/A	39
7 100A	100 Watt Incandescent A-Lamp Fixture	**LED 15A**	Re-Lamp with (1) 15 Watt LED A19 Lamp	**LA21/16/40K/D-46**	9	2
1I25-4'	T8 1x4 1-Lamp Industrial Strip Fixture	**R 1L-12.5LED**	Retrofit with (1) 12.5 Watt LED T8 4' Lamps; Direct Wire to Socket	**KT-LED10.5T8-48G-840-D**	3	11
1V17	T8 2x2 1-Lamp Vanity Fixture	**R 1L-10LED2'**	Retrofit with (1) 10 Watt LED T8 2' Lamp; Direct Wire to Socket	**KT-LED7T8-24GC-840-D**	1	1
1W17	T8 2x2 1-Lamp Wrap Fixture	**R 1L-10LED2'**	Retrofit with (1) 10 Watt LED T8 2' Lamp; Direct Wire to Socket	**KT-LED7T8-24GC-840-D**	1	196
1W17-DA	T8 1x2 1-Lamp Wrap Fixture; Difficult Access	**R 1L-10LED2'-DA**	Retrofit with (1) 10 Watt LED T8 2' Lamp; Direct Wire to Socket; Difficult Access	**KT-LED7T8-24GC-840-D**	1	1
1W25-4'	T8 1x4 1-Lamp Wrap Fixture	**R 1L-12.5LED**	Retrofit with (1) 12.5 Watt LED T8 4' Lamps; Direct Wire to Socket	**KT-LED10.5T8-48G-840-D**	3	14
1WLED	1-Lamp LED Wrap Fixture	**ZZ DD**	No Retrofit	**N/A**	N/A	16
22CIR-DR	22 Watt T8 Circline Drum Fixture	**N LED14DR**	New 12" Round 14 Watt LED Drum Fixture	**54074143**	19	1
2-60DR	60 Watt 2-Lamp Incandescent A-Lamp Drum Fixture	**LED 2-9A**	Re-Lamp with (2) 9 Watt LED A19 Lamps	**LA19/9/40K/D-46**	8	2
2B25-4'	T8 2x4 2-Lamp Surface Mount Fixture	**R 2L-12.5LED**	Retrofit with (2) 12.5 Watt LED T8 4' Lamps; Direct Wire to Socket	**KT-LED10.5T8-48G-840-D**	3	11
2EC25(EC)-4'	T8 2x4 2-Lamp Egg Crate Fixture; Damaged/Missing Lens	**N 2W-12.5LED**	New 1x4 2-Lamp Wrap Fixture with (2) 12.5 Watt LED T8 4' Lamp; Direct Wire to Socket	**CCW-4'-2-T8LED /// KT-LED10.5T8-48G-840-D**	51 + 3	6
2EC25-4'	T8 2x4 2-Lamp Egg Crate Fixture	**N 2W-12.5LED**	New 1x4 2-Lamp Wrap Fixture with (2) 12.5 Watt LED T8 4' Lamp; Direct Wire to Socket	**CCW-4'-2-T8LED /// KT-LED10.5T8-48G-840-D**	51 + 3	118
2EC25-4'-DIM	T8 2x4 2-Lamp Egg Crate Fixture; Dimming	**N 2W-14LED-DIM**	New 1x4 2-Lamp Wrap Fixture with (2) 14 Watt LED T8 4' Lamp and (1) LED Dimming Driver	**CCW-4'-2-T8LED /// KT-LED14T8-48GC-840-S /// KTLD-2LEDT8-UV-IS-VDIM**	51 + 4 + 6	2
2EC40	T12 2x4 2-Lamp Egg Crate Fixture	**N 2W-12.5LED**	New 1x4 2-Lamp Wrap Fixture with (2) 12.5 Watt LED T8 4' Lamp; Direct Wire to Socket	**CCW-4'-2-T8LED /// KT-LED10.5T8-48G-840-D**	51 + 3	3
2I25-4'	T8 1x4 2-Lamp Industrial Strip Fixture	**R 2L-12.5LED**	Retrofit with (2) 12.5 Watt LED T8 4' Lamps; Direct Wire to Socket	**KT-LED10.5T8-48G-840-D**	3	2
2L17	T8 2x2 2-Lamp Troffer Fixture	**R 2L-10LED2'**	Retrofit with (2) 10 Watt LED T8 2' Lamps; Direct Wire to Socket	**KT-LED7T8-24GC-840-D**	1	11
2L25-1X4	T8 1x4 2-Lamp Troffer Fixture	**R 2L-12.5LED**	Retrofit with (2) 12.5 Watt LED T8 4' Lamps; Direct Wire to Socket	**KT-LED10.5T8-48G-840-D**	3	187
2L25-1X4-COVER	T8 1x4 2-Lamp Troffer Fixture; Cover	**R 2L-12.5LED**	Retrofit with (2) 12.5 Watt LED T8 4' Lamps; Direct Wire to Socket	**KT-LED10.5T8-48G-840-D**	3	33
2L25-4'	T8 2x4 2-Lamp Troffer Fixture	**R 2L-12.5LED**	Retrofit with (2) 12.5 Watt LED T8 4' Lamps; Direct Wire to Socket	**KT-LED10.5T8-48G-840-D**	3	18
2L-LED	2-Lamp LED Fixture	**ZZ DD**	No Retrofit	**N/A**	N/A	7
2PL13DR	13 Watt Plug-In CFL Drum Fixture	**N LED14DR**	New 12" Round 14 Watt LED Drum Fixture	**54074143**	19	36
2PL13FL-MONOPOINT-BK	13 Watt 2-Lamp Plug-In CFL Flood Fixture; Monopoint; Black	**ZZ DD**	No Retrofit	**N/A**	N/A	1
2PL13SC	13 Watt Plug-In CFL sconce Fixture	**RK KLED7-REC**	Retrofit with (1) 7 Watt LED Rectangular Retrofit Kit	**KT-RKIT-RP-6-800-840-UV /G2**	54	6
2PL13SC	13 Watt 2-Lamp Plug-In CFL Sconce Fixture	**RK KLED7-REC**	Retrofit with (1) 7 Watt LED Rectangular Retrofit Kit	**KT-RKIT-RP-6-800-840-UV /G2**	54	1
2PL13WP-CM	13 Watt 2-Lamp Plug-In CFL Wall Pack Fixture; Ceiling Mount	**N RLED24WP**	New 24 Watt LED Wall Pack Fixture	**WP2LED24**	40	1
2S25	T8 2x3 2-Lamp Strip Fixture	**R 2L-12LED3'**	Retrofit with (2) 12 Watt LED T8 3' Lamps; Direct Wire to Socket	**KT-LED12T8-36GC-840-D**	2	4
2S40	T12 1x4 2-Lamp Strip Fixture	**R 2L-12.5LED**	Retrofit with (2) 12.5 Watt LED T8 4' Lamps; Direct Wire to Socket	**KT-LED10.5T8-48G-840-D**	3	1
2V17	T8 1x2 2-Lamp Vanity Fixture	**R 2L-10LED2'**	Retrofit with (2) 10 Watt LED T8 2' Lamps; Direct Wire to Socket	**KT-LED7T8-24GC-840-D**	1	28
2V20	T12 2x2 2-Lamp Vanity Fixture	**R 2L-10LED2'**	Retrofit with (2) 10 Watt LED T8 2' Lamps; Direct Wire to Socket	**KT-LED7T8-24GC-840-D**	1	1
2V25(V)-4'	T8 1x4 2-Lamp Vanity Fixture; Damaged/Missing Lens	**N 2V-12.5LED**	New 1x4 2-Lamp Vanity Fixture with (2) 12.5 Watt LED T8 4' Lamp; Direct Wire to Socket	**VWF-4'-2-T8LED /// KT-LED10.5T8-48G-840-D**	49 + 3	6
2V25-4'	T8 1x4 2-Lamp Vanity Fixture	**R 2L-12.5LED**	Retrofit with (2) 12.5 Watt LED T8 4' Lamps; Direct Wire to Socket	**KT-LED10.5T8-48G-840-D**	3	22
2V40	T12 1x4 2-Lamp Vanity Fixture	**R 2L-12.5LED**	Retrofit with (2) 12.5 Watt LED T8 4' Lamps; Direct Wire to Socket	**KT-LED10.5T8-48G-840-D**	3	2
2VT25(VT)-4'	T8 1x4 2-Lamp Vaportight Fixture; Damaged/Missing Lens	**N 2VT-12.5LED**	New 1x4 2-Lamp Vaportight Fixture with (2) 12.5 Watt LED T8 4' Lamp; Direct Wire to Socket	**VTU-4'-2-T8LED /// KT-LED10.5T8-48G-840-D**	50 + 3	1
2VT25-4'	T8 1x4 2-Lamp Vaportight Fixture	**R 2L-12.5LED**	Retrofit with (2) 12.5 Watt LED T8 4' Lamps; Direct Wire to Socket	**KT-LED10.5T8-48G-840-D**	3	51
2VTLED	2-Lamp LED Vapor Tight Fixture	**ZZ DD**	No Retrofit	**N/A**	N/A	11
2W25(W)-4'	T8 1x4 2-Lamp Wrap Fixture; Damaged/Missing Lens	**N 2W-12.5LED**	New 1x4 2-Lamp Wrap Fixture with (2) 12.5 Watt LED T8 4' Lamp; Direct Wire to Socket	**CCW-4'-2-T8LED /// KT-LED10.5T8-48G-840-D**	51 + 3	12
2W25-4'	T8 1x4 2-Lamp Wrap Fixture	**R 2L-12.5LED**	Retrofit with (2) 12.5 Watt LED T8 4' Lamps; Direct Wire to Socket	**KT-LED10.5T8-48G-840-D**	3	73
2W32	T8 1x4 2-Lamp Wrap Fixture	**R 2L-12.5LED**	Retrofit with (2) 12.5 Watt LED T8 4' Lamps; Direct Wire to Socket	**KT-LED10.5T8-48G-840-D**	3	5
2W40	T12 1x4 2-Lamp Wrap Fixture	**R 2L-12.5LED**	Retrofit with (2) 12.5 Watt LED T8 4' Lamps; Direct Wire to Socket	**KT-LED10.5T8-48G-840-D**	3	6
3CF13CPY	13 Watt 3-Lamp Compact Fluorescent Canopy Fixture	**N RLED20CPY**	New 20 Watt LED Canopy Fixture	**VANLED20**	27	3
3L17	T8 2x2 3-Lamp Troffer Fixture	**R 3L-10LED2'**	Retrofit with (3) 10 Watt LED T8 2' Lamps; Direct Wire to Socket	**KT-LED7T8-24GC-840-D**	1	4
3L25-4'	T8 2x4 3-Lamp Troffer Fixture	**R 3L-12.5LED**	Retrofit with (3) 12.5 Watt LED T8 4' Lamps; Direct Wire to Socket	**KT-LED10.5T8-48G-840-D**	3	126
3L-LED	3-Lamp LED Fixture	**ZZ DD**	No Retrofit	**N/A**	N/A	18
3PL13DR	13 Watt 3-Lamp Plug-In CFL Drum Fixture	**N LED22DR**	New 16" Round 22 Watt LED Drum Fixture	**54075142**	20	14
3W25-4'	T8 1x4 3-Lamp Wrap Fixture	**R 3L-12.5LED**	Retrofit with (3) 12.5 Watt LED T8 4' Lamps; Direct Wire to Socket	**KT-LED10.5T8-48G-840-D**	3	39

	3WLED	3-Lamp LED Wrap Fixture	ZZ DD	No Retrofit	N/A	N/A	2
	4B25-4'	T8 2x4 4-Lamp Surface Mount Fixture	R 4L-12.5LED	Retrofit with (4) 12.5 Watt LED T8 4' Lamps; Direct Wire to Socket	KT-LED10.5T8-48G-840-D	3	3
	4CF26	26 Watt 4-Lamp Compact Fluorescent Fixture	LED 4-9A	Re-Lamp with (4) 9 Watt LED A19 Lamps	LA19/9/40K/D-46	8	2
	4EC25(EC)-4'	T8 2x4 4-Lamp Egg Crate Fixture; Damaged/Missing Lens	N 4W-12.5LED	New 1x4 4-Lamp Wrap Fixture with (4) 12.5 Watt LED T8 4' Lamp; Direct Wire to Socket	CCW-4'-4-T8LED /// KT-LED10.5T8-48G-840-D	53 + 3	2
	4EC25-4'	T8 2x4 4-Lamp Egg Crate Fixture	N 4W-12.5LED	New 1x4 4-Lamp Wrap Fixture with (4) 12.5 Watt LED T8 4' Lamp; Direct Wire to Socket	CCW-4'-4-T8LED /// KT-LED10.5T8-48G-840-D	53 + 3	33
	4EC25-4'-DA	T8 2x4 4-Lamp Egg Crate Fixture; Difficult Access	N 4W-12.5LED-DA	New 1x4 4-Lamp Wrap Fixture with (4) 12.5 Watt LED T8 4' Lamp; Direct Wire to Socket; Difficult Access	CCW-4'-4-T8LED /// KT-LED10.5T8-48G-840-D	53 + 3	4
	4L25-4'	T8 2x4 4-Lamp Troffer Fixture	R 4L-12.5LED	Retrofit with (4) 12.5 Watt LED T8 4' Lamps; Direct Wire to Socket	KT-LED10.5T8-48G-840-D	3	59
	4L32	T8 2x4 4-Lamp Troffer Fixture	R 4L-12.5LED	Retrofit with (4) 12.5 Watt LED T8 4' Lamps; Direct Wire to Socket	KT-LED10.5T8-48G-840-D	3	4
	4L40	T12 2x4 4-Lamp Troffer Fixture	R 4L-12.5LED	Retrofit with (4) 12.5 Watt LED T8 4' Lamps; Direct Wire to Socket	KT-LED10.5T8-48G-840-D	3	98
	4W25(W)-4'	T8 1x4 4-Lamp Wrap Fixture; Damaged/Missing Lens	N 4W-12.5LED	New 1x4 4-Lamp Wrap Fixture with (4) 12.5 Watt LED T8 4' Lamp; Direct Wire to Socket	CCW-4'-4-T8LED /// KT-LED10.5T8-48G-840-D	53 + 3	1
	4W25-4'	T8 1x4 4-Lamp Wrap Fixture	R 4L-12.5LED	Retrofit with (4) 12.5 Watt LED T8 4' Lamps; Direct Wire to Socket	KT-LED10.5T8-48G-840-D	3	15
	60A	60 Watt Incandescent A-Lamp Fixture	LED 9A	Re-Lamp with (1) 9 Watt LED A19 Lamps	LA19/9/40K/D-46	8	38
	60RLM	60 Watt Incandescent RLM Fixture	LED 9A	Re-Lamp with (1) 9 Watt LED A19 Lamps	LA19/9/40K/D-46	8	2
	60SC	60 Watt Incandescent Sconce Fixture	LED 9A	Re-Lamp with (1) 9 Watt LED A19 Lamps	LA19/9/40K/D-46	8	223
	75BR30-TRACK	75 Watt Incandescent BR30 Track Fixture	LED 10BR30	Re-Lamp with (1) 10 Watt LED BR30	LBR30/9/840/D-46	10	6
	CF13	13 Watt Compact Fluorescent Fixture	LED 9A	Re-Lamp with (1) 9 Watt LED A19 Lamps	LA19/9/40K/D-46	8	20
	CF13CPY	13 Watt Compact Fluorescent Canopy Fixture	LED 9A	Re-Lamp with (1) 9 Watt LED A19 Lamps	LA19/9/40K/D-46	8	1
	CF13DL	13 Watt Compact Fluorescent Downlight Fixture	LED 9A	Re-Lamp with (1) 9 Watt LED A19 Lamps	LA19/9/40K/D-46	8	3
	CF13DL10	13 Watt Compact Fluorescent 10" Downlight Fixture	R LLED9DL10	Retrofit with 9 Watt LED 10" Downlight Kit	LDN10RV 40/05 LR6AR LSS MVOLT EZ10	23	11
	CF13G-HALO	13 Watt Compact Fluorescent Globe Fixture; Halo	LED 9A	Re-Lamp with (1) 9 Watt LED A19 Lamps	LA19/9/40K/D-46	8	8
	CF13JJ	13 Watt Compact Fluorescent Jelly Jar Fixture	LED 9A	Re-Lamp with (1) 9 Watt LED A19 Lamps	LA19/9/40K/D-46	8	1
	CF13JJ(JJ)	13 Watt Compact Fluorescent Jelly Jar Fixture; Damaged/Missing Lens	N LED9AJJ	New Jelly Jar Fixture with (1) 9 Watt LED A19	CJJ/WJJ /// LA19/9/40K/D-46	46 + 8	3
	CF13RLM	13 Watt Compact Fluorescent RLM Fixture	LED 9A	Re-Lamp with (1) 9 Watt LED A19 Lamps	LA19/9/40K/D-46	8	5
	CF13SQDL-8X8	13 Watt Compact Fluorescent Square Downlight Fixture; 8x8	LED 9A	Re-Lamp with (1) 9 Watt LED A19 Lamps	LA19/9/40K/D-46	8	13
	CF13SQSC	13 Watt Compact Fluorescent Square Sconce Fixture	LED 9A	Re-Lamp with (1) 9 Watt LED A19 Lamps	LA19/9/40K/D-46	8	6
	CF18	18 Watt Compact Fluorescent Fixture	LED 9A	Re-Lamp with (1) 9 Watt LED A19 Lamps	LA19/9/40K/D-46	8	1
	CF23	23 Watt Compact Fluorescent Fixture	LED 9A	Re-Lamp with (1) 9 Watt LED A19 Lamps	LA19/9/40K/D-46	8	6
	CF23DL	23 Watt Compact Fluorescent Downlight Fixture	LED 10BR30	Re-Lamp with (1) 10 Watt LED BR30	LBR30/9/840/D-46	10	15
	CF23RLM	23 Watt Compact Fluorescent RLM Fixture	LED 9A	Re-Lamp with (1) 9 Watt LED A19 Lamps	LA19/9/40K/D-46	8	3
	CF26	26 Watt Compact Fluorescent Fixture	LED 9A	Re-Lamp with (1) 9 Watt LED A19 Lamps	LA19/9/40K/D-46	8	18
	CF26RLM	26 Watt Compact Fluorescent RLM Fixture	LED 9A	Re-Lamp with (1) 9 Watt LED A19 Lamps	LA19/9/40K/D-46	8	17
	CF65	65 Watt Compact Fluorescent Fixture	LED 9A	Re-Lamp with (1) 9 Watt LED A19 Lamps	LA19/9/40K/D-46	8	1
	CF65RLM	65 Watt Compact Fluorescent RLM Fixture	N 2I-10.5LED	New 1x4 2-Lamp Industrial Fixture with (2) 10.5 Watt LED T8 4' Lamp; Direct Wire to Socket	OCF-4'-2-T8LED /// KT-LED10.5T8-48G-840-D	45 + 3	1
	LEDPAR38	LED Par38 Fixture	ZZ DD	No Retrofit	N/A	N/A	1
	LEDWP-DIM	LED Wall Pack Fixture; Dimming	ZZ DD	No Retrofit	N/A	N/A	10
	X	25 Watt Incandescent 2-Lamp Exit Sign	N XLED	New 3 watt LED Exit Sign	ES-LED-RW-B	43	5
	XLED	3 Watt LED 2-Lamp Exit Sign	ZZ DD	No Retrofit	N/A	N/A	37
8	1W17	T8 2x2 1-Lamp Wrap Fixture	R 1L-10LED2'	Retrofit with (1) 10 Watt LED T8 2' Lamp; Direct Wire to Socket	KT-LED7T8-24GC-840-D	1	4
	1W25-4'	T8 1x4 1-Lamp Wrap Fixture	R 1L-12.5LED	Retrofit with (1) 12.5 Watt LED T8 4' Lamps; Direct Wire to Socket	KT-LED10.5T8-48G-840-D	3	6
	2PL13CPY	13 Watt 2-Lamp Plug-In CFL Canopy Fixture	N RLED10CPY	New 10 Watt LED Canopy Fixture	VANLED10	25	2
	2PL13DR	13 Watt Plug-In CFL Drum Fixture	N LED14DR	New 12" Round 14 Watt LED Drum Fixture	54074143	19	10
	2PL13WP	13 Watt 2-Lamp Plug-In CFL Wall Pack Fixture	N RLED12TWP	New 12 Watt LED Tall Wall Pack Fixture	ENTRA12	42	6
	2W25-4'	T8 1x4 2-Lamp Wrap Fixture	R 2L-12.5LED	Retrofit with (2) 12.5 Watt LED T8 4' Lamps; Direct Wire to Socket	KT-LED10.5T8-48G-840-D	3	3
	4W25-4'	T8 1x4 4-Lamp Wrap Fixture	R 4L-12.5LED	Retrofit with (4) 12.5 Watt LED T8 4' Lamps; Direct Wire to Socket	KT-LED10.5T8-48G-840-D	3	10
	MH1000FL-Y	1000 Watt Metal Halide Flood Fixture	N RLED300FLT	New 300 Watt LED Flood Fixture; Trunnion	FXLED300T/PCT	34	1
	XLED	3 Watt LED 2-Lamp Exit Sign	ZZ DD	No Retrofit	N/A	N/A	2
9	100RLM	100 Watt Incandescent RLM Fixture	LED 15A	Re-Lamp with (1) 15 Watt LED A19 Lamp	LA21/16/40K/D-46	9	4
	150RLM	150 Watt Incandescent RLM Fixture	LED 15A	Re-Lamp with (1) 15 Watt LED A19 Lamp	LA21/16/40K/D-46	9	1
	1S34	T12 1x4 1-Lamp Strip Fixture	R 1L-12.5LED	Retrofit with (1) 12.5 Watt LED T8 4' Lamps; Direct Wire to Socket	KT-LED10.5T8-48G-840-D	3	6
	1W17	T8 2x2 1-Lamp Wrap Fixture	R 1L-10LED2'	Retrofit with (1) 10 Watt LED T8 2' Lamp; Direct Wire to Socket	KT-LED7T8-24GC-840-D	1	15
	1W25-4'	T8 1x4 1-Lamp Wrap Fixture	R 1L-12.5LED	Retrofit with (1) 12.5 Watt LED T8 4' Lamps; Direct Wire to Socket	KT-LED10.5T8-48G-840-D	3	17
	2-75PAR38	75 Watt 2-Lamp Incandescent Par38 Fixture	LED 2-17P38	Re-Lamp with (2) 17 Watt LED PAR38	LP38/17/840/FL/D	17	3
	2B25-4'	T8 2x4 2-Lamp Surface Mount Fixture	R 2L-12.5LED	Retrofit with (2) 12.5 Watt LED T8 4' Lamps; Direct Wire to Socket	KT-LED10.5T8-48G-840-D	3	2
	2EC25-4'	T8 2x4 2-Lamp Egg Crate Fixture	N 2W-12.5LED	New 1x4 2-Lamp Wrap Fixture with (2) 12.5 Watt LED T8 4' Lamp; Direct Wire to Socket	CCW-4'-2-T8LED /// KT-LED10.5T8-48G-840-D	51 + 3	27
	2PL13CPY	13 Watt 2-Lamp Plug-In CFL Canopy Fixture	N RLED10CPY	New 10 Watt LED Canopy Fixture	VANLED10	25	2
	2PL13DR	13 Watt Plug-In CFL Drum Fixture	N LED14DR	New 12" Round 14 Watt LED Drum Fixture	54074143	19	23
	2PL13WP	13 Watt 2-Lamp Plug-In CFL Wall Pack Fixture	N RLED12TWP	New 12 Watt LED Tall Wall Pack Fixture	ENTRA12	42	4
	2PL26WP	26 Watt 2-Lamp Plug-In CFL Wall Pack Fixture	N RLED12TWP	New 12 Watt LED Tall Wall Pack Fixture	ENTRA12	42	2
	2W25-4'	T8 1x4 2-Lamp Wrap Fixture	R 2L-12.5LED	Retrofit with (2) 12.5 Watt LED T8 4' Lamps; Direct Wire to Socket	KT-LED10.5T8-48G-840-D	3	319
	300-PEND-DECO	300 Watt Incandescent Decorative Pendant Fixture	LED 36COB	Re-Lamp with (1) 36 Watt LED Omni-Cob Lamp; Hardwire Ballast	KT-LED36HID-EX39-850-D /G2	5	1
	4EC25-4'	T8 2x4 4-Lamp Egg Crate Fixture	N 4W-12.5LED	New 1x4 4-Lamp Wrap Fixture with (4) 12.5 Watt LED T8 4' Lamp; Direct Wire to Socket	CCW-4'-4-T8LED /// KT-LED10.5T8-48G-840-D	53 + 3	6
	4L25-4'	T8 2x4 4-Lamp Troffer Fixture	R 4L-12.5LED	Retrofit with (4) 12.5 Watt LED T8 4' Lamps; Direct Wire to Socket	KT-LED10.5T8-48G-840-D	3	30
	4W25(W)-4'	T8 1x4 4-Lamp Wrap Fixture; Damaged/Missing Lens	N 4W-12.5LED	New 1x4 4-Lamp Wrap Fixture with (4) 12.5 Watt LED T8 4' Lamp; Direct Wire to Socket	CCW-4'-4-T8LED /// KT-LED10.5T8-48G-840-D	53 + 3	7
	4W25-4'	T8 1x4 4-Lamp Wrap Fixture	R 4L-12.5LED	Retrofit with (4) 12.5 Watt LED T8 4' Lamps; Direct Wire to Socket	KT-LED10.5T8-48G-840-D	3	6
	75PAR38DL6	75 Watt Incandescent Par30 6" Downlight Fixture	LED 17BR40	Re-Lamp with (1) 17 Watt LED BR40	LBR40/16/840/D-46	11	17
	CF105RLM	105 Watt Compact Fluorescent RLM Fixture	LED 9A	Re-Lamp with (1) 9 Watt LED A19 Lamps	LA19/9/40K/D-46	8	1
	CF18	18 Watt Compact Fluorescent Fixture	LED 9A	Re-Lamp with (1) 9 Watt LED A19 Lamps	LA19/9/40K/D-46	8	1
	CF23DL-12X12	23 Watt Compact Fluorescent Downlight Fixture; 12x12	LED 9A	Re-Lamp with (1) 9 Watt LED A19 Lamps	LA19/9/40K/D-46	8	17
	CF26	26 Watt Compact Fluorescent Fixture	LED 9A	Re-Lamp with (1) 9 Watt LED A19 Lamps	LA19/9/40K/D-46	8	6
	CF26-12X12-DA	26 Watt Compact Fluorescent Downlight Fixture; 12x12; Difficult Access	LED 9A-DA	Re-Lamp with (1) 9 Watt LED A19 Lamps; Difficult Access	LA19/9/40K/D-46	8	1
	CF26DL-12X12	26 Watt Compact Fluorescent Downlight Fixture; 12x12	LED 14PAR30	Re-Lamp with (1) 14 Watt LED Par30 Lamp	LP30/10/40K/D	16	2
			LED 9A	Re-Lamp with (1) 9 Watt LED A19 Lamps	LA19/9/40K/D-46	8	4
	CF26RLM	26 Watt Compact Fluorescent RLM Fixture	LED 9A	Re-Lamp with (1) 9 Watt LED A19 Lamps	LA19/9/40K/D-46	8	3
	XLED	3 Watt LED 2-Lamp Exit Sign	ZZ DD	No Retrofit	N/A	N/A	6
10	15SQDL	15 Watt Incandescent A-Lamp Square Downlight Fixture	LED 6A	Re-Lamp with (1) 6 Watt LED A19 Lamps	LA19/5/40K/D-46	7	2
	1I25-4'	T8 1x4 1-Lamp Industrial Strip Fixture	R 1L-12.5LED	Retrofit with (1) 12.5 Watt LED T8 4' Lamps; Direct Wire to Socket	KT-LED10.5T8-48G-840-D	3	3
	1I25-4'-WG	T8 1x4 1-Lamp Industrial Strip Fixture; Wire Guard	R 1L-12.5LED	Retrofit with (1) 12.5 Watt LED T8 4' Lamps; Direct Wire to Socket	KT-LED10.5T8-48G-840-D	3	20
	1W17	T8 2x2 1-Lamp Wrap Fixture	R 1L-10LED2'	Retrofit with (1) 10 Watt LED T8 2' Lamp; Direct Wire to Socket	KT-LED7T8-24GC-840-D	1	47
	2EC25-4'	T8 2x4 2-Lamp Egg Crate Fixture	N 2W-12.5LED	New 1x4 2-Lamp Wrap Fixture with (2) 12.5 Watt LED T8 4' Lamp; Direct Wire to Socket	CCW-4'-2-T8LED /// KT-LED10.5T8-48G-840-D	51 + 3	4
	2L25-4'	T8 2x4 2-Lamp Troffer Fixture	R 2L-12.5LED	Retrofit with (2) 12.5 Watt LED T8 4' Lamps; Direct Wire to Socket	KT-LED10.5T8-48G-840-D	3	2
	2PL13CPY-PC	13 Watt 2-Lamp Plug-In CFL Canopy Fixture; Photocell	N RLED10CPY-PC	New 10 Watt LED Canopy Fixture; Photocell	VANLED10/PCS2	26	1
	2PL13DR	13 Watt Plug-In CFL Drum Fixture	N LED14DR	New 12" Round 14 Watt LED Drum Fixture	54074143	19	5
	2PL13SQDR	13 Watt 2-Lamp Plug-In CFL Square Drum Fixture	N LED14SQDR	New Square 14 Watt LED Drum Fixture	54640142	18	3
	2PL13WP-PC-LARGE	13 Watt 2-Lamp Plug-In CFL Large Wall Pack Fixture; Photocell	N RLED12TWP	New 12 Watt LED Tall Wall Pack Fixture	ENTRA12	42	7
	2PL13WP-PC-SMALL	13 Watt 2-Lamp Plug-In CFL Small Wall Pack Fixture; Photocell	N RLED12TWP	New 12 Watt LED Tall Wall Pack Fixture	ENTRA12	42	3
	2W17	T8 2x2 2-Lamp Wrap Fixture	R 2L-10LED2'	Retrofit with (2) 10 Watt LED T8 2' Lamps; Direct Wire to Socket	KT-LED7T8-24GC-840-D	1	3
	2W25-4'	T8 1x4 2-Lamp Wrap Fixture	R 2L-12.5LED	Retrofit with (2) 12.5 Watt LED T8 4' Lamps; Direct Wire to Socket	KT-LED10.5T8-48G-840-D	3	9
	3EC25-4'	T8 2x4 3-Lamp Egg Crate Fixture	N 3W-12.5LED	New 1x4 3-Lamp Wrap Fixture with (3) 12.5 Watt LED T8 4' Lamp; Direct Wire to Socket	CCW-4'-3-T8LED /// KT-LED10.5T8-48G-840-D	52 + 3	1
	3PL13DR	13 Watt 3-Lamp Plug-In CFL Drum Fixture	N LED22DR	New 16" Round 22 Watt LED Drum Fixture	54075142	20	1
	4-40CANDLE-CHAND	40 Watt 4-Lamp Incandescent Candelabra Sconce Fixture	LED 4-5CAND	Re-Lamp with (4) 5 Watt LED Candelabra	LCTC/5/830/D	12	1
	4B25-4'-DIM	T8 2x4 4-Lamp Surface Mount Fixture; Dimming	R 4L-14LED-DIM	Retrofit with (4) 14 Watt LED T8 4' Lamp and (2) LED Dimming Drivers	KT-LED14T8-48GC-840-S /// KTLD-2LEDT8-UV-IS-VDIM	4 + 6	4
	4EC25-4'	T8 2x4 4-Lamp Egg Crate Fixture	N 4W-12.5LED	New 1x4 4-Lamp Wrap Fixture with (4) 12.5 Watt LED T8 4' Lamp; Direct Wire to Socket	CCW-4'-4-T8LED /// KT-LED10.5T8-48G-840-D	53 + 3	2
	4W25(W)-4'	T8 1x4 4-Lamp Wrap Fixture; Damaged/Missing Lens	N 4W-12.5LED	New 1x4 4-Lamp Wrap Fixture with (4) 12.5 Watt LED T8 4' Lamp; Direct Wire to Socket	CCW-4'-4-T8LED /// KT-LED10.5T8-48G-840-D	53 + 3	1
	60SC	60 Watt Incandescent Sconce Fixture	LED 9A	Re-Lamp with (1) 9 Watt LED A19 Lamps	LA19/9/40K/D-46	8	1
	CF13SC	13 Watt Compact Fluorescent Sconce Fixture	LED 9A	Re-Lamp with (1) 9 Watt LED A19 Lamps	LA19/9/40K/D-46	8	3
	CF13SQDL	13 Watt Compact Fluorescent Square Downlight Fixture	LED 9A	Re-Lamp with (1) 9 Watt LED A19 Lamps	LA19/9/40K/D-46	8	1

10	CF20JJ	20 Watt Compact Fluorescent Jelly Jar Fixture	LED 9A	Re-Lamp with (1) 9 Watt LED A19 Lamps	LA19/9/40K/D-46	8	2
	CF20RLM	20 Watt Compact Fluorescent RLM Fixture	LED 9A	Re-Lamp with (1) 9 Watt LED A19 Lamps	LA19/9/40K/D-46	8	6
	CF20SC	20 Watt Compact Fluorescent Sconce Fixture	LED 9A	Re-Lamp with (1) 9 Watt LED A19 Lamps	LA19/9/40K/D-46	8	1
	CF20SQDL	20 Watt Compact Fluorescent Square Downlight Fixture	LED 9A	Re-Lamp with (1) 9 Watt LED A19 Lamps	LA19/9/40K/D-46	8	8
	CF29SQDL	29 Watt Compact Fluorescent Square Downlight Fixture	LED 9A	Re-Lamp with (1) 9 Watt LED A19 Lamps	LA19/9/40K/D-46	8	2
	LEDDL	LED Downlight Fixture	ZZ DD	No Retrofit	N/A	N/A	1
	PL13DR	13 Watt Plug-In CFL Drum Fixture	N LED14DR	New 12" Round 14 Watt LED Drum Fixture	54074143	19	1
	X	25 Watt Incandescent 2-Lamp Exit Sign	N XLED	New 3 watt LED Exit Sign	ES-LED-RW-B	43	3
	XLED	3 Watt LED 2-Lamp Exit Sign	ZZ DD	No Retrofit	N/A	N/A	18
	XLED-BUG	LED Bug-Eye Exit Sign Fixture	ZZ DD	No Retrofit	N/A	N/A	1
11	15JJ	15 Watt Incandescent A-Lamp Jelly Jar Fixture	LED 6A	Re-Lamp with (1) 6 Watt LED A19 Lamps	LA19/5/40K/D-46	7	6
	1I25-4'	T8 1x4 1-Lamp Industrial Strip Fixture	R 1L-12.5LED	Retrofit with (1) 12.5 Watt LED T8 4' Lamps; Direct Wire to Socket	KT-LED10.5T8-48G-840-D	3	3
	1W17	T8 2x2 1-Lamp Wrap Fixture	R 1L-10LED2'	Retrofit with (1) 10 Watt LED T8 2' Lamp; Direct Wire to Socket	KT-LED7T8-24GC-840-D	1	12
	1W25-4'	T8 1x4 1-Lamp Wrap Fixture	R 1L-12.5LED	Retrofit with (1) 12.5 Watt LED T8 4' Lamps; Direct Wire to Socket	KT-LED10.5T8-48G-840-D	3	31
	2PL13CPY-PC	13 Watt 2-Lamp Plug-In CFL Canopy Fixture; Photocell	N RLED10CPY-PC	New 10 Watt LED Canopy Fixture; Photocell	VANLED10/PCS2	26	1
	2PL13DR	13 Watt Plug-In CFL Drum Fixture	N LED14DR	New 12" Round 14 Watt LED Drum Fixture	54074143	19	2
	2PL13SC	13 Watt 2-Lamp Plug-In CFL Sconce Fixture	RK KLED7-REC	Retrofit with (1) 7 Watt LED Rectangular Retrofit Kit	KT-RKIT-RP-6-800-840-UV /G2	54	1
	2PL13WP-PC-LARGE	13 Watt 2-Lamp Plug-In CFL Large Wall Pack Fixture; Photocell	N RLED12TWP	New 12 Watt LED Tall Wall Pack Fixture	ENTRA12	42	1
	2PL13WP-PC-SMALL	13 Watt 2-Lamp Plug-In CFL Small Wall Pack Fixture; Photocell	N RLED12TWP	New 12 Watt LED Tall Wall Pack Fixture	ENTRA12	42	6
	2W17	T8 2x2 2-Lamp Wrap Fixture	R 2L-10LED2'	Retrofit with (2) 10 Watt LED T8 2' Lamps; Direct Wire to Socket	KT-LED7T8-24GC-840-D	1	6
	CF20	20 Watt Compact Fluorescent Fixture	LED 9A	Re-Lamp with (1) 9 Watt LED A19 Lamps	LA19/9/40K/D-46	8	2
	XLED	3 Watt LED 2-Lamp Exit Sign	ZZ DD	No Retrofit	N/A	N/A	4
12	1I25-4'	T8 1x4 1-Lamp Industrial Strip Fixture	R 1L-12.5LED	Retrofit with (1) 12.5 Watt LED T8 4' Lamps; Direct Wire to Socket	KT-LED10.5T8-48G-840-D	3	30
	1W17	T8 2x2 1-Lamp Wrap Fixture	R 1L-10LED2'	Retrofit with (1) 10 Watt LED T8 2' Lamp; Direct Wire to Socket	KT-LED7T8-24GC-840-D	1	3
	1W25-4'	T8 1x4 1-Lamp Wrap Fixture	R 1L-12.5LED	Retrofit with (1) 12.5 Watt LED T8 4' Lamps; Direct Wire to Socket	KT-LED10.5T8-48G-840-D	3	4
	2LU32	T8 2x2 2-Lamp U-Lamp Troffer Fixture with 6" Lamps	RF 2LR-10LED2'	Retrofit with (2) 10 Watt LED T8 2' Lamps and (1) 2x2 2-Lamp White Reflector Kit; Direct Wire to Socket	KT-LED7T8-24GC-840-D /// R-2-21-2-T8-X-W-X-X	1 + 55	3
	2PL13DR	13 Watt Plug-In CFL Drum Fixture	N LED14DR	New 12" Round 14 Watt LED Drum Fixture	54074143	19	2
	2PL13SC	13 Watt 2-Lamp Plug-In CFL Sconce Fixture	RK KLED7-REC	Retrofit with (1) 7 Watt LED Rectangular Retrofit Kit	KT-RKIT-RP-6-800-840-UV /G2	54	3
	2PL13WP-PC-LARGE	13 Watt 2-Lamp Plug-In CFL Large Wall Pack Fixture; Photocell	N RLED12TWP	New 12 Watt LED Tall Wall Pack Fixture	ENTRA12	42	3
	2PL13WP-PC-SMALL	13 Watt 2-Lamp Plug-In CFL Small Wall Pack Fixture; Photocell	N RLED12TWP	New 12 Watt LED Tall Wall Pack Fixture	ENTRA12	42	8
	2W25-4'	T8 1x4 2-Lamp Wrap Fixture	R 2L-12.5LED	Retrofit with (2) 12.5 Watt LED T8 4' Lamps; Direct Wire to Socket	KT-LED10.5T8-48G-840-D	3	3
	4L25-4'	T8 2x4 4-Lamp Troffer Fixture	R 4L-12.5LED	Retrofit with (4) 12.5 Watt LED T8 4' Lamps; Direct Wire to Socket	KT-LED10.5T8-48G-840-D	3	32
	4W25(W)-4'	T8 1x4 4-Lamp Wrap Fixture; Damaged/Missing Lens	N 4W-12.5LED	New 1x4 4-Lamp Wrap Fixture with (4) 12.5 Watt LED T8 4' Lamp; Direct Wire to Socket	CCW-4'-4-T8LED /// KT-LED10.5T8-48G-840-D	53 + 3	1
	CF20DL6	20 Watt Compact Fluorescent 6" Downlight Fixture	R LLED9DL6	Retrofit with 9 Watt LED 6" Downlight Kit	LDN6RV 40/05 LR6AR LSS MVOLT EZ10	22	4
	CF20SQDL-DA	20 Watt Compact Fluorescent Square Downlight Fixture; Difficult Access	LED 9A-DA	Re-Lamp with (1) 9 Watt LED A19 Lamps; Difficult Access	LA19/9/40K/D-46	8	1
	X	25 Watt Incandescent 2-Lamp Exit Sign	N XLED	New 3 watt LED Exit Sign	ES-LED-RW-B	43	25
	XLED	3 Watt LED 2-Lamp Exit Sign	ZZ DD	No Retrofit	N/A	N/A	2
	XLED-BUG	LED Bug-Eye Exit Sign Fixture	ZZ DD	No Retrofit	N/A	N/A	1
13	1W17	T8 2x2 1-Lamp Wrap Fixture	R 1L-10LED2'	Retrofit with (1) 10 Watt LED T8 2' Lamp; Direct Wire to Socket	KT-LED7T8-24GC-840-D	1	50
	1W25-4'	T8 1x4 1-Lamp Wrap Fixture	R 1L-12.5LED	Retrofit with (1) 12.5 Watt LED T8 4' Lamps; Direct Wire to Socket	KT-LED10.5T8-48G-840-D	3	21
	2EC25-4'	T8 2x4 2-Lamp Egg Crate Fixture	N 2W-12.5LED	New 1x4 2-Lamp Wrap Fixture with (2) 12.5 Watt LED T8 4' Lamp; Direct Wire to Socket	CCW-4'-2-T8LED /// KT-LED10.5T8-48G-840-D	51 + 3	4
	2PL13DR	13 Watt Plug-In CFL Drum Fixture	N LED14DR	New 12" Round 14 Watt LED Drum Fixture	54074143	19	20
	2PL13WP-LARGE	13 Watt 2-Lamp Plug-In CFL Large Wall Pack Fixture	N RLED12TWP	New 12 Watt LED Tall Wall Pack Fixture	ENTRA12	42	10
	2PL13WP-SMALL	13 Watt 2-Lamp Plug-In CFL Small Wall Pack Fixture	N RLED12TWP	New 12 Watt LED Tall Wall Pack Fixture	ENTRA12	42	7
	2W25-4'	T8 1x4 2-Lamp Wrap Fixture	R 2L-12.5LED	Retrofit with (2) 12.5 Watt LED T8 4' Lamps; Direct Wire to Socket	KT-LED10.5T8-48G-840-D	3	32
	4EC25-4'	T8 2x4 4-Lamp Egg Crate Fixture	N 4W-12.5LED	New 1x4 4-Lamp Wrap Fixture with (4) 12.5 Watt LED T8 4' Lamp; Direct Wire to Socket	CCW-4'-4-T8LED /// KT-LED10.5T8-48G-840-D	53 + 3	1
	4L25-4'	T8 2x4 4-Lamp Troffer Fixture	R 4L-12.5LED	Retrofit with (4) 12.5 Watt LED T8 4' Lamps; Direct Wire to Socket	KT-LED10.5T8-48G-840-D	3	3
	75BR40DL6	75 Watt Incandescent BR40 6" Downlight Fixture	LED 17BR40	Re-Lamp with (1) 17 Watt LED BR40	LBR40/16/840/D-46	11	4
	CF26	26 Watt Compact Fluorescent Fixture	LED 9A	Re-Lamp with (1) 9 Watt LED A19 Lamps	LA19/9/40K/D-46	8	4
	CF26DL-12X12	26 Watt Compact Fluorescent Downlight Fixture; 12x12	LED 9A	Re-Lamp with (1) 9 Watt LED A19 Lamps	LA19/9/40K/D-46	8	12
	CF26JJ	26 Watt Compact Fluorescent Jelly Jar Fixture	LED 9A	Re-Lamp with (1) 9 Watt LED A19 Lamps	LA19/9/40K/D-46	8	4
	NO ACCESS	No Access	ZZ DD	No Retrofit	N/A	N/A	1
	X	25 Watt Incandescent 2-Lamp Exit Sign	N XLED	New 3 watt LED Exit Sign	ES-LED-RW-B	43	1
14	150A	150 Watt Incandescent A-Lamp Fixture	LED 15A	Re-Lamp with (1) 15 Watt LED A19 Lamp	LA21/16/40K/D-46	9	1
	1V17	T8 2x2 1-Lamp Vanity Fixture	R 1L-10LED2'	Retrofit with (1) 10 Watt LED T8 2' Lamp; Direct Wire to Socket	KT-LED7T8-24GC-840-D	1	2
	1V25-4'	T8 1x4 1-Lamp Vanity Fixture	R 1L-12.5LED	Retrofit with (1) 12.5 Watt LED T8 4' Lamps; Direct Wire to Socket	KT-LED10.5T8-48G-840-D	3	3
	1W17	T8 2x2 1-Lamp Wrap Fixture	R 1L-10LED2'	Retrofit with (1) 10 Watt LED T8 2' Lamp; Direct Wire to Socket	KT-LED7T8-24GC-840-D	1	5
	2B25(B)-1X4	T8 1x4 2-Lamp Surface Mount Fixture; Damaged/Missing Lens	N 2W-12.5LED	New 1x4 2-Lamp Wrap Fixture with (2) 12.5 Watt LED T8 4' Lamp; Direct Wire to Socket	CCW-4'-2-T8LED /// KT-LED10.5T8-48G-840-D	51 + 3	1
	2B25-1X4	T8 1x4 2-Lamp Surface Mount Fixture	R 2L-12.5LED	Retrofit with (2) 12.5 Watt LED T8 4' Lamps; Direct Wire to Socket	KT-LED10.5T8-48G-840-D	3	50
	2I25-4'	T8 1x4 2-Lamp Industrial Strip Fixture	R 2L-12.5LED	Retrofit with (2) 12.5 Watt LED T8 4' Lamps; Direct Wire to Socket	KT-LED10.5T8-48G-840-D	3	38
	2I32	T8 1x4 2-Lamp Industrial Strip Fixture	R 2L-12.5LED	Retrofit with (2) 12.5 Watt LED T8 4' Lamps; Direct Wire to Socket	KT-LED10.5T8-48G-840-D	3	22
	2L25-1X4	T8 1x4 2-Lamp Troffer Fixture	R 2L-12.5LED	Retrofit with (2) 12.5 Watt LED T8 4' Lamps; Direct Wire to Socket	KT-LED10.5T8-48G-840-D	3	315
	2PL13DR	13 Watt Plug-In CFL Drum Fixture	N LED14DR	New 12" Round 14 Watt LED Drum Fixture	54074143	19	2
	2PL13VAN	13 Watt 2-Lamp Plug-In CFL Vanity Fixture	N 2V-12.5LED	New 1x4 2-Lamp Vanity Fixture with (2) 12.5 Watt LED T8 4' Lamp; Direct Wire to Socket	VWF-4'-2-T8LED /// KT-LED10.5T8-48G-840-D	49 + 3	1
	2PL13WP	13 Watt 2-Lamp Plug-In CFL Wall Pack Fixture	N RLED12TWP	New 12 Watt LED Tall Wall Pack Fixture	ENTRA12	42	16
	2W25-4'	T8 1x4 2-Lamp Wrap Fixture	R 2L-12.5LED	Retrofit with (2) 12.5 Watt LED T8 4' Lamps; Direct Wire to Socket	KT-LED10.5T8-48G-840-D	3	19
	2W25-4'-YELLOW	T8 1x4 2-Lamp Wrap Fixture; Yellow	R 2L-12.5LED	Retrofit with (2) 12.5 Watt LED T8 4' Lamps; Direct Wire to Socket	KT-LED10.5T8-48G-840-D	3	10
	2W32-DA	T8 1x4 2-Lamp Wrap Fixture; Difficult Access	R 2L-12.5LED-DA	Retrofit with (2) 12.5 Watt LED T8 4' Lamps; Direct Wire to Socket; Difficult Access	KT-LED10.5T8-48G-840-D	3	4
	4L25-4'	T8 2x4 4-Lamp Troffer Fixture	R 4L-12.5LED	Retrofit with (4) 12.5 Watt LED T8 4' Lamps; Direct Wire to Socket	KT-LED10.5T8-48G-840-D	3	23
	4L32	T8 2x4 4-Lamp Troffer Fixture	R 4L-12.5LED	Retrofit with (4) 12.5 Watt LED T8 4' Lamps; Direct Wire to Socket	KT-LED10.5T8-48G-840-D	3	1
	4L32-1X1-PARA	T8 1x1 4-Lamp Troffer Fixture; Paracube	R 4L-12.5LED	Retrofit with (4) 12.5 Watt LED T8 4' Lamps; Direct Wire to Socket	KT-LED10.5T8-48G-840-D	3	56
	4L54HB-WG	T5 HO 2x4 4-Lamp High Bay Fixture; Wire Guard	N RLED185HB-WG	New 185 Watt LED High Bay Fixture; Wire Guard	RAIL185W/D10 /// GDRAIL22W	37	8
	6B25-4'-4X4-DECO-WOOD-DROPLENS	T8 4x4 6-Lamp Surface Mount Decorative Wooden Fixture; Drop Lens	R 6L-12.5LED	Retrofit with (6) 12.5 Watt LED T8 4' Lamps; Direct Wire to Socket	KT-LED10.5T8-48G-840-D	3	14
	75DL	75 Watt Incandescent A-Lamp Downlight Fixture	LED 10BR30	Re-Lamp with (1) 10 Watt LED BR30	LBR30/9/840/D-46	10	2
	CF18	18 Watt Compact Fluorescent Fixture	LED 9A	Re-Lamp with (1) 9 Watt LED A19 Lamps	LA19/9/40K/D-46	8	1
	CF23DL-10X10	23 Watt Compact Fluorescent Downlight Fixture; 10x10	LED 9A	Re-Lamp with (1) 9 Watt LED A19 Lamps	LA19/9/40K/D-46	8	7
	CF23DL-8X8	23 Watt Compact Fluorescent Downlight Fixture; 8x8	LED 9A	Re-Lamp with (1) 9 Watt LED A19 Lamps	LA19/9/40K/D-46	8	10
	CF26	26 Watt Compact Fluorescent Fixture	LED 9A	Re-Lamp with (1) 9 Watt LED A19 Lamps	LA19/9/40K/D-46	8	3
	CF26DL-10X10	26 Watt Compact Fluorescent Downlight Fixture; 10x10	LED 9A	Re-Lamp with (1) 9 Watt LED A19 Lamps	LA19/9/40K/D-46	8	1
	CF26DL-8X8	26 Watt Compact Fluorescent Downlight Fixture; 8x8	LED 9A	Re-Lamp with (1) 9 Watt LED A19 Lamps	LA19/9/40K/D-46	8	17
	LEDPAR38	LED Par38 Fixture	ZZ DD	No Retrofit	N/A	N/A	6
	PARLEDDL	1-Lamp LED Par Downlight Fixture	ZZ DD	No Retrofit	N/A	N/A	6
	X-TRITIUM	Tritium Exit Sign	ZZ DD	No Retrofit	N/A	N/A	3
15	15A-NL	15 Watt Incandescent A-Lamp Night Light Fixture	ZZ DD	No Retrofit	N/A	N/A	7
	1W17	T8 2x2 1-Lamp Wrap Fixture	R 1L-10LED2'	Retrofit with (1) 10 Watt LED T8 2' Lamp; Direct Wire to Socket	KT-LED7T8-24GC-840-D	1	15
	1W25-4'	T8 1x4 1-Lamp Wrap Fixture	R 1L-12.5LED	Retrofit with (1) 12.5 Watt LED T8 4' Lamps; Direct Wire to Socket	KT-LED10.5T8-48G-840-D	3	14
	2B17	T8 2-Lamp Surface Mount Fixture	R 2L-10LED2'	Retrofit with (2) 10 Watt LED T8 2' Lamps; Direct Wire to Socket	KT-LED7T8-24GC-840-D	1	9
	2L25-4'	T8 2x4 2-Lamp Troffer Fixture	R 2L-12.5LED	Retrofit with (2) 12.5 Watt LED T8 4' Lamps; Direct Wire to Socket	KT-LED10.5T8-48G-840-D	3	1
	2LU32	T8 2x2 2-Lamp U-Lamp Troffer Fixture with 6" Lamps	RF 2LR-10LED2'	Retrofit with (2) 10 Watt LED T8 2' Lamps and (1) 2x2 2-Lamp White Reflector Kit; Direct Wire to Socket	KT-LED7T8-24GC-840-D /// R-2-21-2-T8-X-W-X-X	1 + 55	1
	2PL13CPY-PC	13 Watt 2-Lamp Plug-In CFL Canopy Fixture; Photocell	N RLED10CPY-PC	New 10 Watt LED Canopy Fixture; Photocell	VANLED10/PCS2	26	6
	2PL13DR	13 Watt Plug-In CFL Drum Fixture	N LED14DR	New 12" Round 14 Watt LED Drum Fixture	54074143	19	10
	2PL13WP-PC-LARGE	13 Watt 2-Lamp Plug-In CFL Large Wall Pack Fixture; Photocell	N RLED12TWP	New 12 Watt LED Tall Wall Pack Fixture	ENTRA12	42	9
	2PL13WP-PC-SMALL	13 Watt 2-Lamp Plug-In CFL Small Wall Pack Fixture; Photocell	N RLED12TWP	New 12 Watt LED Tall Wall Pack Fixture	ENTRA12	42	2
	2VT25-4'	T8 1x4 2-Lamp Vaportight Fixture	R 2L-12.5LED	Retrofit with (2) 12.5 Watt LED T8 4' Lamps; Direct Wire to Socket	KT-LED10.5T8-48G-840-D	3	3
	2W25-4'	T8 1x4 2-Lamp Wrap Fixture	R 2L-12.5LED	Retrofit with (2) 12.5 Watt LED T8 4' Lamps; Direct Wire to Socket	KT-LED10.5T8-48G-840-D	3	2
	3W25-4'	T8 1x4 3-Lamp Wrap Fixture	R 3L-12.5LED	Retrofit with (3) 12.5 Watt LED T8 4' Lamps; Direct Wire to Socket	KT-LED10.5T8-48G-840-D	3	1

15	**4L25-4'**	T8 2x4 4-Lamp Troffer Fixture	**R 4L-12.5LED**	Retrofit with (4) 12.5 Watt LED T8 4' Lamps; Direct Wire to Socket	**KT-LED10.5T8-48G-840-D**	3	1
	4W25-4'	T8 1x4 4-Lamp Wrap Fixture	**R 4L-12.5LED**	Retrofit with (4) 12.5 Watt LED T8 4' Lamps; Direct Wire to Socket	**KT-LED10.5T8-48G-840-D**	3	4
	CF20	20 Watt Compact Fluorescent Fixture	**LED 9A**	Re-Lamp with (1) 9 Watt LED A19 Lamps	**LA19/9/40K/D-46**	8	2
	CF20JJ	20 Watt Compact Fluorescent Jelly Jar Fixture	**LED 9A**	Re-Lamp with (1) 9 Watt LED A19 Lamps	**LA19/9/40K/D-46**	8	21
	X	25 Watt Incandescent 2-Lamp Exit Sign	**N XLED**	New 3 watt LED Exit Sign	**ES-LED-RW-B**	43	6
	XLED	3 Watt LED 2-Lamp Exit Sign	**ZZ DD**	No Retrofit	**N/A**	N/A	15
16	**1V25-4'**	T8 1x4 1-Lamp Vanity Fixture	**R 1L-12.5LED**	Retrofit with (1) 12.5 Watt LED T8 4' Lamps; Direct Wire to Socket	**KT-LED10.5T8-48G-840-D**	3	8
	1W17	T8 2x2 1-Lamp Wrap Fixture	**R 1L-10LED2'**	Retrofit with (1) 10 Watt LED T8 2' Lamp; Direct Wire to Socket	**KT-LED7T8-24GC-840-D**	1	28
	1W17-DA	T8 1x2 1-Lamp Wrap Fixture; Difficult Access	**R 1L-10LED2'-DA**	Retrofit with (1) 10 Watt LED T8 2' Lamp; Direct Wire to Socket; Difficult Access	**KT-LED7T8-24GC-840-D**	1	2
	1W25-4'	T8 1x4 1-Lamp Wrap Fixture	**R 1L-12.5LED**	Retrofit with (1) 12.5 Watt LED T8 4' Lamps; Direct Wire to Socket	**KT-LED10.5T8-48G-840-D**	3	22
	2B25-1X4-RECESSED	T8 1x4 2-Lamp Surface Mount Fixture; Recessed	**R 2L-12.5LED**	Retrofit with (2) 12.5 Watt LED T8 4' Lamps; Direct Wire to Socket	**KT-LED10.5T8-48G-840-D**	3	3
	2PL13CPY-PC	13 Watt 2-Lamp Plug-In CFL Canopy Fixture; Photocell	**N RLED10CPY-PC**	New 10 Watt LED Canopy Fixture; Photocell	**VANLED10/PCS2**	26	2
	2PL13DR	13 Watt Plug-In CFL Drum Fixture	**N LED14DR**	New 12" Round 14 Watt LED Drum Fixture	**54074143**	19	5
	2PL13WP-PC-LARGE	13 Watt 2-Lamp Plug-In CFL Large Wall Pack Fixture; Photocell	**N RLED12TWP**	New 12 Watt LED Tall Wall Pack Fixture	**ENTRA12**	42	6
	2PL13WP-PC-SMALL	13 Watt 2-Lamp Plug-In CFL Small Wall Pack Fixture; Photocell	**N RLED12TWP**	New 12 Watt LED Tall Wall Pack Fixture	**ENTRA12**	42	5
	2W25-4'	T8 1x4 2-Lamp Wrap Fixture	**R 2L-12.5LED**	Retrofit with (2) 12.5 Watt LED T8 4' Lamps; Direct Wire to Socket	**KT-LED10.5T8-48G-840-D**	3	1
	CF20JJ	20 Watt Compact Fluorescent Jelly Jar Fixture	**LED 9A**	Re-Lamp with (1) 9 Watt LED A19 Lamps	**LA19/9/40K/D-46**	8	4
	CF20SQDL	20 Watt Compact Fluorescent Square Downlight Fixture	**LED 9A**	Re-Lamp with (1) 9 Watt LED A19 Lamps	**LA19/9/40K/D-46**	8	2
	X	25 Watt Incandescent 2-Lamp Exit Sign	**N XLED**	New 3 watt LED Exit Sign	**ES-LED-RW-B**	43	17
	XLED	3 Watt LED 2-Lamp Exit Sign	**ZZ DD**	No Retrofit	**N/A**	N/A	10
17	**1W17**	T8 2x2 1-Lamp Wrap Fixture	**ZZ DD**	No Retrofit	**N/A**	N/A	7
	1W25-4'	T8 1x4 1-Lamp Wrap Fixture	**ZZ DD**	No Retrofit	**N/A**	N/A	8
	2B17	T8 2-Lamp Surface Mount Fixture	**ZZ DD**	No Retrofit	**N/A**	N/A	1
	2PL13CPY-PC	13 Watt 2-Lamp Plug-In CFL Canopy Fixture; Photocell	**ZZ DD**	No Retrofit	**N/A**	N/A	2
	2PL13DR	13 Watt Plug-In CFL Drum Fixture	**ZZ DD**	No Retrofit	**N/A**	N/A	8
	2PL13WP-PC-LARGE	13 Watt 2-Lamp Plug-In CFL Large Wall Pack Fixture; Photocell	**ZZ DD**	No Retrofit	**N/A**	N/A	3
	2PL13WP-PC-SMALL	13 Watt 2-Lamp Plug-In CFL Small Wall Pack Fixture; Photocell	**ZZ DD**	No Retrofit	**N/A**	N/A	2
	MH175DTD	175 Watt Metal Halide Dusk to Dawn Fixture	**ZZ DD**	No Retrofit	**N/A**	N/A	1
	XLED	3 Watt LED 2-Lamp Exit Sign	**ZZ DD**	No Retrofit	**N/A**	N/A	8
18	**1W17**	T8 2x2 1-Lamp Wrap Fixture	**ZZ DD**	No Retrofit	**N/A**	N/A	6
	1W25-4'	T8 1x4 1-Lamp Wrap Fixture	**ZZ DD**	No Retrofit	**N/A**	N/A	3
	2-75PAR38-HOLDER	75 Watt 2-Lamp Incandescent Par38 Holder Fixture	**ZZ DD**	No Retrofit	**N/A**	N/A	1
	2PL13CPY-PC	13 Watt 2-Lamp Plug-In CFL Canopy Fixture; Photocell	**ZZ DD**	No Retrofit	**N/A**	N/A	3
	2PL13DR	13 Watt Plug-In CFL Drum Fixture	**ZZ DD**	No Retrofit	**N/A**	N/A	6
	2PL13WP-PC-LARGE	13 Watt 2-Lamp Plug-In CFL Large Wall Pack Fixture; Photocell	**ZZ DD**	No Retrofit	**N/A**	N/A	4
	2PL13WP-PC-SMALL	13 Watt 2-Lamp Plug-In CFL Small Wall Pack Fixture; Photocell	**ZZ DD**	No Retrofit	**N/A**	N/A	4
	CF20	20 Watt Compact Fluorescent Fixture	**ZZ DD**	No Retrofit	**N/A**	N/A	9
	XLED	3 Watt LED 2-Lamp Exit Sign	**ZZ DD**	No Retrofit	**N/A**	N/A	9
20	**1W17**	T8 2x2 1-Lamp Wrap Fixture	**R 1L-10LED2'**	Retrofit with (1) 10 Watt LED T8 2' Lamp; Direct Wire to Socket	**KT-LED7T8-24GC-840-D**	1	3
	1W25-4'	T8 1x4 1-Lamp Wrap Fixture	**R 1L-12.5LED**	Retrofit with (1) 12.5 Watt LED T8 4' Lamps; Direct Wire to Socket	**KT-LED10.5T8-48G-840-D**	3	7
	2EC25-4'	T8 2x4 2-Lamp Egg Crate Fixture	**N 2W-12.5LED**	New 1x4 2-Lamp Wrap Fixture with (2) 12.5 Watt LED T8 4' Lamp; Direct Wire to Socket	**CCW-4'-2-T8LED /// KT-LED10.5T8-48G-840-D**	51 + 3	3
	2PL13CPY-PC	13 Watt 2-Lamp Plug-In CFL Canopy Fixture; Photocell	**N RLED10CPY-PC**	New 10 Watt LED Canopy Fixture; Photocell	**VANLED10/PCS2**	26	2
	2PL13DR	13 Watt Plug-In CFL Drum Fixture	**N LED14DR**	New 12" Round 14 Watt LED Drum Fixture	**54074143**	19	15
	2PL13WP-PC-LARGE	13 Watt 2-Lamp Plug-In CFL Large Wall Pack Fixture; Photocell	**N RLED12TWP**	New 12 Watt LED Tall Wall Pack Fixture	**ENTRA12**	42	6
	2PL13WP-PC-SMALL	13 Watt 2-Lamp Plug-In CFL Small Wall Pack Fixture; Photocell	**N RLED12TWP**	New 12 Watt LED Tall Wall Pack Fixture	**ENTRA12**	42	1
	X	25 Watt Incandescent 2-Lamp Exit Sign	**N XLED**	New 3 watt LED Exit Sign	**ES-LED-RW-B**	43	3
	XLED	3 Watt LED 2-Lamp Exit Sign	**ZZ DD**	No Retrofit	**N/A**	N/A	6
21	**1V25-4'**	T8 1x4 1-Lamp Vanity Fixture	**ZZ DD**	No Retrofit	**N/A**	N/A	1
	1W17	T8 2x2 1-Lamp Wrap Fixture	**ZZ DD**	No Retrofit	**N/A**	N/A	9
	1W25-4'	T8 1x4 1-Lamp Wrap Fixture	**ZZ DD**	No Retrofit	**N/A**	N/A	7
	2PL13DR	13 Watt Plug-In CFL Drum Fixture	**ZZ DD**	No Retrofit	**N/A**	N/A	7
	2PL13WP-PC-LARGE	13 Watt 2-Lamp Plug-In CFL Large Wall Pack Fixture; Photocell	**ZZ DD**	No Retrofit	**N/A**	N/A	6
	XLED	3 Watt LED 2-Lamp Exit Sign	**ZZ DD**	No Retrofit	**N/A**	N/A	7
22	**1W25-4'**	T8 1x4 1-Lamp Wrap Fixture	**ZZ DD**	No Retrofit	**N/A**	N/A	8
	2-75PAR38-HOLDER-PC	75 Watt 2-Lamp Incandescent Par38 Holder Fixture; Photocell	**ZZ DD**	No Retrofit	**N/A**	N/A	4
	2PL13DR	13 Watt Plug-In CFL Drum Fixture	**ZZ DD**	No Retrofit	**N/A**	N/A	5
	2PL13WP-PC-LARGE	13 Watt 2-Lamp Plug-In CFL Large Wall Pack Fixture; Photocell	**ZZ DD**	No Retrofit	**N/A**	N/A	4
	2PL13WP-PC-SMALL	13 Watt 2-Lamp Plug-In CFL Small Wall Pack Fixture; Photocell	**ZZ DD**	No Retrofit	**N/A**	N/A	1
	2W25-4'	T8 1x4 2-Lamp Wrap Fixture	**ZZ DD**	No Retrofit	**N/A**	N/A	3
	2W25-4'-WOOD	T8 1x4 2-Lamp Wrap Fixture; Wooden	**ZZ DD**	No Retrofit	**N/A**	N/A	6
	2W32	T8 1x4 2-Lamp Wrap Fixture	**ZZ DD**	No Retrofit	**N/A**	N/A	1
	60A	60 Watt Incandescent A-Lamp Fixture	**ZZ DD**	No Retrofit	**N/A**	N/A	1
	60JJ	60 Watt Incandescent A-Lamp Jelly Jar Fixture	**ZZ DD**	No Retrofit	**N/A**	N/A	1
	X	25 Watt Incandescent 2-Lamp Exit Sign	**ZZ DD**	No Retrofit	**N/A**	N/A	8
23	**1W25-4'**	T8 1x4 1-Lamp Wrap Fixture	**ZZ DD**	No Retrofit	**N/A**	N/A	8
	2-75PAR38-HOLDER-PC	75 Watt 2-Lamp Incandescent Par38 Holder Fixture; Photocell	**ZZ DD**	No Retrofit	**N/A**	N/A	1
	2PL13DR	13 Watt Plug-In CFL Drum Fixture	**ZZ DD**	No Retrofit	**N/A**	N/A	12
	2PL13WP-PC-LARGE	13 Watt 2-Lamp Plug-In CFL Large Wall Pack Fixture; Photocell	**ZZ DD**	No Retrofit	**N/A**	N/A	4
	2PL13WP-PC-SMALL	13 Watt 2-Lamp Plug-In CFL Small Wall Pack Fixture; Photocell	**ZZ DD**	No Retrofit	**N/A**	N/A	2
	2W25-4'	T8 1x4 2-Lamp Wrap Fixture	**ZZ DD**	No Retrofit	**N/A**	N/A	11
	60JJ	60 Watt Incandescent A-Lamp Jelly Jar Fixture	**ZZ DD**	No Retrofit	**N/A**	N/A	2
	X	25 Watt Incandescent 2-Lamp Exit Sign	**ZZ DD**	No Retrofit	**N/A**	N/A	10
24	**1W25-4'**	T8 1x4 1-Lamp Wrap Fixture	**ZZ DD**	No Retrofit	**N/A**	N/A	13
	2PL13DR	13 Watt Plug-In CFL Drum Fixture	**ZZ DD**	No Retrofit	**N/A**	N/A	14
	2PL13WP-PC-LARGE	13 Watt 2-Lamp Plug-In CFL Large Wall Pack Fixture; Photocell	**ZZ DD**	No Retrofit	**N/A**	N/A	4
	2PL13WP-PC-SMALL	13 Watt 2-Lamp Plug-In CFL Small Wall Pack Fixture; Photocell	**ZZ DD**	No Retrofit	**N/A**	N/A	2
	2W25-4'	T8 1x4 2-Lamp Wrap Fixture	**ZZ DD**	No Retrofit	**N/A**	N/A	6
	4EC25-4'	T8 2x4 4-Lamp Egg Crate Fixture	**ZZ DD**	No Retrofit	**N/A**	N/A	1
	75PAR38-HOLDER-PC	75 Watt Incandescent Par30 Holder Fixture; Photocell	**ZZ DD**	No Retrofit	**N/A**	N/A	1
	CF20JJ	20 Watt Compact Fluorescent Jelly Jar Fixture	**ZZ DD**	No Retrofit	**N/A**	N/A	1
	X	25 Watt Incandescent 2-Lamp Exit Sign	**ZZ DD**	No Retrofit	**N/A**	N/A	8
25	**1W25-4'**	T8 1x4 1-Lamp Wrap Fixture	**ZZ DD**	No Retrofit	**N/A**	N/A	8
	2PL13DR	13 Watt Plug-In CFL Drum Fixture	**ZZ DD**	No Retrofit	**N/A**	N/A	10
	2PL13WP-PC-LARGE	13 Watt 2-Lamp Plug-In CFL Large Wall Pack Fixture; Photocell	**ZZ DD**	No Retrofit	**N/A**	N/A	5
	2PL13WP-PC-SMALL	13 Watt 2-Lamp Plug-In CFL Small Wall Pack Fixture; Photocell	**ZZ DD**	No Retrofit	**N/A**	N/A	3
	2W25-4'	T8 1x4 2-Lamp Wrap Fixture	**ZZ DD**	No Retrofit	**N/A**	N/A	8
	CF20JJ	20 Watt Compact Fluorescent Jelly Jar Fixture	**ZZ DD**	No Retrofit	**N/A**	N/A	1
	X	25 Watt Incandescent 2-Lamp Exit Sign	**ZZ DD**	No Retrofit	**N/A**	N/A	8
26	**1W25-4'**	T8 1x4 1-Lamp Wrap Fixture	**ZZ DD**	No Retrofit	**N/A**	N/A	6
	1W32	T8 1x4 1-Lamp Wrap Fixture	**ZZ DD**	No Retrofit	**N/A**	N/A	3
	2PL13CPY-PC	13 Watt 2-Lamp Plug-In CFL Canopy Fixture; Photocell	**ZZ DD**	No Retrofit	**N/A**	N/A	1
	2PL13DR	13 Watt Plug-In CFL Drum Fixture	**ZZ DD**	No Retrofit	**N/A**	N/A	7
	2PL13WP-PC-LARGE	13 Watt 2-Lamp Plug-In CFL Large Wall Pack Fixture; Photocell	**ZZ DD**	No Retrofit	**N/A**	N/A	5
	2PL13WP-PC-SMALL	13 Watt 2-Lamp Plug-In CFL Small Wall Pack Fixture; Photocell	**ZZ DD**	No Retrofit	**N/A**	N/A	3
	2W25-4'	T8 1x4 2-Lamp Wrap Fixture	**ZZ DD**	No Retrofit	**N/A**	N/A	32
	4EC25-4'	T8 2x4 4-Lamp Egg Crate Fixture	**ZZ DD**	No Retrofit	**N/A**	N/A	2

26	4EC25-4'-DA	T8 2x4 4-Lamp Egg Crate Fixture; Difficult Access	ZZ DD	No Retrofit	N/A	N/A	1
	60JJ	60 Watt Incandescent A-Lamp Jelly Jar Fixture	ZZ DD	No Retrofit	N/A	N/A	13
	CF20	20 Watt Compact Fluorescent Fixture	ZZ DD	No Retrofit	N/A	N/A	12
	CF20DR	20 Watt Compact Fluorescent Drum Fixture	ZZ DD	No Retrofit	N/A	N/A	4
	X	25 Watt Incandescent 2-Lamp Exit Sign	ZZ DD	No Retrofit	N/A	N/A	9
	XLED	3 Watt LED 2-Lamp Exit Sign	ZZ DD	No Retrofit	N/A	N/A	2
	XLED-BUG	LED Bug-Eye Exit Sign Fixture	ZZ DD	No Retrofit	N/A	N/A	1
28	100RLM	100 Watt Incandescent RLM Fixture	LED 15A	Re-Lamp with (1) 15 Watt LED A19 Lamp	LA21/16/40K/D-46	9	2
	1W17	T8 2x2 1-Lamp Wrap Fixture	R 1L-10LED2'	Retrofit with (1) 10 Watt LED T8 2' Lamp; Direct Wire to Socket	KT-LED7T8-24GC-840-D	1	12
	1W25-4'	T8 1x4 1-Lamp Wrap Fixture	R 1L-12.5LED	Retrofit with (1) 12.5 Watt LED T8 4' Lamps; Direct Wire to Socket	KT-LED10.5T8-48G-840-D	3	63
	2EC25-4'	T8 2x4 2-Lamp Egg Crate Fixture	N 2W-12.5LED	New 1x4 2-Lamp Wrap Fixture with (2) 12.5 Watt LED T8 4' Lamp; Direct Wire to Socket	CCW-4'-2-T8LED /// KT-LED10.5T8-48G-840-D	51 + 3	1
	2PL13CPY	13 Watt 2-Lamp Plug-In CFL Canopy Fixture	N RLED10CPY	New 10 Watt LED Canopy Fixture	VANLED10	25	6
	2PL13DR	13 Watt Plug-In CFL Drum Fixture	N LED14DR	New 12" Round 14 Watt LED Drum Fixture	54074143	19	10
	2PL13WP	13 Watt 2-Lamp Plug-In CFL Wall Pack Fixture	N RLED12TWP	New 12 Watt LED Tall Wall Pack Fixture	ENTRA12	42	3
	2W25-4'	T8 1x4 2-Lamp Wrap Fixture	R 2L-12.5LED	Retrofit with (2) 12.5 Watt LED T8 4' Lamps; Direct Wire to Socket	KT-LED10.5T8-48G-840-D	3	44
	3W25(W)-4'	T8 1x4 3-Lamp Wrap Fixture; Damaged/Missing Lens	N 3W-12.5LED	New 1x4 3-Lamp Wrap Fixture with (3) 12.5 Watt LED T8 4' Lamp; Direct Wire to Socket	CCW-4'-3-T8LED /// KT-LED10.5T8-48G-840-D	52 + 3	1
	4EC25-4'	T8 2x4 4-Lamp Egg Crate Fixture	N 4W-12.5LED	New 1x4 4-Lamp Wrap Fixture with (4) 12.5 Watt LED T8 4' Lamp; Direct Wire to Socket	CCW-4'-4-T8LED /// KT-LED10.5T8-48G-840-D	53 + 3	3
	4L25-4'	T8 2x4 4-Lamp Troffer Fixture	R 4L-12.5LED	Retrofit with (4) 12.5 Watt LED T8 4' Lamps; Direct Wire to Socket	KT-LED10.5T8-48G-840-D	3	10
	4W25-4'	T8 1x4 4-Lamp Wrap Fixture	R 4L-12.5LED	Retrofit with (4) 12.5 Watt LED T8 4' Lamps; Direct Wire to Socket	KT-LED10.5T8-48G-840-D	3	4
	CF18	18 Watt Compact Fluorescent Fixture	LED 9A	Re-Lamp with (1) 9 Watt LED A19 Lamps	LA19/9/40K/D-46	8	5
	CF26	26 Watt Compact Fluorescent Fixture	LED 9A	Re-Lamp with (1) 9 Watt LED A19 Lamps	LA19/9/40K/D-46	8	1
	CF26JJ	26 Watt Compact Fluorescent Jelly Jar Fixture	LED 9A	Re-Lamp with (1) 9 Watt LED A19 Lamps	LA19/9/40K/D-46	8	6
	CF26JJ(JJ)	26 Watt Compact Fluorescent Jelly Jar Fixture; Damaged/Missing Lens	N RLED13JJ	New 13 Watt LED Jelly Jar Fixture	VXBRLED13NDG	38	3
	CF26RLM	26 Watt Compact Fluorescent RLM Fixture	LED 9A	Re-Lamp with (1) 9 Watt LED A19 Lamps	LA19/9/40K/D-46	8	1
	HPS150FL	150 Watt High Pressure Sodium Flood Fixture	N RLED52FL	New 52 Watt LED Flood Fixture	FFLED52	31	1
29	100RLM	100 Watt Incandescent RLM Fixture	LED 15A	Re-Lamp with (1) 15 Watt LED A19 Lamp	LA21/16/40K/D-46	9	1
	150RLM	150 Watt Incandescent RLM Fixture	LED 15A	Re-Lamp with (1) 15 Watt LED A19 Lamp	LA21/16/40K/D-46	9	6
	1W17	T8 2x2 1-Lamp Wrap Fixture	R 1L-10LED2'	Retrofit with (1) 10 Watt LED T8 2' Lamp; Direct Wire to Socket	KT-LED7T8-24GC-840-D	1	19
	1W25-4'	T8 1x4 1-Lamp Wrap Fixture	R 1L-12.5LED	Retrofit with (1) 12.5 Watt LED T8 4' Lamps; Direct Wire to Socket	KT-LED10.5T8-48G-840-D	3	50
	2EC25-4'	T8 2x4 2-Lamp Egg Crate Fixture	N 2W-12.5LED	New 1x4 2-Lamp Wrap Fixture with (2) 12.5 Watt LED T8 4' Lamp; Direct Wire to Socket	CCW-4'-2-T8LED /// KT-LED10.5T8-48G-840-D	51 + 3	2
	2L25-4'	T8 2x4 2-Lamp Troffer Fixture	R 2L-12.5LED	Retrofit with (2) 12.5 Watt LED T8 4' Lamps; Direct Wire to Socket	KT-LED10.5T8-48G-840-D	3	2
	2PL13CPY	13 Watt 2-Lamp Plug-In CFL Canopy Fixture	N RLED10CPY	New 10 Watt LED Canopy Fixture	VANLED10	25	10
	2PL13DR	13 Watt Plug-In CFL Drum Fixture	N LED14DR	New 12" Round 14 Watt LED Drum Fixture	54074143	19	87
	2PL13WP	13 Watt 2-Lamp Plug-In CFL Wall Pack Fixture	N RLED12TWP	New 12 Watt LED Tall Wall Pack Fixture	ENTRA12	42	4
	2W25-4'	T8 1x4 2-Lamp Wrap Fixture	R 2L-12.5LED	Retrofit with (2) 12.5 Watt LED T8 4' Lamps; Direct Wire to Socket	KT-LED10.5T8-48G-840-D	3	1
	4B25-4'	T8 2x4 4-Lamp Surface Mount Fixture	R 4L-12.5LED	Retrofit with (4) 12.5 Watt LED T8 4' Lamps; Direct Wire to Socket	KT-LED10.5T8-48G-840-D	3	4
	4L25-4'	T8 2x4 4-Lamp Troffer Fixture	R 4L-12.5LED	Retrofit with (4) 12.5 Watt LED T8 4' Lamps; Direct Wire to Socket	KT-LED10.5T8-48G-840-D	3	4
	4W25-4'	T8 1x4 4-Lamp Wrap Fixture	R 4L-12.5LED	Retrofit with (4) 12.5 Watt LED T8 4' Lamps; Direct Wire to Socket	KT-LED10.5T8-48G-840-D	3	4
	CF26RLM	26 Watt Compact Fluorescent RLM Fixture	LED 9A	Re-Lamp with (1) 9 Watt LED A19 Lamps	LA19/9/40K/D-46	8	6
30	100A	100 Watt Incandescent A-Lamp Fixture	LED 15A	Re-Lamp with (1) 15 Watt LED A19 Lamp	LA21/16/40K/D-46	9	13
	100RLM(L)	100 Watt Incandescent RLM Fixture; Damaged/Missing Lens	LED 15A	Re-Lamp with (1) 15 Watt LED A19 Lamp	LA21/16/40K/D-46	9	10
	150PAR-HOLDER	150 Watt Incandescent Par Holder Fixture	LED 17P38	Re-Lamp with (1) 17 Watt LED PAR38	LP38/17/840/FL/D	17	2
	150RLM	150 Watt Incandescent RLM Fixture	LED 15A	Re-Lamp with (1) 15 Watt LED A19 Lamp	LA21/16/40K/D-46	9	4
	150RLM-VDA	150 Watt Incandescent RLM Fixture; Very Difficult Access	LED 15A-VDA	Re-Lamp with (1) 15 Watt LED A19 Lamp; Very Difficult Access	LA21/16/40K/D-46	9	2
	1I25-4'	T8 1x4 1-Lamp Industrial Strip Fixture	R 1L-12.5LED	Retrofit with (1) 12.5 Watt LED T8 4' Lamps; Direct Wire to Socket	KT-LED10.5T8-48G-840-D	3	17
	1V25-4'	T8 1x4 1-Lamp Vanity Fixture	R 1L-12.5LED	Retrofit with (1) 12.5 Watt LED T8 4' Lamps; Direct Wire to Socket	KT-LED10.5T8-48G-840-D	3	5
	1W17	T8 2x2 1-Lamp Wrap Fixture	R 1L-10LED2'	Retrofit with (1) 10 Watt LED T8 2' Lamp; Direct Wire to Socket	KT-LED7T8-24GC-840-D	1	1
	1W25-4'	T8 1x4 1-Lamp Wrap Fixture	R 1L-12.5LED	Retrofit with (1) 12.5 Watt LED T8 4' Lamps; Direct Wire to Socket	KT-LED10.5T8-48G-840-D	3	44
	2-100PAR38	100 Watt 2-Lamp Incandescent Par38 Fixture	LED 2-17P38	Re-Lamp with (2) 17 Watt LED PAR38	LP38/17/840/FL/D	17	4
	2-90PAR38	90 Watt 2-Lamp Incandescent Par38 Fixture	LED 2-17P38	Re-Lamp with (2) 17 Watt LED PAR38	LP38/17/840/FL/D	17	2
	2L25-4'	T8 2x4 2-Lamp Troffer Fixture	R 2L-12.5LED	Retrofit with (2) 12.5 Watt LED T8 4' Lamps; Direct Wire to Socket	KT-LED10.5T8-48G-840-D	3	4
	2PL13DL-8X8	13 Watt 2-Lamp Plug-In CFL Downlight Fixture; 8x8	RK KLED7-REC	Retrofit with (1) 7 Watt LED Rectangular Retrofit Kit	KT-RKIT-RP-6-800-840-UV /G2	54	1
	2PL13WP	13 Watt 2-Lamp Plug-In CFL Wall Pack Fixture	N RLED12TWP	New 12 Watt LED Tall Wall Pack Fixture	ENTRA12	42	13
	2W25-4'	T8 1x4 2-Lamp Wrap Fixture	R 2L-12.5LED	Retrofit with (2) 12.5 Watt LED T8 4' Lamps; Direct Wire to Socket	KT-LED10.5T8-48G-840-D	3	1
	2W34(W)-DA	T12 1x4 2-Lamp Wrap Fixture; Damaged/Missing Lens; Difficult Access	N 2W-12.5LED-DA	New 1x4 2-Lamp Wrap Fixture with (2) 12.5 Watt LED T8 4' Lamp; Direct Wire to Socket; Difficult Access	CCW-4'-2-T8LED /// KT-LED10.5T8-48G-840-D	51 + 3	1
	3W25-4'	T8 1x4 3-Lamp Wrap Fixture	R 3L-12.5LED	Retrofit with (3) 12.5 Watt LED T8 4' Lamps; Direct Wire to Socket	KT-LED10.5T8-48G-840-D	3	1
	4L25-4'	T8 2x4 4-Lamp Troffer Fixture	R 4L-12.5LED	Retrofit with (4) 12.5 Watt LED T8 4' Lamps; Direct Wire to Socket	KT-LED10.5T8-48G-840-D	3	2
	4L54HB	T5 HO 2x4 4-Lamp High Bay Fixture	N RLED185HB	New 185 Watt LED High Bay Fixture	RAIL185W/D10	37	5
	4L54HB-VDA	T5 HO 2x4 4-Lamp High Bay Fixture; Very Difficult Access	N RLED185HB-DA	New 185 Watt LED High Bay Fixture; Difficult Access	RAIL185W/D10	37	4
	4L54HB-WG-DA	T5 HO 2x4 4-Lamp High Bay Fixture; Wire Guard; Difficult Access	N RLED185HB-DA-WG	New 185 Watt LED High Bay Fixture; Difficult Access; Wire Guard	RAIL185W/D10 /// GDRAIL22W	37	9
	4W25-4'	T8 1x4 4-Lamp Wrap Fixture	R 4L-12.5LED	Retrofit with (4) 12.5 Watt LED T8 4' Lamps; Direct Wire to Socket	KT-LED10.5T8-48G-840-D	3	1
	90PAR38	90 Watt Incandescent PAR38 Fixture	LED 17P38	Re-Lamp with (1) 17 Watt LED PAR38	LP38/17/840/FL/D	17	1
	CF26	26 Watt Compact Fluorescent Fixture	LED 9A	Re-Lamp with (1) 9 Watt LED A19 Lamps	LA19/9/40K/D-46	8	6
	CF26PAR	26 Watt Compact Fluorescent Par Fixture	LED 10P20	Re-Lamp with (1) 10 Watt LED PAR20	LP20/7/40K/D	15	1
	CF26RLM	26 Watt Compact Fluorescent RLM Fixture	LED 9A	Re-Lamp with (1) 9 Watt LED A19 Lamps	LA19/9/40K/D-46	8	3
	CF26RLM-VDA	26 Watt Compact Fluorescent RLM Fixture; Very Difficult Access	LED 9A-DA	Re-Lamp with (1) 9 Watt LED A19 Lamps; Difficult Access	LA19/9/40K/D-46	8	7
	CF65	65 Watt Compact Fluorescent Fixture	LED 9A	Re-Lamp with (1) 9 Watt LED A19 Lamps	LA19/9/40K/D-46	8	4
	CF65(L)	65 Watt Compact Fluorescent Fixture; Damaged/Missing Lens	N 2I-10.5LED	New 1x4 2-Lamp Industrial Fixture with (2) 10.5 Watt LED T8 4' Lamp; Direct Wire to Socket	OCF-4'-2-T8LED /// KT-LED10.5T8-48G-840-D	45 + 3	3
	CF65RLM	65 Watt Compact Fluorescent RLM Fixture	N 2I-10.5LED	New 1x4 2-Lamp Industrial Fixture with (2) 10.5 Watt LED T8 4' Lamp; Direct Wire to Socket	OCF-4'-2-T8LED /// KT-LED10.5T8-48G-840-D	45 + 3	1
	MH100CPY-EXP	100 Watt Metal Halide Canopy Fixture; Explosion Proof	ZZ DD	No Retrofit	N/A	N/A	6
	MH150FL	150 Watt Metal Halide Flood Fixture	N RLED78FL	New 78 Watt LED Flood Fixture	FXLED78SF/PCT	32	2
	MH250WP	250 Watt Metal Halide Wall Pack Fixture	N RLED55WP-NDS	New 55 Watt LED Wall Pack Fixture; Non-Dark Sky	WP3LED55	41	2
	MH400HB-DA	400 Watt Metal Halide Highbay Fixture; Difficult Access	N RLED150HB-DA	New 150 Watt LED High Bay Fixture; Difficult Access	RAIL150W/D10	36	4
31	1W17	T8 2x2 1-Lamp Wrap Fixture	R 1L-10LED2'	Retrofit with (1) 10 Watt LED T8 2' Lamp; Direct Wire to Socket	KT-LED7T8-24GC-840-D	1	1
	1W25-4'	T8 1x4 1-Lamp Wrap Fixture	R 1L-12.5LED	Retrofit with (1) 12.5 Watt LED T8 4' Lamps; Direct Wire to Socket	KT-LED10.5T8-48G-840-D	3	3
	2-75PAR38-HOLDER	75 Watt 2-Lamp Incandescent Par38 Holder Fixture	LED 2-17P38	Re-Lamp with (2) 17 Watt LED PAR38	LP38/17/840/FL/D	17	1
	2PL13CPY	13 Watt 2-Lamp Plug-In CFL Canopy Fixture	N RLED10CPY	New 10 Watt LED Canopy Fixture	VANLED10	25	4
	2PL13DR	13 Watt Plug-In CFL Drum Fixture	N LED14DR	New 12" Round 14 Watt LED Drum Fixture	54074143	19	2
	2PL13WP	13 Watt 2-Lamp Plug-In CFL Wall Pack Fixture	N RLED12TWP	New 12 Watt LED Tall Wall Pack Fixture	ENTRA12	42	11
	2PL13WP-SMALL	13 Watt 2-Lamp Plug-In CFL Small Wall Pack Fixture	N RLED12TWP	New 12 Watt LED Tall Wall Pack Fixture	ENTRA12	42	3
	2W25-4'	T8 1x4 2-Lamp Wrap Fixture	R 2L-12.5LED	Retrofit with (2) 12.5 Watt LED T8 4' Lamps; Direct Wire to Socket	KT-LED10.5T8-48G-840-D	3	8
	2W32-1X8	T8 1x8 2-Lamp Wrap Fixture	R 2L-12.5LED	Retrofit with (2) 12.5 Watt LED T8 4' Lamps; Direct Wire to Socket	KT-LED10.5T8-48G-840-D	3	25
	3L54HB	T5 HO 2x4 3-Lamp High Bay Fixture	N RLED95HB	New 95 Watt LED High Bay Fixture	RAIL95W/D10	35	6
	4EC32	T8 2x4 4-Lamp Egg Crate Fixture	N 4W-12.5LED	New 1x4 4-Lamp Wrap Fixture with (4) 12.5 Watt LED T8 4' Lamp; Direct Wire to Socket	CCW-4'-4-T8LED /// KT-LED10.5T8-48G-840-D	53 + 3	3
	4L25-4'	T8 2x4 4-Lamp Troffer Fixture	R 4L-12.5LED	Retrofit with (4) 12.5 Watt LED T8 4' Lamps; Direct Wire to Socket	KT-LED10.5T8-48G-840-D	3	3
	4W25-4'	T8 1x4 4-Lamp Wrap Fixture	R 4L-12.5LED	Retrofit with (4) 12.5 Watt LED T8 4' Lamps; Direct Wire to Socket	KT-LED10.5T8-48G-840-D	3	4
	HPS100FL	100 Watt High Pressure Sodium Flood Fixture	N RLED39FL	New 39 Watt LED Flood Fixture	FFLED39	30	1
32	1I25-4'-WG	T8 1x4 1-Lamp Industrial Strip Fixture; Wire Guard	R 1L-12.5LED	Retrofit with (1) 12.5 Watt LED T8 4' Lamps; Direct Wire to Socket	KT-LED10.5T8-48G-840-D	3	36
	1W25-4'	T8 1x4 1-Lamp Wrap Fixture	R 1L-12.5LED	Retrofit with (1) 12.5 Watt LED T8 4' Lamps; Direct Wire to Socket	KT-LED10.5T8-48G-840-D	3	6
	2EC25-4'	T8 2x4 2-Lamp Egg Crate Fixture	N 2W-12.5LED	New 1x4 2-Lamp Wrap Fixture with (2) 12.5 Watt LED T8 4' Lamp; Direct Wire to Socket	CCW-4'-2-T8LED /// KT-LED10.5T8-48G-840-D	51 + 3	2
	2PL13DR	13 Watt Plug-In CFL Drum Fixture	N LED14DR	New 12" Round 14 Watt LED Drum Fixture	54074143	19	15
	3W25-4'	T8 1x4 3-Lamp Wrap Fixture	R 3L-12.5LED	Retrofit with (3) 12.5 Watt LED T8 4' Lamps; Direct Wire to Socket	KT-LED10.5T8-48G-840-D	3	3
	4EC25-4'	T8 2x4 4-Lamp Egg Crate Fixture	N 4W-12.5LED	New 1x4 4-Lamp Wrap Fixture with (4) 12.5 Watt LED T8 4' Lamp; Direct Wire to Socket	CCW-4'-4-T8LED /// KT-LED10.5T8-48G-840-D	53 + 3	1
	4L25-4'	T8 2x4 4-Lamp Troffer Fixture	R 4L-12.5LED	Retrofit with (4) 12.5 Watt LED T8 4' Lamps; Direct Wire to Socket	KT-LED10.5T8-48G-840-D	3	6
	4W25(W)-4'	T8 1x4 4-Lamp Wrap Fixture; Damaged/Missing Lens	N 4W-12.5LED	New 1x4 4-Lamp Wrap Fixture with (4) 12.5 Watt LED T8 4' Lamp; Direct Wire to Socket	CCW-4'-4-T8LED /// KT-LED10.5T8-48G-840-D	53 + 3	1
	4W25-4'	T8 1x4 4-Lamp Wrap Fixture	R 4L-12.5LED	Retrofit with (4) 12.5 Watt LED T8 4' Lamps; Direct Wire to Socket	KT-LED10.5T8-48G-840-D	3	7

	32	CF105	105 Watt Compact Fluorescent Fixture	LED 9A	Re-Lamp with (1) 9 Watt LED A19 Lamps	LA19/9/40K/D-46	8	2
		MV175DTD	175 Watt Mercury Vapor Dusk to Dawn Fixture	N RLED26BY	New 26 Watt LED Dusk to Dawn Barnyard Fixture	YBLED26/PCT	28	1
		RLM-NO LAMP	Empty RLM Fixture	LED 9A	Re-Lamp with (1) 9 Watt LED A19 Lamps	LA19/9/40K/D-46	8	1
	33	1I25-4'-WG	T8 1x4 1-Lamp Industrial Strip Fixture; Wire Guard	R 1L-12.5LED	Retrofit with (1) 12.5 Watt LED T8 4' Lamps; Direct Wire to Socket	KT-LED10.5T8-48G-840-D	3	10
		2EC25-4'	T8 2x4 2-Lamp Egg Crate Fixture	N 2W-12.5LED	New 1x4 2-Lamp Wrap Fixture with (2) 12.5 Watt LED T8 4' Lamp; Direct Wire to Socket	CCW-4'-2-T8LED /// KT-LED10.5T8-48G-840-D	51 + 3	8
		2PL13DR	13 Watt Plug-In CFL Drum Fixture	N LED14DR	New 12" Round 14 Watt LED Drum Fixture	54074143	19	5
		2PL13WP	13 Watt 2-Lamp Plug-In CFL Wall Pack Fixture	N RLED12TWP	New 12 Watt LED Tall Wall Pack Fixture	ENTRA12	42	6
		4EC25(EC)-4'	T8 2x4 4-Lamp Egg Crate Fixture; Damaged/Missing Lens	N 4W-12.5LED	New 1x4 4-Lamp Wrap Fixture with (4) 12.5 Watt LED T8 4' Lamp; Direct Wire to Socket	CCW-4'-4-T8LED /// KT-LED10.5T8-48G-840-D	53 + 3	1
		4EC25-4'	T8 2x4 4-Lamp Egg Crate Fixture	N 4W-12.5LED	New 1x4 4-Lamp Wrap Fixture with (4) 12.5 Watt LED T8 4' Lamp; Direct Wire to Socket	CCW-4'-4-T8LED /// KT-LED10.5T8-48G-840-D	53 + 3	2
		4W25-4'	T8 1x4 4-Lamp Wrap Fixture	R 4L-12.5LED	Retrofit with (4) 12.5 Watt LED T8 4' Lamps; Direct Wire to Socket	KT-LED10.5T8-48G-840-D	3	10
		CF65	65 Watt Compact Fluorescent Fixture	LED 9A	Re-Lamp with (1) 9 Watt LED A19 Lamps	LA19/9/40K/D-46	8	1
	34	1W25-4'	T8 1x4 1-Lamp Wrap Fixture	R 1L-12.5LED	Retrofit with (1) 12.5 Watt LED T8 4' Lamps; Direct Wire to Socket	KT-LED10.5T8-48G-840-D	3	17
		2I25-4'-WG	T8 1x4 2-Lamp Industrial Strip Fixture; Wire Guard	R 2L-12.5LED	Retrofit with (2) 12.5 Watt LED T8 4' Lamps; Direct Wire to Socket	KT-LED10.5T8-48G-840-D	3	32
		2PL13DR	13 Watt Plug-In CFL Drum Fixture	N LED14DR	New 12" Round 14 Watt LED Drum Fixture	54074143	19	4
		4EC25-4'	T8 2x4 4-Lamp Egg Crate Fixture	N 4W-12.5LED	New 1x4 4-Lamp Wrap Fixture with (4) 12.5 Watt LED T8 4' Lamp; Direct Wire to Socket	CCW-4'-4-T8LED /// KT-LED10.5T8-48G-840-D	53 + 3	1
	36	100RLM	100 Watt Incandescent RLM Fixture	ZZ DD	No Retrofit	N/A	N/A	1
		100RLM(L)	100 Watt Incandescent RLM Fixture; Damaged/Missing Lens	ZZ DD	No Retrofit	N/A	N/A	1
		150PAR38	150 Watt Incandescent PAR38 Fixture	ZZ DD	No Retrofit	N/A	N/A	5
		2EC40	T12 2x4 2-Lamp Egg Crate Fixture	ZZ DD	No Retrofit	N/A	N/A	1
		2I40	T12 1x4 2-Lamp Industrial Strip Fixture	ZZ DD	No Retrofit	N/A	N/A	14
		2I40-8'-TAND	T12 1x4 2-Lamp Industrial Strip Fixture; Tandem	ZZ DD	No Retrofit	N/A	N/A	7
		40CIRDR	40 Watt T8 Circline Drum Fixture	ZZ DD	No Retrofit	N/A	N/A	1
		4W40	T12 1x4 4-Lamp Wrap Fixture	ZZ DD	No Retrofit	N/A	N/A	2
		HPS100FL	100 Watt High Pressure Sodium Flood Fixture	ZZ DD	No Retrofit	N/A	N/A	4
		MH175CPY	175 Watt Metal Halide Canopy Fixture	ZZ DD	No Retrofit	N/A	N/A	3
		X	25 Watt Incandescent 2-Lamp Exit Sign	ZZ DD	No Retrofit	N/A	N/A	1
	44	2PL13DR	13 Watt Plug-In CFL Drum Fixture	N LED14DR	New 12" Round 14 Watt LED Drum Fixture	54074143	19	2
		2PL13WP	13 Watt 2-Lamp Plug-In CFL Wall Pack Fixture	N RLED12TWP	New 12 Watt LED Tall Wall Pack Fixture	ENTRA12	42	3
		CF105RLM	105 Watt Compact Fluorescent RLM Fixture	LED 9A	Re-Lamp with (1) 9 Watt LED A19 Lamps	LA19/9/40K/D-46	8	16
		CF40RLM	40 Watt Compact Fluorescent RLM Fixture	LED 9A	Re-Lamp with (1) 9 Watt LED A19 Lamps	LA19/9/40K/D-46	8	3
5,6,7		2CF23	23 Watt 2-Lamp Compact Fluorescent Fixture	LED 2-15A	Re-Lamp with (2) 15 Watt LED A19 Lamps	LA21/16/40K/D-46	9	1
		2CF23JJ	23 Watt 2-Lamp Compact Fluorescent Jelly Jar Fixture	N LED15AJJ	New Jelly Jar Fixture with (1) 15 Watt LED A19	CJJ/WJJ /// LA21/16/40K/D-46	46 + 9	2
		2PARLEDFL	2-Lamp LED Par Flood Fixture	ZZ DD	No Retrofit	N/A	N/A	2
		2PL13CPY	13 Watt 2-Lamp Plug-In CFL Canopy Fixture	N RLED10CPY	New 10 Watt LED Canopy Fixture	VANLED10	25	6
		2PL13WP-SMALL	13 Watt 2-Lamp Plug-In CFL Small Wall Pack Fixture	N RLED12TWP	New 12 Watt LED Tall Wall Pack Fixture	ENTRA12	42	44
		2PL26WP-LARGE	26 Watt 2-Lamp Plug-In CFL Large Wall Pack Fixture	N RLED12TWP	New 12 Watt LED Tall Wall Pack Fixture	ENTRA12	42	20
		2-Q100FL	2-Head Incandescent Quartz Flood Fixture	N RLED52FL	New 52 Watt LED Flood Fixture	FFLED52	31	2
		60A	60 Watt Incandescent A-Lamp Fixture	LED 9A	Re-Lamp with (1) 9 Watt LED A19 Lamps	LA19/9/40K/D-46	8	4
		65BR40DL	65 Watt Incandescent BR40 Downlight Fixture	LED 10BR30	Re-Lamp with (1) 10 Watt LED BR30	LBR30/9/840/D-46	10	10
		75PAR38DL8	75 Watt Incandescent 8" Downlight Par38 Fixture	LED 17BR40	Re-Lamp with (1) 17 Watt LED BR40	LBR40/16/840/D-46	11	6
		CF13JJ	13 Watt Compact Fluorescent Jelly Jar Fixture	LED 9A	Re-Lamp with (1) 9 Watt LED A19 Lamps	LA19/9/40K/D-46	8	15
		CF26DL-12X12	26 Watt Compact Fluorescent Downlight Fixture; 12x12	LED 14PAR30	Re-Lamp with (1) 14 Watt LED Par30 Lamp	LP30/10/40K/D	16	4
		HPS150FL	150 Watt High Pressure Sodium Flood Fixture	N RLED52FL	New 52 Watt LED Flood Fixture	FFLED52	31	12
		LEDWP-DIM	LED Wall Pack Fixture; Dimming	ZZ DD	No Retrofit	N/A	N/A	1
		MH1000FL-Y	1000 Watt Metal Halide Flood Fixture	N RLED300FLT	New 300 Watt LED Flood Fixture; Trunnion	FXLED300T/PCT	34	2
		MH400FL-Y	400 Watt Metal Halide Flood Fixture; Yoke	N RLED125FLT	New 125 Watt LED Flood Fixture; Trunion	FXLED125T/PCT	33	2
		PARLEDFL	1-Lamp LED Par Flood Fixture	ZZ DD	No Retrofit	N/A	N/A	1
		Q100FL	100 Watt Quartz Flood Fixture	N RLED18FL	New 18 Watt LED Flood Fixture	FFLED18	29	1
TUNNEL		CF20	20 Watt Compact Fluorescent Fixture	ZZ DD	No Retrofit	N/A	N/A	90
Grand Total								**8897**

											EXISTING FIXTURES									PROPOSED FIXTURE UPGRADE							
ID #	Facility Name	Phase	Utility Rate Code	Floor	Map #	Building Number	Building Usage Type	Building Section	Room Description	Room #	ECM Code	Qty	Description	Watts	kW	Burn Hour Code	Pre Burn Hours	kWh	x	Qty	New Code	Description	Watts	kW	Annual KW Saved	Part#	Cut Sheet #
1	SELINSGROVE	INTERIOR	S	2	1	13	24/7 & OCCUPIED		2ND FLOOR AT BALCONY		NO ACCESS	1	No Access	0	0.000	S	1000	0		1	ZZ DD	No Retrofit	0	0.000	0.000	N/A	N/A
2	SELINSGROVE	INTERIOR	S	2	1	13	24/7 & OCCUPIED		BALCONY		CF26DL-12X12	3	26 Watt Compact Fluorescent Downlight Fixture; 12x12	26	0.078	S	1000	78		3	LED 9A	Re-Lamp with (1) 9 Watt LED A19 Lamps	9	0.027	0.612	LA19/9/40K/D-46	8
3	SELINSGROVE	INTERIOR	S	1	2	13	24/7 & OCCUPIED		STAIR 1		1W17	2	T8 2x2 1-Lamp Wrap Fixture	22	0.044	S	1000	44		2	R 1L-10LED2'	Retrofit with (1) 10 Watt LED T8 2' Lamp; Direct Wire to Socket	10	0.020	0.288	KT-LED7T8-24GC-840-D	1
4	SELINSGROVE	INTERIOR	S	1	3	13	24/7 & OCCUPIED		STAIR 2		2PL13DR	2	13 Watt Plug-In CFL Drum Fixture	26	0.052	S	1000	52		2	N LED14DR	New 12" Round 14 Watt LED Drum Fixture	14	0.028	0.288	54074143	19
5	SELINSGROVE	INTERIOR	S	1	4	13	24/7 & OCCUPIED		WOMENS RESTROOM	141	1W17	1	T8 2x2 1-Lamp Wrap Fixture	22	0.022	S	1000	22		1	R 1L-10LED2'	Retrofit with (1) 10 Watt LED T8 2' Lamp; Direct Wire to Socket	10	0.010	0.144	KT-LED7T8-24GC-840-D	1
6	SELINSGROVE	INTERIOR	S	1	5	13	24/7 & OCCUPIED		MENS RESTROOM	102	1W17	1	T8 2x2 1-Lamp Wrap Fixture	22	0.022	S	1000	22		1	R 1L-10LED2'	Retrofit with (1) 10 Watt LED T8 2' Lamp; Direct Wire to Socket	10	0.010	0.144	KT-LED7T8-24GC-840-D	1
7	SELINSGROVE	INTERIOR	S	1	6	13	24/7 & OCCUPIED		LOBBY		1W17	3	T8 2x2 1-Lamp Wrap Fixture	22	0.066	S	1000	66		3	R 1L-10LED2'	Retrofit with (1) 10 Watt LED T8 2' Lamp; Direct Wire to Socket	10	0.030	0.432	KT-LED7T8-24GC-840-D	1
8	SELINSGROVE	INTERIOR	S	1	7	13	24/7 & OCCUPIED		WORKROOM	103A	2PL13DR	4	13 Watt Plug-In CFL Drum Fixture	26	0.104	S	1000	104		4	N LED14DR	New 12" Round 14 Watt LED Drum Fixture	14	0.056	0.576	54074143	19
9	SELINSGROVE	INTERIOR	S	1	8	13	24/7 & OCCUPIED		ACTIVITY ROOM	103	2W25-4'	32	T8 1x4 2-Lamp Wrap Fixture	43	1.376	S	1000	1,376		32	R 2L-12.5LED	Retrofit with (2) 12.5 Watt LED T8 4' Lamps; Direct Wire to Socket	25	0.800	6.912	KT-LED10.5T8-48G-840-D	3
10	SELINSGROVE	INTERIOR	S	1	8	13	24/7 & OCCUPIED		ACTIVITY ROOM		CF26DL-12X12	9	26 Watt Compact Fluorescent Downlight Fixture; 12x12	26	0.234	S	1000	234		9	LED 9A	Re-Lamp with (1) 9 Watt LED A19 Lamps	9	0.081	1.836	LA19/9/40K/D-46	8
11	SELINSGROVE	INTERIOR	S	1	9	13	24/7 & OCCUPIED		STAIRS		1W17	4	T8 2x2 1-Lamp Wrap Fixture	22	0.088	S	1000	88		4	R 1L-10LED2'	Retrofit with (1) 10 Watt LED T8 2' Lamp; Direct Wire to Socket	10	0.040	0.576	KT-LED7T8-24GC-840-D	1
12	SELINSGROVE	INTERIOR	S	1	9	13	24/7 & OCCUPIED		STAIRS		2PL13DR	1	13 Watt Plug-In CFL Drum Fixture	26	0.026	S	1000	26		1	N LED14DR	New 12" Round 14 Watt LED Drum Fixture	14	0.014	0.144	54074143	19
13	SELINSGROVE	INTERIOR	S	1	10	13	24/7 & OCCUPIED		JANITOR	139	2PL13DR	1	13 Watt Plug-In CFL Drum Fixture	26	0.026	S	1000	26		1	N LED14DR	New 12" Round 14 Watt LED Drum Fixture	14	0.014	0.144	54074143	19
14	SELINSGROVE	INTERIOR	S	1	11	13	24/7 & OCCUPIED		ROOM		4L25-4'	1	T8 2x4 4-Lamp Troffer Fixture	85	0.085	S	1000	85		1	R 4L-12.5LED	Retrofit with (4) 12.5 Watt LED T8 4' Lamps; Direct Wire to Socket	50	0.050	0.420	KT-LED10.5T8-48G-840-D	3
15	SELINSGROVE	INTERIOR	S	1	12	13	24/7 & OCCUPIED		HALLWAY	106	75BR40DL6	4	75 Watt Incandescent BR40 6" Downlight Fixture	75	0.300	S	1000	300		4	LED 17BR40	Re-Lamp with (1) 17 Watt LED BR40	17	0.068	2.784	LBR40/16/840/D-46	11
16	SELINSGROVE	INTERIOR	S	1	12	13	24/7 & OCCUPIED		HALLWAY		4L25-4'	1	T8 2x4 4-Lamp Troffer Fixture	85	0.085	S	1000	85		1	R 4L-12.5LED	Retrofit with (4) 12.5 Watt LED T8 4' Lamps; Direct Wire to Socket	50	0.050	0.420	KT-LED10.5T8-48G-840-D	3
17	SELINSGROVE	INTERIOR	S	1	13	13	24/7 & OCCUPIED		ROOM		4L25-4'	1	T8 2x4 4-Lamp Troffer Fixture	85	0.085	S	1000	85		1	R 4L-12.5LED	Retrofit with (4) 12.5 Watt LED T8 4' Lamps; Direct Wire to Socket	50	0.050	0.420	KT-LED10.5T8-48G-840-D	3
18	SELINSGROVE	INTERIOR	S	1	14	13	24/7 & OCCUPIED		ROOM	107	1W25-4'	3	T8 1x4 1-Lamp Wrap Fixture	22	0.066	S	1000	66		3	R 1L-12.5LED	Retrofit with (1) 12.5 Watt LED T8 4' Lamps; Direct Wire to Socket	12.5	0.038	0.342	KT-LED10.5T8-48G-840-D	3
19	SELINSGROVE	INTERIOR	S	1	15	13	24/7 & OCCUPIED		ROOM	105	2PL13DR	1	13 Watt Plug-In CFL Drum Fixture	26	0.026	S	1000	26		1	N LED14DR	New 12" Round 14 Watt LED Drum Fixture	14	0.014	0.144	54074143	19
20	SELINSGROVE	INTERIOR	S	1	16	13	24/7 & OCCUPIED		BEDROOM	120	1W17	1	T8 2x2 1-Lamp Wrap Fixture	22	0.022	S	1000	22		1	R 1L-10LED2'	Retrofit with (1) 10 Watt LED T8 2' Lamp; Direct Wire to Socket	10	0.010	0.144	KT-LED7T8-24GC-840-D	1
21	SELINSGROVE	INTERIOR	S	1	17	13	24/7 & OCCUPIED		JANITOR		CF26	1	26 Watt Compact Fluorescent Fixture	26	0.026	S	1000	26		1	LED 9A	Re-Lamp with (1) 9 Watt LED A19 Lamps	9	0.009	0.204	LA19/9/40K/D-46	8
22	SELINSGROVE	INTERIOR	S	1	18	13	24/7 & OCCUPIED		RESTROOM	108	1W25-4'	1	T8 1x4 1-Lamp Wrap Fixture	22	0.022	S	1000	22		1	R 1L-12.5LED	Retrofit with (1) 12.5 Watt LED T8 4' Lamps; Direct Wire to Socket	12.5	0.013	0.114	KT-LED10.5T8-48G-840-D	3
23	SELINSGROVE	INTERIOR	S	1	19	13	24/7 & OCCUPIED		BEDROOM	118	1W17	1	T8 2x2 1-Lamp Wrap Fixture	22	0.022	S	1000	22		1	R 1L-10LED2'	Retrofit with (1) 10 Watt LED T8 2' Lamp; Direct Wire to Socket	10	0.010	0.144	KT-LED7T8-24GC-840-D	1
24	SELINSGROVE	INTERIOR	S	1	20	13	24/7 & OCCUPIED		KITCHEN	112	1W17	1	T8 2x2 1-Lamp Wrap Fixture	22	0.022	S	1000	22		1	R 1L-10LED2'	Retrofit with (1) 10 Watt LED T8 2' Lamp; Direct Wire to Socket	10	0.010	0.144	KT-LED7T8-24GC-840-D	1
25	SELINSGROVE	INTERIOR	S	1	21	13	24/7 & OCCUPIED		LOUNGE	114	1W17	1	T8 2x2 1-Lamp Wrap Fixture	22	0.022	S	1000	22		1	R 1L-10LED2'	Retrofit with (1) 10 Watt LED T8 2' Lamp; Direct Wire to Socket	10	0.010	0.144	KT-LED7T8-24GC-840-D	1
26	SELINSGROVE	INTERIOR	S	1	22	13	24/7 & OCCUPIED		BEDROOM	113	1W17	1	T8 2x2 1-Lamp Wrap Fixture	22	0.022	S	1000	22		1	R 1L-10LED2'	Retrofit with (1) 10 Watt LED T8 2' Lamp; Direct Wire to Socket	10	0.010	0.144	KT-LED7T8-24GC-840-D	1
27	SELINSGROVE	INTERIOR	S	1	23	13	24/7 & OCCUPIED		HALLWAY		1W17	3	T8 2x2 1-Lamp Wrap Fixture	22	0.066	S	1000	66		3	R 1L-10LED2'	Retrofit with (1) 10 Watt LED T8 2' Lamp; Direct Wire to Socket	10	0.030	0.432	KT-LED7T8-24GC-840-D	1
28	SELINSGROVE	INTERIOR	S	1	24	13	24/7 & OCCUPIED		STAIRS		1W17	4	T8 2x2 1-Lamp Wrap Fixture	22	0.088	S	1000	88		4	R 1L-10LED2'	Retrofit with (1) 10 Watt LED T8 2' Lamp; Direct Wire to Socket	10	0.040	0.576	KT-LED7T8-24GC-840-D	1
29	SELINSGROVE	INTERIOR	S	1	24	13	24/7 & OCCUPIED		STAIRS		2PL13DR	1	13 Watt Plug-In CFL Drum Fixture	26	0.026	S	1000	26		1	N LED14DR	New 12" Round 14 Watt LED Drum Fixture	14	0.014	0.144	54074143	19
30	SELINSGROVE	INTERIOR	S	1	25	13	24/7 & OCCUPIED		OFFICE	124	1W25-4'	1	T8 1x4 1-Lamp Wrap Fixture	22	0.022	S	1000	22		1	R 1L-12.5LED	Retrofit with (1) 12.5 Watt LED T8 4' Lamps; Direct Wire to Socket	12.5	0.013	0.114	KT-LED10.5T8-48G-840-D	3
31	SELINSGROVE	INTERIOR	S	1	26	13	24/7 & OCCUPIED		JANITOR	138	CF26	1	26 Watt Compact Fluorescent Fixture	26	0.026	S	1000	26		1	LED 9A	Re-Lamp with (1) 9 Watt LED A19 Lamps	9	0.009	0.204	LA19/9/40K/D-46	8
32	SELINSGROVE	INTERIOR	S	1	27	13	24/7 & OCCUPIED		RESTROOM	136	2PL13DR	2	13 Watt Plug-In CFL Drum Fixture	26	0.052	S	1000	52		2	N LED14DR	New 12" Round 14 Watt LED Drum Fixture	14	0.028	0.288	54074143	19

											EXISTING FIXTURES									PROPOSED FIXTURE UPGRADE							
ID #	Facility Name	Phase	Utility Rate Code	Floor	Map #	Building Number	Building Usage Type	Building Section	Room Description	Room #	ECM Code	Qty	Description	Watts	kW	Burn Hour Code	Pre Burn Hours	kWh	x	Qty	New Code	Description	Watts	kW	Annual KW Saved	Part#	Cut Sheet #
33	SELINSGROVE	INTERIOR	S	1	28	13	24/7 & OCCUPIED		BEDROOM	126	1W25-4'	1	T8 1x4 1-Lamp Wrap Fixture	22	0.022	S	1000	22		1	R 1L-12.5LED	Retrofit with (1) 12.5 Watt LED T8 4' Lamps; Direct Wire to Socket	12.5	0.013	0.114	KT-LED10.5T8-48G-840-D	3
34	SELINSGROVE	INTERIOR	S	1	29	13	24/7 & OCCUPIED		OFFICE	129	4EC25-4'	1	T8 2x4 4-Lamp Egg Crate Fixture	85	0.085	S	1000	85		1	N 4W-12.5LED	New 1x4 4-Lamp Wrap Fixture with (4) 12.5 Watt LED T8 4' Lamp; Direct Wire to Socket	50	0.050	0.420	CCW-4'-4-T8LED /// KT-LED10.5T8-48G-840-D	53 + 3
35	SELINSGROVE	INTERIOR	S	1	30	13	24/7 & OCCUPIED		KITCHEN	134	1W25-4'	1	T8 1x4 1-Lamp Wrap Fixture	22	0.022	S	1000	22		1	R 1L-12.5LED	Retrofit with (1) 12.5 Watt LED T8 4' Lamps; Direct Wire to Socket	12.5	0.013	0.114	KT-LED10.5T8-48G-840-D	3
36	SELINSGROVE	INTERIOR	S	1	31	13	24/7 & OCCUPIED		OFFICE	132	1W25-4'	1	T8 1x4 1-Lamp Wrap Fixture	22	0.022	S	1000	22		1	R 1L-12.5LED	Retrofit with (1) 12.5 Watt LED T8 4' Lamps; Direct Wire to Socket	12.5	0.013	0.114	KT-LED10.5T8-48G-840-D	3
37	SELINSGROVE	INTERIOR	S	1	32	13	24/7 & OCCUPIED		HALLWAY		1W17	3	T8 2x2 1-Lamp Wrap Fixture	22	0.066	S	1000	66		3	R 1L-10LED2'	Retrofit with (1) 10 Watt LED T8 2' Lamp; Direct Wire to Socket	10	0.030	0.432	KT-LED7T8-24GC-840-D	1
38	SELINSGROVE	INTERIOR	S	2	33	13	24/7 & OCCUPIED		STAIRS	230	1W17	1	T8 2x2 1-Lamp Wrap Fixture	22	0.022	S-ES	700	15		1	R 1L-10LED2'	Retrofit with (1) 10 Watt LED T8 2' Lamp; Direct Wire to Socket	10	0.010	0.144	KT-LED7T8-24GC-840-D	1
39	SELINSGROVE	INTERIOR	S	2	33	13	24/7 & OCCUPIED		STAIRS		CF26JJ	2	26 Watt Compact Fluorescent Jelly Jar Fixture	26	0.052	S-ES	700	36		2	LED 9A	Re-Lamp with (1) 9 Watt LED A19 Lamps	9	0.018	0.408	LA19/9/40K/D-46	8
40	SELINSGROVE	INTERIOR	S	2	34	13	24/7 & OCCUPIED		STORAGE	234	1W17	1	T8 2x2 1-Lamp Wrap Fixture	22	0.022	S-ES	700	15		1	R 1L-10LED2'	Retrofit with (1) 10 Watt LED T8 2' Lamp; Direct Wire to Socket	10	0.010	0.144	KT-LED7T8-24GC-840-D	1
41	SELINSGROVE	INTERIOR	S	2	35	13	24/7 & OCCUPIED		STORAGE	231	1W25-4'	1	T8 1x4 1-Lamp Wrap Fixture	22	0.022	S-ES	700	15		1	R 1L-12.5LED	Retrofit with (1) 12.5 Watt LED T8 4' Lamps; Direct Wire to Socket	12.5	0.013	0.114	KT-LED10.5T8-48G-840-D	3
42	SELINSGROVE	INTERIOR	S	2	36	13	24/7 & OCCUPIED		STORAGE	236	1W25-4'	1	T8 1x4 1-Lamp Wrap Fixture	22	0.022	S-ES	700	15		1	R 1L-12.5LED	Retrofit with (1) 12.5 Watt LED T8 4' Lamps; Direct Wire to Socket	12.5	0.013	0.114	KT-LED10.5T8-48G-840-D	3
43	SELINSGROVE	INTERIOR	S	2	37	13	24/7 & OCCUPIED		JANITOR	239	CF26	1	26 Watt Compact Fluorescent Fixture	26	0.026	S-ES	700	18		1	LED 9A	Re-Lamp with (1) 9 Watt LED A19 Lamps	9	0.009	0.204	LA19/9/40K/D-46	8
44	SELINSGROVE	INTERIOR	S	2	38	13	24/7 & OCCUPIED		JANITOR	228	1W25-4'	1	T8 1x4 1-Lamp Wrap Fixture	22	0.022	S-ES	700	15		1	R 1L-12.5LED	Retrofit with (1) 12.5 Watt LED T8 4' Lamps; Direct Wire to Socket	12.5	0.013	0.114	KT-LED10.5T8-48G-840-D	3
45	SELINSGROVE	INTERIOR	S	2	39	13	24/7 & OCCUPIED		RESTROOM	240	1W17	2	T8 2x2 1-Lamp Wrap Fixture	22	0.044	S-ES	700	31		2	R 1L-10LED2'	Retrofit with (1) 10 Watt LED T8 2' Lamp; Direct Wire to Socket	10	0.020	0.288	KT-LED7T8-24GC-840-D	1
46	SELINSGROVE	INTERIOR	S	2	39	13	24/7 & OCCUPIED		RESTROOM		2PL13DR	1	13 Watt Plug-In CFL Drum Fixture	26	0.026	S-ES	700	18		1	N LED14DR	New 12" Round 14 Watt LED Drum Fixture	14	0.014	0.144	54074143	19
47	SELINSGROVE	INTERIOR	S	2	40	13	24/7 & OCCUPIED		RESTROOM	226	1W25-4'	1	T8 1x4 1-Lamp Wrap Fixture	22	0.022	S-ES	700	15		1	R 1L-12.5LED	Retrofit with (1) 12.5 Watt LED T8 4' Lamps; Direct Wire to Socket	12.5	0.013	0.114	KT-LED10.5T8-48G-840-D	3
48	SELINSGROVE	INTERIOR	S	2	41	13	24/7 & OCCUPIED		HALLWAY		1W17	3	T8 2x2 1-Lamp Wrap Fixture	22	0.066	S-ES	700	46		3	R 1L-10LED2'	Retrofit with (1) 10 Watt LED T8 2' Lamp; Direct Wire to Socket	10	0.030	0.432	KT-LED7T8-24GC-840-D	1
49	SELINSGROVE	INTERIOR	S	2	42	13	24/7 & OCCUPIED		LOUNGE	207	1W17	2	T8 2x2 1-Lamp Wrap Fixture	22	0.044	S	1000	44		2	R 1L-10LED2'	Retrofit with (1) 10 Watt LED T8 2' Lamp; Direct Wire to Socket	10	0.020	0.288	KT-LED7T8-24GC-840-D	1
50	SELINSGROVE	INTERIOR	S	2	43	13	24/7 & OCCUPIED		BEDROOM	223	1W17	1	T8 2x2 1-Lamp Wrap Fixture	22	0.022	S	1000	22		1	R 1L-10LED2'	Retrofit with (1) 10 Watt LED T8 2' Lamp; Direct Wire to Socket	10	0.010	0.144	KT-LED7T8-24GC-840-D	1
51	SELINSGROVE	INTERIOR	S	2	44	13	24/7 & OCCUPIED		RESTROOM	209	1W17	2	T8 2x2 1-Lamp Wrap Fixture	22	0.044	S	1000	44		2	R 1L-10LED2'	Retrofit with (1) 10 Watt LED T8 2' Lamp; Direct Wire to Socket	10	0.020	0.288	KT-LED7T8-24GC-840-D	1
52	SELINSGROVE	INTERIOR	S	2	44	13	24/7 & OCCUPIED		RESTROOM		2PL13DR	1	13 Watt Plug-In CFL Drum Fixture	26	0.026	S	1000	26		1	N LED14DR	New 12" Round 14 Watt LED Drum Fixture	14	0.014	0.144	54074143	19
53	SELINSGROVE	INTERIOR	S	2	46	13	24/7 & OCCUPIED		JANITOR	211	CF26	1	26 Watt Compact Fluorescent Fixture	26	0.026	S	1000	26		1	LED 9A	Re-Lamp with (1) 9 Watt LED A19 Lamps	9	0.009	0.204	LA19/9/40K/D-46	8
54	SELINSGROVE	INTERIOR	S	2	47	13	24/7 & OCCUPIED		BEDROOM	221	1W17	1	T8 2x2 1-Lamp Wrap Fixture	22	0.022	S	1000	22		1	R 1L-10LED2'	Retrofit with (1) 10 Watt LED T8 2' Lamp; Direct Wire to Socket	10	0.010	0.144	KT-LED7T8-24GC-840-D	1
55	SELINSGROVE	INTERIOR	S	2	48	13	24/7 & OCCUPIED		BEDROOM	212	1W17	1	T8 2x2 1-Lamp Wrap Fixture	22	0.022	S	1000	22		1	R 1L-10LED2'	Retrofit with (1) 10 Watt LED T8 2' Lamp; Direct Wire to Socket	10	0.010	0.144	KT-LED7T8-24GC-840-D	1
56	SELINSGROVE	INTERIOR	S	2	49	13	24/7 & OCCUPIED		BEDROOM	217	1W17	1	T8 2x2 1-Lamp Wrap Fixture	22	0.022	S	1000	22		1	R 1L-10LED2'	Retrofit with (1) 10 Watt LED T8 2' Lamp; Direct Wire to Socket	10	0.010	0.144	KT-LED7T8-24GC-840-D	1
57	SELINSGROVE	INTERIOR	S	2	50	13	24/7 & OCCUPIED		KITCHEN	215	1W17	1	T8 2x2 1-Lamp Wrap Fixture	22	0.022	S	1000	22		1	R 1L-10LED2'	Retrofit with (1) 10 Watt LED T8 2' Lamp; Direct Wire to Socket	10	0.010	0.144	KT-LED7T8-24GC-840-D	1
58	SELINSGROVE	INTERIOR	S	2	51	13	24/7 & OCCUPIED		HALLWAY		1W17	3	T8 2x2 1-Lamp Wrap Fixture	22	0.066	S	1000	66		3	R 1L-10LED2'	Retrofit with (1) 10 Watt LED T8 2' Lamp; Direct Wire to Socket	10	0.030	0.432	KT-LED7T8-24GC-840-D	1
59	SELINSGROVE	INTERIOR	S	2	52	13	24/7 & OCCUPIED		STAIRS	220	1W17	2	T8 2x2 1-Lamp Wrap Fixture	22	0.044	S	1000	44		2	R 1L-10LED2'	Retrofit with (1) 10 Watt LED T8 2' Lamp; Direct Wire to Socket	10	0.020	0.288	KT-LED7T8-24GC-840-D	1
60	SELINSGROVE	INTERIOR	S	2	52	13	24/7 & OCCUPIED		STAIRS		CF26JJ	2	26 Watt Compact Fluorescent Jelly Jar Fixture	26	0.052	S	1000	52		2	LED 9A	Re-Lamp with (1) 9 Watt LED A19 Lamps	9	0.018	0.408	LA19/9/40K/D-46	8
61	SELINSGROVE	EXTERIOR	S		A	13	24/7 & OCCUPIED		SITE		2PL13WP-LARGE	10	13 Watt 2-Lamp Plug-In CFL Large Wall Pack Fixture	30	0.300	EX	4380	1,314		10	N RLED12TWP	New 12 Watt LED Tall Wall Pack Fixture	14	0.140	1.920	ENTRA12	42
62	SELINSGROVE	EXTERIOR	S		B	13	24/7 & OCCUPIED		SITE		2PL13WP-SMALL	7	13 Watt 2-Lamp Plug-In CFL Small Wall Pack Fixture	30	0.210	EX	4380	920		7	N RLED12TWP	New 12 Watt LED Tall Wall Pack Fixture	14	0.098	1.344	ENTRA12	42
63	SELINSGROVE	INTERIOR	S	B	53	13	24/7 & OCCUPIED		STORAGE	13	2EC25-4'	4	T8 2x4 2-Lamp Egg Crate Fixture	43	0.172	S	1000	172		4	N 2W-12.5LED	New 1x4 2-Lamp Wrap Fixture with (2) 12.5 Watt LED T8 4' Lamp; Direct Wire to Socket	25	0.100	0.864	CCW-4'-2-T8LED /// KT-LED10.5T8-48G-840-D	51 + 3
64	SELINSGROVE	INTERIOR	S	B	53	13	24/7 & OCCUPIED		STORAGE		1W25-4'	5	T8 1x4 1-Lamp Wrap Fixture	22	0.110	S	1000	110		5	R 1L-12.5LED	Retrofit with (1) 12.5 Watt LED T8 4' Lamps; Direct Wire to Socket	12.5	0.063	0.570	KT-LED10.5T8-48G-840-D	3

											EXISTING FIXTURES									PROPOSED FIXTURE UPGRADE							
ID #	Facility Name	Phase	Utility Rate Code	Floor	Map #	Building Number	Building Usage Type	Building Section	Room Description	Room #	ECM Code	Qty	Description	Watts	kW	Burn Hour Code	Pre Burn Hours	kWh	x	Qty	New Code	Description	Watts	kW	Annual KW Saved	Part#	Cut Sheet #
65	SELINSGROVE	INTERIOR	S	B	53	13	24/7 & OCCUPIED		STORAGE		X	1	25 Watt Incandescent 2-Lamp Exit Sign	50	0.050	Z	8760	438		1	N XLED	New 3 watt LED Exit Sign	3	0.003	0.564	ES-LED-RW-B	43
66	SELINSGROVE	INTERIOR	S	B	54	13	24/7 & OCCUPIED		HALLWAY	11	2PL13DR	1	13 Watt Plug-In CFL Drum Fixture	26	0.026	S	1000	26		1	N LED14DR	New 12" Round 14 Watt LED Drum Fixture	14	0.014	0.144	54074143	19
67	SELINSGROVE	INTERIOR	S	B	55	13	24/7 & OCCUPIED		STORAGE	10	2PL13DR	2	13 Watt Plug-In CFL Drum Fixture	26	0.052	S	1000	52		2	N LED14DR	New 12" Round 14 Watt LED Drum Fixture	14	0.028	0.288	54074143	19
68	SELINSGROVE	INTERIOR	S	B	56	13	24/7 & OCCUPIED		STORAGE		1W25-4'	2	T8 1x4 1-Lamp Wrap Fixture	22	0.044	S	1000	44		2	R 1L-12.5LED	Retrofit with (1) 12.5 Watt LED T8 4' Lamps; Direct Wire to Socket	12.5	0.025	0.228	KT-LED10.5T8-48G-840-D	3
69	SELINSGROVE	INTERIOR	S	B	56	13	24/7 & OCCUPIED		STORAGE	1	1W17	2	T8 2x2 1-Lamp Wrap Fixture	22	0.044	S	1000	44		2	R 1L-10LED2'	Retrofit with (1) 10 Watt LED T8 2' Lamp; Direct Wire to Socket	10	0.020	0.288	KT-LED7T8-24GC-840-D	1
70	SELINSGROVE	INTERIOR	S	B	56	13	24/7 & OCCUPIED		STORAGE	5	1W17	1	T8 2x2 1-Lamp Wrap Fixture	22	0.022	S	1000	22		1	R 1L-10LED2'	Retrofit with (1) 10 Watt LED T8 2' Lamp; Direct Wire to Socket	10	0.010	0.144	KT-LED7T8-24GC-840-D	1
71	SELINSGROVE	INTERIOR	S	B	56	13	24/7 & OCCUPIED		STORAGE		1W25-4'	2	T8 1x4 1-Lamp Wrap Fixture	22	0.044	S	1000	44		2	R 1L-12.5LED	Retrofit with (1) 12.5 Watt LED T8 4' Lamps; Direct Wire to Socket	12.5	0.025	0.228	KT-LED10.5T8-48G-840-D	3
72	SELINSGROVE	INTERIOR	S	B	56	13	24/7 & OCCUPIED		STORAGE		2PL13DR	1	13 Watt Plug-In CFL Drum Fixture	26	0.026	S	1000	26		1	N LED14DR	New 12" Round 14 Watt LED Drum Fixture	14	0.014	0.144	54074143	19
73	SELINSGROVE	INTERIOR	S	B	56	13	24/7 & OCCUPIED		STORAGE	116/03	2PL13DR	2	13 Watt Plug-In CFL Drum Fixture	26	0.052	S	1000	52		2	N LED14DR	New 12" Round 14 Watt LED Drum Fixture	14	0.028	0.288	54074143	19
74	SELINSGROVE	INTERIOR	S	2	1	1	24/7 & OCCUPIED		2ND FLOOR		NO ACCESS	1	No Access	0	0.000	S	1000	0		1	ZZ DD	No Retrofit	0	0.000	0.000	N/A	N/A
75	SELINSGROVE	INTERIOR	S	1	1	1	24/7 & OCCUPIED		VESTIBULE		1W17	1	T8 2x2 1-Lamp Wrap Fixture	22	0.022	S	1000	22		1	R 1L-10LED2'	Retrofit with (1) 10 Watt LED T8 2' Lamp; Direct Wire to Socket	10	0.010	0.144	KT-LED7T8-24GC-840-D	1
76	SELINSGROVE	INTERIOR	S	1	2	1	24/7 & OCCUPIED		ROOM	113	2EC25-4'	1	T8 2x4 2-Lamp Egg Crate Fixture	43	0.043	S	1000	43		1	N 2W-12.5LED	New 1x4 2-Lamp Wrap Fixture with (2) 12.5 Watt LED T8 4' Lamp; Direct Wire to Socket	25	0.025	0.216	CCW-4'-2-T8LED /// KT-LED10.5T8-48G-840-D	51 + 3
77	SELINSGROVE	INTERIOR	S	1	3	1	24/7 & OCCUPIED		KITCHEN	109	4EC25-4'	3	T8 2x4 4-Lamp Egg Crate Fixture	85	0.255	S	1000	255		3	N 4W-12.5LED	New 1x4 4-Lamp Wrap Fixture with (4) 12.5 Watt LED T8 4' Lamp; Direct Wire to Socket	50	0.150	1.260	CCW-4'-4-T8LED /// KT-LED10.5T8-48G-840-D	53 + 3
78	SELINSGROVE	INTERIOR	S	1	3	1	24/7 & OCCUPIED		KITCHEN		X	1	25 Watt Incandescent 2-Lamp Exit Sign	50	0.050	Z	8760	438		1	N XLED	New 3 watt LED Exit Sign	3	0.003	0.564	ES-LED-RW-B	43
79	SELINSGROVE	INTERIOR	S	1	4	1	24/7 & OCCUPIED		STORAGE	111	1W25-4'	1	T8 1x4 1-Lamp Wrap Fixture	22	0.022	S	1000	22		1	R 1L-12.5LED	Retrofit with (1) 12.5 Watt LED T8 4' Lamps; Direct Wire to Socket	12.5	0.013	0.114	KT-LED10.5T8-48G-840-D	3
80	SELINSGROVE	INTERIOR	S	1	5	1	24/7 & OCCUPIED		STORAGE	112	1W25-4'	1	T8 1x4 1-Lamp Wrap Fixture	22	0.022	S	1000	22		1	R 1L-12.5LED	Retrofit with (1) 12.5 Watt LED T8 4' Lamps; Direct Wire to Socket	12.5	0.013	0.114	KT-LED10.5T8-48G-840-D	3
81	SELINSGROVE	INTERIOR	S	1	5	1	24/7 & OCCUPIED		STORAGE		X	1	25 Watt Incandescent 2-Lamp Exit Sign	50	0.050	Z	8760	438		1	N XLED	New 3 watt LED Exit Sign	3	0.003	0.564	ES-LED-RW-B	43
82	SELINSGROVE	INTERIOR	S	1	6	1	24/7 & OCCUPIED		CHILD CARE	108	4W25-4'	7	T8 1x4 4-Lamp Wrap Fixture	85	0.595	S	1000	595		7	R 4L-12.5LED	Retrofit with (4) 12.5 Watt LED T8 4' Lamps; Direct Wire to Socket	50	0.350	2.940	KT-LED10.5T8-48G-840-D	3
83	SELINSGROVE	INTERIOR	S	1	6	1	24/7 & OCCUPIED		CHILD CARE		X	2	25 Watt Incandescent 2-Lamp Exit Sign	50	0.100	Z	8760	876		2	N XLED	New 3 watt LED Exit Sign	3	0.006	1.128	ES-LED-RW-B	43
84	SELINSGROVE	INTERIOR	S	1	7	1	24/7 & OCCUPIED		OFFICE	107	4EC25-4'	1	T8 2x4 4-Lamp Egg Crate Fixture	85	0.085	S	1000	85		1	N 4W-12.5LED	New 1x4 4-Lamp Wrap Fixture with (4) 12.5 Watt LED T8 4' Lamp; Direct Wire to Socket	50	0.050	0.420	CCW-4'-4-T8LED /// KT-LED10.5T8-48G-840-D	53 + 3
85	SELINSGROVE	INTERIOR	S	1	8	1	24/7 & OCCUPIED		RESTROOM/JANITOR		2W25-4'	1	T8 1x4 2-Lamp Wrap Fixture	43	0.043	S	1000	43		1	R 2L-12.5LED	Retrofit with (2) 12.5 Watt LED T8 4' Lamps; Direct Wire to Socket	25	0.025	0.216	KT-LED10.5T8-48G-840-D	3
86	SELINSGROVE	INTERIOR	S	1	9	1	24/7 & OCCUPIED		HANDICAP RESTROOM		2V17	1	T8 1x2 2-Lamp Vanity Fixture	29	0.029	S	1000	29		1	R 2L-10LED2'	Retrofit with (2) 10 Watt LED T8 2' Lamps; Direct Wire to Socket	20	0.020	0.108	KT-LED7T8-24GC-840-D	1
87	SELINSGROVE	INTERIOR	S	1	10	1	24/7 & OCCUPIED		SHOWER	106A	2W25-4'	1	T8 1x4 2-Lamp Wrap Fixture	43	0.043	S	1000	43		1	R 2L-12.5LED	Retrofit with (2) 12.5 Watt LED T8 4' Lamps; Direct Wire to Socket	25	0.025	0.216	KT-LED10.5T8-48G-840-D	3
88	SELINSGROVE	INTERIOR	S	1	10	1	24/7 & OCCUPIED		SHOWER		1V17	1	T8 2x2 1-Lamp Vanity Fixture	22	0.022	S	1000	22		1	R 1L-10LED2'	Retrofit with (1) 10 Watt LED T8 2' Lamp; Direct Wire to Socket	10	0.010	0.144	KT-LED7T8-24GC-840-D	1
89	SELINSGROVE	INTERIOR	S	1	11	1	24/7 & OCCUPIED		STORAGE	128	2PL13VAN	2	13 Watt 2-Lamp Plug-In CFL Vanity Fixture	30	0.060	S	1000	60		2	N 2V-12.5LED	New 1x4 2-Lamp Vanity Fixture with (2) 12.5 Watt LED T8 4' Lamp; Direct Wire to Socket	25	0.050	0.120	VWF-4'-2-T8LED /// KT-LED10.5T8-48G-840-D	49 + 3
90	SELINSGROVE	INTERIOR	S	1	12	1	24/7 & OCCUPIED		HALLWAY		2B17-DROPLENS	4	T8 2-Lamp Surface Mount Fixture; Drop Lens	29	0.116	S	1000	116		4	N 2B-10LED2'	New 2x2 Box Fixture and (2) 10 Watt 2' LED T8 Lamps; Direct Wire to Socket	20	0.080	0.432	SF22-2x2-2-T8LED /// KT-LED7T8-24GC-840-D	44 + 1
91	SELINSGROVE	INTERIOR	S	1	12	1	24/7 & OCCUPIED		HALLWAY		2B17(B)-DROPLENS	1	T8 2-Lamp Surface Mount Fixture; Drop Lens; Damaged/Missing Lens	29	0.029	S	1000	29		1	N 2B-10LED2'	New 2x2 Box Fixture and (2) 10 Watt 2' LED T8 Lamps; Direct Wire to Socket	20	0.020	0.108	SF22-2x2-2-T8LED /// KT-LED7T8-24GC-840-D	44 + 1
92	SELINSGROVE	INTERIOR	S	1	12	1	24/7 & OCCUPIED		HALLWAY		X	2	25 Watt Incandescent 2-Lamp Exit Sign	50	0.100	Z	8760	876		2	N XLED	New 3 watt LED Exit Sign	3	0.006	1.128	ES-LED-RW-B	43
93	SELINSGROVE	INTERIOR	S	1	13	1	24/7 & OCCUPIED		RESTROOM	120A	2W25(W)-4'	1	T8 1x4 2-Lamp Wrap Fixture; Damaged/Missing Lens	43	0.043	S	1000	43		1	N 2W-12.5LED	New 1x4 2-Lamp Wrap Fixture with (2) 12.5 Watt LED T8 4' Lamp; Direct Wire to Socket	25	0.025	0.216	CCW-4'-2-T8LED /// KT-LED10.5T8-48G-840-D	51 + 3
94	SELINSGROVE	INTERIOR	S	1	13	1	24/7 & OCCUPIED		RESTROOM		1V17	1	T8 2x2 1-Lamp Vanity Fixture	22	0.022	S	1000	22		1	R 1L-10LED2'	Retrofit with (1) 10 Watt LED T8 2' Lamp; Direct Wire to Socket	10	0.010	0.144	KT-LED7T8-24GC-840-D	1
95	SELINSGROVE	INTERIOR	S	1	14	1	24/7 & OCCUPIED		CLASSROOM	101	4W25-4'	7	T8 1x4 4-Lamp Wrap Fixture	85	0.595	S	1000	595		7	R 4L-12.5LED	Retrofit with (4) 12.5 Watt LED T8 4' Lamps; Direct Wire to Socket	50	0.350	2.940	KT-LED10.5T8-48G-840-D	3
96	SELINSGROVE	INTERIOR	S	1	14	1	24/7 & OCCUPIED		CLASSROOM		X	1	25 Watt Incandescent 2-Lamp Exit Sign	50	0.050	Z	8760	438		1	N XLED	New 3 watt LED Exit Sign	3	0.003	0.564	ES-LED-RW-B	43

											EXISTING FIXTURES									PROPOSED FIXTURE UPGRADE							
ID #	Facility Name	Phase	Utility Rate Code	Floor	Map #	Building Number	Building Usage Type	Building Section	Room Description	Room #	ECM Code	Qty	Description	Watts	kW	Burn Hour Code	Pre Burn Hours	kWh	x	Qty	New Code	Description	Watts	kW	Annual KW Saved	Part#	Cut Sheet #
97	SELINSGROVE	INTERIOR	S	1	14	1	24/7 & OCCUPIED		CLASSROOM		XLED	2	3 Watt LED 2-Lamp Exit Sign	3	0.006	Z	8760	53		2	ZZ DD	No Retrofit	3	0.006	0.000	N/A	N/A
98	SELINSGROVE	INTERIOR	S	1	15	1	24/7 & OCCUPIED		CHILD CARE	121	4W25-4'	8	T8 1x4 4-Lamp Wrap Fixture	85	0.680	S	1000	680		8	R 4L-12.5LED	Retrofit with (4) 12.5 Watt LED T8 4' Lamps; Direct Wire to Socket	50	0.400	3.360	KT-LED10.5T8-48G-840-D	3
99	SELINSGROVE	INTERIOR	S	1	15	1	24/7 & OCCUPIED		CHILD CARE		X	2	25 Watt Incandescent 2-Lamp Exit Sign	50	0.100	Z	8760	876		2	N XLED	New 3 watt LED Exit Sign	3	0.006	1.128	ES-LED-RW-B	43
100	SELINSGROVE	INTERIOR	S	1	16	1	24/7 & OCCUPIED		STORAGE	122	1W25-4'	1	T8 1x4 1-Lamp Wrap Fixture	22	0.022	S	1000	22		1	R 1L-12.5LED	Retrofit with (1) 12.5 Watt LED T8 4' Lamps; Direct Wire to Socket	12.5	0.013	0.114	KT-LED10.5T8-48G-840-D	3
101	SELINSGROVE	INTERIOR	S	1	16	1	24/7 & OCCUPIED		CLOSET		1W25-4'	1	T8 1x4 1-Lamp Wrap Fixture	22	0.022	S	1000	22		1	R 1L-12.5LED	Retrofit with (1) 12.5 Watt LED T8 4' Lamps; Direct Wire to Socket	12.5	0.013	0.114	KT-LED10.5T8-48G-840-D	3
102	SELINSGROVE	INTERIOR	S	1	16	1	24/7 & OCCUPIED		RESTROOM		2PL13	1	13 Watt 2-Lamp Plug-In CFL Fixture	30	0.030	S	1000	30		1	ZZ DD	No Retrofit	30	0.030	0.000	N/A	N/A
103	SELINSGROVE	INTERIOR	S	1	17	1	24/7 & OCCUPIED		LAUNDRY	106	2EC25-4'	1	T8 2x4 2-Lamp Egg Crate Fixture	43	0.043	S	1000	43		1	N 2W-12.5LED	New 1x4 2-Lamp Wrap Fixture with (2) 12.5 Watt LED T8 4' Lamp; Direct Wire to Socket	25	0.025	0.216	CCW-4'-2-T8LED /// KT-LED10.5T8-48G-840-D	51 + 3
104	SELINSGROVE	INTERIOR	S	1	18	1	24/7 & OCCUPIED		CHILD CARE	103	4W25-4'	8	T8 1x4 4-Lamp Wrap Fixture	85	0.680	S	1000	680		8	R 4L-12.5LED	Retrofit with (4) 12.5 Watt LED T8 4' Lamps; Direct Wire to Socket	50	0.400	3.360	KT-LED10.5T8-48G-840-D	3
105	SELINSGROVE	INTERIOR	S	1	19	1	24/7 & OCCUPIED		STAIRS		2PL13	3	13 Watt 2-Lamp Plug-In CFL Fixture	30	0.090	S	1000	90		3	ZZ DD	No Retrofit	30	0.090	0.000	N/A	N/A
106	SELINSGROVE	INTERIOR	S	1	19	1	24/7 & OCCUPIED		STAIRS		X	1	25 Watt Incandescent 2-Lamp Exit Sign	50	0.050	Z	8760	438		1	N XLED	New 3 watt LED Exit Sign	3	0.003	0.564	ES-LED-RW-B	43
107	SELINSGROVE	INTERIOR	S	1	20	1	24/7 & OCCUPIED		OPEN NOT IN USE		2EC25-4'	2	T8 2x4 2-Lamp Egg Crate Fixture	43	0.086	S	1000	86		2	N 2W-12.5LED	New 1x4 2-Lamp Wrap Fixture with (2) 12.5 Watt LED T8 4' Lamp; Direct Wire to Socket	25	0.050	0.432	N/A	N/A
108	SELINSGROVE	INTERIOR	S	1	21	1	24/7 & OCCUPIED		OPEN NOT IN USE	115	2PL13	2	13 Watt 2-Lamp Plug-In CFL Fixture	30	0.060	S	1000	60		2	ZZ DD	No Retrofit	30	0.060	0.000	N/A	N/A
109	SELINSGROVE	INTERIOR	S	1	22	1	24/7 & OCCUPIED		OPEN NOT IN USE	108	2PL13	3	13 Watt 2-Lamp Plug-In CFL Fixture	30	0.090	S	1000	90		3	ZZ DD	No Retrofit	30	0.090	0.000	N/A	N/A
110	SELINSGROVE	INTERIOR	S	1	22	1	24/7 & OCCUPIED		OPEN NOT IN USE		X	2	25 Watt Incandescent 2-Lamp Exit Sign	50	0.100	Z	8760	876		2	N XLED	New 3 watt LED Exit Sign	3	0.006	1.128	ES-LED-RW-B	43
111	SELINSGROVE	INTERIOR	S	B	23	1	24/7 & OCCUPIED		OPEN NOT IN USE	10	2EC25-4'	1	T8 2x4 2-Lamp Egg Crate Fixture	43	0.043	S	1000	43		1	N 2W-12.5LED	New 1x4 2-Lamp Wrap Fixture with (2) 12.5 Watt LED T8 4' Lamp; Direct Wire to Socket	25	0.025	0.216	CCW-4'-2-T8LED /// KT-LED10.5T8-48G-840-D	51 + 3
112	SELINSGROVE	INTERIOR	S	B	23	1	24/7 & OCCUPIED		OPEN NOT IN USE		X	1	25 Watt Incandescent 2-Lamp Exit Sign	50	0.050	Z	8760	438		1	N XLED	New 3 watt LED Exit Sign	3	0.003	0.564	ES-LED-RW-B	43
113	SELINSGROVE	INTERIOR	S	B	24	1	24/7 & OCCUPIED		OPEN NOT IN USE	10	2PL13DR	1	13 Watt Plug-In CFL Drum Fixture	26	0.026	S	1000	26		1	N LED14DR	New 12" Round 14 Watt LED Drum Fixture	14	0.014	0.144	54074143	19
114	SELINSGROVE	INTERIOR	S	B	25	1	24/7 & OCCUPIED		OPEN NOT IN USE	13	2PL13DR	1	13 Watt Plug-In CFL Drum Fixture	26	0.026	S	1000	26		1	N LED14DR	New 12" Round 14 Watt LED Drum Fixture	14	0.014	0.144	54074143	19
115	SELINSGROVE	INTERIOR	S	B	26	1	24/7 & OCCUPIED		OPEN NOT IN USE	9	2PL13DR	3	13 Watt Plug-In CFL Drum Fixture	26	0.078	S	1000	78		3	N LED14DR	New 12" Round 14 Watt LED Drum Fixture	14	0.042	0.432	54074143	19
116	SELINSGROVE	INTERIOR	S	B	27	1	24/7 & OCCUPIED		OPEN NOT IN USE	7	2PL13DR	3	13 Watt Plug-In CFL Drum Fixture	26	0.078	S	1000	78		3	N LED14DR	New 12" Round 14 Watt LED Drum Fixture	14	0.042	0.432	54074143	19
117	SELINSGROVE	INTERIOR	S	B	27	1	24/7 & OCCUPIED		OPEN NOT IN USE		X	1	25 Watt Incandescent 2-Lamp Exit Sign	50	0.050	Z	8760	438		1	N XLED	New 3 watt LED Exit Sign	3	0.003	0.564	ES-LED-RW-B	43
118	SELINSGROVE	INTERIOR	S	B	28	1	24/7 & OCCUPIED		HALLWAY		2PL13DR	3	13 Watt Plug-In CFL Drum Fixture	26	0.078	S	1000	78		3	N LED14DR	New 12" Round 14 Watt LED Drum Fixture	14	0.042	0.432	54074143	19
119	SELINSGROVE	INTERIOR	S	B	28	1	24/7 & OCCUPIED		HALLWAY		CF26	1	26 Watt Compact Fluorescent Fixture	26	0.026	S	1000	26		1	LED 9A	Re-Lamp with (1) 9 Watt LED A19 Lamps	9	0.009	0.204	LA19/9/40K/D-46	8
120	SELINSGROVE	INTERIOR	S	B	28	1	24/7 & OCCUPIED		HALLWAY		X	2	25 Watt Incandescent 2-Lamp Exit Sign	50	0.100	Z	8760	876		2	N XLED	New 3 watt LED Exit Sign	3	0.006	1.128	ES-LED-RW-B	43
121	SELINSGROVE	INTERIOR	S	B	29	1	24/7 & OCCUPIED		SINK NOT IN USE		CF26	1	26 Watt Compact Fluorescent Fixture	26	0.026	S	1000	26		1	LED 9A	Re-Lamp with (1) 9 Watt LED A19 Lamps	9	0.009	0.204	LA19/9/40K/D-46	8
122	SELINSGROVE	INTERIOR	S	B	30	1	24/7 & OCCUPIED		STORAGE NOT IN USE	2	2PL13DR	2	13 Watt Plug-In CFL Drum Fixture	26	0.052	S	1000	52		2	N LED14DR	New 12" Round 14 Watt LED Drum Fixture	14	0.028	0.288	54074143	19
123	SELINSGROVE	INTERIOR	S	B	30	1	24/7 & OCCUPIED		STORAGE NOT IN USE		CF13	3	13 Watt Compact Fluorescent Fixture	13	0.039	S	1000	39		3	LED 9A	Re-Lamp with (1) 9 Watt LED A19 Lamps	9	0.027	0.144	LA19/9/40K/D-46	8
124	SELINSGROVE	INTERIOR	S	B	30	1	24/7 & OCCUPIED		STORAGE NOT IN USE		X	1	25 Watt Incandescent 2-Lamp Exit Sign	50	0.050	Z	8760	438		1	N XLED	New 3 watt LED Exit Sign	3	0.003	0.564	ES-LED-RW-B	43
125	SELINSGROVE	INTERIOR	S	B	31	1	24/7 & OCCUPIED		BOILER		CF13RLM	1	13 Watt Compact Fluorescent RLM Fixture	13	0.013	S	1000	13		1	LED 9A	Re-Lamp with (1) 9 Watt LED A19 Lamps	9	0.009	0.048	LA19/9/40K/D-46	8
126	SELINSGROVE	INTERIOR	S	B	31	1	24/7 & OCCUPIED		BOILER		CF13	1	13 Watt Compact Fluorescent Fixture	13	0.013	S	1000	13		1	LED 9A	Re-Lamp with (1) 9 Watt LED A19 Lamps	9	0.009	0.048	LA19/9/40K/D-46	8
127	SELINSGROVE	INTERIOR	S	B	32	1	24/7 & OCCUPIED		NOT IN USE		2PL13DR	8	13 Watt Plug-In CFL Drum Fixture	26	0.208	S	1000	208		8	N LED14DR	New 12" Round 14 Watt LED Drum Fixture	14	0.112	1.152	54074143	19
128	SELINSGROVE	INTERIOR	S	B	32	1	24/7 & OCCUPIED		NOT IN USE		CF13	1	13 Watt Compact Fluorescent Fixture	13	0.013	S	1000	13		1	LED 9A	Re-Lamp with (1) 9 Watt LED A19 Lamps	9	0.009	0.048	LA19/9/40K/D-46	8

											EXISTING FIXTURES									PROPOSED FIXTURE UPGRADE						
ID #	Facility Name	Phase	Utility Rate Code	Floor	Map #	Building Number	Building Usage Type	Building Section	Room Description	Room #	ECM Code	Qty	Description	Watts	kW	Burn Hour Code	Pre Burn Hours	kWh	x	Qty	New Code	Description	Watts	kW	Annual KW Saved	Part#	Cut Sheet #
129	SELINSGROVE	INTERIOR	S	B	32	1	24/7 & OCCUPIED		NOT IN USE		X	1	25 Watt Incandescent 2-Lamp Exit Sign	50	0.050	Z	8760	438		1	N XLED	New 3 watt LED Exit Sign	3	0.003	0.564	ES-LED-RW-B	43
130	SELINSGROVE	INTERIOR	S	B	33	1	24/7 & OCCUPIED		NOT IN USE		CF13	2	13 Watt Compact Fluorescent Fixture	13	0.026	S	1000	26		2	LED 9A	Re-Lamp with (1) 9 Watt LED A19 Lamps	9	0.018	0.096	LA19/9/40K/D-46	8
131	SELINSGROVE	INTERIOR	S	B	34	1	24/7 & OCCUPIED		ELECTRICAL		4W25(W)-4'	1	T8 1x4 4-Lamp Wrap Fixture; Damaged/Missing Lens	85	0.085	S	1000	85		1	N 4W-12.5LED	New 1x4 4-Lamp Wrap Fixture with (4) 12.5 Watt LED T8 4' Lamp; Direct Wire to Socket	50	0.050	0.420	CCW-4'-4-T8LED /// KT-LED10.5T8-48G-840-D	53 + 3
132	SELINSGROVE	INTERIOR	S	B	35	1	24/7 & OCCUPIED		NOT IN USE	21	CF26	4	26 Watt Compact Fluorescent Fixture	26	0.104	S	1000	104		4	LED 9A	Re-Lamp with (1) 9 Watt LED A19 Lamps	9	0.036	0.816	LA19/9/40K/D-46	8
133	SELINSGROVE	INTERIOR	S	B	35	1	24/7 & OCCUPIED		NOT IN USE		2PL13DR	2	13 Watt Plug-In CFL Drum Fixture	26	0.052	S	1000	52		2	N LED14DR	New 12" Round 14 Watt LED Drum Fixture	14	0.028	0.288	54074143	19
134	SELINSGROVE	INTERIOR	S	B	35	1	24/7 & OCCUPIED		NOT IN USE		X	2	25 Watt Incandescent 2-Lamp Exit Sign	50	0.100	Z	8760	876		2	N XLED	New 3 watt LED Exit Sign	3	0.006	1.128	ES-LED-RW-B	43
135	SELINSGROVE	INTERIOR	S	B	36	1	24/7 & OCCUPIED		NOT IN USE	22	2PL13DR	1	13 Watt Plug-In CFL Drum Fixture	26	0.026	S	1000	26		1	N LED14DR	New 12" Round 14 Watt LED Drum Fixture	14	0.014	0.144	54074143	19
136	SELINSGROVE	INTERIOR	S	B	36	1	24/7 & OCCUPIED		NOT IN USE		CF26	1	26 Watt Compact Fluorescent Fixture	26	0.026	S	1000	26		1	LED 9A	Re-Lamp with (1) 9 Watt LED A19 Lamps	9	0.009	0.204	LA19/9/40K/D-46	8
137	SELINSGROVE	EXTERIOR	S		A	1	24/7 & OCCUPIED		SITE		2PL13WP	12	13 Watt 2-Lamp Plug-In CFL Wall Pack Fixture	30	0.360	EX	4380	1,577		12	N RLED12TWP	New 12 Watt LED Tall Wall Pack Fixture	14	0.168	2.304	ENTRA12	42
138	SELINSGROVE	EXTERIOR	S		B	1	24/7 & OCCUPIED		SITE		2PL18WP	1	18 Watt 2-Lamp Plug-In CFL Wall Pack Fixture	40	0.040	EX	4380	175		1	N RLED12TWP	New 12 Watt LED Tall Wall Pack Fixture	14	0.014	0.312	ENTRA12	42
139	SELINSGROVE	EXTERIOR	S		C	1	24/7 & OCCUPIED		SITE		2PL13CPY	3	13 Watt 2-Lamp Plug-In CFL Canopy Fixture	30	0.090	EX	4380	394		3	N RLED10CPY	New 10 Watt LED Canopy Fixture	12	0.036	0.648	VANLED10	25
140	SELINSGROVE	EXTERIOR	S		D	1	24/7 & OCCUPIED		SITE		2-90PAR38	1	90 Watt 2-Lamp Incandescent Par38 Fixture	180	0.180	EX	4380	788		1	LED 2-17P38	Re-Lamp with (2) 17 Watt LED PAR38	34	0.034	1.752	LP38/17/840/FL/D	17
141	SELINSGROVE	INTERIOR	S	1	1	9	24/7 & OCCUPIED		MEETING ROOM	150	75PAR38DL6	17	75 Watt Incandescent Par30 6" Downlight Fixture	75	1.275	O	2340	2,984		17	LED 17BR40	Re-Lamp with (1) 17 Watt LED BR40	17	0.289	11.832	LBR40/16/840/D-46	11
142	SELINSGROVE	INTERIOR	S	1	1	9	24/7 & OCCUPIED		MEETING ROOM		4L25-4'	14	T8 2x4 4-Lamp Troffer Fixture	85	1.190	O	2340	2,785		14	R 4L-12.5LED	Retrofit with (4) 12.5 Watt LED T8 4' Lamps; Direct Wire to Socket	50	0.700	5.880	KT-LED10.5T8-48G-840-D	3
143	SELINSGROVE	INTERIOR	S	1	2	9	24/7 & OCCUPIED		RESTROOM		1W17	1	T8 2x2 1-Lamp Wrap Fixture	22	0.022	RR	3863	85		1	R 1L-10LED2'	Retrofit with (1) 10 Watt LED T8 2' Lamp; Direct Wire to Socket	10	0.010	0.144	KT-LED7T8-24GC-840-D	1
144	SELINSGROVE	INTERIOR	S	1	3	9	24/7 & OCCUPIED		RESTROOM		1W17	1	T8 2x2 1-Lamp Wrap Fixture	22	0.022	RR	3863	85		1	R 1L-10LED2'	Retrofit with (1) 10 Watt LED T8 2' Lamp; Direct Wire to Socket	10	0.010	0.144	KT-LED7T8-24GC-840-D	1
145	SELINSGROVE	INTERIOR	S	1	4	9	24/7 & OCCUPIED		CLOSET	153	1W17	1	T8 2x2 1-Lamp Wrap Fixture	22	0.022	S	1000	22		1	R 1L-10LED2'	Retrofit with (1) 10 Watt LED T8 2' Lamp; Direct Wire to Socket	10	0.010	0.144	KT-LED7T8-24GC-840-D	1
146	SELINSGROVE	INTERIOR	S	1	5	9	24/7 & OCCUPIED		STORAGE	154	1W17	1	T8 2x2 1-Lamp Wrap Fixture	22	0.022	S	1000	22		1	R 1L-10LED2'	Retrofit with (1) 10 Watt LED T8 2' Lamp; Direct Wire to Socket	10	0.010	0.144	KT-LED7T8-24GC-840-D	1
147	SELINSGROVE	INTERIOR	S	1	5	9	24/7 & OCCUPIED		STORAGE		2W25-4'	18	T8 1x4 2-Lamp Wrap Fixture	43	0.774	S	1000	774		18	R 2L-12.5LED	Retrofit with (2) 12.5 Watt LED T8 4' Lamps; Direct Wire to Socket	25	0.450	3.888	KT-LED10.5T8-48G-840-D	3
148	SELINSGROVE	INTERIOR	S	1	5	9	24/7 & OCCUPIED		CLOSET 1	156	1W17	1	T8 2x2 1-Lamp Wrap Fixture	22	0.022	S	1000	22		1	R 1L-10LED2'	Retrofit with (1) 10 Watt LED T8 2' Lamp; Direct Wire to Socket	10	0.010	0.144	KT-LED7T8-24GC-840-D	1
149	SELINSGROVE	INTERIOR	S	1	5	9	24/7 & OCCUPIED		CLOSET 2	155	1W17	1	T8 2x2 1-Lamp Wrap Fixture	22	0.022	S	1000	22		1	R 1L-10LED2'	Retrofit with (1) 10 Watt LED T8 2' Lamp; Direct Wire to Socket	10	0.010	0.144	KT-LED7T8-24GC-840-D	1
150	SELINSGROVE	INTERIOR	S	1	5	9	24/7 & OCCUPIED		STORAGE	157	1W17	1	T8 2x2 1-Lamp Wrap Fixture	22	0.022	S	1000	22		1	R 1L-10LED2'	Retrofit with (1) 10 Watt LED T8 2' Lamp; Direct Wire to Socket	10	0.010	0.144	KT-LED7T8-24GC-840-D	1
151	SELINSGROVE	INTERIOR	S	1	5	9	24/7 & OCCUPIED		STORAGE	158	1W17	1	T8 2x2 1-Lamp Wrap Fixture	22	0.022	S	1000	22		1	R 1L-10LED2'	Retrofit with (1) 10 Watt LED T8 2' Lamp; Direct Wire to Socket	10	0.010	0.144	KT-LED7T8-24GC-840-D	1
152	SELINSGROVE	INTERIOR	S	1	5	9	24/7 & OCCUPIED		STORAGE	159	1W17	1	T8 2x2 1-Lamp Wrap Fixture	22	0.022	S	1000	22		1	R 1L-10LED2'	Retrofit with (1) 10 Watt LED T8 2' Lamp; Direct Wire to Socket	10	0.010	0.144	KT-LED7T8-24GC-840-D	1
153	SELINSGROVE	INTERIOR	S	1	6	9	24/7 & OCCUPIED		CLASSROOM	147	2W25-4'	13	T8 1x4 2-Lamp Wrap Fixture	43	0.559	CPS	1827	1,021		13	R 2L-12.5LED	Retrofit with (2) 12.5 Watt LED T8 4' Lamps; Direct Wire to Socket	25	0.325	2.808	KT-LED10.5T8-48G-840-D	3
154	SELINSGROVE	INTERIOR	S	1	6	9	24/7 & OCCUPIED		CLASSROOM RESTROOM		2PL13DR	1	13 Watt Plug-In CFL Drum Fixture	26	0.026	RRP	522	14		1	N LED14DR	New 12" Round 14 Watt LED Drum Fixture	14	0.014	0.144	54074143	19
155	SELINSGROVE	INTERIOR	S	1	7	9	24/7 & OCCUPIED		CLASSROOM	160	2W25-4'	13	T8 1x4 2-Lamp Wrap Fixture	43	0.559	CPS	1827	1,021		13	R 2L-12.5LED	Retrofit with (2) 12.5 Watt LED T8 4' Lamps; Direct Wire to Socket	25	0.325	2.808	KT-LED10.5T8-48G-840-D	3
156	SELINSGROVE	INTERIOR	S	1	7	9	24/7 & OCCUPIED		CLASSROOM		2EC25-4'	1	T8 2x4 2-Lamp Egg Crate Fixture	43	0.043	CPS	1827	79		1	N 2W-12.5LED	New 1x4 2-Lamp Wrap Fixture with (2) 12.5 Watt LED T8 4' Lamp; Direct Wire to Socket	25	0.025	0.216	CCW-4'-2-T8LED /// KT-LED10.5T8-48G-840-D	51 + 3
157	SELINSGROVE	INTERIOR	S	1	7	9	24/7 & OCCUPIED		CLASSROOM RESTROOM		2PL13DR	1	13 Watt Plug-In CFL Drum Fixture	26	0.026	RRP	522	14		1	N LED14DR	New 12" Round 14 Watt LED Drum Fixture	14	0.014	0.144	54074143	19
158	SELINSGROVE	INTERIOR	S	1	8	9	24/7 & OCCUPIED		CLASSROOM	144	2W25-4'	13	T8 1x4 2-Lamp Wrap Fixture	43	0.559	CPS	1827	1,021		13	R 2L-12.5LED	Retrofit with (2) 12.5 Watt LED T8 4' Lamps; Direct Wire to Socket	25	0.325	2.808	KT-LED10.5T8-48G-840-D	3
159	SELINSGROVE	INTERIOR	S	1	8	9	24/7 & OCCUPIED		CLASSROOM RESTROOM		2PL13DR	1	13 Watt Plug-In CFL Drum Fixture	26	0.026	RRP	522	14		1	N LED14DR	New 12" Round 14 Watt LED Drum Fixture	14	0.014	0.144	54074143	19
160	SELINSGROVE	INTERIOR	S	1	9	9	24/7 & OCCUPIED		CLASSROOM	163	2W25-4'	13	T8 1x4 2-Lamp Wrap Fixture	43	0.559	CPS	1827	1,021		13	R 2L-12.5LED	Retrofit with (2) 12.5 Watt LED T8 4' Lamps; Direct Wire to Socket	25	0.325	2.808	KT-LED10.5T8-48G-840-D	3

											EXISTING FIXTURES									PROPOSED FIXTURE UPGRADE						
ID #	Facility Name	Phase	Utility Rate Code	Floor	Map #	Building Number	Building Usage Type	Building Section	Room Description	Room #	ECM Code	Qty	Description	Watts	kW	Burn Hour Code	Pre Burn Hours	kWh	x	Qty	New Code	Description	Watts	kW	Annual KW Saved	Part#	Cut Sheet #
161	SELINSGROVE	INTERIOR	S	1	9	9	24/7 & OCCUPIED		CLASSROOM		2EC25-4'	1	T8 2x4 2-Lamp Egg Crate Fixture	43	0.043	CPS	1827	79		1	N 2W-12.5LED	New 1x4 2-Lamp Wrap Fixture with (2) 12.5 Watt LED T8 4' Lamp; Direct Wire to Socket	25	0.025	0.216	CCW-4'-2-T8LED /// KT-LED10.5T8-48G-840-D	51 + 3
162	SELINSGROVE	INTERIOR	S	1	9	9	24/7 & OCCUPIED		CLASSROOM RESTROOM		2PL13DR	1	13 Watt Plug-In CFL Drum Fixture	26	0.026	RRP	522	14		1	N LED14DR	New 12" Round 14 Watt LED Drum Fixture	14	0.014	0.144	54074143	19
163	SELINSGROVE	INTERIOR	S	1	10	9	24/7 & OCCUPIED		CLASSROOM	141	2W25-4'	13	T8 1x4 2-Lamp Wrap Fixture	43	0.559	CPS	1827	1,021		13	R 2L-12.5LED	Retrofit with (2) 12.5 Watt LED T8 4' Lamps; Direct Wire to Socket	25	0.325	2.808	KT-LED10.5T8-48G-840-D	3
164	SELINSGROVE	INTERIOR	S	1	10	9	24/7 & OCCUPIED		CLASSROOM RESTROOM		2PL13DR	1	13 Watt Plug-In CFL Drum Fixture	26	0.026	RRP	522	14		1	N LED14DR	New 12" Round 14 Watt LED Drum Fixture	14	0.014	0.144	54074143	19
165	SELINSGROVE	INTERIOR	S	1	11	9	24/7 & OCCUPIED		CLASSROOM	166	2W25-4'	13	T8 1x4 2-Lamp Wrap Fixture	43	0.559	CPS	1827	1,021		13	R 2L-12.5LED	Retrofit with (2) 12.5 Watt LED T8 4' Lamps; Direct Wire to Socket	25	0.325	2.808	KT-LED10.5T8-48G-840-D	3
166	SELINSGROVE	INTERIOR	S	1	11	9	24/7 & OCCUPIED		CLASSROOM RESTROOM		2PL13DR	1	13 Watt Plug-In CFL Drum Fixture	26	0.026	RRP	522	14		1	N LED14DR	New 12" Round 14 Watt LED Drum Fixture	14	0.014	0.144	54074143	19
167	SELINSGROVE	INTERIOR	S	1	12	9	24/7 & OCCUPIED		CLASSROOM	138	2W25-4'	11	T8 1x4 2-Lamp Wrap Fixture	43	0.473	CPS	1827	864		11	R 2L-12.5LED	Retrofit with (2) 12.5 Watt LED T8 4' Lamps; Direct Wire to Socket	25	0.275	2.376	KT-LED10.5T8-48G-840-D	3
168	SELINSGROVE	INTERIOR	S	1	12	9	24/7 & OCCUPIED		CLASSROOM		1W25-4'	1	T8 1x4 1-Lamp Wrap Fixture	22	0.022	CPS	1827	40		1	R 1L-12.5LED	Retrofit with (1) 12.5 Watt LED T8 4' Lamps; Direct Wire to Socket	12.5	0.013	0.114	KT-LED10.5T8-48G-840-D	3
169	SELINSGROVE	INTERIOR	S	1	12	9	24/7 & OCCUPIED		CLASSROOM RESTROOM		2PL13DR	1	13 Watt Plug-In CFL Drum Fixture	26	0.026	RRP	522	14		1	N LED14DR	New 12" Round 14 Watt LED Drum Fixture	14	0.014	0.144	54074143	19
170	SELINSGROVE	INTERIOR	S	1	13	9	24/7 & OCCUPIED		CLASSROOM	169	2W25-4'	6	T8 1x4 2-Lamp Wrap Fixture	43	0.258	CPS	1827	471		6	R 2L-12.5LED	Retrofit with (2) 12.5 Watt LED T8 4' Lamps; Direct Wire to Socket	25	0.150	1.296	KT-LED10.5T8-48G-840-D	3
171	SELINSGROVE	INTERIOR	S	1	14	9	24/7 & OCCUPIED		OFFICE	171	4W25-4'	2	T8 1x4 4-Lamp Wrap Fixture	85	0.170	O	2340	398		2	R 4L-12.5LED	Retrofit with (4) 12.5 Watt LED T8 4' Lamps; Direct Wire to Socket	50	0.100	0.840	KT-LED10.5T8-48G-840-D	3
172	SELINSGROVE	INTERIOR	S	1	15	9	24/7 & OCCUPIED		OFFICE	170	2W25-4'	2	T8 1x4 2-Lamp Wrap Fixture	43	0.086	O	2340	201		2	R 2L-12.5LED	Retrofit with (2) 12.5 Watt LED T8 4' Lamps; Direct Wire to Socket	25	0.050	0.432	KT-LED10.5T8-48G-840-D	3
173	SELINSGROVE	INTERIOR	S	1	16	9	24/7 & OCCUPIED		OFFICE	172	300-PEND-DECO	1	300 Watt Incandescent Decorative Pendant Fixture	300	0.300	O	2340	702		1	LED 36COB	Re-Lamp with (1) 36 Watt LED Omni-Cob Lamp; Hardwire Ballast	36	0.036	3.168	KT-LED36HID-EX39-850-D /G2	5
174	SELINSGROVE	INTERIOR	S	1	16	9	24/7 & OCCUPIED		OFFICE RESTROOM		2PL13DR	1	13 Watt Plug-In CFL Drum Fixture	26	0.026	RRP	522	14		1	N LED14DR	New 12" Round 14 Watt LED Drum Fixture	14	0.014	0.144	54074143	19
175	SELINSGROVE	INTERIOR	S	1	17	9	24/7 & OCCUPIED		CLASSROOM	136	2W25-4'	18	T8 1x4 2-Lamp Wrap Fixture	43	0.774	CPS	1827	1,414		18	R 2L-12.5LED	Retrofit with (2) 12.5 Watt LED T8 4' Lamps; Direct Wire to Socket	25	0.450	3.888	KT-LED10.5T8-48G-840-D	3
176	SELINSGROVE	INTERIOR	S	1	17	9	24/7 & OCCUPIED		CLOSET	137	2PL13DR	1	13 Watt Plug-In CFL Drum Fixture	26	0.026	S	1000	26		1	N LED14DR	New 12" Round 14 Watt LED Drum Fixture	14	0.014	0.144	54074143	19
177	SELINSGROVE	INTERIOR	S	1	18	9	24/7 & OCCUPIED		VESTIBULE		CF23DL-12X12	4	23 Watt Compact Fluorescent Downlight Fixture; 12x12	23	0.092	H	3863	355		4	LED 9A	Re-Lamp with (1) 9 Watt LED A19 Lamps	9	0.036	0.672	LA19/9/40K/D-46	8
178	SELINSGROVE	INTERIOR	S	1	19	9	24/7 & OCCUPIED		HALLWAY		CF23DL-12X12	13	23 Watt Compact Fluorescent Downlight Fixture; 12x12	23	0.299	H	3863	1,155		13	LED 9A	Re-Lamp with (1) 9 Watt LED A19 Lamps	9	0.117	2.184	LA19/9/40K/D-46	8
179	SELINSGROVE	INTERIOR	S	1	19	9	24/7 & OCCUPIED		HALLWAY		2EC25-4'	7	T8 2x4 2-Lamp Egg Crate Fixture	43	0.301	H	3863	1,163		7	N 2W-12.5LED	New 1x4 2-Lamp Wrap Fixture with (2) 12.5 Watt LED T8 4' Lamp; Direct Wire to Socket	25	0.175	1.512	CCW-4'-2-T8LED /// KT-LED10.5T8-48G-840-D	51 + 3
180	SELINSGROVE	INTERIOR	S	1	19	9	24/7 & OCCUPIED		HALLWAY DISPLAY		1S34	6	T12 1x4 1-Lamp Strip Fixture	43	0.258	H	3863	997		6	R 1L-12.5LED	Retrofit with (1) 12.5 Watt LED T8 4' Lamps; Direct Wire to Socket	12.5	0.075	2.196	KT-LED10.5T8-48G-840-D	3
181	SELINSGROVE	INTERIOR	S	1	19	9	24/7 & OCCUPIED		HALLWAY		XLED	6	3 Watt LED 2-Lamp Exit Sign	3	0.018	Z	8760	158		6	ZZ DD	No Retrofit	3	0.018	0.000	N/A	N/A
182	SELINSGROVE	INTERIOR	S	1	20	9	24/7 & OCCUPIED		OFFICE	103	4W25-4'	1	T8 1x4 4-Lamp Wrap Fixture	85	0.085	O	2340	199		1	R 4L-12.5LED	Retrofit with (4) 12.5 Watt LED T8 4' Lamps; Direct Wire to Socket	50	0.050	0.420	KT-LED10.5T8-48G-840-D	3
183	SELINSGROVE	INTERIOR	S	1	20	9	24/7 & OCCUPIED		OFFICE RESTROOM		CF18	1	18 Watt Compact Fluorescent Fixture	18	0.018	RRP	522	9		1	LED 9A	Re-Lamp with (1) 9 Watt LED A19 Lamps	9	0.009	0.108	LA19/9/40K/D-46	8
184	SELINSGROVE	INTERIOR	S	1	21	9	24/7 & OCCUPIED		KITCHEN	135	2W25-4'	1	T8 1x4 2-Lamp Wrap Fixture	43	0.043	K	1827	79		1	R 2L-12.5LED	Retrofit with (2) 12.5 Watt LED T8 4' Lamps; Direct Wire to Socket	25	0.025	0.216	KT-LED10.5T8-48G-840-D	3
185	SELINSGROVE	INTERIOR	S	1	22	9	24/7 & OCCUPIED		KITCHEN	137	4EC25-4'	1	T8 2x4 4-Lamp Egg Crate Fixture	85	0.085	K	1827	155		1	N 4W-12.5LED	New 1x4 4-Lamp Wrap Fixture with (4) 12.5 Watt LED T8 4' Lamp; Direct Wire to Socket	50	0.050	0.420	CCW-4'-4-T8LED /// KT-LED10.5T8-48G-840-D	53 + 3
186	SELINSGROVE	INTERIOR	S	1	23	9	24/7 & OCCUPIED		WOMENS RESTROOM	105	2PL13DR	2	13 Watt Plug-In CFL Drum Fixture	26	0.052	RR	3863	201		2	N LED14DR	New 12" Round 14 Watt LED Drum Fixture	14	0.028	0.288	54074143	19
187	SELINSGROVE	INTERIOR	S	1	24	9	24/7 & OCCUPIED		CLASSROOM	132	2W25-4'	13	T8 1x4 2-Lamp Wrap Fixture	43	0.559	CPS	1827	1,021		13	R 2L-12.5LED	Retrofit with (2) 12.5 Watt LED T8 4' Lamps; Direct Wire to Socket	25	0.325	2.808	KT-LED10.5T8-48G-840-D	3
188	SELINSGROVE	INTERIOR	S	1	24	9	24/7 & OCCUPIED		CLASSROOM RESTROOM		2PL13DR	1	13 Watt Plug-In CFL Drum Fixture	26	0.026	RRP	522	14		1	N LED14DR	New 12" Round 14 Watt LED Drum Fixture	14	0.014	0.144	54074143	19
189	SELINSGROVE	INTERIOR	S	1	25	9	24/7 & OCCUPIED		CLASSROOM	106	2W25-4'	14	T8 1x4 2-Lamp Wrap Fixture	43	0.602	CPS	1827	1,100		14	R 2L-12.5LED	Retrofit with (2) 12.5 Watt LED T8 4' Lamps; Direct Wire to Socket	25	0.350	3.024	KT-LED10.5T8-48G-840-D	3
190	SELINSGROVE	INTERIOR	S	1	26	9	24/7 & OCCUPIED		JANITOR	108	2PL13DR	1	13 Watt Plug-In CFL Drum Fixture	26	0.026	S	1000	26		1	N LED14DR	New 12" Round 14 Watt LED Drum Fixture	14	0.014	0.144	54074143	19
191	SELINSGROVE	INTERIOR	S	1	27	9	24/7 & OCCUPIED		MENS RESTROOM	109	2PL13DR	2	13 Watt Plug-In CFL Drum Fixture	26	0.052	RR	3863	201		2	N LED14DR	New 12" Round 14 Watt LED Drum Fixture	14	0.028	0.288	54074143	19
192	SELINSGROVE	INTERIOR	S	1	28	9	24/7 & OCCUPIED		CLASSROOM	130	4L25-4'	8	T8 2x4 4-Lamp Troffer Fixture	85	0.680	CPS	1827	1,242		8	R 4L-12.5LED	Retrofit with (4) 12.5 Watt LED T8 4' Lamps; Direct Wire to Socket	50	0.400	3.360	KT-LED10.5T8-48G-840-D	3

											EXISTING FIXTURES									PROPOSED FIXTURE UPGRADE						
ID #	Facility Name	Phase	Utility Rate Code	Floor	Map #	Building Number	Building Usage Type	Building Section	Room Description	Room #	ECM Code	Qty	Description	Watts	kW	Burn Hour Code	Pre Burn Hours	kWh	x	Qty	New Code	Description	Watts	kW	Annual KW Saved	Part#	Cut Sheet #
193	SELINSGROVE	INTERIOR	S	1	29	9	24/7 & OCCUPIED		CLASSROOM	110	2W25-4'	12	T8 1x4 2-Lamp Wrap Fixture	43	0.516	CPS	1827	943		12	R 2L-12.5LED	Retrofit with (2) 12.5 Watt LED T8 4' Lamps; Direct Wire to Socket	25	0.300	2.592	KT-LED10.5T8-48G-840-D	3
194	SELINSGROVE	INTERIOR	S	1	30	9	24/7 & OCCUPIED		CLASSROOM	123	2W25-4'	2	T8 1x4 2-Lamp Wrap Fixture	43	0.086	CPS	1827	157		2	R 2L-12.5LED	Retrofit with (2) 12.5 Watt LED T8 4' Lamps; Direct Wire to Socket	25	0.050	0.432	KT-LED10.5T8-48G-840-D	3
195	SELINSGROVE	INTERIOR	S	1	31	9	24/7 & OCCUPIED		OFFICE	125	4EC25-4'	1	T8 2x4 4-Lamp Egg Crate Fixture	85	0.085	O	2340	199		1	N 4W-12.5LED	New 1x4 4-Lamp Wrap Fixture with (4) 12.5 Watt LED T8 4' Lamp; Direct Wire to Socket	50	0.050	0.420	CCW-4'-4-T8LED /// KT-LED10.5T8-48G-840-D	53 + 3
196	SELINSGROVE	INTERIOR	S	1	32	9	24/7 & OCCUPIED		KITCHEN	127	2B25-4'	2	T8 2x4 2-Lamp Surface Mount Fixture	43	0.086	K	1827	157		2	R 2L-12.5LED	Retrofit with (2) 12.5 Watt LED T8 4' Lamps; Direct Wire to Socket	25	0.050	0.432	KT-LED10.5T8-48G-840-D	3
197	SELINSGROVE	INTERIOR	S	1	33	9	24/7 & OCCUPIED		LOBBY	122	2W25-4'	3	T8 1x4 2-Lamp Wrap Fixture	43	0.129	H	3863	498		3	R 2L-12.5LED	Retrofit with (2) 12.5 Watt LED T8 4' Lamps; Direct Wire to Socket	25	0.075	0.648	KT-LED10.5T8-48G-840-D	3
198	SELINSGROVE	INTERIOR	S	1	34	9	24/7 & OCCUPIED		RESTROOM	129	2PL13DR	1	13 Watt Plug-In CFL Drum Fixture	26	0.026	RR	3863	100		1	N LED14DR	New 12" Round 14 Watt LED Drum Fixture	14	0.014	0.144	54074143	19
199	SELINSGROVE	INTERIOR	S	1	35	9	24/7 & OCCUPIED		CLASSROOM	112	2W25-4'	12	T8 1x4 2-Lamp Wrap Fixture	43	0.516	CPS	1827	943		12	R 2L-12.5LED	Retrofit with (2) 12.5 Watt LED T8 4' Lamps; Direct Wire to Socket	25	0.300	2.592	KT-LED10.5T8-48G-840-D	3
200	SELINSGROVE	INTERIOR	S	1	36	9	24/7 & OCCUPIED		CLASSROOM	114	2W25-4'	8	T8 1x4 2-Lamp Wrap Fixture	43	0.344	CPS	1827	628		8	R 2L-12.5LED	Retrofit with (2) 12.5 Watt LED T8 4' Lamps; Direct Wire to Socket	25	0.200	1.728	KT-LED10.5T8-48G-840-D	3
201	SELINSGROVE	INTERIOR	S	1	37	9	24/7 & OCCUPIED		CLASSROOM	115	2W25-4'	33	T8 1x4 2-Lamp Wrap Fixture	43	1.419	CPS	1827	2,593		33	R 2L-12.5LED	Retrofit with (2) 12.5 Watt LED T8 4' Lamps; Direct Wire to Socket	25	0.825	7.128	KT-LED10.5T8-48G-840-D	3
202	SELINSGROVE	INTERIOR	S	1	38	9	24/7 & OCCUPIED		BAY	118	2PL13DR	2	13 Watt Plug-In CFL Drum Fixture	26	0.052	O	2340	122		2	N LED14DR	New 12" Round 14 Watt LED Drum Fixture	14	0.028	0.288	54074143	19
203	SELINSGROVE	INTERIOR	S	1	39	9	24/7 & OCCUPIED		BATTERY CHARGING	117	1W17	2	T8 2x2 1-Lamp Wrap Fixture	22	0.044	S	1000	44		2	R 1L-10LED2'	Retrofit with (1) 10 Watt LED T8 2' Lamp; Direct Wire to Socket	10	0.020	0.288	KT-LED7T8-24GC-840-D	1
204	SELINSGROVE	INTERIOR	S	1	40	9	24/7 & OCCUPIED		STAIRS	121	2PL13DR	2	13 Watt Plug-In CFL Drum Fixture	26	0.052	Z	8760	456		2	N LED14DR	New 12" Round 14 Watt LED Drum Fixture	14	0.028	0.288	54074143	19
205	SELINSGROVE	INTERIOR	S	1	40	9	24/7 & OCCUPIED		STAIRS		CF26-12X12-DA	1	26 Watt Compact Fluorescent Downlight Fixture; 12x12; Difficult Access	26	0.026	Z	8760	228		1	LED 9A-DA	Re-Lamp with (1) 9 Watt LED A19 Lamps; Difficult Access	9	0.009	0.204	LA19/9/40K/D-46	8
206	SELINSGROVE	INTERIOR	S	G	41	9	24/7 & OCCUPIED		ELECTRICAL	9	CF26RLM	1	26 Watt Compact Fluorescent RLM Fixture	26	0.026	S	1000	26		1	LED 9A	Re-Lamp with (1) 9 Watt LED A19 Lamps	9	0.009	0.204	LA19/9/40K/D-46	8
207	SELINSGROVE	INTERIOR	S	G	41	9	24/7 & OCCUPIED		ELECTRICAL		4W25-4'	1	T8 1x4 4-Lamp Wrap Fixture	85	0.085	S	1000	85		1	R 4L-12.5LED	Retrofit with (4) 12.5 Watt LED T8 4' Lamps; Direct Wire to Socket	50	0.050	0.420	KT-LED10.5T8-48G-840-D	3
208	SELINSGROVE	INTERIOR	S	G	42	9	24/7 & OCCUPIED		MAIN ELECTRICAL	8	CF26RLM	1	26 Watt Compact Fluorescent RLM Fixture	26	0.026	S	1000	26		1	LED 9A	Re-Lamp with (1) 9 Watt LED A19 Lamps	9	0.009	0.204	LA19/9/40K/D-46	8
209	SELINSGROVE	INTERIOR	S	G	43	9	24/7 & OCCUPIED		STORAGE	4	100RLM	3	100 Watt Incandescent RLM Fixture	100	0.300	S	1000	300		3	LED 15A	Re-Lamp with (1) 15 Watt LED A19 Lamp	15	0.045	3.060	LA21/16/40K/D-46	9
210	SELINSGROVE	INTERIOR	S	G	44	9	24/7 & OCCUPIED		STORAGE	7	2EC25-4'	1	T8 2x4 2-Lamp Egg Crate Fixture	43	0.043	S	1000	43		1	N 2W-12.5LED	New 1x4 2-Lamp Wrap Fixture with (2) 12.5 Watt LED T8 4' Lamp; Direct Wire to Socket	25	0.025	0.216	CCW-4'-2-T8LED /// KT-LED10.5T8-48G-840-D	51 + 3
211	SELINSGROVE	INTERIOR	S	G	45	9	24/7 & OCCUPIED		MECHANICAL	6	4W25-4'	2	T8 1x4 4-Lamp Wrap Fixture	85	0.170	S	1000	170		2	R 4L-12.5LED	Retrofit with (4) 12.5 Watt LED T8 4' Lamps; Direct Wire to Socket	50	0.100	0.840	KT-LED10.5T8-48G-840-D	3
212	SELINSGROVE	INTERIOR	S	G	46	9	24/7 & OCCUPIED		MECHANICAL	5	CF105RLM	1	105 Watt Compact Fluorescent RLM Fixture	105	0.105	S	1000	105		1	LED 9A	Re-Lamp with (1) 9 Watt LED A19 Lamps	9	0.009	1.152	LA19/9/40K/D-46	8
213	SELINSGROVE	INTERIOR	S	G	46	9	24/7 & OCCUPIED		MECHANICAL		100RLM	1	100 Watt Incandescent RLM Fixture	100	0.100	S	1000	100		1	LED 15A	Re-Lamp with (1) 15 Watt LED A19 Lamp	15	0.015	1.020	LA21/16/40K/D-46	9
214	SELINSGROVE	INTERIOR	S	G	47	9	24/7 & OCCUPIED		STORAGE	1	4W25(W)-4'	7	T8 1x4 4-Lamp Wrap Fixture; Damaged/Missing Lens	85	0.595	S	1000	595		7	N 4W-12.5LED	New 1x4 4-Lamp Wrap Fixture with (4) 12.5 Watt LED T8 4' Lamp; Direct Wire to Socket	50	0.350	2.940	CCW-4'-4-T8LED /// KT-LED10.5T8-48G-840-D	53 + 3
215	SELINSGROVE	INTERIOR	S	G	47	9	24/7 & OCCUPIED		STORAGE		2EC25-4'	3	T8 2x4 2-Lamp Egg Crate Fixture	43	0.129	S	1000	129		3	N 2W-12.5LED	New 1x4 2-Lamp Wrap Fixture with (2) 12.5 Watt LED T8 4' Lamp; Direct Wire to Socket	25	0.075	0.648	CCW-4'-2-T8LED /// KT-LED10.5T8-48G-840-D	51 + 3
216	SELINSGROVE	INTERIOR	S	G	47	9	24/7 & OCCUPIED		STORAGE		CF26	3	26 Watt Compact Fluorescent Fixture	26	0.078	S	1000	78		3	LED 9A	Re-Lamp with (1) 9 Watt LED A19 Lamps	9	0.027	0.612	LA19/9/40K/D-46	8
217	SELINSGROVE	INTERIOR	S	G	47	9	24/7 & OCCUPIED		STORAGE		4EC25-4'	1	T8 2x4 4-Lamp Egg Crate Fixture	85	0.085	S	1000	85		1	N 4W-12.5LED	New 1x4 4-Lamp Wrap Fixture with (4) 12.5 Watt LED T8 4' Lamp; Direct Wire to Socket	50	0.050	0.420	CCW-4'-4-T8LED /// KT-LED10.5T8-48G-840-D	53 + 3
218	SELINSGROVE	INTERIOR	S	G	48	9	24/7 & OCCUPIED		STORAGE/MECHANICAL	33B	1W25-4'	6	T8 1x4 1-Lamp Wrap Fixture	22	0.132	S	1000	132		6	R 1L-12.5LED	Retrofit with (1) 12.5 Watt LED T8 4' Lamps; Direct Wire to Socket	12.5	0.075	0.684	KT-LED10.5T8-48G-840-D	3
219	SELINSGROVE	INTERIOR	S	G	49	9	24/7 & OCCUPIED		STORAGE	32	1W25-4'	4	T8 1x4 1-Lamp Wrap Fixture	22	0.088	S	1000	88		4	R 1L-12.5LED	Retrofit with (1) 12.5 Watt LED T8 4' Lamps; Direct Wire to Socket	12.5	0.050	0.456	KT-LED10.5T8-48G-840-D	3
220	SELINSGROVE	INTERIOR	S	G	50	9	24/7 & OCCUPIED		STORAGE	33A	1W25-4'	5	T8 1x4 1-Lamp Wrap Fixture	22	0.110	S	1000	110		5	R 1L-12.5LED	Retrofit with (1) 12.5 Watt LED T8 4' Lamps; Direct Wire to Socket	12.5	0.063	0.570	KT-LED10.5T8-48G-840-D	3
221	SELINSGROVE	INTERIOR	S	G	51	9	24/7 & OCCUPIED		STAIRS		CF26	3	26 Watt Compact Fluorescent Fixture	26	0.078	Z	8760	683		3	LED 9A	Re-Lamp with (1) 9 Watt LED A19 Lamps	9	0.027	0.612	LA19/9/40K/D-46	8
222	SELINSGROVE	INTERIOR	S	G	52	9	24/7 & OCCUPIED		CLASSROOM	27	4L25-4'	8	T8 2x4 4-Lamp Troffer Fixture	85	0.680	CPS-ES	1279	870		8	R 4L-12.5LED	Retrofit with (4) 12.5 Watt LED T8 4' Lamps; Direct Wire to Socket	50	0.400	3.360	KT-LED10.5T8-48G-840-D	3
223	SELINSGROVE	INTERIOR	S	G	52	9	24/7 & OCCUPIED		CLASSROOM		2PL13DR	1	13 Watt Plug-In CFL Drum Fixture	26	0.026	CPS	1827	48		1	N LED14DR	New 12" Round 14 Watt LED Drum Fixture	14	0.014	0.144	54074143	19
224	SELINSGROVE	INTERIOR	S	G	53	9	24/7 & OCCUPIED		RESTROOM		2PL13DR	2	13 Watt Plug-In CFL Drum Fixture	26	0.052	RR	3863	201		2	N LED14DR	New 12" Round 14 Watt LED Drum Fixture	14	0.028	0.288	54074143	19

											EXISTING FIXTURES									PROPOSED FIXTURE UPGRADE						
ID #	Facility Name	Phase	Utility Rate Code	Floor	Map #	Building Number	Building Usage Type	Building Section	Room Description	Room #	ECM Code	Qty	Description	Watts	kW	Burn Hour Code	Pre Burn Hours	kWh	x	Qty	New Code	Description	Watts	kW	Annual KW Saved	Part#	Cut Sheet #
225	SELINSGROVE	INTERIOR	S	G	54	9	24/7 & OCCUPIED		CLASSROOM	23	2W25-4'	35	T8 1x4 2-Lamp Wrap Fixture	43	1.505	CPS	1827	2,750		35	R 2L-12.5LED	Retrofit with (2) 12.5 Watt LED T8 4' Lamps; Direct Wire to Socket	25	0.875	7.560	KT-LED10.5T8-48G-840-D	3
226	SELINSGROVE	INTERIOR	S	G	55	9	24/7 & OCCUPIED		IT ROOM	24	2W25-4'	1	T8 1x4 2-Lamp Wrap Fixture	43	0.043	S	1000	43		1	R 2L-12.5LED	Retrofit with (2) 12.5 Watt LED T8 4' Lamps; Direct Wire to Socket	25	0.025	0.216	KT-LED10.5T8-48G-840-D	3
227	SELINSGROVE	INTERIOR	S	G	56	9	24/7 & OCCUPIED		STORAGE	33	CF26RLM	1	26 Watt Compact Fluorescent RLM Fixture	26	0.026	S	1000	26		1	LED 9A	Re-Lamp with (1) 9 Watt LED A19 Lamps	9	0.009	0.204	LA19/9/40K/D-46	8
228	SELINSGROVE	INTERIOR	S	G	57	9	24/7 & OCCUPIED		HALLWAY		2EC25-4'	7	T8 2x4 2-Lamp Egg Crate Fixture	43	0.301	H	3863	1,163		7	N 2W-12.5LED	New 1x4 2-Lamp Wrap Fixture with (2) 12.5 Watt LED T8 4' Lamp; Direct Wire to Socket	25	0.175	1.512	CCW-4'-2-T8LED /// KT-LED10.5T8-48G-840-D	51 + 3
229	SELINSGROVE	INTERIOR	S	G	57	9	24/7 & OCCUPIED		HALLWAY		CF26DL-12X12	1	26 Watt Compact Fluorescent Downlight Fixture; 12x12	26	0.026	H	3863	100		1	LED 9A	Re-Lamp with (1) 9 Watt LED A19 Lamps	9	0.009	0.204	LA19/9/40K/D-46	8
230	SELINSGROVE	INTERIOR	S	G	58	9	24/7 & OCCUPIED		LOBBY		CF26DL-12X12	2	26 Watt Compact Fluorescent Downlight Fixture; 12x12	26	0.052	H	3863	201		2	LED 9A	Re-Lamp with (1) 9 Watt LED A19 Lamps	9	0.018	0.408	LA19/9/40K/D-46	8
231	SELINSGROVE	INTERIOR	S	G	59	9	24/7 & OCCUPIED		STORAGE	3	150RLM	1	150 Watt Incandescent RLM Fixture	150	0.150	S	1000	150		1	LED 15A	Re-Lamp with (1) 15 Watt LED A19 Lamp	15	0.015	1.620	LA21/16/40K/D-46	9
232	SELINSGROVE	INTERIOR	S	G	60	9	24/7 & OCCUPIED		CLASSROOM	17	2W25-4'	32	T8 1x4 2-Lamp Wrap Fixture	43	1.376	CPS	1827	2,514		32	R 2L-12.5LED	Retrofit with (2) 12.5 Watt LED T8 4' Lamps; Direct Wire to Socket	25	0.800	6.912	KT-LED10.5T8-48G-840-D	3
233	SELINSGROVE	INTERIOR	S	G	61	9	24/7 & OCCUPIED		OFFICE	19	2W25-4'	3	T8 1x4 2-Lamp Wrap Fixture	43	0.129	O	2340	302		3	R 2L-12.5LED	Retrofit with (2) 12.5 Watt LED T8 4' Lamps; Direct Wire to Socket	25	0.075	0.648	KT-LED10.5T8-48G-840-D	3
234	SELINSGROVE	INTERIOR	S	G	62	9	24/7 & OCCUPIED		STORAGE	20	1W25-4'	1	T8 1x4 1-Lamp Wrap Fixture	22	0.022	S	1000	22		1	R 1L-12.5LED	Retrofit with (1) 12.5 Watt LED T8 4' Lamps; Direct Wire to Socket	12.5	0.013	0.114	KT-LED10.5T8-48G-840-D	3
235	SELINSGROVE	INTERIOR	S	G	63	9	24/7 & OCCUPIED		HALLWAY		2EC25-4'	7	T8 2x4 2-Lamp Egg Crate Fixture	43	0.301	H	3863	1,163		7	N 2W-12.5LED	New 1x4 2-Lamp Wrap Fixture with (2) 12.5 Watt LED T8 4' Lamp; Direct Wire to Socket	25	0.175	1.512	CCW-4'-2-T8LED /// KT-LED10.5T8-48G-840-D	51 + 3
236	SELINSGROVE	INTERIOR	S	G	63	9	24/7 & OCCUPIED		HALLWAY		CF26DL-12X12	1	26 Watt Compact Fluorescent Downlight Fixture; 12x12	26	0.026	H	3863	100		1	LED 9A	Re-Lamp with (1) 9 Watt LED A19 Lamps	9	0.009	0.204	LA19/9/40K/D-46	8
237	SELINSGROVE	INTERIOR	S	G	64	9	24/7 & OCCUPIED		MENS RESTROOM	15	1W17	2	T8 2x2 1-Lamp Wrap Fixture	22	0.044	RR	3863	170		2	R 1L-10LED2'	Retrofit with (1) 10 Watt LED T8 2' Lamp; Direct Wire to Socket	10	0.020	0.288	KT-LED7T8-24GC-840-D	1
238	SELINSGROVE	INTERIOR	S	G	64	9	24/7 & OCCUPIED		MENS RESTROOM JANITOR		1W17	1	T8 2x2 1-Lamp Wrap Fixture	22	0.022	S	1000	22		1	R 1L-10LED2'	Retrofit with (1) 10 Watt LED T8 2' Lamp; Direct Wire to Socket	10	0.010	0.144	KT-LED7T8-24GC-840-D	1
239	SELINSGROVE	INTERIOR	S	G	65	9	24/7 & OCCUPIED		CLASSROOM	11	2W25-4'	17	T8 1x4 2-Lamp Wrap Fixture	43	0.731	CPS	1827	1,336		17	R 2L-12.5LED	Retrofit with (2) 12.5 Watt LED T8 4' Lamps; Direct Wire to Socket	25	0.425	3.672	KT-LED10.5T8-48G-840-D	3
240	SELINSGROVE	INTERIOR	S	G	66	9	24/7 & OCCUPIED		STORAGE	11	4EC25-4'	3	T8 2x4 4-Lamp Egg Crate Fixture	85	0.255	S	1000	255		3	N 4W-12.5LED	New 1x4 4-Lamp Wrap Fixture with (4) 12.5 Watt LED T8 4' Lamp; Direct Wire to Socket	50	0.150	1.260	CCW-4'-4-T8LED /// KT-LED10.5T8-48G-840-D	53 + 3
241	SELINSGROVE	INTERIOR	S	G	67	9	24/7 & OCCUPIED		ELEVATOR EQUIPMENT		1W17	1	T8 2x2 1-Lamp Wrap Fixture	22	0.022	S	1000	22		1	R 1L-10LED2'	Retrofit with (1) 10 Watt LED T8 2' Lamp; Direct Wire to Socket	10	0.010	0.144	KT-LED7T8-24GC-840-D	1
242	SELINSGROVE	EXTERIOR	S		A	9	24/7 & OCCUPIED		SITE		CF26DL-12X12	2	26 Watt Compact Fluorescent Downlight Fixture; 12x12	26	0.052	EX	4380	228		2	LED 14PAR30	Re-Lamp with (1) 14 Watt LED Par30 Lamp	14	0.028	0.288	LP30/10/40K/D	16
243	SELINSGROVE	EXTERIOR	S		B	9	24/7 & OCCUPIED		SITE		2PL13WP	4	13 Watt 2-Lamp Plug-In CFL Wall Pack Fixture	30	0.120	EX	4380	526		4	N RLED12TWP	New 12 Watt LED Tall Wall Pack Fixture	14	0.056	0.768	ENTRA12	42
244	SELINSGROVE	EXTERIOR	S		C	9	24/7 & OCCUPIED		SITE		2PL13CPY	2	13 Watt 2-Lamp Plug-In CFL Canopy Fixture	30	0.060	EX	4380	263		2	N RLED10CPY	New 10 Watt LED Canopy Fixture	12	0.024	0.432	VANLED10	25
245	SELINSGROVE	EXTERIOR	S		D	9	24/7 & OCCUPIED		SITE		2PL26WP	2	26 Watt 2-Lamp Plug-In CFL Wall Pack Fixture	58	0.116	EX	4380	508		2	N RLED12TWP	New 12 Watt LED Tall Wall Pack Fixture	14	0.028	1.056	ENTRA12	42
246	SELINSGROVE	EXTERIOR	S		E	9	24/7 & OCCUPIED		SITE		2-75PAR38	3	75 Watt 2-Lamp Incandescent Par38 Fixture	150	0.450	EX	4380	1,971		3	LED 2-17P38	Re-Lamp with (2) 17 Watt LED PAR38	34	0.102	4.176	LP38/17/840/FL/D	17
247	SELINSGROVE	INTERIOR	S	1	1	2	24/7 & OCCUPIED		VESTIBULE	100	2PL13DR	1	13 Watt Plug-In CFL Drum Fixture	26	0.026	H	3863	100		1	N LED14DR	New 12" Round 14 Watt LED Drum Fixture	14	0.014	0.144	54074143	19
248	SELINSGROVE	INTERIOR	S	1	2	2	24/7 & OCCUPIED		BREAK ROOM	138	2W25-4'	1	T8 1x4 2-Lamp Wrap Fixture	43	0.043	O	2340	101		1	R 2L-12.5LED	Retrofit with (2) 12.5 Watt LED T8 4' Lamps; Direct Wire to Socket	25	0.025	0.216	KT-LED10.5T8-48G-840-D	3
249	SELINSGROVE	INTERIOR	S	1	2	2	24/7 & OCCUPIED		BREAK ROOM CLOSET		CF18	1	18 Watt Compact Fluorescent Fixture	18	0.018	S	1000	18		1	LED 9A	Re-Lamp with (1) 9 Watt LED A19 Lamps	9	0.009	0.108	LA19/9/40K/D-46	8
250	SELINSGROVE	INTERIOR	S	1	3	2	24/7 & OCCUPIED		OFFICE	140	2W25-4'	1	T8 1x4 2-Lamp Wrap Fixture	43	0.043	O	2340	101		1	R 2L-12.5LED	Retrofit with (2) 12.5 Watt LED T8 4' Lamps; Direct Wire to Socket	25	0.025	0.216	KT-LED10.5T8-48G-840-D	3
251	SELINSGROVE	INTERIOR	S	1	4	2	24/7 & OCCUPIED		OPEN OFFICE		2W25-4'	5	T8 1x4 2-Lamp Wrap Fixture	43	0.215	O	2340	503		5	R 2L-12.5LED	Retrofit with (2) 12.5 Watt LED T8 4' Lamps; Direct Wire to Socket	25	0.125	1.080	KT-LED10.5T8-48G-840-D	3
252	SELINSGROVE	INTERIOR	S	1	5	2	24/7 & OCCUPIED		RESTROOM	136	1W17	1	T8 2x2 1-Lamp Wrap Fixture	22	0.022	RR	3863	85		1	R 1L-10LED2'	Retrofit with (1) 10 Watt LED T8 2' Lamp; Direct Wire to Socket	10	0.010	0.144	KT-LED7T8-24GC-840-D	1
253	SELINSGROVE	INTERIOR	S	1	6	2	24/7 & OCCUPIED		CLOSET		2PL13DR	1	13 Watt Plug-In CFL Drum Fixture	26	0.026	S	1000	26		1	N LED14DR	New 12" Round 14 Watt LED Drum Fixture	14	0.014	0.144	54074143	19
254	SELINSGROVE	INTERIOR	S	1	7	2	24/7 & OCCUPIED		OFFICE	132	2W25-4'	1	T8 1x4 2-Lamp Wrap Fixture	43	0.043	O	2340	101		1	R 2L-12.5LED	Retrofit with (2) 12.5 Watt LED T8 4' Lamps; Direct Wire to Socket	25	0.025	0.216	KT-LED10.5T8-48G-840-D	3
255	SELINSGROVE	INTERIOR	S	1	8	2	24/7 & OCCUPIED		OFFICE	133	2W25-4'	1	T8 1x4 2-Lamp Wrap Fixture	43	0.043	O	2340	101		1	R 2L-12.5LED	Retrofit with (2) 12.5 Watt LED T8 4' Lamps; Direct Wire to Socket	25	0.025	0.216	KT-LED10.5T8-48G-840-D	3
256	SELINSGROVE	INTERIOR	S	1	9	2	24/7 & OCCUPIED		OFFICE	131	2W25-4'	1	T8 1x4 2-Lamp Wrap Fixture	43	0.043	O	2340	101		1	R 2L-12.5LED	Retrofit with (2) 12.5 Watt LED T8 4' Lamps; Direct Wire to Socket	25	0.025	0.216	KT-LED10.5T8-48G-840-D	3

											EXISTING FIXTURES									PROPOSED FIXTURE UPGRADE						
ID #	Facility Name	Phase	Utility Rate Code	Floor	Map #	Building Number	Building Usage Type	Building Section	Room Description	Room #	ECM Code	Qty	Description	Watts	kW	Burn Hour Code	Pre Burn Hours	kWh	x	Qty	New Code	Description	Watts	kW	Annual KW Saved	Part#	Cut Sheet #
257	SELINSGROVE	INTERIOR	S	1	10	2	24/7 & OCCUPIED		OFFICE	102	2W25-4'	4	T8 1x4 2-Lamp Wrap Fixture	43	0.172	O	2340	402		4	R 2L-12.5LED	Retrofit with (2) 12.5 Watt LED T8 4' Lamps; Direct Wire to Socket	25	0.100	0.864	KT-LED10.5T8-48G-840-D	3
258	SELINSGROVE	INTERIOR	S	1	10	2	24/7 & OCCUPIED		OFFICE		2PL13DR	1	13 Watt Plug-In CFL Drum Fixture	26	0.026	O	2340	61		1	N LED14DR	New 12" Round 14 Watt LED Drum Fixture	14	0.014	0.144	54074143	19
259	SELINSGROVE	INTERIOR	S	1	10	2	24/7 & OCCUPIED		OFFICE CLOSET		2PL13DR	1	13 Watt Plug-In CFL Drum Fixture	26	0.026	S	1000	26		1	N LED14DR	New 12" Round 14 Watt LED Drum Fixture	14	0.014	0.144	54074143	19
260	SELINSGROVE	INTERIOR	S	1	11	2	24/7 & OCCUPIED		OFFICE	104	4W25-4'	4	T8 1x4 4-Lamp Wrap Fixture	85	0.340	O	2340	796		4	R 4L-12.5LED	Retrofit with (4) 12.5 Watt LED T8 4' Lamps; Direct Wire to Socket	50	0.200	1.680	KT-LED10.5T8-48G-840-D	3
261	SELINSGROVE	INTERIOR	S	1	12	2	24/7 & OCCUPIED		OFFICE	105	2W25-4'	4	T8 1x4 2-Lamp Wrap Fixture	43	0.172	O	2340	402		4	R 2L-12.5LED	Retrofit with (2) 12.5 Watt LED T8 4' Lamps; Direct Wire to Socket	25	0.100	0.864	KT-LED10.5T8-48G-840-D	3
262	SELINSGROVE	INTERIOR	S	1	13	2	24/7 & OCCUPIED		OFFICE	106	2W25-4'	1	T8 1x4 2-Lamp Wrap Fixture	43	0.043	O	2340	101		1	R 2L-12.5LED	Retrofit with (2) 12.5 Watt LED T8 4' Lamps; Direct Wire to Socket	25	0.025	0.216	KT-LED10.5T8-48G-840-D	3
263	SELINSGROVE	INTERIOR	S	1	14	2	24/7 & OCCUPIED		WOMENS RESTROOM		1W25-4'	1	T8 1x4 1-Lamp Wrap Fixture	22	0.022	RR	3863	85		1	R 1L-12.5LED	Retrofit with (1) 12.5 Watt LED T8 4' Lamps; Direct Wire to Socket	12.5	0.013	0.114	KT-LED10.5T8-48G-840-D	3
264	SELINSGROVE	INTERIOR	S	1	14	2	24/7 & OCCUPIED		WOMENS RESTROOM		2PL13DR	1	13 Watt Plug-In CFL Drum Fixture	26	0.026	RR	3863	100		1	N LED14DR	New 12" Round 14 Watt LED Drum Fixture	14	0.014	0.144	54074143	19
265	SELINSGROVE	INTERIOR	S	1	15	2	24/7 & OCCUPIED		HALLWAY RESTROOM		2PL13DR	1	13 Watt Plug-In CFL Drum Fixture	26	0.026	RR	3863	100		1	N LED14DR	New 12" Round 14 Watt LED Drum Fixture	14	0.014	0.144	54074143	19
266	SELINSGROVE	INTERIOR	S	1	16	2	24/7 & OCCUPIED		MENS RESTROOM		2PL13DR	2	13 Watt Plug-In CFL Drum Fixture	26	0.052	RR	3863	201		2	N LED14DR	New 12" Round 14 Watt LED Drum Fixture	14	0.028	0.288	54074143	19
267	SELINSGROVE	INTERIOR	S	1	16	2	24/7 & OCCUPIED		MENS RESTROOM		1W25-4'	1	T8 1x4 1-Lamp Wrap Fixture	22	0.022	RR	3863	85		1	R 1L-12.5LED	Retrofit with (1) 12.5 Watt LED T8 4' Lamps; Direct Wire to Socket	12.5	0.013	0.114	KT-LED10.5T8-48G-840-D	3
268	SELINSGROVE	INTERIOR	S	1	17	2	24/7 & OCCUPIED		BREAK ROOM	111	1W25-4'	2	T8 1x4 1-Lamp Wrap Fixture	22	0.044	O	2340	103		2	R 1L-12.5LED	Retrofit with (1) 12.5 Watt LED T8 4' Lamps; Direct Wire to Socket	12.5	0.025	0.228	KT-LED10.5T8-48G-840-D	3
269	SELINSGROVE	INTERIOR	S	1	17	2	24/7 & OCCUPIED		BREAK ROOM CLOSET		CF26	1	26 Watt Compact Fluorescent Fixture	26	0.026	S	1000	26		1	LED 9A	Re-Lamp with (1) 9 Watt LED A19 Lamps	9	0.009	0.204	LA19/9/40K/D-46	8
270	SELINSGROVE	INTERIOR	S	1	18	2	24/7 & OCCUPIED		HALLWAY		1W17	7	T8 2x2 1-Lamp Wrap Fixture	22	0.154	H	3863	595		7	R 1L-10LED2'	Retrofit with (1) 10 Watt LED T8 2' Lamp; Direct Wire to Socket	10	0.070	1.008	KT-LED7T8-24GC-840-D	1
271	SELINSGROVE	INTERIOR	S	1	18	2	24/7 & OCCUPIED		HALLWAY		2EC25-4'	1	T8 2x4 2-Lamp Egg Crate Fixture	43	0.043	H	3863	166		1	N 2W-12.5LED	New 1x4 2-Lamp Wrap Fixture with (2) 12.5 Watt LED T8 4' Lamp; Direct Wire to Socket	25	0.025	0.216	CCW-4'-2-T8LED /// KT-LED10.5T8-48G-840-D	51 + 3
272	SELINSGROVE	INTERIOR	S	1	19	2	24/7 & OCCUPIED		HALLWAY		1W17	4	T8 2x2 1-Lamp Wrap Fixture	22	0.088	H	3863	340		4	R 1L-10LED2'	Retrofit with (1) 10 Watt LED T8 2' Lamp; Direct Wire to Socket	10	0.040	0.576	KT-LED7T8-24GC-840-D	1
273	SELINSGROVE	INTERIOR	S	1	20	2	24/7 & OCCUPIED		OFFICE	115	2W25-4'	1	T8 1x4 2-Lamp Wrap Fixture	43	0.043	O	2340	101		1	R 2L-12.5LED	Retrofit with (2) 12.5 Watt LED T8 4' Lamps; Direct Wire to Socket	25	0.025	0.216	KT-LED10.5T8-48G-840-D	3
274	SELINSGROVE	INTERIOR	S	1	21	2	24/7 & OCCUPIED		CLOSET	117	2PL13DR	1	13 Watt Plug-In CFL Drum Fixture	26	0.026	S	1000	26		1	N LED14DR	New 12" Round 14 Watt LED Drum Fixture	14	0.014	0.144	54074143	19
275	SELINSGROVE	INTERIOR	S	1	22	2	24/7 & OCCUPIED		OFFICE	129	2W25-4'	1	T8 1x4 2-Lamp Wrap Fixture	43	0.043	O	2340	101		1	R 2L-12.5LED	Retrofit with (2) 12.5 Watt LED T8 4' Lamps; Direct Wire to Socket	25	0.025	0.216	KT-LED10.5T8-48G-840-D	3
276	SELINSGROVE	INTERIOR	S	1	23	2	24/7 & OCCUPIED		RESTROOM	128	1W17	1	T8 2x2 1-Lamp Wrap Fixture	22	0.022	RR	3863	85		1	R 1L-10LED2'	Retrofit with (1) 10 Watt LED T8 2' Lamp; Direct Wire to Socket	10	0.010	0.144	KT-LED7T8-24GC-840-D	1
277	SELINSGROVE	INTERIOR	S	1	24	2	24/7 & OCCUPIED		OFFICE	118	2W25-4'	1	T8 1x4 2-Lamp Wrap Fixture	43	0.043	O	2340	101		1	R 2L-12.5LED	Retrofit with (2) 12.5 Watt LED T8 4' Lamps; Direct Wire to Socket	25	0.025	0.216	KT-LED10.5T8-48G-840-D	3
278	SELINSGROVE	INTERIOR	S	1	25	2	24/7 & OCCUPIED		OFFICE	126	2W25-4'	1	T8 1x4 2-Lamp Wrap Fixture	43	0.043	O	2340	101		1	R 2L-12.5LED	Retrofit with (2) 12.5 Watt LED T8 4' Lamps; Direct Wire to Socket	25	0.025	0.216	KT-LED10.5T8-48G-840-D	3
279	SELINSGROVE	INTERIOR	S	1	26	2	24/7 & OCCUPIED		RESTROOM	120	1W17	1	T8 2x2 1-Lamp Wrap Fixture	22	0.022	RR	3863	85		1	R 1L-10LED2'	Retrofit with (1) 10 Watt LED T8 2' Lamp; Direct Wire to Socket	10	0.010	0.144	KT-LED7T8-24GC-840-D	1
280	SELINSGROVE	INTERIOR	S	1	27	2	24/7 & OCCUPIED		OFFICE	121	2W25-4'	1	T8 1x4 2-Lamp Wrap Fixture	43	0.043	O	2340	101		1	R 2L-12.5LED	Retrofit with (2) 12.5 Watt LED T8 4' Lamps; Direct Wire to Socket	25	0.025	0.216	KT-LED10.5T8-48G-840-D	3
281	SELINSGROVE	INTERIOR	S	1	28	2	24/7 & OCCUPIED		STORAGE	125	2PL13DR	1	13 Watt Plug-In CFL Drum Fixture	26	0.026	S	1000	26		1	N LED14DR	New 12" Round 14 Watt LED Drum Fixture	14	0.014	0.144	54074143	19
282	SELINSGROVE	INTERIOR	S	1	29	2	24/7 & OCCUPIED		OFFICE	123	2W25-4'	1	T8 1x4 2-Lamp Wrap Fixture	43	0.043	O	2340	101		1	R 2L-12.5LED	Retrofit with (2) 12.5 Watt LED T8 4' Lamps; Direct Wire to Socket	25	0.025	0.216	KT-LED10.5T8-48G-840-D	3
283	SELINSGROVE	INTERIOR	S	1	29	2	24/7 & OCCUPIED		OFFICE		X	3	25 Watt Incandescent 2-Lamp Exit Sign	50	0.150	Z	8760	1,314		3	N XLED	New 3 watt LED Exit Sign	3	0.009	1.692	ES-LED-RW-B	43
284	SELINSGROVE	INTERIOR	S	1	31	2	24/7 & OCCUPIED		STAIRS		2PL13DR	1	13 Watt Plug-In CFL Drum Fixture	26	0.026	Z	8760	228		1	N LED14DR	New 12" Round 14 Watt LED Drum Fixture	14	0.014	0.144	54074143	19
285	SELINSGROVE	INTERIOR	S	1	31	2	24/7 & OCCUPIED		STAIRS		1W17	2	T8 2x2 1-Lamp Wrap Fixture	22	0.044	Z	8760	385		2	R 1L-10LED2'	Retrofit with (1) 10 Watt LED T8 2' Lamp; Direct Wire to Socket	10	0.020	0.288	KT-LED7T8-24GC-840-D	1
286	SELINSGROVE	INTERIOR	S	B	32	2	24/7 & OCCUPIED		STORAGE	12	2PL13DR	2	13 Watt Plug-In CFL Drum Fixture	26	0.052	S	1000	52		2	N LED14DR	New 12" Round 14 Watt LED Drum Fixture	14	0.028	0.288	54074143	19
287	SELINSGROVE	INTERIOR	S	B	32	2	24/7 & OCCUPIED		CLOSET 1		2PL13DR	1	13 Watt Plug-In CFL Drum Fixture	26	0.026	S	1000	26		1	N LED14DR	New 12" Round 14 Watt LED Drum Fixture	14	0.014	0.144	54074143	19
288	SELINSGROVE	INTERIOR	S	B	32	2	24/7 & OCCUPIED		CLOSET 2		2PL13DR	1	13 Watt Plug-In CFL Drum Fixture	26	0.026	S	1000	26		1	N LED14DR	New 12" Round 14 Watt LED Drum Fixture	14	0.014	0.144	54074143	19

											EXISTING FIXTURES									PROPOSED FIXTURE UPGRADE						
ID #	Facility Name	Phase	Utility Rate Code	Floor	Map #	Building Number	Building Usage Type	Building Section	Room Description	Room #	ECM Code	Qty	Description	Watts	kW	Burn Hour Code	Pre Burn Hours	kWh	x	Qty	New Code	Description	Watts	kW	Annual KW Saved	Part#	Cut Sheet #
289	SELINSGROVE	INTERIOR	S	B	33	2	24/7 & OCCUPIED		STORAGE	11	2PL13DR	1	13 Watt Plug-In CFL Drum Fixture	26	0.026	S	1000	26		1	N LED14DR	New 12" Round 14 Watt LED Drum Fixture	14	0.014	0.144	54074143	19
290	SELINSGROVE	INTERIOR	S	B	34	2	24/7 & OCCUPIED		STORAGE	16	2W25-4'	5	T8 1x4 2-Lamp Wrap Fixture	43	0.215	S	1000	215		5	R 2L-12.5LED	Retrofit with (2) 12.5 Watt LED T8 4' Lamps; Direct Wire to Socket	25	0.125	1.080	KT-LED10.5T8-48G-840-D	3
291	SELINSGROVE	INTERIOR	S	B	35	2	24/7 & OCCUPIED		STORAGE	1	1W25-4'	5	T8 1x4 1-Lamp Wrap Fixture	22	0.110	S	1000	110		5	R 1L-12.5LED	Retrofit with (1) 12.5 Watt LED T8 4' Lamps; Direct Wire to Socket	12.5	0.063	0.570	KT-LED10.5T8-48G-840-D	3
292	SELINSGROVE	INTERIOR	S	B	36	2	24/7 & OCCUPIED		TELECOM ROOM	17	2PL13DR	3	13 Watt Plug-In CFL Drum Fixture	26	0.078	S	1000	78		3	N LED14DR	New 12" Round 14 Watt LED Drum Fixture	14	0.042	0.432	54074143	19
293	SELINSGROVE	INTERIOR	S	B	37	2	24/7 & OCCUPIED		HALLWAY	3	2PL13DR	3	13 Watt Plug-In CFL Drum Fixture	26	0.078	H	3863	301		3	N LED14DR	New 12" Round 14 Watt LED Drum Fixture	14	0.042	0.432	54074143	19
294	SELINSGROVE	INTERIOR	S	B	38	2	24/7 & OCCUPIED		STORAGE	10	2PL13DR	1	13 Watt Plug-In CFL Drum Fixture	26	0.026	S	1000	26		1	N LED14DR	New 12" Round 14 Watt LED Drum Fixture	14	0.014	0.144	54074143	19
295	SELINSGROVE	INTERIOR	S	B	39	2	24/7 & OCCUPIED		STORAGE	9	2PL13DR	1	13 Watt Plug-In CFL Drum Fixture	26	0.026	S	1000	26		1	N LED14DR	New 12" Round 14 Watt LED Drum Fixture	14	0.014	0.144	54074143	19
296	SELINSGROVE	INTERIOR	S	B	40	2	24/7 & OCCUPIED		SAFE		LOCKED	1	Locked	0	0.000	S	1000	0		1	ZZ DD	No Retrofit	0	0.000	0.000	N/A	N/A
297	SELINSGROVE	INTERIOR	S	B	41	2	24/7 & OCCUPIED		STORAGE	4	CF26RLM	3	26 Watt Compact Fluorescent RLM Fixture	26	0.078	S	1000	78		3	LED 9A	Re-Lamp with (1) 9 Watt LED A19 Lamps	9	0.027	0.612	LA19/9/40K/D-46	8
298	SELINSGROVE	INTERIOR	S	B	42	2	24/7 & OCCUPIED		ELECTRICAL	6	CF26RLM	2	26 Watt Compact Fluorescent RLM Fixture	26	0.052	S	1000	52		2	LED 9A	Re-Lamp with (1) 9 Watt LED A19 Lamps	9	0.018	0.408	LA19/9/40K/D-46	8
299	SELINSGROVE	INTERIOR	S	B	42	2	24/7 & OCCUPIED		MAIN ELECTRICAL		CF26RLM	2	26 Watt Compact Fluorescent RLM Fixture	26	0.052	S	1000	52		2	LED 9A	Re-Lamp with (1) 9 Watt LED A19 Lamps	9	0.018	0.408	LA19/9/40K/D-46	8
300	SELINSGROVE	INTERIOR	S	B	43	2	24/7 & OCCUPIED		HALLWAY		2PL13DR	1	13 Watt Plug-In CFL Drum Fixture	26	0.026	H	3863	100		1	N LED14DR	New 12" Round 14 Watt LED Drum Fixture	14	0.014	0.144	54074143	19
301	SELINSGROVE	EXTERIOR	S		A	2	24/7 & OCCUPIED		SITE		2PL13WP	4	13 Watt 2-Lamp Plug-In CFL Wall Pack Fixture	30	0.120	EX	4380	526		4	N RLED12TWP	New 12 Watt LED Tall Wall Pack Fixture	14	0.056	0.768	ENTRA12	42
302	SELINSGROVE	EXTERIOR	S		B	2	24/7 & OCCUPIED		SITE		2PL26WP	1	26 Watt 2-Lamp Plug-In CFL Wall Pack Fixture	58	0.058	EX	4380	254		1	N RLED12TWP	New 12 Watt LED Tall Wall Pack Fixture	14	0.014	0.528	ENTRA12	42
303	SELINSGROVE	EXTERIOR	S		C	2	24/7 & OCCUPIED		SITE		2L-LEDPAR	1	2-Lamp LED Par Fixture	36	0.036	EX	4380	158		1	ZZ DD	No Retrofit	36	0.036	0.000	N/A	N/A
304	SELINSGROVE	INTERIOR	S	2	1	3	24/7 & OCCUPIED		2ND FLOOR		NOT IN USE	1	Not In Use	0	0.000	S	1000	0		1	ZZ DD	No Retrofit	0	0.000	0.000	N/A	N/A
305	SELINSGROVE	INTERIOR	S	1	1	3	24/7 & OCCUPIED		VESTIBULE	115	1W25-4'	1	T8 1x4 1-Lamp Wrap Fixture	22	0.022	H	3863	85		1	R 1L-12.5LED	Retrofit with (1) 12.5 Watt LED T8 4' Lamps; Direct Wire to Socket	12.5	0.013	0.114	KT-LED10.5T8-48G-840-D	3
306	SELINSGROVE	INTERIOR	S	1	2	3	24/7 & OCCUPIED		HALLWAY		1W25-4'	1	T8 1x4 1-Lamp Wrap Fixture	22	0.022	H	3863	85		1	R 1L-12.5LED	Retrofit with (1) 12.5 Watt LED T8 4' Lamps; Direct Wire to Socket	12.5	0.013	0.114	KT-LED10.5T8-48G-840-D	3
307	SELINSGROVE	INTERIOR	S	1	2	3	24/7 & OCCUPIED		HALLWAY		3W25-4'	3	T8 1x4 3-Lamp Wrap Fixture	65	0.195	H	3863	753		3	R 3L-12.5LED	Retrofit with (3) 12.5 Watt LED T8 4' Lamps; Direct Wire to Socket	37.5	0.113	0.990	KT-LED10.5T8-48G-840-D	3
308	SELINSGROVE	INTERIOR	S	1	2	3	24/7 & OCCUPIED		HALLWAY		X	1	25 Watt Incandescent 2-Lamp Exit Sign	50	0.050	Z	8760	438		1	N XLED	New 3 watt LED Exit Sign	3	0.003	0.564	ES-LED-RW-B	43
309	SELINSGROVE	INTERIOR	S	1	2	3	24/7 & OCCUPIED		HALLWAY		XLED	1	3 Watt LED 2-Lamp Exit Sign	3	0.003	Z	8760	26		1	ZZ DD	No Retrofit	3	0.003	0.000	N/A	N/A
310	SELINSGROVE	INTERIOR	S	1	3	3	24/7 & OCCUPIED		OFFICE	104	3W25-4'	2	T8 1x4 3-Lamp Wrap Fixture	65	0.130	O	2340	304		2	R 3L-12.5LED	Retrofit with (3) 12.5 Watt LED T8 4' Lamps; Direct Wire to Socket	37.5	0.075	0.660	KT-LED10.5T8-48G-840-D	3
311	SELINSGROVE	INTERIOR	S	1	4	3	24/7 & OCCUPIED		OFFICE	105	3W25-4'	1	T8 1x4 3-Lamp Wrap Fixture	65	0.065	O	2340	152		1	R 3L-12.5LED	Retrofit with (3) 12.5 Watt LED T8 4' Lamps; Direct Wire to Socket	37.5	0.038	0.330	KT-LED10.5T8-48G-840-D	3
312	SELINSGROVE	INTERIOR	S	1	5	3	24/7 & OCCUPIED		OPEN OFFICE	106	3W25-4'	2	T8 1x4 3-Lamp Wrap Fixture	65	0.130	O	2340	304		2	R 3L-12.5LED	Retrofit with (3) 12.5 Watt LED T8 4' Lamps; Direct Wire to Socket	37.5	0.075	0.660	KT-LED10.5T8-48G-840-D	3
313	SELINSGROVE	INTERIOR	S	1	5	3	24/7 & OCCUPIED		OPEN OFFICE		1W25-4'	1	T8 1x4 1-Lamp Wrap Fixture	22	0.022	O	2340	51		1	R 1L-12.5LED	Retrofit with (1) 12.5 Watt LED T8 4' Lamps; Direct Wire to Socket	12.5	0.013	0.114	KT-LED10.5T8-48G-840-D	3
314	SELINSGROVE	INTERIOR	S	1	6	3	24/7 & OCCUPIED		CLOSET		1W25-4'	1	T8 1x4 1-Lamp Wrap Fixture	22	0.022	S	1000	22		1	R 1L-12.5LED	Retrofit with (1) 12.5 Watt LED T8 4' Lamps; Direct Wire to Socket	12.5	0.013	0.114	KT-LED10.5T8-48G-840-D	3
315	SELINSGROVE	INTERIOR	S	1	7	3	24/7 & OCCUPIED		OPEN OFFICE	109	3W25-4'	6	T8 1x4 3-Lamp Wrap Fixture	65	0.390	O	2340	913		6	R 3L-12.5LED	Retrofit with (3) 12.5 Watt LED T8 4' Lamps; Direct Wire to Socket	37.5	0.225	1.980	KT-LED10.5T8-48G-840-D	3
316	SELINSGROVE	INTERIOR	S	1	8	3	24/7 & OCCUPIED		WOMENS RESTROOM	111	1V17	2	T8 2x2 1-Lamp Vanity Fixture	22	0.044	RR	3863	170		2	R 1L-10LED2'	Retrofit with (1) 10 Watt LED T8 2' Lamp; Direct Wire to Socket	10	0.020	0.288	KT-LED7T8-24GC-840-D	1
317	SELINSGROVE	INTERIOR	S	1	8	3	24/7 & OCCUPIED		WOMENS RESTROOM		1W25-4'	1	T8 1x4 1-Lamp Wrap Fixture	22	0.022	RR	3863	85		1	R 1L-12.5LED	Retrofit with (1) 12.5 Watt LED T8 4' Lamps; Direct Wire to Socket	12.5	0.013	0.114	KT-LED10.5T8-48G-840-D	3
318	SELINSGROVE	INTERIOR	S	1	9	3	24/7 & OCCUPIED		MENS RESTROOM	110	1W25-4'	1	T8 1x4 1-Lamp Wrap Fixture	22	0.022	RR	3863	85		1	R 1L-12.5LED	Retrofit with (1) 12.5 Watt LED T8 4' Lamps; Direct Wire to Socket	12.5	0.013	0.114	KT-LED10.5T8-48G-840-D	3
319	SELINSGROVE	INTERIOR	S	1	10	3	24/7 & OCCUPIED		MENS RESTROOM	112	2PL13DR	1	13 Watt Plug-In CFL Drum Fixture	26	0.026	RR	3863	100		1	N LED14DR	New 12" Round 14 Watt LED Drum Fixture	14	0.014	0.144	54074143	19
320	SELINSGROVE	INTERIOR	S	1	11	3	24/7 & OCCUPIED		RESTROOM	113	1W25-4'	1	T8 1x4 1-Lamp Wrap Fixture	22	0.022	RR	3863	85		1	R 1L-12.5LED	Retrofit with (1) 12.5 Watt LED T8 4' Lamps; Direct Wire to Socket	12.5	0.013	0.114	KT-LED10.5T8-48G-840-D	3

											EXISTING FIXTURES									PROPOSED FIXTURE UPGRADE						
ID #	Facility Name	Phase	Utility Rate Code	Floor	Map #	Building Number	Building Usage Type	Building Section	Room Description	Room #	ECM Code	Qty	Description	Watts	kW	Burn Hour Code	Pre Burn Hours	kWh	x	Qty	New Code	Description	Watts	kW	Annual KW Saved	Part#	Cut Sheet #
321	SELINSGROVE	INTERIOR	S	1	12	3	24/7 & OCCUPIED		WOMENS RESTROOM	115	1W25-4'	1	T8 1x4 1-Lamp Wrap Fixture	22	0.022	RR	3863	85		1	R 1L-12.5LED	Retrofit with (1) 12.5 Watt LED T8 4' Lamps; Direct Wire to Socket	12.5	0.013	0.114	KT-LED10.5T8-48G-840-D	3
322	SELINSGROVE	INTERIOR	S	1	12	3	24/7 & OCCUPIED		WOMENS RESTROOM		2PL13DR	1	13 Watt Plug-In CFL Drum Fixture	26	0.026	RR	3863	100		1	N LED14DR	New 12" Round 14 Watt LED Drum Fixture	14	0.014	0.144	54074143	19
323	SELINSGROVE	INTERIOR	S	1	13	3	24/7 & OCCUPIED		HALLWAY		3W25-4'	4	T8 1x4 3-Lamp Wrap Fixture	65	0.260	H	3863	1,004		4	R 3L-12.5LED	Retrofit with (3) 12.5 Watt LED T8 4' Lamps; Direct Wire to Socket	37.5	0.150	1.320	KT-LED10.5T8-48G-840-D	3
324	SELINSGROVE	INTERIOR	S	1	13	3	24/7 & OCCUPIED		HALLWAY		XLED	1	3 Watt LED 2-Lamp Exit Sign	3	0.003	Z	8760	26		1	ZZ DD	No Retrofit	3	0.003	0.000	N/A	N/A
325	SELINSGROVE	INTERIOR	S	1	14	3	24/7 & OCCUPIED		WOMENS RESTROOM		2W25-4'	1	T8 1x4 2-Lamp Wrap Fixture	43	0.043	RR	3863	166		1	R 2L-12.5LED	Retrofit with (2) 12.5 Watt LED T8 4' Lamps; Direct Wire to Socket	25	0.025	0.216	KT-LED10.5T8-48G-840-D	3
326	SELINSGROVE	INTERIOR	S	1	14	3	24/7 & OCCUPIED		WOMENS RESTROOM		1V17	1	T8 2x2 1-Lamp Vanity Fixture	22	0.022	RR	3863	85		1	R 1L-10LED2'	Retrofit with (1) 10 Watt LED T8 2' Lamp; Direct Wire to Socket	10	0.010	0.144	KT-LED7T8-24GC-840-D	1
327	SELINSGROVE	INTERIOR	S	1	15	3	24/7 & OCCUPIED		CONFERENCE/OFFICE	125	3W25-4'	6	T8 1x4 3-Lamp Wrap Fixture	65	0.390	O	2340	913		6	R 3L-12.5LED	Retrofit with (3) 12.5 Watt LED T8 4' Lamps; Direct Wire to Socket	37.5	0.225	1.980	KT-LED10.5T8-48G-840-D	3
328	SELINSGROVE	INTERIOR	S	1	15	3	24/7 & OCCUPIED		CONFERENCE/OFFICE		XLED	1	3 Watt LED 2-Lamp Exit Sign	3	0.003	Z	8760	26		1	ZZ DD	No Retrofit	3	0.003	0.000	N/A	N/A
329	SELINSGROVE	INTERIOR	S	1	16	3	24/7 & OCCUPIED		CONFERENCE/OFFICE	126	3W25-4'	1	T8 1x4 3-Lamp Wrap Fixture	65	0.065	O	2340	152		1	R 3L-12.5LED	Retrofit with (3) 12.5 Watt LED T8 4' Lamps; Direct Wire to Socket	37.5	0.038	0.330	KT-LED10.5T8-48G-840-D	3
330	SELINSGROVE	INTERIOR	S	1	17	3	24/7 & OCCUPIED		IT	116	3W25-4'	2	T8 1x4 3-Lamp Wrap Fixture	65	0.130	S	1000	130		2	R 3L-12.5LED	Retrofit with (3) 12.5 Watt LED T8 4' Lamps; Direct Wire to Socket	37.5	0.075	0.660	KT-LED10.5T8-48G-840-D	3
331	SELINSGROVE	INTERIOR	S	1	18	3	24/7 & OCCUPIED		OPEN CUBICLE	128	3W25-4'-DA	7	T8 1x4 3-Lamp Wrap Fixture; Difficult Access	65	0.455	O	2340	1,065		7	R 3L-12.5LED-DA	Retrofit with (3) 12.5 Watt LED T8 4' Lamps; Direct Wire to Socket; Difficult Access	37.5	0.263	2.310	KT-LED10.5T8-48G-840-D	3
332	SELINSGROVE	INTERIOR	S	1	18	3	24/7 & OCCUPIED		OPEN CUBICLE		XLED	1	3 Watt LED 2-Lamp Exit Sign	3	0.003	Z	8760	26		1	ZZ DD	No Retrofit	3	0.003	0.000	N/A	N/A
333	SELINSGROVE	INTERIOR	S	1	19	3	24/7 & OCCUPIED		OPEN OFFICE	130	3W25-4'	1	T8 1x4 3-Lamp Wrap Fixture	65	0.065	O	2340	152		1	R 3L-12.5LED	Retrofit with (3) 12.5 Watt LED T8 4' Lamps; Direct Wire to Socket	37.5	0.038	0.330	KT-LED10.5T8-48G-840-D	3
334	SELINSGROVE	INTERIOR	S	1	20	3	24/7 & OCCUPIED		OPEN OFFICE	129	3W25-4'	1	T8 1x4 3-Lamp Wrap Fixture	65	0.065	O	2340	152		1	R 3L-12.5LED	Retrofit with (3) 12.5 Watt LED T8 4' Lamps; Direct Wire to Socket	37.5	0.038	0.330	KT-LED10.5T8-48G-840-D	3
335	SELINSGROVE	INTERIOR	S	1	21	3	24/7 & OCCUPIED		BREAK ROOM	119	3W25-4'	7	T8 1x4 3-Lamp Wrap Fixture	65	0.455	O	2340	1,065		7	R 3L-12.5LED	Retrofit with (3) 12.5 Watt LED T8 4' Lamps; Direct Wire to Socket	37.5	0.263	2.310	KT-LED10.5T8-48G-840-D	3
336	SELINSGROVE	INTERIOR	S	1	21	3	24/7 & OCCUPIED		BREAK ROOM		XLED	1	3 Watt LED 2-Lamp Exit Sign	3	0.003	Z	8760	26		1	ZZ DD	No Retrofit	3	0.003	0.000	N/A	N/A
337	SELINSGROVE	INTERIOR	S	1	22	3	24/7 & OCCUPIED		BACK STORAGE		2PL13DR	1	13 Watt Plug-In CFL Drum Fixture	26	0.026	S	1000	26		1	N LED14DR	New 12" Round 14 Watt LED Drum Fixture	14	0.014	0.144	54074143	19
338	SELINSGROVE	INTERIOR	S	1	22	3	24/7 & OCCUPIED		BACK STORAGE		XLED	1	3 Watt LED 2-Lamp Exit Sign	3	0.003	Z	8760	26		1	ZZ DD	No Retrofit	3	0.003	0.000	N/A	N/A
339	SELINSGROVE	INTERIOR	S	1	22	3	24/7 & OCCUPIED		BACK STORAGE		SODA	1	Soda Vending Machine	400	0.400	VEND	8760	3,504		1	VM170	New Soda Machine Vending Miser Occuancy Sensor	400	0.400	0.000	VM170	57
340	SELINSGROVE	INTERIOR	S	1	23	3	24/7 & OCCUPIED		BACK CLOSET		2PL13DR	1	13 Watt Plug-In CFL Drum Fixture	26	0.026	S	1000	26		1	N LED14DR	New 12" Round 14 Watt LED Drum Fixture	14	0.014	0.144	54074143	19
341	SELINSGROVE	INTERIOR	S	1	24	3	24/7 & OCCUPIED		BACK JANITOR		2PL13DR	1	13 Watt Plug-In CFL Drum Fixture	26	0.026	S	1000	26		1	N LED14DR	New 12" Round 14 Watt LED Drum Fixture	14	0.014	0.144	54074143	19
342	SELINSGROVE	INTERIOR	S	1	25	3	24/7 & OCCUPIED		STAIRS		2PL13DR	1	13 Watt Plug-In CFL Drum Fixture	26	0.026	Z	8760	228		1	N LED14DR	New 12" Round 14 Watt LED Drum Fixture	14	0.014	0.144	54074143	19
343	SELINSGROVE	INTERIOR	S	1	25	3	24/7 & OCCUPIED		STAIRS		2PL13DR	2	13 Watt Plug-In CFL Drum Fixture	26	0.052	Z	8760	456		2	N LED14DR	New 12" Round 14 Watt LED Drum Fixture	14	0.028	0.288	54074143	19
344	SELINSGROVE	INTERIOR	S	B	26	3	24/7 & OCCUPIED		STORAGE NOT IN USE		2PL13DR	2	13 Watt Plug-In CFL Drum Fixture	26	0.052	S	1000	52		2	N LED14DR	New 12" Round 14 Watt LED Drum Fixture	14	0.028	0.288	54074143	19
345	SELINSGROVE	INTERIOR	S	B	27	3	24/7 & OCCUPIED		STORAGE NOT IN USE		2PL13DR	2	13 Watt Plug-In CFL Drum Fixture	26	0.052	S	1000	52		2	N LED14DR	New 12" Round 14 Watt LED Drum Fixture	14	0.028	0.288	54074143	19
346	SELINSGROVE	INTERIOR	S	B	28	3	24/7 & OCCUPIED		STORAGE NOT IN USE		2PL13DR	4	13 Watt Plug-In CFL Drum Fixture	26	0.104	S	1000	104		4	N LED14DR	New 12" Round 14 Watt LED Drum Fixture	14	0.056	0.576	54074143	19
347	SELINSGROVE	INTERIOR	S	B	28	3	24/7 & OCCUPIED		STORAGE NOT IN USE		XLED	2	3 Watt LED 2-Lamp Exit Sign	3	0.006	Z	8760	53		2	ZZ DD	No Retrofit	3	0.006	0.000	N/A	N/A
348	SELINSGROVE	INTERIOR	S	B	29	3	24/7 & OCCUPIED		STORAGE NOT IN USE		2PL13DR	1	13 Watt Plug-In CFL Drum Fixture	26	0.026	S	1000	26		1	N LED14DR	New 12" Round 14 Watt LED Drum Fixture	14	0.014	0.144	54074143	19
349	SELINSGROVE	INTERIOR	S	B	30	3	24/7 & OCCUPIED		STORAGE NOT IN USE		2PL13DR	1	13 Watt Plug-In CFL Drum Fixture	26	0.026	S	1000	26		1	N LED14DR	New 12" Round 14 Watt LED Drum Fixture	14	0.014	0.144	54074143	19
350	SELINSGROVE	INTERIOR	S	B	31	3	24/7 & OCCUPIED		STORAGE NOT IN USE		2PL13DR	1	13 Watt Plug-In CFL Drum Fixture	26	0.026	S	1000	26		1	N LED14DR	New 12" Round 14 Watt LED Drum Fixture	14	0.014	0.144	54074143	19
351	SELINSGROVE	INTERIOR	S	B	32	3	24/7 & OCCUPIED		STAIRS		2PL13DR	1	13 Watt Plug-In CFL Drum Fixture	26	0.026	Z	8760	228		1	N LED14DR	New 12" Round 14 Watt LED Drum Fixture	14	0.014	0.144	54074143	19
352	SELINSGROVE	INTERIOR	S	B	32	3	24/7 & OCCUPIED		STAIRS		2PL13DR-DA	1	13 Watt 2-Lamp Plug-In CFL Drum Fixture; Difficult Access	30	0.030	Z	8760	263		1	N LED14DR-DA	New 12" Round 14 Watt LED Drum Fixture; Difficult Access	14	0.014	0.192	54074143	19

											EXISTING FIXTURES									PROPOSED FIXTURE UPGRADE							
ID #	Facility Name	Phase	Utility Rate Code	Floor	Map #	Building Number	Building Usage Type	Building Section	Room Description	Room #	ECM Code	Qty	Description	Watts	kW	Burn Hour Code	Pre Burn Hours	kWh	x	Qty	New Code	Description	Watts	kW	Annual KW Saved	Part#	Cut Sheet #
353	SELINSGROVE	INTERIOR	S	B	32	3	24/7 & OCCUPIED		STAIRS		XLED	2	3 Watt LED 2-Lamp Exit Sign	3	0.006	Z	8760	53		2	ZZ DD	No Retrofit	3	0.006	0.000	N/A	N/A
354	SELINSGROVE	INTERIOR	S	B	33	3	24/7 & OCCUPIED		RESTROOM		2PL13DR	3	13 Watt Plug-In CFL Drum Fixture	26	0.078	RR	3863	301		3	N LED14DR	New 12" Round 14 Watt LED Drum Fixture	14	0.042	0.432	54074143	19
355	SELINSGROVE	INTERIOR	S	B	34	3	24/7 & OCCUPIED		HALLWAY		2PL13DR	7	13 Watt Plug-In CFL Drum Fixture	26	0.182	H	3863	703		7	N LED14DR	New 12" Round 14 Watt LED Drum Fixture	14	0.098	1.008	54074143	19
356	SELINSGROVE	INTERIOR	S	B	34	3	24/7 & OCCUPIED		HALLWAY		X	2	25 Watt Incandescent 2-Lamp Exit Sign	50	0.100	Z	8760	876		2	N XLED	New 3 watt LED Exit Sign	3	0.006	1.128	ES-LED-RW-B	43
357	SELINSGROVE	INTERIOR	S	B	35	3	24/7 & OCCUPIED		STORAGE NOT IN USE		2PL13DR	1	13 Watt Plug-In CFL Drum Fixture	26	0.026	S	1000	26		1	N LED14DR	New 12" Round 14 Watt LED Drum Fixture	14	0.014	0.144	54074143	19
358	SELINSGROVE	INTERIOR	S	B	36	3	24/7 & OCCUPIED		MECHANICAL STORAGE NOT IN USE		2PL13DR	2	13 Watt Plug-In CFL Drum Fixture	26	0.052	S	1000	52		2	N LED14DR	New 12" Round 14 Watt LED Drum Fixture	14	0.028	0.288	54074143	19
359	SELINSGROVE	INTERIOR	S	B	37	3	24/7 & OCCUPIED		OFFICE STORAGE NOT IN USE	19	CF18	2	18 Watt Compact Fluorescent Fixture	18	0.036	S	1000	36		2	LED 9A	Re-Lamp with (1) 9 Watt LED A19 Lamps	9	0.018	0.216	LA19/9/40K/D-46	8
360	SELINSGROVE	INTERIOR	S	B	38	3	24/7 & OCCUPIED		ELECTRICAL	23	4W25(W)-4'	1	T8 1x4 4-Lamp Wrap Fixture; Damaged/Missing Lens	85	0.085	S	1000	85		1	N 4W-12.5LED	New 1x4 4-Lamp Wrap Fixture with (4) 12.5 Watt LED T8 4' Lamp; Direct Wire to Socket	50	0.050	0.420	CCW-4'-4-T8LED /// KT-LED10.5T8-48G-840-D	53 + 3
361	SELINSGROVE	INTERIOR	S	B	39	3	24/7 & OCCUPIED		STORAGE NOT IN USE		2W25-4'	3	T8 1x4 2-Lamp Wrap Fixture	43	0.129	S	1000	129		3	R 2L-12.5LED	Retrofit with (2) 12.5 Watt LED T8 4' Lamps; Direct Wire to Socket	25	0.075	0.648	KT-LED10.5T8-48G-840-D	3
362	SELINSGROVE	INTERIOR	S	B	39	3	24/7 & OCCUPIED		STORAGE NOT IN USE		2EC25-4'	1	T8 2x4 2-Lamp Egg Crate Fixture	43	0.043	S	1000	43		1	N 2W-12.5LED	New 1x4 2-Lamp Wrap Fixture with (2) 12.5 Watt LED T8 4' Lamp; Direct Wire to Socket	25	0.025	0.216	CCW-4'-2-T8LED /// KT-LED10.5T8-48G-840-D	51 + 3
363	SELINSGROVE	INTERIOR	S	B	39	3	24/7 & OCCUPIED		STORAGE NOT IN USE		X	1	25 Watt Incandescent 2-Lamp Exit Sign	50	0.050	Z	8760	438		1	N XLED	New 3 watt LED Exit Sign	3	0.003	0.564	ES-LED-RW-B	43
364	SELINSGROVE	EXTERIOR	S		A	3	24/7 & OCCUPIED		SITE		2PL13WP	11	13 Watt 2-Lamp Plug-In CFL Wall Pack Fixture	30	0.330	EX	4380	1,445		11	N RLED12TWP	New 12 Watt LED Tall Wall Pack Fixture	14	0.154	2.112	ENTRA12	42
365	SELINSGROVE	EXTERIOR	S		B	3	24/7 & OCCUPIED		SITE		2PL26WP	2	26 Watt 2-Lamp Plug-In CFL Wall Pack Fixture	58	0.116	EX	4380	508		2	N RLED12TWP	New 12 Watt LED Tall Wall Pack Fixture	14	0.028	1.056	ENTRA12	42
366	SELINSGROVE	EXTERIOR	S		C	3	24/7 & OCCUPIED		SITE		2L-LEDPAR	1	2-Lamp LED Par Fixture	36	0.036	EX	4380	158		1	ZZ DD	No Retrofit	36	0.036	0.000	N/A	N/A
367	SELINSGROVE	EXTERIOR	S		D	3	24/7 & OCCUPIED		SITE		2PL13CPY	3	13 Watt 2-Lamp Plug-In CFL Canopy Fixture	30	0.090	EX	4380	394		3	N RLED10CPY	New 10 Watt LED Canopy Fixture	12	0.036	0.648	VANLED10	25
368	SELINSGROVE	EXTERIOR	S		E	3	24/7 & OCCUPIED		SITE		MV175DTD	1	175 Watt Mercury Vapor Dusk to Dawn Fixture	210	0.210	EX	4380	920		1	N RLED26BY	New 26 Watt LED Dusk to Dawn Barnyard Fixture	26	0.026	2.208	YBLED26/PCT	28
369	SELINSGROVE	INTERIOR	S	1	1	8	24/7 & OCCUPIED		MEETING ROOM		1W25-4'	6	T8 1x4 1-Lamp Wrap Fixture	22	0.132	S	1000	132		6	R 1L-12.5LED	Retrofit with (1) 12.5 Watt LED T8 4' Lamps; Direct Wire to Socket	12.5	0.075	0.684	KT-LED10.5T8-48G-840-D	3
370	SELINSGROVE	INTERIOR	S	1	1	8	24/7 & OCCUPIED		MEETING ROOM		2PL13DR	1	13 Watt Plug-In CFL Drum Fixture	26	0.026	S	1000	26		1	N LED14DR	New 12" Round 14 Watt LED Drum Fixture	14	0.014	0.144	54074143	19
371	SELINSGROVE	INTERIOR	S	1	2	8	24/7 & OCCUPIED		STORAGE	117	2W25-4'	1	T8 1x4 2-Lamp Wrap Fixture	43	0.043	S	1000	43		1	R 2L-12.5LED	Retrofit with (2) 12.5 Watt LED T8 4' Lamps; Direct Wire to Socket	25	0.025	0.216	KT-LED10.5T8-48G-840-D	3
372	SELINSGROVE	INTERIOR	S	1	3	8	24/7 & OCCUPIED		CLOSET	118	2PL13DR	1	13 Watt Plug-In CFL Drum Fixture	26	0.026	S	1000	26		1	N LED14DR	New 12" Round 14 Watt LED Drum Fixture	14	0.014	0.144	54074143	19
373	SELINSGROVE	INTERIOR	S	1	4	8	24/7 & OCCUPIED		HALLWAY	115	1W17	1	T8 2x2 1-Lamp Wrap Fixture	22	0.022	S	1000	22		1	R 1L-10LED2'	Retrofit with (1) 10 Watt LED T8 2' Lamp; Direct Wire to Socket	10	0.010	0.144	KT-LED7T8-24GC-840-D	1
374	SELINSGROVE	INTERIOR	S	1	5	8	24/7 & OCCUPIED		RESTROOM	116	1W17	1	T8 2x2 1-Lamp Wrap Fixture	22	0.022	S	1000	22		1	R 1L-10LED2'	Retrofit with (1) 10 Watt LED T8 2' Lamp; Direct Wire to Socket	10	0.010	0.144	KT-LED7T8-24GC-840-D	1
375	SELINSGROVE	INTERIOR	S	1	6	8	24/7 & OCCUPIED		HALLWAY		1W17	2	T8 2x2 1-Lamp Wrap Fixture	22	0.044	S	1000	44		2	R 1L-10LED2'	Retrofit with (1) 10 Watt LED T8 2' Lamp; Direct Wire to Socket	10	0.020	0.288	KT-LED7T8-24GC-840-D	1
376	SELINSGROVE	INTERIOR	S	1	6	8	24/7 & OCCUPIED		HALLWAY		XLED	2	3 Watt LED 2-Lamp Exit Sign	3	0.006	Z	8760	53		2	ZZ DD	No Retrofit	3	0.006	0.000	N/A	N/A
377	SELINSGROVE	INTERIOR	S	1	7	8	24/7 & OCCUPIED		OFFICE	109	2W25-4'	1	T8 1x4 2-Lamp Wrap Fixture	43	0.043	S	1000	43		1	R 2L-12.5LED	Retrofit with (2) 12.5 Watt LED T8 4' Lamps; Direct Wire to Socket	25	0.025	0.216	KT-LED10.5T8-48G-840-D	3
378	SELINSGROVE	INTERIOR	S	1	8	8	24/7 & OCCUPIED		OFFICE	112	2W25-4'	1	T8 1x4 2-Lamp Wrap Fixture	43	0.043	S	1000	43		1	R 2L-12.5LED	Retrofit with (2) 12.5 Watt LED T8 4' Lamps; Direct Wire to Socket	25	0.025	0.216	KT-LED10.5T8-48G-840-D	3
379	SELINSGROVE	INTERIOR	S	1	9	8	24/7 & OCCUPIED		RESTROOM	108	2PL13DR	2	13 Watt Plug-In CFL Drum Fixture	26	0.052	S	1000	52		2	N LED14DR	New 12" Round 14 Watt LED Drum Fixture	14	0.028	0.288	54074143	19
380	SELINSGROVE	INTERIOR	S	1	10	8	24/7 & OCCUPIED		BAY	108	4W25-4'	4	T8 1x4 4-Lamp Wrap Fixture	85	0.340	S	1000	340		4	R 4L-12.5LED	Retrofit with (4) 12.5 Watt LED T8 4' Lamps; Direct Wire to Socket	50	0.200	1.680	KT-LED10.5T8-48G-840-D	3
381	SELINSGROVE	INTERIOR	S	1	10	8	24/7 & OCCUPIED		BAY		2PL13DR	2	13 Watt Plug-In CFL Drum Fixture	26	0.052	S	1000	52		2	N LED14DR	New 12" Round 14 Watt LED Drum Fixture	14	0.028	0.288	54074143	19
382	SELINSGROVE	INTERIOR	S	1	10	8	24/7 & OCCUPIED		BAY		2PL13DR	2	13 Watt Plug-In CFL Drum Fixture	26	0.052	S	1000	52		2	N LED14DR	New 12" Round 14 Watt LED Drum Fixture	14	0.028	0.288	54074143	19
383	SELINSGROVE	INTERIOR	S	1	11	8	24/7 & OCCUPIED		BAY	104	4W25-4'	6	T8 1x4 4-Lamp Wrap Fixture	85	0.510	S	1000	510		6	R 4L-12.5LED	Retrofit with (4) 12.5 Watt LED T8 4' Lamps; Direct Wire to Socket	50	0.300	2.520	KT-LED10.5T8-48G-840-D	3
384	SELINSGROVE	INTERIOR	S	1	11	8	24/7 & OCCUPIED		BAY		2PL13DR	2	13 Watt Plug-In CFL Drum Fixture	26	0.052	S	1000	52		2	N LED14DR	New 12" Round 14 Watt LED Drum Fixture	14	0.028	0.288	54074143	19

											EXISTING FIXTURES									PROPOSED FIXTURE UPGRADE						
ID #	Facility Name	Phase	Utility Rate Code	Floor	Map #	Building Number	Building Usage Type	Building Section	Room Description	Room #	ECM Code	Qty	Description	Watts	kW	Burn Hour Code	Pre Burn Hours	kWh	x	Qty	New Code	Description	Watts	kW	Annual KW Saved	Part#	Cut Sheet #
385	SELINSGROVE	EXTERIOR	S		A	8	24/7 & OCCUPIED		SITE		MH1000FL-Y	1	1000 Watt Metal Halide Flood Fixture	1085	1.085	EX	4380	4,752		1	N RLED300FLT	New 300 Watt LED Flood Fixture; Trunnion	315	0.315	9.240	FXLED300T/PCT	34
386	SELINSGROVE	EXTERIOR	S		B	8	24/7 & OCCUPIED		SITE		2PL13WP	6	13 Watt 2-Lamp Plug-In CFL Wall Pack Fixture	30	0.180	EX	4380	788		6	N RLED12TWP	New 12 Watt LED Tall Wall Pack Fixture	14	0.084	1.152	ENTRA12	42
387	SELINSGROVE	EXTERIOR	S		C	8	24/7 & OCCUPIED		SITE		2PL13CPY	2	13 Watt 2-Lamp Plug-In CFL Canopy Fixture	30	0.060	EX	4380	263		2	N RLED10CPY	New 10 Watt LED Canopy Fixture	12	0.024	0.432	VANLED10	25
388	SELINSGROVE	INTERIOR	S	2	1	28	24/7 & OCCUPIED		RESTROOM/SHOWER	208	1W25-4'	1	T8 1x4 1-Lamp Wrap Fixture	22	0.022	RR	3863	85		1	R 1L-12.5LED	Retrofit with (1) 12.5 Watt LED T8 4' Lamps; Direct Wire to Socket	12.5	0.013	0.114	KT-LED10.5T8-48G-840-D	3
389	SELINSGROVE	INTERIOR	S	2	2	28	24/7 & OCCUPIED		RESTROOM	207	1W25-4'	1	T8 1x4 1-Lamp Wrap Fixture	22	0.022	RR	3863	85		1	R 1L-12.5LED	Retrofit with (1) 12.5 Watt LED T8 4' Lamps; Direct Wire to Socket	12.5	0.013	0.114	KT-LED10.5T8-48G-840-D	3
390	SELINSGROVE	INTERIOR	S	2	3	28	24/7 & OCCUPIED		RESTROOM/STORAGE	203	1W25-4'	2	T8 1x4 1-Lamp Wrap Fixture	22	0.044	S	1000	44		2	R 1L-12.5LED	Retrofit with (1) 12.5 Watt LED T8 4' Lamps; Direct Wire to Socket	12.5	0.025	0.228	KT-LED10.5T8-48G-840-D	3
391	SELINSGROVE	INTERIOR	S	2	4	28	24/7 & OCCUPIED		JANITOR	204	2PL13DR	1	13 Watt Plug-In CFL Drum Fixture	26	0.026	S	1000	26		1	N LED14DR	New 12" Round 14 Watt LED Drum Fixture	14	0.014	0.144	54074143	19
392	SELINSGROVE	INTERIOR	S	2	5	28	24/7 & OCCUPIED		CLOSET		CF26	1	26 Watt Compact Fluorescent Fixture	26	0.026	S	1000	26		1	LED 9A	Re-Lamp with (1) 9 Watt LED A19 Lamps	9	0.009	0.204	LA19/9/40K/D-46	8
393	SELINSGROVE	INTERIOR	S	2	6	28	24/7 & OCCUPIED		WAREHOUSE		1W25-4'	35	T8 1x4 1-Lamp Wrap Fixture	22	0.770	O	2340	1,802		35	R 1L-12.5LED	Retrofit with (1) 12.5 Watt LED T8 4' Lamps; Direct Wire to Socket	12.5	0.438	3.990	KT-LED10.5T8-48G-840-D	3
394	SELINSGROVE	INTERIOR	S	2	6	28	24/7 & OCCUPIED		WAREHOUSE		2PL13DR	1	13 Watt Plug-In CFL Drum Fixture	26	0.026	O	2340	61		1	N LED14DR	New 12" Round 14 Watt LED Drum Fixture	14	0.014	0.144	54074143	19
395	SELINSGROVE	INTERIOR	S	2	6	28	24/7 & OCCUPIED		WAREHOUSE		CF26RLM	1	26 Watt Compact Fluorescent RLM Fixture	26	0.026	O	2340	61		1	LED 9A	Re-Lamp with (1) 9 Watt LED A19 Lamps	9	0.009	0.204	LA19/9/40K/D-46	8
396	SELINSGROVE	INTERIOR	S	2	7	28	24/7 & OCCUPIED		OFFICE		1W25-4'	2	T8 1x4 1-Lamp Wrap Fixture	22	0.044	O	2340	103		2	R 1L-12.5LED	Retrofit with (1) 12.5 Watt LED T8 4' Lamps; Direct Wire to Socket	12.5	0.025	0.228	KT-LED10.5T8-48G-840-D	3
397	SELINSGROVE	INTERIOR	S	2	7	28	24/7 & OCCUPIED		OFFICE RESTROOM		2PL13DR	1	13 Watt Plug-In CFL Drum Fixture	26	0.026	RRP	522	14		1	N LED14DR	New 12" Round 14 Watt LED Drum Fixture	14	0.014	0.144	54074143	19
398	SELINSGROVE	INTERIOR	S	2	8	28	24/7 & OCCUPIED		STORAGE		4L25-4'	2	T8 2x4 4-Lamp Troffer Fixture	85	0.170	S	1000	170		2	R 4L-12.5LED	Retrofit with (4) 12.5 Watt LED T8 4' Lamps; Direct Wire to Socket	50	0.100	0.840	KT-LED10.5T8-48G-840-D	3
399	SELINSGROVE	INTERIOR	S	2	9	28	24/7 & OCCUPIED		WINDOW STORAGE		1W25-4'	2	T8 1x4 1-Lamp Wrap Fixture	22	0.044	S	1000	44		2	R 1L-12.5LED	Retrofit with (1) 12.5 Watt LED T8 4' Lamps; Direct Wire to Socket	12.5	0.025	0.228	KT-LED10.5T8-48G-840-D	3
400	SELINSGROVE	INTERIOR	S	2	10	28	24/7 & OCCUPIED		FREEZER STORAGE		CF26JJ(JJ)	3	26 Watt Compact Fluorescent Jelly Jar Fixture; Damaged/Missing Lens	26	0.078	S	1000	78		3	N RLED13JJ	New 13 Watt LED Jelly Jar Fixture	15	0.045	0.396	VXBRLED13NDG	38
401	SELINSGROVE	INTERIOR	S	2	10	28	24/7 & OCCUPIED		FREEZER STORAGE		CF26JJ	5	26 Watt Compact Fluorescent Jelly Jar Fixture	26	0.130	S	1000	130		5	LED 9A	Re-Lamp with (1) 9 Watt LED A19 Lamps	9	0.045	1.020	LA19/9/40K/D-46	8
402	SELINSGROVE	INTERIOR	S	2	11	28	24/7 & OCCUPIED		STAIRS		1W25-4'	1	T8 1x4 1-Lamp Wrap Fixture	22	0.022	Z	8760	193		1	R 1L-12.5LED	Retrofit with (1) 12.5 Watt LED T8 4' Lamps; Direct Wire to Socket	12.5	0.013	0.114	KT-LED10.5T8-48G-840-D	3
403	SELINSGROVE	INTERIOR	S	2	11	28	24/7 & OCCUPIED		STAIRS		2PL13DR	1	13 Watt Plug-In CFL Drum Fixture	26	0.026	Z	8760	228		1	N LED14DR	New 12" Round 14 Watt LED Drum Fixture	14	0.014	0.144	54074143	19
404	SELINSGROVE	INTERIOR	S	1	12	28	24/7 & OCCUPIED		RESTROOM		2PL13DR	1	13 Watt Plug-In CFL Drum Fixture	26	0.026	RR	3863	100		1	N LED14DR	New 12" Round 14 Watt LED Drum Fixture	14	0.014	0.144	54074143	19
405	SELINSGROVE	INTERIOR	S	1	13	28	24/7 & OCCUPIED		JANITOR		2PL13DR	1	13 Watt Plug-In CFL Drum Fixture	26	0.026	S	1000	26		1	N LED14DR	New 12" Round 14 Watt LED Drum Fixture	14	0.014	0.144	54074143	19
406	SELINSGROVE	INTERIOR	S	1	14	28	24/7 & OCCUPIED		KEY SHOP	113	4EC25-4'	2	T8 2x4 4-Lamp Egg Crate Fixture	85	0.170	O	2340	398		2	N 4W-12.5LED	New 1x4 4-Lamp Wrap Fixture with (4) 12.5 Watt LED T8 4' Lamp; Direct Wire to Socket	50	0.100	0.840	CCW-4'-4-T8LED /// KT-LED10.5T8-48G-840-D	53 + 3
407	SELINSGROVE	INTERIOR	S	1	14	28	24/7 & OCCUPIED		KEY SHOP		1W25-4'	1	T8 1x4 1-Lamp Wrap Fixture	22	0.022	O	2340	51		1	R 1L-12.5LED	Retrofit with (1) 12.5 Watt LED T8 4' Lamps; Direct Wire to Socket	12.5	0.013	0.114	KT-LED10.5T8-48G-840-D	3
408	SELINSGROVE	INTERIOR	S	1	15	28	24/7 & OCCUPIED		OFFICE	108	4W25-4'	3	T8 1x4 4-Lamp Wrap Fixture	85	0.255	O-ES	1638	418		3	R 4L-12.5LED	Retrofit with (4) 12.5 Watt LED T8 4' Lamps; Direct Wire to Socket	50	0.150	1.260	KT-LED10.5T8-48G-840-D	3
409	SELINSGROVE	INTERIOR	S	1	15	28	24/7 & OCCUPIED		OFFICE RESTROOM		2PL13DR	1	13 Watt Plug-In CFL Drum Fixture	26	0.026	RRP	522	14		1	N LED14DR	New 12" Round 14 Watt LED Drum Fixture	14	0.014	0.144	54074143	19
410	SELINSGROVE	INTERIOR	S	1	16	28	24/7 & OCCUPIED		OFFICE	107	4L25-4'	2	T8 2x4 4-Lamp Troffer Fixture	85	0.170	O-ES	1638	278		2	R 4L-12.5LED	Retrofit with (4) 12.5 Watt LED T8 4' Lamps; Direct Wire to Socket	50	0.100	0.840	KT-LED10.5T8-48G-840-D	3
411	SELINSGROVE	INTERIOR	S	1	17	28	24/7 & OCCUPIED		OFFICE	106	4L25-4'	2	T8 2x4 4-Lamp Troffer Fixture	85	0.170	O	2340	398		2	R 4L-12.5LED	Retrofit with (4) 12.5 Watt LED T8 4' Lamps; Direct Wire to Socket	50	0.100	0.840	KT-LED10.5T8-48G-840-D	3
412	SELINSGROVE	INTERIOR	S	1	18	28	24/7 & OCCUPIED		OFFICE	105	4L25-4'	4	T8 2x4 4-Lamp Troffer Fixture	85	0.340	O	2340	796		4	R 4L-12.5LED	Retrofit with (4) 12.5 Watt LED T8 4' Lamps; Direct Wire to Socket	50	0.200	1.680	KT-LED10.5T8-48G-840-D	3
413	SELINSGROVE	INTERIOR	S	1	19	28	24/7 & OCCUPIED		PARTS STORAGE	114	1W25-4'	3	T8 1x4 1-Lamp Wrap Fixture	22	0.066	S	1000	66		3	R 1L-12.5LED	Retrofit with (1) 12.5 Watt LED T8 4' Lamps; Direct Wire to Socket	12.5	0.038	0.342	KT-LED10.5T8-48G-840-D	3
414	SELINSGROVE	INTERIOR	S	1	19	28	24/7 & OCCUPIED		PARTS STORAGE		CF26JJ	1	26 Watt Compact Fluorescent Jelly Jar Fixture	26	0.026	S	1000	26		1	LED 9A	Re-Lamp with (1) 9 Watt LED A19 Lamps	9	0.009	0.204	LA19/9/40K/D-46	8
415	SELINSGROVE	INTERIOR	S	1	20	28	24/7 & OCCUPIED		SHOP/WAREHOUSE		1W17	12	T8 2x2 1-Lamp Wrap Fixture	22	0.264	O	2340	618		12	R 1L-10LED2'	Retrofit with (1) 10 Watt LED T8 2' Lamp; Direct Wire to Socket	10	0.120	1.728	KT-LED7T8-24GC-840-D	1
416	SELINSGROVE	INTERIOR	S	1	20	28	24/7 & OCCUPIED		SHOP/WAREHOUSE		2W25-4'	42	T8 1x4 2-Lamp Wrap Fixture	43	1.806	O	2340	4,226		42	R 2L-12.5LED	Retrofit with (2) 12.5 Watt LED T8 4' Lamps; Direct Wire to Socket	25	1.050	9.072	KT-LED10.5T8-48G-840-D	3

											EXISTING FIXTURES									PROPOSED FIXTURE UPGRADE						
ID #	Facility Name	Phase	Utility Rate Code	Floor	Map #	Building Number	Building Usage Type	Building Section	Room Description	Room #	ECM Code	Qty	Description	Watts	kW	Burn Hour Code	Pre Burn Hours	kWh	x	Qty	New Code	Description	Watts	kW	Annual KW Saved	Part#	Cut Sheet #
417	SELINSGROVE	INTERIOR	S	1	20	28	24/7 & OCCUPIED		SHOP/WAREHOUSE		2W25-4'	2	T8 1x4 2-Lamp Wrap Fixture	43	0.086	O	2340	201		2	R 2L-12.5LED	Retrofit with (2) 12.5 Watt LED T8 4' Lamps; Direct Wire to Socket	25	0.050	0.432	KT-LED10.5T8-48G-840-D	3
418	SELINSGROVE	INTERIOR	S	1	20	28	24/7 & OCCUPIED		SHOP/WAREHOUSE		4EC25-4'	1	T8 2x4 4-Lamp Egg Crate Fixture	85	0.085	O	2340	199		1	N 4W-12.5LED	New 1x4 4-Lamp Wrap Fixture with (4) 12.5 Watt LED T8 4' Lamp; Direct Wire to Socket	50	0.050	0.420	CCW-4'-4-T8LED /// KT-LED10.5T8-48G-840-D	53 + 3
419	SELINSGROVE	INTERIOR	S	1	20	28	24/7 & OCCUPIED		SHOP/WAREHOUSE		3W25(W)-4'	1	T8 1x4 3-Lamp Wrap Fixture; Damaged/Missing Lens	65	0.065	O	2340	152		1	N 3W-12.5LED	New 1x4 3-Lamp Wrap Fixture with (3) 12.5 Watt LED T8 4' Lamp; Direct Wire to Socket	37.5	0.038	0.330	CCW-4'-3-T8LED /// KT-LED10.5T8-48G-840-D	52 + 3
420	SELINSGROVE	INTERIOR	S	1	20	28	24/7 & OCCUPIED		SHOP/WAREHOUSE		2PL13DR	1	13 Watt Plug-In CFL Drum Fixture	26	0.026	O	2340	61		1	N LED14DR	New 12" Round 14 Watt LED Drum Fixture	14	0.014	0.144	54074143	19
421	SELINSGROVE	INTERIOR	S	1	20	28	24/7 & OCCUPIED		SHOP/WAREHOUSE		2EC25-4'	1	T8 2x4 2-Lamp Egg Crate Fixture	43	0.043	O	2340	101		1	N 2W-12.5LED	New 1x4 2-Lamp Wrap Fixture with (2) 12.5 Watt LED T8 4' Lamp; Direct Wire to Socket	25	0.025	0.216	CCW-4'-2-T8LED /// KT-LED10.5T8-48G-840-D	51 + 3
422	SELINSGROVE	INTERIOR	S	1	20	28	24/7 & OCCUPIED		SHOP/WAREHOUSE		CF18	5	18 Watt Compact Fluorescent Fixture	18	0.090	O	2340	211		5	LED 9A	Re-Lamp with (1) 9 Watt LED A19 Lamps	9	0.045	0.540	LA19/9/40K/D-46	8
423	SELINSGROVE	INTERIOR	S	1	21	28	24/7 & OCCUPIED		FILE	104	1W25-4'	2	T8 1x4 1-Lamp Wrap Fixture	22	0.044	O	2340	103		2	R 1L-12.5LED	Retrofit with (1) 12.5 Watt LED T8 4' Lamps; Direct Wire to Socket	12.5	0.025	0.228	KT-LED10.5T8-48G-840-D	3
424	SELINSGROVE	INTERIOR	S	1	22	28	24/7 & OCCUPIED		STORAGE	103	1W25-4'	1	T8 1x4 1-Lamp Wrap Fixture	22	0.022	S	1000	22		1	R 1L-12.5LED	Retrofit with (1) 12.5 Watt LED T8 4' Lamps; Direct Wire to Socket	12.5	0.013	0.114	KT-LED10.5T8-48G-840-D	3
425	SELINSGROVE	INTERIOR	S	1	23	28	24/7 & OCCUPIED		MAIN ELECTRICAL	102	1W25-4'	1	T8 1x4 1-Lamp Wrap Fixture	22	0.022	S	1000	22		1	R 1L-12.5LED	Retrofit with (1) 12.5 Watt LED T8 4' Lamps; Direct Wire to Socket	12.5	0.013	0.114	KT-LED10.5T8-48G-840-D	3
426	SELINSGROVE	INTERIOR	S	1	23	28	24/7 & OCCUPIED		MAIN ELECTRICAL		2PL13DR	1	13 Watt Plug-In CFL Drum Fixture	26	0.026	S	1000	26		1	N LED14DR	New 12" Round 14 Watt LED Drum Fixture	14	0.014	0.144	54074143	19
427	SELINSGROVE	INTERIOR	S	1	24	28	24/7 & OCCUPIED		MECHANICAL	101	2PL13DR	1	13 Watt Plug-In CFL Drum Fixture	26	0.026	S	1000	26		1	N LED14DR	New 12" Round 14 Watt LED Drum Fixture	14	0.014	0.144	54074143	19
428	SELINSGROVE	INTERIOR	S	1	24	28	24/7 & OCCUPIED		MECHANICAL		1W25-4'	3	T8 1x4 1-Lamp Wrap Fixture	22	0.066	S	1000	66		3	R 1L-12.5LED	Retrofit with (1) 12.5 Watt LED T8 4' Lamps; Direct Wire to Socket	12.5	0.038	0.342	KT-LED10.5T8-48G-840-D	3
429	SELINSGROVE	INTERIOR	S	1	24	28	24/7 & OCCUPIED		MECHANICAL		4W25-4'	1	T8 1x4 4-Lamp Wrap Fixture	85	0.085	S	1000	85		1	R 4L-12.5LED	Retrofit with (4) 12.5 Watt LED T8 4' Lamps; Direct Wire to Socket	50	0.050	0.420	KT-LED10.5T8-48G-840-D	3
430	SELINSGROVE	INTERIOR	S	1	25	28	24/7 & OCCUPIED		BREAK ROOM		1W25-4'	8	T8 1x4 1-Lamp Wrap Fixture	22	0.176	O-ES	1638	288		8	R 1L-12.5LED	Retrofit with (1) 12.5 Watt LED T8 4' Lamps; Direct Wire to Socket	12.5	0.100	0.912	KT-LED10.5T8-48G-840-D	3
431	SELINSGROVE	INTERIOR	S	1	25	28	24/7 & OCCUPIED		BREAK ROOM HALL		100RLM	2	100 Watt Incandescent RLM Fixture	100	0.200	H	3863	773		2	LED 15A	Re-Lamp with (1) 15 Watt LED A19 Lamp	15	0.030	2.040	LA21/16/40K/D-46	9
432	SELINSGROVE	EXTERIOR	S		A	28	24/7 & OCCUPIED		SITE		2PL13CPY	6	13 Watt 2-Lamp Plug-In CFL Canopy Fixture	30	0.180	EX	4380	788		6	N RLED10CPY	New 10 Watt LED Canopy Fixture	12	0.072	1.296	VANLED10	25
433	SELINSGROVE	EXTERIOR	S		B	28	24/7 & OCCUPIED		SITE		2PL13WP	3	13 Watt 2-Lamp Plug-In CFL Wall Pack Fixture	30	0.090	EX	4380	394		3	N RLED12TWP	New 12 Watt LED Tall Wall Pack Fixture	14	0.042	0.576	ENTRA12	42
434	SELINSGROVE	EXTERIOR	S		C	28	24/7 & OCCUPIED		SITE		HPS150FL	1	150 Watt High Pressure Sodium Flood Fixture	188	0.188	EX	4380	823		1	N RLED52FL	New 52 Watt LED Flood Fixture	54	0.054	1.608	FFLED52	31
435	SELINSGROVE	INTERIOR	S	3/2	1	29	24/7 & OCCUPIED		3RD/2ND FLOOR		2PL13DR	38	13 Watt Plug-In CFL Drum Fixture	26	0.988	S	1000	988		38	N LED14DR	New 12" Round 14 Watt LED Drum Fixture	14	0.532	5.472	54074143	19
436	SELINSGROVE	INTERIOR	S	B	2	29	24/7 & OCCUPIED		GROUNDS CREW		150RLM	6	150 Watt Incandescent RLM Fixture	150	0.900	S	1000	900		6	LED 15A	Re-Lamp with (1) 15 Watt LED A19 Lamp	15	0.090	9.720	LA21/16/40K/D-46	9
437	SELINSGROVE	INTERIOR	S	B	2	29	24/7 & OCCUPIED		GROUNDS CREW		100RLM	1	100 Watt Incandescent RLM Fixture	100	0.100	S	1000	100		1	LED 15A	Re-Lamp with (1) 15 Watt LED A19 Lamp	15	0.015	1.020	LA21/16/40K/D-46	9
438	SELINSGROVE	INTERIOR	S	B	3	29	24/7 & OCCUPIED		STORAGE		4W25-4'	2	T8 1x4 4-Lamp Wrap Fixture	85	0.170	S	1000	170		2	R 4L-12.5LED	Retrofit with (4) 12.5 Watt LED T8 4' Lamps; Direct Wire to Socket	50	0.100	0.840	KT-LED10.5T8-48G-840-D	3
439	SELINSGROVE	INTERIOR	S	B	3	29	24/7 & OCCUPIED		STORAGE		1W25-4'	5	T8 1x4 1-Lamp Wrap Fixture	22	0.110	S	1000	110		5	R 1L-12.5LED	Retrofit with (1) 12.5 Watt LED T8 4' Lamps; Direct Wire to Socket	12.5	0.063	0.570	KT-LED10.5T8-48G-840-D	3
440	SELINSGROVE	INTERIOR	S	B	4	29	24/7 & OCCUPIED		BASEMENT		2PL13DR	47	13 Watt Plug-In CFL Drum Fixture	26	1.222	S	1000	1,222		47	N LED14DR	New 12" Round 14 Watt LED Drum Fixture	14	0.658	6.768	54074143	19
441	SELINSGROVE	INTERIOR	S	B	4	29	24/7 & OCCUPIED		BASEMENT		CF26RLM	5	26 Watt Compact Fluorescent RLM Fixture	26	0.130	S	1000	130		5	LED 9A	Re-Lamp with (1) 9 Watt LED A19 Lamps	9	0.045	1.020	LA19/9/40K/D-46	8
442	SELINSGROVE	INTERIOR	S	B	4	29	24/7 & OCCUPIED		BASEMENT		4W25-4'	2	T8 1x4 4-Lamp Wrap Fixture	85	0.170	S	1000	170		2	R 4L-12.5LED	Retrofit with (4) 12.5 Watt LED T8 4' Lamps; Direct Wire to Socket	50	0.100	0.840	KT-LED10.5T8-48G-840-D	3
443	SELINSGROVE	INTERIOR	S	B	4	29	24/7 & OCCUPIED		BASEMENT		2W25-4'	1	T8 1x4 2-Lamp Wrap Fixture	43	0.043	S	1000	43		1	R 2L-12.5LED	Retrofit with (2) 12.5 Watt LED T8 4' Lamps; Direct Wire to Socket	25	0.025	0.216	KT-LED10.5T8-48G-840-D	3
444	SELINSGROVE	INTERIOR	S	B	4	29	24/7 & OCCUPIED		BASEMENT		1W25-4'	3	T8 1x4 1-Lamp Wrap Fixture	22	0.066	S	1000	66		3	R 1L-12.5LED	Retrofit with (1) 12.5 Watt LED T8 4' Lamps; Direct Wire to Socket	12.5	0.038	0.342	KT-LED10.5T8-48G-840-D	3
445	SELINSGROVE	INTERIOR	S	B	4	29	24/7 & OCCUPIED		BASEMENT		2EC25-4'	1	T8 2x4 2-Lamp Egg Crate Fixture	43	0.043	S	1000	43		1	N 2W-12.5LED	New 1x4 2-Lamp Wrap Fixture with (2) 12.5 Watt LED T8 4' Lamp; Direct Wire to Socket	25	0.025	0.216	CCW-4'-2-T8LED /// KT-LED10.5T8-48G-840-D	51 + 3
446	SELINSGROVE	INTERIOR	S	B	4	29	24/7 & OCCUPIED		BASEMENT		4B25-4'	4	T8 2x4 4-Lamp Surface Mount Fixture	85	0.340	S	1000	340		4	R 4L-12.5LED	Retrofit with (4) 12.5 Watt LED T8 4' Lamps; Direct Wire to Socket	50	0.200	1.680	KT-LED10.5T8-48G-840-D	3
447	SELINSGROVE	INTERIOR	S	B	4	29	24/7 & OCCUPIED		BASEMENT		4L25-4'	1	T8 2x4 4-Lamp Troffer Fixture	85	0.085	S	1000	85		1	R 4L-12.5LED	Retrofit with (4) 12.5 Watt LED T8 4' Lamps; Direct Wire to Socket	50	0.050	0.420	KT-LED10.5T8-48G-840-D	3
448	SELINSGROVE	INTERIOR	S	1	5	29	24/7 & OCCUPIED		1ST FLOOR STORAGE		2L25-4'	2	T8 2x4 2-Lamp Troffer Fixture	43	0.086	S	1000	86		2	R 2L-12.5LED	Retrofit with (2) 12.5 Watt LED T8 4' Lamps; Direct Wire to Socket	25	0.050	0.432	KT-LED10.5T8-48G-840-D	3

											EXISTING FIXTURES									PROPOSED FIXTURE UPGRADE							
ID #	Facility Name	Phase	Utility Rate Code	Floor	Map #	Building Number	Building Usage Type	Building Section	Room Description	Room #	ECM Code	Qty	Description	Watts	kW	Burn Hour Code	Pre Burn Hours	kWh	x	Qty	New Code	Description	Watts	kW	Annual KW Saved	Part#	Cut Sheet #
449	SELINSGROVE	INTERIOR	S	1	6	29	24/7 & OCCUPIED		1ST FLOOR STORAGE		2PL13DR	1	13 Watt Plug-In CFL Drum Fixture	26	0.026	S	1000	26		1	N LED14DR	New 12" Round 14 Watt LED Drum Fixture	14	0.014	0.144	54074143	19
450	SELINSGROVE	INTERIOR	S	1	7	29	24/7 & OCCUPIED		BREAK ROOM		4L25-4'	3	T8 2x4 4-Lamp Troffer Fixture	85	0.255	S	1000	255		3	R 4L-12.5LED	Retrofit with (4) 12.5 Watt LED T8 4' Lamps; Direct Wire to Socket	50	0.150	1.260	KT-LED10.5T8-48G-840-D	3
451	SELINSGROVE	INTERIOR	S	1	7	29	24/7 & OCCUPIED		OFFICE		1W25-4'	1	T8 1x4 1-Lamp Wrap Fixture	22	0.022	S	1000	22		1	R 1L-12.5LED	Retrofit with (1) 12.5 Watt LED T8 4' Lamps; Direct Wire to Socket	12.5	0.013	0.114	KT-LED10.5T8-48G-840-D	3
452	SELINSGROVE	INTERIOR	S	1	7	29	24/7 & OCCUPIED		OFFICE RESTROOM		CF26RLM	1	26 Watt Compact Fluorescent RLM Fixture	26	0.026	S	1000	26		1	LED 9A	Re-Lamp with (1) 9 Watt LED A19 Lamps	9	0.009	0.204	LA19/9/40K/D-46	8
453	SELINSGROVE	INTERIOR	S	1	7	29	24/7 & OCCUPIED		RESTROOM		1W25-4'	1	T8 1x4 1-Lamp Wrap Fixture	22	0.022	S	1000	22		1	R 1L-12.5LED	Retrofit with (1) 12.5 Watt LED T8 4' Lamps; Direct Wire to Socket	12.5	0.013	0.114	KT-LED10.5T8-48G-840-D	3
454	SELINSGROVE	INTERIOR	S	1	8	29	24/7 & OCCUPIED		RECYCLING		1W17	19	T8 2x2 1-Lamp Wrap Fixture	22	0.418	O	2340	978		19	R 1L-10LED2'	Retrofit with (1) 10 Watt LED T8 2' Lamp; Direct Wire to Socket	10	0.190	2.736	KT-LED7T8-24GC-840-D	1
455	SELINSGROVE	INTERIOR	S	1	9	29	24/7 & OCCUPIED		RECYCLING		1W25-4'	28	T8 1x4 1-Lamp Wrap Fixture	22	0.616	O	2340	1,441		28	R 1L-12.5LED	Retrofit with (1) 12.5 Watt LED T8 4' Lamps; Direct Wire to Socket	12.5	0.350	3.192	KT-LED10.5T8-48G-840-D	3
456	SELINSGROVE	INTERIOR	S	1	10	29	24/7 & OCCUPIED		WOMENS RESTROOM		2EC25-4'	1	T8 2x4 2-Lamp Egg Crate Fixture	43	0.043	RR	3863	166		1	N 2W-12.5LED	New 1x4 2-Lamp Wrap Fixture with (2) 12.5 Watt LED T8 4' Lamp; Direct Wire to Socket	25	0.025	0.216	CCW-4'-2-T8LED /// KT-LED10.5T8-48G-840-D	51 + 3
457	SELINSGROVE	INTERIOR	S	1	11	29	24/7 & OCCUPIED		RESTROOM		2PL13DR	1	13 Watt Plug-In CFL Drum Fixture	26	0.026	RR	3863	100		1	N LED14DR	New 12" Round 14 Watt LED Drum Fixture	14	0.014	0.144	54074143	19
458	SELINSGROVE	INTERIOR	S	1	12	29	24/7 & OCCUPIED		SHOP		1W25-4'	12	T8 1x4 1-Lamp Wrap Fixture	22	0.264	O	2340	618		12	R 1L-12.5LED	Retrofit with (1) 12.5 Watt LED T8 4' Lamps; Direct Wire to Socket	12.5	0.150	1.368	KT-LED10.5T8-48G-840-D	3
459	SELINSGROVE	EXTERIOR	S		A	29	24/7 & OCCUPIED		SITE		2PL13CPY	10	13 Watt 2-Lamp Plug-In CFL Canopy Fixture	30	0.300	EX	4380	1,314		10	N RLED10CPY	New 10 Watt LED Canopy Fixture	12	0.120	2.160	VANLED10	25
460	SELINSGROVE	EXTERIOR	S		B	29	24/7 & OCCUPIED		SITE		2PL13WP	4	13 Watt 2-Lamp Plug-In CFL Wall Pack Fixture	30	0.120	EX	4380	526		4	N RLED12TWP	New 12 Watt LED Tall Wall Pack Fixture	14	0.056	0.768	ENTRA12	42
506	SELINSGROVE	INTERIOR	S	2	1	17	OUT OF SCOPE		STAIRWELL		2PL13DR	2	13 Watt Plug-In CFL Drum Fixture	26	0.052	Z-MR	8760	456		2	ZZ DD	No Retrofit	26	0.052	0.000	N/A	N/A
507	SELINSGROVE	INTERIOR	S	2	1	17	OUT OF SCOPE		STAIRWELL		1W17	1	T8 2x2 1-Lamp Wrap Fixture	22	0.022	Z-MR	8760	193		1	ZZ DD	No Retrofit	22	0.022	0.000	N/A	N/A
508	SELINSGROVE	INTERIOR	S	2	1	17	OUT OF SCOPE		STAIRWELL		2B17	1	T8 2-Lamp Surface Mount Fixture	29	0.029	Z-MR	8760	254		1	ZZ DD	No Retrofit	29	0.029	0.000	N/A	N/A
509	SELINSGROVE	INTERIOR	S	2	2	17	OUT OF SCOPE		HALLWAY		1W17	2	T8 2x2 1-Lamp Wrap Fixture	22	0.044	Z-MR	8760	385		2	ZZ DD	No Retrofit	22	0.044	0.000	N/A	N/A
510	SELINSGROVE	INTERIOR	S	2	2	17	OUT OF SCOPE		HALLWAY		2PL13DR	1	13 Watt Plug-In CFL Drum Fixture	26	0.026	Z-MR	8760	228		1	ZZ DD	No Retrofit	26	0.026	0.000	N/A	N/A
511	SELINSGROVE	INTERIOR	S	2	2	17	OUT OF SCOPE		HALLWAY		XLED	2	3 Watt LED 2-Lamp Exit Sign	3	0.006	Z-MR	8760	53		2	ZZ DD	No Retrofit	3	0.006	0.000	N/A	N/A
512	SELINSGROVE	INTERIOR	S	2	3	17	OUT OF SCOPE		STAIRWELL		1W17	4	T8 2x2 1-Lamp Wrap Fixture	22	0.088	Z-MR	8760	771		4	ZZ DD	No Retrofit	22	0.088	0.000	N/A	N/A
513	SELINSGROVE	INTERIOR	S	2	3	17	OUT OF SCOPE		STAIRWELL		2PL13DR	4	13 Watt Plug-In CFL Drum Fixture	26	0.104	Z-MR	8760	911		4	ZZ DD	No Retrofit	26	0.104	0.000	N/A	N/A
514	SELINSGROVE	INTERIOR	S	2	3	17	OUT OF SCOPE		STAIRWELL		XLED	2	3 Watt LED 2-Lamp Exit Sign	3	0.006	Z-MR	8760	53		2	ZZ DD	No Retrofit	3	0.006	0.000	N/A	N/A
515	SELINSGROVE	INTERIOR	S	1	4	17	OUT OF SCOPE		HALLWAY		1W25-4'	4	T8 1x4 1-Lamp Wrap Fixture	22	0.088	Z-MR	8760	771		4	ZZ DD	No Retrofit	22	0.088	0.000	N/A	N/A
516	SELINSGROVE	INTERIOR	S	1	4	17	OUT OF SCOPE		HALLWAY		XLED	2	3 Watt LED 2-Lamp Exit Sign	3	0.006	Z-MR	8760	53		2	ZZ DD	No Retrofit	3	0.006	0.000	N/A	N/A
517	SELINSGROVE	INTERIOR	S	B	5	17	OUT OF SCOPE		OPEN AREA		1W25-4'	4	T8 1x4 1-Lamp Wrap Fixture	22	0.088	Z-MR	8760	771		4	ZZ DD	No Retrofit	22	0.088	0.000	N/A	N/A
518	SELINSGROVE	INTERIOR	S	B	5	17	OUT OF SCOPE		OPEN AREA		2PL13DR	1	13 Watt Plug-In CFL Drum Fixture	26	0.026	Z-MR	8760	228		1	ZZ DD	No Retrofit	26	0.026	0.000	N/A	N/A
519	SELINSGROVE	INTERIOR	S	B	5	17	OUT OF SCOPE		OPEN AREA		XLED	2	3 Watt LED 2-Lamp Exit Sign	3	0.006	Z-MR	8760	53		2	ZZ DD	No Retrofit	3	0.006	0.000	N/A	N/A
520	SELINSGROVE	EXTERIOR	S		6	17	OUT OF SCOPE		EXTERIOR		2PL13WP-PC-LARGE	3	13 Watt 2-Lamp Plug-In CFL Large Wall Pack Fixture; Photocell	30	0.090	EX	4380	394		3	ZZ DD	No Retrofit	30	0.090	0.000	N/A	N/A
521	SELINSGROVE	EXTERIOR	S		6	17	OUT OF SCOPE		EXTERIOR		2PL13WP-PC-SMALL	2	13 Watt 2-Lamp Plug-In CFL Small Wall Pack Fixture; Photocell	30	0.060	EX	4380	263		2	ZZ DD	No Retrofit	30	0.060	0.000	N/A	N/A
522	SELINSGROVE	EXTERIOR	S		6	17	OUT OF SCOPE		EXTERIOR		2PL13CPY-PC	2	13 Watt 2-Lamp Plug-In CFL Canopy Fixture; Photocell	30	0.060	EX	4380	263		2	ZZ DD	No Retrofit	30	0.060	0.000	N/A	N/A
523	SELINSGROVE	EXTERIOR	S		6	17	OUT OF SCOPE		EXTERIOR		MH175DTD	1	175 Watt Metal Halide Dusk to Dawn Fixture	213	0.213	EX	4380	933		1	ZZ DD	No Retrofit	213	0.213	0.000	N/A	N/A
524	SELINSGROVE	INTERIOR	S		1	30	24/7 & OCCUPIED		ELECTRICAL CONTROL		4L54HB-WG-DA	9	T5 HO 2x4 4-Lamp High Bay Fixture; Wire Guard; Difficult Access	236	2.124	S	1000	2,124		9	N RLED185HB-DA-WG	New 185 Watt LED High Bay Fixture; Difficult Access; Wire Guard	183	1.647	5.724	RAIL185W/D10 /// GDRAIL22W	37
525	SELINSGROVE	INTERIOR	S		1	30	24/7 & OCCUPIED		ELECTRICAL CONTROL		MH400HB-DA	4	400 Watt Metal Halide Highbay Fixture; Difficult Access	455	1.820	S	1000	1,820		4	N RLED150HB-DA	New 150 Watt LED High Bay Fixture; Difficult Access	150	0.600	14.640	RAIL150W/D10	36

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ID #	Facility Name	Phase	Utility Rate Code	Floor	Map #	Building Number	Building Usage Type	Building Section	Room Description	Room #	ECM Code	Qty	Description	Watts	kW	Burn Hour Code	Pre Burn Hours	kWh	x	Qty	New Code	Description	Watts	kW	Annual KW Saved	Part#	Cut Sheet #
526	SELINSGROVE	INTERIOR	S		1	30	24/7 & OCCUPIED		ELECTRICAL CONTROL		1V25-4'	3	T8 1x4 1-Lamp Vanity Fixture	22	0.066	S	1000	66		3	R 1L-12.5LED	Retrofit with (1) 12.5 Watt LED T8 4' Lamps; Direct Wire to Socket	12.5	0.038	0.342	KT-LED10.5T8-48G-840-D	3
527	SELINSGROVE	INTERIOR	S		2	30	24/7 & OCCUPIED		TRANSFORMER		CF26RLM	1	26 Watt Compact Fluorescent RLM Fixture	26	0.026	S	1000	26		1	LED 9A	Re-Lamp with (1) 9 Watt LED A19 Lamps	9	0.009	0.204	LA19/9/40K/D-46	8
528	SELINSGROVE	INTERIOR	S		3	30	24/7 & OCCUPIED		OFFICE		2L25-4'	2	T8 2x4 2-Lamp Troffer Fixture	43	0.086	O	2340	201		2	R 2L-12.5LED	Retrofit with (2) 12.5 Watt LED T8 4' Lamps; Direct Wire to Socket	25	0.050	0.432	KT-LED10.5T8-48G-840-D	3
529	SELINSGROVE	INTERIOR	S		3	30	24/7 & OCCUPIED		OFFICE		2W25-4'	1	T8 1x4 2-Lamp Wrap Fixture	43	0.043	O	2340	101		1	R 2L-12.5LED	Retrofit with (2) 12.5 Watt LED T8 4' Lamps; Direct Wire to Socket	25	0.025	0.216	KT-LED10.5T8-48G-840-D	3
530	SELINSGROVE	INTERIOR	S		4	30	24/7 & OCCUPIED		OFFICE		4L25-4'	2	T8 2x4 4-Lamp Troffer Fixture	85	0.170	O-ES	1638	278		2	R 4L-12.5LED	Retrofit with (4) 12.5 Watt LED T8 4' Lamps; Direct Wire to Socket	50	0.100	0.840	KT-LED10.5T8-48G-840-D	3
531	SELINSGROVE	INTERIOR	S		5	30	24/7 & OCCUPIED		BOILER TOP LEVEL		100RLM(L)	10	100 Watt Incandescent RLM Fixture; Damaged/Missing Lens	100	1.000	O	2340	2,340		10	LED 15A	Re-Lamp with (1) 15 Watt LED A19 Lamp	15	0.150	10.200	LA21/16/40K/D-46	9
532	SELINSGROVE	INTERIOR	S		5	30	24/7 & OCCUPIED		BOILER TOP LEVEL		100A	8	100 Watt Incandescent A-Lamp Fixture	100	0.800	O	2340	1,872		8	LED 15A	Re-Lamp with (1) 15 Watt LED A19 Lamp	15	0.120	8.160	LA21/16/40K/D-46	9
533	SELINSGROVE	INTERIOR	S		5	30	24/7 & OCCUPIED		BOILER TOP LEVEL		150PAR-HOLDER	2	150 Watt Incandescent Par Holder Fixture	150	0.300	O	2340	702		2	LED 17P38	Re-Lamp with (1) 17 Watt LED PAR38	17	0.034	3.192	LP38/17/840/FL/D	17
534	SELINSGROVE	INTERIOR	S		5	30	24/7 & OCCUPIED		BOILER TOP LEVEL		1W25-4'	8	T8 1x4 1-Lamp Wrap Fixture	22	0.176	O	2340	412		8	R 1L-12.5LED	Retrofit with (1) 12.5 Watt LED T8 4' Lamps; Direct Wire to Socket	12.5	0.100	0.912	KT-LED10.5T8-48G-840-D	3
535	SELINSGROVE	INTERIOR	S		5	30	24/7 & OCCUPIED		BOILER TOP LEVEL		150RLM	4	150 Watt Incandescent RLM Fixture	150	0.600	O	2340	1,404		4	LED 15A	Re-Lamp with (1) 15 Watt LED A19 Lamp	15	0.060	6.480	LA21/16/40K/D-46	9
536	SELINSGROVE	INTERIOR	S		5	30	24/7 & OCCUPIED		BOILER TOP LEVEL		150RLM-VDA	2	150 Watt Incandescent RLM Fixture; Very Difficult Access	150	0.300	O	2340	702		2	LED 15A-VDA	Re-Lamp with (1) 15 Watt LED A19 Lamp; Very Difficult Access	15	0.030	3.240	LA21/16/40K/D-46	9
537	SELINSGROVE	INTERIOR	S		5	30	24/7 & OCCUPIED		BOILER TOP LEVEL		CF65	3	65 Watt Compact Fluorescent Fixture	65	0.195	O	2340	456		3	LED 9A	Re-Lamp with (1) 9 Watt LED A19 Lamps	9	0.027	2.016	LA19/9/40K/D-46	8
538	SELINSGROVE	INTERIOR	S		5	30	24/7 & OCCUPIED		BOILER TOP LEVEL		1W17	1	T8 2x2 1-Lamp Wrap Fixture	22	0.022	O	2340	51		1	R 1L-10LED2'	Retrofit with (1) 10 Watt LED T8 2' Lamp; Direct Wire to Socket	10	0.010	0.144	KT-LED7T8-24GC-840-D	1
539	SELINSGROVE	INTERIOR	S		5	30	24/7 & OCCUPIED		BOILER TOP LEVEL		2PL13WP	1	13 Watt 2-Lamp Plug-In CFL Wall Pack Fixture	30	0.030	O	2340	70		1	N RLED12TWP	New 12 Watt LED Tall Wall Pack Fixture	14	0.014	0.192	ENTRA12	42
540	SELINSGROVE	INTERIOR	S		6	30	24/7 & OCCUPIED		BOILER LOWER LEVEL		CF26RLM-VDA	7	26 Watt Compact Fluorescent RLM Fixture; Very Difficult Access	26	0.182	O	2340	426		7	LED 9A-DA	Re-Lamp with (1) 9 Watt LED A19 Lamps; Difficult Access	9	0.063	1.428	LA19/9/40K/D-46	8
541	SELINSGROVE	INTERIOR	S		6	30	24/7 & OCCUPIED		BOILER LOWER LEVEL		1W25-4'	18	T8 1x4 1-Lamp Wrap Fixture	22	0.396	O	2340	927		18	R 1L-12.5LED	Retrofit with (1) 12.5 Watt LED T8 4' Lamps; Direct Wire to Socket	12.5	0.225	2.052	KT-LED10.5T8-48G-840-D	3
542	SELINSGROVE	INTERIOR	S		6	30	24/7 & OCCUPIED		BOILER LOWER LEVEL		1V25-4'	2	T8 1x4 1-Lamp Vanity Fixture	22	0.044	O	2340	103		2	R 1L-12.5LED	Retrofit with (1) 12.5 Watt LED T8 4' Lamps; Direct Wire to Socket	12.5	0.025	0.228	KT-LED10.5T8-48G-840-D	3
543	SELINSGROVE	INTERIOR	S		6	30	24/7 & OCCUPIED		BOILER LOWER LEVEL		2W34(W)-DA	1	T12 1x4 2-Lamp Wrap Fixture; Damaged/Missing Lens; Difficult Access	72	0.072	O	2340	168		1	N 2W-12.5LED-DA	New 1x4 2-Lamp Wrap Fixture with (2) 12.5 Watt LED T8 4' Lamp; Direct Wire to Socket; Difficult Access	25	0.025	0.564	CCW-4'-2-T8LED /// KT-LED10.5T8-48G-840-D	51 + 3
544	SELINSGROVE	INTERIOR	S		6	30	24/7 & OCCUPIED		BOILER LOWER LEVEL		CF65(L)	3	65 Watt Compact Fluorescent Fixture; Damaged/Missing Lens	65	0.195	O	2340	456		3	N 2I-10.5LED	New 1x4 2-Lamp Industrial Fixture with (2) 10.5 Watt LED T8 4' Lamp; Direct Wire to Socket	21	0.063	1.584	OCF-4'-2-T8LED /// KT-LED10.5T8-48G-840-D	45 + 3
545	SELINSGROVE	INTERIOR	S		6	30	24/7 & OCCUPIED		BOILER LOWER LEVEL		100A	4	100 Watt Incandescent A-Lamp Fixture	100	0.400	O	2340	936		4	LED 15A	Re-Lamp with (1) 15 Watt LED A19 Lamp	15	0.060	4.080	LA21/16/40K/D-46	9
546	SELINSGROVE	INTERIOR	S		6	30	24/7 & OCCUPIED		BOILER LOWER LEVEL		CF65RLM	1	65 Watt Compact Fluorescent RLM Fixture	65	0.065	O	2340	152		1	N 2I-10.5LED	New 1x4 2-Lamp Industrial Fixture with (2) 10.5 Watt LED T8 4' Lamp; Direct Wire to Socket	21	0.021	0.528	OCF-4'-2-T8LED /// KT-LED10.5T8-48G-840-D	45 + 3
547	SELINSGROVE	INTERIOR	S		6	30	24/7 & OCCUPIED		BOILER LOWER LEVEL		CF26	2	26 Watt Compact Fluorescent Fixture	26	0.052	O	2340	122		2	LED 9A	Re-Lamp with (1) 9 Watt LED A19 Lamps	9	0.018	0.408	LA19/9/40K/D-46	8
548	SELINSGROVE	INTERIOR	S		7	30	24/7 & OCCUPIED		PARTS		3W25-4'	1	T8 1x4 3-Lamp Wrap Fixture	65	0.065	S	1000	65		1	R 3L-12.5LED	Retrofit with (3) 12.5 Watt LED T8 4' Lamps; Direct Wire to Socket	37.5	0.038	0.330	KT-LED10.5T8-48G-840-D	3
549	SELINSGROVE	INTERIOR	S		8	30	24/7 & OCCUPIED		TOP LEVEL 3RD		1I25-4'	8	T8 1x4 1-Lamp Industrial Strip Fixture	22	0.176	O	2340	412		8	R 1L-12.5LED	Retrofit with (1) 12.5 Watt LED T8 4' Lamps; Direct Wire to Socket	12.5	0.100	0.912	KT-LED10.5T8-48G-840-D	3
550	SELINSGROVE	INTERIOR	S		8	30	24/7 & OCCUPIED		TOP LEVEL 3RD		2-100PAR38	3	100 Watt 2-Lamp Incandescent Par38 Fixture	200	0.600	O	2340	1,404		3	LED 2-17P38	Re-Lamp with (2) 17 Watt LED PAR38	34	0.102	5.976	LP38/17/840/FL/D	17
551	SELINSGROVE	INTERIOR	S		8	30	24/7 & OCCUPIED		TOP LEVEL 3RD		CF26PAR	1	26 Watt Compact Fluorescent Par Fixture	26	0.026	O	2340	61		1	LED 10P20	Re-Lamp with (1) 10 Watt LED PAR20	10	0.010	0.192	LP20/7/40K/D	15
552	SELINSGROVE	INTERIOR	S		8	30	24/7 & OCCUPIED		TOP LEVEL 3RD		100A	1	100 Watt Incandescent A-Lamp Fixture	100	0.100	O	2340	234		1	LED 15A	Re-Lamp with (1) 15 Watt LED A19 Lamp	15	0.015	1.020	LA21/16/40K/D-46	9
553	SELINSGROVE	INTERIOR	S		8	30	24/7 & OCCUPIED		2ND LEVEL		1I25-4'	9	T8 1x4 1-Lamp Industrial Strip Fixture	22	0.198	O	2340	463		9	R 1L-12.5LED	Retrofit with (1) 12.5 Watt LED T8 4' Lamps; Direct Wire to Socket	12.5	0.113	1.026	KT-LED10.5T8-48G-840-D	3
554	SELINSGROVE	INTERIOR	S		8	30	24/7 & OCCUPIED		2ND LEVEL		2-100PAR38	1	100 Watt 2-Lamp Incandescent Par38 Fixture	200	0.200	O	2340	468		1	LED 2-17P38	Re-Lamp with (2) 17 Watt LED PAR38	34	0.034	1.992	LP38/17/840/FL/D	17
555	SELINSGROVE	INTERIOR	S		8	30	24/7 & OCCUPIED		2ND LEVEL		4W25-4'	1	T8 1x4 4-Lamp Wrap Fixture	85	0.085	O	2340	199		1	R 4L-12.5LED	Retrofit with (4) 12.5 Watt LED T8 4' Lamps; Direct Wire to Socket	50	0.050	0.420	KT-LED10.5T8-48G-840-D	3
556	SELINSGROVE	INTERIOR	S		8	30	24/7 & OCCUPIED		2ND LEVEL		CF26RLM	1	26 Watt Compact Fluorescent RLM Fixture	26	0.026	O	2340	61		1	LED 9A	Re-Lamp with (1) 9 Watt LED A19 Lamps	9	0.009	0.204	LA19/9/40K/D-46	8
557	SELINSGROVE	INTERIOR	S		8	30	24/7 & OCCUPIED		2ND LEVEL		CF26	1	26 Watt Compact Fluorescent Fixture	26	0.026	O	2340	61		1	LED 9A	Re-Lamp with (1) 9 Watt LED A19 Lamps	9	0.009	0.204	LA19/9/40K/D-46	8

											EXISTING FIXTURES									PROPOSED FIXTURE UPGRADE							
ID #	Facility Name	Phase	Utility Rate Code	Floor	Map #	Building Number	Building Usage Type	Building Section	Room Description	Room #	ECM Code	Qty	Description	Watts	kW	Burn Hour Code	Pre Burn Hours	kWh	x	Qty	New Code	Description	Watts	kW	Annual KW Saved	Part#	Cut Sheet #
558	SELINSGROVE	INTERIOR	S		8	30	24/7 & OCCUPIED		2ND LEVEL		CF26RLM	1	26 Watt Compact Fluorescent RLM Fixture	26	0.026	O	2340	61		1	LED 9A	Re-Lamp with (1) 9 Watt LED A19 Lamps	9	0.009	0.204	LA19/9/40K/D-46	8
559	SELINSGROVE	INTERIOR	S		8	30	24/7 & OCCUPIED		STAIRS		CF26	3	26 Watt Compact Fluorescent Fixture	26	0.078	Z	8760	683		3	LED 9A	Re-Lamp with (1) 9 Watt LED A19 Lamps	9	0.027	0.612	LA19/9/40K/D-46	8
560	SELINSGROVE	INTERIOR	S		8	30	24/7 & OCCUPIED		LOWER LEVEL 1ST FLOOR		1W25-4'	18	T8 1x4 1-Lamp Wrap Fixture	22	0.396	O	2340	927		18	R 1L-12.5LED	Retrofit with (1) 12.5 Watt LED T8 4' Lamps; Direct Wire to Socket	12.5	0.225	2.052	KT-LED10.5T8-48G-840-D	3
561	SELINSGROVE	INTERIOR	S		8	30	24/7 & OCCUPIED		LOWER LEVEL 1ST FLOOR		CF65	1	65 Watt Compact Fluorescent Fixture	65	0.065	O	2340	152		1	LED 9A	Re-Lamp with (1) 9 Watt LED A19 Lamps	9	0.009	0.672	LA19/9/40K/D-46	8
562	SELINSGROVE	INTERIOR	S		8	30	24/7 & OCCUPIED		LOCKER ROOM		2L25-4'	2	T8 2x4 2-Lamp Troffer Fixture	43	0.086	Z	8760	753		2	R 2L-12.5LED	Retrofit with (2) 12.5 Watt LED T8 4' Lamps; Direct Wire to Socket	25	0.050	0.432	KT-LED10.5T8-48G-840-D	3
563	SELINSGROVE	INTERIOR	S		8	30	24/7 & OCCUPIED		SHOWER		2PL13DL-8X8	1	13 Watt 2-Lamp Plug-In CFL Downlight Fixture; 8x8	30	0.030	Z	8760	263		1	RK KLED7-REC	Retrofit with (1) 7 Watt LED Rectangular Retrofit Kit	8.5	0.009	0.258	KT-RKIT-RP-6-800-840-UV/G2	54
564	SELINSGROVE	INTERIOR	S		8	30	24/7 & OCCUPIED		NEW BOILER BUILDING		4L54HB-VDA	4	T5 HO 2x4 4-Lamp High Bay Fixture; Very Difficult Access	236	0.944	O	2340	2,209		4	N RLED185HB-DA	New 185 Watt LED High Bay Fixture; Difficult Access	183	0.732	2.544	RAIL185W/D10	37
565	SELINSGROVE	INTERIOR	S		8	30	24/7 & OCCUPIED		NEW BOILER BUILDING		4L54HB	1	T5 HO 2x4 4-Lamp High Bay Fixture	236	0.236	O	2340	552		1	N RLED185HB	New 185 Watt LED High Bay Fixture	183	0.183	0.636	RAIL185W/D10	37
566	SELINSGROVE	INTERIOR	S		8	30	24/7 & OCCUPIED		NEW BOILER BUILDING		2PL13WP	2	13 Watt 2-Lamp Plug-In CFL Wall Pack Fixture	30	0.060	O	2340	140		2	N RLED12TWP	New 12 Watt LED Tall Wall Pack Fixture	14	0.028	0.384	ENTRA12	42
567	SELINSGROVE	EXTERIOR	S		8	30	24/7 & OCCUPIED		NEW BUILDING GENERATORS		4L54HB	4	T5 HO 2x4 4-Lamp High Bay Fixture	236	0.944	Z	8760	8,269		4	N RLED185HB	New 185 Watt LED High Bay Fixture	183	0.732	2.544	RAIL185W/D10	37
568	SELINSGROVE	EXTERIOR	S		8	30	24/7 & OCCUPIED		SITE NEW BUILDING		2PL13WP	4	13 Watt 2-Lamp Plug-In CFL Wall Pack Fixture	30	0.120	Z	8760	1,051		4	N RLED12TWP	New 12 Watt LED Tall Wall Pack Fixture	14	0.056	0.768	ENTRA12	42
569	SELINSGROVE	EXTERIOR	S		8	30	24/7 & OCCUPIED		SITE NEW BUILDING		MH150FL	2	150 Watt Metal Halide Flood Fixture	180	0.360	Z	8760	3,154		2	N RLED78FL	New 78 Watt LED Flood Fixture	79	0.158	2.424	FXLED78SF/PCT	32
570	SELINSGROVE	EXTERIOR	S		A	30	24/7 & OCCUPIED		SITE		2-90PAR38	2	90 Watt 2-Lamp Incandescent Par38 Fixture	180	0.360	Z	8760	3,154		2	LED 2-17P38	Re-Lamp with (2) 17 Watt LED PAR38	34	0.068	3.504	LP38/17/840/FL/D	17
571	SELINSGROVE	EXTERIOR	S		B	30	24/7 & OCCUPIED		SITE		90PAR38	1	90 Watt Incandescent PAR38 Fixture	90	0.090	Z	8760	788		1	LED 17P38	Re-Lamp with (1) 17 Watt LED PAR38	17	0.017	0.876	LP38/17/840/FL/D	17
572	SELINSGROVE	EXTERIOR	S		C	30	24/7 & OCCUPIED		SITE		2PL13WP	6	13 Watt 2-Lamp Plug-In CFL Wall Pack Fixture	30	0.180	Z	8760	1,577		6	N RLED12TWP	New 12 Watt LED Tall Wall Pack Fixture	14	0.084	1.152	ENTRA12	42
573	SELINSGROVE	EXTERIOR	S		D	30	24/7 & OCCUPIED		SITE		MH100CPY-EXP	6	100 Watt Metal Halide Canopy Fixture; Explosion Proof	125	0.750	Z	8760	6,570		6	ZZ DD	No Retrofit	125	0.750	0.000	N/A	N/A
574	SELINSGROVE	EXTERIOR	S		E	30	24/7 & OCCUPIED		SITE		MH250WP	2	250 Watt Metal Halide Wall Pack Fixture	295	0.590	Z	8760	5,168		2	N RLED55WP-NDS	New 55 Watt LED Wall Pack Fixture; Non-Dark Sky	57	0.114	5.712	WP3LED55	41
575	SELINSGROVE	INTERIOR	S	1	1	36	OUT OF SCOPE		ROOM		2EC40	1	T12 2x4 2-Lamp Egg Crate Fixture	75	0.075	S	1000	75		1	ZZ DD	No Retrofit	75	0.075	0.000	N/A	N/A
576	SELINSGROVE	INTERIOR	S	1	2	36	OUT OF SCOPE		ROOM		4W40	2	T12 1x4 4-Lamp Wrap Fixture	134	0.268	S	1000	268		2	ZZ DD	No Retrofit	134	0.268	0.000	N/A	N/A
577	SELINSGROVE	INTERIOR	S	1	3	36	OUT OF SCOPE		RESTROOM		40CIRDR	1	40 Watt T8 Circline Drum Fixture	35	0.035	RRP	522	18		1	ZZ DD	No Retrofit	35	0.035	0.000	N/A	N/A
578	SELINSGROVE	INTERIOR	S	1	4	36	OUT OF SCOPE		BAY AREA		2I40-8'-TAND	4	T12 1x4 2-Lamp Industrial Strip Fixture; Tandem	75	0.300	O	2340	702		4	ZZ DD	No Retrofit	75	0.300	0.000	N/A	N/A
579	SELINSGROVE	INTERIOR	S	1	4	36	OUT OF SCOPE		BAY AREA		2I40-8'-TAND	3	T12 1x4 2-Lamp Industrial Strip Fixture; Tandem	75	0.225	O	2340	527		3	ZZ DD	No Retrofit	75	0.225	0.000	N/A	N/A
580	SELINSGROVE	INTERIOR	S	1	4	36	OUT OF SCOPE		BAY AREA		2I40	1	T12 1x4 2-Lamp Industrial Strip Fixture	75	0.075	O	2340	176		1	ZZ DD	No Retrofit	75	0.075	0.000	N/A	N/A
581	SELINSGROVE	INTERIOR	S	1	5	36	OUT OF SCOPE		LARGE BAY		2I40	13	T12 1x4 2-Lamp Industrial Strip Fixture	75	0.975	O	2340	2,282		13	ZZ DD	No Retrofit	75	0.975	0.000	N/A	N/A
582	SELINSGROVE	INTERIOR	S	1	5	36	OUT OF SCOPE		LARGE BAY		MH175CPY	3	175 Watt Metal Halide Canopy Fixture	213	0.639	O	2340	1,495		3	ZZ DD	No Retrofit	213	0.639	0.000	N/A	N/A
583	SELINSGROVE	INTERIOR	S	1	5	36	OUT OF SCOPE		LARGE BAY STORAGE		100RLM	1	100 Watt Incandescent RLM Fixture	100	0.100	S	1000	100		1	ZZ DD	No Retrofit	100	0.100	0.000	N/A	N/A
584	SELINSGROVE	INTERIOR	S	1	5	36	OUT OF SCOPE		LARGE BAY STORAGE		100RLM(L)	1	100 Watt Incandescent RLM Fixture; Damaged/Missing Lens	100	0.100	S	1000	100		1	ZZ DD	No Retrofit	100	0.100	0.000	N/A	N/A
585	SELINSGROVE	INTERIOR	S	1	5	36	OUT OF SCOPE		LARGE BAY STORAGE		X	1	25 Watt Incandescent 2-Lamp Exit Sign	50	0.050	S	1000	50		1	ZZ DD	No Retrofit	50	0.050	0.000	N/A	N/A
586	SELINSGROVE	EXTERIOR	S		A	36	OUT OF SCOPE		SITE		HPS100FL	4	100 Watt High Pressure Sodium Flood Fixture	125	0.500	EX	4380	2,190		4	ZZ DD	No Retrofit	125	0.500	0.000	N/A	N/A
587	SELINSGROVE	EXTERIOR	S		B	36	OUT OF SCOPE		SITE		150PAR38	5	150 Watt Incandescent PAR38 Fixture	150	0.750	EX	4380	3,285		5	ZZ DD	No Retrofit	150	0.750	0.000	N/A	N/A
588	SELINSGROVE	INTERIOR	S	1	1	34	24/7 & OCCUPIED		STORAGE/PARTS		2I25-4'-WG	8	T8 1x4 2-Lamp Industrial Strip Fixture; Wire Guard	43	0.344	S	1000	344		8	R 2L-12.5LED	Retrofit with (2) 12.5 Watt LED T8 4' Lamps; Direct Wire to Socket	25	0.200	1.728	KT-LED10.5T8-48G-840-D	3
589	SELINSGROVE	INTERIOR	S	1	2	34	24/7 & OCCUPIED		STORAGE/PARTS		2I25-4'-WG	24	T8 1x4 2-Lamp Industrial Strip Fixture; Wire Guard	43	1.032	S	1000	1,032		24	R 2L-12.5LED	Retrofit with (2) 12.5 Watt LED T8 4' Lamps; Direct Wire to Socket	25	0.600	5.184	KT-LED10.5T8-48G-840-D	3

											EXISTING FIXTURES									PROPOSED FIXTURE UPGRADE						
ID #	Facility Name	Phase	Utility Rate Code	Floor	Map #	Building Number	Building Usage Type	Building Section	Room Description	Room #	ECM Code	Qty	Description	Watts	kW	Burn Hour Code	Pre Burn Hours	kWh	x	Qty	New Code	Description	Watts	kW	Annual KW Saved	Part#	Cut Sheet #
590	SELINSGROVE	INTERIOR	S	1	3	34	24/7 & OCCUPIED		STORAGE/BAY		1W25-4'	2	T8 1x4 1-Lamp Wrap Fixture	22	0.044	S	1000	44		2	R 1L-12.5LED	Retrofit with (1) 12.5 Watt LED T8 4' Lamps; Direct Wire to Socket	12.5	0.025	0.228	KT-LED10.5T8-48G-840-D	3
591	SELINSGROVE	INTERIOR	S	1	3	34	24/7 & OCCUPIED		STORAGE/BAY		2PL13DR	1	13 Watt Plug-In CFL Drum Fixture	26	0.026	S	1000	26		1	N LED14DR	New 12" Round 14 Watt LED Drum Fixture	14	0.014	0.144	54074143	19
592	SELINSGROVE	INTERIOR	S	1	4	34	24/7 & OCCUPIED		TIRE BACK STORAGE		2PL13DR	2	13 Watt Plug-In CFL Drum Fixture	26	0.052	S	1000	52		2	N LED14DR	New 12" Round 14 Watt LED Drum Fixture	14	0.028	0.288	54074143	19
593	SELINSGROVE	INTERIOR	S	1	5	34	24/7 & OCCUPIED		TIRE BACK STORAGE		1W25-4'	12	T8 1x4 1-Lamp Wrap Fixture	22	0.264	S	1000	264		12	R 1L-12.5LED	Retrofit with (1) 12.5 Watt LED T8 4' Lamps; Direct Wire to Socket	12.5	0.150	1.368	KT-LED10.5T8-48G-840-D	3
594	SELINSGROVE	INTERIOR	S	1	5	34	24/7 & OCCUPIED		TIRE BACK STORAGE		2PL13DR	1	13 Watt Plug-In CFL Drum Fixture	26	0.026	S	1000	26		1	N LED14DR	New 12" Round 14 Watt LED Drum Fixture	14	0.014	0.144	54074143	19
595	SELINSGROVE	INTERIOR	S	1	6	34	24/7 & OCCUPIED		STORAGE/PARTS		1W25-4'	3	T8 1x4 1-Lamp Wrap Fixture	22	0.066	S	1000	66		3	R 1L-12.5LED	Retrofit with (1) 12.5 Watt LED T8 4' Lamps; Direct Wire to Socket	12.5	0.038	0.342	KT-LED10.5T8-48G-840-D	3
596	SELINSGROVE	INTERIOR	S	1	6	34	24/7 & OCCUPIED		STORAGE/PARTS		4EC25-4'	1	T8 2x4 4-Lamp Egg Crate Fixture	85	0.085	S	1000	85		1	N 4W-12.5LED	New 1x4 4-Lamp Wrap Fixture with (4) 12.5 Watt LED T8 4' Lamp; Direct Wire to Socket	50	0.050	0.420	CCW-4'-4-T8LED /// KT-LED10.5T8-48G-840-D	53 + 3
597	SELINSGROVE	INTERIOR	S	1	1	44	24/7 & OCCUPIED		OFFICE		2PL13DR	2	13 Watt Plug-In CFL Drum Fixture	26	0.052	O	2340	122		2	N LED14DR	New 12" Round 14 Watt LED Drum Fixture	14	0.028	0.288	54074143	19
598	SELINSGROVE	INTERIOR	S	1	2	44	24/7 & OCCUPIED		ELECTRICAL ROOM		CF40RLM	1	40 Watt Compact Fluorescent RLM Fixture	40	0.040	S	1000	40		1	LED 9A	Re-Lamp with (1) 9 Watt LED A19 Lamps	9	0.009	0.372	LA19/9/40K/D-46	8
599	SELINSGROVE	INTERIOR	S	1	3	44	24/7 & OCCUPIED		SHOP		CF105RLM	8	105 Watt Compact Fluorescent RLM Fixture	105	0.840	O	2340	1,966		8	LED 9A	Re-Lamp with (1) 9 Watt LED A19 Lamps	9	0.072	9.216	LA19/9/40K/D-46	8
600	SELINSGROVE	INTERIOR	S	1	4	44	24/7 & OCCUPIED		TRANSFORMER ROOM		CF40RLM	2	40 Watt Compact Fluorescent RLM Fixture	40	0.080	S	1000	80		2	LED 9A	Re-Lamp with (1) 9 Watt LED A19 Lamps	9	0.018	0.744	LA19/9/40K/D-46	8
601	SELINSGROVE	INTERIOR	S	B	5	44	24/7 & OCCUPIED		BASEMENT		CF105RLM	8	105 Watt Compact Fluorescent RLM Fixture	105	0.840	O	2340	1,966		8	LED 9A	Re-Lamp with (1) 9 Watt LED A19 Lamps	9	0.072	9.216	LA19/9/40K/D-46	8
602	SELINSGROVE	EXTERIOR	S		A	44	24/7 & OCCUPIED		SITE		2PL13WP	3	13 Watt 2-Lamp Plug-In CFL Wall Pack Fixture	30	0.090	EX	4380	394		3	N RLED12TWP	New 12 Watt LED Tall Wall Pack Fixture	14	0.042	0.576	ENTRA12	42
603	SELINSGROVE	INTERIOR	S	1	1	24	OUT OF SCOPE		VESTIBULE		1W25-4'	1	T8 1x4 1-Lamp Wrap Fixture	22	0.022	Z-MR	8760	193		1	ZZ DD	No Retrofit	22	0.022	0.000	N/A	N/A
604	SELINSGROVE	INTERIOR	S	1	1	24	OUT OF SCOPE		VESTIBULE		X	1	25 Watt Incandescent 2-Lamp Exit Sign	50	0.050	Z	8760	438		1	ZZ DD	No Retrofit	50	0.050	0.000	N/A	N/A
605	SELINSGROVE	INTERIOR	S	1	2	24	OUT OF SCOPE		HALLWAY		1W25-4'	12	T8 1x4 1-Lamp Wrap Fixture	22	0.264	Z-MR	8760	2,313		12	ZZ DD	No Retrofit	22	0.264	0.000	N/A	N/A
606	SELINSGROVE	INTERIOR	S	1	2	24	OUT OF SCOPE		HALLWAY		2W25-4'	3	T8 1x4 2-Lamp Wrap Fixture	43	0.129	Z-MR	8760	1,130		3	ZZ DD	No Retrofit	43	0.129	0.000	N/A	N/A
607	SELINSGROVE	INTERIOR	S	1	2	24	OUT OF SCOPE		HALLWAY		X	4	25 Watt Incandescent 2-Lamp Exit Sign	50	0.200	Z	8760	1,752		4	ZZ DD	No Retrofit	50	0.200	0.000	N/A	N/A
608	SELINSGROVE	INTERIOR	S	1	2	24	OUT OF SCOPE		HALLWAY		2PL13DR	1	13 Watt Plug-In CFL Drum Fixture	26	0.026	Z-MR	8760	228		1	ZZ DD	No Retrofit	26	0.026	0.000	N/A	N/A
609	SELINSGROVE	INTERIOR	S	1	3	24	OUT OF SCOPE		OPEN OFFICE	132	2PL13DR	6	13 Watt Plug-In CFL Drum Fixture	26	0.156	Z-MR	8760	1,367		6	ZZ DD	No Retrofit	26	0.156	0.000	N/A	N/A
610	SELINSGROVE	INTERIOR	S	1	3	24	OUT OF SCOPE		OPEN OFFICE		X	2	25 Watt Incandescent 2-Lamp Exit Sign	50	0.100	Z	8760	876		2	ZZ DD	No Retrofit	50	0.100	0.000	N/A	N/A
611	SELINSGROVE	INTERIOR	S	1	4	24	OUT OF SCOPE		ENTRANCE		2W25-4'	1	T8 1x4 2-Lamp Wrap Fixture	43	0.043	Z-MR	8760	377		1	ZZ DD	No Retrofit	43	0.043	0.000	N/A	N/A
612	SELINSGROVE	INTERIOR	S	1	4	24	OUT OF SCOPE		ENTRANCE		X	1	25 Watt Incandescent 2-Lamp Exit Sign	50	0.050	Z	8760	438		1	ZZ DD	No Retrofit	50	0.050	0.000	N/A	N/A
613	SELINSGROVE	INTERIOR	S	1	5	24	OUT OF SCOPE		OPEN AREA		4EC25-4'	1	T8 2x4 4-Lamp Egg Crate Fixture	85	0.085	Z-MR	8760	745		1	ZZ DD	No Retrofit	85	0.085	0.000	N/A	N/A
614	SELINSGROVE	INTERIOR	S	1	6	24	OUT OF SCOPE		OPEN AREA		2PL13DR	4	13 Watt Plug-In CFL Drum Fixture	26	0.104	Z-MR	8760	911		4	ZZ DD	No Retrofit	26	0.104	0.000	N/A	N/A
615	SELINSGROVE	INTERIOR	S	1	6	24	OUT OF SCOPE		OPEN AREA		CF20JJ	1	20 Watt Compact Fluorescent Jelly Jar Fixture	20	0.020	Z-MR	8760	175		1	ZZ DD	No Retrofit	20	0.020	0.000	N/A	N/A
616	SELINSGROVE	INTERIOR	S	1	7	24	OUT OF SCOPE		OPEN AREA		2W25-4'	2	T8 1x4 2-Lamp Wrap Fixture	43	0.086	Z-MR	8760	753		2	ZZ DD	No Retrofit	43	0.086	0.000	N/A	N/A
617	SELINSGROVE	INTERIOR	S	1	8	24	OUT OF SCOPE		HALLWAY		2PL13DR	3	13 Watt Plug-In CFL Drum Fixture	26	0.078	Z-MR	8760	683		3	ZZ DD	No Retrofit	26	0.078	0.000	N/A	N/A
618	SELINSGROVE	EXTERIOR	S		9	24	OUT OF SCOPE		EXTERIOR		2PL13WP-PC-LARGE	4	13 Watt 2-Lamp Plug-In CFL Large Wall Pack Fixture; Photocell	30	0.120	EX	4380	526		4	ZZ DD	No Retrofit	30	0.120	0.000	N/A	N/A
619	SELINSGROVE	EXTERIOR	S		9	24	OUT OF SCOPE		EXTERIOR		2PL13WP-PC-SMALL	2	13 Watt 2-Lamp Plug-In CFL Small Wall Pack Fixture; Photocell	30	0.060	EX	4380	263		2	ZZ DD	No Retrofit	30	0.060	0.000	N/A	N/A
620	SELINSGROVE	EXTERIOR	S		9	24	OUT OF SCOPE		EXTERIOR		75PAR38-HOLDER-PC	1	75 Watt Incandescent Par30 Holder Fixture; Photocell	75	0.075	EX	4380	329		1	ZZ DD	No Retrofit	75	0.075	0.000	N/A	N/A
621	SELINSGROVE	INTERIOR	S	1	1	22	OUT OF SCOPE		ROOM	121	2W25-4'-WOOD	6	T8 1x4 2-Lamp Wrap Fixture; Wooden	43	0.258	Z-MR	8760	2,260		6	ZZ DD	No Retrofit	43	0.258	0.000	N/A	N/A

											EXISTING FIXTURES									PROPOSED FIXTURE UPGRADE							
ID #	Facility Name	Phase	Utility Rate Code	Floor	Map #	Building Number	Building Usage Type	Building Section	Room Description	Room #	ECM Code	Qty	Description	Watts	kW	Burn Hour Code	Pre Burn Hours	kWh	x	Qty	New Code	Description	Watts	kW	Annual KW Saved	Part#	Cut Sheet #
622	SELINSGROVE	INTERIOR	S	1	1	22	OUT OF SCOPE		ROOM		60A	1	60 Watt Incandescent A-Lamp Fixture	60	0.060	Z-MR	8760	526		1	ZZ DD	No Retrofit	60	0.060	0.000	N/A	N/A
623	SELINSGROVE	INTERIOR	S	1	1	22	OUT OF SCOPE		ROOM		60JJ	1	60 Watt Incandescent A-Lamp Jelly Jar Fixture	60	0.060	Z-MR	8760	526		1	ZZ DD	No Retrofit	60	0.060	0.000	N/A	N/A
624	SELINSGROVE	INTERIOR	S	1	2	22	OUT OF SCOPE		VESTIBULE		2W32	1	T8 1x4 2-Lamp Wrap Fixture	62	0.062	Z-MR	8760	543		1	ZZ DD	No Retrofit	62	0.062	0.000	N/A	N/A
625	SELINSGROVE	INTERIOR	S	1	2	22	OUT OF SCOPE		VESTIBULE		X	1	25 Watt Incandescent 2-Lamp Exit Sign	50	0.050	Z	8760	438		1	ZZ DD	No Retrofit	50	0.050	0.000	N/A	N/A
626	SELINSGROVE	INTERIOR	S	1	3	22	OUT OF SCOPE		HALLWAY		1W25-4'	8	T8 1x4 1-Lamp Wrap Fixture	22	0.176	Z-MR	8760	1,542		8	ZZ DD	No Retrofit	22	0.176	0.000	N/A	N/A
627	SELINSGROVE	INTERIOR	S	1	3	22	OUT OF SCOPE		HALLWAY		2W25-4'	3	T8 1x4 2-Lamp Wrap Fixture	43	0.129	Z-MR	8760	1,130		3	ZZ DD	No Retrofit	43	0.129	0.000	N/A	N/A
628	SELINSGROVE	INTERIOR	S	1	3	22	OUT OF SCOPE		HALLWAY		2PL13DR	1	13 Watt Plug-In CFL Drum Fixture	26	0.026	Z-MR	8760	228		1	ZZ DD	No Retrofit	26	0.026	0.000	N/A	N/A
629	SELINSGROVE	INTERIOR	S	1	3	22	OUT OF SCOPE		HALLWAY		X	3	25 Watt Incandescent 2-Lamp Exit Sign	50	0.150	Z	8760	1,314		3	ZZ DD	No Retrofit	50	0.150	0.000	N/A	N/A
630	SELINSGROVE	INTERIOR	S	1	4	22	OUT OF SCOPE		HALLWAY IN 106		2PL13DR	2	13 Watt Plug-In CFL Drum Fixture	26	0.052	Z-MR	8760	456		2	ZZ DD	No Retrofit	26	0.052	0.000	N/A	N/A
631	SELINSGROVE	INTERIOR	S	1	4	22	OUT OF SCOPE		HALLWAY IN 106		X	2	25 Watt Incandescent 2-Lamp Exit Sign	50	0.100	Z	8760	876		2	ZZ DD	No Retrofit	50	0.100	0.000	N/A	N/A
632	SELINSGROVE	INTERIOR	S	1	5	22	OUT OF SCOPE		HALLWAY IN 114		2PL13DR	2	13 Watt Plug-In CFL Drum Fixture	26	0.052	Z-MR	8760	456		2	ZZ DD	No Retrofit	26	0.052	0.000	N/A	N/A
633	SELINSGROVE	INTERIOR	S	1	5	22	OUT OF SCOPE		HALLWAY IN 114		X	2	25 Watt Incandescent 2-Lamp Exit Sign	50	0.100	Z	8760	876		2	ZZ DD	No Retrofit	50	0.100	0.000	N/A	N/A
634	SELINSGROVE	EXTERIOR	S		6	22	OUT OF SCOPE		EXTERIOR		2PL13WP-PC-SMALL	1	13 Watt 2-Lamp Plug-In CFL Small Wall Pack Fixture; Photocell	30	0.030	EX	4380	131		1	ZZ DD	No Retrofit	30	0.030	0.000	N/A	N/A
635	SELINSGROVE	EXTERIOR	S		6	22	OUT OF SCOPE		EXTERIOR		2PL13WP-PC-LARGE	4	13 Watt 2-Lamp Plug-In CFL Large Wall Pack Fixture; Photocell	30	0.120	EX	4380	526		4	ZZ DD	No Retrofit	30	0.120	0.000	N/A	N/A
636	SELINSGROVE	EXTERIOR	S		6	22	OUT OF SCOPE		EXTERIOR		2-75PAR38-HOLDER-PC	4	75 Watt 2-Lamp Incandescent Par38 Holder Fixture; Photocell	150	0.600	EX	4380	2,628		4	ZZ DD	No Retrofit	150	0.600	0.000	N/A	N/A
637	SELINSGROVE	INTERIOR	S	1	1	25	OUT OF SCOPE		VESTIBULE		1W25-4'	1	T8 1x4 1-Lamp Wrap Fixture	22	0.022	Z-MR	8760	193		1	ZZ DD	No Retrofit	22	0.022	0.000	N/A	N/A
638	SELINSGROVE	INTERIOR	S	1	1	25	OUT OF SCOPE		VESTIBULE		X	1	25 Watt Incandescent 2-Lamp Exit Sign	50	0.050	Z	8760	438		1	ZZ DD	No Retrofit	50	0.050	0.000	N/A	N/A
639	SELINSGROVE	INTERIOR	S	1	2	25	OUT OF SCOPE		HALLWAY		1W25-4'	7	T8 1x4 1-Lamp Wrap Fixture	22	0.154	Z-MR	8760	1,349		7	ZZ DD	No Retrofit	22	0.154	0.000	N/A	N/A
640	SELINSGROVE	INTERIOR	S	1	2	25	OUT OF SCOPE		HALLWAY		2W25-4'	3	T8 1x4 2-Lamp Wrap Fixture	43	0.129	Z-MR	8760	1,130		3	ZZ DD	No Retrofit	43	0.129	0.000	N/A	N/A
641	SELINSGROVE	INTERIOR	S	1	2	25	OUT OF SCOPE		HALLWAY		2PL13DR	1	13 Watt Plug-In CFL Drum Fixture	26	0.026	Z-MR	8760	228		1	ZZ DD	No Retrofit	26	0.026	0.000	N/A	N/A
642	SELINSGROVE	INTERIOR	S	1	2	25	OUT OF SCOPE		HALLWAY		X	2	25 Watt Incandescent 2-Lamp Exit Sign	50	0.100	Z	8760	876		2	ZZ DD	No Retrofit	50	0.100	0.000	N/A	N/A
643	SELINSGROVE	INTERIOR	S	1	3	25	OUT OF SCOPE		OPEN AREA	120	2W25-4'	5	T8 1x4 2-Lamp Wrap Fixture	43	0.215	Z-MR	8760	1,883		5	ZZ DD	No Retrofit	43	0.215	0.000	N/A	N/A
644	SELINSGROVE	INTERIOR	S	1	3	25	OUT OF SCOPE		OPEN AREA		X	1	25 Watt Incandescent 2-Lamp Exit Sign	50	0.050	Z	8760	438		1	ZZ DD	No Retrofit	50	0.050	0.000	N/A	N/A
645	SELINSGROVE	INTERIOR	S	1	4	25	OUT OF SCOPE		HALLWAY		2PL13DR	3	13 Watt Plug-In CFL Drum Fixture	26	0.078	Z-MR	8760	683		3	ZZ DD	No Retrofit	26	0.078	0.000	N/A	N/A
646	SELINSGROVE	INTERIOR	S	1	4	25	OUT OF SCOPE		HALLWAY		CF20JJ	1	20 Watt Compact Fluorescent Jelly Jar Fixture	20	0.020	Z-MR	8760	175		1	ZZ DD	No Retrofit	20	0.020	0.000	N/A	N/A
647	SELINSGROVE	INTERIOR	S	1	5	25	OUT OF SCOPE		HALLWAY IN 105		2PL13DR	3	13 Watt Plug-In CFL Drum Fixture	26	0.078	Z-MR	8760	683		3	ZZ DD	No Retrofit	26	0.078	0.000	N/A	N/A
648	SELINSGROVE	INTERIOR	S	1	5	25	OUT OF SCOPE		HALLWAY IN 105		X	2	25 Watt Incandescent 2-Lamp Exit Sign	50	0.100	Z	8760	876		2	ZZ DD	No Retrofit	50	0.100	0.000	N/A	N/A
649	SELINSGROVE	INTERIOR	S	1	6	25	OUT OF SCOPE		HALLWAY IN 113		2PL13DR	3	13 Watt Plug-In CFL Drum Fixture	26	0.078	Z-MR	8760	683		3	ZZ DD	No Retrofit	26	0.078	0.000	N/A	N/A
650	SELINSGROVE	INTERIOR	S	1	6	25	OUT OF SCOPE		HALLWAY IN 113		X	2	25 Watt Incandescent 2-Lamp Exit Sign	50	0.100	Z	8760	876		2	ZZ DD	No Retrofit	50	0.100	0.000	N/A	N/A
651	SELINSGROVE	EXTERIOR	S		7	25	OUT OF SCOPE		EXTERIOR		2PL13WP-PC-SMALL	3	13 Watt 2-Lamp Plug-In CFL Small Wall Pack Fixture; Photocell	30	0.090	EX	4380	394		3	ZZ DD	No Retrofit	30	0.090	0.000	N/A	N/A
652	SELINSGROVE	EXTERIOR	S		7	25	OUT OF SCOPE		EXTERIOR		2PL13WP-PC-LARGE	5	13 Watt 2-Lamp Plug-In CFL Large Wall Pack Fixture; Photocell	30	0.150	EX	4380	657		5	ZZ DD	No Retrofit	30	0.150	0.000	N/A	N/A
653	SELINSGROVE	INTERIOR	S	1	1	4	MISSION READY		VESTIBULE		2PL13DR	1	13 Watt Plug-In CFL Drum Fixture	26	0.026	Z-MR	8760	228		1	N LED14DR	New 12" Round 14 Watt LED Drum Fixture	14	0.014	0.144	54074143	19

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ID #	Facility Name	Phase	Utility Rate Code	Floor	Map #	Building Number	Building Usage Type	Building Section	Room Description	Room #	ECM Code	Qty	Description	Watts	kW	Burn Hour Code	Pre Burn Hours	kWh	x	Qty	New Code	Description	Watts	kW	Annual KW Saved	Part#	Cut Sheet #
654	SELINSGROVE	INTERIOR	S	1	1	4	MISSION READY		VESTIBULE		2PL13SC	1	13 Watt 2-Lamp Plug-In CFL Sconce Fixture	30	0.030	Z-MR	8760	263		1	RK KLED7-REC	Retrofit with (1) 7 Watt LED Rectangular Retrofit Kit	8.5	0.009	0.258	KT-RKIT-RP-6-800-840-UV/G2	54
655	SELINSGROVE	INTERIOR	S	1	2	4	MISSION READY		VESTIBULE		6-40CANDLE-CHAND	1	40 Watt 6-Lamp Candelabra Chandelier Fixture	240	0.240	Z-MR	8760	2,102		1	LED 6-5CAND	Re-Lamp with (6) 5 Watt LED Candelabra Lamps	30	0.030	2.520	LCTC/5/830/D	12
656	SELINSGROVE	INTERIOR	S	1	2	4	MISSION READY		VESTIBULE		2PL13SC	1	13 Watt 2-Lamp Plug-In CFL Sconce Fixture	30	0.030	Z-MR	8760	263		1	RK KLED7-REC	Retrofit with (1) 7 Watt LED Rectangular Retrofit Kit	8.5	0.009	0.258	KT-RKIT-RP-6-800-840-UV/G2	54
657	SELINSGROVE	INTERIOR	S	1	2	4	MISSION READY		VESTIBULE		X	2	25 Watt Incandescent 2-Lamp Exit Sign	50	0.100	Z	8760	876		2	N XLED	New 3 watt LED Exit Sign	3	0.006	1.128	ES-LED-RW-B	43
658	SELINSGROVE	INTERIOR	S	1	3	4	MISSION READY		HALLWAY		4-40CANDLE-CHAND	3	40 Watt 4-Lamp Incandescent Candelabra Sconce Fixture	160	0.480	Z-MR	8760	4,205		3	LED 4-5CAND	Re-Lamp with (4) 5 Watt LED Candelabra	20	0.060	5.040	LCTC/5/830/D	12
659	SELINSGROVE	INTERIOR	S	1	3	4	MISSION READY		HALLWAY		2PL13DR	4	13 Watt Plug-In CFL Drum Fixture	26	0.104	Z-MR	8760	911		4	N LED14DR	New 12" Round 14 Watt LED Drum Fixture	14	0.056	0.576	54074143	19
660	SELINSGROVE	INTERIOR	S	1	3	4	MISSION READY		HALLWAY		4-40CANDLE-CHAND	2	40 Watt 4-Lamp Incandescent Candelabra Sconce Fixture	160	0.320	Z-MR	8760	2,803		2	LED 4-5CAND	Re-Lamp with (4) 5 Watt LED Candelabra	20	0.040	3.360	LCTC/5/830/D	12
661	SELINSGROVE	INTERIOR	S	1	3	4	MISSION READY		HALLWAY		2PL13SC	4	13 Watt 2-Lamp Plug-In CFL Sconce Fixture	30	0.120	Z-MR	8760	1,051		4	RK KLED7-REC	Retrofit with (1) 7 Watt LED Rectangular Retrofit Kit	8.5	0.034	1.032	KT-RKIT-RP-6-800-840-UV/G2	54
662	SELINSGROVE	INTERIOR	S	1	3	4	MISSION READY		HALLWAY		X	1	25 Watt Incandescent 2-Lamp Exit Sign	50	0.050	Z	8760	438		1	N XLED	New 3 watt LED Exit Sign	3	0.003	0.564	ES-LED-RW-B	43
663	SELINSGROVE	INTERIOR	S	1	4	4	MISSION READY		OPEN AREA	101	1W25-4'	4	T8 1x4 1-Lamp Wrap Fixture	22	0.088	Z-MR	8760	771		4	R 1L-12.5LED	Retrofit with (1) 12.5 Watt LED T8 4' Lamps; Direct Wire to Socket	12.5	0.050	0.456	KT-LED10.5T8-48G-840-D	3
664	SELINSGROVE	INTERIOR	S	1	4	4	MISSION READY		OPEN AREA	101	2PL13SQDR	1	13 Watt 2-Lamp Plug-In CFL Square Drum Fixture	30	0.030	Z-MR	8760	263		1	N LED14SQDR	New Square 14 Watt LED Drum Fixture	14	0.014	0.192	54640142	18
665	SELINSGROVE	INTERIOR	S	1	4	4	MISSION READY		OPEN AREA		2PL13SC	2	13 Watt 2-Lamp Plug-In CFL Sconce Fixture	30	0.060	Z-MR	8760	526		2	RK KLED7-REC	Retrofit with (1) 7 Watt LED Rectangular Retrofit Kit	8.5	0.017	0.516	KT-RKIT-RP-6-800-840-UV/G2	54
666	SELINSGROVE	INTERIOR	S	1	4	4	MISSION READY		OPEN AREA		2-40CANDLE-SCONCE	2	40 Watt 2-Lamp Incandescent Candelabra Sconce Fixture	80	0.160	Z-MR	8760	1,402		2	LED 2-5CAND	Re-Lamp with (2) 5 Watt LED Candelabra	10	0.020	1.680	LCTC/5/830/D	12
667	SELINSGROVE	INTERIOR	S	1	4	4	MISSION READY		OPEN AREA		X	3	25 Watt Incandescent 2-Lamp Exit Sign	50	0.150	Z	8760	1,314		3	N XLED	New 3 watt LED Exit Sign	3	0.009	1.692	ES-LED-RW-B	43
668	SELINSGROVE	INTERIOR	S	1	5	4	MISSION READY		OPEN AREA	121	1W25-4'	3	T8 1x4 1-Lamp Wrap Fixture	22	0.066	Z-MR	8760	578		3	R 1L-12.5LED	Retrofit with (1) 12.5 Watt LED T8 4' Lamps; Direct Wire to Socket	12.5	0.038	0.342	KT-LED10.5T8-48G-840-D	3
669	SELINSGROVE	INTERIOR	S	1	5	4	MISSION READY		OPEN AREA	121	2PL13SQDR	1	13 Watt 2-Lamp Plug-In CFL Square Drum Fixture	30	0.030	Z-MR	8760	263		1	N LED14SQDR	New Square 14 Watt LED Drum Fixture	14	0.014	0.192	54640142	18
670	SELINSGROVE	INTERIOR	S	1	5	4	MISSION READY		OPEN AREA		2PL13SC	2	13 Watt 2-Lamp Plug-In CFL Sconce Fixture	30	0.060	Z-MR	8760	526		2	RK KLED7-REC	Retrofit with (1) 7 Watt LED Rectangular Retrofit Kit	8.5	0.017	0.516	KT-RKIT-RP-6-800-840-UV/G2	54
671	SELINSGROVE	INTERIOR	S	1	5	4	MISSION READY		OPEN AREA		X	2	25 Watt Incandescent 2-Lamp Exit Sign	50	0.100	Z	8760	876		2	N XLED	New 3 watt LED Exit Sign	3	0.006	1.128	ES-LED-RW-B	43
672	SELINSGROVE	INTERIOR	S	1	5	4	MISSION READY		OPEN AREA		40CANDLE-SCONCE	1	40 Watt Incandescent Candelabra Sconce Fixture	40	0.040	Z-MR	8760	350		1	LED 5CAND	Re-Lamp with (1) 5 Watt LED Candelabra	5	0.005	0.420	LCTC/5/830/D	12
673	SELINSGROVE	INTERIOR	S	1	5	4	MISSION READY		OPEN AREA		2-40CANDLE-SCONCE	2	40 Watt 2-Lamp Incandescent Candelabra Sconce Fixture	80	0.160	Z-MR	8760	1,402		2	LED 2-5CAND	Re-Lamp with (2) 5 Watt LED Candelabra	10	0.020	1.680	LCTC/5/830/D	12
674	SELINSGROVE	INTERIOR	S	1	6	4	MISSION READY		VESTIBULE		2PL13SC	2	13 Watt 2-Lamp Plug-In CFL Sconce Fixture	30	0.060	Z-MR	8760	526		2	RK KLED7-REC	Retrofit with (1) 7 Watt LED Rectangular Retrofit Kit	8.5	0.017	0.516	KT-RKIT-RP-6-800-840-UV/G2	54
675	SELINSGROVE	INTERIOR	S	1	6	4	MISSION READY		VESTIBULE		40CANDLE-SCONCE	1	40 Watt Incandescent Candelabra Sconce Fixture	40	0.040	Z-MR	8760	350		1	LED 5CAND	Re-Lamp with (1) 5 Watt LED Candelabra	5	0.005	0.420	LCTC/5/830/D	12
676	SELINSGROVE	INTERIOR	S	1	6	4	MISSION READY		VESTIBULE		X	1	25 Watt Incandescent 2-Lamp Exit Sign	50	0.050	Z	8760	438		1	N XLED	New 3 watt LED Exit Sign	3	0.003	0.564	ES-LED-RW-B	43
677	SELINSGROVE	INTERIOR	S	1	7	4	MISSION READY		OPEN AREA	103	1W25-4'	3	T8 1x4 1-Lamp Wrap Fixture	22	0.066	Z-MR	8760	578		3	R 1L-12.5LED	Retrofit with (1) 12.5 Watt LED T8 4' Lamps; Direct Wire to Socket	12.5	0.038	0.342	KT-LED10.5T8-48G-840-D	3
678	SELINSGROVE	INTERIOR	S	1	7	4	MISSION READY		OPEN AREA		2PL13SC	2	13 Watt 2-Lamp Plug-In CFL Sconce Fixture	30	0.060	Z-MR	8760	526		2	RK KLED7-REC	Retrofit with (1) 7 Watt LED Rectangular Retrofit Kit	8.5	0.017	0.516	KT-RKIT-RP-6-800-840-UV/G2	54
679	SELINSGROVE	INTERIOR	S	1	7	4	MISSION READY		OPEN AREA		2-40CANDLE-SCONCE	3	40 Watt 2-Lamp Incandescent Candelabra Sconce Fixture	80	0.240	Z-MR	8760	2,102		3	LED 2-5CAND	Re-Lamp with (2) 5 Watt LED Candelabra	10	0.030	2.520	LCTC/5/830/D	12
680	SELINSGROVE	INTERIOR	S	1	7	4	MISSION READY		OPEN AREA		40CANDLE-SCONCE	1	40 Watt Incandescent Candelabra Sconce Fixture	40	0.040	Z-MR	8760	350		1	LED 5CAND	Re-Lamp with (1) 5 Watt LED Candelabra	5	0.005	0.420	LCTC/5/830/D	12
681	SELINSGROVE	INTERIOR	S	1	7	4	MISSION READY		OPEN AREA		X	2	25 Watt Incandescent 2-Lamp Exit Sign	50	0.100	Z	8760	876		2	N XLED	New 3 watt LED Exit Sign	3	0.006	1.128	ES-LED-RW-B	43
682	SELINSGROVE	INTERIOR	S	1	7	4	MISSION READY		OPEN AREA		2PL13SQDR	2	13 Watt 2-Lamp Plug-In CFL Square Drum Fixture	30	0.060	Z-MR	8760	526		2	N LED14SQDR	New Square 14 Watt LED Drum Fixture	14	0.028	0.384	54640142	18
683	SELINSGROVE	INTERIOR	S	1	8	4	MISSION READY		STAIRWELL TO ATTIC		2PL13DR	1	13 Watt Plug-In CFL Drum Fixture	26	0.026	Z-MR	8760	228		1	N LED14DR	New 12" Round 14 Watt LED Drum Fixture	14	0.014	0.144	54074143	19
684	SELINSGROVE	INTERIOR	S	1	8	4	MISSION READY		STAIRWELL TO ATTIC		2PL13DR-DA	1	13 Watt 2-Lamp Plug-In CFL Drum Fixture; Difficult Access	30	0.030	Z-MR	8760	263		1	N LED14DR-DA	New 12" Round 14 Watt LED Drum Fixture; Difficult Access	14	0.014	0.192	54074143	19
685	SELINSGROVE	INTERIOR	S	1	8	4	MISSION READY		STAIRWELL TO ATTIC		X	2	25 Watt Incandescent 2-Lamp Exit Sign	50	0.100	Z	8760	876		2	N XLED	New 3 watt LED Exit Sign	3	0.006	1.128	ES-LED-RW-B	43

											EXISTING FIXTURES									PROPOSED FIXTURE UPGRADE						
ID #	Facility Name	Phase	Utility Rate Code	Floor	Map #	Building Number	Building Usage Type	Building Section	Room Description	Room #	ECM Code	Qty	Description	Watts	kW	Burn Hour Code	Pre Burn Hours	kWh	x	Qty	New Code	Description	Watts	kW	Annual KW Saved	Part#	Cut Sheet #
686	SELINSGROVE	INTERIOR	S	2	9	4	MISSION READY		VESTIBULE		2PL13DR	1	13 Watt Plug-In CFL Drum Fixture	26	0.026	Z-MR	8760	228		1	N LED14DR	New 12" Round 14 Watt LED Drum Fixture	14	0.014	0.144	54074143	19
687	SELINSGROVE	INTERIOR	S	2	10	4	MISSION READY		HALLWAY		2PL13DR	2	13 Watt Plug-In CFL Drum Fixture	26	0.052	Z-MR	8760	456		2	N LED14DR	New 12" Round 14 Watt LED Drum Fixture	14	0.028	0.288	54074143	19
688	SELINSGROVE	INTERIOR	S	B	11	4	MISSION READY		STAIRS TO BASE		2PL13DR	5	13 Watt Plug-In CFL Drum Fixture	26	0.130	Z-MR	8760	1,139		5	N LED14DR	New 12" Round 14 Watt LED Drum Fixture	14	0.070	0.720	54074143	19
689	SELINSGROVE	INTERIOR	S	B	11	4	MISSION READY		STAIRS TO BASE		X	1	25 Watt Incandescent 2-Lamp Exit Sign	50	0.050	Z	8760	438		1	N XLED	New 3 watt LED Exit Sign	3	0.003	0.564	ES-LED-RW-B	43
690	SELINSGROVE	INTERIOR	S	B	12	4	MISSION READY		VESTIBULE		2PL13DR	4	13 Watt Plug-In CFL Drum Fixture	26	0.104	Z-MR	8760	911		4	N LED14DR	New 12" Round 14 Watt LED Drum Fixture	14	0.056	0.576	54074143	19
691	SELINSGROVE	INTERIOR	S	B	12	4	MISSION READY		VESTIBULE		X	1	25 Watt Incandescent 2-Lamp Exit Sign	50	0.050	Z	8760	438		1	N XLED	New 3 watt LED Exit Sign	3	0.003	0.564	ES-LED-RW-B	43
692	SELINSGROVE	INTERIOR	S	B	13	4	MISSION READY		HALLWAY		2PL13DR	5	13 Watt Plug-In CFL Drum Fixture	26	0.130	Z-MR	8760	1,139		5	N LED14DR	New 12" Round 14 Watt LED Drum Fixture	14	0.070	0.720	54074143	19
693	SELINSGROVE	INTERIOR	S	B	13	4	MISSION READY		HALLWAY		CF20JJ	3	20 Watt Compact Fluorescent Jelly Jar Fixture	20	0.060	Z-MR	8760	526		3	LED 9A	Re-Lamp with (1) 9 Watt LED A19 Lamps	9	0.027	0.396	LA19/9/40K/D-46	8
694	SELINSGROVE	INTERIOR	S	B	13	4	MISSION READY		HALLWAY		CF20	1	20 Watt Compact Fluorescent Fixture	20	0.020	Z-MR	8760	175		1	LED 9A	Re-Lamp with (1) 9 Watt LED A19 Lamps	9	0.009	0.132	LA19/9/40K/D-46	8
695	SELINSGROVE	INTERIOR	S	B	13	4	MISSION READY		HALLWAY		X	2	25 Watt Incandescent 2-Lamp Exit Sign	50	0.100	Z	8760	876		2	N XLED	New 3 watt LED Exit Sign	3	0.006	1.128	ES-LED-RW-B	43
696	SELINSGROVE	INTERIOR	S	B	14	4	MISSION READY		OPEN AREA	8	2PL13DR	5	13 Watt Plug-In CFL Drum Fixture	26	0.130	Z-MR	8760	1,139		5	N LED14DR	New 12" Round 14 Watt LED Drum Fixture	14	0.070	0.720	54074143	19
697	SELINSGROVE	INTERIOR	S	B	14	4	MISSION READY		OPEN AREA		X	2	25 Watt Incandescent 2-Lamp Exit Sign	50	0.100	Z	8760	876		2	N XLED	New 3 watt LED Exit Sign	3	0.006	1.128	ES-LED-RW-B	43
698	SELINSGROVE	INTERIOR	S	B	15	4	MISSION READY		VESTIBULE	10	2PL13DR	3	13 Watt Plug-In CFL Drum Fixture	26	0.078	Z-MR	8760	683		3	N LED14DR	New 12" Round 14 Watt LED Drum Fixture	14	0.042	0.432	54074143	19
699	SELINSGROVE	INTERIOR	S	B	15	4	MISSION READY		VESTIBULE		X	1	25 Watt Incandescent 2-Lamp Exit Sign	50	0.050	Z	8760	438		1	N XLED	New 3 watt LED Exit Sign	3	0.003	0.564	ES-LED-RW-B	43
700	SELINSGROVE	INTERIOR	S	B	16	4	MISSION READY		STAIRWELL		CF20JJ	3	20 Watt Compact Fluorescent Jelly Jar Fixture	20	0.060	Z-MR	8760	526		3	LED 9A	Re-Lamp with (1) 9 Watt LED A19 Lamps	9	0.027	0.396	LA19/9/40K/D-46	8
701	SELINSGROVE	INTERIOR	S	B	16	4	MISSION READY		STAIRWELL		2PL13DR-DA	1	13 Watt 2-Lamp Plug-In CFL Drum Fixture; Difficult Access	30	0.030	Z-MR	8760	263		1	N LED14DR-DA	New 12" Round 14 Watt LED Drum Fixture; Difficult Access	14	0.014	0.192	54074143	19
702	SELINSGROVE	INTERIOR	S	B	16	4	MISSION READY		STAIRWELL		X	1	25 Watt Incandescent 2-Lamp Exit Sign	50	0.050	Z	8760	438		1	N XLED	New 3 watt LED Exit Sign	3	0.003	0.564	ES-LED-RW-B	43
703	SELINSGROVE	INTERIOR	S	B	17	4	MISSION READY		VESTIBULE		2PL13DR	1	13 Watt Plug-In CFL Drum Fixture	26	0.026	Z-MR	8760	228		1	N LED14DR	New 12" Round 14 Watt LED Drum Fixture	14	0.014	0.144	54074143	19
704	SELINSGROVE	INTERIOR	S	B	17	4	MISSION READY		VESTIBULE		2PL13DR	1	13 Watt Plug-In CFL Drum Fixture	26	0.026	Z-MR	8760	228		1	N LED14DR	New 12" Round 14 Watt LED Drum Fixture	14	0.014	0.144	54074143	19
705	SELINSGROVE	INTERIOR	S	B	17	4	MISSION READY		VESTIBULE		X	1	25 Watt Incandescent 2-Lamp Exit Sign	50	0.050	Z	8760	438		1	N XLED	New 3 watt LED Exit Sign	3	0.003	0.564	ES-LED-RW-B	43
706	SELINSGROVE	EXTERIOR	S		18	4	MISSION READY		EXTERIOR FRONT		2PL13CPY-PC	2	13 Watt 2-Lamp Plug-In CFL Canopy Fixture; Photocell	30	0.060	EX	4380	263		2	N RLED10CPY-PC	New 10 Watt LED Canopy Fixture; Photocell	12	0.024	0.432	VANLED10/PCS2	26
707	SELINSGROVE	EXTERIOR	S		18	4	MISSION READY		EXTERIOR FRONT		2PL13WP-PC-SMALL	8	13 Watt 2-Lamp Plug-In CFL Small Wall Pack Fixture; Photocell	30	0.240	EX	4380	1,051		8	N RLED12TWP	New 12 Watt LED Tall Wall Pack Fixture	14	0.112	1.536	ENTRA12	42
708	SELINSGROVE	EXTERIOR	S		18	4	MISSION READY		EXTERIOR FRONT		2PL13WP-PC-LARGE	3	13 Watt 2-Lamp Plug-In CFL Large Wall Pack Fixture; Photocell	30	0.090	EX	4380	394		3	N RLED12TWP	New 12 Watt LED Tall Wall Pack Fixture	14	0.042	0.576	ENTRA12	42
709	SELINSGROVE	EXTERIOR	S		18	4	MISSION READY		EXTERIOR FRONT		2-LEDPAR38HOLDER	1	2-Lamp LED Par Holder Fixture	36	0.036	EX	4380	158		1	ZZ DD	No Retrofit	36	0.036	0.000	N/A	N/A
710	SELINSGROVE	EXTERIOR	S		19	4	MISSION READY		EXTERIOR BACK		2PL13WP-PC-SMALL	6	13 Watt 2-Lamp Plug-In CFL Small Wall Pack Fixture; Photocell	30	0.180	EX	4380	788		6	N RLED12TWP	New 12 Watt LED Tall Wall Pack Fixture	14	0.084	1.152	ENTRA12	42
711	SELINSGROVE	EXTERIOR	S		19	4	MISSION READY		EXTERIOR BACK		2PL13CPY-PC	2	13 Watt 2-Lamp Plug-In CFL Canopy Fixture; Photocell	30	0.060	EX	4380	263		2	N RLED10CPY-PC	New 10 Watt LED Canopy Fixture; Photocell	12	0.024	0.432	VANLED10/PCS2	26
712	SELINSGROVE	INTERIOR	S	1	1	23	OUT OF SCOPE		ROOM	102	2W25-4'	8	T8 1x4 2-Lamp Wrap Fixture	43	0.344	Z-MR	8760	3,013		8	ZZ DD	No Retrofit	43	0.344	0.000	N/A	N/A
713	SELINSGROVE	INTERIOR	S	1	1	23	OUT OF SCOPE		ROOM		60JJ	2	60 Watt Incandescent A-Lamp Jelly Jar Fixture	60	0.120	Z-MR	8760	1,051		2	ZZ DD	No Retrofit	60	0.120	0.000	N/A	N/A
714	SELINSGROVE	INTERIOR	S	1	1	23	OUT OF SCOPE		ROOM		X	2	25 Watt Incandescent 2-Lamp Exit Sign	50	0.100	Z	8760	876		2	ZZ DD	No Retrofit	50	0.100	0.000	N/A	N/A
715	SELINSGROVE	INTERIOR	S	1	2	23	OUT OF SCOPE		VESTIBULE		1W25-4'	1	T8 1x4 1-Lamp Wrap Fixture	22	0.022	Z-MR	8760	193		1	ZZ DD	No Retrofit	22	0.022	0.000	N/A	N/A
716	SELINSGROVE	INTERIOR	S	1	2	23	OUT OF SCOPE		VESTIBULE		X	1	25 Watt Incandescent 2-Lamp Exit Sign	50	0.050	Z	8760	438		1	ZZ DD	No Retrofit	50	0.050	0.000	N/A	N/A
717	SELINSGROVE	INTERIOR	S	1	3	23	OUT OF SCOPE		HALLWAY		1W25-4'	7	T8 1x4 1-Lamp Wrap Fixture	22	0.154	Z-MR	8760	1,349		7	ZZ DD	No Retrofit	22	0.154	0.000	N/A	N/A

											EXISTING FIXTURES									PROPOSED FIXTURE UPGRADE							
ID #	Facility Name	Phase	Utility Rate Code	Floor	Map #	Building Number	Building Usage Type	Building Section	Room Description	Room #	ECM Code	Qty	Description	Watts	kW	Burn Hour Code	Pre Burn Hours	kWh	x	Qty	New Code	Description	Watts	kW	Annual KW Saved	Part#	Cut Sheet #
718	SELINSGROVE	INTERIOR	S	1	3	23	OUT OF SCOPE		HALLWAY		2W25-4'	3	T8 1x4 2-Lamp Wrap Fixture	43	0.129	Z-MR	8760	1,130		3	ZZ DD	No Retrofit	43	0.129	0.000	N/A	N/A
719	SELINSGROVE	INTERIOR	S	1	3	23	OUT OF SCOPE		HALLWAY		X	3	25 Watt Incandescent 2-Lamp Exit Sign	50	0.150	Z	8760	1,314		3	ZZ DD	No Retrofit	50	0.150	0.000	N/A	N/A
720	SELINSGROVE	INTERIOR	S	1	4	23	OUT OF SCOPE		ROOM	119	2PL13DR	6	13 Watt Plug-In CFL Drum Fixture	26	0.156	Z-MR	8760	1,367		6	ZZ DD	No Retrofit	26	0.156	0.000	N/A	N/A
721	SELINSGROVE	INTERIOR	S	1	4	23	OUT OF SCOPE		ROOM		X	2	25 Watt Incandescent 2-Lamp Exit Sign	50	0.100	Z	8760	876		2	ZZ DD	No Retrofit	50	0.100	0.000	N/A	N/A
722	SELINSGROVE	INTERIOR	S	1	5	23	OUT OF SCOPE		ROOM	111	2PL13DR	6	13 Watt Plug-In CFL Drum Fixture	26	0.156	Z-MR	8760	1,367		6	ZZ DD	No Retrofit	26	0.156	0.000	N/A	N/A
723	SELINSGROVE	INTERIOR	S	1	5	23	OUT OF SCOPE		ROOM		X	2	25 Watt Incandescent 2-Lamp Exit Sign	50	0.100	Z	8760	876		2	ZZ DD	No Retrofit	50	0.100	0.000	N/A	N/A
724	SELINSGROVE	EXTERIOR	S		6	23	OUT OF SCOPE		EXTERIOR		2PL13WP-PC-SMALL	2	13 Watt 2-Lamp Plug-In CFL Small Wall Pack Fixture; Photocell	30	0.060	EX	4380	263		2	ZZ DD	No Retrofit	30	0.060	0.000	N/A	N/A
725	SELINSGROVE	EXTERIOR	S		6	23	OUT OF SCOPE		EXTERIOR		2PL13WP-PC-LARGE	4	13 Watt 2-Lamp Plug-In CFL Large Wall Pack Fixture; Photocell	30	0.120	EX	4380	526		4	ZZ DD	No Retrofit	30	0.120	0.000	N/A	N/A
726	SELINSGROVE	EXTERIOR	S		6	23	OUT OF SCOPE		EXTERIOR		2-75PAR38-HOLDER-PC	1	75 Watt 2-Lamp Incandescent Par38 Holder Fixture; Photocell	150	0.150	EX	4380	657		1	ZZ DD	No Retrofit	150	0.150	0.000	N/A	N/A
727	SELINSGROVE	INTERIOR	S	3	1	15	MISSION READY		HALLWAY		2PL13DR	5	13 Watt Plug-In CFL Drum Fixture	26	0.130	Z-MR	8760	1,139		5	N LED14DR	New 12" Round 14 Watt LED Drum Fixture	14	0.070	0.720	54074143	19
728	SELINSGROVE	INTERIOR	S	3	1	15	MISSION READY		HALLWAY		CF20JJ	1	20 Watt Compact Fluorescent Jelly Jar Fixture	20	0.020	Z-MR	8760	175		1	LED 9A	Re-Lamp with (1) 9 Watt LED A19 Lamps	9	0.009	0.132	LA19/9/40K/D-46	8
729	SELINSGROVE	INTERIOR	S	3	1	15	MISSION READY		HALLWAY		XLED	2	3 Watt LED 2-Lamp Exit Sign	3	0.006	Z	8760	53		2	ZZ DD	No Retrofit	3	0.006	0.000	N/A	N/A
730	SELINSGROVE	INTERIOR	S	3	2	15	MISSION READY		VESTIBULE	313	2PL13DR	1	13 Watt Plug-In CFL Drum Fixture	26	0.026	Z-MR	8760	228		1	N LED14DR	New 12" Round 14 Watt LED Drum Fixture	14	0.014	0.144	54074143	19
731	SELINSGROVE	INTERIOR	S	3	3	15	MISSION READY		STAIRWELL	328	2W25-4'	2	T8 1x4 2-Lamp Wrap Fixture	43	0.086	Z-MR	8760	753		2	R 2L-12.5LED	Retrofit with (2) 12.5 Watt LED T8 4' Lamps; Direct Wire to Socket	25	0.050	0.432	KT-LED10.5T8-48G-840-D	3
732	SELINSGROVE	INTERIOR	S	3	3	15	MISSION READY		STAIRWELL		CF20JJ	2	20 Watt Compact Fluorescent Jelly Jar Fixture	20	0.040	Z-MR	8760	350		2	LED 9A	Re-Lamp with (1) 9 Watt LED A19 Lamps	9	0.018	0.264	LA19/9/40K/D-46	8
733	SELINSGROVE	INTERIOR	S	3	3	15	MISSION READY		STAIRWELL		X	1	25 Watt Incandescent 2-Lamp Exit Sign	50	0.050	Z	8760	438		1	N XLED	New 3 watt LED Exit Sign	3	0.003	0.564	ES-LED-RW-B	43
734	SELINSGROVE	INTERIOR	S	3	4	15	MISSION READY		STAIRWELL	322	4W25-4'	1	T8 1x4 4-Lamp Wrap Fixture	85	0.085	Z-MR	8760	745		1	R 4L-12.5LED	Retrofit with (4) 12.5 Watt LED T8 4' Lamps; Direct Wire to Socket	50	0.050	0.420	KT-LED10.5T8-48G-840-D	3
735	SELINSGROVE	INTERIOR	S	3	4	15	MISSION READY		STAIRWELL		CF20JJ	3	20 Watt Compact Fluorescent Jelly Jar Fixture	20	0.060	Z-MR	8760	526		3	LED 9A	Re-Lamp with (1) 9 Watt LED A19 Lamps	9	0.027	0.396	LA19/9/40K/D-46	8
736	SELINSGROVE	INTERIOR	S	3	4	15	MISSION READY		STAIRWELL		1W17	1	T8 2x2 1-Lamp Wrap Fixture	22	0.022	Z-MR	8760	193		1	R 1L-10LED2'	Retrofit with (1) 10 Watt LED T8 2' Lamp; Direct Wire to Socket	10	0.010	0.144	KT-LED7T8-24GC-840-D	1
737	SELINSGROVE	INTERIOR	S	3	4	15	MISSION READY		STAIRWELL		2LU32	1	T8 2x2 2-Lamp U-Lamp Troffer Fixture with 6" Lamps	62	0.062	Z-MR	8760	543		1	RF 2LR-10LED2'	Retrofit with (2) 10 Watt LED T8 2' Lamps and (1) 2x2 2-Lamp White Reflector Kit; Direct Wire to Socket	20	0.020	0.504	KT-LED7T8-24GC-840-D /// R-2-21-2-T8-X-W-X-X	1 + 55
738	SELINSGROVE	INTERIOR	S	2	5	15	MISSION READY		VESTIBULE	201	2VT25-4'	2	T8 1x4 2-Lamp Vaportight Fixture	43	0.086	Z-MR	8760	753		2	R 2L-12.5LED	Retrofit with (2) 12.5 Watt LED T8 4' Lamps; Direct Wire to Socket	25	0.050	0.432	KT-LED10.5T8-48G-840-D	3
739	SELINSGROVE	INTERIOR	S	2	5	15	MISSION READY		VESTIBULE		CF20JJ	1	20 Watt Compact Fluorescent Jelly Jar Fixture	20	0.020	Z-MR	8760	175		1	LED 9A	Re-Lamp with (1) 9 Watt LED A19 Lamps	9	0.009	0.132	LA19/9/40K/D-46	8
740	SELINSGROVE	INTERIOR	S	2	6	15	MISSION READY		HALLWAY	203	2VT25-4'	1	T8 1x4 2-Lamp Vaportight Fixture	43	0.043	Z-MR	8760	377		1	R 2L-12.5LED	Retrofit with (2) 12.5 Watt LED T8 4' Lamps; Direct Wire to Socket	25	0.025	0.216	KT-LED10.5T8-48G-840-D	3
741	SELINSGROVE	INTERIOR	S	2	6	15	MISSION READY		HALLWAY		CF20JJ	1	20 Watt Compact Fluorescent Jelly Jar Fixture	20	0.020	Z-MR	8760	175		1	LED 9A	Re-Lamp with (1) 9 Watt LED A19 Lamps	9	0.009	0.132	LA19/9/40K/D-46	8
742	SELINSGROVE	INTERIOR	S	2	7	15	MISSION READY		HALLWAY		2B17	5	T8 2-Lamp Surface Mount Fixture	29	0.145	Z-MR	8760	1,270		5	R 2L-10LED2'	Retrofit with (2) 10 Watt LED T8 2' Lamps; Direct Wire to Socket	20	0.100	0.540	KT-LED7T8-24GC-840-D	1
743	SELINSGROVE	INTERIOR	S	2	7	15	MISSION READY		HALLWAY		15A-NL	4	15 Watt Incandescent A-Lamp Night Light Fixture	15	0.060	Z-MR	8760	526		4	ZZ DD	No Retrofit	15	0.060	0.000	N/A	N/A
744	SELINSGROVE	INTERIOR	S	2	7	15	MISSION READY		HALLWAY		X	3	25 Watt Incandescent 2-Lamp Exit Sign	50	0.150	Z	8760	1,314		3	N XLED	New 3 watt LED Exit Sign	3	0.009	1.692	ES-LED-RW-B	43
745	SELINSGROVE	INTERIOR	S	2	8	15	MISSION READY		HALLWAY		2L25-4'	1	T8 2x4 2-Lamp Troffer Fixture	43	0.043	Z-MR	8760	377		1	R 2L-12.5LED	Retrofit with (2) 12.5 Watt LED T8 4' Lamps; Direct Wire to Socket	25	0.025	0.216	KT-LED10.5T8-48G-840-D	3
746	SELINSGROVE	INTERIOR	S	2	8	15	MISSION READY		HALLWAY		CF20JJ	1	20 Watt Compact Fluorescent Jelly Jar Fixture	20	0.020	Z-MR	8760	175		1	LED 9A	Re-Lamp with (1) 9 Watt LED A19 Lamps	9	0.009	0.132	LA19/9/40K/D-46	8
747	SELINSGROVE	INTERIOR	S	2	8	15	MISSION READY		HALLWAY		XLED	1	3 Watt LED 2-Lamp Exit Sign	3	0.003	Z	8760	26		1	ZZ DD	No Retrofit	3	0.003	0.000	N/A	N/A
748	SELINSGROVE	INTERIOR	S	2	9	15	MISSION READY		VESTIBULE	236A	1W17	1	T8 2x2 1-Lamp Wrap Fixture	22	0.022	Z-MR	8760	193		1	R 1L-10LED2'	Retrofit with (1) 10 Watt LED T8 2' Lamp; Direct Wire to Socket	10	0.010	0.144	KT-LED7T8-24GC-840-D	1
749	SELINSGROVE	INTERIOR	S	2	10	15	MISSION READY		STAIRS	238	1W17	4	T8 2x2 1-Lamp Wrap Fixture	22	0.088	Z-MR	8760	771		4	R 1L-10LED2'	Retrofit with (1) 10 Watt LED T8 2' Lamp; Direct Wire to Socket	10	0.040	0.576	KT-LED7T8-24GC-840-D	1

											EXISTING FIXTURES									PROPOSED FIXTURE UPGRADE							
ID #	Facility Name	Phase	Utility Rate Code	Floor	Map #	Building Number	Building Usage Type	Building Section	Room Description	Room #	ECM Code	Qty	Description	Watts	kW	Burn Hour Code	Pre Burn Hours	kWh	x	Qty	New Code	Description	Watts	kW	Annual KW Saved	Part#	Cut Sheet #
750	SELINSGROVE	INTERIOR	S	2	10	15	MISSION READY		STAIRS		CF20JJ	4	20 Watt Compact Fluorescent Jelly Jar Fixture	20	0.080	Z-MR	8760	701		4	LED 9A	Re-Lamp with (1) 9 Watt LED A19 Lamps	9	0.036	0.528	LA19/9/40K/D-46	8
751	SELINSGROVE	INTERIOR	S	2	10	15	MISSION READY		STAIRS		2PL13DR	1	13 Watt Plug-In CFL Drum Fixture	26	0.026	Z-MR	8760	228		1	N LED14DR	New 12" Round 14 Watt LED Drum Fixture	14	0.014	0.144	54074143	19
752	SELINSGROVE	INTERIOR	S	2	10	15	MISSION READY		STAIRS		X	1	25 Watt Incandescent 2-Lamp Exit Sign	50	0.050	Z	8760	438		1	N XLED	New 3 watt LED Exit Sign	3	0.003	0.564	ES-LED-RW-B	43
753	SELINSGROVE	INTERIOR	S	2	11	15	MISSION READY		HALLWAY	207	2B17	4	T8 2-Lamp Surface Mount Fixture	29	0.116	Z-MR	8760	1,016		4	R 2L-10LED2'	Retrofit with (2) 10 Watt LED T8 2' Lamps; Direct Wire to Socket	20	0.080	0.432	KT-LED7T8-24GC-840-D	1
754	SELINSGROVE	INTERIOR	S	2	11	15	MISSION READY		HALLWAY		15A-NL	3	15 Watt Incandescent A-Lamp Night Light Fixture	15	0.045	Z-MR	8760	394		3	ZZ DD	No Retrofit	15	0.045	0.000	N/A	N/A
755	SELINSGROVE	INTERIOR	S	2	11	15	MISSION READY		HALLWAY		XLED	2	3 Watt LED 2-Lamp Exit Sign	3	0.006	Z	8760	53		2	ZZ DD	No Retrofit	3	0.006	0.000	N/A	N/A
756	SELINSGROVE	INTERIOR	S	2	12	15	MISSION READY		HALLWAY		1W17	1	T8 2x2 1-Lamp Wrap Fixture	22	0.022	Z-MR	8760	193		1	R 1L-10LED2'	Retrofit with (1) 10 Watt LED T8 2' Lamp; Direct Wire to Socket	10	0.010	0.144	KT-LED7T8-24GC-840-D	1
757	SELINSGROVE	INTERIOR	S	2	13	15	MISSION READY		STAIRWELL	212	1W17	5	T8 2x2 1-Lamp Wrap Fixture	22	0.110	Z-MR	8760	964		5	R 1L-10LED2'	Retrofit with (1) 10 Watt LED T8 2' Lamp; Direct Wire to Socket	10	0.050	0.720	KT-LED7T8-24GC-840-D	1
758	SELINSGROVE	INTERIOR	S	2	13	15	MISSION READY		STAIRWELL		CF20JJ	5	20 Watt Compact Fluorescent Jelly Jar Fixture	20	0.100	Z-MR	8760	876		5	LED 9A	Re-Lamp with (1) 9 Watt LED A19 Lamps	9	0.045	0.660	LA19/9/40K/D-46	8
759	SELINSGROVE	INTERIOR	S	2	13	15	MISSION READY		STAIRWELL		X	1	25 Watt Incandescent 2-Lamp Exit Sign	50	0.050	Z	8760	438		1	N XLED	New 3 watt LED Exit Sign	3	0.003	0.564	ES-LED-RW-B	43
760	SELINSGROVE	INTERIOR	S	2	14	15	MISSION READY		HALLWAY		4L25-4'	1	T8 2x4 4-Lamp Troffer Fixture	85	0.085	Z-MR	8760	745		1	R 4L-12.5LED	Retrofit with (4) 12.5 Watt LED T8 4' Lamps; Direct Wire to Socket	50	0.050	0.420	KT-LED10.5T8-48G-840-D	3
761	SELINSGROVE	INTERIOR	S	2	14	15	MISSION READY		HALLWAY		XLED	1	3 Watt LED 2-Lamp Exit Sign	3	0.003	Z	8760	26		1	ZZ DD	No Retrofit	3	0.003	0.000	N/A	N/A
762	SELINSGROVE	INTERIOR	S	1	15	15	MISSION READY		VESTIBULE	100	1W17	1	T8 2x2 1-Lamp Wrap Fixture	22	0.022	Z-MR	8760	193		1	R 1L-10LED2'	Retrofit with (1) 10 Watt LED T8 2' Lamp; Direct Wire to Socket	10	0.010	0.144	KT-LED7T8-24GC-840-D	1
763	SELINSGROVE	INTERIOR	S	1	15	15	MISSION READY		VESTIBULE		1W25-4'	1	T8 1x4 1-Lamp Wrap Fixture	22	0.022	Z-MR	8760	193		1	R 1L-12.5LED	Retrofit with (1) 12.5 Watt LED T8 4' Lamps; Direct Wire to Socket	12.5	0.013	0.114	KT-LED10.5T8-48G-840-D	3
764	SELINSGROVE	INTERIOR	S	1	15	15	MISSION READY		VESTIBULE		XLED	2	3 Watt LED 2-Lamp Exit Sign	3	0.006	Z	8760	53		2	ZZ DD	No Retrofit	3	0.006	0.000	N/A	N/A
765	SELINSGROVE	INTERIOR	S	1	16	15	MISSION READY		VESTIBULE	102	1W25-4'	2	T8 1x4 1-Lamp Wrap Fixture	22	0.044	Z-MR	8760	385		2	R 1L-12.5LED	Retrofit with (1) 12.5 Watt LED T8 4' Lamps; Direct Wire to Socket	12.5	0.025	0.228	KT-LED10.5T8-48G-840-D	3
766	SELINSGROVE	INTERIOR	S	1	16	15	MISSION READY		VESTIBULE		XLED	1	3 Watt LED 2-Lamp Exit Sign	3	0.003	Z	8760	26		1	ZZ DD	No Retrofit	3	0.003	0.000	N/A	N/A
767	SELINSGROVE	INTERIOR	S	1	17	15	MISSION READY		HALLWAY	104	1W17	1	T8 2x2 1-Lamp Wrap Fixture	22	0.022	Z-MR	8760	193		1	R 1L-10LED2'	Retrofit with (1) 10 Watt LED T8 2' Lamp; Direct Wire to Socket	10	0.010	0.144	KT-LED7T8-24GC-840-D	1
768	SELINSGROVE	INTERIOR	S	1	17	15	MISSION READY		HALLWAY		1W25-4'	2	T8 1x4 1-Lamp Wrap Fixture	22	0.044	Z-MR	8760	385		2	R 1L-12.5LED	Retrofit with (1) 12.5 Watt LED T8 4' Lamps; Direct Wire to Socket	12.5	0.025	0.228	KT-LED10.5T8-48G-840-D	3
769	SELINSGROVE	INTERIOR	S	1	17	15	MISSION READY		HALLWAY		XLED	2	3 Watt LED 2-Lamp Exit Sign	3	0.006	Z	8760	53		2	ZZ DD	No Retrofit	3	0.006	0.000	N/A	N/A
770	SELINSGROVE	INTERIOR	S	1	18	15	MISSION READY		HALLWAY	135	1W25-4'	5	T8 1x4 1-Lamp Wrap Fixture	22	0.110	Z-MR	8760	964		5	R 1L-12.5LED	Retrofit with (1) 12.5 Watt LED T8 4' Lamps; Direct Wire to Socket	12.5	0.063	0.570	KT-LED10.5T8-48G-840-D	3
771	SELINSGROVE	INTERIOR	S	1	18	15	MISSION READY		HALLWAY		CF20JJ	2	20 Watt Compact Fluorescent Jelly Jar Fixture	20	0.040	Z-MR	8760	350		2	LED 9A	Re-Lamp with (1) 9 Watt LED A19 Lamps	9	0.018	0.264	LA19/9/40K/D-46	8
772	SELINSGROVE	INTERIOR	S	1	18	15	MISSION READY		HALLWAY		XLED	2	3 Watt LED 2-Lamp Exit Sign	3	0.006	Z	8760	53		2	ZZ DD	No Retrofit	3	0.006	0.000	N/A	N/A
773	SELINSGROVE	INTERIOR	S	1	19	15	MISSION READY		HALLWAY	111	1W25-4'	4	T8 1x4 1-Lamp Wrap Fixture	22	0.088	Z-MR	8760	771		4	R 1L-12.5LED	Retrofit with (1) 12.5 Watt LED T8 4' Lamps; Direct Wire to Socket	12.5	0.050	0.456	KT-LED10.5T8-48G-840-D	3
774	SELINSGROVE	INTERIOR	S	1	19	15	MISSION READY		HALLWAY		CF20JJ	1	20 Watt Compact Fluorescent Jelly Jar Fixture	20	0.020	Z-MR	8760	175		1	LED 9A	Re-Lamp with (1) 9 Watt LED A19 Lamps	9	0.009	0.132	LA19/9/40K/D-46	8
775	SELINSGROVE	INTERIOR	S	1	19	15	MISSION READY		HALLWAY		XLED	2	3 Watt LED 2-Lamp Exit Sign	3	0.006	Z	8760	53		2	ZZ DD	No Retrofit	3	0.006	0.000	N/A	N/A
776	SELINSGROVE	INTERIOR	S	1	19	15	MISSION READY		HALLWAY		1W17	1	T8 2x2 1-Lamp Wrap Fixture	22	0.022	Z-MR	8760	193		1	R 1L-10LED2'	Retrofit with (1) 10 Watt LED T8 2' Lamp; Direct Wire to Socket	10	0.010	0.144	KT-LED7T8-24GC-840-D	1
777	SELINSGROVE	INTERIOR	S	B	20	15	MISSION READY		HALLWAY	8	4W25-4'	3	T8 1x4 4-Lamp Wrap Fixture	85	0.255	Z-MR	8760	2,234		3	R 4L-12.5LED	Retrofit with (4) 12.5 Watt LED T8 4' Lamps; Direct Wire to Socket	50	0.150	1.260	KT-LED10.5T8-48G-840-D	3
778	SELINSGROVE	INTERIOR	S	B	20	15	MISSION READY		HALLWAY		3W25-4'	1	T8 1x4 3-Lamp Wrap Fixture	65	0.065	Z-MR	8760	569		1	R 3L-12.5LED	Retrofit with (3) 12.5 Watt LED T8 4' Lamps; Direct Wire to Socket	37.5	0.038	0.330	KT-LED10.5T8-48G-840-D	3
779	SELINSGROVE	INTERIOR	S	B	20	15	MISSION READY		HALLWAY		2PL13DR	2	13 Watt Plug-In CFL Drum Fixture	26	0.052	Z-MR	8760	456		2	N LED14DR	New 12" Round 14 Watt LED Drum Fixture	14	0.028	0.288	54074143	19
780	SELINSGROVE	INTERIOR	S	B	20	15	MISSION READY		HALLWAY		CF20	1	20 Watt Compact Fluorescent Fixture	20	0.020	Z-MR	8760	175		1	LED 9A	Re-Lamp with (1) 9 Watt LED A19 Lamps	9	0.009	0.132	LA19/9/40K/D-46	8
781	SELINSGROVE	INTERIOR	S	B	21	15	MISSION READY		VESTIBULE	10	2PL13DR	1	13 Watt Plug-In CFL Drum Fixture	26	0.026	Z-MR	8760	228		1	N LED14DR	New 12" Round 14 Watt LED Drum Fixture	14	0.014	0.144	54074143	19

											EXISTING FIXTURES									PROPOSED FIXTURE UPGRADE							
ID #	Facility Name	Phase	Utility Rate Code	Floor	Map #	Building Number	Building Usage Type	Building Section	Room Description	Room #	ECM Code	Qty	Description	Watts	kW	Burn Hour Code	Pre Burn Hours	kWh	x	Qty	New Code	Description	Watts	kW	Annual KW Saved	Part#	Cut Sheet #
782	SELINSGROVE	INTERIOR	S	B	21	15	MISSION READY		VESTIBULE		CF20	1	20 Watt Compact Fluorescent Fixture	20	0.020	Z-MR	8760	175		1	LED 9A	Re-Lamp with (1) 9 Watt LED A19 Lamps	9	0.009	0.132	LA19/9/40K/D-46	8
783	SELINSGROVE	EXTERIOR	S		22	15	MISSION READY		EXTERIOR		2PL13CPY-PC	6	13 Watt 2-Lamp Plug-In CFL Canopy Fixture; Photocell	30	0.180	EX	4380	788		6	N RLED10CPY-PC	New 10 Watt LED Canopy Fixture; Photocell	12	0.072	1.296	VANLED10/PCS2	26
784	SELINSGROVE	EXTERIOR	S		22	15	MISSION READY		EXTERIOR		2PL13WP-PC-LARGE	9	13 Watt 2-Lamp Plug-In CFL Large Wall Pack Fixture; Photocell	30	0.270	EX	4380	1,183		9	N RLED12TWP	New 12 Watt LED Tall Wall Pack Fixture	14	0.126	1.728	ENTRA12	42
785	SELINSGROVE	EXTERIOR	S		22	15	MISSION READY		EXTERIOR		2PL13WP-PC-SMALL	2	13 Watt 2-Lamp Plug-In CFL Small Wall Pack Fixture; Photocell	30	0.060	EX	4380	263		2	N RLED12TWP	New 12 Watt LED Tall Wall Pack Fixture	14	0.028	0.384	ENTRA12	42
786	SELINSGROVE	INTERIOR	S	1	1	21	OUT OF SCOPE		STAIRWELL		1W17	3	T8 2x2 1-Lamp Wrap Fixture	22	0.066	Z-MR	8760	578		3	ZZ DD	No Retrofit	22	0.066	0.000	N/A	N/A
787	SELINSGROVE	INTERIOR	S	1	1	21	OUT OF SCOPE		STAIRWELL		2PL13DR	1	13 Watt Plug-In CFL Drum Fixture	26	0.026	Z-MR	8760	228		1	ZZ DD	No Retrofit	26	0.026	0.000	N/A	N/A
788	SELINSGROVE	INTERIOR	S	2	2	21	OUT OF SCOPE		HALLWAY		1W17	2	T8 2x2 1-Lamp Wrap Fixture	22	0.044	Z-MR	8760	385		2	ZZ DD	No Retrofit	22	0.044	0.000	N/A	N/A
789	SELINSGROVE	INTERIOR	S	2	2	21	OUT OF SCOPE		HALLWAY		2PL13DR	1	13 Watt Plug-In CFL Drum Fixture	26	0.026	Z-MR	8760	228		1	ZZ DD	No Retrofit	26	0.026	0.000	N/A	N/A
790	SELINSGROVE	INTERIOR	S	2	2	21	OUT OF SCOPE		HALLWAY		XLED	2	3 Watt LED 2-Lamp Exit Sign	3	0.006	Z	8760	53		2	ZZ DD	No Retrofit	3	0.006	0.000	N/A	N/A
791	SELINSGROVE	INTERIOR	S	2	3	21	OUT OF SCOPE		STAIRWELL		2PL13DR	4	13 Watt Plug-In CFL Drum Fixture	26	0.104	Z-MR	8760	911		4	ZZ DD	No Retrofit	26	0.104	0.000	N/A	N/A
792	SELINSGROVE	INTERIOR	S	2	3	21	OUT OF SCOPE		STAIRWELL		1W17	4	T8 2x2 1-Lamp Wrap Fixture	22	0.088	Z-MR	8760	771		4	ZZ DD	No Retrofit	22	0.088	0.000	N/A	N/A
793	SELINSGROVE	INTERIOR	S	2	3	21	OUT OF SCOPE		STAIRWELL		XLED	1	3 Watt LED 2-Lamp Exit Sign	3	0.003	Z	8760	26		1	ZZ DD	No Retrofit	3	0.003	0.000	N/A	N/A
794	SELINSGROVE	INTERIOR	S	1	4	21	OUT OF SCOPE		HALLWAY		1W25-4'	4	T8 1x4 1-Lamp Wrap Fixture	22	0.088	Z-MR	8760	771		4	ZZ DD	No Retrofit	22	0.088	0.000	N/A	N/A
795	SELINSGROVE	INTERIOR	S	1	4	21	OUT OF SCOPE		HALLWAY		XLED	2	3 Watt LED 2-Lamp Exit Sign	3	0.006	Z	8760	53		2	ZZ DD	No Retrofit	3	0.006	0.000	N/A	N/A
796	SELINSGROVE	INTERIOR	S	B	5	21	OUT OF SCOPE		OPEN AREA		1V25-4'	1	T8 1x4 1-Lamp Vanity Fixture	22	0.022	Z-MR	8760	193		1	ZZ DD	No Retrofit	22	0.022	0.000	N/A	N/A
797	SELINSGROVE	INTERIOR	S	B	5	21	OUT OF SCOPE		OPEN AREA		1W25-4'	3	T8 1x4 1-Lamp Wrap Fixture	22	0.066	Z-MR	8760	578		3	ZZ DD	No Retrofit	22	0.066	0.000	N/A	N/A
798	SELINSGROVE	INTERIOR	S	B	5	21	OUT OF SCOPE		OPEN AREA		2PL13DR	1	13 Watt Plug-In CFL Drum Fixture	26	0.026	Z-MR	8760	228		1	ZZ DD	No Retrofit	26	0.026	0.000	N/A	N/A
799	SELINSGROVE	INTERIOR	S	B	5	21	OUT OF SCOPE		OPEN AREA		XLED	2	3 Watt LED 2-Lamp Exit Sign	3	0.006	Z	8760	53		2	ZZ DD	No Retrofit	3	0.006	0.000	N/A	N/A
800	SELINSGROVE	EXTERIOR	S		6	21	OUT OF SCOPE		EXTERIOR		2PL13WP-PC-LARGE	6	13 Watt 2-Lamp Plug-In CFL Large Wall Pack Fixture; Photocell	30	0.180	EX	4380	788		6	ZZ DD	No Retrofit	30	0.180	0.000	N/A	N/A
801	SELINSGROVE	INTERIOR	S	1	1	16	MISSION READY		VESTIBULE	100	1W25-4'	1	T8 1x4 1-Lamp Wrap Fixture	22	0.022	Z-MR	8760	193		1	R 1L-12.5LED	Retrofit with (1) 12.5 Watt LED T8 4' Lamps; Direct Wire to Socket	12.5	0.013	0.114	KT-LED10.5T8-48G-840-D	3
802	SELINSGROVE	INTERIOR	S	1	1	16	MISSION READY		VESTIBULE		X	1	25 Watt Incandescent 2-Lamp Exit Sign	50	0.050	Z	8760	438		1	N XLED	New 3 watt LED Exit Sign	3	0.003	0.564	ES-LED-RW-B	43
803	SELINSGROVE	INTERIOR	S	1	2	16	MISSION READY		VESTIBULE	163	2B25-1X4-RECESSED	3	T8 1x4 2-Lamp Surface Mount Fixture; Recessed	43	0.129	Z-MR	8760	1,130		3	R 2L-12.5LED	Retrofit with (2) 12.5 Watt LED T8 4' Lamps; Direct Wire to Socket	25	0.075	0.648	KT-LED10.5T8-48G-840-D	3
804	SELINSGROVE	INTERIOR	S	1	2	16	MISSION READY		VESTIBULE		XLED	1	3 Watt LED 2-Lamp Exit Sign	3	0.003	Z	8760	26		1	ZZ DD	No Retrofit	3	0.003	0.000	N/A	N/A
805	SELINSGROVE	INTERIOR	S	1	3	16	MISSION READY		HALLWAY	101	1W25-4'	6	T8 1x4 1-Lamp Wrap Fixture	22	0.132	Z-MR	8760	1,156		6	R 1L-12.5LED	Retrofit with (1) 12.5 Watt LED T8 4' Lamps; Direct Wire to Socket	12.5	0.075	0.684	KT-LED10.5T8-48G-840-D	3
806	SELINSGROVE	INTERIOR	S	1	3	16	MISSION READY		HALLWAY		CF20SQDL	1	20 Watt Compact Fluorescent Square Downlight Fixture	20	0.020	Z-MR	8760	175		1	LED 9A	Re-Lamp with (1) 9 Watt LED A19 Lamps	9	0.009	0.132	LA19/9/40K/D-46	8
807	SELINSGROVE	INTERIOR	S	1	3	16	MISSION READY		HALLWAY		X	2	25 Watt Incandescent 2-Lamp Exit Sign	50	0.100	Z	8760	876		2	N XLED	New 3 watt LED Exit Sign	3	0.006	1.128	ES-LED-RW-B	43
808	SELINSGROVE	INTERIOR	S	1	4	16	MISSION READY		HALLWAY	139-143	1W17	2	T8 2x2 1-Lamp Wrap Fixture	22	0.044	Z-MR	8760	385		2	R 1L-10LED2'	Retrofit with (1) 10 Watt LED T8 2' Lamp; Direct Wire to Socket	10	0.020	0.288	KT-LED7T8-24GC-840-D	1
809	SELINSGROVE	INTERIOR	S	1	4	16	MISSION READY		HALLWAY		X	1	25 Watt Incandescent 2-Lamp Exit Sign	50	0.050	Z	8760	438		1	N XLED	New 3 watt LED Exit Sign	3	0.003	0.564	ES-LED-RW-B	43
810	SELINSGROVE	INTERIOR	S	1	4	16	MISSION READY		HALLWAY		XLED	1	3 Watt LED 2-Lamp Exit Sign	3	0.003	Z	8760	26		1	ZZ DD	No Retrofit	3	0.003	0.000	N/A	N/A
811	SELINSGROVE	INTERIOR	S	1	5	16	MISSION READY		HALLWAY	144-150	1W17	6	T8 2x2 1-Lamp Wrap Fixture	22	0.132	Z-MR	8760	1,156		6	R 1L-10LED2'	Retrofit with (1) 10 Watt LED T8 2' Lamp; Direct Wire to Socket	10	0.060	0.864	KT-LED7T8-24GC-840-D	1
812	SELINSGROVE	INTERIOR	S	1	5	16	MISSION READY		HALLWAY		X	3	25 Watt Incandescent 2-Lamp Exit Sign	50	0.150	Z	8760	1,314		3	N XLED	New 3 watt LED Exit Sign	3	0.009	1.692	ES-LED-RW-B	43
813	SELINSGROVE	INTERIOR	S	1	6	16	MISSION READY		STAIRWELL	138A	1W17	1	T8 2x2 1-Lamp Wrap Fixture	22	0.022	Z-MR	8760	193		1	R 1L-10LED2'	Retrofit with (1) 10 Watt LED T8 2' Lamp; Direct Wire to Socket	10	0.010	0.144	KT-LED7T8-24GC-840-D	1

											EXISTING FIXTURES									PROPOSED FIXTURE UPGRADE							
ID #	Facility Name	Phase	Utility Rate Code	Floor	Map #	Building Number	Building Usage Type	Building Section	Room Description	Room #	ECM Code	Qty	Description	Watts	kW	Burn Hour Code	Pre Burn Hours	kWh	x	Qty	New Code	Description	Watts	kW	Annual KW Saved	Part#	Cut Sheet #
814	SELINSGROVE	INTERIOR	S	1	6	16	MISSION READY		STAIRWELL		1W17-DA	1	T8 1x2 1-Lamp Wrap Fixture; Difficult Access	17	0.017	Z-MR	8760	149		1	R 1L-10LED2'-DA	Retrofit with (1) 10 Watt LED T8 2' Lamp; Direct Wire to Socket; Difficult Access	10	0.010	0.084	KT-LED7T8-24GC-840-D	1
815	SELINSGROVE	INTERIOR	S	1	6	16	MISSION READY		STAIRWELL		X	1	25 Watt Incandescent 2-Lamp Exit Sign	50	0.050	Z	8760	438		1	N XLED	New 3 watt LED Exit Sign	3	0.003	0.564	ES-LED-RW-B	43
816	SELINSGROVE	INTERIOR	S	1	6	16	MISSION READY		STAIRWELL		CF20JJ	1	20 Watt Compact Fluorescent Jelly Jar Fixture	20	0.020	Z-MR	8760	175		1	LED 9A	Re-Lamp with (1) 9 Watt LED A19 Lamps	9	0.009	0.132	LA19/9/40K/D-46	8
817	SELINSGROVE	INTERIOR	S	1	7	16	MISSION READY		KITCHEN BACK DOOR		1W17	9	T8 2x2 1-Lamp Wrap Fixture	22	0.198	Z-MR	8760	1,734		9	R 1L-10LED2'	Retrofit with (1) 10 Watt LED T8 2' Lamp; Direct Wire to Socket	10	0.090	1.296	KT-LED7T8-24GC-840-D	1
818	SELINSGROVE	INTERIOR	S	1	8	16	MISSION READY		HALLWAY	130-126	1W17	3	T8 2x2 1-Lamp Wrap Fixture	22	0.066	Z-MR	8760	578		3	R 1L-10LED2'	Retrofit with (1) 10 Watt LED T8 2' Lamp; Direct Wire to Socket	10	0.030	0.432	KT-LED7T8-24GC-840-D	1
819	SELINSGROVE	INTERIOR	S	1	8	16	MISSION READY		HALLWAY		XLED	1	3 Watt LED 2-Lamp Exit Sign	3	0.003	Z	8760	26		1	ZZ DD	No Retrofit	3	0.003	0.000	N/A	N/A
820	SELINSGROVE	INTERIOR	S	1	8	16	MISSION READY		HALLWAY		X	1	25 Watt Incandescent 2-Lamp Exit Sign	50	0.050	Z	8760	438		1	N XLED	New 3 watt LED Exit Sign	3	0.003	0.564	ES-LED-RW-B	43
821	SELINSGROVE	INTERIOR	S	1	9	16	MISSION READY		HALLWAY	125-119	1W17	5	T8 2x2 1-Lamp Wrap Fixture	22	0.110	Z-MR	8760	964		5	R 1L-10LED2'	Retrofit with (1) 10 Watt LED T8 2' Lamp; Direct Wire to Socket	10	0.050	0.720	KT-LED7T8-24GC-840-D	1
822	SELINSGROVE	INTERIOR	S	1	9	16	MISSION READY		HALLWAY		XLED	1	3 Watt LED 2-Lamp Exit Sign	3	0.003	Z	8760	26		1	ZZ DD	No Retrofit	3	0.003	0.000	N/A	N/A
823	SELINSGROVE	INTERIOR	S	1	9	16	MISSION READY		HALLWAY		X	2	25 Watt Incandescent 2-Lamp Exit Sign	50	0.100	Z	8760	876		2	N XLED	New 3 watt LED Exit Sign	3	0.006	1.128	ES-LED-RW-B	43
824	SELINSGROVE	INTERIOR	S	1	10	16	MISSION READY		STAIRS	108A	1W17	1	T8 2x2 1-Lamp Wrap Fixture	22	0.022	Z-MR	8760	193		1	R 1L-10LED2'	Retrofit with (1) 10 Watt LED T8 2' Lamp; Direct Wire to Socket	10	0.010	0.144	KT-LED7T8-24GC-840-D	1
825	SELINSGROVE	INTERIOR	S	1	10	16	MISSION READY		STAIRS		1W17-DA	1	T8 1x2 1-Lamp Wrap Fixture; Difficult Access	17	0.017	Z-MR	8760	149		1	R 1L-10LED2'-DA	Retrofit with (1) 10 Watt LED T8 2' Lamp; Direct Wire to Socket; Difficult Access	10	0.010	0.084	KT-LED7T8-24GC-840-D	1
826	SELINSGROVE	INTERIOR	S	1	10	16	MISSION READY		STAIRS		CF20JJ	1	20 Watt Compact Fluorescent Jelly Jar Fixture	20	0.020	Z-MR	8760	175		1	LED 9A	Re-Lamp with (1) 9 Watt LED A19 Lamps	9	0.009	0.132	LA19/9/40K/D-46	8
827	SELINSGROVE	INTERIOR	S	1	10	16	MISSION READY		STAIRS		X	1	25 Watt Incandescent 2-Lamp Exit Sign	50	0.050	Z	8760	438		1	N XLED	New 3 watt LED Exit Sign	3	0.003	0.564	ES-LED-RW-B	43
828	SELINSGROVE	INTERIOR	S	1	11	16	MISSION READY		STAIRWELL	107	CF20SQDL	1	20 Watt Compact Fluorescent Square Downlight Fixture	20	0.020	Z-MR	8760	175		1	LED 9A	Re-Lamp with (1) 9 Watt LED A19 Lamps	9	0.009	0.132	LA19/9/40K/D-46	8
829	SELINSGROVE	INTERIOR	S	1	11	16	MISSION READY		STAIRWELL		2W25-4'	1	T8 1x4 2-Lamp Wrap Fixture	43	0.043	Z-MR	8760	377		1	R 2L-12.5LED	Retrofit with (2) 12.5 Watt LED T8 4' Lamps; Direct Wire to Socket	25	0.025	0.216	KT-LED10.5T8-48G-840-D	3
830	SELINSGROVE	INTERIOR	S	1	11	16	MISSION READY		STAIRWELL		1W17	1	T8 2x2 1-Lamp Wrap Fixture	22	0.022	Z-MR	8760	193		1	R 1L-10LED2'	Retrofit with (1) 10 Watt LED T8 2' Lamp; Direct Wire to Socket	10	0.010	0.144	KT-LED7T8-24GC-840-D	1
831	SELINSGROVE	INTERIOR	S	1	11	16	MISSION READY		STAIRWELL		CF20JJ	2	20 Watt Compact Fluorescent Jelly Jar Fixture	20	0.040	Z-MR	8760	350		2	LED 9A	Re-Lamp with (1) 9 Watt LED A19 Lamps	9	0.018	0.264	LA19/9/40K/D-46	8
832	SELINSGROVE	INTERIOR	S	1	11	16	MISSION READY		STAIRWELL		X	1	25 Watt Incandescent 2-Lamp Exit Sign	50	0.050	Z	8760	438		1	N XLED	New 3 watt LED Exit Sign	3	0.003	0.564	ES-LED-RW-B	43
833	SELINSGROVE	INTERIOR	S	B	12	16	MISSION READY		HALLWAY	2	1W25-4'	6	T8 1x4 1-Lamp Wrap Fixture	22	0.132	Z-MR	8760	1,156		6	R 1L-12.5LED	Retrofit with (1) 12.5 Watt LED T8 4' Lamps; Direct Wire to Socket	12.5	0.075	0.684	KT-LED10.5T8-48G-840-D	3
834	SELINSGROVE	INTERIOR	S	B	12	16	MISSION READY		HALLWAY		2PL13DR	3	13 Watt Plug-In CFL Drum Fixture	26	0.078	Z-MR	8760	683		3	N LED14DR	New 12" Round 14 Watt LED Drum Fixture	14	0.042	0.432	54074143	19
835	SELINSGROVE	INTERIOR	S	B	12	16	MISSION READY		HALLWAY		X	1	25 Watt Incandescent 2-Lamp Exit Sign	50	0.050	Z	8760	438		1	N XLED	New 3 watt LED Exit Sign	3	0.003	0.564	ES-LED-RW-B	43
836	SELINSGROVE	INTERIOR	S	B	12	16	MISSION READY		HALLWAY		XLED	3	3 Watt LED 2-Lamp Exit Sign	3	0.009	Z	8760	79		3	ZZ DD	No Retrofit	3	0.009	0.000	N/A	N/A
837	SELINSGROVE	INTERIOR	S	B	13	16	MISSION READY		VESTIBULE		1W25-4'	1	T8 1x4 1-Lamp Wrap Fixture	22	0.022	Z-MR	8760	193		1	R 1L-12.5LED	Retrofit with (1) 12.5 Watt LED T8 4' Lamps; Direct Wire to Socket	12.5	0.013	0.114	KT-LED10.5T8-48G-840-D	3
838	SELINSGROVE	INTERIOR	S	B	13	16	MISSION READY		VESTIBULE		XLED	1	3 Watt LED 2-Lamp Exit Sign	3	0.003	Z	8760	26		1	ZZ DD	No Retrofit	3	0.003	0.000	N/A	N/A
839	SELINSGROVE	INTERIOR	S	B	14	16	MISSION READY		HALLWAY	25	1W25-4'	2	T8 1x4 1-Lamp Wrap Fixture	22	0.044	Z-MR	8760	385		2	R 1L-12.5LED	Retrofit with (1) 12.5 Watt LED T8 4' Lamps; Direct Wire to Socket	12.5	0.025	0.228	KT-LED10.5T8-48G-840-D	3
840	SELINSGROVE	INTERIOR	S	B	14	16	MISSION READY		HALLWAY		1V25-4'	4	T8 1x4 1-Lamp Vanity Fixture	22	0.088	Z-MR	8760	771		4	R 1L-12.5LED	Retrofit with (1) 12.5 Watt LED T8 4' Lamps; Direct Wire to Socket	12.5	0.050	0.456	KT-LED10.5T8-48G-840-D	3
841	SELINSGROVE	INTERIOR	S	B	14	16	MISSION READY		HALLWAY		2PL13DR	1	13 Watt Plug-In CFL Drum Fixture	26	0.026	Z-MR	8760	228		1	N LED14DR	New 12" Round 14 Watt LED Drum Fixture	14	0.014	0.144	54074143	19
842	SELINSGROVE	INTERIOR	S	B	14	16	MISSION READY		HALLWAY		X	2	25 Watt Incandescent 2-Lamp Exit Sign	50	0.100	Z	8760	876		2	N XLED	New 3 watt LED Exit Sign	3	0.006	1.128	ES-LED-RW-B	43
843	SELINSGROVE	INTERIOR	S	B	15	16	MISSION READY		HALLWAY	6	1W25-4'	3	T8 1x4 1-Lamp Wrap Fixture	22	0.066	Z-MR	8760	578		3	R 1L-12.5LED	Retrofit with (1) 12.5 Watt LED T8 4' Lamps; Direct Wire to Socket	12.5	0.038	0.342	KT-LED10.5T8-48G-840-D	3
844	SELINSGROVE	INTERIOR	S	B	15	16	MISSION READY		HALLWAY		1V25-4'	4	T8 1x4 1-Lamp Vanity Fixture	22	0.088	Z-MR	8760	771		4	R 1L-12.5LED	Retrofit with (1) 12.5 Watt LED T8 4' Lamps; Direct Wire to Socket	12.5	0.050	0.456	KT-LED10.5T8-48G-840-D	3
845	SELINSGROVE	INTERIOR	S	B	15	16	MISSION READY		HALLWAY		2PL13DR	1	13 Watt Plug-In CFL Drum Fixture	26	0.026	Z-MR	8760	228		1	N LED14DR	New 12" Round 14 Watt LED Drum Fixture	14	0.014	0.144	54074143	19

											EXISTING FIXTURES									PROPOSED FIXTURE UPGRADE							
ID #	Facility Name	Phase	Utility Rate Code	Floor	Map #	Building Number	Building Usage Type	Building Section	Room Description	Room #	ECM Code	Qty	Description	Watts	kW	Burn Hour Code	Pre Burn Hours	kWh	x	Qty	New Code	Description	Watts	kW	Annual KW Saved	Part#	Cut Sheet #
846	SELINSGROVE	INTERIOR	S	B	15	16	MISSION READY		HALLWAY		XLED	2	3 Watt LED 2-Lamp Exit Sign	3	0.006	Z	8760	53		2	ZZ DD	No Retrofit	3	0.006	0.000	N/A	N/A
847	SELINSGROVE	INTERIOR	S	B	16	16	MISSION READY		HALLWAY	10	1W25-4'	3	T8 1x4 1-Lamp Wrap Fixture	22	0.066	Z-MR	8760	578		3	R 1L-12.5LED	Retrofit with (1) 12.5 Watt LED T8 4' Lamps; Direct Wire to Socket	12.5	0.038	0.342	KT-LED10.5T8-48G-840-D	3
848	SELINSGROVE	INTERIOR	S	B	16	16	MISSION READY		HALLWAY		X	1	25 Watt Incandescent 2-Lamp Exit Sign	50	0.050	Z	8760	438		1	N XLED	New 3 watt LED Exit Sign	3	0.003	0.564	ES-LED-RW-B	43
849	SELINSGROVE	EXTERIOR	S		17	16	MISSION READY		EXTERIOR		2PL13WP-PC-LARGE	6	13 Watt 2-Lamp Plug-In CFL Large Wall Pack Fixture; Photocell	30	0.180	EX	4380	788		6	N RLED12TWP	New 12 Watt LED Tall Wall Pack Fixture	14	0.084	1.152	ENTRA12	42
850	SELINSGROVE	EXTERIOR	S		17	16	MISSION READY		EXTERIOR		2PL13WP-PC-SMALL	5	13 Watt 2-Lamp Plug-In CFL Small Wall Pack Fixture; Photocell	30	0.150	EX	4380	657		5	N RLED12TWP	New 12 Watt LED Tall Wall Pack Fixture	14	0.070	0.960	ENTRA12	42
851	SELINSGROVE	EXTERIOR	S		17	16	MISSION READY		EXTERIOR		2PL13CPY-PC	2	13 Watt 2-Lamp Plug-In CFL Canopy Fixture; Photocell	30	0.060	EX	4380	263		2	N RLED10CPY-PC	New 10 Watt LED Canopy Fixture; Photocell	12	0.024	0.432	VANLED10/PCS2	26
852	SELINSGROVE	INTERIOR	S	1	1	20	24/7 & OCCUPIED		STAIRWELL		2PL13DR	5	13 Watt Plug-In CFL Drum Fixture	26	0.130	Z-MR	8760	1,139		5	N LED14DR	New 12" Round 14 Watt LED Drum Fixture	14	0.070	0.720	54074143	19
853	SELINSGROVE	INTERIOR	S	1	1	20	24/7 & OCCUPIED		STAIRWELL		1W25-4'	1	T8 1x4 1-Lamp Wrap Fixture	22	0.022	Z-MR	8760	193		1	R 1L-12.5LED	Retrofit with (1) 12.5 Watt LED T8 4' Lamps; Direct Wire to Socket	12.5	0.013	0.114	KT-LED10.5T8-48G-840-D	3
854	SELINSGROVE	INTERIOR	S	1	1	20	24/7 & OCCUPIED		STAIRWELL		1W17	1	T8 2x2 1-Lamp Wrap Fixture	22	0.022	Z-MR	8760	193		1	R 1L-10LED2'	Retrofit with (1) 10 Watt LED T8 2' Lamp; Direct Wire to Socket	10	0.010	0.144	KT-LED7T8-24GC-840-D	1
855	SELINSGROVE	INTERIOR	S	1	1	20	24/7 & OCCUPIED		STAIRWELL		XLED	2	3 Watt LED 2-Lamp Exit Sign	3	0.006	Z	8760	53		2	ZZ DD	No Retrofit	3	0.006	0.000	N/A	N/A
856	SELINSGROVE	INTERIOR	S	2	2	20	24/7 & OCCUPIED		HALLWAY		1W17	2	T8 2x2 1-Lamp Wrap Fixture	22	0.044	Z-MR	8760	385		2	R 1L-10LED2'	Retrofit with (1) 10 Watt LED T8 2' Lamp; Direct Wire to Socket	10	0.020	0.288	KT-LED7T8-24GC-840-D	1
857	SELINSGROVE	INTERIOR	S	2	2	20	24/7 & OCCUPIED		HALLWAY		2PL13DR	1	13 Watt Plug-In CFL Drum Fixture	26	0.026	Z-MR	8760	228		1	N LED14DR	New 12" Round 14 Watt LED Drum Fixture	14	0.014	0.144	54074143	19
858	SELINSGROVE	INTERIOR	S	2	2	20	24/7 & OCCUPIED		HALLWAY		XLED	2	3 Watt LED 2-Lamp Exit Sign	3	0.006	Z	8760	53		2	ZZ DD	No Retrofit	3	0.006	0.000	N/A	N/A
859	SELINSGROVE	INTERIOR	S	2	3	20	24/7 & OCCUPIED		STAIRWELL		2PL13DR	8	13 Watt Plug-In CFL Drum Fixture	26	0.208	Z-MR	8760	1,822		8	N LED14DR	New 12" Round 14 Watt LED Drum Fixture	14	0.112	1.152	54074143	19
860	SELINSGROVE	INTERIOR	S	2	3	20	24/7 & OCCUPIED		STAIRWELL		X	1	25 Watt Incandescent 2-Lamp Exit Sign	50	0.050	Z	8760	438		1	N XLED	New 3 watt LED Exit Sign	3	0.003	0.564	ES-LED-RW-B	43
861	SELINSGROVE	INTERIOR	S	1	4	20	24/7 & OCCUPIED		HALLWAY		1W25-4'	6	T8 1x4 1-Lamp Wrap Fixture	22	0.132	Z-MR	8760	1,156		6	R 1L-12.5LED	Retrofit with (1) 12.5 Watt LED T8 4' Lamps; Direct Wire to Socket	12.5	0.075	0.684	KT-LED10.5T8-48G-840-D	3
862	SELINSGROVE	INTERIOR	S	1	4	20	24/7 & OCCUPIED		HALLWAY		XLED	2	3 Watt LED 2-Lamp Exit Sign	3	0.006	Z	8760	53		2	ZZ DD	No Retrofit	3	0.006	0.000	N/A	N/A
863	SELINSGROVE	INTERIOR	S	G	5	20	24/7 & OCCUPIED		OPEN AREA		2EC25-4'	3	T8 2x4 2-Lamp Egg Crate Fixture	43	0.129	Z-MR	8760	1,130		3	N 2W-12.5LED	New 1x4 2-Lamp Wrap Fixture with (2) 12.5 Watt LED T8 4' Lamp; Direct Wire to Socket	25	0.075	0.648	CCW-4'-2-T8LED /// KT-LED10.5T8-48G-840-D	51 + 3
864	SELINSGROVE	INTERIOR	S	G	5	20	24/7 & OCCUPIED		OPEN AREA		2PL13DR	1	13 Watt Plug-In CFL Drum Fixture	26	0.026	Z-MR	8760	228		1	N LED14DR	New 12" Round 14 Watt LED Drum Fixture	14	0.014	0.144	54074143	19
865	SELINSGROVE	INTERIOR	S	G	5	20	24/7 & OCCUPIED		OPEN AREA		X	2	25 Watt Incandescent 2-Lamp Exit Sign	50	0.100	Z	8760	876		2	N XLED	New 3 watt LED Exit Sign	3	0.006	1.128	ES-LED-RW-B	43
866	SELINSGROVE	EXTERIOR	S		6	20	24/7 & OCCUPIED		EXTERIOR		2PL13WP-PC-LARGE	6	13 Watt 2-Lamp Plug-In CFL Large Wall Pack Fixture; Photocell	30	0.180	EX	4380	788		6	N RLED12TWP	New 12 Watt LED Tall Wall Pack Fixture	14	0.084	1.152	ENTRA12	42
867	SELINSGROVE	EXTERIOR	S		6	20	24/7 & OCCUPIED		EXTERIOR		2PL13WP-PC-SMALL	1	13 Watt 2-Lamp Plug-In CFL Small Wall Pack Fixture; Photocell	30	0.030	EX	4380	131		1	N RLED12TWP	New 12 Watt LED Tall Wall Pack Fixture	14	0.014	0.192	ENTRA12	42
868	SELINSGROVE	EXTERIOR	S		6	20	24/7 & OCCUPIED		EXTERIOR		2PL13CPY-PC	2	13 Watt 2-Lamp Plug-In CFL Canopy Fixture; Photocell	30	0.060	EX	4380	263		2	N RLED10CPY-PC	New 10 Watt LED Canopy Fixture; Photocell	12	0.024	0.432	VANLED10/PCS2	26
869	SELINSGROVE	INTERIOR	S	2	1	18	OUT OF SCOPE		HALLWAY		1W17	3	T8 2x2 1-Lamp Wrap Fixture	22	0.066	Z-MR	8760	578		3	ZZ DD	No Retrofit	22	0.066	0.000	N/A	N/A
870	SELINSGROVE	INTERIOR	S	2	1	18	OUT OF SCOPE		HALLWAY		XLED	2	3 Watt LED 2-Lamp Exit Sign	3	0.006	Z	8760	53		2	ZZ DD	No Retrofit	3	0.006	0.000	N/A	N/A
871	SELINSGROVE	INTERIOR	S	2	2	18	OUT OF SCOPE		STAIRS	208	1W17	2	T8 2x2 1-Lamp Wrap Fixture	22	0.044	Z-MR	8760	385		2	ZZ DD	No Retrofit	22	0.044	0.000	N/A	N/A
872	SELINSGROVE	INTERIOR	S	2	2	18	OUT OF SCOPE		STAIRS		CF20	3	20 Watt Compact Fluorescent Fixture	20	0.060	Z-MR	8760	526		3	ZZ DD	No Retrofit	20	0.060	0.000	N/A	N/A
873	SELINSGROVE	INTERIOR	S	2	2	18	OUT OF SCOPE		STAIRS		XLED	1	3 Watt LED 2-Lamp Exit Sign	3	0.003	Z	8760	26		1	ZZ DD	No Retrofit	3	0.003	0.000	N/A	N/A
874	SELINSGROVE	INTERIOR	S	1	3	18	OUT OF SCOPE		HALLWAY		1W25-4'	3	T8 1x4 1-Lamp Wrap Fixture	22	0.066	Z-MR	8760	578		3	ZZ DD	No Retrofit	22	0.066	0.000	N/A	N/A
875	SELINSGROVE	INTERIOR	S	1	3	18	OUT OF SCOPE		HALLWAY		XLED	2	3 Watt LED 2-Lamp Exit Sign	3	0.006	Z	8760	53		2	ZZ DD	No Retrofit	3	0.006	0.000	N/A	N/A
876	SELINSGROVE	INTERIOR	S	1	4	18	OUT OF SCOPE		STAIRWELL		CF20	6	20 Watt Compact Fluorescent Fixture	20	0.120	Z-MR	8760	1,051		6	ZZ DD	No Retrofit	20	0.120	0.000	N/A	N/A
877	SELINSGROVE	INTERIOR	S	1	4	18	OUT OF SCOPE		STAIRWELL		1W17	1	T8 2x2 1-Lamp Wrap Fixture	22	0.022	Z-MR	8760	193		1	ZZ DD	No Retrofit	22	0.022	0.000	N/A	N/A

											EXISTING FIXTURES									PROPOSED FIXTURE UPGRADE							
ID #	Facility Name	Phase	Utility Rate Code	Floor	Map #	Building Number	Building Usage Type	Building Section	Room Description	Room #	ECM Code	Qty	Description	Watts	kW	Burn Hour Code	Pre Burn Hours	kWh	x	Qty	New Code	Description	Watts	kW	Annual KW Saved	Part#	Cut Sheet #
878	SELINSGROVE	INTERIOR	S	1	4	18	OUT OF SCOPE		STAIRWELL		2PL13DR	1	13 Watt Plug-In CFL Drum Fixture	26	0.026	Z-MR	8760	228		1	ZZ DD	No Retrofit	26	0.026	0.000	N/A	N/A
879	SELINSGROVE	INTERIOR	S	1	4	18	OUT OF SCOPE		STAIRWELL		XLED	2	3 Watt LED 2-Lamp Exit Sign	3	0.006	Z	8760	53		2	ZZ DD	No Retrofit	3	0.006	0.000	N/A	N/A
880	SELINSGROVE	INTERIOR	S	B	5	18	OUT OF SCOPE		OPEN AREA		2PL13DR	5	13 Watt Plug-In CFL Drum Fixture	26	0.130	Z-MR	8760	1,139		5	ZZ DD	No Retrofit	26	0.130	0.000	N/A	N/A
881	SELINSGROVE	INTERIOR	S	B	5	18	OUT OF SCOPE		OPEN AREA		XLED	2	3 Watt LED 2-Lamp Exit Sign	3	0.006	Z	8760	53		2	ZZ DD	No Retrofit	3	0.006	0.000	N/A	N/A
882	SELINSGROVE	EXTERIOR	S		6	18	OUT OF SCOPE		EXTERIOR		2PL13WP-PC-LARGE	4	13 Watt 2-Lamp Plug-In CFL Large Wall Pack Fixture; Photocell	30	0.120	EX	4380	526		4	ZZ DD	No Retrofit	30	0.120	0.000	N/A	N/A
883	SELINSGROVE	EXTERIOR	S		6	18	OUT OF SCOPE		EXTERIOR		2PL13WP-PC-SMALL	4	13 Watt 2-Lamp Plug-In CFL Small Wall Pack Fixture; Photocell	30	0.120	EX	4380	526		4	ZZ DD	No Retrofit	30	0.120	0.000	N/A	N/A
884	SELINSGROVE	EXTERIOR	S		6	18	OUT OF SCOPE		EXTERIOR		2PL13CPY-PC	3	13 Watt 2-Lamp Plug-In CFL Canopy Fixture; Photocell	30	0.090	EX	4380	394		3	ZZ DD	No Retrofit	30	0.090	0.000	N/A	N/A
885	SELINSGROVE	EXTERIOR	S		6	18	OUT OF SCOPE		EXTERIOR		2-75PAR38-HOLDER	1	75 Watt 2-Lamp Incandescent Par38 Holder Fixture	150	0.150	EX	4380	657		1	ZZ DD	No Retrofit	150	0.150	0.000	N/A	N/A
886	SELINSGROVE	INTERIOR	S	1	1	12	MISSION READY		HALLWAY	101	1W17	1	T8 2x2 1-Lamp Wrap Fixture	22	0.022	Z-MR	8760	193		1	R 1L-10LED2'	Retrofit with (1) 10 Watt LED T8 2' Lamp; Direct Wire to Socket	10	0.010	0.144	KT-LED7T8-24GC-840-D	1
887	SELINSGROVE	INTERIOR	S	1	1	12	MISSION READY		HALLWAY		4L25-4'	2	T8 2x4 4-Lamp Troffer Fixture	85	0.170	Z-MR	8760	1,489		2	R 4L-12.5LED	Retrofit with (4) 12.5 Watt LED T8 4' Lamps; Direct Wire to Socket	50	0.100	0.840	KT-LED10.5T8-48G-840-D	3
888	SELINSGROVE	INTERIOR	S	1	1	12	MISSION READY		HALLWAY		X	1	25 Watt Incandescent 2-Lamp Exit Sign	50	0.050	Z-MR	8760	438		1	N XLED	New 3 watt LED Exit Sign	3	0.003	0.564	ES-LED-RW-B	43
889	SELINSGROVE	INTERIOR	S	1	2	12	MISSION READY		VESTIBULE	102	4L25-4'	1	T8 2x4 4-Lamp Troffer Fixture	85	0.085	Z-MR	8760	745		1	R 4L-12.5LED	Retrofit with (4) 12.5 Watt LED T8 4' Lamps; Direct Wire to Socket	50	0.050	0.420	KT-LED10.5T8-48G-840-D	3
890	SELINSGROVE	INTERIOR	S	1	2	12	MISSION READY		VESTIBULE		X	1	25 Watt Incandescent 2-Lamp Exit Sign	50	0.050	Z-MR	8760	438		1	N XLED	New 3 watt LED Exit Sign	3	0.003	0.564	ES-LED-RW-B	43
891	SELINSGROVE	INTERIOR	S	1	3	12	MISSION READY		OPEN AREA	105	4L25-4'	4	T8 2x4 4-Lamp Troffer Fixture	85	0.340	Z-MR	8760	2,978		4	R 4L-12.5LED	Retrofit with (4) 12.5 Watt LED T8 4' Lamps; Direct Wire to Socket	50	0.200	1.680	KT-LED10.5T8-48G-840-D	3
892	SELINSGROVE	INTERIOR	S	1	3	12	MISSION READY		OPEN AREA		CF20DL6	1	20 Watt Compact Fluorescent 6" Downlight Fixture	20	0.020	Z-MR	8760	175		1	R LLED9DL6	Retrofit with 9 Watt LED 6" Downlight Kit	9	0.009	0.132	LDN6RV 40/05 LR6AR LSS MVOLT EZ10	22
893	SELINSGROVE	INTERIOR	S	1	3	12	MISSION READY		OPEN AREA		X	1	25 Watt Incandescent 2-Lamp Exit Sign	50	0.050	Z-MR	8760	438		1	N XLED	New 3 watt LED Exit Sign	3	0.003	0.564	ES-LED-RW-B	43
894	SELINSGROVE	INTERIOR	S	1	4	12	MISSION READY		HALLWAY	109	4L25-4'	3	T8 2x4 4-Lamp Troffer Fixture	85	0.255	Z-MR	8760	2,234		3	R 4L-12.5LED	Retrofit with (4) 12.5 Watt LED T8 4' Lamps; Direct Wire to Socket	50	0.150	1.260	KT-LED10.5T8-48G-840-D	3
895	SELINSGROVE	INTERIOR	S	1	4	12	MISSION READY		HALLWAY		CF20DL6	2	20 Watt Compact Fluorescent 6" Downlight Fixture	20	0.040	Z-MR	8760	350		2	R LLED9DL6	Retrofit with 9 Watt LED 6" Downlight Kit	9	0.018	0.264	LDN6RV 40/05 LR6AR LSS MVOLT EZ10	22
896	SELINSGROVE	INTERIOR	S	1	4	12	MISSION READY		HALLWAY		X	2	25 Watt Incandescent 2-Lamp Exit Sign	50	0.100	Z-MR	8760	876		2	N XLED	New 3 watt LED Exit Sign	3	0.006	1.128	ES-LED-RW-B	43
897	SELINSGROVE	INTERIOR	S	1	5	12	MISSION READY		VESTIBULE	109C	4L25-4'	2	T8 2x4 4-Lamp Troffer Fixture	85	0.170	Z-MR	8760	1,489		2	R 4L-12.5LED	Retrofit with (4) 12.5 Watt LED T8 4' Lamps; Direct Wire to Socket	50	0.100	0.840	KT-LED10.5T8-48G-840-D	3
898	SELINSGROVE	INTERIOR	S	1	5	12	MISSION READY		VESTIBULE		X	1	25 Watt Incandescent 2-Lamp Exit Sign	50	0.050	Z-MR	8760	438		1	N XLED	New 3 watt LED Exit Sign	3	0.003	0.564	ES-LED-RW-B	43
899	SELINSGROVE	INTERIOR	S	1	6	12	MISSION READY		HALLWAY	111-116	4L25-4'	3	T8 2x4 4-Lamp Troffer Fixture	85	0.255	Z-MR	8760	2,234		3	R 4L-12.5LED	Retrofit with (4) 12.5 Watt LED T8 4' Lamps; Direct Wire to Socket	50	0.150	1.260	KT-LED10.5T8-48G-840-D	3
900	SELINSGROVE	INTERIOR	S	1	6	12	MISSION READY		HALLWAY		X	2	25 Watt Incandescent 2-Lamp Exit Sign	50	0.100	Z-MR	8760	876		2	N XLED	New 3 watt LED Exit Sign	3	0.006	1.128	ES-LED-RW-B	43
901	SELINSGROVE	INTERIOR	S	1	7	12	MISSION READY		HALLWAY	132-133	4L25-4'	2	T8 2x4 4-Lamp Troffer Fixture	85	0.170	Z-MR	8760	1,489		2	R 4L-12.5LED	Retrofit with (4) 12.5 Watt LED T8 4' Lamps; Direct Wire to Socket	50	0.100	0.840	KT-LED10.5T8-48G-840-D	3
902	SELINSGROVE	INTERIOR	S	1	7	12	MISSION READY		HALLWAY		X	2	25 Watt Incandescent 2-Lamp Exit Sign	50	0.100	Z-MR	8760	876		2	N XLED	New 3 watt LED Exit Sign	3	0.006	1.128	ES-LED-RW-B	43
903	SELINSGROVE	INTERIOR	S	1	8	12	MISSION READY		HALLWAY	123	4L25-4'	5	T8 2x4 4-Lamp Troffer Fixture	85	0.425	Z-MR	8760	3,723		5	R 4L-12.5LED	Retrofit with (4) 12.5 Watt LED T8 4' Lamps; Direct Wire to Socket	50	0.250	2.100	KT-LED10.5T8-48G-840-D	3
904	SELINSGROVE	INTERIOR	S	1	8	12	MISSION READY		HALLWAY		X	3	25 Watt Incandescent 2-Lamp Exit Sign	50	0.150	Z-MR	8760	1,314		3	N XLED	New 3 watt LED Exit Sign	3	0.009	1.692	ES-LED-RW-B	43
905	SELINSGROVE	INTERIOR	S	1	9	12	MISSION READY		VESTIBULE	126	2LU32	1	T8 2x2 2-Lamp U-Lamp Troffer Fixture with 6" Lamps	62	0.062	Z-MR	8760	543		1	RF 2LR-10LED2'	Retrofit with (2) 10 Watt LED T8 2' Lamps and (1) 2x2 2-Lamp White Reflector Kit; Direct Wire to Socket	20	0.020	0.504	KT-LED7T8-24GC-840-D /// R-2-21-2-T8-X-W-X-X	1 + 55
906	SELINSGROVE	INTERIOR	S	1	9	12	MISSION READY		VESTIBULE		X	1	25 Watt Incandescent 2-Lamp Exit Sign	50	0.050	Z-MR	8760	438		1	N XLED	New 3 watt LED Exit Sign	3	0.003	0.564	ES-LED-RW-B	43
907	SELINSGROVE	INTERIOR	S	1	10	12	MISSION READY		HALLWAY	125	4L25-4'	5	T8 2x4 4-Lamp Troffer Fixture	85	0.425	Z-MR	8760	3,723		5	R 4L-12.5LED	Retrofit with (4) 12.5 Watt LED T8 4' Lamps; Direct Wire to Socket	50	0.250	2.100	KT-LED10.5T8-48G-840-D	3
908	SELINSGROVE	INTERIOR	S	1	10	12	MISSION READY		HALLWAY		X	2	25 Watt Incandescent 2-Lamp Exit Sign	50	0.100	Z-MR	8760	876		2	N XLED	New 3 watt LED Exit Sign	3	0.006	1.128	ES-LED-RW-B	43
909	SELINSGROVE	INTERIOR	S	1	11	12	MISSION READY		VESTIBULE	125E	2LU32	1	T8 2x2 2-Lamp U-Lamp Troffer Fixture with 6" Lamps	62	0.062	Z-MR	8760	543		1	RF 2LR-10LED2'	Retrofit with (2) 10 Watt LED T8 2' Lamps and (1) 2x2 2-Lamp White Reflector Kit; Direct Wire to Socket	20	0.020	0.504	KT-LED7T8-24GC-840-D /// R-2-21-2-T8-X-W-X-X	1 + 55

											EXISTING FIXTURES									PROPOSED FIXTURE UPGRADE						
ID #	Facility Name	Phase	Utility Rate Code	Floor	Map #	Building Number	Building Usage Type	Building Section	Room Description	Room #	ECM Code	Qty	Description	Watts	kW	Burn Hour Code	Pre Burn Hours	kWh	x	Qty	New Code	Description	Watts	kW	Annual KW Saved	Part#	Cut Sheet #
910	SELINSGROVE	INTERIOR	S	1	11	12	MISSION READY		VESTIBULE		X	1	25 Watt Incandescent 2-Lamp Exit Sign	50	0.050	Z-MR	8760	438		1	N XLED	New 3 watt LED Exit Sign	3	0.003	0.564	ES-LED-RW-B	43
911	SELINSGROVE	INTERIOR	S	1	12	12	MISSION READY		HALLWAY	121	4L25-4'	5	T8 2x4 4-Lamp Troffer Fixture	85	0.425	Z-MR	8760	3,723		5	R 4L-12.5LED	Retrofit with (4) 12.5 Watt LED T8 4' Lamps; Direct Wire to Socket	50	0.250	2.100	KT-LED10.5T8-48G-840-D	3
912	SELINSGROVE	INTERIOR	S	1	12	12	MISSION READY		HALLWAY		X	2	25 Watt Incandescent 2-Lamp Exit Sign	50	0.100	Z-MR	8760	876		2	N XLED	New 3 watt LED Exit Sign	3	0.006	1.128	ES-LED-RW-B	43
913	SELINSGROVE	INTERIOR	S	1	13	12	MISSION READY		VESTIBULE	121E	2LU32	1	T8 2x2 2-Lamp U-Lamp Troffer Fixture with 6" Lamps	62	0.062	Z-MR	8760	543		1	RF 2LR-10LED2'	Retrofit with (2) 10 Watt LED T8 2' Lamps and (1) 2x2 2-Lamp White Reflector Kit; Direct Wire to Socket	20	0.020	0.504	KT-LED7T8-24GC-840-D /// R-2-21-2-T8-X-W-X-X	1 + 55
914	SELINSGROVE	INTERIOR	S	1	13	12	MISSION READY		VESTIBULE		CF20DL6	1	20 Watt Compact Fluorescent 6" Downlight Fixture	20	0.020	Z-MR	8760	175		1	R LLED9DL6	Retrofit with 9 Watt LED 6" Downlight Kit	9	0.009	0.132	LDN6RV 40/05 LR6AR LSS MVOLT EZ10	22
915	SELINSGROVE	INTERIOR	S	1	13	12	MISSION READY		VESTIBULE		X	1	25 Watt Incandescent 2-Lamp Exit Sign	50	0.050	Z-MR	8760	438		1	N XLED	New 3 watt LED Exit Sign	3	0.003	0.564	ES-LED-RW-B	43
916	SELINSGROVE	INTERIOR	S	B	14	12	MISSION READY		STEPS	38	1W17	2	T8 2x2 1-Lamp Wrap Fixture	22	0.044	Z-MR	8760	385		2	R 1L-10LED2'	Retrofit with (1) 10 Watt LED T8 2' Lamp; Direct Wire to Socket	10	0.020	0.288	KT-LED7T8-24GC-840-D	1
917	SELINSGROVE	INTERIOR	S	B	14	12	MISSION READY		STEPS		2PL13DR	1	13 Watt Plug-In CFL Drum Fixture	26	0.026	Z-MR	8760	228		1	N LED14DR	New 12" Round 14 Watt LED Drum Fixture	14	0.014	0.144	54074143	19
918	SELINSGROVE	INTERIOR	S	B	14	12	MISSION READY		STEPS		CF20SQDL-DA	1	20 Watt Compact Fluorescent Square Downlight Fixture; Difficult Access	20	0.020	Z-MR	8760	175		1	LED 9A-DA	Re-Lamp with (1) 9 Watt LED A19 Lamps; Difficult Access	9	0.009	0.132	LA19/9/40K/D-46	8
919	SELINSGROVE	INTERIOR	S	B	14	12	MISSION READY		STEPS		X	1	25 Watt Incandescent 2-Lamp Exit Sign	50	0.050	Z-MR	8760	438		1	N XLED	New 3 watt LED Exit Sign	3	0.003	0.564	ES-LED-RW-B	43
920	SELINSGROVE	INTERIOR	S	B	15	12	MISSION READY		HALLWAY	5	1I25-4'	4	T8 1x4 1-Lamp Industrial Strip Fixture	22	0.088	Z-MR	8760	771		4	R 1L-12.5LED	Retrofit with (1) 12.5 Watt LED T8 4' Lamps; Direct Wire to Socket	12.5	0.050	0.456	KT-LED10.5T8-48G-840-D	3
921	SELINSGROVE	INTERIOR	S	B	15	12	MISSION READY		HALLWAY		2PL13SC	1	13 Watt 2-Lamp Plug-In CFL Sconce Fixture	30	0.030	Z-MR	8760	263		1	RK KLED7-REC	Retrofit with (1) 7 Watt LED Rectangular Retrofit Kit	8.5	0.009	0.258	KT-RKIT-RP-6-800-840-UV /G2	54
922	SELINSGROVE	INTERIOR	S	B	15	12	MISSION READY		HALLWAY		XLED	1	3 Watt LED 2-Lamp Exit Sign	3	0.003	Z-MR	8760	26		1	ZZ DD	No Retrofit	3	0.003	0.000	N/A	N/A
923	SELINSGROVE	INTERIOR	S	B	16	12	MISSION READY		HALLWAY	2	1I25-4'	3	T8 1x4 1-Lamp Industrial Strip Fixture	22	0.066	Z-MR	8760	578		3	R 1L-12.5LED	Retrofit with (1) 12.5 Watt LED T8 4' Lamps; Direct Wire to Socket	12.5	0.038	0.342	KT-LED10.5T8-48G-840-D	3
924	SELINSGROVE	INTERIOR	S	B	16	12	MISSION READY		HALLWAY		2PL13SC	1	13 Watt 2-Lamp Plug-In CFL Sconce Fixture	30	0.030	Z-MR	8760	263		1	RK KLED7-REC	Retrofit with (1) 7 Watt LED Rectangular Retrofit Kit	8.5	0.009	0.258	KT-RKIT-RP-6-800-840-UV /G2	54
925	SELINSGROVE	INTERIOR	S	B	16	12	MISSION READY		HALLWAY		X	1	25 Watt Incandescent 2-Lamp Exit Sign	50	0.050	Z-MR	8760	438		1	N XLED	New 3 watt LED Exit Sign	3	0.003	0.564	ES-LED-RW-B	43
926	SELINSGROVE	INTERIOR	S	B	17	12	MISSION READY		VESTIBULE	4	2PL13SC	1	13 Watt 2-Lamp Plug-In CFL Sconce Fixture	30	0.030	Z-MR	8760	263		1	RK KLED7-REC	Retrofit with (1) 7 Watt LED Rectangular Retrofit Kit	8.5	0.009	0.258	KT-RKIT-RP-6-800-840-UV /G2	54
927	SELINSGROVE	INTERIOR	S	B	17	12	MISSION READY		VESTIBULE		X	1	25 Watt Incandescent 2-Lamp Exit Sign	50	0.050	Z-MR	8760	438		1	N XLED	New 3 watt LED Exit Sign	3	0.003	0.564	ES-LED-RW-B	43
928	SELINSGROVE	INTERIOR	S	B	18	12	MISSION READY		GENERATOR	11	1I25-4'	23	T8 1x4 1-Lamp Industrial Strip Fixture	22	0.506	S	1000	506		23	R 1L-12.5LED	Retrofit with (1) 12.5 Watt LED T8 4' Lamps; Direct Wire to Socket	12.5	0.288	2.622	KT-LED10.5T8-48G-840-D	3
929	SELINSGROVE	INTERIOR	S	B	18	12	MISSION READY		GENERATOR		4W25(W)-4'	1	T8 1x4 4-Lamp Wrap Fixture; Damaged/Missing Lens	85	0.085	S	1000	85		1	N 4W-12.5LED	New 1x4 4-Lamp Wrap Fixture with (4) 12.5 Watt LED T8 4' Lamp; Direct Wire to Socket	50	0.050	0.420	CCW-4'-4-T8LED /// KT-LED10.5T8-48G-840-D	53 + 3
930	SELINSGROVE	INTERIOR	S	B	18	12	MISSION READY		GENERATOR		XLED-BUG	1	LED Bug-Eye Exit Sign Fixture	3	0.003	S	1000	3		1	ZZ DD	No Retrofit	3	0.003	0.000	N/A	N/A
931	SELINSGROVE	INTERIOR	S	B	18	12	MISSION READY		GENERATOR		XLED	1	3 Watt LED 2-Lamp Exit Sign	3	0.003	S	1000	3		1	ZZ DD	No Retrofit	3	0.003	0.000	N/A	N/A
932	SELINSGROVE	INTERIOR	S	B	19	12	MISSION READY		HALLWAY	9	2W25-4'	3	T8 1x4 2-Lamp Wrap Fixture	43	0.129	Z-MR	8760	1,130		3	R 2L-12.5LED	Retrofit with (2) 12.5 Watt LED T8 4' Lamps; Direct Wire to Socket	25	0.075	0.648	KT-LED10.5T8-48G-840-D	3
933	SELINSGROVE	INTERIOR	S	B	19	12	MISSION READY		HALLWAY		1W25-4'	4	T8 1x4 1-Lamp Wrap Fixture	22	0.088	Z-MR	8760	771		4	R 1L-12.5LED	Retrofit with (1) 12.5 Watt LED T8 4' Lamps; Direct Wire to Socket	12.5	0.050	0.456	KT-LED10.5T8-48G-840-D	3
934	SELINSGROVE	INTERIOR	S	B	19	12	MISSION READY		HALLWAY		2PL13DR	1	13 Watt Plug-In CFL Drum Fixture	26	0.026	Z-MR	8760	228		1	N LED14DR	New 12" Round 14 Watt LED Drum Fixture	14	0.014	0.144	54074143	19
935	SELINSGROVE	INTERIOR	S	B	19	12	MISSION READY		HALLWAY		X	2	25 Watt Incandescent 2-Lamp Exit Sign	50	0.100	Z-MR	8760	876		2	N XLED	New 3 watt LED Exit Sign	3	0.006	1.128	ES-LED-RW-B	43
936	SELINSGROVE	EXTERIOR	S		20	12	MISSION READY		EXTERIOR		2PL13WP-PC-LARGE	3	13 Watt 2-Lamp Plug-In CFL Large Wall Pack Fixture; Photocell	30	0.090	EX	4380	394		3	N RLED12TWP	New 12 Watt LED Tall Wall Pack Fixture	14	0.042	0.576	ENTRA12	42
937	SELINSGROVE	EXTERIOR	S		20	12	MISSION READY		EXTERIOR		2PL13WP-PC-SMALL	8	13 Watt 2-Lamp Plug-In CFL Small Wall Pack Fixture; Photocell	30	0.240	EX	4380	1,051		8	N RLED12TWP	New 12 Watt LED Tall Wall Pack Fixture	14	0.112	1.536	ENTRA12	42
938	SELINSGROVE	INTERIOR	S	1	1	11	MISSION READY		KITCHEN	100	1W25-4'	5	T8 1x4 1-Lamp Wrap Fixture	22	0.110	S	1000	110		5	R 1L-12.5LED	Retrofit with (1) 12.5 Watt LED T8 4' Lamps; Direct Wire to Socket	12.5	0.063	0.570	KT-LED10.5T8-48G-840-D	3
939	SELINSGROVE	INTERIOR	S	1	1	11	MISSION READY		KITCHEN		15JJ	6	15 Watt Incandescent A-Lamp Jelly Jar Fixture	15	0.090	S	1000	90		6	LED 6A	Re-Lamp with (1) 6 Watt LED A19 Lamps	6	0.036	0.648	LA19/5/40K/D-46	7
940	SELINSGROVE	INTERIOR	S	1	2	11	MISSION READY		OPEN AREA	103	1W25-4'	26	T8 1x4 1-Lamp Wrap Fixture	22	0.572	Z-MR	8760	5,011		26	R 1L-12.5LED	Retrofit with (1) 12.5 Watt LED T8 4' Lamps; Direct Wire to Socket	12.5	0.325	2.964	KT-LED10.5T8-48G-840-D	3
941	SELINSGROVE	INTERIOR	S	1	2	11	MISSION READY		OPEN AREA		XLED	3	3 Watt LED 2-Lamp Exit Sign	3	0.009	Z	8760	79		3	ZZ DD	No Retrofit	3	0.009	0.000	N/A	N/A

											EXISTING FIXTURES									PROPOSED FIXTURE UPGRADE						
ID #	Facility Name	Phase	Utility Rate Code	Floor	Map #	Building Number	Building Usage Type	Building Section	Room Description	Room #	ECM Code	Qty	Description	Watts	kW	Burn Hour Code	Pre Burn Hours	kWh	x	Qty	New Code	Description	Watts	kW	Annual KW Saved	Part#	Cut Sheet #
942	SELINSGROVE	INTERIOR	S	1	3	11	MISSION READY		PASSAGEWAY	105	1W17	4	T8 2x2 1-Lamp Wrap Fixture	22	0.088	Z-MR	8760	771		4	R 1L-10LED2'	Retrofit with (1) 10 Watt LED T8 2' Lamp; Direct Wire to Socket	10	0.040	0.576	KT-LED7T8-24GC-840-D	1
943	SELINSGROVE	INTERIOR	S	1	3	11	MISSION READY		PASSAGEWAY		2W17	3	T8 2x2 2-Lamp Wrap Fixture	36	0.108	Z-MR	8760	946		3	R 2L-10LED2'	Retrofit with (2) 10 Watt LED T8 2' Lamps; Direct Wire to Socket	20	0.060	0.576	KT-LED7T8-24GC-840-D	1
944	SELINSGROVE	INTERIOR	S	1	3	11	MISSION READY		PASSAGEWAY		2PL13DR	2	13 Watt Plug-In CFL Drum Fixture	26	0.052	Z-MR	8760	456		2	N LED14DR	New 12" Round 14 Watt LED Drum Fixture	14	0.028	0.288	54074143	19
945	SELINSGROVE	INTERIOR	S	1	4	11	MISSION READY		STAIRS TO BASE	104	2PL13SC	1	13 Watt 2-Lamp Plug-In CFL Sconce Fixture	30	0.030	Z-MR	8760	263		1	RK KLED7-REC	Retrofit with (1) 7 Watt LED Rectangular Retrofit Kit	8.5	0.009	0.258	KT-RKIT-RP-6-800-840-UV /G2	54
946	SELINSGROVE	INTERIOR	S	B	5	11	MISSION READY		OPEN AREA	2	1I25-4'	3	T8 1x4 1-Lamp Industrial Strip Fixture	22	0.066	Z-MR	8760	578		3	R 1L-12.5LED	Retrofit with (1) 12.5 Watt LED T8 4' Lamps; Direct Wire to Socket	12.5	0.038	0.342	KT-LED10.5T8-48G-840-D	3
947	SELINSGROVE	INTERIOR	S	B	5	11	MISSION READY		OPEN AREA		1W17	2	T8 2x2 1-Lamp Wrap Fixture	22	0.044	Z-MR	8760	385		2	R 1L-10LED2'	Retrofit with (1) 10 Watt LED T8 2' Lamp; Direct Wire to Socket	10	0.020	0.288	KT-LED7T8-24GC-840-D	1
948	SELINSGROVE	INTERIOR	S	B	5	11	MISSION READY		OPEN AREA		CF20	2	20 Watt Compact Fluorescent Fixture	20	0.040	Z-MR	8760	350		2	LED 9A	Re-Lamp with (1) 9 Watt LED A19 Lamps	9	0.018	0.264	LA19/9/40K/D-46	8
949	SELINSGROVE	INTERIOR	S	1	6	11	MISSION READY		PASSAGEWAY		1W17	6	T8 2x2 1-Lamp Wrap Fixture	22	0.132	Z-MR	8760	1,156		6	R 1L-10LED2'	Retrofit with (1) 10 Watt LED T8 2' Lamp; Direct Wire to Socket	10	0.060	0.864	KT-LED7T8-24GC-840-D	1
950	SELINSGROVE	INTERIOR	S	1	6	11	MISSION READY		PASSAGEWAY		2W17	3	T8 2x2 2-Lamp Wrap Fixture	36	0.108	Z-MR	8760	946		3	R 2L-10LED2'	Retrofit with (2) 10 Watt LED T8 2' Lamps; Direct Wire to Socket	20	0.060	0.576	KT-LED7T8-24GC-840-D	1
951	SELINSGROVE	INTERIOR	S	1	6	11	MISSION READY		PASSAGEWAY		XLED	1	3 Watt LED 2-Lamp Exit Sign	3	0.003	Z	8760	26		1	ZZ DD	No Retrofit	3	0.003	0.000	N/A	N/A
952	SELINSGROVE	EXTERIOR	S		7	11	MISSION READY		EXTERIOR		2PL13WP-PC-LARGE	1	13 Watt 2-Lamp Plug-In CFL Large Wall Pack Fixture; Photocell	30	0.030	EX	4380	131		1	N RLED12TWP	New 12 Watt LED Tall Wall Pack Fixture	14	0.014	0.192	ENTRA12	42
953	SELINSGROVE	EXTERIOR	S		7	11	MISSION READY		EXTERIOR		2PL13WP-PC-SMALL	6	13 Watt 2-Lamp Plug-In CFL Small Wall Pack Fixture; Photocell	30	0.180	EX	4380	788		6	N RLED12TWP	New 12 Watt LED Tall Wall Pack Fixture	14	0.084	1.152	ENTRA12	42
954	SELINSGROVE	EXTERIOR	S		7	11	MISSION READY		EXTERIOR		2PL13CPY-PC	1	13 Watt 2-Lamp Plug-In CFL Canopy Fixture; Photocell	30	0.030	EX	4380	131		1	N RLED10CPY-PC	New 10 Watt LED Canopy Fixture; Photocell	12	0.012	0.216	VANLED10/PCS2	26
955	SELINSGROVE	INTERIOR	S	1	1	5	24/7 & OCCUPIED	CM2	SUPPLIES	201	2EC25-4'	1	T8 2x4 2-Lamp Egg Crate Fixture	43	0.043	S	1000	43		1	N 2W-12.5LED	New 1x4 2-Lamp Wrap Fixture with (2) 12.5 Watt LED T8 4' Lamp; Direct Wire to Socket	25	0.025	0.216	CCW-4'-2-T8LED /// KT-LED10.5T8-48G-840-D	51 + 3
956	SELINSGROVE	INTERIOR	S	1	2	5	24/7 & OCCUPIED	CM2	SOLARIUM	200	2L25-1X4	7	T8 1x4 2-Lamp Troffer Fixture	43	0.301	BH	5460	1,643		7	R 2L-12.5LED	Retrofit with (2) 12.5 Watt LED T8 4' Lamps; Direct Wire to Socket	25	0.175	1.512	KT-LED10.5T8-48G-840-D	3
957	SELINSGROVE	INTERIOR	S	1	2	5	24/7 & OCCUPIED	CM2	SOLARIUM	200	XLED	1	3 Watt LED 2-Lamp Exit Sign	3	0.003	Z	8760	26		1	ZZ DD	No Retrofit	3	0.003	0.000	N/A	N/A
958	SELINSGROVE	INTERIOR	S	1	3	5	24/7 & OCCUPIED	CM2	OFFICE	215	2EC25-4'	1	T8 2x4 2-Lamp Egg Crate Fixture	43	0.043	O	2340	101		1	N 2W-12.5LED	New 1x4 2-Lamp Wrap Fixture with (2) 12.5 Watt LED T8 4' Lamp; Direct Wire to Socket	25	0.025	0.216	CCW-4'-2-T8LED /// KT-LED10.5T8-48G-840-D	51 + 3
959	SELINSGROVE	INTERIOR	S	1	4	5	24/7 & OCCUPIED	CM2	LIVING AREA	202-205	3L25-4'	18	T8 2x4 3-Lamp Troffer Fixture	65	1.170	BH	5460	6,388		18	R 3L-12.5LED	Retrofit with (3) 12.5 Watt LED T8 4' Lamps; Direct Wire to Socket	37.5	0.675	5.940	KT-LED10.5T8-48G-840-D	3
960	SELINSGROVE	INTERIOR	S	1	4	5	24/7 & OCCUPIED	CM2	DAY ROOM	202-205	XLED	2	3 Watt LED 2-Lamp Exit Sign	3	0.006	Z	8760	53		2	ZZ DD	No Retrofit	3	0.006	0.000	N/A	N/A
961	SELINSGROVE	INTERIOR	S	1	4	5	24/7 & OCCUPIED	CM2	DAY ROOM	202-205	2PL13DR	2	13 Watt Plug-In CFL Drum Fixture	26	0.052	BH	5460	284		2	N LED14DR	New 12" Round 14 Watt LED Drum Fixture	14	0.028	0.288	54074143	19
962	SELINSGROVE	INTERIOR	S	1	4	5	24/7 & OCCUPIED	CM2	DAY ROOM	202-205	2PL13SC	4	13 Watt Plug-In CFL sconce Fixture	26	0.104	BH	5460	568		4	RK KLED7-REC	Retrofit with (1) 7 Watt LED Rectangular Retrofit Kit	8.5	0.034	0.840	KT-RKIT-RP-6-800-840-UV /G2	54
963	SELINSGROVE	INTERIOR	S	1	5	5	24/7 & OCCUPIED	CM2	BED	211	1W17	2	T8 2x2 1-Lamp Wrap Fixture	22	0.044	BH	5460	240		2	R 1L-10LED2'	Retrofit with (1) 10 Watt LED T8 2' Lamp; Direct Wire to Socket	10	0.020	0.288	KT-LED7T8-24GC-840-D	1
964	SELINSGROVE	INTERIOR	S	1	5	5	24/7 & OCCUPIED	CM2	BED	211	60SC	4	60 Watt Incandescent Sconce Fixture	60	0.240	BH	5460	1,310		4	LED 9A	Re-Lamp with (1) 9 Watt LED A19 Lamps	9	0.036	2.448	LA19/9/40K/D-46	8
965	SELINSGROVE	INTERIOR	S	1	6	5	24/7 & OCCUPIED	CM2	BED	212	1W17	2	T8 2x2 1-Lamp Wrap Fixture	22	0.044	BH	5460	240		2	R 1L-10LED2'	Retrofit with (1) 10 Watt LED T8 2' Lamp; Direct Wire to Socket	10	0.020	0.288	KT-LED7T8-24GC-840-D	1
966	SELINSGROVE	INTERIOR	S	1	6	5	24/7 & OCCUPIED	CM2	BED	212	60SC	4	60 Watt Incandescent Sconce Fixture	60	0.240	BH	5460	1,310		4	LED 9A	Re-Lamp with (1) 9 Watt LED A19 Lamps	9	0.036	2.448	LA19/9/40K/D-46	8
967	SELINSGROVE	INTERIOR	S	1	6	5	24/7 & OCCUPIED	CM2	BED	212	2V17	2	T8 1x2 2-Lamp Vanity Fixture	29	0.058	BH	5460	317		2	R 2L-10LED2'	Retrofit with (2) 10 Watt LED T8 2' Lamps; Direct Wire to Socket	20	0.040	0.216	KT-LED7T8-24GC-840-D	1
968	SELINSGROVE	INTERIOR	S	1	7	5	24/7 & OCCUPIED	CM2	BED	213	1W17	2	T8 2x2 1-Lamp Wrap Fixture	22	0.044	BH	5460	240		2	R 1L-10LED2'	Retrofit with (1) 10 Watt LED T8 2' Lamp; Direct Wire to Socket	10	0.020	0.288	KT-LED7T8-24GC-840-D	1
969	SELINSGROVE	INTERIOR	S	1	7	5	24/7 & OCCUPIED	CM2	BED	213	60SC	4	60 Watt Incandescent Sconce Fixture	60	0.240	BH	5460	1,310		4	LED 9A	Re-Lamp with (1) 9 Watt LED A19 Lamps	9	0.036	2.448	LA19/9/40K/D-46	8
970	SELINSGROVE	INTERIOR	S	1	8	5	24/7 & OCCUPIED	CM2	BED	214	1W17	2	T8 2x2 1-Lamp Wrap Fixture	22	0.044	BH	5460	240		2	R 1L-10LED2'	Retrofit with (1) 10 Watt LED T8 2' Lamp; Direct Wire to Socket	10	0.020	0.288	KT-LED7T8-24GC-840-D	1
971	SELINSGROVE	INTERIOR	S	1	8	5	24/7 & OCCUPIED	CM2	BED	214	60SC	4	60 Watt Incandescent Sconce Fixture	60	0.240	BH	5460	1,310		4	LED 9A	Re-Lamp with (1) 9 Watt LED A19 Lamps	9	0.036	2.448	LA19/9/40K/D-46	8
972	SELINSGROVE	INTERIOR	S	1	9	5	24/7 & OCCUPIED	CM2	BED	203	1W17	2	T8 2x2 1-Lamp Wrap Fixture	22	0.044	BH	5460	240		2	R 1L-10LED2'	Retrofit with (1) 10 Watt LED T8 2' Lamp; Direct Wire to Socket	10	0.020	0.288	KT-LED7T8-24GC-840-D	1
973	SELINSGROVE	INTERIOR	S	1	9	5	24/7 & OCCUPIED	CM2	BED	203	60SC	4	60 Watt Incandescent Sconce Fixture	60	0.240	BH	5460	1,310		4	LED 9A	Re-Lamp with (1) 9 Watt LED A19 Lamps	9	0.036	2.448	LA19/9/40K/D-46	8

											EXISTING FIXTURES									PROPOSED FIXTURE UPGRADE							
ID #	Facility Name	Phase	Utility Rate Code	Floor	Map #	Building Number	Building Usage Type	Building Section	Room Description	Room #	ECM Code	Qty	Description	Watts	kW	Burn Hour Code	Pre Burn Hours	kWh	x	Qty	New Code	Description	Watts	kW	Annual KW Saved	Part#	Cut Sheet #
974	SELINSGROVE	INTERIOR	S	1	10	5	24/7 & OCCUPIED	CM2	BED	204	1W17	2	T8 2x2 1-Lamp Wrap Fixture	22	0.044	BH	5460	240		2	R 1L-10LED2'	Retrofit with (1) 10 Watt LED T8 2' Lamp; Direct Wire to Socket	10	0.020	0.288	KT-LED7T8-24GC-840-D	1
975	SELINSGROVE	INTERIOR	S	1	10	5	24/7 & OCCUPIED	CM2	BED	204	60SC	4	60 Watt Incandescent Sconce Fixture	60	0.240	BH	5460	1,310		4	LED 9A	Re-Lamp with (1) 9 Watt LED A19 Lamps	9	0.036	2.448	LA19/9/40K/D-46	8
976	SELINSGROVE	INTERIOR	S	1	11	5	24/7 & OCCUPIED	CM2	BED	206	1W17	2	T8 2x2 1-Lamp Wrap Fixture	22	0.044	BH	5460	240		2	R 1L-10LED2'	Retrofit with (1) 10 Watt LED T8 2' Lamp; Direct Wire to Socket	10	0.020	0.288	KT-LED7T8-24GC-840-D	1
977	SELINSGROVE	INTERIOR	S	1	11	5	24/7 & OCCUPIED	CM2	BED	206	60SC	4	60 Watt Incandescent Sconce Fixture	60	0.240	BH	5460	1,310		4	LED 9A	Re-Lamp with (1) 9 Watt LED A19 Lamps	9	0.036	2.448	LA19/9/40K/D-46	8
978	SELINSGROVE	INTERIOR	S	1	12	5	24/7 & OCCUPIED	CM2	BED	207	1W17	2	T8 2x2 1-Lamp Wrap Fixture	22	0.044	BH	5460	240		2	R 1L-10LED2'	Retrofit with (1) 10 Watt LED T8 2' Lamp; Direct Wire to Socket	10	0.020	0.288	KT-LED7T8-24GC-840-D	1
979	SELINSGROVE	INTERIOR	S	1	12	5	24/7 & OCCUPIED	CM2	BED	207	60SC	4	60 Watt Incandescent Sconce Fixture	60	0.240	BH	5460	1,310		4	LED 9A	Re-Lamp with (1) 9 Watt LED A19 Lamps	9	0.036	2.448	LA19/9/40K/D-46	8
980	SELINSGROVE	INTERIOR	S	1	13	5	24/7 & OCCUPIED	CM2	RR / SHOWER	208	2VT25-4'	5	T8 1x4 2-Lamp Vaportight Fixture	43	0.215	Z	8760	1,883		5	R 2L-12.5LED	Retrofit with (2) 12.5 Watt LED T8 4' Lamps; Direct Wire to Socket	25	0.125	1.080	KT-LED10.5T8-48G-840-D	3
981	SELINSGROVE	INTERIOR	S	1	13	5	24/7 & OCCUPIED	CM2	RR / SHOWER	208	2V17	3	T8 1x2 2-Lamp Vanity Fixture	29	0.087	Z	8760	762		3	R 2L-10LED2'	Retrofit with (2) 10 Watt LED T8 2' Lamps; Direct Wire to Socket	20	0.060	0.324	KT-LED7T8-24GC-840-D	1
982	SELINSGROVE	INTERIOR	S	1	13	5	24/7 & OCCUPIED	CM2	RR / SHOWER	208	CF13DL10	1	13 Watt Compact Fluorescent 10" Downlight Fixture	13	0.013	Z	8760	114		1	R LLED9DL10	Retrofit with 9 Watt LED 10" Downlight Kit	9	0.009	0.048	LDN10RV 40/05 LR6AR LSS MVOLT EZ10	23
983	SELINSGROVE	INTERIOR	S	1	13	5	24/7 & OCCUPIED	CM2	RR / PIPE CHASE	208	60A	1	60 Watt Incandescent A-Lamp Fixture	60	0.060	S	1000	60		1	LED 9A	Re-Lamp with (1) 9 Watt LED A19 Lamps	9	0.009	0.612	LA19/9/40K/D-46	8
984	SELINSGROVE	INTERIOR	S	1	14	5	24/7 & OCCUPIED	CM2	RR / SHOWER	210	2VT25-4'	7	T8 1x4 2-Lamp Vaportight Fixture	43	0.301	Z	8760	2,637		7	R 2L-12.5LED	Retrofit with (2) 12.5 Watt LED T8 4' Lamps; Direct Wire to Socket	25	0.175	1.512	KT-LED10.5T8-48G-840-D	3
985	SELINSGROVE	INTERIOR	S	1	14	5	24/7 & OCCUPIED	CM2	RR / SHOWER	210	CF13DL10	2	13 Watt Compact Fluorescent 10" Downlight Fixture	13	0.026	Z	8760	228		2	R LLED9DL10	Retrofit with 9 Watt LED 10" Downlight Kit	9	0.018	0.096	LDN10RV 40/05 LR6AR LSS MVOLT EZ10	23
986	SELINSGROVE	INTERIOR	S	1	14	5	24/7 & OCCUPIED	CM2	RR / SHOWER	210	2V17	3	T8 1x2 2-Lamp Vanity Fixture	29	0.087	Z	8760	762		3	R 2L-10LED2'	Retrofit with (2) 10 Watt LED T8 2' Lamps; Direct Wire to Socket	20	0.060	0.324	KT-LED7T8-24GC-840-D	1
987	SELINSGROVE	INTERIOR	S	1	14	5	24/7 & OCCUPIED	CM2	RR / PIPE CHASE	210	60A	4	60 Watt Incandescent A-Lamp Fixture	60	0.240	S	1000	240		4	LED 9A	Re-Lamp with (1) 9 Watt LED A19 Lamps	9	0.036	2.448	LA19/9/40K/D-46	8
988	SELINSGROVE	INTERIOR	S	1	15	5	24/7 & OCCUPIED	CM2	NURSE STATION	217	2EC25-4'	1	T8 2x4 2-Lamp Egg Crate Fixture	43	0.043	Z	8760	377		1	N 2W-12.5LED	New 1x4 2-Lamp Wrap Fixture with (2) 12.5 Watt LED T8 4' Lamp; Direct Wire to Socket	25	0.025	0.216	CCW-4'-2-T8LED /// KT-LED10.5T8-48G-840-D	51 + 3
989	SELINSGROVE	INTERIOR	S	1	16	5	24/7 & OCCUPIED	CM2	ELECTRIC	2443	CF23	1	23 Watt Compact Fluorescent Fixture	23	0.023	S	1000	23		1	LED 9A	Re-Lamp with (1) 9 Watt LED A19 Lamps	9	0.009	0.168	LA19/9/40K/D-46	8
990	SELINSGROVE	INTERIOR	S	1	17	5	24/7 & OCCUPIED	CM2	RR	2442	CF13G	1	13 Watt Compact Fluorescent Globe Fixture	13	0.013	Z	8760	114		1	LED 8GLOBE	Re-Lamp with (1) 8 Watt LED G25 Globe	8	0.008	0.060	LG25/6/827/D	13
991	SELINSGROVE	INTERIOR	S	1	18	5	24/7 & OCCUPIED	CM2	JANITOR CLOSET	2441	CF13	1	13 Watt Compact Fluorescent Fixture	13	0.013	S	1000	13		1	LED 9A	Re-Lamp with (1) 9 Watt LED A19 Lamps	9	0.009	0.048	LA19/9/40K/D-46	8
992	SELINSGROVE	INTERIOR	S	1	19	5	24/7 & OCCUPIED	CM2	OFFICE	209	CF13DR-HALO	2	13 Watt Compact Fluorescent Drum Fixture; Halo	13	0.026	O	2340	61		2	LED 9A	Re-Lamp with (1) 9 Watt LED A19 Lamps	9	0.018	0.096	LA19/9/40K/D-46	8
993	SELINSGROVE	INTERIOR	S	1	20	5	24/7 & OCCUPIED	CM2	COMP	2440	4EC25-4'	2	T8 2x4 4-Lamp Egg Crate Fixture	85	0.170	S	1000	170		2	N 4W-12.5LED	New 1x4 4-Lamp Wrap Fixture with (4) 12.5 Watt LED T8 4' Lamp; Direct Wire to Socket	50	0.100	0.840	CCW-4'-4-T8LED /// KT-LED10.5T8-48G-840-D	53 + 3
994	SELINSGROVE	INTERIOR	S	1	20	5	24/7 & OCCUPIED	CM2	RR		3PL13DR	1	13 Watt 3-Lamp Plug-In CFL Drum Fixture	45	0.045	Z	8760	394		1	N LED22DR	New 16" Round 22 Watt LED Drum Fixture	22	0.022	0.276	54075142	20
995	SELINSGROVE	INTERIOR	S	1	21	5	24/7 & OCCUPIED	CM2	DINING ROOM	218	3PL13DR	4	13 Watt 3-Lamp Plug-In CFL Drum Fixture	45	0.180	Z	8760	1,577		4	N LED22DR	New 16" Round 22 Watt LED Drum Fixture	22	0.088	1.104	54075142	20
996	SELINSGROVE	INTERIOR	S	1	21	5	24/7 & OCCUPIED	CM2	DINING ROOM	219	2EC25-4'	2	T8 2x4 2-Lamp Egg Crate Fixture	43	0.086	Z	8760	753		2	N 2W-12.5LED	New 1x4 2-Lamp Wrap Fixture with (2) 12.5 Watt LED T8 4' Lamp; Direct Wire to Socket	25	0.050	0.432	CCW-4'-2-T8LED /// KT-LED10.5T8-48G-840-D	51 + 3
997	SELINSGROVE	INTERIOR	S	1	22	5	24/7 & OCCUPIED	CM2	NURSE ROOM	219	2L25-1X4	8	T8 1x4 2-Lamp Troffer Fixture	43	0.344	Z	8760	3,013		8	R 2L-12.5LED	Retrofit with (2) 12.5 Watt LED T8 4' Lamps; Direct Wire to Socket	25	0.200	1.728	KT-LED10.5T8-48G-840-D	3
998	SELINSGROVE	INTERIOR	S	1	23	5	24/7 & OCCUPIED	CM2	HALL		2L25-1X4	2	T8 1x4 2-Lamp Troffer Fixture	43	0.086	Z	8760	753		2	R 2L-12.5LED	Retrofit with (2) 12.5 Watt LED T8 4' Lamps; Direct Wire to Socket	25	0.050	0.432	KT-LED10.5T8-48G-840-D	3
999	SELINSGROVE	INTERIOR	S	1	23	5	24/7 & OCCUPIED	CM2	HALL		XLED	1	3 Watt LED 2-Lamp Exit Sign	3	0.003	Z	8760	26		1	ZZ DD	No Retrofit	3	0.003	0.000	N/A	N/A
1000	SELINSGROVE	INTERIOR	S	1	24	5	24/7 & OCCUPIED	CM2	STAIR	220	1W17	2	T8 2x2 1-Lamp Wrap Fixture	22	0.044	Z	8760	385		2	R 1L-10LED2'	Retrofit with (1) 10 Watt LED T8 2' Lamp; Direct Wire to Socket	10	0.020	0.288	KT-LED7T8-24GC-840-D	1
1001	SELINSGROVE	INTERIOR	S	1	24	5	24/7 & OCCUPIED	CM2	STAIR	220	1W17-DA	1	T8 1x2 1-Lamp Wrap Fixture; Difficult Access	17	0.017	Z	8760	149		1	R 1L-10LED2'-DA	Retrofit with (1) 10 Watt LED T8 2' Lamp; Direct Wire to Socket; Difficult Access	10	0.010	0.084	KT-LED7T8-24GC-840-D	1
1002	SELINSGROVE	INTERIOR	S	1	24	5	24/7 & OCCUPIED	CM2	STAIR	220	2W25(W)-4'	1	T8 1x4 2-Lamp Wrap Fixture; Damaged/Missing Lens	43	0.043	Z	8760	377		1	N 2W-12.5LED	New 1x4 2-Lamp Wrap Fixture with (2) 12.5 Watt LED T8 4' Lamp; Direct Wire to Socket	25	0.025	0.216	CCW-4'-2-T8LED /// KT-LED10.5T8-48G-840-D	51 + 3
1003	SELINSGROVE	INTERIOR	S	1	24	5	24/7 & OCCUPIED	CM2	STAIR	220	XLED	1	3 Watt LED 2-Lamp Exit Sign	3	0.003	Z	8760	26		1	ZZ DD	No Retrofit	3	0.003	0.000	N/A	N/A
1004	SELINSGROVE	INTERIOR	S	1	25	5	24/7 & OCCUPIED	CM4	NURSE STATION	2438	2EC25-4'	2	T8 2x4 2-Lamp Egg Crate Fixture	43	0.086	Z	8760	753		2	N 2W-12.5LED	New 1x4 2-Lamp Wrap Fixture with (2) 12.5 Watt LED T8 4' Lamp; Direct Wire to Socket	25	0.050	0.432	CCW-4'-2-T8LED /// KT-LED10.5T8-48G-840-D	51 + 3
1005	SELINSGROVE	INTERIOR	S	1	25	5	24/7 & OCCUPIED	CM4	RR		60G	1	60 Watt Incandescent Globe Fixture	60	0.060	Z	8760	526		1	LED 8GLOBE	Re-Lamp with (1) 8 Watt LED G25 Globe	8	0.008	0.624	LG25/6/827/D	13

											EXISTING FIXTURES									PROPOSED FIXTURE UPGRADE							
ID #	Facility Name	Phase	Utility Rate Code	Floor	Map #	Building Number	Building Usage Type	Building Section	Room Description	Room #	ECM Code	Qty	Description	Watts	kW	Burn Hour Code	Pre Burn Hours	kWh	x	Qty	New Code	Description	Watts	kW	Annual KW Saved	Part#	Cut Sheet #
1006	SELINSGROVE	INTERIOR	S	1	26	5	24/7 & OCCUPIED	CM4	BREAK ROOM	2432	2EC25-4'	1	T8 2x4 2-Lamp Egg Crate Fixture	43	0.043	O	2340	101		1	N 2W-12.5LED	New 1x4 2-Lamp Wrap Fixture with (2) 12.5 Watt LED T8 4' Lamp; Direct Wire to Socket	25	0.025	0.216	CCW-4'-2-T8LED /// KT-LED10.5T8-48G-840-D	51 + 3
1007	SELINSGROVE	INTERIOR	S	1	27	5	24/7 & OCCUPIED	CM4	SOLARIUM	2441	2L25-1X4	7	T8 1x4 2-Lamp Troffer Fixture	43	0.301	BH	5460	1,643		7	R 2L-12.5LED	Retrofit with (2) 12.5 Watt LED T8 4' Lamps; Direct Wire to Socket	25	0.175	1.512	KT-LED10.5T8-48G-840-D	3
1008	SELINSGROVE	INTERIOR	S	1	28	5	24/7 & OCCUPIED	CM4	OFFICE	2431	2EC25-4'	1	T8 2x4 2-Lamp Egg Crate Fixture	43	0.043	O	2340	101		1	N 2W-12.5LED	New 1x4 2-Lamp Wrap Fixture with (2) 12.5 Watt LED T8 4' Lamp; Direct Wire to Socket	25	0.025	0.216	CCW-4'-2-T8LED /// KT-LED10.5T8-48G-840-D	51 + 3
1009	SELINSGROVE	INTERIOR	S	1	29	5	24/7 & OCCUPIED	CM4	DAY ROOM	2424	2L25-4'	18	T8 2x4 2-Lamp Troffer Fixture	43	0.774	BH	5460	4,226		18	R 2L-12.5LED	Retrofit with (2) 12.5 Watt LED T8 4' Lamps; Direct Wire to Socket	25	0.450	3.888	KT-LED10.5T8-48G-840-D	3
1010	SELINSGROVE	INTERIOR	S	1	29	5	24/7 & OCCUPIED	CM4	DAY ROOM		2PL13SC	4	13 Watt Plug-In CFL sconce Fixture	26	0.104	BH	5460	568		4	RK KLED7-REC	Retrofit with (1) 7 Watt LED Rectangular Retrofit Kit	8.5	0.034	0.840	KT-RKIT-RP-6-800-840-UV/G2	54
1011	SELINSGROVE	INTERIOR	S	1	29	5	24/7 & OCCUPIED	CM4	DAY ROOM		2PL13DR	2	13 Watt Plug-In CFL Drum Fixture	26	0.052	BH	5460	284		2	N LED14DR	New 12" Round 14 Watt LED Drum Fixture	14	0.028	0.288	54074143	19
1012	SELINSGROVE	INTERIOR	S	1	29	5	24/7 & OCCUPIED	CM4	DAY ROOM		XLED	3	3 Watt LED 2-Lamp Exit Sign	3	0.009	Z	8760	79		3	ZZ DD	No Retrofit	3	0.009	0.000	N/A	N/A
1013	SELINSGROVE	INTERIOR	S	1	30	5	24/7 & OCCUPIED	CM4	BED	2433	1W17	2	T8 2x2 1-Lamp Wrap Fixture	22	0.044	BH	5460	240		2	R 1L-10LED2'	Retrofit with (1) 10 Watt LED T8 2' Lamp; Direct Wire to Socket	10	0.020	0.288	KT-LED7T8-24GC-840-D	1
1014	SELINSGROVE	INTERIOR	S	1	30	5	24/7 & OCCUPIED	CM4	BED	2433	60SC	4	60 Watt Incandescent Sconce Fixture	60	0.240	BH	5460	1,310		4	LED 9A	Re-Lamp with (1) 9 Watt LED A19 Lamps	9	0.036	2.448	LA19/9/40K/D-46	8
1015	SELINSGROVE	INTERIOR	S	1	31	5	24/7 & OCCUPIED	CM4	BED	2426	1W17	2	T8 2x2 1-Lamp Wrap Fixture	22	0.044	BH	5460	240		2	R 1L-10LED2'	Retrofit with (1) 10 Watt LED T8 2' Lamp; Direct Wire to Socket	10	0.020	0.288	KT-LED7T8-24GC-840-D	1
1016	SELINSGROVE	INTERIOR	S	1	31	5	24/7 & OCCUPIED	CM4	BED	2426	60SC	4	60 Watt Incandescent Sconce Fixture	60	0.240	BH	5460	1,310		4	LED 9A	Re-Lamp with (1) 9 Watt LED A19 Lamps	9	0.036	2.448	LA19/9/40K/D-46	8
1017	SELINSGROVE	INTERIOR	S	1	32	5	24/7 & OCCUPIED	CM4	BED	2428	1W17	2	T8 2x2 1-Lamp Wrap Fixture	22	0.044	BH	5460	240		2	R 1L-10LED2'	Retrofit with (1) 10 Watt LED T8 2' Lamp; Direct Wire to Socket	10	0.020	0.288	KT-LED7T8-24GC-840-D	1
1018	SELINSGROVE	INTERIOR	S	1	32	5	24/7 & OCCUPIED	CM4	BED	2428	60SC	4	60 Watt Incandescent Sconce Fixture	60	0.240	BH	5460	1,310		4	LED 9A	Re-Lamp with (1) 9 Watt LED A19 Lamps	9	0.036	2.448	LA19/9/40K/D-46	8
1019	SELINSGROVE	INTERIOR	S	1	33	5	24/7 & OCCUPIED	CM4	BED	2429	1W17	2	T8 2x2 1-Lamp Wrap Fixture	22	0.044	BH	5460	240		2	R 1L-10LED2'	Retrofit with (1) 10 Watt LED T8 2' Lamp; Direct Wire to Socket	10	0.020	0.288	KT-LED7T8-24GC-840-D	1
1020	SELINSGROVE	INTERIOR	S	1	34	5	24/7 & OCCUPIED	CM4	BED	2433	1W17	2	T8 2x2 1-Lamp Wrap Fixture	22	0.044	BH	5460	240		2	R 1L-10LED2'	Retrofit with (1) 10 Watt LED T8 2' Lamp; Direct Wire to Socket	10	0.020	0.288	KT-LED7T8-24GC-840-D	1
1021	SELINSGROVE	INTERIOR	S	1	34	5	24/7 & OCCUPIED	CM4	BED	2433	60SC	4	60 Watt Incandescent Sconce Fixture	60	0.240	BH	5460	1,310		4	LED 9A	Re-Lamp with (1) 9 Watt LED A19 Lamps	9	0.036	2.448	LA19/9/40K/D-46	8
1022	SELINSGROVE	INTERIOR	S	1	35	5	24/7 & OCCUPIED	CM4	BED	2434	1W17	2	T8 2x2 1-Lamp Wrap Fixture	22	0.044	BH	5460	240		2	R 1L-10LED2'	Retrofit with (1) 10 Watt LED T8 2' Lamp; Direct Wire to Socket	10	0.020	0.288	KT-LED7T8-24GC-840-D	1
1023	SELINSGROVE	INTERIOR	S	1	35	5	24/7 & OCCUPIED	CM4	BED	2434	60SC	4	60 Watt Incandescent Sconce Fixture	60	0.240	BH	5460	1,310		4	LED 9A	Re-Lamp with (1) 9 Watt LED A19 Lamps	9	0.036	2.448	LA19/9/40K/D-46	8
1024	SELINSGROVE	INTERIOR	S	1	36	5	24/7 & OCCUPIED	CM4	BED	2435	1W17	2	T8 2x2 1-Lamp Wrap Fixture	22	0.044	BH	5460	240		2	R 1L-10LED2'	Retrofit with (1) 10 Watt LED T8 2' Lamp; Direct Wire to Socket	10	0.020	0.288	KT-LED7T8-24GC-840-D	1
1025	SELINSGROVE	INTERIOR	S	1	36	5	24/7 & OCCUPIED	CM4	BED		60SC	3	60 Watt Incandescent Sconce Fixture	60	0.180	BH	5460	983		3	LED 9A	Re-Lamp with (1) 9 Watt LED A19 Lamps	9	0.027	1.836	LA19/9/40K/D-46	8
1026	SELINSGROVE	INTERIOR	S	1	37	5	24/7 & OCCUPIED	CM4	BED	2436	1W17	2	T8 2x2 1-Lamp Wrap Fixture	22	0.044	BH	5460	240		2	R 1L-10LED2'	Retrofit with (1) 10 Watt LED T8 2' Lamp; Direct Wire to Socket	10	0.020	0.288	KT-LED7T8-24GC-840-D	1
1027	SELINSGROVE	INTERIOR	S	1	38	5	24/7 & OCCUPIED	CM4	RR	2437	2W25-4'	2	T8 1x4 2-Lamp Wrap Fixture	43	0.086	Z	8760	753		2	R 2L-12.5LED	Retrofit with (2) 12.5 Watt LED T8 4' Lamps; Direct Wire to Socket	25	0.050	0.432	KT-LED10.5T8-48G-840-D	3
1028	SELINSGROVE	INTERIOR	S	1	38	5	24/7 & OCCUPIED	CM4	RR		2VT25-4'	5	T8 1x4 2-Lamp Vaportight Fixture	43	0.215	Z	8760	1,883		5	R 2L-12.5LED	Retrofit with (2) 12.5 Watt LED T8 4' Lamps; Direct Wire to Socket	25	0.125	1.080	KT-LED10.5T8-48G-840-D	3
1029	SELINSGROVE	INTERIOR	S	1	38	5	24/7 & OCCUPIED	CM4	SHOWER		CF13DL10	2	13 Watt Compact Fluorescent 10" Downlight Fixture	13	0.026	Z	8760	228		2	R LLED9DL10	Retrofit with 9 Watt LED 10" Downlight Kit	9	0.018	0.096	LDN10RV 40/05 LR6AR LSS MVOLT EZ10	23
1030	SELINSGROVE	INTERIOR	S	1	38	5	24/7 & OCCUPIED	CM4	PIPE CHASE		60A	2	60 Watt Incandescent A-Lamp Fixture	60	0.120	S	1000	120		2	LED 9A	Re-Lamp with (1) 9 Watt LED A19 Lamps	9	0.018	1.224	LA19/9/40K/D-46	8
1031	SELINSGROVE	INTERIOR	S	1	38	5	24/7 & OCCUPIED	CM4	PIPE CHASE		2V17	3	T8 1x2 2-Lamp Vanity Fixture	29	0.087	S	1000	87		3	R 2L-10LED2'	Retrofit with (2) 10 Watt LED T8 2' Lamps; Direct Wire to Socket	20	0.060	0.324	KT-LED7T8-24GC-840-D	1
1032	SELINSGROVE	INTERIOR	S	1	38	5	24/7 & OCCUPIED	CM4	CLOSET		60G-HALO	1	60 Watt Incandescent Globe Fixture; Halo	60	0.060	S	1000	60		1	LED 8GLOBE	Re-Lamp with (1) 8 Watt LED G25 Globe	8	0.008	0.624	LG25/6/827/D	13
1033	SELINSGROVE	INTERIOR	S	1	39	5	24/7 & OCCUPIED	CM4	RR	2423	2VT25-4'	5	T8 1x4 2-Lamp Vaportight Fixture	43	0.215	Z	8760	1,883		5	R 2L-12.5LED	Retrofit with (2) 12.5 Watt LED T8 4' Lamps; Direct Wire to Socket	25	0.125	1.080	KT-LED10.5T8-48G-840-D	3
1034	SELINSGROVE	INTERIOR	S	1	39	5	24/7 & OCCUPIED	CM4	RR		2V17	3	T8 1x2 2-Lamp Vanity Fixture	29	0.087	Z	8760	762		3	R 2L-10LED2'	Retrofit with (2) 10 Watt LED T8 2' Lamps; Direct Wire to Socket	20	0.060	0.324	KT-LED7T8-24GC-840-D	1
1035	SELINSGROVE	INTERIOR	S	1	39	5	24/7 & OCCUPIED	CM4	SHOWER		CF13DL10	2	13 Watt Compact Fluorescent 10" Downlight Fixture	13	0.026	Z	8760	228		2	R LLED9DL10	Retrofit with 9 Watt LED 10" Downlight Kit	9	0.018	0.096	LDN10RV 40/05 LR6AR LSS MVOLT EZ10	23
1036	SELINSGROVE	INTERIOR	S	1	39	5	24/7 & OCCUPIED	CM4	PIPE CHASE		60A	2	60 Watt Incandescent A-Lamp Fixture	60	0.120	S	1000	120		2	LED 9A	Re-Lamp with (1) 9 Watt LED A19 Lamps	9	0.018	1.224	LA19/9/40K/D-46	8
1037	SELINSGROVE	INTERIOR	S	1	40	5	24/7 & OCCUPIED	CM4	JANITOR CLOSET	112	CF13	1	13 Watt Compact Fluorescent Fixture	13	0.013	S	1000	13		1	LED 9A	Re-Lamp with (1) 9 Watt LED A19 Lamps	9	0.009	0.048	LA19/9/40K/D-46	8

											EXISTING FIXTURES									PROPOSED FIXTURE UPGRADE							
ID #	Facility Name	Phase	Utility Rate Code	Floor	Map #	Building Number	Building Usage Type	Building Section	Room Description	Room #	ECM Code	Qty	Description	Watts	kW	Burn Hour Code	Pre Burn Hours	kWh	x	Qty	New Code	Description	Watts	kW	Annual KW Saved	Part#	Cut Sheet #
1038	SELINSGROVE	INTERIOR	S	1	41	5	24/7 & OCCUPIED	CM4	HALL		CF13SQDL-10X10	3	13 Watt Compact Fluorescent Square Downlight Fixture; 10x10	13	0.039	Z	8760	342		3	LED 9A	Re-Lamp with (1) 9 Watt LED A19 Lamps	9	0.027	0.144	LA19/9/40K/D-46	8
1039	SELINSGROVE	INTERIOR	S	1	41	5	24/7 & OCCUPIED	CM4	HALL		1W17	1	T8 2x2 1-Lamp Wrap Fixture	22	0.022	Z	8760	193		1	R 1L-10LED2'	Retrofit with (1) 10 Watt LED T8 2' Lamp; Direct Wire to Socket	10	0.010	0.144	KT-LED7T8-24GC-840-D	1
1040	SELINSGROVE	INTERIOR	S	1	41	5	24/7 & OCCUPIED	CM4	HALL		XLED	1	3 Watt LED 2-Lamp Exit Sign	3	0.003	Z	8760	26		1	ZZ DD	No Retrofit	3	0.003	0.000	N/A	N/A
1041	SELINSGROVE	INTERIOR	S	1	41	5	24/7 & OCCUPIED	CM4	HALL		2PL13WP	2	13 Watt 2-Lamp Plug-In CFL Wall Pack Fixture	30	0.060	Z	8760	526		2	N RLED12TWP	New 12 Watt LED Tall Wall Pack Fixture	14	0.028	0.384	ENTRA12	42
1042	SELINSGROVE	INTERIOR	S	1	42	5	24/7 & OCCUPIED	CM5	STORAGE	224	2EC25-4'	1	T8 2x4 2-Lamp Egg Crate Fixture	43	0.043	S	1000	43		1	N 2W-12.5LED	New 1x4 2-Lamp Wrap Fixture with (2) 12.5 Watt LED T8 4' Lamp; Direct Wire to Socket	25	0.025	0.216	CCW-4'-2-T8LED /// KT-LED10.5T8-48G-840-D	51 + 3
1043	SELINSGROVE	INTERIOR	S	1	43	5	24/7 & OCCUPIED	CM5	BED	225	2EC25-4'	1	T8 2x4 2-Lamp Egg Crate Fixture	43	0.043	BH	5460	235		1	N 2W-12.5LED	New 1x4 2-Lamp Wrap Fixture with (2) 12.5 Watt LED T8 4' Lamp; Direct Wire to Socket	25	0.025	0.216	CCW-4'-2-T8LED /// KT-LED10.5T8-48G-840-D	51 + 3
1044	SELINSGROVE	INTERIOR	S	1	44	5	24/7 & OCCUPIED	CM5	BED	226	2EC25-4'	1	T8 2x4 2-Lamp Egg Crate Fixture	43	0.043	BH	5460	235		1	N 2W-12.5LED	New 1x4 2-Lamp Wrap Fixture with (2) 12.5 Watt LED T8 4' Lamp; Direct Wire to Socket	25	0.025	0.216	CCW-4'-2-T8LED /// KT-LED10.5T8-48G-840-D	51 + 3
1045	SELINSGROVE	INTERIOR	S	1	45	5	24/7 & OCCUPIED	CM5	BED	227	2EC25-4'	1	T8 2x4 2-Lamp Egg Crate Fixture	43	0.043	BH	5460	235		1	N 2W-12.5LED	New 1x4 2-Lamp Wrap Fixture with (2) 12.5 Watt LED T8 4' Lamp; Direct Wire to Socket	25	0.025	0.216	CCW-4'-2-T8LED /// KT-LED10.5T8-48G-840-D	51 + 3
1046	SELINSGROVE	INTERIOR	S	1	46	5	24/7 & OCCUPIED	CM5	BED	228	2EC25-4'	1	T8 2x4 2-Lamp Egg Crate Fixture	43	0.043	BH	5460	235		1	N 2W-12.5LED	New 1x4 2-Lamp Wrap Fixture with (2) 12.5 Watt LED T8 4' Lamp; Direct Wire to Socket	25	0.025	0.216	CCW-4'-2-T8LED /// KT-LED10.5T8-48G-840-D	51 + 3
1047	SELINSGROVE	INTERIOR	S	1	47	5	24/7 & OCCUPIED	CM5	BED	229	2EC25-4'	1	T8 2x4 2-Lamp Egg Crate Fixture	43	0.043	BH	5460	235		1	N 2W-12.5LED	New 1x4 2-Lamp Wrap Fixture with (2) 12.5 Watt LED T8 4' Lamp; Direct Wire to Socket	25	0.025	0.216	CCW-4'-2-T8LED /// KT-LED10.5T8-48G-840-D	51 + 3
1048	SELINSGROVE	INTERIOR	S	1	48	5	24/7 & OCCUPIED	CM5	BED	230	2EC25-4'	1	T8 2x4 2-Lamp Egg Crate Fixture	43	0.043	BH	5460	235		1	N 2W-12.5LED	New 1x4 2-Lamp Wrap Fixture with (2) 12.5 Watt LED T8 4' Lamp; Direct Wire to Socket	25	0.025	0.216	CCW-4'-2-T8LED /// KT-LED10.5T8-48G-840-D	51 + 3
1049	SELINSGROVE	INTERIOR	S	1	49	5	24/7 & OCCUPIED	CM5	BED	231	2EC25-4'	1	T8 2x4 2-Lamp Egg Crate Fixture	43	0.043	BH	5460	235		1	N 2W-12.5LED	New 1x4 2-Lamp Wrap Fixture with (2) 12.5 Watt LED T8 4' Lamp; Direct Wire to Socket	25	0.025	0.216	CCW-4'-2-T8LED /// KT-LED10.5T8-48G-840-D	51 + 3
1050	SELINSGROVE	INTERIOR	S	1	50	5	24/7 & OCCUPIED	CM5	BED	232	2EC25-4'	1	T8 2x4 2-Lamp Egg Crate Fixture	43	0.043	BH	5460	235		1	N 2W-12.5LED	New 1x4 2-Lamp Wrap Fixture with (2) 12.5 Watt LED T8 4' Lamp; Direct Wire to Socket	25	0.025	0.216	CCW-4'-2-T8LED /// KT-LED10.5T8-48G-840-D	51 + 3
1051	SELINSGROVE	INTERIOR	S	1	51	5	24/7 & OCCUPIED	CM5	BED	233	2EC25-4'	1	T8 2x4 2-Lamp Egg Crate Fixture	43	0.043	BH	5460	235		1	N 2W-12.5LED	New 1x4 2-Lamp Wrap Fixture with (2) 12.5 Watt LED T8 4' Lamp; Direct Wire to Socket	25	0.025	0.216	CCW-4'-2-T8LED /// KT-LED10.5T8-48G-840-D	51 + 3
1052	SELINSGROVE	INTERIOR	S	1	52	5	24/7 & OCCUPIED	CM5	BED	234	2EC25-4'	1	T8 2x4 2-Lamp Egg Crate Fixture	43	0.043	BH	5460	235		1	N 2W-12.5LED	New 1x4 2-Lamp Wrap Fixture with (2) 12.5 Watt LED T8 4' Lamp; Direct Wire to Socket	25	0.025	0.216	CCW-4'-2-T8LED /// KT-LED10.5T8-48G-840-D	51 + 3
1053	SELINSGROVE	INTERIOR	S	1	53	5	24/7 & OCCUPIED	CM5	BED	235	2EC25-4'	1	T8 2x4 2-Lamp Egg Crate Fixture	43	0.043	BH	5460	235		1	N 2W-12.5LED	New 1x4 2-Lamp Wrap Fixture with (2) 12.5 Watt LED T8 4' Lamp; Direct Wire to Socket	25	0.025	0.216	CCW-4'-2-T8LED /// KT-LED10.5T8-48G-840-D	51 + 3
1054	SELINSGROVE	INTERIOR	S	1	54	5	24/7 & OCCUPIED	CM5	BED	236	2EC25-4'	1	T8 2x4 2-Lamp Egg Crate Fixture	43	0.043	BH	5460	235		1	N 2W-12.5LED	New 1x4 2-Lamp Wrap Fixture with (2) 12.5 Watt LED T8 4' Lamp; Direct Wire to Socket	25	0.025	0.216	CCW-4'-2-T8LED /// KT-LED10.5T8-48G-840-D	51 + 3
1055	SELINSGROVE	INTERIOR	S	1	55	5	24/7 & OCCUPIED	CM5	BED	237	2EC25-4'	1	T8 2x4 2-Lamp Egg Crate Fixture	43	0.043	BH	5460	235		1	N 2W-12.5LED	New 1x4 2-Lamp Wrap Fixture with (2) 12.5 Watt LED T8 4' Lamp; Direct Wire to Socket	25	0.025	0.216	CCW-4'-2-T8LED /// KT-LED10.5T8-48G-840-D	51 + 3
1056	SELINSGROVE	INTERIOR	S	1	56	5	24/7 & OCCUPIED	CM5	BED	238	2EC25-4'	1	T8 2x4 2-Lamp Egg Crate Fixture	43	0.043	BH	5460	235		1	N 2W-12.5LED	New 1x4 2-Lamp Wrap Fixture with (2) 12.5 Watt LED T8 4' Lamp; Direct Wire to Socket	25	0.025	0.216	CCW-4'-2-T8LED /// KT-LED10.5T8-48G-840-D	51 + 3
1057	SELINSGROVE	INTERIOR	S	1	57	5	24/7 & OCCUPIED	CM5	BED	239	2EC25-4'	1	T8 2x4 2-Lamp Egg Crate Fixture	43	0.043	BH	5460	235		1	N 2W-12.5LED	New 1x4 2-Lamp Wrap Fixture with (2) 12.5 Watt LED T8 4' Lamp; Direct Wire to Socket	25	0.025	0.216	CCW-4'-2-T8LED /// KT-LED10.5T8-48G-840-D	51 + 3
1058	SELINSGROVE	INTERIOR	S	1	58	5	24/7 & OCCUPIED	CM5	BED	240	2EC25-4'	1	T8 2x4 2-Lamp Egg Crate Fixture	43	0.043	BH	5460	235		1	N 2W-12.5LED	New 1x4 2-Lamp Wrap Fixture with (2) 12.5 Watt LED T8 4' Lamp; Direct Wire to Socket	25	0.025	0.216	CCW-4'-2-T8LED /// KT-LED10.5T8-48G-840-D	51 + 3
1059	SELINSGROVE	INTERIOR	S	1	59	5	24/7 & OCCUPIED	CM5	OFFICE	241	2EC25-4'	1	T8 2x4 2-Lamp Egg Crate Fixture	43	0.043	O	2340	101		1	N 2W-12.5LED	New 1x4 2-Lamp Wrap Fixture with (2) 12.5 Watt LED T8 4' Lamp; Direct Wire to Socket	25	0.025	0.216	CCW-4'-2-T8LED /// KT-LED10.5T8-48G-840-D	51 + 3
1060	SELINSGROVE	INTERIOR	S	1	60	5	24/7 & OCCUPIED	CM5	SITTING ROOM	242	2EC25-4'	2	T8 2x4 2-Lamp Egg Crate Fixture	43	0.086	O	2340	201		2	N 2W-12.5LED	New 1x4 2-Lamp Wrap Fixture with (2) 12.5 Watt LED T8 4' Lamp; Direct Wire to Socket	25	0.050	0.432	CCW-4'-2-T8LED /// KT-LED10.5T8-48G-840-D	51 + 3
1061	SELINSGROVE	INTERIOR	S	1	61	5	24/7 & OCCUPIED	CM5	RR	244	2W25-4'	1	T8 1x4 2-Lamp Wrap Fixture	43	0.043	Z	8760	377		1	R 2L-12.5LED	Retrofit with (2) 12.5 Watt LED T8 4' Lamps; Direct Wire to Socket	25	0.025	0.216	KT-LED10.5T8-48G-840-D	3
1062	SELINSGROVE	INTERIOR	S	1	61	5	24/7 & OCCUPIED	CM5	RR		2V17	1	T8 1x2 2-Lamp Vanity Fixture	29	0.029	Z	8760	254		1	R 2L-10LED2'	Retrofit with (2) 10 Watt LED T8 2' Lamps; Direct Wire to Socket	20	0.020	0.108	KT-LED7T8-24GC-840-D	1
1063	SELINSGROVE	INTERIOR	S	1	62	5	24/7 & OCCUPIED	CM5	RR	245	2W25-4'	2	T8 1x4 2-Lamp Wrap Fixture	43	0.086	Z	8760	753		2	R 2L-12.5LED	Retrofit with (2) 12.5 Watt LED T8 4' Lamps; Direct Wire to Socket	25	0.050	0.432	KT-LED10.5T8-48G-840-D	3
1064	SELINSGROVE	INTERIOR	S	1	62	5	24/7 & OCCUPIED	CM5	RR		2V17	1	T8 1x2 2-Lamp Vanity Fixture	29	0.029	Z	8760	254		1	R 2L-10LED2'	Retrofit with (2) 10 Watt LED T8 2' Lamps; Direct Wire to Socket	20	0.020	0.108	KT-LED7T8-24GC-840-D	1
1065	SELINSGROVE	INTERIOR	S	1	62	5	24/7 & OCCUPIED	CM5	PIPE CHASE		CF26	1	26 Watt Compact Fluorescent Fixture	26	0.026	S	1000	26		1	LED 9A	Re-Lamp with (1) 9 Watt LED A19 Lamps	9	0.009	0.204	LA19/9/40K/D-46	8
1066	SELINSGROVE	INTERIOR	S	1	63	5	24/7 & OCCUPIED	CM5	RR	247	2W25-4'	1	T8 1x4 2-Lamp Wrap Fixture	43	0.043	Z	8760	377		1	R 2L-12.5LED	Retrofit with (2) 12.5 Watt LED T8 4' Lamps; Direct Wire to Socket	25	0.025	0.216	KT-LED10.5T8-48G-840-D	3
1067	SELINSGROVE	INTERIOR	S	1	63	5	24/7 & OCCUPIED	CM5	RR		2V17	1	T8 1x2 2-Lamp Vanity Fixture	29	0.029	Z	8760	254		1	R 2L-10LED2'	Retrofit with (2) 10 Watt LED T8 2' Lamps; Direct Wire to Socket	20	0.020	0.108	KT-LED7T8-24GC-840-D	1
1068	SELINSGROVE	INTERIOR	S	1	63	5	24/7 & OCCUPIED	CM5	RR		2PL26CPY	1	26 Watt 2-Lamp Plug-In CFL Canopy Fixture	58	0.058	Z	8760	508		1	N RLED20CPY	New 20 Watt LED Canopy Fixture	21	0.021	0.444	VANLED20	27
1069	SELINSGROVE	INTERIOR	S	1	63	5	24/7 & OCCUPIED	CM5	PIPE CHASE		CF13	1	13 Watt Compact Fluorescent Fixture	13	0.013	S	1000	13		1	LED 9A	Re-Lamp with (1) 9 Watt LED A19 Lamps	9	0.009	0.048	LA19/9/40K/D-46	8

										EXISTING FIXTURES									PROPOSED FIXTURE UPGRADE						
ID #	Facility Name	Phase	Utility Rate Code	Floor	Map #	Building Number	Building Usage Type	Building Section	Room Description	Room #	ECM Code	Qty	Description	Watts	kW	Burn Hour Code	Pre Burn Hours	kWh	x	Qty	New Code	Description	Watts	kW	Annual KW Saved	Part#	Cut Sheet #
1070	SELINSGROVE	INTERIOR	S	1	63	5	24/7 & OCCUPIED	CM5	LAUNDRY		2W25-4'	1	T8 1x4 2-Lamp Wrap Fixture	43	0.043	S	1000	43		1	R 2L-12.5LED	Retrofit with (2) 12.5 Watt LED T8 4' Lamps; Direct Wire to Socket	25	0.025	0.216	KT-LED10.5T8-48G-840-D	3
1071	SELINSGROVE	INTERIOR	S	1	63	5	24/7 & OCCUPIED	CM5	LAUNDRY		2V17	1	T8 1x2 2-Lamp Vanity Fixture	29	0.029	S	1000	29		1	R 2L-10LED2'	Retrofit with (2) 10 Watt LED T8 2' Lamps; Direct Wire to Socket	20	0.020	0.108	KT-LED7T8-24GC-840-D	1
1072	SELINSGROVE	INTERIOR	S	1	64	5	24/7 & OCCUPIED	CM5	HALL		4L25-4'	9	T8 2x4 4-Lamp Troffer Fixture	85	0.765	Z	8760	6,701		9	R 4L-12.5LED	Retrofit with (4) 12.5 Watt LED T8 4' Lamps; Direct Wire to Socket	50	0.450	3.780	KT-LED10.5T8-48G-840-D	3
1073	SELINSGROVE	INTERIOR	S	1	64	5	24/7 & OCCUPIED	CM5	HALL		XLED	2	3 Watt LED 2-Lamp Exit Sign	3	0.006	Z	8760	53		2	ZZ DD	No Retrofit	3	0.006	0.000	N/A	N/A
1074	SELINSGROVE	INTERIOR	S	1	64	5	24/7 & OCCUPIED	CM5	HALL		2PL13SC	6	13 Watt Plug-In CFL sconce Fixture	26	0.156	Z	8760	1,367		6	RK KLED7-REC	Retrofit with (1) 7 Watt LED Rectangular Retrofit Kit	8.5	0.051	1.260	KT-RKIT-RP-6-800-840-UV/G2	54
1075	SELINSGROVE	INTERIOR	S	1	64	5	24/7 & OCCUPIED	CM5	HALL		2PL13DR	1	13 Watt Plug-In CFL Drum Fixture	26	0.026	Z	8760	228		1	N LED14DR	New 12" Round 14 Watt LED Drum Fixture	14	0.014	0.144	54074143	19
1076	SELINSGROVE	INTERIOR	S	1	65	5	24/7 & OCCUPIED	CM5	VACANT	248	CF13CPY-HALO	3	13 Watt Compact Fluorescent Canopy Fixture; Halo	13	0.039	S	1000	39		3	LED 9A	Re-Lamp with (1) 9 Watt LED A19 Lamps	9	0.027	0.144	LA19/9/40K/D-46	8
1077	SELINSGROVE	INTERIOR	S	1	66	5	24/7 & OCCUPIED	CM5	OFFICE	249	2EC25-4'	2	T8 2x4 2-Lamp Egg Crate Fixture	43	0.086	O	2340	201		2	N 2W-12.5LED	New 1x4 2-Lamp Wrap Fixture with (2) 12.5 Watt LED T8 4' Lamp; Direct Wire to Socket	25	0.050	0.432	CCW-4'-2-T8LED /// KT-LED10.5T8-48G-840-D	51 + 3
1078	SELINSGROVE	INTERIOR	S	1	66	5	24/7 & OCCUPIED	CM5	RR		1W17	1	T8 2x2 1-Lamp Wrap Fixture	22	0.022	Z	8760	193		1	R 1L-10LED2'	Retrofit with (1) 10 Watt LED T8 2' Lamp; Direct Wire to Socket	10	0.010	0.144	KT-LED7T8-24GC-840-D	1
1079	SELINSGROVE	INTERIOR	S	1	66	5	24/7 & OCCUPIED	CM5	RR		CF13SC	1	13 Watt Compact Fluorescent Sconce Fixture	13	0.013	Z	8760	114		1	LED 9A	Re-Lamp with (1) 9 Watt LED A19 Lamps	9	0.009	0.048	LA19/9/40K/D-46	8
1080	SELINSGROVE	INTERIOR	S	1	67	5	24/7 & OCCUPIED	CM5	DINING ROOM	2421	1W17	8	T8 2x2 1-Lamp Wrap Fixture	22	0.176	Z	8760	1,542		8	R 1L-10LED2'	Retrofit with (1) 10 Watt LED T8 2' Lamp; Direct Wire to Socket	10	0.080	1.152	KT-LED7T8-24GC-840-D	1
1081	SELINSGROVE	INTERIOR	S	1	67	5	24/7 & OCCUPIED	CM5	DINING ROOM		2PL13WP	1	13 Watt 2-Lamp Plug-In CFL Wall Pack Fixture	30	0.030	Z	8760	263		1	N RLED12TWP	New 12 Watt LED Tall Wall Pack Fixture	14	0.014	0.192	ENTRA12	42
1082	SELINSGROVE	INTERIOR	S	1	68	5	24/7 & OCCUPIED	CM5	LAUNDRY	2420	1W17	2	T8 2x2 1-Lamp Wrap Fixture	22	0.044	S	1000	44		2	R 1L-10LED2'	Retrofit with (1) 10 Watt LED T8 2' Lamp; Direct Wire to Socket	10	0.020	0.288	KT-LED7T8-24GC-840-D	1
1083	SELINSGROVE	INTERIOR	S	1	69	5	24/7 & OCCUPIED	CM5	LAUNDRY	2420A	1I25-4'	1	T8 1x4 1-Lamp Industrial Strip Fixture	22	0.022	S	1000	22		1	R 1L-12.5LED	Retrofit with (1) 12.5 Watt LED T8 4' Lamps; Direct Wire to Socket	12.5	0.013	0.114	KT-LED10.5T8-48G-840-D	3
1084	SELINSGROVE	INTERIOR	S	1	70	5	24/7 & OCCUPIED	CM5	HALL	2423-249	1W17	3	T8 2x2 1-Lamp Wrap Fixture	22	0.066	Z	8760	578		3	R 1L-10LED2'	Retrofit with (1) 10 Watt LED T8 2' Lamp; Direct Wire to Socket	10	0.030	0.432	KT-LED7T8-24GC-840-D	1
1085	SELINSGROVE	INTERIOR	S	1	70	5	24/7 & OCCUPIED	CM5	HALL		2L25-1X4	3	T8 1x4 2-Lamp Troffer Fixture	43	0.129	Z	8760	1,130		3	R 2L-12.5LED	Retrofit with (2) 12.5 Watt LED T8 4' Lamps; Direct Wire to Socket	25	0.075	0.648	KT-LED10.5T8-48G-840-D	3
1086	SELINSGROVE	INTERIOR	S	1	71	5	24/7 & OCCUPIED	CM 6&7	BREAK ROOM	250	2EC25-4'	1	T8 2x4 2-Lamp Egg Crate Fixture	43	0.043	O	2340	101		1	N 2W-12.5LED	New 1x4 2-Lamp Wrap Fixture with (2) 12.5 Watt LED T8 4' Lamp; Direct Wire to Socket	25	0.025	0.216	CCW-4'-2-T8LED /// KT-LED10.5T8-48G-840-D	51 + 3
1087	SELINSGROVE	INTERIOR	S	1	71	5	24/7 & OCCUPIED	CM 6&7	BREAK ROOM		4EC25-4'	1	T8 2x4 4-Lamp Egg Crate Fixture	85	0.085	O	2340	199		1	N 4W-12.5LED	New 1x4 4-Lamp Wrap Fixture with (4) 12.5 Watt LED T8 4' Lamp; Direct Wire to Socket	50	0.050	0.420	CCW-4'-4-T8LED /// KT-LED10.5T8-48G-840-D	53 + 3
1088	SELINSGROVE	INTERIOR	S	1	72	5	24/7 & OCCUPIED	CM 6&7	OFFICE	251	2EC25-4'	1	T8 2x4 2-Lamp Egg Crate Fixture	43	0.043	O	2340	101		1	N 2W-12.5LED	New 1x4 2-Lamp Wrap Fixture with (2) 12.5 Watt LED T8 4' Lamp; Direct Wire to Socket	25	0.025	0.216	CCW-4'-2-T8LED /// KT-LED10.5T8-48G-840-D	51 + 3
1089	SELINSGROVE	INTERIOR	S	1	73	5	24/7 & OCCUPIED	CM 6&7	PROGRAM ROOM	2417	1W17	2	T8 2x2 1-Lamp Wrap Fixture	22	0.044	CPS	1827	80		2	R 1L-10LED2'	Retrofit with (1) 10 Watt LED T8 2' Lamp; Direct Wire to Socket	10	0.020	0.288	KT-LED7T8-24GC-840-D	1
1090	SELINSGROVE	INTERIOR	S	1	73	5	24/7 & OCCUPIED	CM 6&7	PROGRAM ROOM		CF13CPY-HALO	3	13 Watt Compact Fluorescent Canopy Fixture; Halo	13	0.039	CPS	1827	71		3	LED 9A	Re-Lamp with (1) 9 Watt LED A19 Lamps	9	0.027	0.144	LA19/9/40K/D-46	8
1091	SELINSGROVE	INTERIOR	S	1	73	5	24/7 & OCCUPIED	CM 6&7	PROGRAM ROOM		2PL13WP-CM	1	13 Watt 2-Lamp Plug-In CFL Wall Pack Fixture; Ceiling Mount	30	0.030	CPS	1827	55		1	N RLED24WP	New 24 Watt LED Wall Pack Fixture	24	0.024	0.072	WP2LED24	40
1092	SELINSGROVE	INTERIOR	S	1	73	5	24/7 & OCCUPIED	CM 6&7	PROGRAM ROOM	2416	1W17	3	T8 2x2 1-Lamp Wrap Fixture	22	0.066	CPS-ES	1279	84		3	R 1L-10LED2'	Retrofit with (1) 10 Watt LED T8 2' Lamp; Direct Wire to Socket	10	0.030	0.432	KT-LED7T8-24GC-840-D	1
1093	SELINSGROVE	INTERIOR	S	1	73	5	24/7 & OCCUPIED	CM 6&7	PROGRAM ROOM		CF13CPY-HALO	1	13 Watt Compact Fluorescent Canopy Fixture; Halo	13	0.013	CPS	1827	24		1	LED 9A	Re-Lamp with (1) 9 Watt LED A19 Lamps	9	0.009	0.048	LA19/9/40K/D-46	8
1094	SELINSGROVE	INTERIOR	S	1	74	5	24/7 & OCCUPIED	CM 6&7	OFFICE	253	2EC25-4'	1	T8 2x4 2-Lamp Egg Crate Fixture	43	0.043	O	2340	101		1	N 2W-12.5LED	New 1x4 2-Lamp Wrap Fixture with (2) 12.5 Watt LED T8 4' Lamp; Direct Wire to Socket	25	0.025	0.216	CCW-4'-2-T8LED /// KT-LED10.5T8-48G-840-D	51 + 3
1095	SELINSGROVE	INTERIOR	S	1	75	5	24/7 & OCCUPIED	CM 6&7	OFFICE	254	2EC25-4'	2	T8 2x4 2-Lamp Egg Crate Fixture	43	0.086	O	2340	201		2	N 2W-12.5LED	New 1x4 2-Lamp Wrap Fixture with (2) 12.5 Watt LED T8 4' Lamp; Direct Wire to Socket	25	0.050	0.432	CCW-4'-2-T8LED /// KT-LED10.5T8-48G-840-D	51 + 3
1096	SELINSGROVE	INTERIOR	S	1	75	5	24/7 & OCCUPIED	CM 6&7	OFFICE		1W17	1	T8 2x2 1-Lamp Wrap Fixture	22	0.022	O	2340	51		1	R 1L-10LED2'	Retrofit with (1) 10 Watt LED T8 2' Lamp; Direct Wire to Socket	10	0.010	0.144	KT-LED7T8-24GC-840-D	1
1097	SELINSGROVE	INTERIOR	S	1	76	5	24/7 & OCCUPIED	CM 6&7	KITCHEN	255	1W17	3	T8 2x2 1-Lamp Wrap Fixture	22	0.066	Z	8760	578		3	R 1L-10LED2'	Retrofit with (1) 10 Watt LED T8 2' Lamp; Direct Wire to Socket	10	0.030	0.432	KT-LED7T8-24GC-840-D	1
1098	SELINSGROVE	INTERIOR	S	1	76	5	24/7 & OCCUPIED	CM 6&7	PIPE CHASE		60A	1	60 Watt Incandescent A-Lamp Fixture	60	0.060	S	1000	60		1	LED 9A	Re-Lamp with (1) 9 Watt LED A19 Lamps	9	0.009	0.612	LA19/9/40K/D-46	8
1099	SELINSGROVE	INTERIOR	S	1	77	5	24/7 & OCCUPIED	CM6	NURSE STATION	2415	2EC25-4'	2	T8 2x4 2-Lamp Egg Crate Fixture	43	0.086	Z	8760	753		2	N 2W-12.5LED	New 1x4 2-Lamp Wrap Fixture with (2) 12.5 Watt LED T8 4' Lamp; Direct Wire to Socket	25	0.050	0.432	CCW-4'-2-T8LED /// KT-LED10.5T8-48G-840-D	51 + 3
1100	SELINSGROVE	INTERIOR	S	1	77	5	24/7 & OCCUPIED	CM6	NURSE STATION		3PL13DR	1	13 Watt 3-Lamp Plug-In CFL Drum Fixture	45	0.045	Z	8760	394		1	N LED22DR	New 16" Round 22 Watt LED Drum Fixture	22	0.022	0.276	54075142	20
1101	SELINSGROVE	INTERIOR	S	1	78	5	24/7 & OCCUPIED	CM6	OFFICE	2409	4EC25-4'	1	T8 2x4 4-Lamp Egg Crate Fixture	85	0.085	O	2340	199		1	N 4W-12.5LED	New 1x4 4-Lamp Wrap Fixture with (4) 12.5 Watt LED T8 4' Lamp; Direct Wire to Socket	50	0.050	0.420	CCW-4'-4-T8LED /// KT-LED10.5T8-48G-840-D	53 + 3

											EXISTING FIXTURES									PROPOSED FIXTURE UPGRADE						
ID #	Facility Name	Phase	Utility Rate Code	Floor	Map #	Building Number	Building Usage Type	Building Section	Room Description	Room #	ECM Code	Qty	Description	Watts	kW	Burn Hour Code	Pre Burn Hours	kWh	x	Qty	New Code	Description	Watts	kW	Annual KW Saved	Part#	Cut Sheet #
1102	SELINSGROVE	INTERIOR	S	1	79	5	24/7 & OCCUPIED	CM6	SOLARIUM		2L25(L)-1X4	7	T8 1x4 2-Lamp Troffer Fixture; Damaged/Missing Lens	43	0.301	BH	5460	1,643		7	N 2L-12.5LED-1X4	New 1x4 2-Lamp Lay-In Troffer Fixture with (2) 12.5 Watt LED T8 4' Lamp; Direct Wire to Socket	25	0.175	1.512	RFN14-1X4-2-T8LED /// KT-LED10.5T8-48G-840-D	47 + 3
1103	SELINSGROVE	INTERIOR	S	1	79	5	24/7 & OCCUPIED	CM6	SOLARIUM		XLED	1	3 Watt LED 2-Lamp Exit Sign	3	0.003	Z	8760	26		1	ZZ DD	No Retrofit	3	0.003	0.000	N/A	N/A
1104	SELINSGROVE	INTERIOR	S	1	80	5	24/7 & OCCUPIED	CM6	OFFICE	2408	1W25-4'	1	T8 1x4 1-Lamp Wrap Fixture	22	0.022	O	2340	51		1	R 1L-12.5LED	Retrofit with (1) 12.5 Watt LED T8 4' Lamps; Direct Wire to Socket	12.5	0.013	0.114	KT-LED10.5T8-48G-840-D	3
1105	SELINSGROVE	INTERIOR	S	1	81	5	24/7 & OCCUPIED	CM6	DAY ROOM	2404	3L25-4'	18	T8 2x4 3-Lamp Troffer Fixture	65	1.170	BH	5460	6,388		18	R 3L-12.5LED	Retrofit with (3) 12.5 Watt LED T8 4' Lamps; Direct Wire to Socket	37.5	0.675	5.940	KT-LED10.5T8-48G-840-D	3
1106	SELINSGROVE	INTERIOR	S	1	81	5	24/7 & OCCUPIED	CM6	DAY ROOM		2PL13DR	3	13 Watt Plug-In CFL Drum Fixture	26	0.078	BH	5460	426		3	N LED14DR	New 12" Round 14 Watt LED Drum Fixture	14	0.042	0.432	54074143	19
1107	SELINSGROVE	INTERIOR	S	1	81	5	24/7 & OCCUPIED	CM6	DAY ROOM		XLED	2	3 Watt LED 2-Lamp Exit Sign	3	0.006	Z	8760	53		2	ZZ DD	No Retrofit	3	0.006	0.000	N/A	N/A
1108	SELINSGROVE	INTERIOR	S	1	82	5	24/7 & OCCUPIED	CM6	BED	2402	1W17	2	T8 2x2 1-Lamp Wrap Fixture	22	0.044	BH	5460	240		2	R 1L-10LED2'	Retrofit with (1) 10 Watt LED T8 2' Lamp; Direct Wire to Socket	10	0.020	0.288	KT-LED7T8-24GC-840-D	1
1108	SELINSGROVE	INTERIOR	S	1	82	5	24/7 & OCCUPIED	CM6	BED	2402	2v17	4	T8 1x2 2-Lamp Vanity Fixture	29	0.116	BH	5460	633		4	R 1L-10LED2'	Retrofit with (1) 10 Watt LED T8 2' Lamp; Direct Wire to Socket	10	0.040	0.912	KT-LED7T8-24GC-840-D	1
1109	SELINSGROVE	INTERIOR	S	1	82	5	24/7 & OCCUPIED	CM6	BED		60SC	4	60 Watt Incandescent Sconce Fixture	60	0.240	BH	5460	1,310		4	LED 9A	Re-Lamp with (1) 9 Watt LED A19 Lamps	9	0.036	2.448	LA19/9/40K/D-46	8
1110	SELINSGROVE	INTERIOR	S	1	83	5	24/7 & OCCUPIED	CM6	BED	2403	1W17	2	T8 2x2 1-Lamp Wrap Fixture	22	0.044	BH	5460	240		2	R 1L-10LED2'	Retrofit with (1) 10 Watt LED T8 2' Lamp; Direct Wire to Socket	10	0.020	0.288	KT-LED7T8-24GC-840-D	1
1111	SELINSGROVE	INTERIOR	S	1	83	5	24/7 & OCCUPIED	CM6	BED		60SC	4	60 Watt Incandescent Sconce Fixture	60	0.240	BH	5460	1,310		4	LED 9A	Re-Lamp with (1) 9 Watt LED A19 Lamps	9	0.036	2.448	LA19/9/40K/D-46	8
1112	SELINSGROVE	INTERIOR	S	1	84	5	24/7 & OCCUPIED	CM6	BED	2405	1W17	2	T8 2x2 1-Lamp Wrap Fixture	22	0.044	BH	5460	240		2	R 1L-10LED2'	Retrofit with (1) 10 Watt LED T8 2' Lamp; Direct Wire to Socket	10	0.020	0.288	KT-LED7T8-24GC-840-D	1
1113	SELINSGROVE	INTERIOR	S	1	84	5	24/7 & OCCUPIED	CM6	BED		60SC	4	60 Watt Incandescent Sconce Fixture	60	0.240	BH	5460	1,310		4	LED 9A	Re-Lamp with (1) 9 Watt LED A19 Lamps	9	0.036	2.448	LA19/9/40K/D-46	8
1114	SELINSGROVE	INTERIOR	S	1	85	5	24/7 & OCCUPIED	CM6	BED	2406	1W17	2	T8 2x2 1-Lamp Wrap Fixture	22	0.044	BH	5460	240		2	R 1L-10LED2'	Retrofit with (1) 10 Watt LED T8 2' Lamp; Direct Wire to Socket	10	0.020	0.288	KT-LED7T8-24GC-840-D	1
1115	SELINSGROVE	INTERIOR	S	1	85	5	24/7 & OCCUPIED	CM6	BED		60SC	4	60 Watt Incandescent Sconce Fixture	60	0.240	BH	5460	1,310		4	LED 9A	Re-Lamp with (1) 9 Watt LED A19 Lamps	9	0.036	2.448	LA19/9/40K/D-46	8
1116	SELINSGROVE	INTERIOR	S	1	86	5	24/7 & OCCUPIED	CM6	BED	2410	1W17	2	T8 2x2 1-Lamp Wrap Fixture	22	0.044	BH	5460	240		2	R 1L-10LED2'	Retrofit with (1) 10 Watt LED T8 2' Lamp; Direct Wire to Socket	10	0.020	0.288	KT-LED7T8-24GC-840-D	1
1117	SELINSGROVE	INTERIOR	S	1	86	5	24/7 & OCCUPIED	CM6	BED		60SC	4	60 Watt Incandescent Sconce Fixture	60	0.240	BH	5460	1,310		4	LED 9A	Re-Lamp with (1) 9 Watt LED A19 Lamps	9	0.036	2.448	LA19/9/40K/D-46	8
1118	SELINSGROVE	INTERIOR	S	1	86	5	24/7 & OCCUPIED	CM6	BED		1V17	2	T8 2x2 1-Lamp Vanity Fixture	22	0.044	BH	5460	240		2	R 1L-10LED2'	Retrofit with (1) 10 Watt LED T8 2' Lamp; Direct Wire to Socket	10	0.020	0.288	KT-LED7T8-24GC-840-D	1
1119	SELINSGROVE	INTERIOR	S	1	87	5	24/7 & OCCUPIED	CM6	BED	2411	1W17	2	T8 2x2 1-Lamp Wrap Fixture	22	0.044	BH	5460	240		2	R 1L-10LED2'	Retrofit with (1) 10 Watt LED T8 2' Lamp; Direct Wire to Socket	10	0.020	0.288	KT-LED7T8-24GC-840-D	1
1120	SELINSGROVE	INTERIOR	S	1	87	5	24/7 & OCCUPIED	CM6	BED		60SC	4	60 Watt Incandescent Sconce Fixture	60	0.240	BH	5460	1,310		4	LED 9A	Re-Lamp with (1) 9 Watt LED A19 Lamps	9	0.036	2.448	LA19/9/40K/D-46	8
1121	SELINSGROVE	INTERIOR	S	1	88	5	24/7 & OCCUPIED	CM6	BED	2412	1W17	2	T8 2x2 1-Lamp Wrap Fixture	22	0.044	BH	5460	240		2	R 1L-10LED2'	Retrofit with (1) 10 Watt LED T8 2' Lamp; Direct Wire to Socket	10	0.020	0.288	KT-LED7T8-24GC-840-D	1
1122	SELINSGROVE	INTERIOR	S	1	88	5	24/7 & OCCUPIED	CM6	BED		60SC	4	60 Watt Incandescent Sconce Fixture	60	0.240	BH	5460	1,310		4	LED 9A	Re-Lamp with (1) 9 Watt LED A19 Lamps	9	0.036	2.448	LA19/9/40K/D-46	8
1123	SELINSGROVE	INTERIOR	S	1	89	5	24/7 & OCCUPIED	CM6	DINING ROOM	2413	4L25-4'	4	T8 2x4 4-Lamp Troffer Fixture	85	0.340	Z	8760	2,978		4	R 4L-12.5LED	Retrofit with (4) 12.5 Watt LED T8 4' Lamps; Direct Wire to Socket	50	0.200	1.680	KT-LED10.5T8-48G-840-D	3
1124	SELINSGROVE	INTERIOR	S	1	90	5	24/7 & OCCUPIED	CM6	RR	2414	2VT25-4'	7	T8 1x4 2-Lamp Vaportight Fixture	43	0.301	Z	8760	2,637		7	R 2L-12.5LED	Retrofit with (2) 12.5 Watt LED T8 4' Lamps; Direct Wire to Socket	25	0.175	1.512	KT-LED10.5T8-48G-840-D	3
1125	SELINSGROVE	INTERIOR	S	1	90	5	24/7 & OCCUPIED	CM6	RR		2V17	3	T8 1x2 2-Lamp Vanity Fixture	29	0.087	Z	8760	762		3	R 2L-10LED2'	Retrofit with (2) 10 Watt LED T8 2' Lamps; Direct Wire to Socket	20	0.060	0.324	KT-LED7T8-24GC-840-D	1
1126	SELINSGROVE	INTERIOR	S	1	90	5	24/7 & OCCUPIED	CM6	SHOWER		CF13DL10	2	13 Watt Compact Fluorescent 10" Downlight Fixture	13	0.026	Z	8760	228		2	R LLED9DL10	Retrofit with 9 Watt LED 10" Downlight Kit	9	0.018	0.096	LDN10RV 40/05 LR6AR LSS MVOLT EZ10	23
1127	SELINSGROVE	INTERIOR	S	1	90	5	24/7 & OCCUPIED	CM6	CLOSET		60G-HALO	1	60 Watt Incandescent Globe Fixture; Halo	60	0.060	S	1000	60		1	LED 8GLOBE	Re-Lamp with (1) 8 Watt LED G25 Globe	8	0.008	0.624	LG25/6/827/D	13
1128	SELINSGROVE	INTERIOR	S	1	90	5	24/7 & OCCUPIED	CM6	PIPE CHASE		CF13	1	13 Watt Compact Fluorescent Fixture	13	0.013	S	1000	13		1	LED 9A	Re-Lamp with (1) 9 Watt LED A19 Lamps	9	0.009	0.048	LA19/9/40K/D-46	8
1129	SELINSGROVE	INTERIOR	S	1	90	5	24/7 & OCCUPIED	CM6	PIPE CHASE		60A	1	60 Watt Incandescent A-Lamp Fixture	60	0.060	S	1000	60		1	LED 9A	Re-Lamp with (1) 9 Watt LED A19 Lamps	9	0.009	0.612	LA19/9/40K/D-46	8
1130	SELINSGROVE	INTERIOR	S	1	92	5	24/7 & OCCUPIED	CM6	RR	2400	2VT25-4'	5	T8 1x4 2-Lamp Vaportight Fixture	43	0.215	Z	8760	1,883		5	R 2L-12.5LED	Retrofit with (2) 12.5 Watt LED T8 4' Lamps; Direct Wire to Socket	25	0.125	1.080	KT-LED10.5T8-48G-840-D	3
1131	SELINSGROVE	INTERIOR	S	1	92	5	24/7 & OCCUPIED	CM6	SHOWER		CF13DL10	2	13 Watt Compact Fluorescent 10" Downlight Fixture	13	0.026	Z	8760	228		2	R LLED9DL10	Retrofit with 9 Watt LED 10" Downlight Kit	9	0.018	0.096	LDN10RV 40/05 LR6AR LSS MVOLT EZ10	23
1132	SELINSGROVE	INTERIOR	S	1	92	5	24/7 & OCCUPIED	CM6	SHOWER		2V17	3	T8 1x2 2-Lamp Vanity Fixture	29	0.087	Z	8760	762		3	R 2L-10LED2'	Retrofit with (2) 10 Watt LED T8 2' Lamps; Direct Wire to Socket	20	0.060	0.324	KT-LED7T8-24GC-840-D	1

											EXISTING FIXTURES									PROPOSED FIXTURE UPGRADE							
ID #	Facility Name	Phase	Utility Rate Code	Floor	Map #	Building Number	Building Usage Type	Building Section	Room Description	Room #	ECM Code	Qty	Description	Watts	kW	Burn Hour Code	Pre Burn Hours	kWh	x	Qty	New Code	Description	Watts	kW	Annual KW Saved	Part#	Cut Sheet #
1133	SELINSGROVE	INTERIOR	S	1	92	5	24/7 & OCCUPIED	CM6	PIPE CHASE		60A	2	60 Watt Incandescent A-Lamp Fixture	60	0.120	S	1000	120		2	LED 9A	Re-Lamp with (1) 9 Watt LED A19 Lamps	9	0.018	1.224	LA19/9/40K/D-46	8
1134	SELINSGROVE	INTERIOR	S	1	94	5	24/7 & OCCUPIED	CM6	JANITOR CLOSET	2399	3PL13DR	1	13 Watt 3-Lamp Plug-In CFL Drum Fixture	45	0.045	S	1000	45		1	N LED22DR	New 16" Round 22 Watt LED Drum Fixture	22	0.022	0.276	54075142	20
1135	SELINSGROVE	INTERIOR	S	1	95	5	24/7 & OCCUPIED	CM6	HALL		2L25-1X4	4	T8 1x4 2-Lamp Troffer Fixture	43	0.172	Z	8760	1,507		4	R 2L-12.5LED	Retrofit with (2) 12.5 Watt LED T8 4' Lamps; Direct Wire to Socket	25	0.100	0.864	KT-LED10.5T8-48G-840-D	3
1136	SELINSGROVE	INTERIOR	S	1	95	5	24/7 & OCCUPIED	CM6	HALL		1W17	1	T8 2x2 1-Lamp Wrap Fixture	22	0.022	Z	8760	193		1	R 1L-10LED2'	Retrofit with (1) 10 Watt LED T8 2' Lamp; Direct Wire to Socket	10	0.010	0.144	KT-LED7T8-24GC-840-D	1
1137	SELINSGROVE	INTERIOR	S	1	95	5	24/7 & OCCUPIED	CM6	HALL		CF13SQDL-10X10	2	13 Watt Compact Fluorescent Square Downlight Fixture; 10x10	13	0.026	Z	8760	228		2	LED 9A	Re-Lamp with (1) 9 Watt LED A19 Lamps	9	0.018	0.096	LA19/9/40K/D-46	8
1138	SELINSGROVE	INTERIOR	S	1	95	5	24/7 & OCCUPIED	CM6	HALL		XLED	4	3 Watt LED 2-Lamp Exit Sign	3	0.012	Z	8760	105		4	ZZ DD	No Retrofit	3	0.012	0.000	N/A	N/A
1139	SELINSGROVE	INTERIOR	S	1	96	5	24/7 & OCCUPIED	CM7	HALL	261	3L17	5	T8 2x2 3-Lamp Troffer Fixture	58	0.290	Z	8760	2,540		5	R 3L-10LED2'	Retrofit with (3) 10 Watt LED T8 2' Lamps; Direct Wire to Socket	30	0.150	1.680	KT-LED7T8-24GC-840-D	1
1140	SELINSGROVE	INTERIOR	S	1	97	5	24/7 & OCCUPIED	CM7	PROGRAM ROOM	257	2EC25-4'	4	T8 2x4 2-Lamp Egg Crate Fixture	43	0.172	CPS	1827	314		4	N 2W-12.5LED	New 1x4 2-Lamp Wrap Fixture with (2) 12.5 Watt LED T8 4' Lamp; Direct Wire to Socket	25	0.100	0.864	CCW-4'-2-T8LED /// KT-LED10.5T8-48G-840-D	51 + 3
1141	SELINSGROVE	INTERIOR	S	1	97	5	24/7 & OCCUPIED	CM7	PROGRAM ROOM		3PL13DR	1	13 Watt 3-Lamp Plug-In CFL Drum Fixture	45	0.045	CPS	1827	82		1	N LED22DR	New 16" Round 22 Watt LED Drum Fixture	22	0.022	0.276	54075142	20
1142	SELINSGROVE	INTERIOR	S	1	97	5	24/7 & OCCUPIED	CM7	RR		3PL13DR	1	13 Watt 3-Lamp Plug-In CFL Drum Fixture	45	0.045	Z	8760	394		1	N LED22DR	New 16" Round 22 Watt LED Drum Fixture	22	0.022	0.276	54075142	20
1143	SELINSGROVE	INTERIOR	S	1	97	5	24/7 & OCCUPIED	CM7	RR		2V17	1	T8 1x2 2-Lamp Vanity Fixture	29	0.029	Z	8760	254		1	R 2L-10LED2'	Retrofit with (2) 10 Watt LED T8 2' Lamps; Direct Wire to Socket	20	0.020	0.108	KT-LED7T8-24GC-840-D	1
1144	SELINSGROVE	INTERIOR	S	1	98	5	24/7 & OCCUPIED	CM7	PROGRAM ROOM	259	2EC25-4'	4	T8 2x4 2-Lamp Egg Crate Fixture	43	0.172	CPS	1827	314		4	N 2W-12.5LED	New 1x4 2-Lamp Wrap Fixture with (2) 12.5 Watt LED T8 4' Lamp; Direct Wire to Socket	25	0.100	0.864	CCW-4'-2-T8LED /// KT-LED10.5T8-48G-840-D	51 + 3
1145	SELINSGROVE	INTERIOR	S	1	98	5	24/7 & OCCUPIED	CM7	PROGRAM ROOM		3PL13DR	1	13 Watt 3-Lamp Plug-In CFL Drum Fixture	45	0.045	CPS	1827	82		1	N LED22DR	New 16" Round 22 Watt LED Drum Fixture	22	0.022	0.276	54075142	20
1146	SELINSGROVE	INTERIOR	S	1	98	5	24/7 & OCCUPIED	CM7	RR		3PL13DR	1	13 Watt 3-Lamp Plug-In CFL Drum Fixture	45	0.045	Z	8760	394		1	N LED22DR	New 16" Round 22 Watt LED Drum Fixture	22	0.022	0.276	54075142	20
1147	SELINSGROVE	INTERIOR	S	1	98	5	24/7 & OCCUPIED	CM7	RR		2V17	1	T8 1x2 2-Lamp Vanity Fixture	29	0.029	Z	8760	254		1	R 2L-10LED2'	Retrofit with (2) 10 Watt LED T8 2' Lamps; Direct Wire to Socket	20	0.020	0.108	KT-LED7T8-24GC-840-D	1
1148	SELINSGROVE	INTERIOR	S	1	98	5	24/7 & OCCUPIED	CM7	PIPE CHASE		CF13	1	13 Watt Compact Fluorescent Fixture	13	0.013	S	1000	13		1	LED 9A	Re-Lamp with (1) 9 Watt LED A19 Lamps	9	0.009	0.048	LA19/9/40K/D-46	8
1149	SELINSGROVE	INTERIOR	S	1	99	5	24/7 & OCCUPIED	CM7	OFFICE	262	2EC25-4'	1	T8 2x4 2-Lamp Egg Crate Fixture	43	0.043	O	2340	101		1	N 2W-12.5LED	New 1x4 2-Lamp Wrap Fixture with (2) 12.5 Watt LED T8 4' Lamp; Direct Wire to Socket	25	0.025	0.216	CCW-4'-2-T8LED /// KT-LED10.5T8-48G-840-D	51 + 3
1150	SELINSGROVE	INTERIOR	S	1	100	5	24/7 & OCCUPIED	CM7	HALL	261	2L17	3	T8 2x2 2-Lamp Troffer Fixture	36	0.108	Z	8760	946		3	R 2L-10LED2'	Retrofit with (2) 10 Watt LED T8 2' Lamps; Direct Wire to Socket	20	0.060	0.576	KT-LED7T8-24GC-840-D	1
1151	SELINSGROVE	INTERIOR	S	1	100	5	24/7 & OCCUPIED	CM7	HALL		XLED	1	3 Watt LED 2-Lamp Exit Sign	3	0.003	Z	8760	26		1	ZZ DD	No Retrofit	3	0.003	0.000	N/A	N/A
1152	SELINSGROVE	INTERIOR	S	1	101	5	24/7 & OCCUPIED	CM7	VACANT	263	4W25-4'	2	T8 1x4 4-Lamp Wrap Fixture	85	0.170	S	1000	170		2	R 4L-12.5LED	Retrofit with (4) 12.5 Watt LED T8 4' Lamps; Direct Wire to Socket	50	0.100	0.840	KT-LED10.5T8-48G-840-D	3
1153	SELINSGROVE	INTERIOR	S	1	101	5	24/7 & OCCUPIED	CM7	RR		3PL13DR	1	13 Watt 3-Lamp Plug-In CFL Drum Fixture	45	0.045	Z	8760	394		1	N LED22DR	New 16" Round 22 Watt LED Drum Fixture	22	0.022	0.276	54075142	20
1154	SELINSGROVE	INTERIOR	S	1	101	5	24/7 & OCCUPIED	CM7	RR		LEDWP-DIM	1	LED Wall Pack Fixture; Dimming	35	0.035	Z	8760	307		1	ZZ DD	No Retrofit	35	0.035	0.000	N/A	N/A
1155	SELINSGROVE	INTERIOR	S	1	101	5	24/7 & OCCUPIED	CM7	VACANT		LEDWP-DIM	1	LED Wall Pack Fixture; Dimming	35	0.035	S	1000	35		1	ZZ DD	No Retrofit	35	0.035	0.000	N/A	N/A
1156	SELINSGROVE	INTERIOR	S	1	102	5	24/7 & OCCUPIED	CM7	VACANT	265	4W25-4'	2	T8 1x4 4-Lamp Wrap Fixture	85	0.170	S	1000	170		2	R 4L-12.5LED	Retrofit with (4) 12.5 Watt LED T8 4' Lamps; Direct Wire to Socket	50	0.100	0.840	KT-LED10.5T8-48G-840-D	3
1157	SELINSGROVE	INTERIOR	S	1	102	5	24/7 & OCCUPIED	CM7	RR		3PL13DR	1	13 Watt 3-Lamp Plug-In CFL Drum Fixture	45	0.045	Z	8760	394		1	N LED22DR	New 16" Round 22 Watt LED Drum Fixture	22	0.022	0.276	54075142	20
1158	SELINSGROVE	INTERIOR	S	1	102	5	24/7 & OCCUPIED	CM7	RR		LEDWP-DIM	1	LED Wall Pack Fixture; Dimming	35	0.035	Z	8760	307		1	ZZ DD	No Retrofit	35	0.035	0.000	N/A	N/A
1159	SELINSGROVE	INTERIOR	S	1	102	5	24/7 & OCCUPIED	CM7	PIPE CHASE		60A	1	60 Watt Incandescent A-Lamp Fixture	60	0.060	S	1000	60		1	LED 9A	Re-Lamp with (1) 9 Watt LED A19 Lamps	9	0.009	0.612	LA19/9/40K/D-46	8
1160	SELINSGROVE	INTERIOR	S	1	103	5	24/7 & OCCUPIED	CM7	JANITOR CLOSET	267	60A	1	60 Watt Incandescent A-Lamp Fixture	60	0.060	S	1000	60		1	LED 9A	Re-Lamp with (1) 9 Watt LED A19 Lamps	9	0.009	0.612	LA19/9/40K/D-46	8
1161	SELINSGROVE	INTERIOR	S	1	104	5	24/7 & OCCUPIED	CM7	HALL	256	4L25-4'	9	T8 2x4 4-Lamp Troffer Fixture	85	0.765	Z	8760	6,701		9	R 4L-12.5LED	Retrofit with (4) 12.5 Watt LED T8 4' Lamps; Direct Wire to Socket	50	0.450	3.780	KT-LED10.5T8-48G-840-D	3
1162	SELINSGROVE	INTERIOR	S	1	104	5	24/7 & OCCUPIED	CM7	HALL		XLED	3	3 Watt LED 2-Lamp Exit Sign	3	0.009	Z	8760	79		3	ZZ DD	No Retrofit	3	0.009	0.000	N/A	N/A
1163	SELINSGROVE	INTERIOR	S	1	104	5	24/7 & OCCUPIED	CM7	HALL		2W25(W)-4'	2	T8 1x4 2-Lamp Wrap Fixture; Damaged/Missing Lens	43	0.086	Z	8760	753		2	N 2W-12.5LED	New 1x4 2-Lamp Wrap Fixture with (2) 12.5 Watt LED T8 4' Lamp; Direct Wire to Socket	25	0.050	0.432	CCW-4'-2-T8LED /// KT-LED10.5T8-48G-840-D	51 + 3
1164	SELINSGROVE	INTERIOR	S	1	105	5	24/7 & OCCUPIED	CM7	HALL	268	3L17	1	T8 2x2 3-Lamp Troffer Fixture	58	0.058	Z	8760	508		1	R 3L-10LED2'	Retrofit with (3) 10 Watt LED T8 2' Lamps; Direct Wire to Socket	30	0.030	0.336	KT-LED7T8-24GC-840-D	1

											EXISTING FIXTURES									PROPOSED FIXTURE UPGRADE							
ID #	Facility Name	Phase	Utility Rate Code	Floor	Map #	Building Number	Building Usage Type	Building Section	Room Description	Room #	ECM Code	Qty	Description	Watts	kW	Burn Hour Code	Pre Burn Hours	kWh	x	Qty	New Code	Description	Watts	kW	Annual KW Saved	Part#	Cut Sheet #
1165	SELINSGROVE	INTERIOR	S	1	105	5	24/7 & OCCUPIED	CM7	HALL		2L17	1	T8 2x2 2-Lamp Troffer Fixture	36	0.036	Z	8760	315		1	R 2L-10LED2'	Retrofit with (2) 10 Watt LED T8 2' Lamps; Direct Wire to Socket	20	0.020	0.192	KT-LED7T8-24GC-840-D	1
1166	SELINSGROVE	INTERIOR	S	1	106	5	24/7 & OCCUPIED	CM7	VACANT	270	2W25(W)-4'	2	T8 1x4 2-Lamp Wrap Fixture; Damaged/Missing Lens	43	0.086	S	1000	86		2	N 2W-12.5LED	New 1x4 2-Lamp Wrap Fixture with (2) 12.5 Watt LED T8 4' Lamp; Direct Wire to Socket	25	0.050	0.432	CCW-4'-2-T8LED /// KT-LED10.5T8-48G-840-D	51 + 3
1167	SELINSGROVE	INTERIOR	S	1	106	5	24/7 & OCCUPIED	CM7	PIPE CHASE		60A	1	60 Watt Incandescent A-Lamp Fixture	60	0.060	S	1000	60		1	LED 9A	Re-Lamp with (1) 9 Watt LED A19 Lamps	9	0.009	0.612	LA19/9/40K/D-46	8
1168	SELINSGROVE	INTERIOR	S	1	106	5	24/7 & OCCUPIED	CM7	RR		1W17	1	T8 2x2 1-Lamp Wrap Fixture	22	0.022	Z	8760	193		1	R 1L-10LED2'	Retrofit with (1) 10 Watt LED T8 2' Lamp; Direct Wire to Socket	10	0.010	0.144	KT-LED7T8-24GC-840-D	1
1169	SELINSGROVE	INTERIOR	S	1	106	5	24/7 & OCCUPIED	CM7	RR		2V17	1	T8 1x2 2-Lamp Vanity Fixture	29	0.029	Z	8760	254		1	R 2L-10LED2'	Retrofit with (2) 10 Watt LED T8 2' Lamps; Direct Wire to Socket	20	0.020	0.108	KT-LED7T8-24GC-840-D	1
1170	SELINSGROVE	INTERIOR	S	1	107	5	24/7 & OCCUPIED	CM7	VACANT	272	4W25-4'	2	T8 1x4 4-Lamp Wrap Fixture	85	0.170	S	1000	170		2	R 4L-12.5LED	Retrofit with (4) 12.5 Watt LED T8 4' Lamps; Direct Wire to Socket	50	0.100	0.840	KT-LED10.5T8-48G-840-D	3
1171	SELINSGROVE	INTERIOR	S	1	107	5	24/7 & OCCUPIED	CM7	RR		3PL13DR	1	13 Watt 3-Lamp Plug-In CFL Drum Fixture	45	0.045	Z	8760	394		1	N LED22DR	New 16" Round 22 Watt LED Drum Fixture	22	0.022	0.276	54075142	20
1172	SELINSGROVE	INTERIOR	S	1	107	5	24/7 & OCCUPIED	CM7	VACANT		LEDWP-DIM	1	LED Wall Pack Fixture; Dimming	35	0.035	S	1000	35		1	ZZ DD	No Retrofit	35	0.035	0.000	N/A	N/A
1173	SELINSGROVE	INTERIOR	S	1	108	5	24/7 & OCCUPIED	CM7	HALL	268	2L17	1	T8 2x2 2-Lamp Troffer Fixture	36	0.036	Z	8760	315		1	R 2L-10LED2'	Retrofit with (2) 10 Watt LED T8 2' Lamps; Direct Wire to Socket	20	0.020	0.192	KT-LED7T8-24GC-840-D	1
1174	SELINSGROVE	INTERIOR	S	1	108	5	24/7 & OCCUPIED	CM7	HALL		3L17	1	T8 2x2 3-Lamp Troffer Fixture	58	0.058	Z	8760	508		1	R 3L-10LED2'	Retrofit with (3) 10 Watt LED T8 2' Lamps; Direct Wire to Socket	30	0.030	0.336	KT-LED7T8-24GC-840-D	1
1175	SELINSGROVE	INTERIOR	S	1	109	5	24/7 & OCCUPIED	CM7	OFFICE	274	2EC25-4'	1	T8 2x4 2-Lamp Egg Crate Fixture	43	0.043	O	2340	101		1	N 2W-12.5LED	New 1x4 2-Lamp Wrap Fixture with (2) 12.5 Watt LED T8 4' Lamp; Direct Wire to Socket	25	0.025	0.216	CCW-4'-2-T8LED /// KT-LED10.5T8-48G-840-D	51 + 3
1176	SELINSGROVE	INTERIOR	S	1	110	5	24/7 & OCCUPIED	CM7	BED	275	2VT25-4'	3	T8 1x4 2-Lamp Vaportight Fixture	43	0.129	BH	5460	704		3	R 2L-12.5LED	Retrofit with (2) 12.5 Watt LED T8 4' Lamps; Direct Wire to Socket	25	0.075	0.648	KT-LED10.5T8-48G-840-D	3
1177	SELINSGROVE	INTERIOR	S	1	110	5	24/7 & OCCUPIED	CM7	BED		LEDWP-DIM	1	LED Wall Pack Fixture; Dimming	35	0.035	BH	5460	191		1	ZZ DD	No Retrofit	35	0.035	0.000	N/A	N/A
1178	SELINSGROVE	INTERIOR	S	1	110	5	24/7 & OCCUPIED	CM7	RR		3PL13DR	2	13 Watt 3-Lamp Plug-In CFL Drum Fixture	45	0.090	Z	8760	788		2	N LED22DR	New 16" Round 22 Watt LED Drum Fixture	22	0.044	0.552	54075142	20
1179	SELINSGROVE	INTERIOR	S	1	110	5	24/7 & OCCUPIED	CM7	PIPE CHASE		60A	1	60 Watt Incandescent A-Lamp Fixture	60	0.060	S	1000	60		1	LED 9A	Re-Lamp with (1) 9 Watt LED A19 Lamps	9	0.009	0.612	LA19/9/40K/D-46	8
1180	SELINSGROVE	INTERIOR	S	1	111	5	24/7 & OCCUPIED	CM7	DAY ROOM	277	2VT25-4'	4	T8 1x4 2-Lamp Vaportight Fixture	43	0.172	BH	5460	939		4	R 2L-12.5LED	Retrofit with (2) 12.5 Watt LED T8 4' Lamps; Direct Wire to Socket	25	0.100	0.864	KT-LED10.5T8-48G-840-D	3
1181	SELINSGROVE	INTERIOR	S	1	111	5	24/7 & OCCUPIED	CM7	DAY ROOM		3PL13DR	1	13 Watt 3-Lamp Plug-In CFL Drum Fixture	45	0.045	BH	5460	246		1	N LED22DR	New 16" Round 22 Watt LED Drum Fixture	22	0.022	0.276	54075142	20
1182	SELINSGROVE	INTERIOR	S	1	111	5	24/7 & OCCUPIED	CM7	DAY ROOM		3PL13DR	1	13 Watt 3-Lamp Plug-In CFL Drum Fixture	45	0.045	BH	5460	246		1	N LED22DR	New 16" Round 22 Watt LED Drum Fixture	22	0.022	0.276	54075142	20
1183	SELINSGROVE	INTERIOR	S	1	112	5	24/7 & OCCUPIED	CM7	HALL	277-275	2L17	2	T8 2x2 2-Lamp Troffer Fixture	36	0.072	Z	8760	631		2	R 2L-10LED2'	Retrofit with (2) 10 Watt LED T8 2' Lamps; Direct Wire to Socket	20	0.040	0.384	KT-LED7T8-24GC-840-D	1
1184	SELINSGROVE	INTERIOR	S	1	112	5	24/7 & OCCUPIED	CM7	HALL		3L17	1	T8 2x2 3-Lamp Troffer Fixture	58	0.058	Z	8760	508		1	R 3L-10LED2'	Retrofit with (3) 10 Watt LED T8 2' Lamps; Direct Wire to Socket	30	0.030	0.336	KT-LED7T8-24GC-840-D	1
1185	SELINSGROVE	INTERIOR	S	1	112	5	24/7 & OCCUPIED	CM7	HALL		XLED	1	3 Watt LED 2-Lamp Exit Sign	3	0.003	Z	8760	26		1	ZZ DD	No Retrofit	3	0.003	0.000	N/A	N/A
1186	SELINSGROVE	INTERIOR	S	1	113	5	24/7 & OCCUPIED	CM7	OFFICE	279	1W17	3	T8 2x2 1-Lamp Wrap Fixture	22	0.066	O	2340	154		3	R 1L-10LED2'	Retrofit with (1) 10 Watt LED T8 2' Lamp; Direct Wire to Socket	10	0.030	0.432	KT-LED7T8-24GC-840-D	1
1187	SELINSGROVE	INTERIOR	S	1	113	5	24/7 & OCCUPIED	CM7	PIPE CHASE		60A	1	60 Watt Incandescent A-Lamp Fixture	60	0.060	S	1000	60		1	LED 9A	Re-Lamp with (1) 9 Watt LED A19 Lamps	9	0.009	0.612	LA19/9/40K/D-46	8
1188	SELINSGROVE	INTERIOR	S	1	114	5	24/7 & OCCUPIED	CM7	SUPPLIES	280	2EC25-4'	2	T8 2x4 2-Lamp Egg Crate Fixture	43	0.086	S	1000	86		2	N 2W-12.5LED	New 1x4 2-Lamp Wrap Fixture with (2) 12.5 Watt LED T8 4' Lamp; Direct Wire to Socket	25	0.050	0.432	CCW-4'-2-T8LED /// KT-LED10.5T8-48G-840-D	51 + 3
1189	SELINSGROVE	INTERIOR	S	1	114	5	24/7 & OCCUPIED	CM7	SUPPLIES		1W17	1	T8 2x2 1-Lamp Wrap Fixture	22	0.022	S	1000	22		1	R 1L-10LED2'	Retrofit with (1) 10 Watt LED T8 2' Lamp; Direct Wire to Socket	10	0.010	0.144	KT-LED7T8-24GC-840-D	1
1190	SELINSGROVE	INTERIOR	S	1	115	5	24/7 & OCCUPIED	CM7	ELEV. HALL		2W25-4'	1	T8 1x4 2-Lamp Wrap Fixture	43	0.043	Z	8760	377		1	R 2L-12.5LED	Retrofit with (2) 12.5 Watt LED T8 4' Lamps; Direct Wire to Socket	25	0.025	0.216	KT-LED10.5T8-48G-840-D	3
1191	SELINSGROVE	INTERIOR	S	1	116	5	24/7 & OCCUPIED	CM7	OFFICE	282	2EC25-4'	1	T8 2x4 2-Lamp Egg Crate Fixture	43	0.043	O	2340	101		1	N 2W-12.5LED	New 1x4 2-Lamp Wrap Fixture with (2) 12.5 Watt LED T8 4' Lamp; Direct Wire to Socket	25	0.025	0.216	CCW-4'-2-T8LED /// KT-LED10.5T8-48G-840-D	51 + 3
1192	SELINSGROVE	INTERIOR	S	1	117	5	24/7 & OCCUPIED	CM7	OFFICE	283	2EC25-4'	1	T8 2x4 2-Lamp Egg Crate Fixture	43	0.043	O	2340	101		1	N 2W-12.5LED	New 1x4 2-Lamp Wrap Fixture with (2) 12.5 Watt LED T8 4' Lamp; Direct Wire to Socket	25	0.025	0.216	CCW-4'-2-T8LED /// KT-LED10.5T8-48G-840-D	51 + 3
1193	SELINSGROVE	INTERIOR	S	1	118	5	24/7 & OCCUPIED	CM7	OFFICE	2398	1W17	8	T8 2x2 1-Lamp Wrap Fixture	22	0.176	O	2340	412		8	R 1L-10LED2'	Retrofit with (1) 10 Watt LED T8 2' Lamp; Direct Wire to Socket	10	0.080	1.152	KT-LED7T8-24GC-840-D	1
1194	SELINSGROVE	INTERIOR	S	1	118	5	24/7 & OCCUPIED	CM7	OFFICE		2PL13DR	2	13 Watt Plug-In CFL Drum Fixture	26	0.052	O	2340	122		2	N LED14DR	New 12" Round 14 Watt LED Drum Fixture	14	0.028	0.288	54074143	19
1195	SELINSGROVE	INTERIOR	S	1	119	5	24/7 & OCCUPIED	CM7	OXYGEN	284	60SQDL-10X10	1	60 Watt Incandescent Square Downlight Fixture; 10x10	60	0.060	O	2340	140		1	LED 9A	Re-Lamp with (1) 9 Watt LED A19 Lamps	9	0.009	0.612	LA19/9/40K/D-46	8
1196	SELINSGROVE	INTERIOR	S	1	120	5	24/7 & OCCUPIED	CM7	OFFICE	285	2EC25-4'	1	T8 2x4 2-Lamp Egg Crate Fixture	43	0.043	O	2340	101		1	N 2W-12.5LED	New 1x4 2-Lamp Wrap Fixture with (2) 12.5 Watt LED T8 4' Lamp; Direct Wire to Socket	25	0.025	0.216	CCW-4'-2-T8LED /// KT-LED10.5T8-48G-840-D	51 + 3

											EXISTING FIXTURES									PROPOSED FIXTURE UPGRADE							
ID #	Facility Name	Phase	Utility Rate Code	Floor	Map #	Building Number	Building Usage Type	Building Section	Room Description	Room #	ECM Code	Qty	Description	Watts	kW	Burn Hour Code	Pre Burn Hours	kWh	x	Qty	New Code	Description	Watts	kW	Annual KW Saved	Part#	Cut Sheet #
1197	SELINSGROVE	INTERIOR	S	1	121	5	24/7 & OCCUPIED	CM7	OFFICE	286	2EC25-4'	1	T8 2x4 2-Lamp Egg Crate Fixture	43	0.043	O	2340	101		1	N 2W-12.5LED	New 1x4 2-Lamp Wrap Fixture with (2) 12.5 Watt LED T8 4' Lamp; Direct Wire to Socket	25	0.025	0.216	CCW-4'-2-T8LED /// KT-LED10.5T8-48G-840-D	51 + 3
1198	SELINSGROVE	INTERIOR	S	1	122	5	24/7 & OCCUPIED	CM7	OFFICE	2397	4W25-4'	2	T8 1x4 4-Lamp Wrap Fixture	85	0.170	O	2340	398		2	R 4L-12.5LED	Retrofit with (4) 12.5 Watt LED T8 4' Lamps; Direct Wire to Socket	50	0.100	0.840	KT-LED10.5T8-48G-840-D	3
1199	SELINSGROVE	INTERIOR	S	1	123	5	24/7 & OCCUPIED	CM7	HALL	2397-2394	1W17	5	T8 2x2 1-Lamp Wrap Fixture	22	0.110	Z	8760	964		5	R 1L-10LED2'	Retrofit with (1) 10 Watt LED T8 2' Lamp; Direct Wire to Socket	10	0.050	0.720	KT-LED7T8-24GC-840-D	1
1200	SELINSGROVE	INTERIOR	S	1	123	5	24/7 & OCCUPIED	CM7	HALL		XLED	1	3 Watt LED 2-Lamp Exit Sign	3	0.003	Z	8760	26		1	ZZ DD	No Retrofit	3	0.003	0.000	N/A	N/A
1201	SELINSGROVE	INTERIOR	S	1	124	5	24/7 & OCCUPIED	CM7	OFFICE	2394	2EC25-4'	2	T8 2x4 2-Lamp Egg Crate Fixture	43	0.086	O	2340	201		2	N 2W-12.5LED	New 1x4 2-Lamp Wrap Fixture with (2) 12.5 Watt LED T8 4' Lamp; Direct Wire to Socket	25	0.050	0.432	CCW-4'-2-T8LED /// KT-LED10.5T8-48G-840-D	51 + 3
1202	SELINSGROVE	INTERIOR	S	1	125	5	24/7 & OCCUPIED	CM7	OFFICE	2395B	2EC25-4'	2	T8 2x4 2-Lamp Egg Crate Fixture	43	0.086	O	2340	201		2	N 2W-12.5LED	New 1x4 2-Lamp Wrap Fixture with (2) 12.5 Watt LED T8 4' Lamp; Direct Wire to Socket	25	0.050	0.432	CCW-4'-2-T8LED /// KT-LED10.5T8-48G-840-D	51 + 3
1203	SELINSGROVE	INTERIOR	S	1	126	5	24/7 & OCCUPIED	CM7	MRR	2396	1W17	1	T8 2x2 1-Lamp Wrap Fixture	22	0.022	Z	8760	193		1	R 1L-10LED2'	Retrofit with (1) 10 Watt LED T8 2' Lamp; Direct Wire to Socket	10	0.010	0.144	KT-LED7T8-24GC-840-D	1
1204	SELINSGROVE	INTERIOR	S	1	127	5	24/7 & OCCUPIED	CM7	WRR	2395	1W17	1	T8 2x2 1-Lamp Wrap Fixture	22	0.022	Z	8760	193		1	R 1L-10LED2'	Retrofit with (1) 10 Watt LED T8 2' Lamp; Direct Wire to Socket	10	0.010	0.144	KT-LED7T8-24GC-840-D	1
1205	SELINSGROVE	INTERIOR	S	1	128	5	24/7 & OCCUPIED	CM7	OFFICE	287	2EC25-4'	1	T8 2x4 2-Lamp Egg Crate Fixture	43	0.043	O	2340	101		1	N 2W-12.5LED	New 1x4 2-Lamp Wrap Fixture with (2) 12.5 Watt LED T8 4' Lamp; Direct Wire to Socket	25	0.025	0.216	CCW-4'-2-T8LED /// KT-LED10.5T8-48G-840-D	51 + 3
1206	SELINSGROVE	INTERIOR	S	1	129	5	24/7 & OCCUPIED	CM7	OFFICE	288	2EC25-4'	1	T8 2x4 2-Lamp Egg Crate Fixture	43	0.043	O	2340	101		1	N 2W-12.5LED	New 1x4 2-Lamp Wrap Fixture with (2) 12.5 Watt LED T8 4' Lamp; Direct Wire to Socket	25	0.025	0.216	CCW-4'-2-T8LED /// KT-LED10.5T8-48G-840-D	51 + 3
1207	SELINSGROVE	INTERIOR	S	1	130	5	24/7 & OCCUPIED	CM7	BREAK ROOM	2393	2EC25-4'	2	T8 2x4 2-Lamp Egg Crate Fixture	43	0.086	O-ES	1638	141		2	N 2W-12.5LED	New 1x4 2-Lamp Wrap Fixture with (2) 12.5 Watt LED T8 4' Lamp; Direct Wire to Socket	25	0.050	0.432	CCW-4'-2-T8LED /// KT-LED10.5T8-48G-840-D	51 + 3
1208	SELINSGROVE	INTERIOR	S	1	130	5	24/7 & OCCUPIED	CM7	PIPE CHASE		60A	1	60 Watt Incandescent A-Lamp Fixture	60	0.060	S	1000	60		1	LED 9A	Re-Lamp with (1) 9 Watt LED A19 Lamps	9	0.009	0.612	LA19/9/40K/D-46	8
1209	SELINSGROVE	INTERIOR	S	1	130	5	24/7 & OCCUPIED	CM7	RR		1W17	1	T8 2x2 1-Lamp Wrap Fixture	22	0.022	Z	8760	193		1	R 1L-10LED2'	Retrofit with (1) 10 Watt LED T8 2' Lamp; Direct Wire to Socket	10	0.010	0.144	KT-LED7T8-24GC-840-D	1
1210	SELINSGROVE	INTERIOR	S	1	131	5	24/7 & OCCUPIED	CM7	NURSE SUPPLY	291	2L25(L)-1X4	2	T8 1x4 2-Lamp Troffer Fixture; Damaged/Missing Lens	43	0.086	S	1000	86		2	N 2L-12.5LED-1X4	New 1x4 2-Lamp Lay-In Troffer Fixture with (2) 12.5 Watt LED T8 4' Lamp; Direct Wire to Socket	25	0.050	0.432	RFN14-1X4-2-T8LED /// KT-LED10.5T8-48G-840-D	47 + 3
1211	SELINSGROVE	INTERIOR	S	1	132	5	24/7 & OCCUPIED	CM7	NURSE STATION		2EC25-4'	2	T8 2x4 2-Lamp Egg Crate Fixture	43	0.086	Z	8760	753		2	N 2W-12.5LED	New 1x4 2-Lamp Wrap Fixture with (2) 12.5 Watt LED T8 4' Lamp; Direct Wire to Socket	25	0.050	0.432	CCW-4'-2-T8LED /// KT-LED10.5T8-48G-840-D	51 + 3
1212	SELINSGROVE	INTERIOR	S	1	132	5	24/7 & OCCUPIED	CM8	RR	2391	CF13JJ	1	13 Watt Compact Fluorescent Jelly Jar Fixture	13	0.013	Z	8760	114		1	LED 9A	Re-Lamp with (1) 9 Watt LED A19 Lamps	9	0.009	0.048	LA19/9/40K/D-46	8
1213	SELINSGROVE	INTERIOR	S	1	133	5	24/7 & OCCUPIED	CM8	MEDICAL SUPPLY	2377	2W25-4'	3	T8 1x4 2-Lamp Wrap Fixture	43	0.129	S	1000	129		3	R 2L-12.5LED	Retrofit with (2) 12.5 Watt LED T8 4' Lamps; Direct Wire to Socket	25	0.075	0.648	KT-LED10.5T8-48G-840-D	3
1214	SELINSGROVE	INTERIOR	S	1	133	5	24/7 & OCCUPIED	CM8	MEDICAL RECORDS		2EC25-4'	1	T8 2x4 2-Lamp Egg Crate Fixture	43	0.043	O	2340	101		1	N 2W-12.5LED	New 1x4 2-Lamp Wrap Fixture with (2) 12.5 Watt LED T8 4' Lamp; Direct Wire to Socket	25	0.025	0.216	CCW-4'-2-T8LED /// KT-LED10.5T8-48G-840-D	51 + 3
1215	SELINSGROVE	INTERIOR	S	1	133	5	24/7 & OCCUPIED	CM8	PIPE CHASE		60A	2	60 Watt Incandescent A-Lamp Fixture	60	0.120	S	1000	120		2	LED 9A	Re-Lamp with (1) 9 Watt LED A19 Lamps	9	0.018	1.224	LA19/9/40K/D-46	8
1216	SELINSGROVE	INTERIOR	S	1	133	5	24/7 & OCCUPIED	CM8	CLOSET		1V17	1	T8 2x2 1-Lamp Vanity Fixture	22	0.022	S	1000	22		1	R 1L-10LED2'	Retrofit with (1) 10 Watt LED T8 2' Lamp; Direct Wire to Socket	10	0.010	0.144	KT-LED7T8-24GC-840-D	1
1217	SELINSGROVE	INTERIOR	S	1	133	5	24/7 & OCCUPIED	CM8	CLOSET		1V25(V)-4'	1	T8 1x4 1-Lamp Vanity Fixture; Damaged/Missing Lens	22	0.022	S	1000	22		1	N 1V-12.5LED	New 1x4 1-Lamp Vanity Fixture with (1) 12.5 Watt LED T8 4' Lamp; Direct Wire to Socket	12.5	0.013	0.114	VWF-4'-1-T8LED /// KT-LED10.5T8-48G-840-D	48 + 3
1218	SELINSGROVE	INTERIOR	S	1	133	5	24/7 & OCCUPIED	CM8	CLOSET		1V25(V)-4'	1	T8 1x4 1-Lamp Vanity Fixture; Damaged/Missing Lens	22	0.022	S	1000	22		1	N 1V-12.5LED	New 1x4 1-Lamp Vanity Fixture with (1) 12.5 Watt LED T8 4' Lamp; Direct Wire to Socket	12.5	0.013	0.114	VWF-4'-1-T8LED /// KT-LED10.5T8-48G-840-D	48 + 3
1219	SELINSGROVE	INTERIOR	S	1	134	5	24/7 & OCCUPIED	CM8	BED	2378	2W25-4'	6	T8 1x4 2-Lamp Wrap Fixture	43	0.258	BH	5460	1,409		6	R 2L-12.5LED	Retrofit with (2) 12.5 Watt LED T8 4' Lamps; Direct Wire to Socket	25	0.150	1.296	KT-LED10.5T8-48G-840-D	3
1220	SELINSGROVE	INTERIOR	S	1	134	5	24/7 & OCCUPIED	CM8	RR		2W25-4'	1	T8 1x4 2-Lamp Wrap Fixture	43	0.043	Z	8760	377		1	R 2L-12.5LED	Retrofit with (2) 12.5 Watt LED T8 4' Lamps; Direct Wire to Socket	25	0.025	0.216	KT-LED10.5T8-48G-840-D	3
1221	SELINSGROVE	INTERIOR	S	1	134	5	24/7 & OCCUPIED	CM8	RR		2V25-4'	1	T8 1x4 2-Lamp Vanity Fixture	43	0.043	Z	8760	377		1	R 2L-12.5LED	Retrofit with (2) 12.5 Watt LED T8 4' Lamps; Direct Wire to Socket	25	0.025	0.216	KT-LED10.5T8-48G-840-D	3
1222	SELINSGROVE	INTERIOR	S	1	135	5	24/7 & OCCUPIED	CM8	BED	2379	2W25-4'	6	T8 1x4 2-Lamp Wrap Fixture	43	0.258	BH	5460	1,409		6	R 2L-12.5LED	Retrofit with (2) 12.5 Watt LED T8 4' Lamps; Direct Wire to Socket	25	0.150	1.296	KT-LED10.5T8-48G-840-D	3
1223	SELINSGROVE	INTERIOR	S	1	136	5	24/7 & OCCUPIED	CM8	BED	2381	2W25-4'	6	T8 1x4 2-Lamp Wrap Fixture	43	0.258	BH	5460	1,409		6	R 2L-12.5LED	Retrofit with (2) 12.5 Watt LED T8 4' Lamps; Direct Wire to Socket	25	0.150	1.296	KT-LED10.5T8-48G-840-D	3
1224	SELINSGROVE	INTERIOR	S	1	136	5	24/7 & OCCUPIED	CM8	RR		2W25-4'	1	T8 1x4 2-Lamp Wrap Fixture	43	0.043	Z	8760	377		1	R 2L-12.5LED	Retrofit with (2) 12.5 Watt LED T8 4' Lamps; Direct Wire to Socket	25	0.025	0.216	KT-LED10.5T8-48G-840-D	3
1225	SELINSGROVE	INTERIOR	S	1	136	5	24/7 & OCCUPIED	CM8	RR		2V25-4'	1	T8 1x4 2-Lamp Vanity Fixture	43	0.043	Z	8760	377		1	R 2L-12.5LED	Retrofit with (2) 12.5 Watt LED T8 4' Lamps; Direct Wire to Socket	25	0.025	0.216	KT-LED10.5T8-48G-840-D	3
1226	SELINSGROVE	INTERIOR	S	1	137	5	24/7 & OCCUPIED	CM8	BED	2382	2W25-4'	6	T8 1x4 2-Lamp Wrap Fixture	43	0.258	BH	5460	1,409		6	R 2L-12.5LED	Retrofit with (2) 12.5 Watt LED T8 4' Lamps; Direct Wire to Socket	25	0.150	1.296	KT-LED10.5T8-48G-840-D	3
1227	SELINSGROVE	INTERIOR	S	1	138	5	24/7 & OCCUPIED	CM8	STAIRS	2384	2PL13DR	2	13 Watt Plug-In CFL Drum Fixture	26	0.052	Z	8760	456		2	N LED14DR	New 12" Round 14 Watt LED Drum Fixture	14	0.028	0.288	54074143	19
1228	SELINSGROVE	INTERIOR	S	1	138	5	24/7 & OCCUPIED	CM8	STAIRS	2384	4EC25-4'	1	T8 2x4 4-Lamp Egg Crate Fixture	85	0.085	Z	8760	745		1	N 4W-12.5LED	New 1x4 4-Lamp Wrap Fixture with (4) 12.5 Watt LED T8 4' Lamp; Direct Wire to Socket	50	0.050	0.420	CCW-4'-4-T8LED /// KT-LED10.5T8-48G-840-D	53 + 3

											EXISTING FIXTURES									PROPOSED FIXTURE UPGRADE							
ID #	Facility Name	Phase	Utility Rate Code	Floor	Map #	Building Number	Building Usage Type	Building Section	Room Description	Room #	ECM Code	Qty	Description	Watts	kW	Burn Hour Code	Pre Burn Hours	kWh	x	Qty	New Code	Description	Watts	kW	Annual KW Saved	Part#	Cut Sheet #
1229	SELINSGROVE	INTERIOR	S	1	138	5	24/7 & OCCUPIED	CM8	STAIRS	2384	XLED	1	3 Watt LED 2-Lamp Exit Sign	3	0.003	Z	8760	26		1	ZZ DD	No Retrofit	3	0.003	0.000	N/A	N/A
1230	SELINSGROVE	INTERIOR	S	1	139	5	24/7 & OCCUPIED	CM8	OFFICE	2385	1W25-4'	1	T8 1x4 1-Lamp Wrap Fixture	22	0.022	O	2340	51		1	R 1L-12.5LED	Retrofit with (1) 12.5 Watt LED T8 4' Lamps; Direct Wire to Socket	12.5	0.013	0.114	KT-LED10.5T8-48G-840-D	3
1231	SELINSGROVE	INTERIOR	S	1	139	5	24/7 & OCCUPIED	CM8	MECHANICAL		2PL13WP	1	13 Watt 2-Lamp Plug-In CFL Wall Pack Fixture	30	0.030	S	1000	30		1	N RLED12TWP	New 12 Watt LED Tall Wall Pack Fixture	14	0.014	0.192	ENTRA12	42
1232	SELINSGROVE	INTERIOR	S	1	140	5	24/7 & OCCUPIED	CM8	SOLARIUM	2383	2L25-1X4	6	T8 1x4 2-Lamp Troffer Fixture	43	0.258	BH	5460	1,409		6	R 2L-12.5LED	Retrofit with (2) 12.5 Watt LED T8 4' Lamps; Direct Wire to Socket	25	0.150	1.296	KT-LED10.5T8-48G-840-D	3
1233	SELINSGROVE	INTERIOR	S	1	141	5	24/7 & OCCUPIED	CM8	CLOSET	2380A	XLED	1	3 Watt LED 2-Lamp Exit Sign	3	0.003	Z	8760	26		1	ZZ DD	No Retrofit	3	0.003	0.000	N/A	N/A
1234	SELINSGROVE	INTERIOR	S	1	141	5	24/7 & OCCUPIED	CM8	CLOSET	2380A	PL13DL	1	13 Watt Plug-In CFL Downlight Fixture	13	0.013	S	1000	13		1	R LLED9DL6	Retrofit with 9 Watt LED 6" Downlight Kit	9	0.009	0.048	LDN6RV 40/05 LR6AR LSS MVOLT EZ10	22
1235	SELINSGROVE	INTERIOR	S	1	142	5	24/7 & OCCUPIED	CM8	RR	2380E	2V25-4'	1	T8 1x4 2-Lamp Vanity Fixture	43	0.043	Z	8760	377		1	R 2L-12.5LED	Retrofit with (2) 12.5 Watt LED T8 4' Lamps; Direct Wire to Socket	25	0.025	0.216	KT-LED10.5T8-48G-840-D	3
1236	SELINSGROVE	INTERIOR	S	1	143	5	24/7 & OCCUPIED	CM8	BED	2386	2W25-4'	6	T8 1x4 2-Lamp Wrap Fixture	43	0.258	BH	5460	1,409		6	R 2L-12.5LED	Retrofit with (2) 12.5 Watt LED T8 4' Lamps; Direct Wire to Socket	25	0.150	1.296	KT-LED10.5T8-48G-840-D	3
1237	SELINSGROVE	INTERIOR	S	1	143	5	24/7 & OCCUPIED	CM8	RR		2W25-4'	1	T8 1x4 2-Lamp Wrap Fixture	43	0.043	Z	8760	377		1	R 2L-12.5LED	Retrofit with (2) 12.5 Watt LED T8 4' Lamps; Direct Wire to Socket	25	0.025	0.216	KT-LED10.5T8-48G-840-D	3
1238	SELINSGROVE	INTERIOR	S	1	143	5	24/7 & OCCUPIED	CM8	RR		2V25-4'	1	T8 1x4 2-Lamp Vanity Fixture	43	0.043	Z	8760	377		1	R 2L-12.5LED	Retrofit with (2) 12.5 Watt LED T8 4' Lamps; Direct Wire to Socket	25	0.025	0.216	KT-LED10.5T8-48G-840-D	3
1239	SELINSGROVE	INTERIOR	S	1	144	5	24/7 & OCCUPIED	CM8	BED	2387	2W25-4'	6	T8 1x4 2-Lamp Wrap Fixture	43	0.258	BH	5460	1,409		6	R 2L-12.5LED	Retrofit with (2) 12.5 Watt LED T8 4' Lamps; Direct Wire to Socket	25	0.150	1.296	KT-LED10.5T8-48G-840-D	3
1240	SELINSGROVE	INTERIOR	S	1	144	5	24/7 & OCCUPIED	CM8	RR		2W25-4'	1	T8 1x4 2-Lamp Wrap Fixture	43	0.043	Z	8760	377		1	R 2L-12.5LED	Retrofit with (2) 12.5 Watt LED T8 4' Lamps; Direct Wire to Socket	25	0.025	0.216	KT-LED10.5T8-48G-840-D	3
1241	SELINSGROVE	INTERIOR	S	1	144	5	24/7 & OCCUPIED	CM8	RR		2V25-4'	1	T8 1x4 2-Lamp Vanity Fixture	43	0.043	Z	8760	377		1	R 2L-12.5LED	Retrofit with (2) 12.5 Watt LED T8 4' Lamps; Direct Wire to Socket	25	0.025	0.216	KT-LED10.5T8-48G-840-D	3
1242	SELINSGROVE	INTERIOR	S	1	145	5	24/7 & OCCUPIED	CM8	KITCHEN	2380D	4L34-BI	2	T12 2x4 4-Lamp Troffer Fixture; Bi-Level	144	0.288	Z	8760	2,523		2	R 4L-12.5LED	Retrofit with (4) 12.5 Watt LED T8 4' Lamps; Direct Wire to Socket	50	0.100	2.256	KT-LED10.5T8-48G-840-D	3
1243	SELINSGROVE	INTERIOR	S	1	146	5	24/7 & OCCUPIED	CM8	KITCHEN	2380C	4L25-4'-BI	2	T8 2x4 4-Lamp Troffer Fixture; Bi-Level	85	0.170	Z	8760	1,489		2	R 4L-12.5LED	Retrofit with (4) 12.5 Watt LED T8 4' Lamps; Direct Wire to Socket	50	0.100	0.840	KT-LED10.5T8-48G-840-D	3
1244	SELINSGROVE	INTERIOR	S	1	147	5	24/7 & OCCUPIED	CM8	NURSE STATION	2380B	3L25-4'	4	T8 2x4 3-Lamp Troffer Fixture	65	0.260	Z	8760	2,278		4	R 3L-12.5LED	Retrofit with (3) 12.5 Watt LED T8 4' Lamps; Direct Wire to Socket	37.5	0.150	1.320	KT-LED10.5T8-48G-840-D	3
1245	SELINSGROVE	INTERIOR	S	1	148	5	24/7 & OCCUPIED	CM8	DAY ROOM	2380	3L25-4'-BI	6	T8 2x4 3-Lamp Troffer Fixture; Bi-Level	65	0.390	BH	5460	2,129		6	R 3L-12.5LED	Retrofit with (3) 12.5 Watt LED T8 4' Lamps; Direct Wire to Socket	37.5	0.225	1.980	KT-LED10.5T8-48G-840-D	3
1246	SELINSGROVE	INTERIOR	S	1	149	5	24/7 & OCCUPIED	CM8	BED	2388	2W25-4'	6	T8 1x4 2-Lamp Wrap Fixture	43	0.258	BH	5460	1,409		6	R 2L-12.5LED	Retrofit with (2) 12.5 Watt LED T8 4' Lamps; Direct Wire to Socket	25	0.150	1.296	KT-LED10.5T8-48G-840-D	3
1247	SELINSGROVE	INTERIOR	S	1	149	5	24/7 & OCCUPIED	CM8	RR	RR	2W25-4'	2	T8 1x4 2-Lamp Wrap Fixture	43	0.086	Z	8760	753		2	R 2L-12.5LED	Retrofit with (2) 12.5 Watt LED T8 4' Lamps; Direct Wire to Socket	25	0.050	0.432	KT-LED10.5T8-48G-840-D	3
1248	SELINSGROVE	INTERIOR	S	1	150	5	24/7 & OCCUPIED	CM8	BED	2389	2W25-4'	6	T8 1x4 2-Lamp Wrap Fixture	43	0.258	BH	5460	1,409		6	R 2L-12.5LED	Retrofit with (2) 12.5 Watt LED T8 4' Lamps; Direct Wire to Socket	25	0.150	1.296	KT-LED10.5T8-48G-840-D	3
1249	SELINSGROVE	INTERIOR	S	1	151	5	24/7 & OCCUPIED	CM8	RR / SHOWER	2390	2W25-4'	4	T8 1x4 2-Lamp Wrap Fixture	43	0.172	Z	8760	1,507		4	R 2L-12.5LED	Retrofit with (2) 12.5 Watt LED T8 4' Lamps; Direct Wire to Socket	25	0.100	0.864	KT-LED10.5T8-48G-840-D	3
1250	SELINSGROVE	INTERIOR	S	1	151	5	24/7 & OCCUPIED	CM8	RR / SHOWER		2V25-4'	3	T8 1x4 2-Lamp Vanity Fixture	43	0.129	Z	8760	1,130		3	R 2L-12.5LED	Retrofit with (2) 12.5 Watt LED T8 4' Lamps; Direct Wire to Socket	25	0.075	0.648	KT-LED10.5T8-48G-840-D	3
1251	SELINSGROVE	INTERIOR	S	1	151	5	24/7 & OCCUPIED	CM8	RR / SHOWER		2LU32	1	T8 2x2 2-Lamp U-Lamp Troffer Fixture with 6" Lamps	62	0.062	Z	8760	543		1	RF 2LR-10LED2'	Retrofit with (2) 10 Watt LED T8 2' Lamps and (1) 2x2 2-Lamp White Reflector Kit; Direct Wire to Socket	20	0.020	0.504	KT-LED7T8-24GC-840-D /// R-2-21-2-T8-X-W-X-X	1 + 55
1252	SELINSGROVE	INTERIOR	S	1	151	5	24/7 & OCCUPIED	CM8	RR / SHOWER		2PL13SQDL-8X8	3	13 Watt 2-Lamp Plug-In CFL Square Downlight Fixture; 8x8	30	0.090	Z	8760	788		3	RK KLED7-REC	Retrofit with (1) 7 Watt LED Rectangular Retrofit Kit	8.5	0.026	0.774	KT-RKIT-RP-6-800-840-UV /G2	54
1253	SELINSGROVE	INTERIOR	S	1	151	5	24/7 & OCCUPIED	CM8	CLOSET		2PL13DR	1	13 Watt Plug-In CFL Drum Fixture	26	0.026	S	1000	26		1	N LED14DR	New 12" Round 14 Watt LED Drum Fixture	14	0.014	0.144	54074143	19
1254	SELINSGROVE	INTERIOR	S	1	151	5	24/7 & OCCUPIED	CM8	PIPE CHASE		CF13	1	13 Watt Compact Fluorescent Fixture	13	0.013	S	1000	13		1	LED 9A	Re-Lamp with (1) 9 Watt LED A19 Lamps	9	0.009	0.048	LA19/9/40K/D-46	8
1255	SELINSGROVE	INTERIOR	S	1	151	5	24/7 & OCCUPIED	CM8	PIPE CHASE		60A	1	60 Watt Incandescent A-Lamp Fixture	60	0.060	S	1000	60		1	LED 9A	Re-Lamp with (1) 9 Watt LED A19 Lamps	9	0.009	0.612	LA19/9/40K/D-46	8
1256	SELINSGROVE	INTERIOR	S	1	152	5	24/7 & OCCUPIED	CM8	HALL		3L25-4'	19	T8 2x4 3-Lamp Troffer Fixture	65	1.235	Z	8760	10,819		19	R 3L-12.5LED	Retrofit with (3) 12.5 Watt LED T8 4' Lamps; Direct Wire to Socket	37.5	0.713	6.270	KT-LED10.5T8-48G-840-D	3
1257	SELINSGROVE	INTERIOR	S	1	152	5	24/7 & OCCUPIED	CM8	HALL		XLED	4	3 Watt LED 2-Lamp Exit Sign	3	0.012	Z	8760	105		4	ZZ DD	No Retrofit	3	0.012	0.000	N/A	N/A
1258	SELINSGROVE	INTERIOR	S	1	152	5	24/7 & OCCUPIED	CM8	HALL		2PL13DR	2	13 Watt Plug-In CFL Drum Fixture	26	0.052	Z	8760	456		2	N LED14DR	New 12" Round 14 Watt LED Drum Fixture	14	0.028	0.288	54074143	19
1259	SELINSGROVE	INTERIOR	S	1	152	5	24/7 & OCCUPIED	CM8	HALL		2LU32	1	T8 2x2 2-Lamp U-Lamp Troffer Fixture with 6" Lamps	62	0.062	Z	8760	543		1	RF 2LR-10LED2'	Retrofit with (2) 10 Watt LED T8 2' Lamps and (1) 2x2 2-Lamp White Reflector Kit; Direct Wire to Socket	20	0.020	0.504	KT-LED7T8-24GC-840-D /// R-2-21-2-T8-X-W-X-X	1 + 55
1260	SELINSGROVE	INTERIOR	S	1	152	5	24/7 & OCCUPIED	CM8	HALL		2W25-4'	2	T8 1x4 2-Lamp Wrap Fixture	43	0.086	Z	8760	753		2	R 2L-12.5LED	Retrofit with (2) 12.5 Watt LED T8 4' Lamps; Direct Wire to Socket	25	0.050	0.432	KT-LED10.5T8-48G-840-D	3

											EXISTING FIXTURES									PROPOSED FIXTURE UPGRADE							
ID #	Facility Name	Phase	Utility Rate Code	Floor	Map #	Building Number	Building Usage Type	Building Section	Room Description	Room #	ECM Code	Qty	Description	Watts	kW	Burn Hour Code	Pre Burn Hours	kWh	x	Qty	New Code	Description	Watts	kW	Annual KW Saved	Part#	Cut Sheet #
1261	SELINSGROVE	INTERIOR	S	1	152	5	24/7 & OCCUPIED	CM8	HALL		PL13DL	7	13 Watt Plug-In CFL Downlight Fixture	13	0.091	Z	8760	797		7	R LLED9DL6	Retrofit with 9 Watt LED 6" Downlight Kit	9	0.063	0.336	LDN6RV 40/05 LR6AR LSS MVOLT EZ10	22
1262	SELINSGROVE	INTERIOR	S	1	153	5	24/7 & OCCUPIED	CM8	JANITOR CLOSET	2375	CF13	1	13 Watt Compact Fluorescent Fixture	13	0.013	S	1000	13		1	LED 9A	Re-Lamp with (1) 9 Watt LED A19 Lamps	9	0.009	0.048	LA19/9/40K/D-46	8
1263	SELINSGROVE	INTERIOR	S	1	154	5	24/7 & OCCUPIED	CM8	JANITOR CLOSET	292	CF13	1	13 Watt Compact Fluorescent Fixture	13	0.013	S	1000	13		1	LED 9A	Re-Lamp with (1) 9 Watt LED A19 Lamps	9	0.009	0.048	LA19/9/40K/D-46	8
1264	SELINSGROVE	INTERIOR	S	1	155	5	24/7 & OCCUPIED	CM8	RR		60G-HALO	1	60 Watt Incandescent Globe Fixture; Halo	60	0.060	Z	8760	526		1	LED 8GLOBE	Re-Lamp with (1) 8 Watt LED G25 Globe	8	0.008	0.624	LG25/6/827/D	13
1265	SELINSGROVE	INTERIOR	S	1	156	5	24/7 & OCCUPIED	CM8	ELEC		60A	1	60 Watt Incandescent A-Lamp Fixture	60	0.060	S	1000	60		1	LED 9A	Re-Lamp with (1) 9 Watt LED A19 Lamps	9	0.009	0.612	LA19/9/40K/D-46	8
1266	SELINSGROVE	INTERIOR	S	1	157	5	24/7 & OCCUPIED	CM9	BREAK ROOM	291B	2L25-1X4	4	T8 1x4 2-Lamp Troffer Fixture	43	0.172	O	2340	402		4	R 2L-12.5LED	Retrofit with (2) 12.5 Watt LED T8 4' Lamps; Direct Wire to Socket	25	0.100	0.864	KT-LED10.5T8-48G-840-D	3
1267	SELINSGROVE	INTERIOR	S	1	158	5	24/7 & OCCUPIED	CM9	RR	290B	2V25-4'	1	T8 1x4 2-Lamp Vanity Fixture	43	0.043	Z	8760	377		1	R 2L-12.5LED	Retrofit with (2) 12.5 Watt LED T8 4' Lamps; Direct Wire to Socket	25	0.025	0.216	KT-LED10.5T8-48G-840-D	3
1268	SELINSGROVE	INTERIOR	S	1	158	5	24/7 & OCCUPIED	CM9	SHOWER		2PL13SQDL-8X8	1	13 Watt 2-Lamp Plug-In CFL Square Downlight Fixture; 8x8	30	0.030	Z	8760	263		1	RK KLED7-REC	Retrofit with (1) 7 Watt LED Rectangular Retrofit Kit	8.5	0.009	0.258	KT-RKIT-RP-6-800-840-UV /G2	54
1269	SELINSGROVE	INTERIOR	S	1	159	5	24/7 & OCCUPIED	CM9	LAUNDRY	290A	2V25-4'	1	T8 1x4 2-Lamp Vanity Fixture	43	0.043	S	1000	43		1	R 2L-12.5LED	Retrofit with (2) 12.5 Watt LED T8 4' Lamps; Direct Wire to Socket	25	0.025	0.216	KT-LED10.5T8-48G-840-D	3
1270	SELINSGROVE	INTERIOR	S	1	159	5	24/7 & OCCUPIED	CM9	LAUNDRY		2PL13SQDL-8X8	1	13 Watt 2-Lamp Plug-In CFL Square Downlight Fixture; 8x8	30	0.030	S	1000	30		1	RK KLED7-REC	Retrofit with (1) 7 Watt LED Rectangular Retrofit Kit	8.5	0.009	0.258	KT-RKIT-RP-6-800-840-UV /G2	54
1271	SELINSGROVE	INTERIOR	S	1	160	5	24/7 & OCCUPIED	CM9	PIPE CHASE		60A	1	60 Watt Incandescent A-Lamp Fixture	60	0.060	S	1000	60		1	LED 9A	Re-Lamp with (1) 9 Watt LED A19 Lamps	9	0.009	0.612	LA19/9/40K/D-46	8
1272	SELINSGROVE	INTERIOR	S	1	161	5	24/7 & OCCUPIED	CM9	HALL	291-290	2W25-4'	4	T8 1x4 2-Lamp Wrap Fixture	43	0.172	Z	8760	1,507		4	R 2L-12.5LED	Retrofit with (2) 12.5 Watt LED T8 4' Lamps; Direct Wire to Socket	25	0.100	0.864	KT-LED10.5T8-48G-840-D	3
1273	SELINSGROVE	INTERIOR	S	1	161	5	24/7 & OCCUPIED	CM9	HALL	291-290	1W17	2	T8 2x2 1-Lamp Wrap Fixture	22	0.044	Z	8760	385		2	R 1L-10LED2'	Retrofit with (1) 10 Watt LED T8 2' Lamp; Direct Wire to Socket	10	0.020	0.288	KT-LED7T8-24GC-840-D	1
1274	SELINSGROVE	INTERIOR	S	1	162	5	24/7 & OCCUPIED	CM9	BED	296	1W17	2	T8 2x2 1-Lamp Wrap Fixture	22	0.044	BH	5460	240		2	R 1L-10LED2'	Retrofit with (1) 10 Watt LED T8 2' Lamp; Direct Wire to Socket	10	0.020	0.288	KT-LED7T8-24GC-840-D	1
1275	SELINSGROVE	INTERIOR	S	1	162	5	24/7 & OCCUPIED	CM9	BED		60SC	4	60 Watt Incandescent Sconce Fixture	60	0.240	BH	5460	1,310		4	LED 9A	Re-Lamp with (1) 9 Watt LED A19 Lamps	9	0.036	2.448	LA19/9/40K/D-46	8
1276	SELINSGROVE	INTERIOR	S	1	163	5	24/7 & OCCUPIED	CM9	BED	297	1W17	2	T8 2x2 1-Lamp Wrap Fixture	22	0.044	BH	5460	240		2	R 1L-10LED2'	Retrofit with (1) 10 Watt LED T8 2' Lamp; Direct Wire to Socket	10	0.020	0.288	KT-LED7T8-24GC-840-D	1
1277	SELINSGROVE	INTERIOR	S	1	163	5	24/7 & OCCUPIED	CM9	BED		60SC	4	60 Watt Incandescent Sconce Fixture	60	0.240	BH	5460	1,310		4	LED 9A	Re-Lamp with (1) 9 Watt LED A19 Lamps	9	0.036	2.448	LA19/9/40K/D-46	8
1278	SELINSGROVE	INTERIOR	S	1	164	5	24/7 & OCCUPIED	CM9	BED	299	1W17	2	T8 2x2 1-Lamp Wrap Fixture	22	0.044	BH	5460	240		2	R 1L-10LED2'	Retrofit with (1) 10 Watt LED T8 2' Lamp; Direct Wire to Socket	10	0.020	0.288	KT-LED7T8-24GC-840-D	1
1279	SELINSGROVE	INTERIOR	S	1	164	5	24/7 & OCCUPIED	CM9	BED		60SC	4	60 Watt Incandescent Sconce Fixture	60	0.240	BH	5460	1,310		4	LED 9A	Re-Lamp with (1) 9 Watt LED A19 Lamps	9	0.036	2.448	LA19/9/40K/D-46	8
1280	SELINSGROVE	INTERIOR	S	1	165	5	24/7 & OCCUPIED	CM9	BED	2300	1W17	2	T8 2x2 1-Lamp Wrap Fixture	22	0.044	BH	5460	240		2	R 1L-10LED2'	Retrofit with (1) 10 Watt LED T8 2' Lamp; Direct Wire to Socket	10	0.020	0.288	KT-LED7T8-24GC-840-D	1
1281	SELINSGROVE	INTERIOR	S	1	165	5	24/7 & OCCUPIED	CM9	BED		60SC	4	60 Watt Incandescent Sconce Fixture	60	0.240	BH	5460	1,310		4	LED 9A	Re-Lamp with (1) 9 Watt LED A19 Lamps	9	0.036	2.448	LA19/9/40K/D-46	8
1282	SELINSGROVE	INTERIOR	S	1	166	5	24/7 & OCCUPIED	CM9	SOLARIUM		2L25-1X4	4	T8 1x4 2-Lamp Troffer Fixture	43	0.172	BH	5460	939		4	R 2L-12.5LED	Retrofit with (2) 12.5 Watt LED T8 4' Lamps; Direct Wire to Socket	25	0.100	0.864	KT-LED10.5T8-48G-840-D	3
1283	SELINSGROVE	INTERIOR	S	1	166	5	24/7 & OCCUPIED	CM9	SOLARIUM		XLED	1	3 Watt LED 2-Lamp Exit Sign	3	0.003	Z	8760	26		1	ZZ DD	No Retrofit	3	0.003	0.000	N/A	N/A
1284	SELINSGROVE	INTERIOR	S	1	167	5	24/7 & OCCUPIED	CM9	OFFICE	2302	2W25-4'	1	T8 1x4 2-Lamp Wrap Fixture	43	0.043	O	2340	101		1	R 2L-12.5LED	Retrofit with (2) 12.5 Watt LED T8 4' Lamps; Direct Wire to Socket	25	0.025	0.216	KT-LED10.5T8-48G-840-D	3
1285	SELINSGROVE	INTERIOR	S	1	168	5	24/7 & OCCUPIED	CM9	STAIRS	2303	1W17	2	T8 2x2 1-Lamp Wrap Fixture	22	0.044	Z	8760	385		2	R 1L-10LED2'	Retrofit with (1) 10 Watt LED T8 2' Lamp; Direct Wire to Socket	10	0.020	0.288	KT-LED7T8-24GC-840-D	1
1286	SELINSGROVE	INTERIOR	S	1	168	5	24/7 & OCCUPIED	CM9	STAIRS		4EC25-4'	1	T8 2x4 4-Lamp Egg Crate Fixture	85	0.085	Z	8760	745		1	N 4W-12.5LED	New 1x4 4-Lamp Wrap Fixture with (4) 12.5 Watt LED T8 4' Lamp; Direct Wire to Socket	50	0.050	0.420	CCW-4'-4-T8LED /// KT-LED10.5T8-48G-840-D	53 + 3
1287	SELINSGROVE	INTERIOR	S	1	169	5	24/7 & OCCUPIED	CM9	BED	2304	1W17	2	T8 2x2 1-Lamp Wrap Fixture	22	0.044	BH	5460	240		2	R 1L-10LED2'	Retrofit with (1) 10 Watt LED T8 2' Lamp; Direct Wire to Socket	10	0.020	0.288	KT-LED7T8-24GC-840-D	1
1288	SELINSGROVE	INTERIOR	S	1	169	5	24/7 & OCCUPIED	CM9	BED		60SC	4	60 Watt Incandescent Sconce Fixture	60	0.240	BH	5460	1,310		4	LED 9A	Re-Lamp with (1) 9 Watt LED A19 Lamps	9	0.036	2.448	LA19/9/40K/D-46	8
1289	SELINSGROVE	INTERIOR	S	1	170	5	24/7 & OCCUPIED	CM9	BED	2305	1W17	2	T8 2x2 1-Lamp Wrap Fixture	22	0.044	BH	5460	240		2	R 1L-10LED2'	Retrofit with (1) 10 Watt LED T8 2' Lamp; Direct Wire to Socket	10	0.020	0.288	KT-LED7T8-24GC-840-D	1
1290	SELINSGROVE	INTERIOR	S	1	170	5	24/7 & OCCUPIED	CM9	BED		60SC	4	60 Watt Incandescent Sconce Fixture	60	0.240	BH	5460	1,310		4	LED 9A	Re-Lamp with (1) 9 Watt LED A19 Lamps	9	0.036	2.448	LA19/9/40K/D-46	8
1291	SELINSGROVE	INTERIOR	S	1	171	5	24/7 & OCCUPIED	CM9	BED	2306	1W17	2	T8 2x2 1-Lamp Wrap Fixture	22	0.044	BH	5460	240		2	R 1L-10LED2'	Retrofit with (1) 10 Watt LED T8 2' Lamp; Direct Wire to Socket	10	0.020	0.288	KT-LED7T8-24GC-840-D	1
1292	SELINSGROVE	INTERIOR	S	1	171	5	24/7 & OCCUPIED	CM9	BED		60SC	4	60 Watt Incandescent Sconce Fixture	60	0.240	BH	5460	1,310		4	LED 9A	Re-Lamp with (1) 9 Watt LED A19 Lamps	9	0.036	2.448	LA19/9/40K/D-46	8

											EXISTING FIXTURES									PROPOSED FIXTURE UPGRADE						
ID #	Facility Name	Phase	Utility Rate Code	Floor	Map #	Building Number	Building Usage Type	Building Section	Room Description	Room #	ECM Code	Qty	Description	Watts	kW	Burn Hour Code	Pre Burn Hours	kWh	x	Qty	New Code	Description	Watts	kW	Annual KW Saved	Part#	Cut Sheet #
1293	SELINSGROVE	INTERIOR	S	1	172	5	24/7 & OCCUPIED	CM9	BED	2307	1W17	2	T8 2x2 1-Lamp Wrap Fixture	22	0.044	BH	5460	240		2	R 1L-10LED2'	Retrofit with (1) 10 Watt LED T8 2' Lamp; Direct Wire to Socket	10	0.020	0.288	KT-LED7T8-24GC-840-D	1
1294	SELINSGROVE	INTERIOR	S	1	172	5	24/7 & OCCUPIED	CM9	BED		60SC	4	60 Watt Incandescent Sconce Fixture	60	0.240	BH	5460	1,310		4	LED 9A	Re-Lamp with (1) 9 Watt LED A19 Lamps	9	0.036	2.448	LA19/9/40K/D-46	8
1295	SELINSGROVE	INTERIOR	S	1	173	5	24/7 & OCCUPIED	CM9	DAY ROOM	295	3L25-4'	18	T8 2x4 3-Lamp Troffer Fixture	65	1.170	BH	5460	6,388		18	R 3L-12.5LED	Retrofit with (3) 12.5 Watt LED T8 4' Lamps; Direct Wire to Socket	37.5	0.675	5.940	KT-LED10.5T8-48G-840-D	3
1296	SELINSGROVE	INTERIOR	S	1	173	5	24/7 & OCCUPIED	CM9	DAY ROOM		2PL13DR	2	13 Watt Plug-In CFL Drum Fixture	26	0.052	BH	5460	284		2	N LED14DR	New 12" Round 14 Watt LED Drum Fixture	14	0.028	0.288	54074143	19
1297	SELINSGROVE	INTERIOR	S	1	173	5	24/7 & OCCUPIED	CM9	DAY ROOM		XLED	2	3 Watt LED 2-Lamp Exit Sign	3	0.006	Z	8760	53		2	ZZ DD	No Retrofit	3	0.006	0.000	N/A	N/A
1298	SELINSGROVE	INTERIOR	S	1	174	5	24/7 & OCCUPIED	CM9	RR		2W25-4'	4	T8 1x4 2-Lamp Wrap Fixture	43	0.172	Z	8760	1,507		4	R 2L-12.5LED	Retrofit with (2) 12.5 Watt LED T8 4' Lamps; Direct Wire to Socket	25	0.100	0.864	KT-LED10.5T8-48G-840-D	3
1299	SELINSGROVE	INTERIOR	S	1	174	5	24/7 & OCCUPIED	CM9	RR		2V25-4'	3	T8 1x4 2-Lamp Vanity Fixture	43	0.129	Z	8760	1,130		3	R 2L-12.5LED	Retrofit with (2) 12.5 Watt LED T8 4' Lamps; Direct Wire to Socket	25	0.075	0.648	KT-LED10.5T8-48G-840-D	3
1300	SELINSGROVE	INTERIOR	S	1	174	5	24/7 & OCCUPIED	CM9	RR		2PL13SQDL-8X8	3	13 Watt 2-Lamp Plug-In CFL Square Downlight Fixture; 8x8	30	0.090	Z	8760	788		3	RK KLED7-REC	Retrofit with (1) 7 Watt LED Rectangular Retrofit Kit	8.5	0.026	0.774	KT-RKIT-RP-6-800-840-UV /G2	54
1301	SELINSGROVE	INTERIOR	S	1	174	5	24/7 & OCCUPIED	CM9	RR		1V17	1	T8 2x2 1-Lamp Vanity Fixture	22	0.022	Z	8760	193		1	R 1L-10LED2'	Retrofit with (1) 10 Watt LED T8 2' Lamp; Direct Wire to Socket	10	0.010	0.144	KT-LED7T8-24GC-840-D	1
1302	SELINSGROVE	INTERIOR	S	1	175	5	24/7 & OCCUPIED	CM8&9	HALL		1W17	5	T8 2x2 1-Lamp Wrap Fixture	22	0.110	Z	8760	964		5	R 1L-10LED2'	Retrofit with (1) 10 Watt LED T8 2' Lamp; Direct Wire to Socket	10	0.050	0.720	KT-LED7T8-24GC-840-D	1
1303	SELINSGROVE	INTERIOR	S	1	175	5	24/7 & OCCUPIED	CM8&9	HALL		2L25-1X4	3	T8 1x4 2-Lamp Troffer Fixture	43	0.129	Z	8760	1,130		3	R 2L-12.5LED	Retrofit with (2) 12.5 Watt LED T8 4' Lamps; Direct Wire to Socket	25	0.075	0.648	KT-LED10.5T8-48G-840-D	3
1304	SELINSGROVE	INTERIOR	S	1	175	5	24/7 & OCCUPIED	CM8&9	HALL		XLED	5	3 Watt LED 2-Lamp Exit Sign	3	0.015	Z	8760	131		5	ZZ DD	No Retrofit	3	0.015	0.000	N/A	N/A
1305	SELINSGROVE	INTERIOR	S	1	175	5	24/7 & OCCUPIED	CM8&9	HALL		CF13SQDL-8X8	3	13 Watt Compact Fluorescent Square Downlight Fixture; 8x8	13	0.039	Z	8760	342		3	LED 9A	Re-Lamp with (1) 9 Watt LED A19 Lamps	9	0.027	0.144	LA19/9/40K/D-46	8
1306	SELINSGROVE	INTERIOR	S	1	176	5	24/7 & OCCUPIED	CM9	DINING ROOM	2309	7CF13CHAND	2	13 Watt 7-Lamp Compact Fluorescent Chandelier Fixture	91	0.182	Z	8760	1,594		2	LED 7-9A	Re-Lamp with (7) 9 Watt LED A19 Lamps	63	0.126	0.672	LA19/9/40K/D-46	8
1307	SELINSGROVE	INTERIOR	S	1	176	5	24/7 & OCCUPIED	CM9	DINING ROOM		2V17	1	T8 1x2 2-Lamp Vanity Fixture	29	0.029	Z	8760	254		1	R 2L-10LED2'	Retrofit with (2) 10 Watt LED T8 2' Lamps; Direct Wire to Socket	20	0.020	0.108	KT-LED7T8-24GC-840-D	1
1308	SELINSGROVE	INTERIOR	S	1	177	5	24/7 & OCCUPIED	CM9	CLINIC	2374	3W25-4'	4	T8 1x4 3-Lamp Wrap Fixture	65	0.260	O	2340	608		4	R 3L-12.5LED	Retrofit with (3) 12.5 Watt LED T8 4' Lamps; Direct Wire to Socket	37.5	0.150	1.320	KT-LED10.5T8-48G-840-D	3
1309	SELINSGROVE	INTERIOR	S	1	177	5	24/7 & OCCUPIED	CM9	CLINIC		2W25-4'	1	T8 1x4 2-Lamp Wrap Fixture	43	0.043	O	2340	101		1	R 2L-12.5LED	Retrofit with (2) 12.5 Watt LED T8 4' Lamps; Direct Wire to Socket	25	0.025	0.216	KT-LED10.5T8-48G-840-D	3
1310	SELINSGROVE	INTERIOR	S	1	178	5	24/7 & OCCUPIED	CM9	STAIRS	2310	2PL13DR	2	13 Watt Plug-In CFL Drum Fixture	26	0.052	Z	8760	456		2	N LED14DR	New 12" Round 14 Watt LED Drum Fixture	14	0.028	0.288	54074143	19
1311	SELINSGROVE	INTERIOR	S	1	178	5	24/7 & OCCUPIED	CM9	STAIRS		2EC25-4'	1	T8 2x4 2-Lamp Egg Crate Fixture	43	0.043	Z	8760	377		1	N 2W-12.5LED	New 1x4 2-Lamp Wrap Fixture with (2) 12.5 Watt LED T8 4' Lamp; Direct Wire to Socket	25	0.025	0.216	CCW-4'-2-T8LED /// KT-LED10.5T8-48G-840-D	51 + 3
1312	SELINSGROVE	INTERIOR	S	1	179	5	24/7 & OCCUPIED	CM9	LAUNDRY	2373	1I25-4'	3	T8 1x4 1-Lamp Industrial Strip Fixture	22	0.066	S	1000	66		3	R 1L-12.5LED	Retrofit with (1) 12.5 Watt LED T8 4' Lamps; Direct Wire to Socket	12.5	0.038	0.342	KT-LED10.5T8-48G-840-D	3
1313	SELINSGROVE	INTERIOR	S	1	180	5	24/7 & OCCUPIED	CM9	CLOSET	2311	CF13	1	13 Watt Compact Fluorescent Fixture	13	0.013	S	1000	13		1	LED 9A	Re-Lamp with (1) 9 Watt LED A19 Lamps	9	0.009	0.048	LA19/9/40K/D-46	8
1314	SELINSGROVE	INTERIOR	S	1	181	5	24/7 & OCCUPIED	CM9	OFFICE	2312	4L25-4'	3	T8 2x4 4-Lamp Troffer Fixture	85	0.255	O	2340	597		3	R 4L-12.5LED	Retrofit with (4) 12.5 Watt LED T8 4' Lamps; Direct Wire to Socket	50	0.150	1.260	KT-LED10.5T8-48G-840-D	3
1315	SELINSGROVE	INTERIOR	S	1	181	5	24/7 & OCCUPIED	CM9	OFFICE		4EC25-4'	1	T8 2x4 4-Lamp Egg Crate Fixture	85	0.085	O	2340	199		1	N 4W-12.5LED	New 1x4 4-Lamp Wrap Fixture with (4) 12.5 Watt LED T8 4' Lamp; Direct Wire to Socket	50	0.050	0.420	CCW-4'-4-T8LED /// KT-LED10.5T8-48G-840-D	53 + 3
1316	SELINSGROVE	INTERIOR	S	1	181	5	24/7 & OCCUPIED	CM9	RR		1W17	1	T8 2x2 1-Lamp Wrap Fixture	22	0.022	Z	8760	193		1	R 1L-10LED2'	Retrofit with (1) 10 Watt LED T8 2' Lamp; Direct Wire to Socket	10	0.010	0.144	KT-LED7T8-24GC-840-D	1
1317	SELINSGROVE	INTERIOR	S	1	181	5	24/7 & OCCUPIED	CM9	PIPE CHASE		60A	1	60 Watt Incandescent A-Lamp Fixture	60	0.060	S	1000	60		1	LED 9A	Re-Lamp with (1) 9 Watt LED A19 Lamps	9	0.009	0.612	LA19/9/40K/D-46	8
1318	SELINSGROVE	INTERIOR	S	1	182	5	24/7 & OCCUPIED	CM9	LINEN	2373B	CF13SQDL-8X8	1	13 Watt Compact Fluorescent Square Downlight Fixture; 8x8	13	0.013	S	1000	13		1	LED 9A	Re-Lamp with (1) 9 Watt LED A19 Lamps	9	0.009	0.048	LA19/9/40K/D-46	8
1319	SELINSGROVE	INTERIOR	S	1	183	5	24/7 & OCCUPIED	CM9	COMP ROOM	2371B	1W17	4	T8 2x2 1-Lamp Wrap Fixture	22	0.088	S-ES	700	62		4	R 1L-10LED2'	Retrofit with (1) 10 Watt LED T8 2' Lamp; Direct Wire to Socket	10	0.040	0.576	KT-LED7T8-24GC-840-D	1
1320	SELINSGROVE	INTERIOR	S	1	184	5	24/7 & OCCUPIED	CM9	ELEVATOR		1S25	4	T8 2x3 1-Lamp Strip Fixture	30	0.120	Z	8760	1,051		4	R 1L-12LED3'	Retrofit with (1) 12 Watt LED T8 3' Lamp; Direct Wire to Socket	12	0.048	0.864	KT-LED12T8-36GC-840-D	2
1321	SELINSGROVE	INTERIOR	S	1	185	5	24/7 & OCCUPIED	CM9	OFFICE	2371	2EC25-4'	4	T8 2x4 2-Lamp Egg Crate Fixture	43	0.172	O	2340	402		4	N 2W-12.5LED	New 1x4 2-Lamp Wrap Fixture with (2) 12.5 Watt LED T8 4' Lamp; Direct Wire to Socket	25	0.100	0.864	CCW-4'-2-T8LED /// KT-LED10.5T8-48G-840-D	51 + 3
1322	SELINSGROVE	INTERIOR	S	1	186	5	24/7 & OCCUPIED	CM9	OFFICE	2371A	4EC25-4'	2	T8 2x4 4-Lamp Egg Crate Fixture	85	0.170	O-ES	1638	278		2	N 4W-12.5LED	New 1x4 4-Lamp Wrap Fixture with (4) 12.5 Watt LED T8 4' Lamp; Direct Wire to Socket	50	0.100	0.840	CCW-4'-4-T8LED /// KT-LED10.5T8-48G-840-D	53 + 3
1323	SELINSGROVE	INTERIOR	S	1	187	5	24/7 & OCCUPIED	CM10&11	HALL		2L25-1X4	4	T8 1x4 2-Lamp Troffer Fixture	43	0.172	Z	8760	1,507		4	R 2L-12.5LED	Retrofit with (2) 12.5 Watt LED T8 4' Lamps; Direct Wire to Socket	25	0.100	0.864	KT-LED10.5T8-48G-840-D	3
1324	SELINSGROVE	INTERIOR	S	1	187	5	24/7 & OCCUPIED	CM10&11	HALL		1W17	2	T8 2x2 1-Lamp Wrap Fixture	22	0.044	Z	8760	385		2	R 1L-10LED2'	Retrofit with (1) 10 Watt LED T8 2' Lamp; Direct Wire to Socket	10	0.020	0.288	KT-LED7T8-24GC-840-D	1

											EXISTING FIXTURES									PROPOSED FIXTURE UPGRADE							
ID #	Facility Name	Phase	Utility Rate Code	Floor	Map #	Building Number	Building Usage Type	Building Section	Room Description	Room #	ECM Code	Qty	Description	Watts	kW	Burn Hour Code	Pre Burn Hours	kWh	x	Qty	New Code	Description	Watts	kW	Annual KW Saved	Part#	Cut Sheet #
1325	SELINSGROVE	INTERIOR	S	1	187	5	24/7 & OCCUPIED	CM10&11	HALL		CF13SQDL-8X8	3	13 Watt Compact Fluorescent Square Downlight Fixture; 8x8	13	0.039	Z	8760	342		3	LED 9A	Re-Lamp with (1) 9 Watt LED A19 Lamps	9	0.027	0.144	LA19/9/40K/D-46	8
1326	SELINSGROVE	INTERIOR	S	1	187	5	24/7 & OCCUPIED	CM10&11	HALL		4L25-4'	2	T8 2x4 4-Lamp Troffer Fixture	85	0.170	Z	8760	1,489		2	R 4L-12.5LED	Retrofit with (4) 12.5 Watt LED T8 4' Lamps; Direct Wire to Socket	50	0.100	0.840	KT-LED10.5T8-48G-840-D	3
1327	SELINSGROVE	INTERIOR	S	1	187	5	24/7 & OCCUPIED	CM10&11	HALL		60A	2	60 Watt Incandescent A-Lamp Fixture	60	0.120	Z	8760	1,051		2	LED 9A	Re-Lamp with (1) 9 Watt LED A19 Lamps	9	0.018	1.224	LA19/9/40K/D-46	8
1328	SELINSGROVE	INTERIOR	S	1	188	5	24/7 & OCCUPIED	CM10	NURSE STATION	2369	2EC25-4'	2	T8 2x4 2-Lamp Egg Crate Fixture	43	0.086	Z	8760	753		2	N 2W-12.5LED	New 1x4 2-Lamp Wrap Fixture with (2) 12.5 Watt LED T8 4' Lamp; Direct Wire to Socket	25	0.050	0.432	CCW-4'-2-T8LED /// KT-LED10.5T8-48G-840-D	51 + 3
1329	SELINSGROVE	INTERIOR	S	1	188	5	24/7 & OCCUPIED	CM10	RR		75JJ(JJ)	1	75 Watt Incandescent Jelly Jar Fixture; Damaged/Missing Lens	75	0.075	Z	8760	657		1	N LED9AJJ	New Jelly Jar Fixture with (1) 9 Watt LED A19	9	0.009	0.792	CJJ/WJJ /// LA19/9/40K/D-46	46 + 8
1330	SELINSGROVE	INTERIOR	S	1	189	5	24/7 & OCCUPIED	CM10	OFFICE	2363	3W25-4'	1	T8 1x4 3-Lamp Wrap Fixture	65	0.065	O	2340	152		1	R 3L-12.5LED	Retrofit with (3) 12.5 Watt LED T8 4' Lamps; Direct Wire to Socket	37.5	0.038	0.330	KT-LED10.5T8-48G-840-D	3
1331	SELINSGROVE	INTERIOR	S	1	190	5	24/7 & OCCUPIED	CM10	SOLARIUM	2361	2L25-1X4	7	T8 1x4 2-Lamp Troffer Fixture	43	0.301	BH	5460	1,643		7	R 2L-12.5LED	Retrofit with (2) 12.5 Watt LED T8 4' Lamps; Direct Wire to Socket	25	0.175	1.512	KT-LED10.5T8-48G-840-D	3
1332	SELINSGROVE	INTERIOR	S	1	190	5	24/7 & OCCUPIED	CM10	SOLARIUM		XLED	1	3 Watt LED 2-Lamp Exit Sign	3	0.003	Z	8760	26		1	ZZ DD	No Retrofit	3	0.003	0.000	N/A	N/A
1333	SELINSGROVE	INTERIOR	S	1	191	5	24/7 & OCCUPIED	CM10	STAIRS	2362	2PL13DR	1	13 Watt Plug-In CFL Drum Fixture	26	0.026	Z	8760	228		1	N LED14DR	New 12" Round 14 Watt LED Drum Fixture	14	0.014	0.144	54074143	19
1334	SELINSGROVE	INTERIOR	S	1	191	5	24/7 & OCCUPIED	CM10	STAIRS		2EC25-4'-DA	1	T8 2x4 2-Lamp Egg Crate Fixture; Difficult Access	43	0.043	Z	8760	377		1	N 2W-12.5LED-DA	New 1x4 2-Lamp Wrap Fixture with (2) 12.5 Watt LED T8 4' Lamp; Direct Wire to Socket; Difficult Access	25	0.025	0.216	CCW-4'-2-T8LED /// KT-LED10.5T8-48G-840-D	51 + 3
1335	SELINSGROVE	INTERIOR	S	1	191	5	24/7 & OCCUPIED	CM10	STAIRS		1W17	2	T8 2x2 1-Lamp Wrap Fixture	22	0.044	Z	8760	385		2	R 1L-10LED2'	Retrofit with (1) 10 Watt LED T8 2' Lamp; Direct Wire to Socket	10	0.020	0.288	KT-LED7T8-24GC-840-D	1
1336	SELINSGROVE	INTERIOR	S	1	191	5	24/7 & OCCUPIED	CM10	STAIRS		XLED	2	3 Watt LED 2-Lamp Exit Sign	3	0.006	Z	8760	53		2	ZZ DD	No Retrofit	3	0.006	0.000	N/A	N/A
1337	SELINSGROVE	INTERIOR	S	1	192	5	24/7 & OCCUPIED	CM10	DAY ROOM	2358	3L25	18	T8 2x3 3-Lamp Troffer Fixture	82	1.476	BH	5460	8,059		18	R 3L-12LED3'	Retrofit with (3) 12 Watt LED T8 3' Lamps; Direct Wire to Socket	36	0.648	9.936	KT-LED12T8-36GC-840-D	2
1338	SELINSGROVE	INTERIOR	S	1	192	5	24/7 & OCCUPIED	CM10	DAY ROOM		2PL13DR	2	13 Watt Plug-In CFL Drum Fixture	26	0.052	BH	5460	284		2	N LED14DR	New 12" Round 14 Watt LED Drum Fixture	14	0.028	0.288	54074143	19
1339	SELINSGROVE	INTERIOR	S	1	192	5	24/7 & OCCUPIED	CM10	DAY ROOM		XLED	2	3 Watt LED 2-Lamp Exit Sign	3	0.006	Z	8760	53		2	ZZ DD	No Retrofit	3	0.006	0.000	N/A	N/A
1340	SELINSGROVE	INTERIOR	S	1	192	5	24/7 & OCCUPIED	CM10	DAY ROOM		1W17	1	T8 2x2 1-Lamp Wrap Fixture	22	0.022	BH	5460	120		1	R 1L-10LED2'	Retrofit with (1) 10 Watt LED T8 2' Lamp; Direct Wire to Socket	10	0.010	0.144	KT-LED7T8-24GC-840-D	1
1341	SELINSGROVE	INTERIOR	S	1	193	5	24/7 & OCCUPIED	CM10	BED	2356	2I17	2	T8 2x2 2-Lamp Troffer Fixture	36	0.072	BH	5460	393		2	R 1L-10LED2'	Retrofit with (1) 10 Watt LED T8 2' Lamp; Direct Wire to Socket	10	0.020	0.624	KT-LED7T8-24GC-840-D	1
1342	SELINSGROVE	INTERIOR	S	1	193	5	24/7 & OCCUPIED	CM10	BED		60SC	4	60 Watt Incandescent Sconce Fixture	60	0.240	BH	5460	1,310		4	LED 9A	Re-Lamp with (1) 9 Watt LED A19 Lamps	9	0.036	2.448	LA19/9/40K/D-46	8
1343	SELINSGROVE	INTERIOR	S	1	194	5	24/7 & OCCUPIED	CM10	BED	2357	1W17	2	T8 2x2 1-Lamp Wrap Fixture	22	0.044	BH	5460	240		2	R 1L-10LED2'	Retrofit with (1) 10 Watt LED T8 2' Lamp; Direct Wire to Socket	10	0.020	0.288	KT-LED7T8-24GC-840-D	1
1344	SELINSGROVE	INTERIOR	S	1	194	5	24/7 & OCCUPIED	CM10	BED		60SC	4	60 Watt Incandescent Sconce Fixture	60	0.240	BH	5460	1,310		4	LED 9A	Re-Lamp with (1) 9 Watt LED A19 Lamps	9	0.036	2.448	LA19/9/40K/D-46	8
1345	SELINSGROVE	INTERIOR	S	1	195	5	24/7 & OCCUPIED	CM10	BED	2359	1W17	2	T8 2x2 1-Lamp Wrap Fixture	22	0.044	BH	5460	240		2	R 1L-10LED2'	Retrofit with (1) 10 Watt LED T8 2' Lamp; Direct Wire to Socket	10	0.020	0.288	KT-LED7T8-24GC-840-D	1
1346	SELINSGROVE	INTERIOR	S	1	195	5	24/7 & OCCUPIED	CM10	BED		60SC	4	60 Watt Incandescent Sconce Fixture	60	0.240	BH	5460	1,310		4	LED 9A	Re-Lamp with (1) 9 Watt LED A19 Lamps	9	0.036	2.448	LA19/9/40K/D-46	8
1347	SELINSGROVE	INTERIOR	S	1	196	5	24/7 & OCCUPIED	CM10	BED	2360	1W17	2	T8 2x2 1-Lamp Wrap Fixture	22	0.044	BH	5460	240		2	R 1L-10LED2'	Retrofit with (1) 10 Watt LED T8 2' Lamp; Direct Wire to Socket	10	0.020	0.288	KT-LED7T8-24GC-840-D	1
1348	SELINSGROVE	INTERIOR	S	1	196	5	24/7 & OCCUPIED	CM10	BED		60SC	4	60 Watt Incandescent Sconce Fixture	60	0.240	BH	5460	1,310		4	LED 9A	Re-Lamp with (1) 9 Watt LED A19 Lamps	9	0.036	2.448	LA19/9/40K/D-46	8
1349	SELINSGROVE	INTERIOR	S	1	197	5	24/7 & OCCUPIED	CM10	BED	2364	1W17	2	T8 2x2 1-Lamp Wrap Fixture	22	0.044	BH	5460	240		2	R 1L-10LED2'	Retrofit with (1) 10 Watt LED T8 2' Lamp; Direct Wire to Socket	10	0.020	0.288	KT-LED7T8-24GC-840-D	1
1350	SELINSGROVE	INTERIOR	S	1	197	5	24/7 & OCCUPIED	CM10	BED		60SC	4	60 Watt Incandescent Sconce Fixture	60	0.240	BH	5460	1,310		4	LED 9A	Re-Lamp with (1) 9 Watt LED A19 Lamps	9	0.036	2.448	LA19/9/40K/D-46	8
1351	SELINSGROVE	INTERIOR	S	1	198	5	24/7 & OCCUPIED	CM10	BED	2365	1W17	2	T8 2x2 1-Lamp Wrap Fixture	22	0.044	BH	5460	240		2	R 1L-10LED2'	Retrofit with (1) 10 Watt LED T8 2' Lamp; Direct Wire to Socket	10	0.020	0.288	KT-LED7T8-24GC-840-D	1
1352	SELINSGROVE	INTERIOR	S	1	198	5	24/7 & OCCUPIED	CM10	BED		60SC	4	60 Watt Incandescent Sconce Fixture	60	0.240	BH	5460	1,310		4	LED 9A	Re-Lamp with (1) 9 Watt LED A19 Lamps	9	0.036	2.448	LA19/9/40K/D-46	8
1353	SELINSGROVE	INTERIOR	S	1	199	5	24/7 & OCCUPIED	CM10	BED	2366	1W17	2	T8 2x2 1-Lamp Wrap Fixture	22	0.044	BH	5460	240		2	R 1L-10LED2'	Retrofit with (1) 10 Watt LED T8 2' Lamp; Direct Wire to Socket	10	0.020	0.288	KT-LED7T8-24GC-840-D	1
1354	SELINSGROVE	INTERIOR	S	1	199	5	24/7 & OCCUPIED	CM10	BED		60SC	4	60 Watt Incandescent Sconce Fixture	60	0.240	BH	5460	1,310		4	LED 9A	Re-Lamp with (1) 9 Watt LED A19 Lamps	9	0.036	2.448	LA19/9/40K/D-46	8
1355	SELINSGROVE	INTERIOR	S	1	200	5	24/7 & OCCUPIED	CM10	DINING ROOM	2367	4L25-4'	4	T8 2x4 4-Lamp Troffer Fixture	85	0.340	Z	8760	2,978		4	R 4L-12.5LED	Retrofit with (4) 12.5 Watt LED T8 4' Lamps; Direct Wire to Socket	50	0.200	1.680	KT-LED10.5T8-48G-840-D	3
1356	SELINSGROVE	INTERIOR	S	1	201	5	24/7 & OCCUPIED	CM10	RR / SHOWER		2W25-4'	4	T8 1x4 2-Lamp Wrap Fixture	43	0.172	Z	8760	1,507		4	R 2L-12.5LED	Retrofit with (2) 12.5 Watt LED T8 4' Lamps; Direct Wire to Socket	25	0.100	0.864	KT-LED10.5T8-48G-840-D	3

											EXISTING FIXTURES									PROPOSED FIXTURE UPGRADE							
ID #	Facility Name	Phase	Utility Rate Code	Floor	Map #	Building Number	Building Usage Type	Building Section	Room Description	Room #	ECM Code	Qty	Description	Watts	kW	Burn Hour Code	Pre Burn Hours	kWh	x	Qty	New Code	Description	Watts	kW	Annual KW Saved	Part#	Cut Sheet #
1357	SELINSGROVE	INTERIOR	S	1	201	5	24/7 & OCCUPIED	CM10	RR / SHOWER	2368	2PL13SQDL-8X8	3	13 Watt 2-Lamp Plug-In CFL Square Downlight Fixture; 8x8	30	0.090	Z	8760	788		3	RK KLED7-REC	Retrofit with (1) 7 Watt LED Rectangular Retrofit Kit	8.5	0.026	0.774	KT-RKIT-RP-6-800-840-UV/G2	54
1358	SELINSGROVE	INTERIOR	S	1	201	5	24/7 & OCCUPIED	CM10	RR / SHOWER		1V25-4'	1	T8 1x4 1-Lamp Vanity Fixture	22	0.022	Z	8760	193		1	R 1L-12.5LED	Retrofit with (1) 12.5 Watt LED T8 4' Lamps; Direct Wire to Socket	12.5	0.013	0.114	KT-LED10.5T8-48G-840-D	3
1359	SELINSGROVE	INTERIOR	S	1	201	5	24/7 & OCCUPIED	CM10	RR / SHOWER		2V25-4'	2	T8 1x4 2-Lamp Vanity Fixture	43	0.086	Z	8760	753		2	R 2L-12.5LED	Retrofit with (2) 12.5 Watt LED T8 4' Lamps; Direct Wire to Socket	25	0.050	0.432	KT-LED10.5T8-48G-840-D	3
1360	SELINSGROVE	INTERIOR	S	1	201	5	24/7 & OCCUPIED	CM10	CLOSET		2PL13DR	1	13 Watt Plug-In CFL Drum Fixture	26	0.026	S	1000	26		1	N LED14DR	New 12" Round 14 Watt LED Drum Fixture	14	0.014	0.144	54074143	19
1361	SELINSGROVE	INTERIOR	S	1	201	5	24/7 & OCCUPIED	CM10	PIPE CHASE		60A	2	60 Watt Incandescent A-Lamp Fixture	60	0.120	S	1000	120		2	LED 9A	Re-Lamp with (1) 9 Watt LED A19 Lamps	9	0.018	1.224	LA19/9/40K/D-46	8
1362	SELINSGROVE	INTERIOR	S	1	202	5	24/7 & OCCUPIED	CM10	RR / SHOWER	2351	2W25-4'	4	T8 1x4 2-Lamp Wrap Fixture	43	0.172	Z	8760	1,507		4	R 2L-12.5LED	Retrofit with (2) 12.5 Watt LED T8 4' Lamps; Direct Wire to Socket	25	0.100	0.864	KT-LED10.5T8-48G-840-D	3
1363	SELINSGROVE	INTERIOR	S	1	202	5	24/7 & OCCUPIED	CM10	RR		2V25-4'	1	T8 1x4 2-Lamp Vanity Fixture	43	0.043	Z	8760	377		1	R 2L-12.5LED	Retrofit with (2) 12.5 Watt LED T8 4' Lamps; Direct Wire to Socket	25	0.025	0.216	KT-LED10.5T8-48G-840-D	3
1364	SELINSGROVE	INTERIOR	S	1	202	5	24/7 & OCCUPIED	CM10	RR		2PL13SQDL-8X8	2	13 Watt 2-Lamp Plug-In CFL Square Downlight Fixture; 8x8	30	0.060	Z	8760	526		2	RK KLED7-REC	Retrofit with (1) 7 Watt LED Rectangular Retrofit Kit	8.5	0.017	0.516	KT-RKIT-RP-6-800-840-UV/G2	54
1365	SELINSGROVE	INTERIOR	S	1	202	5	24/7 & OCCUPIED	CM10	RR		1V17	2	T8 2x2 1-Lamp Vanity Fixture	22	0.044	Z	8760	385		2	R 1L-10LED2'	Retrofit with (1) 10 Watt LED T8 2' Lamp; Direct Wire to Socket	10	0.020	0.288	KT-LED7T8-24GC-840-D	1
1366	SELINSGROVE	INTERIOR	S	1	202	5	24/7 & OCCUPIED	CM10	LAUNDRY		2PL13DR	1	13 Watt Plug-In CFL Drum Fixture	26	0.026	S	1000	26		1	N LED14DR	New 12" Round 14 Watt LED Drum Fixture	14	0.014	0.144	54074143	19
1367	SELINSGROVE	INTERIOR	S	1	203	5	24/7 & OCCUPIED	CM10	MEDICAL SUPPLY	2354	1W17	4	T8 2x2 1-Lamp Wrap Fixture	22	0.088	S	1000	88		4	R 1L-10LED2'	Retrofit with (1) 10 Watt LED T8 2' Lamp; Direct Wire to Socket	10	0.040	0.576	KT-LED7T8-24GC-840-D	1
1368	SELINSGROVE	INTERIOR	S	1	204	5	24/7 & OCCUPIED	CM10	DINING ROOM	2333	1W17	6	T8 2x2 1-Lamp Wrap Fixture	22	0.132	Z	8760	1,156		6	R 1L-10LED2'	Retrofit with (1) 10 Watt LED T8 2' Lamp; Direct Wire to Socket	10	0.060	0.864	KT-LED7T8-24GC-840-D	1
1369	SELINSGROVE	INTERIOR	S	1	205	5	24/7 & OCCUPIED	CM10	JANITOR CLOSET	2316	CF13	1	13 Watt Compact Fluorescent Fixture	13	0.013	S	1000	13		1	LED 9A	Re-Lamp with (1) 9 Watt LED A19 Lamps	9	0.009	0.048	LA19/9/40K/D-46	8
1370	SELINSGROVE	INTERIOR	S	1	206	5	24/7 & OCCUPIED	CM10	RR	2317	2PL13DR	1	13 Watt Plug-In CFL Drum Fixture	26	0.026	Z	8760	228		1	N LED14DR	New 12" Round 14 Watt LED Drum Fixture	14	0.014	0.144	54074143	19
1371	SELINSGROVE	INTERIOR	S	1	207	5	24/7 & OCCUPIED	CM10	ELEC	2318	CF13	1	13 Watt Compact Fluorescent Fixture	13	0.013	S	1000	13		1	LED 9A	Re-Lamp with (1) 9 Watt LED A19 Lamps	9	0.009	0.048	LA19/9/40K/D-46	8
1372	SELINSGROVE	INTERIOR	S	1	208	5	24/7 & OCCUPIED	CM11	DINING ROOM	2315	4L25-4'	4	T8 2x4 4-Lamp Troffer Fixture	85	0.340	Z	8760	2,978		4	R 4L-12.5LED	Retrofit with (4) 12.5 Watt LED T8 4' Lamps; Direct Wire to Socket	50	0.200	1.680	KT-LED10.5T8-48G-840-D	3
1373	SELINSGROVE	INTERIOR	S	1	209	5	24/7 & OCCUPIED	CM11	HALL	2314	1W17	2	T8 2x2 1-Lamp Wrap Fixture	22	0.044	Z	8760	385		2	R 1L-10LED2'	Retrofit with (1) 10 Watt LED T8 2' Lamp; Direct Wire to Socket	10	0.020	0.288	KT-LED7T8-24GC-840-D	1
1374	SELINSGROVE	INTERIOR	S	1	209	5	24/7 & OCCUPIED	CM11	HALL		2W25-4'	4	T8 1x4 2-Lamp Wrap Fixture	43	0.172	Z	8760	1,507		4	R 2L-12.5LED	Retrofit with (2) 12.5 Watt LED T8 4' Lamps; Direct Wire to Socket	25	0.100	0.864	KT-LED10.5T8-48G-840-D	3
1375	SELINSGROVE	INTERIOR	S	1	210	5	24/7 & OCCUPIED	CM11	RR	2314	2PL13SQDL-8X8	1	13 Watt 2-Lamp Plug-In CFL Square Downlight Fixture; 8x8	30	0.030	Z	8760	263		1	RK KLED7-REC	Retrofit with (1) 7 Watt LED Rectangular Retrofit Kit	8.5	0.009	0.258	KT-RKIT-RP-6-800-840-UV/G2	54
1376	SELINSGROVE	INTERIOR	S	1	210	5	24/7 & OCCUPIED	CM11	RR		2V25-4'	2	T8 1x4 2-Lamp Vanity Fixture	43	0.086	Z	8760	753		2	R 2L-12.5LED	Retrofit with (2) 12.5 Watt LED T8 4' Lamps; Direct Wire to Socket	25	0.050	0.432	KT-LED10.5T8-48G-840-D	3
1377	SELINSGROVE	INTERIOR	S	1	211	5	24/7 & OCCUPIED	CM11	LAUNDRY	2314	1V25-4'	1	T8 1x4 1-Lamp Vanity Fixture	22	0.022	S	1000	22		1	R 1L-12.5LED	Retrofit with (1) 12.5 Watt LED T8 4' Lamps; Direct Wire to Socket	12.5	0.013	0.114	KT-LED10.5T8-48G-840-D	3
1378	SELINSGROVE	INTERIOR	S	1	211	5	24/7 & OCCUPIED	CM11	LAUNDRY		2PL13SQDL-8X8	1	13 Watt 2-Lamp Plug-In CFL Square Downlight Fixture; 8x8	30	0.030	S	1000	30		1	RK KLED7-REC	Retrofit with (1) 7 Watt LED Rectangular Retrofit Kit	8.5	0.009	0.258	KT-RKIT-RP-6-800-840-UV/G2	54
1379	SELINSGROVE	INTERIOR	S	1	212	5	24/7 & OCCUPIED	CM11	PIPE CHASE	2314	60A	1	60 Watt Incandescent A-Lamp Fixture	60	0.060	S	1000	60		1	LED 9A	Re-Lamp with (1) 9 Watt LED A19 Lamps	9	0.009	0.612	LA19/9/40K/D-46	8
1380	SELINSGROVE	INTERIOR	S	1	213	5	24/7 & OCCUPIED	CM11	RR / SHOWER	2332	2W25-4'	4	T8 1x4 2-Lamp Wrap Fixture	43	0.172	Z	8760	1,507		4	R 2L-12.5LED	Retrofit with (2) 12.5 Watt LED T8 4' Lamps; Direct Wire to Socket	25	0.100	0.864	KT-LED10.5T8-48G-840-D	3
1381	SELINSGROVE	INTERIOR	S	1	213	5	24/7 & OCCUPIED	CM11	BATH A		2PL13SQDL-8X8	1	13 Watt 2-Lamp Plug-In CFL Square Downlight Fixture; 8x8	30	0.030	Z	8760	263		1	RK KLED7-REC	Retrofit with (1) 7 Watt LED Rectangular Retrofit Kit	8.5	0.009	0.258	KT-RKIT-RP-6-800-840-UV/G2	54
1382	SELINSGROVE	INTERIOR	S	1	213	5	24/7 & OCCUPIED	CM11	BATH A		2V25-4'	1	T8 1x4 2-Lamp Vanity Fixture	43	0.043	Z	8760	377		1	R 2L-12.5LED	Retrofit with (2) 12.5 Watt LED T8 4' Lamps; Direct Wire to Socket	25	0.025	0.216	KT-LED10.5T8-48G-840-D	3
1383	SELINSGROVE	INTERIOR	S	1	213	5	24/7 & OCCUPIED	CM11	RR - D		1V17	1	T8 2x2 1-Lamp Vanity Fixture	22	0.022	Z	8760	193		1	R 1L-10LED2'	Retrofit with (1) 10 Watt LED T8 2' Lamp; Direct Wire to Socket	10	0.010	0.144	KT-LED7T8-24GC-840-D	1
1384	SELINSGROVE	INTERIOR	S	1	213	5	24/7 & OCCUPIED	CM11	PIPE CHASE		60A	3	60 Watt Incandescent A-Lamp Fixture	60	0.180	S	1000	180		3	LED 9A	Re-Lamp with (1) 9 Watt LED A19 Lamps	9	0.027	1.836	LA19/9/40K/D-46	8
1385	SELINSGROVE	INTERIOR	S	1	213	5	24/7 & OCCUPIED	CM11	BATH B		2VT25-4'	1	T8 1x4 2-Lamp Vaportight Fixture	43	0.043	Z	8760	377		1	R 2L-12.5LED	Retrofit with (2) 12.5 Watt LED T8 4' Lamps; Direct Wire to Socket	25	0.025	0.216	KT-LED10.5T8-48G-840-D	3
1386	SELINSGROVE	INTERIOR	S	1	213	5	24/7 & OCCUPIED	CM11	BATH B		2PL13SQDL-8X8-(L)	1	13 Watt 2-Lamp Plug-In CFL Square Downlight Fixture; 8x8; Damaged/Missing Lens	30	0.030	Z	8760	263		1	R GLED13SQDL-8X8	Retrofit with (1) 13 Watt 8x8 Square LED Downlight	13	0.013	0.204	LRX-S8-10-8-40-MD	21
1387	SELINSGROVE	INTERIOR	S	1	213	5	24/7 & OCCUPIED	CM11	BATH C		2V25-4'	1	T8 1x4 2-Lamp Vanity Fixture	43	0.043	Z	8760	377		1	R 2L-12.5LED	Retrofit with (2) 12.5 Watt LED T8 4' Lamps; Direct Wire to Socket	25	0.025	0.216	KT-LED10.5T8-48G-840-D	3
1388	SELINSGROVE	INTERIOR	S	1	213	5	24/7 & OCCUPIED	CM11	BATH C		2PL13SQDL-8X8	1	13 Watt 2-Lamp Plug-In CFL Square Downlight Fixture; 8x8	30	0.030	Z	8760	263		1	RK KLED7-REC	Retrofit with (1) 7 Watt LED Rectangular Retrofit Kit	8.5	0.009	0.258	KT-RKIT-RP-6-800-840-UV/G2	54

											EXISTING FIXTURES									PROPOSED FIXTURE UPGRADE						
ID #	Facility Name	Phase	Utility Rate Code	Floor	Map #	Building Number	Building Usage Type	Building Section	Room Description	Room #	ECM Code	Qty	Description	Watts	kW	Burn Hour Code	Pre Burn Hours	kWh	x	Qty	New Code	Description	Watts	kW	Annual KW Saved	Part#	Cut Sheet #
1389	SELINSGROVE	INTERIOR	S	1	214	5	24/7 & OCCUPIED	CM11	DAY ROOM	2319	3L25-4'	18	T8 2x4 3-Lamp Troffer Fixture	65	1.170	BH	5460	6,388		18	R 3L-12.5LED	Retrofit with (3) 12.5 Watt LED T8 4' Lamps; Direct Wire to Socket	37.5	0.675	5.940	KT-LED10.5T8-48G-840-D	3
1390	SELINSGROVE	INTERIOR	S	1	214	5	24/7 & OCCUPIED	CM11	DAY ROOM		2PL13DR	2	13 Watt Plug-In CFL Drum Fixture	26	0.052	BH	5460	284		2	N LED14DR	New 12" Round 14 Watt LED Drum Fixture	14	0.028	0.288	54074143	19
1391	SELINSGROVE	INTERIOR	S	1	214	5	24/7 & OCCUPIED	CM11	DAY ROOM		XLED	2	3 Watt LED 2-Lamp Exit Sign	3	0.006	Z	8760	53		2	ZZ DD	No Retrofit	3	0.006	0.000	N/A	N/A
1392	SELINSGROVE	INTERIOR	S	1	214	5	24/7 & OCCUPIED	CM11	DAY ROOM		60A	8	60 Watt Incandescent A-Lamp Fixture	60	0.480	BH	5460	2,621		8	LED 9A	Re-Lamp with (1) 9 Watt LED A19 Lamps	9	0.072	4.896	LA19/9/40K/D-46	8
1393	SELINSGROVE	INTERIOR	S	1	215	5	24/7 & OCCUPIED	CM11	BED	2331	1W17	2	T8 2x2 1-Lamp Wrap Fixture	22	0.044	BH	5460	240		2	R 1L-10LED2'	Retrofit with (1) 10 Watt LED T8 2' Lamp; Direct Wire to Socket	10	0.020	0.288	KT-LED7T8-24GC-840-D	1
1394	SELINSGROVE	INTERIOR	S	1	215	5	24/7 & OCCUPIED	CM11	BED		60SC	4	60 Watt Incandescent Sconce Fixture	60	0.240	BH	5460	1,310		4	LED 9A	Re-Lamp with (1) 9 Watt LED A19 Lamps	9	0.036	2.448	LA19/9/40K/D-46	8
1395	SELINSGROVE	INTERIOR	S	1	216	5	24/7 & OCCUPIED	CM11	BED	2330	1W17	2	T8 2x2 1-Lamp Wrap Fixture	22	0.044	BH	5460	240		2	R 1L-10LED2'	Retrofit with (1) 10 Watt LED T8 2' Lamp; Direct Wire to Socket	10	0.020	0.288	KT-LED7T8-24GC-840-D	1
1396	SELINSGROVE	INTERIOR	S	1	216	5	24/7 & OCCUPIED	CM11	BED		60SC	4	60 Watt Incandescent Sconce Fixture	60	0.240	BH	5460	1,310		4	LED 9A	Re-Lamp with (1) 9 Watt LED A19 Lamps	9	0.036	2.448	LA19/9/40K/D-46	8
1397	SELINSGROVE	INTERIOR	S	1	217	5	24/7 & OCCUPIED	CM11	BED	2329	1W17	2	T8 2x2 1-Lamp Wrap Fixture	22	0.044	BH	5460	240		2	R 1L-10LED2'	Retrofit with (1) 10 Watt LED T8 2' Lamp; Direct Wire to Socket	10	0.020	0.288	KT-LED7T8-24GC-840-D	1
1398	SELINSGROVE	INTERIOR	S	1	217	5	24/7 & OCCUPIED	CM11	BED		60SC	4	60 Watt Incandescent Sconce Fixture	60	0.240	BH	5460	1,310		4	LED 9A	Re-Lamp with (1) 9 Watt LED A19 Lamps	9	0.036	2.448	LA19/9/40K/D-46	8
1399	SELINSGROVE	INTERIOR	S	1	218	5	24/7 & OCCUPIED	CM11	BED	2328	1W17	2	T8 2x2 1-Lamp Wrap Fixture	22	0.044	BH	5460	240		2	R 1L-10LED2'	Retrofit with (1) 10 Watt LED T8 2' Lamp; Direct Wire to Socket	10	0.020	0.288	KT-LED7T8-24GC-840-D	1
1400	SELINSGROVE	INTERIOR	S	1	218	5	24/7 & OCCUPIED	CM11	BED		60SC	4	60 Watt Incandescent Sconce Fixture	60	0.240	BH	5460	1,310		4	LED 9A	Re-Lamp with (1) 9 Watt LED A19 Lamps	9	0.036	2.448	LA19/9/40K/D-46	8
1401	SELINSGROVE	INTERIOR	S	1	219	5	24/7 & OCCUPIED	CM11	BED	2324	1W17	2	T8 2x2 1-Lamp Wrap Fixture	22	0.044	BH	5460	240		2	R 1L-10LED2'	Retrofit with (1) 10 Watt LED T8 2' Lamp; Direct Wire to Socket	10	0.020	0.288	KT-LED7T8-24GC-840-D	1
1402	SELINSGROVE	INTERIOR	S	1	219	5	24/7 & OCCUPIED	CM11	BED		60SC	4	60 Watt Incandescent Sconce Fixture	60	0.240	BH	5460	1,310		4	LED 9A	Re-Lamp with (1) 9 Watt LED A19 Lamps	9	0.036	2.448	LA19/9/40K/D-46	8
1403	SELINSGROVE	INTERIOR	S	1	220	5	24/7 & OCCUPIED	CM11	BED	2323	1W17	2	T8 2x2 1-Lamp Wrap Fixture	22	0.044	BH	5460	240		2	R 1L-10LED2'	Retrofit with (1) 10 Watt LED T8 2' Lamp; Direct Wire to Socket	10	0.020	0.288	KT-LED7T8-24GC-840-D	1
1404	SELINSGROVE	INTERIOR	S	1	220	5	24/7 & OCCUPIED	CM11	BED		60SC	4	60 Watt Incandescent Sconce Fixture	60	0.240	BH	5460	1,310		4	LED 9A	Re-Lamp with (1) 9 Watt LED A19 Lamps	9	0.036	2.448	LA19/9/40K/D-46	8
1405	SELINSGROVE	INTERIOR	S	1	221	5	24/7 & OCCUPIED	CM11	BED	2321	1W17	2	T8 2x2 1-Lamp Wrap Fixture	22	0.044	BH	5460	240		2	R 1L-10LED2'	Retrofit with (1) 10 Watt LED T8 2' Lamp; Direct Wire to Socket	10	0.020	0.288	KT-LED7T8-24GC-840-D	1
1406	SELINSGROVE	INTERIOR	S	1	221	5	24/7 & OCCUPIED	CM11	BED		60SC	4	60 Watt Incandescent Sconce Fixture	60	0.240	BH	5460	1,310		4	LED 9A	Re-Lamp with (1) 9 Watt LED A19 Lamps	9	0.036	2.448	LA19/9/40K/D-46	8
1407	SELINSGROVE	INTERIOR	S	1	222	5	24/7 & OCCUPIED	CM11	BED	2320	1W17	2	T8 2x2 1-Lamp Wrap Fixture	22	0.044	BH	5460	240		2	R 1L-10LED2'	Retrofit with (1) 10 Watt LED T8 2' Lamp; Direct Wire to Socket	10	0.020	0.288	KT-LED7T8-24GC-840-D	1
1408	SELINSGROVE	INTERIOR	S	1	223	5	24/7 & OCCUPIED	CM11	SOLARIUM	2325	2L25-1X4	4	T8 1x4 2-Lamp Troffer Fixture	43	0.172	BH	5460	939		4	R 2L-12.5LED	Retrofit with (2) 12.5 Watt LED T8 4' Lamps; Direct Wire to Socket	25	0.100	0.864	KT-LED10.5T8-48G-840-D	3
1409	SELINSGROVE	INTERIOR	S	1	223	5	24/7 & OCCUPIED	CM11	SOLARIUM		XLED	1	3 Watt LED 2-Lamp Exit Sign	3	0.003	Z	8760	26		1	ZZ DD	No Retrofit	3	0.003	0.000	N/A	N/A
1410	SELINSGROVE	INTERIOR	S	1	224	5	24/7 & OCCUPIED	CM11	OFFICE	2326	2EC25-4'	1	T8 2x4 2-Lamp Egg Crate Fixture	43	0.043	O	2340	101		1	N 2W-12.5LED	New 1x4 2-Lamp Wrap Fixture with (2) 12.5 Watt LED T8 4' Lamp; Direct Wire to Socket	25	0.025	0.216	CCW-4'-2-T8LED /// KT-LED10.5T8-48G-840-D	51 + 3
1411	SELINSGROVE	INTERIOR	S	1	225	5	24/7 & OCCUPIED	CM11	STAIRS	2327	2PL13DR	1	13 Watt Plug-In CFL Drum Fixture	26	0.026	Z	8760	228		1	N LED14DR	New 12" Round 14 Watt LED Drum Fixture	14	0.014	0.144	54074143	19
1412	SELINSGROVE	INTERIOR	S	1	225	5	24/7 & OCCUPIED	CM11	STAIRS		2EC25-4'-DA	1	T8 2x4 2-Lamp Egg Crate Fixture; Difficult Access	43	0.043	Z	8760	377		1	N 2W-12.5LED-DA	New 1x4 2-Lamp Wrap Fixture with (2) 12.5 Watt LED T8 4' Lamp; Direct Wire to Socket; Difficult Access	25	0.025	0.216	CCW-4'-2-T8LED /// KT-LED10.5T8-48G-840-D	51 + 3
1413	SELINSGROVE	INTERIOR	S	1	225	5	24/7 & OCCUPIED	CM11	STAIRS		1W17	2	T8 2x2 1-Lamp Wrap Fixture	22	0.044	Z	8760	385		2	R 1L-10LED2'	Retrofit with (1) 10 Watt LED T8 2' Lamp; Direct Wire to Socket	10	0.020	0.288	KT-LED7T8-24GC-840-D	1
1414	SELINSGROVE	INTERIOR	S	1	225	5	24/7 & OCCUPIED	CM11	STAIRS		XLED	2	3 Watt LED 2-Lamp Exit Sign	3	0.006	Z	8760	53		2	ZZ DD	No Retrofit	3	0.006	0.000	N/A	N/A
1415	SELINSGROVE	INTERIOR	S	BASEMENT	23	5	24/7 & OCCUPIED	CN10&11	STORAGE	163	2PL13DR	1	13 Watt Plug-In CFL Drum Fixture	26	0.026	S	1000	26		1	N LED14DR	New 12" Round 14 Watt LED Drum Fixture	14	0.014	0.144	54074143	19
1416	SELINSGROVE	INTERIOR	S	BASEMENT	24	5	24/7 & OCCUPIED	CN10&11	RR	148	2L25-4'	2	T8 2x4 2-Lamp Troffer Fixture	43	0.086	Z	8760	753		2	R 2L-12.5LED	Retrofit with (2) 12.5 Watt LED T8 4' Lamps; Direct Wire to Socket	25	0.050	0.432	KT-LED10.5T8-48G-840-D	3
1417	SELINSGROVE	INTERIOR	S	BASEMENT	25	5	24/7 & OCCUPIED	CN10&11	MECHANICAL	164	1I25-4'	2	T8 1x4 1-Lamp Industrial Strip Fixture	22	0.044	S	1000	44		2	R 1L-12.5LED	Retrofit with (1) 12.5 Watt LED T8 4' Lamps; Direct Wire to Socket	12.5	0.025	0.228	KT-LED10.5T8-48G-840-D	3
1418	SELINSGROVE	INTERIOR	S	BASEMENT	25	5	24/7 & OCCUPIED	CN10&11	MECHANICAL	164	4W25-4'	1	T8 1x4 4-Lamp Wrap Fixture	85	0.085	S	1000	85		1	R 4L-12.5LED	Retrofit with (4) 12.5 Watt LED T8 4' Lamps; Direct Wire to Socket	50	0.050	0.420	KT-LED10.5T8-48G-840-D	3
1419	SELINSGROVE	INTERIOR	S	BASEMENT	26	5	24/7 & OCCUPIED	CN10&11	MECHANICAL	147	CF18RLM	1	18 Watt Compact Fluorescent RLM Fixture	18	0.018	S	1000	18		1	LED 9A	Re-Lamp with (1) 9 Watt LED A19 Lamps	9	0.009	0.108	LA19/9/40K/D-46	8
1420	SELINSGROVE	INTERIOR	S	BASEMENT	27	5	24/7 & OCCUPIED	CN10&11	KITCHEN	144	4L25-4'	2	T8 2x4 4-Lamp Troffer Fixture	85	0.170	Z	8760	1,489		2	R 4L-12.5LED	Retrofit with (4) 12.5 Watt LED T8 4' Lamps; Direct Wire to Socket	50	0.100	0.840	KT-LED10.5T8-48G-840-D	3

											EXISTING FIXTURES									PROPOSED FIXTURE UPGRADE						
ID #	Facility Name	Phase	Utility Rate Code	Floor	Map #	Building Number	Building Usage Type	Building Section	Room Description	Room #	ECM Code	Qty	Description	Watts	kW	Burn Hour Code	Pre Burn Hours	kWh	x	Qty	New Code	Description	Watts	kW	Annual KW Saved	Part#	Cut Sheet #
1421	SELINSGROVE	INTERIOR	S	BASEMENT	28	5	24/7 & OCCUPIED	CN10&11	STORAGE	145	CF18	2	18 Watt Compact Fluorescent Fixture	18	0.036	S	1000	36		2	LED 9A	Re-Lamp with (1) 9 Watt LED A19 Lamps	9	0.018	0.216	LA19/9/40K/D-46	8
1422	SELINSGROVE	INTERIOR	S	BASEMENT	29	5	24/7 & OCCUPIED	CN10&11	OFFICE	135	2EC25-4'	2	T8 2x4 2-Lamp Egg Crate Fixture	43	0.086	O	2340	201		2	N 2W-12.5LED	New 1x4 2-Lamp Wrap Fixture with (2) 12.5 Watt LED T8 4' Lamp; Direct Wire to Socket	25	0.050	0.432	CCW-4'-2-T8LED /// KT-LED10.5T8-48G-840-D	51 + 3
1423	SELINSGROVE	INTERIOR	S	BASEMENT	30	5	24/7 & OCCUPIED	CN10&11	RR	138	1W17	1	T8 2x2 1-Lamp Wrap Fixture	22	0.022	Z	8760	193		1	R 1L-10LED2'	Retrofit with (1) 10 Watt LED T8 2' Lamp; Direct Wire to Socket	10	0.010	0.144	KT-LED7T8-24GC-840-D	1
1424	SELINSGROVE	INTERIOR	S	BASEMENT	31	5	24/7 & OCCUPIED	CN10&11	ELECTRIC	137	CF18	1	18 Watt Compact Fluorescent Fixture	18	0.018	S	1000	18		1	LED 9A	Re-Lamp with (1) 9 Watt LED A19 Lamps	9	0.009	0.108	LA19/9/40K/D-46	8
1425	SELINSGROVE	INTERIOR	S	BASEMENT	32	5	24/7 & OCCUPIED	CN10&11	STORAGE	136	1W17	1	T8 2x2 1-Lamp Wrap Fixture	22	0.022	S	1000	22		1	R 1L-10LED2'	Retrofit with (1) 10 Watt LED T8 2' Lamp; Direct Wire to Socket	10	0.010	0.144	KT-LED7T8-24GC-840-D	1
1426	SELINSGROVE	INTERIOR	S	BASEMENT	33	5	24/7 & OCCUPIED	CN10&11	JANITOR CLOSET	139	CF18	1	18 Watt Compact Fluorescent Fixture	18	0.018	S	1000	18		1	LED 9A	Re-Lamp with (1) 9 Watt LED A19 Lamps	9	0.009	0.108	LA19/9/40K/D-46	8
1427	SELINSGROVE	INTERIOR	S	BASEMENT	34	5	24/7 & OCCUPIED	CN10&11	RR	138	2PL13DR	2	13 Watt Plug-In CFL Drum Fixture	26	0.052	Z	8760	456		2	N LED14DR	New 12" Round 14 Watt LED Drum Fixture	14	0.028	0.288	54074143	19
1428	SELINSGROVE	INTERIOR	S	BASEMENT	35	5	24/7 & OCCUPIED	CN10&11	PROGRAM A		2L25-1X4	2	T8 1x4 2-Lamp Troffer Fixture	43	0.086	CPS	1827	157		2	R 2L-12.5LED	Retrofit with (2) 12.5 Watt LED T8 4' Lamps; Direct Wire to Socket	25	0.050	0.432	KT-LED10.5T8-48G-840-D	3
1429	SELINSGROVE	INTERIOR	S	BASEMENT	35	5	24/7 & OCCUPIED	CN10&11	PROGRAM A		4W25-4'	1	T8 1x4 4-Lamp Wrap Fixture	85	0.085	CPS	1827	155		1	R 4L-12.5LED	Retrofit with (4) 12.5 Watt LED T8 4' Lamps; Direct Wire to Socket	50	0.050	0.420	KT-LED10.5T8-48G-840-D	3
1430	SELINSGROVE	INTERIOR	S	BASEMENT	36	5	24/7 & OCCUPIED	CN10&11	PROGRAM B		4W25-4'	2	T8 1x4 4-Lamp Wrap Fixture	85	0.170	CPS	1827	311		2	R 4L-12.5LED	Retrofit with (4) 12.5 Watt LED T8 4' Lamps; Direct Wire to Socket	50	0.100	0.840	KT-LED10.5T8-48G-840-D	3
1431	SELINSGROVE	INTERIOR	S	BASEMENT	36	5	24/7 & OCCUPIED	CN10&11	PROGRAM B		2L25-1X4	3	T8 1x4 2-Lamp Troffer Fixture	43	0.129	CPS	1827	236		3	R 2L-12.5LED	Retrofit with (2) 12.5 Watt LED T8 4' Lamps; Direct Wire to Socket	25	0.075	0.648	KT-LED10.5T8-48G-840-D	3
1432	SELINSGROVE	INTERIOR	S	BASEMENT	37	5	24/7 & OCCUPIED	CN10&11	PROGRAM E		2L25-1X4	8	T8 1x4 2-Lamp Troffer Fixture	43	0.344	CPS	1827	628		8	R 2L-12.5LED	Retrofit with (2) 12.5 Watt LED T8 4' Lamps; Direct Wire to Socket	25	0.200	1.728	KT-LED10.5T8-48G-840-D	3
1433	SELINSGROVE	INTERIOR	S	BASEMENT	38	5	24/7 & OCCUPIED	CN10&11	PROGRAM D		2L25-1X4	6	T8 1x4 2-Lamp Troffer Fixture	43	0.258	CPS	1827	471		6	R 2L-12.5LED	Retrofit with (2) 12.5 Watt LED T8 4' Lamps; Direct Wire to Socket	25	0.150	1.296	KT-LED10.5T8-48G-840-D	3
1434	SELINSGROVE	INTERIOR	S	BASEMENT	38	5	24/7 & OCCUPIED	CN10&11	PROGRAM D		3W25-4'	2	T8 1x4 3-Lamp Wrap Fixture	65	0.130	CPS	1827	238		2	R 3L-12.5LED	Retrofit with (3) 12.5 Watt LED T8 4' Lamps; Direct Wire to Socket	37.5	0.075	0.660	KT-LED10.5T8-48G-840-D	3
1435	SELINSGROVE	INTERIOR	S	BASEMENT	39	5	24/7 & OCCUPIED	CN10&11	PROGRAM C		2L25-1X4	2	T8 1x4 2-Lamp Troffer Fixture	43	0.086	CPS	1827	157		2	R 2L-12.5LED	Retrofit with (2) 12.5 Watt LED T8 4' Lamps; Direct Wire to Socket	25	0.050	0.432	KT-LED10.5T8-48G-840-D	3
1436	SELINSGROVE	INTERIOR	S	BASEMENT	39	5	24/7 & OCCUPIED	CN10&11	PROGRAM C		4EC25-4'	1	T8 2x4 4-Lamp Egg Crate Fixture	85	0.085	CPS	1827	155		1	N 4W-12.5LED	New 1x4 4-Lamp Wrap Fixture with (4) 12.5 Watt LED T8 4' Lamp; Direct Wire to Socket	50	0.050	0.420	CCW-4'-4-T8LED /// KT-LED10.5T8-48G-840-D	53 + 3
1437	SELINSGROVE	INTERIOR	S	BASEMENT	40	5	24/7 & OCCUPIED	CN10&11	STORAGE		4EC25-4'	1	T8 2x4 4-Lamp Egg Crate Fixture	85	0.085	S	1000	85		1	N 4W-12.5LED	New 1x4 4-Lamp Wrap Fixture with (4) 12.5 Watt LED T8 4' Lamp; Direct Wire to Socket	50	0.050	0.420	CCW-4'-4-T8LED /// KT-LED10.5T8-48G-840-D	53 + 3
1438	SELINSGROVE	INTERIOR	S	BASEMENT	41	5	24/7 & OCCUPIED	CN10&11	HALL		2L25-1X4	9	T8 1x4 2-Lamp Troffer Fixture	43	0.387	Z	8760	3,390		9	R 2L-12.5LED	Retrofit with (2) 12.5 Watt LED T8 4' Lamps; Direct Wire to Socket	25	0.225	1.944	KT-LED10.5T8-48G-840-D	3
1439	SELINSGROVE	INTERIOR	S	BASEMENT	41	5	24/7 & OCCUPIED	CN10&11	HALL		4EC25-4'	3	T8 2x4 4-Lamp Egg Crate Fixture	85	0.255	Z	8760	2,234		3	N 4W-12.5LED	New 1x4 4-Lamp Wrap Fixture with (4) 12.5 Watt LED T8 4' Lamp; Direct Wire to Socket	50	0.150	1.260	CCW-4'-4-T8LED /// KT-LED10.5T8-48G-840-D	53 + 3
1440	SELINSGROVE	INTERIOR	S	BASEMENT	42	5	24/7 & OCCUPIED	CN10&11	OFFICE	170	2EC25-4'	2	T8 2x4 2-Lamp Egg Crate Fixture	43	0.086	O	2340	201		2	N 2W-12.5LED	New 1x4 2-Lamp Wrap Fixture with (2) 12.5 Watt LED T8 4' Lamp; Direct Wire to Socket	25	0.050	0.432	CCW-4'-2-T8LED /// KT-LED10.5T8-48G-840-D	51 + 3
1441	SELINSGROVE	INTERIOR	S	BASEMENT	43	5	24/7 & OCCUPIED	CN10&11	STORAGE	173	1W17	1	T8 2x2 1-Lamp Wrap Fixture	22	0.022	S	1000	22		1	R 1L-10LED2'	Retrofit with (1) 10 Watt LED T8 2' Lamp; Direct Wire to Socket	10	0.010	0.144	KT-LED7T8-24GC-840-D	1
1442	SELINSGROVE	INTERIOR	S	BASEMENT	44	5	24/7 & OCCUPIED	CN10&11	STORAGE	172	CF18	1	18 Watt Compact Fluorescent Fixture	18	0.018	S	1000	18		1	LED 9A	Re-Lamp with (1) 9 Watt LED A19 Lamps	9	0.009	0.108	LA19/9/40K/D-46	8
1443	SELINSGROVE	INTERIOR	S	BASEMENT	45	5	24/7 & OCCUPIED	CN10&11	RR	171	1W17	1	T8 2x2 1-Lamp Wrap Fixture	22	0.022	Z	8760	193		1	R 1L-10LED2'	Retrofit with (1) 10 Watt LED T8 2' Lamp; Direct Wire to Socket	10	0.010	0.144	KT-LED7T8-24GC-840-D	1
1444	SELINSGROVE	INTERIOR	S	BASEMENT	46	5	24/7 & OCCUPIED	CN10&11	BED	165	4EC25-4'	2	T8 2x4 4-Lamp Egg Crate Fixture	85	0.170	BH	5460	928		2	N 4W-12.5LED	New 1x4 4-Lamp Wrap Fixture with (4) 12.5 Watt LED T8 4' Lamp; Direct Wire to Socket	50	0.100	0.840	CCW-4'-4-T8LED /// KT-LED10.5T8-48G-840-D	53 + 3
1445	SELINSGROVE	INTERIOR	S	BASEMENT	46	5	24/7 & OCCUPIED	CN10&11	BED		2L25-1X4	1	T8 1x4 2-Lamp Troffer Fixture	43	0.043	BH	5460	235		1	R 2L-12.5LED	Retrofit with (2) 12.5 Watt LED T8 4' Lamps; Direct Wire to Socket	25	0.025	0.216	KT-LED10.5T8-48G-840-D	3
1446	SELINSGROVE	INTERIOR	S	BASEMENT	47	5	24/7 & OCCUPIED	CN10&11	STORAGE	169	CF18	1	18 Watt Compact Fluorescent Fixture	18	0.018	S	1000	18		1	LED 9A	Re-Lamp with (1) 9 Watt LED A19 Lamps	9	0.009	0.108	LA19/9/40K/D-46	8
1447	SELINSGROVE	INTERIOR	S	BASEMENT	48	5	24/7 & OCCUPIED	CN10&11	STORAGE	168	CF18RLM	1	18 Watt Compact Fluorescent RLM Fixture	18	0.018	S	1000	18		1	LED 9A	Re-Lamp with (1) 9 Watt LED A19 Lamps	9	0.009	0.108	LA19/9/40K/D-46	8
1448	SELINSGROVE	INTERIOR	S	BASEMENT	49	5	24/7 & OCCUPIED	CN10&11	RR	167	1W17	2	T8 2x2 1-Lamp Wrap Fixture	22	0.044	Z	8760	385		2	R 1L-10LED2'	Retrofit with (1) 10 Watt LED T8 2' Lamp; Direct Wire to Socket	10	0.020	0.288	KT-LED7T8-24GC-840-D	1
1449	SELINSGROVE	INTERIOR	S	BASEMENT	50	5	24/7 & OCCUPIED	CN10&11	STORAGE		2EC25-4'	23	T8 2x4 2-Lamp Egg Crate Fixture	43	0.989	S	1000	989		23	N 2W-12.5LED	New 1x4 2-Lamp Wrap Fixture with (2) 12.5 Watt LED T8 4' Lamp; Direct Wire to Socket	25	0.575	4.968	CCW-4'-2-T8LED /// KT-LED10.5T8-48G-840-D	51 + 3
1450	SELINSGROVE	INTERIOR	S	BASEMENT	50	5	24/7 & OCCUPIED	CN10&11	STORAGE		2L25-1X4	17	T8 1x4 2-Lamp Troffer Fixture	43	0.731	S	1000	731		17	R 2L-12.5LED	Retrofit with (2) 12.5 Watt LED T8 4' Lamps; Direct Wire to Socket	25	0.425	3.672	KT-LED10.5T8-48G-840-D	3
1451	SELINSGROVE	INTERIOR	S	BASEMENT	50	5	24/7 & OCCUPIED	CN10&11	STORAGE		4EC25-4'	2	T8 2x4 4-Lamp Egg Crate Fixture	85	0.170	S	1000	170		2	N 4W-12.5LED	New 1x4 4-Lamp Wrap Fixture with (4) 12.5 Watt LED T8 4' Lamp; Direct Wire to Socket	50	0.100	0.840	CCW-4'-4-T8LED /// KT-LED10.5T8-48G-840-D	53 + 3
1452	SELINSGROVE	INTERIOR	S	BASEMENT	51	5	24/7 & OCCUPIED	CN10&11	STORAGE	165	2L25-1X4	7	T8 1x4 2-Lamp Troffer Fixture	43	0.301	S	1000	301		7	R 2L-12.5LED	Retrofit with (2) 12.5 Watt LED T8 4' Lamps; Direct Wire to Socket	25	0.175	1.512	KT-LED10.5T8-48G-840-D	3

											EXISTING FIXTURES									PROPOSED FIXTURE UPGRADE							
ID #	Facility Name	Phase	Utility Rate Code	Floor	Map #	Building Number	Building Usage Type	Building Section	Room Description	Room #	ECM Code	Qty	Description	Watts	kW	Burn Hour Code	Pre Burn Hours	kWh	x	Qty	New Code	Description	Watts	kW	Annual KW Saved	Part#	Cut Sheet #
1453	SELINSGROVE	INTERIOR	S	BASEMENT	51	5	24/7 & OCCUPIED	CN10&11	STORAGE		4EC25-4'	5	T8 2x4 4-Lamp Egg Crate Fixture	85	0.425	S	1000	425		5	N 4W-12.5LED	New 1x4 4-Lamp Wrap Fixture with (4) 12.5 Watt LED T8 4' Lamp; Direct Wire to Socket	50	0.250	2.100	CCW-4'-4-T8LED /// KT-LED10.5T8-48G-840-D	53 + 3
1454	SELINSGROVE	INTERIOR	S	BASEMENT	52	5	24/7 & OCCUPIED	CN10&11	MECHANICAL	168	CF18RLM	2	18 Watt Compact Fluorescent RLM Fixture	18	0.036	S	1000	36		2	LED 9A	Re-Lamp with (1) 9 Watt LED A19 Lamps	9	0.018	0.216	LA19/9/40K/D-46	8
1455	SELINSGROVE	INTERIOR	S	BASEMENT	53	5	24/7 & OCCUPIED	CN10&11	MECHANICAL	133	CF18RLM	3	18 Watt Compact Fluorescent RLM Fixture	18	0.054	S	1000	54		3	LED 9A	Re-Lamp with (1) 9 Watt LED A19 Lamps	9	0.027	0.324	LA19/9/40K/D-46	8
1456	SELINSGROVE	INTERIOR	S	BASEMENT	53	5	24/7 & OCCUPIED	CN10&11	MECHANICAL		CF26	2	26 Watt Compact Fluorescent Fixture	26	0.052	S	1000	52		2	LED 9A	Re-Lamp with (1) 9 Watt LED A19 Lamps	9	0.018	0.408	LA19/9/40K/D-46	8
1457	SELINSGROVE	INTERIOR	S	BASEMENT	54	5	24/7 & OCCUPIED	CN10&11	PIPE CHASE	174	CF18	1	18 Watt Compact Fluorescent Fixture	18	0.018	S	1000	18		1	LED 9A	Re-Lamp with (1) 9 Watt LED A19 Lamps	9	0.009	0.108	LA19/9/40K/D-46	8
1458	SELINSGROVE	INTERIOR	S	BASEMENT	55	5	24/7 & OCCUPIED	CN10&11	HALL		2L25-1X4	8	T8 1x4 2-Lamp Troffer Fixture	43	0.344	Z	8760	3,013		8	R 2L-12.5LED	Retrofit with (2) 12.5 Watt LED T8 4' Lamps; Direct Wire to Socket	25	0.200	1.728	KT-LED10.5T8-48G-840-D	3
1459	SELINSGROVE	INTERIOR	S	BASEMENT	56	5	24/7 & OCCUPIED	CN10&11	HALL	115	2L25-1X4	2	T8 1x4 2-Lamp Troffer Fixture	43	0.086	Z	8760	753		2	R 2L-12.5LED	Retrofit with (2) 12.5 Watt LED T8 4' Lamps; Direct Wire to Socket	25	0.050	0.432	KT-LED10.5T8-48G-840-D	3
1460	SELINSGROVE	INTERIOR	S	BASEMENT	57	5	24/7 & OCCUPIED	CN10&11	LAUNDRY	175	1W17	3	T8 2x2 1-Lamp Wrap Fixture	22	0.066	S	1000	66		3	R 1L-10LED2'	Retrofit with (1) 10 Watt LED T8 2' Lamp; Direct Wire to Socket	10	0.030	0.432	KT-LED7T8-24GC-840-D	1
1461	SELINSGROVE	INTERIOR	S	BASEMENT	57	5	24/7 & OCCUPIED	CN10&11	LAUNDRY		2EC25-4'	1	T8 2x4 2-Lamp Egg Crate Fixture	43	0.043	S	1000	43		1	N 2W-12.5LED	New 1x4 2-Lamp Wrap Fixture with (2) 12.5 Watt LED T8 4' Lamp; Direct Wire to Socket	25	0.025	0.216	CCW-4'-2-T8LED /// KT-LED10.5T8-48G-840-D	51 + 3
1462	SELINSGROVE	INTERIOR	S	BASEMENT	58	5	24/7 & OCCUPIED	CN10&11	MECHANICAL	176	1W17	1	T8 2x2 1-Lamp Wrap Fixture	22	0.022	S	1000	22		1	R 1L-10LED2'	Retrofit with (1) 10 Watt LED T8 2' Lamp; Direct Wire to Socket	10	0.010	0.144	KT-LED7T8-24GC-840-D	1
1463	SELINSGROVE	INTERIOR	S	BASEMENT	59	5	24/7 & OCCUPIED	CN10&11	MECHANICAL		1W17	1	T8 2x2 1-Lamp Wrap Fixture	22	0.022	S	1000	22		1	R 1L-10LED2'	Retrofit with (1) 10 Watt LED T8 2' Lamp; Direct Wire to Socket	10	0.010	0.144	KT-LED7T8-24GC-840-D	1
1464	SELINSGROVE	INTERIOR	S	BASEMENT	60	5	24/7 & OCCUPIED	CN10&11	MEETING ROOM	129	2EC25-4'	2	T8 2x4 2-Lamp Egg Crate Fixture	43	0.086	O	2340	201		2	N 2W-12.5LED	New 1x4 2-Lamp Wrap Fixture with (2) 12.5 Watt LED T8 4' Lamp; Direct Wire to Socket	25	0.050	0.432	CCW-4'-2-T8LED /// KT-LED10.5T8-48G-840-D	51 + 3
1465	SELINSGROVE	INTERIOR	S	BASEMENT	60	5	24/7 & OCCUPIED	CN10&11	MEETING ROOM		2CF18	1	18 Watt 2-Lamp Compact Fluorescent Fixture	36	0.036	O	2340	84		1	LED 2-9A	Re-Lamp with (2) 9 Watt LED A19 Lamps	18	0.018	0.216	LA19/9/40K/D-46	8
1466	SELINSGROVE	INTERIOR	S	BASEMENT	61	5	24/7 & OCCUPIED	CN10&11	OFFICE		2L25-1X4	22	T8 1x4 2-Lamp Troffer Fixture	43	0.946	O	2340	2,214		22	R 2L-12.5LED	Retrofit with (2) 12.5 Watt LED T8 4' Lamps; Direct Wire to Socket	25	0.550	4.752	KT-LED10.5T8-48G-840-D	3
1467	SELINSGROVE	INTERIOR	S	BASEMENT	62	5	24/7 & OCCUPIED	CN10&11	STORAGE	125	CF18JJ(JJ)	1	18 Watt Compact Fluorescent Jelly Jar Fixture; Damaged/Missing Lens	18	0.018	S	1000	18		1	N LED9AJJ	New Jelly Jar Fixture with (1) 9 Watt LED A19	9	0.009	0.108	CJJ/WJJ /// LA19/9/40K/D-46	46 + 8
1468	SELINSGROVE	INTERIOR	S	BASEMENT	63	5	24/7 & OCCUPIED	CN10&11	PIPE CHASE	128	CF13	1	13 Watt Compact Fluorescent Fixture	13	0.013	S	1000	13		1	LED 9A	Re-Lamp with (1) 9 Watt LED A19 Lamps	9	0.009	0.048	LA19/9/40K/D-46	8
1469	SELINSGROVE	INTERIOR	S	BASEMENT	64	5	24/7 & OCCUPIED	CN10&11	STORAGE	127	1W25-4'	2	T8 1x4 1-Lamp Wrap Fixture	22	0.044	S	1000	44		2	R 1L-12.5LED	Retrofit with (1) 12.5 Watt LED T8 4' Lamps; Direct Wire to Socket	12.5	0.025	0.228	KT-LED10.5T8-48G-840-D	3
1470	SELINSGROVE	INTERIOR	S	BASEMENT	65	5	24/7 & OCCUPIED	CN10&11	HALL	117	CF18SQDL-10X10	2	18 Watt Compact Fluorescent Square Downlight Fixture; 10x10	18	0.036	Z	8760	315		2	LED 9A	Re-Lamp with (1) 9 Watt LED A19 Lamps	9	0.018	0.216	LA19/9/40K/D-46	8
1471	SELINSGROVE	INTERIOR	S	BASEMENT	66	5	24/7 & OCCUPIED	CN10&11	OFFICE	118	2EC25-4'	2	T8 2x4 2-Lamp Egg Crate Fixture	43	0.086	O	2340	201		2	N 2W-12.5LED	New 1x4 2-Lamp Wrap Fixture with (2) 12.5 Watt LED T8 4' Lamp; Direct Wire to Socket	25	0.050	0.432	CCW-4'-2-T8LED /// KT-LED10.5T8-48G-840-D	51 + 3
1472	SELINSGROVE	INTERIOR	S	BASEMENT	67	5	24/7 & OCCUPIED	CN10&11	RR	121	1W17	1	T8 2x2 1-Lamp Wrap Fixture	22	0.022	Z	8760	193		1	R 1L-10LED2'	Retrofit with (1) 10 Watt LED T8 2' Lamp; Direct Wire to Socket	10	0.010	0.144	KT-LED7T8-24GC-840-D	1
1473	SELINSGROVE	INTERIOR	S	BASEMENT	68	5	24/7 & OCCUPIED	CN10&11	ELECTRIC	120	CF18	1	18 Watt Compact Fluorescent Fixture	18	0.018	S	1000	18		1	LED 9A	Re-Lamp with (1) 9 Watt LED A19 Lamps	9	0.009	0.108	LA19/9/40K/D-46	8
1474	SELINSGROVE	INTERIOR	S	BASEMENT	69	5	24/7 & OCCUPIED	CN10&11	STORAGE	119	2PL13DR	1	13 Watt Plug-In CFL Drum Fixture	26	0.026	S	1000	26		1	N LED14DR	New 12" Round 14 Watt LED Drum Fixture	14	0.014	0.144	54074143	19
1475	SELINSGROVE	INTERIOR	S	BASEMENT	70	5	24/7 & OCCUPIED	CN10&11	THERAPY ROOM	138	2EC40	1	T12 2x4 2-Lamp Egg Crate Fixture	75	0.075	O	2340	176		1	N 2W-12.5LED	New 1x4 2-Lamp Wrap Fixture with (2) 12.5 Watt LED T8 4' Lamp; Direct Wire to Socket	25	0.025	0.600	CCW-4'-2-T8LED /// KT-LED10.5T8-48G-840-D	51 + 3
1476	SELINSGROVE	INTERIOR	S	BASEMENT	70	5	24/7 & OCCUPIED	CN10&11	THERAPY ROOM		2L25-1X4	1	T8 1x4 2-Lamp Troffer Fixture	43	0.043	O	2340	101		1	R 2L-12.5LED	Retrofit with (2) 12.5 Watt LED T8 4' Lamps; Direct Wire to Socket	25	0.025	0.216	KT-LED10.5T8-48G-840-D	3
1477	SELINSGROVE	INTERIOR	S	BASEMENT	71	5	24/7 & OCCUPIED	CN10&11	STORAGE	122	100JJ(JJ)	1	100 Watt Incandescent Jelly Jar Fixture; Damaged/Missing Lens	100	0.100	S	1000	100		1	N LED15AJJ	New Jelly Jar Fixture with (1) 15 Watt LED A19	15	0.015	1.020	CJJ/WJJ /// LA21/16/40K/D-46	46 + 9
1478	SELINSGROVE	INTERIOR	S	BASEMENT	72	5	24/7 & OCCUPIED	CN10&11	STORAGE	116	2L25-4'	1	T8 2x4 2-Lamp Troffer Fixture	43	0.043	S	1000	43		1	R 2L-12.5LED	Retrofit with (2) 12.5 Watt LED T8 4' Lamps; Direct Wire to Socket	25	0.025	0.216	KT-LED10.5T8-48G-840-D	3
1479	SELINSGROVE	INTERIOR	S	BASEMENT	73	5	24/7 & OCCUPIED	CN10&11	STORAGE	123	1W17	2	T8 2x2 1-Lamp Wrap Fixture	22	0.044	S	1000	44		2	R 1L-10LED2'	Retrofit with (1) 10 Watt LED T8 2' Lamp; Direct Wire to Socket	10	0.020	0.288	KT-LED7T8-24GC-840-D	1
1480	SELINSGROVE	INTERIOR	S	BASEMENT	74	5	24/7 & OCCUPIED	CN10&11	REPAIR SHOP		2L25-1X4	6	T8 1x4 2-Lamp Troffer Fixture	43	0.258	O	2340	604		6	R 2L-12.5LED	Retrofit with (2) 12.5 Watt LED T8 4' Lamps; Direct Wire to Socket	25	0.150	1.296	KT-LED10.5T8-48G-840-D	3
1481	SELINSGROVE	INTERIOR	S	BASEMENT	74	5	24/7 & OCCUPIED	CN10&11	REPAIR SHOP		4EC25-4'	6	T8 2x4 4-Lamp Egg Crate Fixture	85	0.510	O	2340	1,193		6	N 4W-12.5LED	New 1x4 4-Lamp Wrap Fixture with (4) 12.5 Watt LED T8 4' Lamp; Direct Wire to Socket	50	0.300	2.520	CCW-4'-4-T8LED /// KT-LED10.5T8-48G-840-D	53 + 3
1482	SELINSGROVE	INTERIOR	S	BASEMENT	74	5	24/7 & OCCUPIED	CN10&11	REPAIR SHOP		4W25-4'	3	T8 1x4 4-Lamp Wrap Fixture	85	0.255	O	2340	597		3	R 4L-12.5LED	Retrofit with (4) 12.5 Watt LED T8 4' Lamps; Direct Wire to Socket	50	0.150	1.260	KT-LED10.5T8-48G-840-D	3
1483	SELINSGROVE	INTERIOR	S	BASEMENT	74	5	24/7 & OCCUPIED	CN10&11	REPAIR SHOP		2EC25-4'	1	T8 2x4 2-Lamp Egg Crate Fixture	43	0.043	O	2340	101		1	N 2W-12.5LED	New 1x4 2-Lamp Wrap Fixture with (2) 12.5 Watt LED T8 4' Lamp; Direct Wire to Socket	25	0.025	0.216	CCW-4'-2-T8LED /// KT-LED10.5T8-48G-840-D	51 + 3
1484	SELINSGROVE	INTERIOR	S	BASEMENT	75	5	24/7 & OCCUPIED	CN10&11	PIPE CHASE		CF18	1	18 Watt Compact Fluorescent Fixture	18	0.018	S	1000	18		1	LED 9A	Re-Lamp with (1) 9 Watt LED A19 Lamps	9	0.009	0.108	LA19/9/40K/D-46	8

											EXISTING FIXTURES									PROPOSED FIXTURE UPGRADE							
ID #	Facility Name	Phase	Utility Rate Code	Floor	Map #	Building Number	Building Usage Type	Building Section	Room Description	Room #	ECM Code	Qty	Description	Watts	kW	Burn Hour Code	Pre Burn Hours	kWh	x	Qty	New Code	Description	Watts	kW	Annual KW Saved	Part#	Cut Sheet #
1485	SELINSGROVE	INTERIOR	S	BASEMENT	76	5	24/7 & OCCUPIED	CN10&11	STORAGE	178	4EC25-4'	2	T8 2x4 4-Lamp Egg Crate Fixture	85	0.170	S	1000	170		2	N 4W-12.5LED	New 1x4 4-Lamp Wrap Fixture with (4) 12.5 Watt LED T8 4' Lamp; Direct Wire to Socket	50	0.100	0.840	CCW-4'-4-T8LED /// KT-LED10.5T8-48G-840-D	53 + 3
1486	SELINSGROVE	INTERIOR	S	BASEMENT	77	5	24/7 & OCCUPIED	CN10&11	HALL	179	4L25-4'	1	T8 2x4 4-Lamp Troffer Fixture	85	0.085	Z	8760	745		1	R 4L-12.5LED	Retrofit with (4) 12.5 Watt LED T8 4' Lamps; Direct Wire to Socket	50	0.050	0.420	KT-LED10.5T8-48G-840-D	3
1487	SELINSGROVE	INTERIOR	S	BASEMENT	78	5	24/7 & OCCUPIED	CN10&11	OFFICE	185	2EC25-4'	2	T8 2x4 2-Lamp Egg Crate Fixture	43	0.086	O	2340	201		2	N 2W-12.5LED	New 1x4 2-Lamp Wrap Fixture with (2) 12.5 Watt LED T8 4' Lamp; Direct Wire to Socket	25	0.050	0.432	CCW-4'-2-T8LED /// KT-LED10.5T8-48G-840-D	51 + 3
1488	SELINSGROVE	INTERIOR	S	BASEMENT	79	5	24/7 & OCCUPIED	CN10&11	STORAGE	188	1W17	1	T8 2x2 1-Lamp Wrap Fixture	22	0.022	S	1000	22		1	R 1L-10LED2'	Retrofit with (1) 10 Watt LED T8 2' Lamp; Direct Wire to Socket	10	0.010	0.144	KT-LED7T8-24GC-840-D	1
1489	SELINSGROVE	INTERIOR	S	BASEMENT	80	5	24/7 & OCCUPIED	CN10&11	ELECTRIC	187	CF18	1	18 Watt Compact Fluorescent Fixture	18	0.018	S	1000	18		1	LED 9A	Re-Lamp with (1) 9 Watt LED A19 Lamps	9	0.009	0.108	LA19/9/40K/D-46	8
1490	SELINSGROVE	INTERIOR	S	BASEMENT	81	5	24/7 & OCCUPIED	CN10&11	RR	186	1W17	1	T8 2x2 1-Lamp Wrap Fixture	22	0.022	Z	8760	193		1	R 1L-10LED2'	Retrofit with (1) 10 Watt LED T8 2' Lamp; Direct Wire to Socket	10	0.010	0.144	KT-LED7T8-24GC-840-D	1
1491	SELINSGROVE	INTERIOR	S	BASEMENT	82	5	24/7 & OCCUPIED	CN10&11	OFFICE	185	2EC25-4'	2	T8 2x4 2-Lamp Egg Crate Fixture	43	0.086	O	2340	201		2	N 2W-12.5LED	New 1x4 2-Lamp Wrap Fixture with (2) 12.5 Watt LED T8 4' Lamp; Direct Wire to Socket	25	0.050	0.432	CCW-4'-2-T8LED /// KT-LED10.5T8-48G-840-D	51 + 3
1492	SELINSGROVE	INTERIOR	S	BASEMENT	82	5	24/7 & OCCUPIED	CN10&11	OFFICE		2L25-1X4	1	T8 1x4 2-Lamp Troffer Fixture	43	0.043	O	2340	101		1	R 2L-12.5LED	Retrofit with (2) 12.5 Watt LED T8 4' Lamps; Direct Wire to Socket	25	0.025	0.216	KT-LED10.5T8-48G-840-D	3
1493	SELINSGROVE	INTERIOR	S	BASEMENT	83	5	24/7 & OCCUPIED	CN10&11	CLOSET		CF18	1	18 Watt Compact Fluorescent Fixture	18	0.018	S	1000	18		1	LED 9A	Re-Lamp with (1) 9 Watt LED A19 Lamps	9	0.009	0.108	LA19/9/40K/D-46	8
1494	SELINSGROVE	INTERIOR	S	BASEMENT	84	5	24/7 & OCCUPIED	CN10&11	STORAGE		2L25-1X4	21	T8 1x4 2-Lamp Troffer Fixture	43	0.903	S	1000	903		21	R 2L-12.5LED	Retrofit with (2) 12.5 Watt LED T8 4' Lamps; Direct Wire to Socket	25	0.525	4.536	KT-LED10.5T8-48G-840-D	3
1495	SELINSGROVE	INTERIOR	S	BASEMENT	84	5	24/7 & OCCUPIED	CN10&11	STORAGE		2EC25-4'	3	T8 2x4 2-Lamp Egg Crate Fixture	43	0.129	S	1000	129		3	N 2W-12.5LED	New 1x4 2-Lamp Wrap Fixture with (2) 12.5 Watt LED T8 4' Lamp; Direct Wire to Socket	25	0.075	0.648	CCW-4'-2-T8LED /// KT-LED10.5T8-48G-840-D	51 + 3
1496	SELINSGROVE	INTERIOR	S	BASEMENT	84	5	24/7 & OCCUPIED	CN10&11	STORAGE		4EC25-4'	1	T8 2x4 4-Lamp Egg Crate Fixture	85	0.085	S	1000	85		1	N 4W-12.5LED	New 1x4 4-Lamp Wrap Fixture with (4) 12.5 Watt LED T8 4' Lamp; Direct Wire to Socket	50	0.050	0.420	CCW-4'-4-T8LED /// KT-LED10.5T8-48G-840-D	53 + 3
1497	SELINSGROVE	INTERIOR	S	BASEMENT	85	5	24/7 & OCCUPIED	CN10&11	STORAGE	189	CF18	1	18 Watt Compact Fluorescent Fixture	18	0.018	S	1000	18		1	LED 9A	Re-Lamp with (1) 9 Watt LED A19 Lamps	9	0.009	0.108	LA19/9/40K/D-46	8
1498	SELINSGROVE	INTERIOR	S	BASEMENT	86	5	24/7 & OCCUPIED	CN10&11	STORAGE	183	4EC25-4'	3	T8 2x4 4-Lamp Egg Crate Fixture	85	0.255	S	1000	255		3	N 4W-12.5LED	New 1x4 4-Lamp Wrap Fixture with (4) 12.5 Watt LED T8 4' Lamp; Direct Wire to Socket	50	0.150	1.260	CCW-4'-4-T8LED /// KT-LED10.5T8-48G-840-D	53 + 3
1499	SELINSGROVE	INTERIOR	S	BASEMENT	86	5	24/7 & OCCUPIED	CN10&11	STORAGE		CF18RLM	1	18 Watt Compact Fluorescent RLM Fixture	18	0.018	S	1000	18		1	LED 9A	Re-Lamp with (1) 9 Watt LED A19 Lamps	9	0.009	0.108	LA19/9/40K/D-46	8
1500	SELINSGROVE	INTERIOR	S	BASEMENT	87	5	24/7 & OCCUPIED	CN10&11	RR	182	1W17	2	T8 2x2 1-Lamp Wrap Fixture	22	0.044	Z	8760	385		2	R 1L-10LED2'	Retrofit with (1) 10 Watt LED T8 2' Lamp; Direct Wire to Socket	10	0.020	0.288	KT-LED7T8-24GC-840-D	1
1501	SELINSGROVE	INTERIOR	S	BASEMENT	88	5	24/7 & OCCUPIED	CN10&11	STORAGE	116	4L25-4'	2	T8 2x4 4-Lamp Troffer Fixture	85	0.170	S	1000	170		2	R 4L-12.5LED	Retrofit with (4) 12.5 Watt LED T8 4' Lamps; Direct Wire to Socket	50	0.100	0.840	KT-LED10.5T8-48G-840-D	3
1502	SELINSGROVE	INTERIOR	S	BASEMENT	89	5	24/7 & OCCUPIED	CN10&11	PIPE CHASE	189	150A	1	150 Watt Incandescent A-Lamp Fixture	150	0.150	S	1000	150		1	LED 15A	Re-Lamp with (1) 15 Watt LED A19 Lamp	15	0.015	1.620	LA21/16/40K/D-46	9
1503	SELINSGROVE	INTERIOR	S	BASEMENT	90	5	24/7 & OCCUPIED	CN10&11	HALL		2L25-1X4	8	T8 1x4 2-Lamp Troffer Fixture	43	0.344	Z	8760	3,013		8	R 2L-12.5LED	Retrofit with (2) 12.5 Watt LED T8 4' Lamps; Direct Wire to Socket	25	0.200	1.728	KT-LED10.5T8-48G-840-D	3
1504	SELINSGROVE	INTERIOR	S	BASEMENT	91	5	24/7 & OCCUPIED	CN10&11	PIPE CHASE	114	CF18	1	18 Watt Compact Fluorescent Fixture	18	0.018	S	1000	18		1	LED 9A	Re-Lamp with (1) 9 Watt LED A19 Lamps	9	0.009	0.108	LA19/9/40K/D-46	8
1505	SELINSGROVE	INTERIOR	S	BASEMENT	92	5	24/7 & OCCUPIED	CN10&11	MECHANICAL	190	4W25-4'	3	T8 1x4 4-Lamp Wrap Fixture	85	0.255	S	1000	255		3	R 4L-12.5LED	Retrofit with (4) 12.5 Watt LED T8 4' Lamps; Direct Wire to Socket	50	0.150	1.260	KT-LED10.5T8-48G-840-D	3
1506	SELINSGROVE	INTERIOR	S	BASEMENT	93	5	24/7 & OCCUPIED	CN10&11	MECHANICAL	113	4W25(W)-4'	1	T8 1x4 4-Lamp Wrap Fixture; Damaged/Missing Lens	85	0.085	S	1000	85		1	N 4W-12.5LED	New 1x4 4-Lamp Wrap Fixture with (4) 12.5 Watt LED T8 4' Lamp; Direct Wire to Socket	50	0.050	0.420	CCW-4'-4-T8LED /// KT-LED10.5T8-48G-840-D	53 + 3
1507	SELINSGROVE	INTERIOR	S	BASEMENT	93	5	24/7 & OCCUPIED	CN10&11	MECHANICAL		1W17	3	T8 2x2 1-Lamp Wrap Fixture	22	0.066	S	1000	66		3	R 1L-10LED2'	Retrofit with (1) 10 Watt LED T8 2' Lamp; Direct Wire to Socket	10	0.030	0.432	KT-LED7T8-24GC-840-D	1
1508	SELINSGROVE	INTERIOR	S	BASEMENT	94	5	24/7 & OCCUPIED	CN10&11	MECHANICAL	191	1W17	3	T8 2x2 1-Lamp Wrap Fixture	22	0.066	S	1000	66		3	R 1L-10LED2'	Retrofit with (1) 10 Watt LED T8 2' Lamp; Direct Wire to Socket	10	0.030	0.432	KT-LED7T8-24GC-840-D	1
1509	SELINSGROVE	INTERIOR	S	BASEMENT	95	5	24/7 & OCCUPIED	CN10&11	MECHANICAL	192	2PL13DR	3	13 Watt Plug-In CFL Drum Fixture	26	0.078	S	1000	78		3	N LED14DR	New 12" Round 14 Watt LED Drum Fixture	14	0.042	0.432	54074143	19
1510	SELINSGROVE	INTERIOR	S	BASEMENT	96	5	24/7 & OCCUPIED	CN10&11	HALL		CF26	2	26 Watt Compact Fluorescent Fixture	26	0.052	Z	8760	456		2	LED 9A	Re-Lamp with (1) 9 Watt LED A19 Lamps	9	0.018	0.408	LA19/9/40K/D-46	8
1511	SELINSGROVE	INTERIOR	S	BASEMENT	96	5	24/7 & OCCUPIED	CN10&11	HALL		100A	1	100 Watt Incandescent A-Lamp Fixture	100	0.100	Z	8760	876		1	LED 15A	Re-Lamp with (1) 15 Watt LED A19 Lamp	15	0.015	1.020	LA21/16/40K/D-46	9
1512	SELINSGROVE	INTERIOR	S	BASEMENT	97	5	24/7 & OCCUPIED	CN10&11	HALL	113B	2W25-4'	1	T8 1x4 2-Lamp Wrap Fixture	43	0.043	Z	8760	377		1	R 2L-12.5LED	Retrofit with (2) 12.5 Watt LED T8 4' Lamps; Direct Wire to Socket	25	0.025	0.216	KT-LED10.5T8-48G-840-D	3
1513	SELINSGROVE	INTERIOR	S	BASEMENT	98	5	24/7 & OCCUPIED	CN10&11	ELEVATOR EQUIP		4EC25-4'	1	T8 2x4 4-Lamp Egg Crate Fixture	85	0.085	S	1000	85		1	N 4W-12.5LED	New 1x4 4-Lamp Wrap Fixture with (4) 12.5 Watt LED T8 4' Lamp; Direct Wire to Socket	50	0.050	0.420	CCW-4'-4-T8LED /// KT-LED10.5T8-48G-840-D	53 + 3
1514	SELINSGROVE	INTERIOR	S	BASEMENT	99	5	24/7 & OCCUPIED	CN10&11	STORAGE	193	4W25-4'	3	T8 1x4 4-Lamp Wrap Fixture	85	0.255	S	1000	255		3	R 4L-12.5LED	Retrofit with (4) 12.5 Watt LED T8 4' Lamps; Direct Wire to Socket	50	0.150	1.260	KT-LED10.5T8-48G-840-D	3
1515	SELINSGROVE	INTERIOR	S	BASEMENT	99	5	24/7 & OCCUPIED	CN10&11	STORAGE		4EC25-4'	1	T8 2x4 4-Lamp Egg Crate Fixture	85	0.085	S	1000	85		1	N 4W-12.5LED	New 1x4 4-Lamp Wrap Fixture with (4) 12.5 Watt LED T8 4' Lamp; Direct Wire to Socket	50	0.050	0.420	CCW-4'-4-T8LED /// KT-LED10.5T8-48G-840-D	53 + 3
1516	SELINSGROVE	INTERIOR	S	BASEMENT	99	5	24/7 & OCCUPIED	CN10&11	STORAGE		2EC25-4'	1	T8 2x4 2-Lamp Egg Crate Fixture	43	0.043	S	1000	43		1	N 2W-12.5LED	New 1x4 2-Lamp Wrap Fixture with (2) 12.5 Watt LED T8 4' Lamp; Direct Wire to Socket	25	0.025	0.216	CCW-4'-2-T8LED /// KT-LED10.5T8-48G-840-D	51 + 3

											EXISTING FIXTURES									PROPOSED FIXTURE UPGRADE							
ID #	Facility Name	Phase	Utility Rate Code	Floor	Map #	Building Number	Building Usage Type	Building Section	Room Description	Room #	ECM Code	Qty	Description	Watts	kW	Burn Hour Code	Pre Burn Hours	kWh	x	Qty	New Code	Description	Watts	kW	Annual KW Saved	Part#	Cut Sheet #
1517	SELINSGROVE	INTERIOR	S	BASEMENT	99	5	24/7 & OCCUPIED	CN10&11	STORAGE		100A	1	100 Watt Incandescent A-Lamp Fixture	100	0.100	S	1000	100		1	LED 15A	Re-Lamp with (1) 15 Watt LED A19 Lamp	15	0.015	1.020	LA21/16/40K/D-46	9
1518	SELINSGROVE	INTERIOR	S	BASEMENT	99	5	24/7 & OCCUPIED	CN10&11	STORAGE		2PL13DR	1	13 Watt Plug-In CFL Drum Fixture	26	0.026	S	1000	26		1	N LED14DR	New 12" Round 14 Watt LED Drum Fixture	14	0.014	0.144	54074143	19
1519	SELINSGROVE	INTERIOR	S	BASEMENT	100	5	24/7 & OCCUPIED	CN10&11	SHOP	112	2EC25-4'	3	T8 2x4 2-Lamp Egg Crate Fixture	43	0.129	O	2340	302		3	N 2W-12.5LED	New 1x4 2-Lamp Wrap Fixture with (2) 12.5 Watt LED T8 4' Lamp; Direct Wire to Socket	25	0.075	0.648	CCW-4'-2-T8LED /// KT-LED10.5T8-48G-840-D	51 + 3
1520	SELINSGROVE	INTERIOR	S	BASEMENT	101	5	24/7 & OCCUPIED	CN10&11	STORAGE	112B	4EC25-4'	2	T8 2x4 4-Lamp Egg Crate Fixture	85	0.170	S	1000	170		2	N 4W-12.5LED	New 1x4 4-Lamp Wrap Fixture with (4) 12.5 Watt LED T8 4' Lamp; Direct Wire to Socket	50	0.100	0.840	CCW-4'-4-T8LED /// KT-LED10.5T8-48G-840-D	53 + 3
1521	SELINSGROVE	INTERIOR	S	BASEMENT	101	5	24/7 & OCCUPIED	CN10&11	STORAGE		2EC25-4'	2	T8 2x4 2-Lamp Egg Crate Fixture	43	0.086	S	1000	86		2	N 2W-12.5LED	New 1x4 2-Lamp Wrap Fixture with (2) 12.5 Watt LED T8 4' Lamp; Direct Wire to Socket	25	0.050	0.432	CCW-4'-2-T8LED /// KT-LED10.5T8-48G-840-D	51 + 3
1522	SELINSGROVE	INTERIOR	S	BASEMENT	102	5	24/7 & OCCUPIED	CN10&11	STORAGE	112A	4EC25-4'	2	T8 2x4 4-Lamp Egg Crate Fixture	85	0.170	S	1000	170		2	N 4W-12.5LED	New 1x4 4-Lamp Wrap Fixture with (4) 12.5 Watt LED T8 4' Lamp; Direct Wire to Socket	50	0.100	0.840	CCW-4'-4-T8LED /// KT-LED10.5T8-48G-840-D	53 + 3
1523	SELINSGROVE	INTERIOR	S	BASEMENT	103	5	24/7 & OCCUPIED	CN10&11	STORAGE	111A	1I25-4'	1	T8 1x4 1-Lamp Industrial Strip Fixture	22	0.022	S	1000	22		1	R 1L-12.5LED	Retrofit with (1) 12.5 Watt LED T8 4' Lamps; Direct Wire to Socket	12.5	0.013	0.114	KT-LED10.5T8-48G-840-D	3
1524	SELINSGROVE	INTERIOR	S	BASEMENT	104	5	24/7 & OCCUPIED	CN10&11	STORAGE	111	CF26RLM	6	26 Watt Compact Fluorescent RLM Fixture	26	0.156	S-ES	700	109		6	LED 9A	Re-Lamp with (1) 9 Watt LED A19 Lamps	9	0.054	1.224	LA19/9/40K/D-46	8
1525	SELINSGROVE	INTERIOR	S	BASEMENT	105	5	24/7 & OCCUPIED	CN10&11	HALL		1W25-4'	2	T8 1x4 1-Lamp Wrap Fixture	22	0.044	Z	8760	385		2	R 1L-12.5LED	Retrofit with (1) 12.5 Watt LED T8 4' Lamps; Direct Wire to Socket	12.5	0.025	0.228	KT-LED10.5T8-48G-840-D	3
1526	SELINSGROVE	INTERIOR	S	BASEMENT	106	5	24/7 & OCCUPIED	CN10&11	HALL	109	3W25-4'	1	T8 1x4 3-Lamp Wrap Fixture	65	0.065	Z	8760	569		1	R 3L-12.5LED	Retrofit with (3) 12.5 Watt LED T8 4' Lamps; Direct Wire to Socket	37.5	0.038	0.330	KT-LED10.5T8-48G-840-D	3
1527	SELINSGROVE	INTERIOR	S	BASEMENT	106	5	24/7 & OCCUPIED	CN10&11	HALL		CF26	1	26 Watt Compact Fluorescent Fixture	26	0.026	Z	8760	228		1	LED 9A	Re-Lamp with (1) 9 Watt LED A19 Lamps	9	0.009	0.204	LA19/9/40K/D-46	8
1528	SELINSGROVE	INTERIOR	S	BASEMENT	107	5	24/7 & OCCUPIED	CN10&11	ELECTRIC	110	PL13DR	2	13 Watt Plug-In CFL Drum Fixture	13	0.026	S	1000	26		2	N LED14DR	New 12" Round 14 Watt LED Drum Fixture	14	0.028	-0.024	54074143	19
1529	SELINSGROVE	INTERIOR	S	BASEMENT	108	5	24/7 & OCCUPIED	CN10&11	STORAGE	108	4EC25-4'	4	T8 2x4 4-Lamp Egg Crate Fixture	85	0.340	S	1000	340		4	N 4W-12.5LED	New 1x4 4-Lamp Wrap Fixture with (4) 12.5 Watt LED T8 4' Lamp; Direct Wire to Socket	50	0.200	1.680	CCW-4'-4-T8LED /// KT-LED10.5T8-48G-840-D	53 + 3
1530	SELINSGROVE	INTERIOR	S	BASEMENT	108	5	24/7 & OCCUPIED	CN10&11	STORAGE		2EC25-4'	2	T8 2x4 2-Lamp Egg Crate Fixture	43	0.086	S	1000	86		2	N 2W-12.5LED	New 1x4 2-Lamp Wrap Fixture with (2) 12.5 Watt LED T8 4' Lamp; Direct Wire to Socket	25	0.050	0.432	CCW-4'-2-T8LED /// KT-LED10.5T8-48G-840-D	51 + 3
1531	SELINSGROVE	INTERIOR	S	BASEMENT	109	5	24/7 & OCCUPIED	CN10&11	STORAGE	108A	4EC25-4'	8	T8 2x4 4-Lamp Egg Crate Fixture	85	0.680	S	1000	680		8	N 4W-12.5LED	New 1x4 4-Lamp Wrap Fixture with (4) 12.5 Watt LED T8 4' Lamp; Direct Wire to Socket	50	0.400	3.360	CCW-4'-4-T8LED /// KT-LED10.5T8-48G-840-D	53 + 3
1532	SELINSGROVE	INTERIOR	S	BASEMENT	110	5	24/7 & OCCUPIED	CN10&11	MECHANICAL	194	CF26RLM	6	26 Watt Compact Fluorescent RLM Fixture	26	0.156	S	1000	156		6	LED 9A	Re-Lamp with (1) 9 Watt LED A19 Lamps	9	0.054	1.224	LA19/9/40K/D-46	8
1533	SELINSGROVE	INTERIOR	S	BASEMENT	111	5	24/7 & OCCUPIED	CN10&11	MECHANICAL	107	2EC25-4'	1	T8 2x4 2-Lamp Egg Crate Fixture	43	0.043	S	1000	43		1	N 2W-12.5LED	New 1x4 2-Lamp Wrap Fixture with (2) 12.5 Watt LED T8 4' Lamp; Direct Wire to Socket	25	0.025	0.216	CCW-4'-2-T8LED /// KT-LED10.5T8-48G-840-D	51 + 3
1534	SELINSGROVE	INTERIOR	S	BASEMENT	111	5	24/7 & OCCUPIED	CN10&11	MECHANICAL		CF26	1	26 Watt Compact Fluorescent Fixture	26	0.026	S	1000	26		1	LED 9A	Re-Lamp with (1) 9 Watt LED A19 Lamps	9	0.009	0.204	LA19/9/40K/D-46	8
1535	SELINSGROVE	INTERIOR	S	BASEMENT	112	5	24/7 & OCCUPIED	CN10&11	HALL		3W25-4'	6	T8 1x4 3-Lamp Wrap Fixture	65	0.390	Z	8760	3,416		6	R 3L-12.5LED	Retrofit with (3) 12.5 Watt LED T8 4' Lamps; Direct Wire to Socket	37.5	0.225	1.980	KT-LED10.5T8-48G-840-D	3
1536	SELINSGROVE	INTERIOR	S	BASEMENT	112	5	24/7 & OCCUPIED	CN10&11	HALL		1W17	1	T8 2x2 1-Lamp Wrap Fixture	22	0.022	Z	8760	193		1	R 1L-10LED2'	Retrofit with (1) 10 Watt LED T8 2' Lamp; Direct Wire to Socket	10	0.010	0.144	KT-LED7T8-24GC-840-D	1
1537	SELINSGROVE	INTERIOR	S	BASEMENT	112	5	24/7 & OCCUPIED	CN10&11	HALL		CF65	1	65 Watt Compact Fluorescent Fixture	65	0.065	Z	8760	569		1	LED 9A	Re-Lamp with (1) 9 Watt LED A19 Lamps	9	0.009	0.672	LA19/9/40K/D-46	8
1538	SELINSGROVE	INTERIOR	S	BASEMENT	112	5	24/7 & OCCUPIED	CN10&11	HALL		CF26	5	26 Watt Compact Fluorescent Fixture	26	0.130	Z	8760	1,139		5	LED 9A	Re-Lamp with (1) 9 Watt LED A19 Lamps	9	0.045	1.020	LA19/9/40K/D-46	8
1539	SELINSGROVE	INTERIOR	S	BASEMENT	113	5	24/7 & OCCUPIED	CN10&11	STORAGE	105	CF26RLM	2	26 Watt Compact Fluorescent RLM Fixture	26	0.052	S	1000	52		2	LED 9A	Re-Lamp with (1) 9 Watt LED A19 Lamps	9	0.018	0.408	LA19/9/40K/D-46	8
1540	SELINSGROVE	INTERIOR	S	BASEMENT	114	5	24/7 & OCCUPIED	CN10&11	STORAGE	195	4EC25(EC)-4'	2	T8 2x4 4-Lamp Egg Crate Fixture; Damaged/Missing Lens	85	0.170	S	1000	170		2	N 4W-12.5LED	New 1x4 4-Lamp Wrap Fixture with (4) 12.5 Watt LED T8 4' Lamp; Direct Wire to Socket	50	0.100	0.840	CCW-4'-4-T8LED /// KT-LED10.5T8-48G-840-D	53 + 3
1541	SELINSGROVE	INTERIOR	S	BASEMENT	115	5	24/7 & OCCUPIED	CN10&11	MECHANICAL	196	4W25-4'	1	T8 1x4 4-Lamp Wrap Fixture	85	0.085	S	1000	85		1	R 4L-12.5LED	Retrofit with (4) 12.5 Watt LED T8 4' Lamps; Direct Wire to Socket	50	0.050	0.420	KT-LED10.5T8-48G-840-D	3
1542	SELINSGROVE	INTERIOR	S	BASEMENT	115	5	24/7 & OCCUPIED	CN10&11	MECHANICAL		2PL13WP	5	13 Watt 2-Lamp Plug-In CFL Wall Pack Fixture	30	0.150	S	1000	150		5	N RLED12TWP	New 12 Watt LED Tall Wall Pack Fixture	14	0.070	0.960	ENTRA12	42
1543	SELINSGROVE	INTERIOR	S	BASEMENT	116	5	24/7 & OCCUPIED	CN10&11	STORAGE	102	CF26	2	26 Watt Compact Fluorescent Fixture	26	0.052	S	1000	52		2	LED 9A	Re-Lamp with (1) 9 Watt LED A19 Lamps	9	0.018	0.408	LA19/9/40K/D-46	8
1544	SELINSGROVE	INTERIOR	S	BASEMENT	117	5	24/7 & OCCUPIED	CN10&11	HALL	101	2PL13DR	2	13 Watt Plug-In CFL Drum Fixture	26	0.052	Z	8760	456		2	N LED14DR	New 12" Round 14 Watt LED Drum Fixture	14	0.028	0.288	54074143	19
1545	SELINSGROVE	INTERIOR	S	BASEMENT	117	5	24/7 & OCCUPIED	CN10&11	HALL		3W25-4'	3	T8 1x4 3-Lamp Wrap Fixture	65	0.195	Z	8760	1,708		3	R 3L-12.5LED	Retrofit with (3) 12.5 Watt LED T8 4' Lamps; Direct Wire to Socket	37.5	0.113	0.990	KT-LED10.5T8-48G-840-D	3
1546	SELINSGROVE	INTERIOR	S	BASEMENT	117	5	24/7 & OCCUPIED	CN10&11	HALL		CF26	1	26 Watt Compact Fluorescent Fixture	26	0.026	Z	8760	228		1	LED 9A	Re-Lamp with (1) 9 Watt LED A19 Lamps	9	0.009	0.204	LA19/9/40K/D-46	8
1547	SELINSGROVE	INTERIOR	S	BASEMENT	117	5	24/7 & OCCUPIED	CN10&11	HALL		1W17	1	T8 2x2 1-Lamp Wrap Fixture	22	0.022	Z	8760	193		1	R 1L-10LED2'	Retrofit with (1) 10 Watt LED T8 2' Lamp; Direct Wire to Socket	10	0.010	0.144	KT-LED7T8-24GC-840-D	1
1548	SELINSGROVE	INTERIOR	S	1	226	5	24/7 & OCCUPIED	CM12	SUPPLY	2353	1W17	4	T8 2x2 1-Lamp Wrap Fixture	22	0.088	S	1000	88		4	R 1L-10LED2'	Retrofit with (1) 10 Watt LED T8 2' Lamp; Direct Wire to Socket	10	0.040	0.576	KT-LED7T8-24GC-840-D	1

											EXISTING FIXTURES									PROPOSED FIXTURE UPGRADE							
ID #	Facility Name	Phase	Utility Rate Code	Floor	Map #	Building Number	Building Usage Type	Building Section	Room Description	Room #	ECM Code	Qty	Description	Watts	kW	Burn Hour Code	Pre Burn Hours	kWh	x	Qty	New Code	Description	Watts	kW	Annual KW Saved	Part#	Cut Sheet #
1549	SELINSGROVE	INTERIOR	S	1	227	5	24/7 & OCCUPIED	CM12	JANITOR CLOSET	2334	CF23	1	23 Watt Compact Fluorescent Fixture	23	0.023	S	1000	23		1	LED 9A	Re-Lamp with (1) 9 Watt LED A19 Lamps	9	0.009	0.168	LA19/9/40K/D-46	8
1550	SELINSGROVE	INTERIOR	S	1	228	5	24/7 & OCCUPIED	CM12	RR	2335	2PL13DR	1	13 Watt Plug-In CFL Drum Fixture	26	0.026	Z	8760	228		1	N LED14DR	New 12" Round 14 Watt LED Drum Fixture	14	0.014	0.144	54074143	19
1551	SELINSGROVE	INTERIOR	S	1	229	5	24/7 & OCCUPIED	CM12	ELECTRIC	2336	CF13	1	13 Watt Compact Fluorescent Fixture	13	0.013	S	1000	13		1	LED 9A	Re-Lamp with (1) 9 Watt LED A19 Lamps	9	0.009	0.048	LA19/9/40K/D-46	8
1552	SELINSGROVE	INTERIOR	S	1	230	5	24/7 & OCCUPIED	CM12	NURSE STATION	2352	2EC25-4'	1	T8 2x4 2-Lamp Egg Crate Fixture	43	0.043	Z	8760	377		1	N 2W-12.5LED	New 1x4 2-Lamp Wrap Fixture with (2) 12.5 Watt LED T8 4' Lamp; Direct Wire to Socket	25	0.025	0.216	CCW-4'-2-T8LED /// KT-LED10.5T8-48G-840-D	51 + 3
1553	SELINSGROVE	INTERIOR	S	1	231	5	24/7 & OCCUPIED	CM12	STAIRS	2346	2PL13DR	1	13 Watt Plug-In CFL Drum Fixture	26	0.026	Z	8760	228		1	N LED14DR	New 12" Round 14 Watt LED Drum Fixture	14	0.014	0.144	54074143	19
1554	SELINSGROVE	INTERIOR	S	1	231	5	24/7 & OCCUPIED	CM12	STAIRS		4EC25-4'-DA	1	T8 2x4 4-Lamp Egg Crate Fixture; Difficult Access	85	0.085	Z	8760	745		1	N 4W-12.5LED-DA	New 1x4 4-Lamp Wrap Fixture with (4) 12.5 Watt LED T8 4' Lamp; Direct Wire to Socket; Difficult Access	50	0.050	0.420	CCW-4'-4-T8LED /// KT-LED10.5T8-48G-840-D	53 + 3
1555	SELINSGROVE	INTERIOR	S	1	231	5	24/7 & OCCUPIED	CM12	STAIRS		1W17	2	T8 2x2 1-Lamp Wrap Fixture	22	0.044	Z	8760	385		2	R 1L-10LED2'	Retrofit with (1) 10 Watt LED T8 2' Lamp; Direct Wire to Socket	10	0.020	0.288	KT-LED7T8-24GC-840-D	1
1556	SELINSGROVE	INTERIOR	S	1	231	5	24/7 & OCCUPIED	CM12	STAIRS		XLED	1	3 Watt LED 2-Lamp Exit Sign	3	0.003	Z	8760	26		1	ZZ DD	No Retrofit	3	0.003	0.000	N/A	N/A
1557	SELINSGROVE	INTERIOR	S	1	232	5	24/7 & OCCUPIED	CM12	SOLARIUM	2344	2L25-1X4	7	T8 1x4 2-Lamp Troffer Fixture	43	0.301	BH	5460	1,643		7	R 2L-12.5LED	Retrofit with (2) 12.5 Watt LED T8 4' Lamps; Direct Wire to Socket	25	0.175	1.512	KT-LED10.5T8-48G-840-D	3
1558	SELINSGROVE	INTERIOR	S	1	232	5	24/7 & OCCUPIED	CM12	SOLARIUM		XLED	1	3 Watt LED 2-Lamp Exit Sign	3	0.003	Z	8760	26		1	ZZ DD	No Retrofit	3	0.003	0.000	N/A	N/A
1559	SELINSGROVE	INTERIOR	S	1	233	5	24/7 & OCCUPIED	CM12	OFFICE	2345	2EC25-4'	1	T8 2x4 2-Lamp Egg Crate Fixture	43	0.043	O	2340	101		1	N 2W-12.5LED	New 1x4 2-Lamp Wrap Fixture with (2) 12.5 Watt LED T8 4' Lamp; Direct Wire to Socket	25	0.025	0.216	CCW-4'-2-T8LED /// KT-LED10.5T8-48G-840-D	51 + 3
1560	SELINSGROVE	INTERIOR	S	1	234	5	24/7 & OCCUPIED	CM12	DAY ROOM		3L25-4'	18	T8 2x4 3-Lamp Troffer Fixture	65	1.170	BH	5460	6,388		18	R 3L-12.5LED	Retrofit with (3) 12.5 Watt LED T8 4' Lamps; Direct Wire to Socket	37.5	0.675	5.940	KT-LED10.5T8-48G-840-D	3
1561	SELINSGROVE	INTERIOR	S	1	235	5	24/7 & OCCUPIED	CM12	BED	2347	1W17	2	T8 2x2 1-Lamp Wrap Fixture	22	0.044	BH	5460	240		2	R 1L-10LED2'	Retrofit with (1) 10 Watt LED T8 2' Lamp; Direct Wire to Socket	10	0.020	0.288	KT-LED7T8-24GC-840-D	1
1562	SELINSGROVE	INTERIOR	S	1	235	5	24/7 & OCCUPIED	CM12	BED		60SC	4	60 Watt Incandescent Sconce Fixture	60	0.240	BH	5460	1,310		4	LED 9A	Re-Lamp with (1) 9 Watt LED A19 Lamps	9	0.036	2.448	LA19/9/40K/D-46	8
1563	SELINSGROVE	INTERIOR	S	1	236	5	24/7 & OCCUPIED	CM12	BED	2348	1W17	2	T8 2x2 1-Lamp Wrap Fixture	22	0.044	BH	5460	240		2	R 1L-10LED2'	Retrofit with (1) 10 Watt LED T8 2' Lamp; Direct Wire to Socket	10	0.020	0.288	KT-LED7T8-24GC-840-D	1
1564	SELINSGROVE	INTERIOR	S	1	236	5	24/7 & OCCUPIED	CM12	BED		60SC	4	60 Watt Incandescent Sconce Fixture	60	0.240	BH	5460	1,310		4	LED 9A	Re-Lamp with (1) 9 Watt LED A19 Lamps	9	0.036	2.448	LA19/9/40K/D-46	8
1565	SELINSGROVE	INTERIOR	S	1	237	5	24/7 & OCCUPIED	CM12	BED	2349	1W17	2	T8 2x2 1-Lamp Wrap Fixture	22	0.044	BH	5460	240		2	R 1L-10LED2'	Retrofit with (1) 10 Watt LED T8 2' Lamp; Direct Wire to Socket	10	0.020	0.288	KT-LED7T8-24GC-840-D	1
1566	SELINSGROVE	INTERIOR	S	1	237	5	24/7 & OCCUPIED	CM12	BED		60SC	4	60 Watt Incandescent Sconce Fixture	60	0.240	BH	5460	1,310		4	LED 9A	Re-Lamp with (1) 9 Watt LED A19 Lamps	9	0.036	2.448	LA19/9/40K/D-46	8
1567	SELINSGROVE	INTERIOR	S	1	238	5	24/7 & OCCUPIED	CM12	BED	2350	1W17	2	T8 2x2 1-Lamp Wrap Fixture	22	0.044	BH	5460	240		2	R 1L-10LED2'	Retrofit with (1) 10 Watt LED T8 2' Lamp; Direct Wire to Socket	10	0.020	0.288	KT-LED7T8-24GC-840-D	1
1568	SELINSGROVE	INTERIOR	S	1	238	5	24/7 & OCCUPIED	CM12	BED		60SC	4	60 Watt Incandescent Sconce Fixture	60	0.240	BH	5460	1,310		4	LED 9A	Re-Lamp with (1) 9 Watt LED A19 Lamps	9	0.036	2.448	LA19/9/40K/D-46	8
1569	SELINSGROVE	INTERIOR	S	1	239	5	24/7 & OCCUPIED	CM12	BED	2339	1W17	2	T8 2x2 1-Lamp Wrap Fixture	22	0.044	BH	5460	240		2	R 1L-10LED2'	Retrofit with (1) 10 Watt LED T8 2' Lamp; Direct Wire to Socket	10	0.020	0.288	KT-LED7T8-24GC-840-D	1
1570	SELINSGROVE	INTERIOR	S	1	239	5	24/7 & OCCUPIED	CM12	BED		60SC	4	60 Watt Incandescent Sconce Fixture	60	0.240	BH	5460	1,310		4	LED 9A	Re-Lamp with (1) 9 Watt LED A19 Lamps	9	0.036	2.448	LA19/9/40K/D-46	8
1571	SELINSGROVE	INTERIOR	S	1	240	5	24/7 & OCCUPIED	CM12	BED	2340	1W17	2	T8 2x2 1-Lamp Wrap Fixture	22	0.044	BH	5460	240		2	R 1L-10LED2'	Retrofit with (1) 10 Watt LED T8 2' Lamp; Direct Wire to Socket	10	0.020	0.288	KT-LED7T8-24GC-840-D	1
1572	SELINSGROVE	INTERIOR	S	1	240	5	24/7 & OCCUPIED	CM12	BED		60SC	4	60 Watt Incandescent Sconce Fixture	60	0.240	BH	5460	1,310		4	LED 9A	Re-Lamp with (1) 9 Watt LED A19 Lamps	9	0.036	2.448	LA19/9/40K/D-46	8
1573	SELINSGROVE	INTERIOR	S	1	241	5	24/7 & OCCUPIED	CM12	BED	2342	1W17	2	T8 2x2 1-Lamp Wrap Fixture	22	0.044	BH	5460	240		2	R 1L-10LED2'	Retrofit with (1) 10 Watt LED T8 2' Lamp; Direct Wire to Socket	10	0.020	0.288	KT-LED7T8-24GC-840-D	1
1574	SELINSGROVE	INTERIOR	S	1	241	5	24/7 & OCCUPIED	CM12	BED		60SC	4	60 Watt Incandescent Sconce Fixture	60	0.240	BH	5460	1,310		4	LED 9A	Re-Lamp with (1) 9 Watt LED A19 Lamps	9	0.036	2.448	LA19/9/40K/D-46	8
1575	SELINSGROVE	INTERIOR	S	1	241	5	24/7 & OCCUPIED	CM12	BED	2343	1W17	2	T8 2x2 1-Lamp Wrap Fixture	22	0.044	BH	5460	240		2	R 1L-10LED2'	Retrofit with (1) 10 Watt LED T8 2' Lamp; Direct Wire to Socket	10	0.020	0.288	KT-LED7T8-24GC-840-D	1
1576	SELINSGROVE	INTERIOR	S	1	241	5	24/7 & OCCUPIED	CM12	BED		60SC	4	60 Watt Incandescent Sconce Fixture	60	0.240	BH	5460	1,310		4	LED 9A	Re-Lamp with (1) 9 Watt LED A19 Lamps	9	0.036	2.448	LA19/9/40K/D-46	8
1577	SELINSGROVE	INTERIOR	S	1	242	5	24/7 & OCCUPIED	CM12	RR / SHOWER	2337	2W25-4'	4	T8 1x4 2-Lamp Wrap Fixture	43	0.172	Z	8760	1,507		4	R 2L-12.5LED	Retrofit with (2) 12.5 Watt LED T8 4' Lamps; Direct Wire to Socket	25	0.100	0.864	KT-LED10.5T8-48G-840-D	3
1578	SELINSGROVE	INTERIOR	S	1	242	5	24/7 & OCCUPIED	CM12	RR		1V25-4'	1	T8 1x4 1-Lamp Vanity Fixture	22	0.022	Z	8760	193		1	R 1L-12.5LED	Retrofit with (1) 12.5 Watt LED T8 4' Lamps; Direct Wire to Socket	12.5	0.013	0.114	KT-LED10.5T8-48G-840-D	3
1579	SELINSGROVE	INTERIOR	S	1	242	5	24/7 & OCCUPIED	CM12	RR		2V25-4'	2	T8 1x4 2-Lamp Vanity Fixture	43	0.086	Z	8760	753		2	R 2L-12.5LED	Retrofit with (2) 12.5 Watt LED T8 4' Lamps; Direct Wire to Socket	25	0.050	0.432	KT-LED10.5T8-48G-840-D	3
1580	SELINSGROVE	INTERIOR	S	1	242	5	24/7 & OCCUPIED	CM12	RR		2PL13SQDL-8X8	3	13 Watt 2-Lamp Plug-In CFL Square Downlight Fixture; 8x8	30	0.090	Z	8760	788		3	RK KLED7-REC	Retrofit with (1) 7 Watt LED Rectangular Retrofit Kit	8.5	0.026	0.774	KT-RKIT-RP-6-800-840-UV /G2	54

											EXISTING FIXTURES									PROPOSED FIXTURE UPGRADE							
ID #	Facility Name	Phase	Utility Rate Code	Floor	Map #	Building Number	Building Usage Type	Building Section	Room Description	Room #	ECM Code	Qty	Description	Watts	kW	Burn Hour Code	Pre Burn Hours	kWh	x	Qty	New Code	Description	Watts	kW	Annual KW Saved	Part#	Cut Sheet #
1581	SELINSGROVE	INTERIOR	S	1	242	5	24/7 & OCCUPIED	CM12	PIPE CHASE		CF13	1	13 Watt Compact Fluorescent Fixture	13	0.013	S	1000	13		1	LED 9A	Re-Lamp with (1) 9 Watt LED A19 Lamps	9	0.009	0.048	LA19/9/40K/D-46	8
1582	SELINSGROVE	INTERIOR	S	1	242	5	24/7 & OCCUPIED	CM12	PIPE CHASE		60A	1	60 Watt Incandescent A-Lamp Fixture	60	0.060	S	1000	60		1	LED 9A	Re-Lamp with (1) 9 Watt LED A19 Lamps	9	0.009	0.612	LA19/9/40K/D-46	8
1583	SELINSGROVE	INTERIOR	S	1	243	5	24/7 & OCCUPIED	CM12	RR / SHOWER	2351	2W25-4'	2	T8 1x4 2-Lamp Wrap Fixture	43	0.086	Z	8760	753		2	R 2L-12.5LED	Retrofit with (2) 12.5 Watt LED T8 4' Lamps; Direct Wire to Socket	25	0.050	0.432	KT-LED10.5T8-48G-840-D	3
1584	SELINSGROVE	INTERIOR	S	1	243	5	24/7 & OCCUPIED	CM12	RR / SHOWER		2V17	3	T8 1x2 2-Lamp Vanity Fixture	29	0.087	Z	8760	762		3	R 2L-10LED2'	Retrofit with (2) 10 Watt LED T8 2' Lamps; Direct Wire to Socket	20	0.060	0.324	KT-LED7T8-24GC-840-D	1
1585	SELINSGROVE	INTERIOR	S	1	243	5	24/7 & OCCUPIED	CM12	RR / SHOWER		2PL13SQDL-8X8	3	13 Watt 2-Lamp Plug-In CFL Square Downlight Fixture; 8x8	30	0.090	Z	8760	788		3	RK KLED7-REC	Retrofit with (1) 7 Watt LED Rectangular Retrofit Kit	8.5	0.026	0.774	KT-RKIT-RP-6-800-840-UV/G2	54
1586	SELINSGROVE	EXTERIOR	S	1	244	5	24/7 & OCCUPIED	CM12	COURTYARD	249A	2PL13WP	2	13 Watt 2-Lamp Plug-In CFL Wall Pack Fixture	30	0.060	Z	8760	526		2	N RLED12TWP	New 12 Watt LED Tall Wall Pack Fixture	14	0.028	0.384	ENTRA12	42
1587	SELINSGROVE	EXTERIOR	S	1	244	5	24/7 & OCCUPIED	CM12	COURTYARD		2-PAR-EMPTYHOLDER	1	2-Lamp Empty Par Holder Fixture	0	0.000	Z	8760	0		1	LED 2-17PAR38	Re-Lamp with (2) 17 Watt LED PAR38	34	0.034	-0.408	LP38/17/840/FL/D	17
1588	SELINSGROVE	INTERIOR	S	BASEMENT	1	5	24/7 & OCCUPIED	CM12	SOLARIUM		2L25-1X4	7	T8 1x4 2-Lamp Troffer Fixture	43	0.301	BH	5460	1,643		7	R 2L-12.5LED	Retrofit with (2) 12.5 Watt LED T8 4' Lamps; Direct Wire to Socket	25	0.175	1.512	KT-LED10.5T8-48G-840-D	3
1589	SELINSGROVE	INTERIOR	S	BASEMENT	2	5	24/7 & OCCUPIED	CM12	FILE STORAGE	159	4EC25-4'	2	T8 2x4 4-Lamp Egg Crate Fixture	85	0.170	S-ES	700	119		2	N 4W-12.5LED	New 1x4 4-Lamp Wrap Fixture with (4) 12.5 Watt LED T8 4' Lamp; Direct Wire to Socket	50	0.100	0.840	CCW-4'-4-T8LED /// KT-LED10.5T8-48G-840-D	53 + 3
1590	SELINSGROVE	INTERIOR	S	BASEMENT	3	5	24/7 & OCCUPIED	CM12	OPEN OFFICE	154C	4EC25-4'	7	T8 2x4 4-Lamp Egg Crate Fixture	85	0.595	O	2340	1,392		7	N 4W-12.5LED	New 1x4 4-Lamp Wrap Fixture with (4) 12.5 Watt LED T8 4' Lamp; Direct Wire to Socket	50	0.350	2.940	CCW-4'-4-T8LED /// KT-LED10.5T8-48G-840-D	53 + 3
1591	SELINSGROVE	INTERIOR	S	BASEMENT	3	5	24/7 & OCCUPIED	CM12	OPEN OFFICE		4EC25-4'	2	T8 2x4 4-Lamp Egg Crate Fixture	85	0.170	O	2340	398		2	N 4W-12.5LED	New 1x4 4-Lamp Wrap Fixture with (4) 12.5 Watt LED T8 4' Lamp; Direct Wire to Socket	50	0.100	0.840	CCW-4'-4-T8LED /// KT-LED10.5T8-48G-840-D	53 + 3
1592	SELINSGROVE	INTERIOR	S	BASEMENT	3	5	24/7 & OCCUPIED	CM12	OPEN OFFICE		2L25-1X4	6	T8 1x4 2-Lamp Troffer Fixture	43	0.258	O	2340	604		6	R 2L-12.5LED	Retrofit with (2) 12.5 Watt LED T8 4' Lamps; Direct Wire to Socket	25	0.150	1.296	KT-LED10.5T8-48G-840-D	3
1593	SELINSGROVE	INTERIOR	S	BASEMENT	3	5	24/7 & OCCUPIED	CM12	OPEN OFFICE		4W25-4'	1	T8 1x4 4-Lamp Wrap Fixture	85	0.085	O	2340	199		1	R 4L-12.5LED	Retrofit with (4) 12.5 Watt LED T8 4' Lamps; Direct Wire to Socket	50	0.050	0.420	KT-LED10.5T8-48G-840-D	3
1594	SELINSGROVE	INTERIOR	S	BASEMENT	4	5	24/7 & OCCUPIED	CM12	OPEN OFFICE	154D	2EC25-4'	4	T8 2x4 2-Lamp Egg Crate Fixture	43	0.172	O	2340	402		4	N 2W-12.5LED	New 1x4 2-Lamp Wrap Fixture with (2) 12.5 Watt LED T8 4' Lamp; Direct Wire to Socket	25	0.100	0.864	CCW-4'-2-T8LED /// KT-LED10.5T8-48G-840-D	51 + 3
1595	SELINSGROVE	INTERIOR	S	BASEMENT	4	5	24/7 & OCCUPIED	CM12	OPEN OFFICE		2L25-1X4	4	T8 1x4 2-Lamp Troffer Fixture	43	0.172	O	2340	402		4	R 2L-12.5LED	Retrofit with (2) 12.5 Watt LED T8 4' Lamps; Direct Wire to Socket	25	0.100	0.864	KT-LED10.5T8-48G-840-D	3
1596	SELINSGROVE	INTERIOR	S	BASEMENT	5	5	24/7 & OCCUPIED	CM12	OFFICE	154D	2L25-1X4	2	T8 1x4 2-Lamp Troffer Fixture	43	0.086	O	2340	201		2	R 2L-12.5LED	Retrofit with (2) 12.5 Watt LED T8 4' Lamps; Direct Wire to Socket	25	0.050	0.432	KT-LED10.5T8-48G-840-D	3
1597	SELINSGROVE	INTERIOR	S	BASEMENT	5	5	24/7 & OCCUPIED	CM12	OFFICE		2EC25-4'	2	T8 2x4 2-Lamp Egg Crate Fixture	43	0.086	O	2340	201		2	N 2W-12.5LED	New 1x4 2-Lamp Wrap Fixture with (2) 12.5 Watt LED T8 4' Lamp; Direct Wire to Socket	25	0.050	0.432	CCW-4'-2-T8LED /// KT-LED10.5T8-48G-840-D	51 + 3
1598	SELINSGROVE	INTERIOR	S	BASEMENT	6	5	24/7 & OCCUPIED	CM12	MEETING ROOM	154E	2L25-1X4	2	T8 1x4 2-Lamp Troffer Fixture	43	0.086	O	2340	201		2	R 2L-12.5LED	Retrofit with (2) 12.5 Watt LED T8 4' Lamps; Direct Wire to Socket	25	0.050	0.432	KT-LED10.5T8-48G-840-D	3
1599	SELINSGROVE	INTERIOR	S	BASEMENT	6	5	24/7 & OCCUPIED	CM12	MEETING ROOM		3CF13DR-DECO	5	13 Watt 3-Lamp Compact Fluorescent Decorative Drum Fixture	39	0.195	O	2340	456		5	LED 3-9A	Re-Lamp with (3) 9 Watt LED A19 Lamps	27	0.135	0.720	LA19/9/40K/D-46	8
1600	SELINSGROVE	INTERIOR	S	BASEMENT	7	5	24/7 & OCCUPIED	CM12	SUPPLY	154B	4EC25-4'	4	T8 2x4 4-Lamp Egg Crate Fixture	85	0.340	S-ES	700	238		4	N 4W-12.5LED	New 1x4 4-Lamp Wrap Fixture with (4) 12.5 Watt LED T8 4' Lamp; Direct Wire to Socket	50	0.200	1.680	CCW-4'-4-T8LED /// KT-LED10.5T8-48G-840-D	53 + 3
1601	SELINSGROVE	INTERIOR	S	BASEMENT	7	5	24/7 & OCCUPIED	CM12	SUPPLY		2L25-1X4	2	T8 1x4 2-Lamp Troffer Fixture	43	0.086	S	1000	86		2	R 2L-12.5LED	Retrofit with (2) 12.5 Watt LED T8 4' Lamps; Direct Wire to Socket	25	0.050	0.432	KT-LED10.5T8-48G-840-D	3
1602	SELINSGROVE	INTERIOR	S	BASEMENT	8	5	24/7 & OCCUPIED	CM12	SUPPLY	154A	2L25-1X4	2	T8 1x4 2-Lamp Troffer Fixture	43	0.086	S-ES	700	60		2	R 2L-12.5LED	Retrofit with (2) 12.5 Watt LED T8 4' Lamps; Direct Wire to Socket	25	0.050	0.432	KT-LED10.5T8-48G-840-D	3
1603	SELINSGROVE	INTERIOR	S	BASEMENT	8	5	24/7 & OCCUPIED	CM12	SUPPLY		4EC25-4'	1	T8 2x4 4-Lamp Egg Crate Fixture	85	0.085	S	1000	85		1	N 4W-12.5LED	New 1x4 4-Lamp Wrap Fixture with (4) 12.5 Watt LED T8 4' Lamp; Direct Wire to Socket	50	0.050	0.420	CCW-4'-4-T8LED /// KT-LED10.5T8-48G-840-D	53 + 3
1604	SELINSGROVE	INTERIOR	S	BASEMENT	8	5	24/7 & OCCUPIED	CM12	SUPPLY		2EC25-4'	2	T8 2x4 2-Lamp Egg Crate Fixture	43	0.086	S	1000	86		2	N 2W-12.5LED	New 1x4 2-Lamp Wrap Fixture with (2) 12.5 Watt LED T8 4' Lamp; Direct Wire to Socket	25	0.050	0.432	CCW-4'-2-T8LED /// KT-LED10.5T8-48G-840-D	51 + 3
1605	SELINSGROVE	INTERIOR	S	BASEMENT	9	5	24/7 & OCCUPIED	CM12	FILE STORAGE	154F	2EC25-4'	2	T8 2x4 2-Lamp Egg Crate Fixture	43	0.086	S	1000	86		2	N 2W-12.5LED	New 1x4 2-Lamp Wrap Fixture with (2) 12.5 Watt LED T8 4' Lamp; Direct Wire to Socket	25	0.050	0.432	CCW-4'-2-T8LED /// KT-LED10.5T8-48G-840-D	51 + 3
1606	SELINSGROVE	INTERIOR	S	BASEMENT	9	5	24/7 & OCCUPIED	CM12	FILE STORAGE		2L25-1X4	2	T8 1x4 2-Lamp Troffer Fixture	43	0.086	S	1000	86		2	R 2L-12.5LED	Retrofit with (2) 12.5 Watt LED T8 4' Lamps; Direct Wire to Socket	25	0.050	0.432	KT-LED10.5T8-48G-840-D	3
1607	SELINSGROVE	INTERIOR	S	BASEMENT	9	5	24/7 & OCCUPIED	CM12	FILE STORAGE		4W25-4'	1	T8 1x4 4-Lamp Wrap Fixture	85	0.085	S	1000	85		1	R 4L-12.5LED	Retrofit with (4) 12.5 Watt LED T8 4' Lamps; Direct Wire to Socket	50	0.050	0.420	KT-LED10.5T8-48G-840-D	3
1608	SELINSGROVE	INTERIOR	S	BASEMENT	10	5	24/7 & OCCUPIED	CM12	HALL		2EC25-4'	4	T8 2x4 2-Lamp Egg Crate Fixture	43	0.172	Z	8760	1,507		4	N 2W-12.5LED	New 1x4 2-Lamp Wrap Fixture with (2) 12.5 Watt LED T8 4' Lamp; Direct Wire to Socket	25	0.100	0.864	CCW-4'-2-T8LED /// KT-LED10.5T8-48G-840-D	51 + 3
1609	SELINSGROVE	INTERIOR	S	BASEMENT	11	5	24/7 & OCCUPIED	CM12	HALL	157	2W25-4'	2	T8 1x4 2-Lamp Wrap Fixture	43	0.086	Z	8760	753		2	R 2L-12.5LED	Retrofit with (2) 12.5 Watt LED T8 4' Lamps; Direct Wire to Socket	25	0.050	0.432	KT-LED10.5T8-48G-840-D	3
1610	SELINSGROVE	INTERIOR	S	BASEMENT	12	5	24/7 & OCCUPIED	CM12	RR	157A	1V25-4'	1	T8 1x4 1-Lamp Vanity Fixture	22	0.022	Z	8760	193		1	R 1L-12.5LED	Retrofit with (1) 12.5 Watt LED T8 4' Lamps; Direct Wire to Socket	12.5	0.013	0.114	KT-LED10.5T8-48G-840-D	3
1611	SELINSGROVE	INTERIOR	S	BASEMENT	12	5	24/7 & OCCUPIED	CM12	RR-SHOWER		CF26DL-8X8	1	26 Watt Compact Fluorescent Downlight Fixture; 8x8	26	0.026	Z	8760	228		1	LED 9A	Re-Lamp with (1) 9 Watt LED A19 Lamps	9	0.009	0.204	LA19/9/40K/D-46	8
1612	SELINSGROVE	INTERIOR	S	BASEMENT	13	5	24/7 & OCCUPIED	CM12	RR	157B	CF26DL-8X8	1	26 Watt Compact Fluorescent Downlight Fixture; 8x8	26	0.026	Z	8760	228		1	LED 9A	Re-Lamp with (1) 9 Watt LED A19 Lamps	9	0.009	0.204	LA19/9/40K/D-46	8

											EXISTING FIXTURES									PROPOSED FIXTURE UPGRADE							
ID #	Facility Name	Phase	Utility Rate Code	Floor	Map #	Building Number	Building Usage Type	Building Section	Room Description	Room #	ECM Code	Qty	Description	Watts	kW	Burn Hour Code	Pre Burn Hours	kWh	x	Qty	New Code	Description	Watts	kW	Annual KW Saved	Part#	Cut Sheet #
1613	SELINSGROVE	INTERIOR	S	BASEMENT	13	5	24/7 & OCCUPIED	CM12	RR		1V25-4'	1	T8 1x4 1-Lamp Vanity Fixture	22	0.022	Z	8760	193		1	R 1L-12.5LED	Retrofit with (1) 12.5 Watt LED T8 4' Lamps; Direct Wire to Socket	12.5	0.013	0.114	KT-LED10.5T8-48G-840-D	3
1614	SELINSGROVE	INTERIOR	S	BASEMENT	14	5	24/7 & OCCUPIED	CM12	JANITOR CLOSET	155	CF18	1	18 Watt Compact Fluorescent Fixture	18	0.018	S	1000	18		1	LED 9A	Re-Lamp with (1) 9 Watt LED A19 Lamps	9	0.009	0.108	LA19/9/40K/D-46	8
1615	SELINSGROVE	INTERIOR	S	BASEMENT	15	5	24/7 & OCCUPIED	CM12	JANITOR CLOSET	150	2EC25-4'	2	T8 2x4 2-Lamp Egg Crate Fixture	43	0.086	S	1000	86		2	N 2W-12.5LED	New 1x4 2-Lamp Wrap Fixture with (2) 12.5 Watt LED T8 4' Lamp; Direct Wire to Socket	25	0.050	0.432	CCW-4'-2-T8LED /// KT-LED10.5T8-48G-840-D	51 + 3
1616	SELINSGROVE	INTERIOR	S	BASEMENT	16	5	24/7 & OCCUPIED	CM12	ELECTRIC	152	CF13	1	13 Watt Compact Fluorescent Fixture	13	0.013	S	1000	13		1	LED 9A	Re-Lamp with (1) 9 Watt LED A19 Lamps	9	0.009	0.048	LA19/9/40K/D-46	8
1617	SELINSGROVE	INTERIOR	S	BASEMENT	17	5	24/7 & OCCUPIED	CM12	CLOSET	152	2-60DR	1	60 Watt 2-Lamp Incandescent A-Lamp Drum Fixture	120	0.120	S	1000	120		1	LED 2-9A	Re-Lamp with (2) 9 Watt LED A19 Lamps	18	0.018	1.224	LA19/9/40K/D-46	8
1618	SELINSGROVE	INTERIOR	S	BASEMENT	18	5	24/7 & OCCUPIED	CM12	RR	151	1W17	1	T8 2x2 1-Lamp Wrap Fixture	22	0.022	Z	8760	193		1	R 1L-10LED2'	Retrofit with (1) 10 Watt LED T8 2' Lamp; Direct Wire to Socket	10	0.010	0.144	KT-LED7T8-24GC-840-D	1
1619	SELINSGROVE	INTERIOR	S	BASEMENT	19	5	24/7 & OCCUPIED	CM12	STORAGE	161	2EC25-4'	3	T8 2x4 2-Lamp Egg Crate Fixture	43	0.129	S	1000	129		3	N 2W-12.5LED	New 1x4 2-Lamp Wrap Fixture with (2) 12.5 Watt LED T8 4' Lamp; Direct Wire to Socket	25	0.075	0.648	CCW-4'-2-T8LED /// KT-LED10.5T8-48G-840-D	51 + 3
1620	SELINSGROVE	INTERIOR	S	BASEMENT	19	5	24/7 & OCCUPIED	CM12	STORAGE		2EC25(EC)-4'	1	T8 2x4 2-Lamp Egg Crate Fixture; Damaged/Missing Lens	43	0.043	S	1000	43		1	N 2W-12.5LED	New 1x4 2-Lamp Wrap Fixture with (2) 12.5 Watt LED T8 4' Lamp; Direct Wire to Socket	25	0.025	0.216	CCW-4'-2-T8LED /// KT-LED10.5T8-48G-840-D	51 + 3
1621	SELINSGROVE	INTERIOR	S	BASEMENT	19	5	24/7 & OCCUPIED	CM12	STORAGE		CF18RLM	1	18 Watt Compact Fluorescent RLM Fixture	18	0.018	S	1000	18		1	LED 9A	Re-Lamp with (1) 9 Watt LED A19 Lamps	9	0.009	0.108	LA19/9/40K/D-46	8
1622	SELINSGROVE	INTERIOR	S	BASEMENT	20	5	24/7 & OCCUPIED	CM12	PIPE CHASE	149	100A	1	100 Watt Incandescent A-Lamp Fixture	100	0.100	S	1000	100		1	LED 15A	Re-Lamp with (1) 15 Watt LED A19 Lamp	15	0.015	1.020	LA21/16/40K/D-46	9
1623	SELINSGROVE	INTERIOR	S	BASEMENT	21	5	24/7 & OCCUPIED	CM12	HALL-EXIT		1W17	1	T8 2x2 1-Lamp Wrap Fixture	22	0.022	Z	8760	193		1	R 1L-10LED2'	Retrofit with (1) 10 Watt LED T8 2' Lamp; Direct Wire to Socket	10	0.010	0.144	KT-LED7T8-24GC-840-D	1
1624	SELINSGROVE	INTERIOR	S	BASEMENT	21	5	24/7 & OCCUPIED	CM12	HALL-EXIT		CF26DL-12X12	1	26 Watt Compact Fluorescent Downlight Fixture; 12x12	26	0.026	Z	8760	228		1	LED 9A	Re-Lamp with (1) 9 Watt LED A19 Lamps	9	0.009	0.204	LA19/9/40K/D-46	8
1625	SELINSGROVE	INTERIOR	S	BASEMENT	22	5	24/7 & OCCUPIED	CM12	HALL		2L25-1X4	2	T8 1x4 2-Lamp Troffer Fixture	43	0.086	Z	8760	753		2	R 2L-12.5LED	Retrofit with (2) 12.5 Watt LED T8 4' Lamps; Direct Wire to Socket	25	0.050	0.432	KT-LED10.5T8-48G-840-D	3
1626	SELINSGROVE	INTERIOR	S	1	245	6	24/7 & OCCUPIED		CAFÉ	283	2B25-1X4	26	T8 1x4 2-Lamp Surface Mount Fixture	43	1.118	Z	8760	9,794		26	R 2L-12.5LED	Retrofit with (2) 12.5 Watt LED T8 4' Lamps; Direct Wire to Socket	25	0.650	5.616	KT-LED10.5T8-48G-840-D	3
1627	SELINSGROVE	INTERIOR	S	1	245	6	24/7 & OCCUPIED		CAFÉ		XLED	1	3 Watt LED 2-Lamp Exit Sign	3	0.003	Z	8760	26		1	ZZ DD	No Retrofit	3	0.003	0.000	N/A	N/A
1628	SELINSGROVE	INTERIOR	S	1	246	6	24/7 & OCCUPIED		CAFÉ OFFICE	282	2CF13DR	1	13 Watt 2-Lamp Compact Fluorescent Drum Fixture	26	0.026	O	2340	61		1	N LED14DR	New 12" Round 14 Watt LED Drum Fixture	14	0.014	0.144	54074143	19
1629	SELINSGROVE	INTERIOR	S	1	246	6	24/7 & OCCUPIED		CAFÉ OFFICE		3PL13DR	1	13 Watt 3-Lamp Plug-In CFL Drum Fixture	45	0.045	O	2340	105		1	N LED22DR	New 16" Round 22 Watt LED Drum Fixture	22	0.022	0.276	54075142	20
1630	SELINSGROVE	INTERIOR	S	1	247	6	24/7 & OCCUPIED		CAFÉ KITCHEN		4L25-4'	6	T8 2x4 4-Lamp Troffer Fixture	85	0.510	Z	8760	4,468		6	R 4L-12.5LED	Retrofit with (4) 12.5 Watt LED T8 4' Lamps; Direct Wire to Socket	50	0.300	2.520	KT-LED10.5T8-48G-840-D	3
1631	SELINSGROVE	INTERIOR	S	1	248	6	24/7 & OCCUPIED		MOP CLOSET / RR	284	3PL13DR	2	13 Watt 3-Lamp Plug-In CFL Drum Fixture	45	0.090	S	1000	90		2	N LED22DR	New 16" Round 22 Watt LED Drum Fixture	22	0.044	0.552	54075142	20
1632	SELINSGROVE	INTERIOR	S	1	249	6	24/7 & OCCUPIED		LOCKER	285	3PL13DR	2	13 Watt 3-Lamp Plug-In CFL Drum Fixture	45	0.090	Z	8760	788		2	N LED22DR	New 16" Round 22 Watt LED Drum Fixture	22	0.044	0.552	54075142	20
1633	SELINSGROVE	INTERIOR	S	1	250	6	24/7 & OCCUPIED		HALL	282	1W17	1	T8 2x2 1-Lamp Wrap Fixture	22	0.022	Z	8760	193		1	R 1L-10LED2'	Retrofit with (1) 10 Watt LED T8 2' Lamp; Direct Wire to Socket	10	0.010	0.144	KT-LED7T8-24GC-840-D	1
1634	SELINSGROVE	INTERIOR	S	1	250	6	24/7 & OCCUPIED		HALL		XLED	1	3 Watt LED 2-Lamp Exit Sign	3	0.003	Z	8760	26		1	ZZ DD	No Retrofit	3	0.003	0.000	N/A	N/A
1635	SELINSGROVE	INTERIOR	S	1	251	6	24/7 & OCCUPIED		STAIRS	81	1W17	3	T8 2x2 1-Lamp Wrap Fixture	22	0.066	Z	8760	578		3	R 1L-10LED2'	Retrofit with (1) 10 Watt LED T8 2' Lamp; Direct Wire to Socket	10	0.030	0.432	KT-LED7T8-24GC-840-D	1
1636	SELINSGROVE	INTERIOR	S	1	251	6	24/7 & OCCUPIED		STAIRS		4EC25-4'-DA	1	T8 2x4 4-Lamp Egg Crate Fixture; Difficult Access	85	0.085	Z	8760	745		1	N 4W-12.5LED-DA	New 1x4 4-Lamp Wrap Fixture with (4) 12.5 Watt LED T8 4' Lamp; Direct Wire to Socket; Difficult Access	50	0.050	0.420	CCW-4'-4-T8LED /// KT-LED10.5T8-48G-840-D	53 + 3
1637	SELINSGROVE	INTERIOR	S	1	251	6	24/7 & OCCUPIED		STAIRS		XLED	3	3 Watt LED 2-Lamp Exit Sign	3	0.009	Z	8760	79		3	ZZ DD	No Retrofit	3	0.009	0.000	N/A	N/A
1638	SELINSGROVE	INTERIOR	S	1	252	6	24/7 & OCCUPIED		PIPE CHASE	80	3PL13DR	1	13 Watt 3-Lamp Plug-In CFL Drum Fixture	45	0.045	S	1000	45		1	N LED22DR	New 16" Round 22 Watt LED Drum Fixture	22	0.022	0.276	54075142	20
1639	SELINSGROVE	INTERIOR	S	1	253	6	24/7 & OCCUPIED		KITCHEN	268	4L25-4'-DA	21	T8 2x4 4-Lamp Troffer Fixture; Difficult Access	85	1.785	Z	8760	15,637		21	R 4L-12.5LED-DA	Retrofit with (4) 12.5 Watt LED T8 4' Lamps; Direct Wire to Socket; Difficult Access	50	1.050	8.820	KT-LED10.5T8-48G-840-D	3
1640	SELINSGROVE	INTERIOR	S	1	253	6	24/7 & OCCUPIED		LARGE HOOD		CF23JJ	8	23 Watt Compact Fluorescent Jelly Jar Fixture	23	0.184	Z	8760	1,612		8	LED 9A	Re-Lamp with (1) 9 Watt LED A19 Lamps	9	0.072	1.344	LA19/9/40K/D-46	8
1641	SELINSGROVE	INTERIOR	S	1	253	6	24/7 & OCCUPIED		KITCHEN		XLED	2	3 Watt LED 2-Lamp Exit Sign	3	0.006	Z	8760	53		2	ZZ DD	No Retrofit	3	0.006	0.000	N/A	N/A
1642	SELINSGROVE	INTERIOR	S	1	253	6	24/7 & OCCUPIED		KITCHEN		1W17	2	T8 2x2 1-Lamp Wrap Fixture	22	0.044	Z	8760	385		2	R 1L-10LED2'	Retrofit with (1) 10 Watt LED T8 2' Lamp; Direct Wire to Socket	10	0.020	0.288	KT-LED7T8-24GC-840-D	1
1643	SELINSGROVE	INTERIOR	S	1	253	6	24/7 & OCCUPIED		KITCHEN		60CPY-HALO	1	60 Watt Incandescent A-Lamp Canopy Fixture; Halo	60	0.060	Z	8760	526		1	LED 9A	Re-Lamp with (1) 9 Watt LED A19 Lamps	9	0.009	0.612	LA19/9/40K/D-46	8
1644	SELINSGROVE	INTERIOR	S	1	253	6	24/7 & OCCUPIED		KITCHEN		60JJ	4	60 Watt Incandescent A-Lamp Jelly Jar Fixture	60	0.240	Z	8760	2,102		4	LED 9A	Re-Lamp with (1) 9 Watt LED A19 Lamps	9	0.036	2.448	LA19/9/40K/D-46	8

											EXISTING FIXTURES									PROPOSED FIXTURE UPGRADE						
ID #	Facility Name	Phase	Utility Rate Code	Floor	Map #	Building Number	Building Usage Type	Building Section	Room Description	Room #	ECM Code	Qty	Description	Watts	kW	Burn Hour Code	Pre Burn Hours	kWh	x	Qty	New Code	Description	Watts	kW	Annual KW Saved	Part#	Cut Sheet #
1645	SELINSGROVE	INTERIOR	S	1	254	6	24/7 & OCCUPIED		COOLER	277	60JJ	1	60 Watt Incandescent A-Lamp Jelly Jar Fixture	60	0.060	S	1000	60		1	LED 9A	Re-Lamp with (1) 9 Watt LED A19 Lamps	9	0.009	0.612	LA19/9/40K/D-46	8
1646	SELINSGROVE	INTERIOR	S	1	255	6	24/7 & OCCUPIED		JANITOR CLOSET	278	3PL13DR	2	13 Watt 3-Lamp Plug-In CFL Drum Fixture	45	0.090	S	1000	90		2	N LED22DR	New 16" Round 22 Watt LED Drum Fixture	22	0.044	0.552	54075142	20
1647	SELINSGROVE	INTERIOR	S	1	256	6	24/7 & OCCUPIED		COOLER	275	CF23JJ	1	23 Watt Compact Fluorescent Jelly Jar Fixture	23	0.023	S	1000	23		1	LED 9A	Re-Lamp with (1) 9 Watt LED A19 Lamps	9	0.009	0.168	LA19/9/40K/D-46	8
1648	SELINSGROVE	INTERIOR	S	1	257	6	24/7 & OCCUPIED		COOLER	274	CF23JJ	1	23 Watt Compact Fluorescent Jelly Jar Fixture	23	0.023	S	1000	23		1	LED 9A	Re-Lamp with (1) 9 Watt LED A19 Lamps	9	0.009	0.168	LA19/9/40K/D-46	8
1649	SELINSGROVE	INTERIOR	S	1	258	6	24/7 & OCCUPIED		KITCHEN OFFICE	273	2EC25-4'	2	T8 2x4 2-Lamp Egg Crate Fixture	43	0.086	O	2340	201		2	N 2W-12.5LED	New 1x4 2-Lamp Wrap Fixture with (2) 12.5 Watt LED T8 4' Lamp; Direct Wire to Socket	25	0.050	0.432	CCW-4'-2-T8LED /// KT-LED10.5T8-48G-840-D	51 + 3
1650	SELINSGROVE	INTERIOR	S	1	259	6	24/7 & OCCUPIED		ELEVATOR	272	2S25-4'	3	T8 1x4 2-Lamp Strip Fixture	43	0.129	Z	8760	1,130		3	R 2L-12.5LED	Retrofit with (2) 12.5 Watt LED T8 4' Lamps; Direct Wire to Socket	25	0.075	0.648	KT-LED10.5T8-48G-840-D	3
1651	SELINSGROVE	INTERIOR	S	1	260	6	24/7 & OCCUPIED		MOP CLOSET	271	CF23GLOBE-HALO	1	23 Watt Compact Fluorescent Globe Fixture; Halo	23	0.023	S	1000	23		1	LED 9A	Re-Lamp with (1) 9 Watt LED A19 Lamps	9	0.009	0.168	LA19/9/40K/D-46	8
1652	SELINSGROVE	INTERIOR	S	1	261	6	24/7 & OCCUPIED		COOLER	269	CF23JJ	1	23 Watt Compact Fluorescent Jelly Jar Fixture	23	0.023	S	1000	23		1	LED 9A	Re-Lamp with (1) 9 Watt LED A19 Lamps	9	0.009	0.168	LA19/9/40K/D-46	8
1653	SELINSGROVE	INTERIOR	S	1	262	6	24/7 & OCCUPIED		COOLER	270	60JJ	1	60 Watt Incandescent A-Lamp Jelly Jar Fixture	60	0.060	S	1000	60		1	LED 9A	Re-Lamp with (1) 9 Watt LED A19 Lamps	9	0.009	0.612	LA19/9/40K/D-46	8
1654	SELINSGROVE	INTERIOR	S	1	263	6	24/7 & OCCUPIED		COOLER	266	60JJ	1	60 Watt Incandescent A-Lamp Jelly Jar Fixture	60	0.060	S	1000	60		1	LED 9A	Re-Lamp with (1) 9 Watt LED A19 Lamps	9	0.009	0.612	LA19/9/40K/D-46	8
1655	SELINSGROVE	INTERIOR	S	1	264	6	24/7 & OCCUPIED		JANITOR CLOSET		3PL13DR	2	13 Watt 3-Lamp Plug-In CFL Drum Fixture	45	0.090	S	1000	90		2	N LED22DR	New 16" Round 22 Watt LED Drum Fixture	22	0.044	0.552	54075142	20
1656	SELINSGROVE	INTERIOR	S	1	265	6	24/7 & OCCUPIED		HALL	262	1W17	1	T8 2x2 1-Lamp Wrap Fixture	22	0.022	Z	8760	193		1	R 1L-10LED2'	Retrofit with (1) 10 Watt LED T8 2' Lamp; Direct Wire to Socket	10	0.010	0.144	KT-LED7T8-24GC-840-D	1
1657	SELINSGROVE	INTERIOR	S	1	265	6	24/7 & OCCUPIED		HALL		XLED	1	3 Watt LED 2-Lamp Exit Sign	3	0.003	Z	8760	26		1	ZZ DD	No Retrofit	3	0.003	0.000	N/A	N/A
1658	SELINSGROVE	INTERIOR	S	1	266	6	24/7 & OCCUPIED		CLOSET	265	CF13RLM	1	13 Watt Compact Fluorescent RLM Fixture	13	0.013	S	1000	13		1	LED 9A	Re-Lamp with (1) 9 Watt LED A19 Lamps	9	0.009	0.048	LA19/9/40K/D-46	8
1659	SELINSGROVE	INTERIOR	S	1	267	6	24/7 & OCCUPIED		STAIRS		1W17	3	T8 2x2 1-Lamp Wrap Fixture	22	0.066	Z	8760	578		3	R 1L-10LED2'	Retrofit with (1) 10 Watt LED T8 2' Lamp; Direct Wire to Socket	10	0.030	0.432	KT-LED7T8-24GC-840-D	1
1660	SELINSGROVE	INTERIOR	S	1	267	6	24/7 & OCCUPIED		STAIRS		1W17-DA	1	T8 1x2 1-Lamp Wrap Fixture; Difficult Access	17	0.017	Z	8760	149		1	R 1L-10LED2'-DA	Retrofit with (1) 10 Watt LED T8 2' Lamp; Direct Wire to Socket; Difficult Access	10	0.010	0.084	KT-LED7T8-24GC-840-D	1
1661	SELINSGROVE	INTERIOR	S	1	267	6	24/7 & OCCUPIED		STAIRS		XLED	2	3 Watt LED 2-Lamp Exit Sign	3	0.006	Z	8760	53		2	ZZ DD	No Retrofit	3	0.006	0.000	N/A	N/A
1662	SELINSGROVE	INTERIOR	S	1	268	6	24/7 & OCCUPIED		HALL	261	1W17	2	T8 2x2 1-Lamp Wrap Fixture	22	0.044	Z	8760	385		2	R 1L-10LED2'	Retrofit with (1) 10 Watt LED T8 2' Lamp; Direct Wire to Socket	10	0.020	0.288	KT-LED7T8-24GC-840-D	1
1663	SELINSGROVE	INTERIOR	S	1	268	6	24/7 & OCCUPIED		HALL	261	2EC25-4'	1	T8 2x4 2-Lamp Egg Crate Fixture	43	0.043	Z	8760	377		1	N 2W-12.5LED	New 1x4 2-Lamp Wrap Fixture with (2) 12.5 Watt LED T8 4' Lamp; Direct Wire to Socket	25	0.025	0.216	CCW-4'-2-T8LED /// KT-LED10.5T8-48G-840-D	51 + 3
1664	SELINSGROVE	INTERIOR	S	1	269	6	24/7 & OCCUPIED		KITCHEN BREAK ROOM	258	2L25-1X4	2	T8 1x4 2-Lamp Troffer Fixture	43	0.086	Z	8760	753		2	R 2L-12.5LED	Retrofit with (2) 12.5 Watt LED T8 4' Lamps; Direct Wire to Socket	25	0.050	0.432	KT-LED10.5T8-48G-840-D	3
1665	SELINSGROVE	INTERIOR	S	1	270	6	24/7 & OCCUPIED		RR	261	3PL13DR	2	13 Watt 3-Lamp Plug-In CFL Drum Fixture	45	0.090	Z	8760	788		2	N LED22DR	New 16" Round 22 Watt LED Drum Fixture	22	0.044	0.552	54075142	20
1666	SELINSGROVE	INTERIOR	S	1	271	6	24/7 & OCCUPIED		RR	260	3PL13DR	2	13 Watt 3-Lamp Plug-In CFL Drum Fixture	45	0.090	Z	8760	788		2	N LED22DR	New 16" Round 22 Watt LED Drum Fixture	22	0.044	0.552	54075142	20
1667	SELINSGROVE	INTERIOR	S	1	272	6	24/7 & OCCUPIED		OFFICE	258	2B25-1X4	7	T8 1x4 2-Lamp Surface Mount Fixture	43	0.301	O	2340	704		7	R 2L-12.5LED	Retrofit with (2) 12.5 Watt LED T8 4' Lamps; Direct Wire to Socket	25	0.175	1.512	KT-LED10.5T8-48G-840-D	3
1668	SELINSGROVE	INTERIOR	S	1	272	6	24/7 & OCCUPIED		OFFICE		2B25-1X4	6	T8 1x4 2-Lamp Surface Mount Fixture	43	0.258	O-ES	1638	423		6	R 2L-12.5LED	Retrofit with (2) 12.5 Watt LED T8 4' Lamps; Direct Wire to Socket	25	0.150	1.296	KT-LED10.5T8-48G-840-D	3
1669	SELINSGROVE	INTERIOR	S	1	272	6	24/7 & OCCUPIED		CLOSET		60A	1	60 Watt Incandescent A-Lamp Fixture	60	0.060	S	1000	60		1	LED 9A	Re-Lamp with (1) 9 Watt LED A19 Lamps	9	0.009	0.612	LA19/9/40K/D-46	8
1670	SELINSGROVE	INTERIOR	S	1	273	6	24/7 & OCCUPIED		OFFICE	259	2B25-1X4	4	T8 1x4 2-Lamp Surface Mount Fixture	43	0.172	O	2340	402		4	R 2L-12.5LED	Retrofit with (2) 12.5 Watt LED T8 4' Lamps; Direct Wire to Socket	25	0.100	0.864	KT-LED10.5T8-48G-840-D	3
1671	SELINSGROVE	INTERIOR	S	1	274	6	24/7 & OCCUPIED		OFFICE	259A	2B25-1X4	4	T8 1x4 2-Lamp Surface Mount Fixture	43	0.172	O	2340	402		4	R 2L-12.5LED	Retrofit with (2) 12.5 Watt LED T8 4' Lamps; Direct Wire to Socket	25	0.100	0.864	KT-LED10.5T8-48G-840-D	3
1672	SELINSGROVE	INTERIOR	S	1	275	6	24/7 & OCCUPIED		HALL	276	2EC25-4'	5	T8 2x4 2-Lamp Egg Crate Fixture	43	0.215	Z	8760	1,883		5	N 2W-12.5LED	New 1x4 2-Lamp Wrap Fixture with (2) 12.5 Watt LED T8 4' Lamp; Direct Wire to Socket	25	0.125	1.080	CCW-4'-2-T8LED /// KT-LED10.5T8-48G-840-D	51 + 3
1673	SELINSGROVE	INTERIOR	S	1	275	6	24/7 & OCCUPIED		HALL		1W17	6	T8 2x2 1-Lamp Wrap Fixture	22	0.132	Z	8760	1,156		6	R 1L-10LED2'	Retrofit with (1) 10 Watt LED T8 2' Lamp; Direct Wire to Socket	10	0.060	0.864	KT-LED7T8-24GC-840-D	1
1674	SELINSGROVE	INTERIOR	S	1	275	6	24/7 & OCCUPIED		HALL		XLED	2	3 Watt LED 2-Lamp Exit Sign	3	0.006	Z	8760	53		2	ZZ DD	No Retrofit	3	0.006	0.000	N/A	N/A
1675	SELINSGROVE	INTERIOR	S	1	276	6	24/7 & OCCUPIED		JANITOR CLOSET	257	2PL13DR	1	13 Watt Plug-In CFL Drum Fixture	26	0.026	S	1000	26		1	N LED14DR	New 12" Round 14 Watt LED Drum Fixture	14	0.014	0.144	54074143	19
1676	SELINSGROVE	INTERIOR	S	1	277	6	24/7 & OCCUPIED		SERVING SIDE	256	4L25-4'	25	T8 2x4 4-Lamp Troffer Fixture	85	2.125	Z	8760	18,615		25	R 4L-12.5LED	Retrofit with (4) 12.5 Watt LED T8 4' Lamps; Direct Wire to Socket	50	1.250	10.500	KT-LED10.5T8-48G-840-D	3

											EXISTING FIXTURES									PROPOSED FIXTURE UPGRADE							
ID #	Facility Name	Phase	Utility Rate Code	Floor	Map #	Building Number	Building Usage Type	Building Section	Room Description	Room #	ECM Code	Qty	Description	Watts	kW	Burn Hour Code	Pre Burn Hours	kWh	x	Qty	New Code	Description	Watts	kW	Annual KW Saved	Part#	Cut Sheet #
1677	SELINSGROVE	INTERIOR	S	1	277	6	24/7 & OCCUPIED		WASH BAY		4L25-4'-DA	3	T8 2x4 4-Lamp Troffer Fixture; Difficult Access	85	0.255	O	2340	597		3	R 4L-12.5LED-DA	Retrofit with (4) 12.5 Watt LED T8 4' Lamps; Direct Wire to Socket; Difficult Access	50	0.150	1.260	KT-LED10.5T8-48G-840-D	3
1678	SELINSGROVE	INTERIOR	S	1	277	6	24/7 & OCCUPIED		WASH BAY		XLED	2	3 Watt LED 2-Lamp Exit Sign	3	0.006	Z	8760	53		2	ZZ DD	No Retrofit	3	0.006	0.000	N/A	N/A
1679	SELINSGROVE	INTERIOR	S	1	277	6	24/7 & OCCUPIED		PIPE CHASE		60A	1	60 Watt Incandescent A-Lamp Fixture	60	0.060	S	1000	60		1	LED 9A	Re-Lamp with (1) 9 Watt LED A19 Lamps	9	0.009	0.612	LA19/9/40K/D-46	8
1680	SELINSGROVE	INTERIOR	S	1	278	6	24/7 & OCCUPIED		DISH WASH	287	4L25-4'	21	T8 2x4 4-Lamp Troffer Fixture	85	1.785	Z	8760	15,637		21	R 4L-12.5LED	Retrofit with (4) 12.5 Watt LED T8 4' Lamps; Direct Wire to Socket	50	1.050	8.820	KT-LED10.5T8-48G-840-D	3
1681	SELINSGROVE	INTERIOR	S	1	279	6	24/7 & OCCUPIED		STORAGE / GLASS	287	4L25-4'	3	T8 2x4 4-Lamp Troffer Fixture	85	0.255	S	1000	255		3	R 4L-12.5LED	Retrofit with (4) 12.5 Watt LED T8 4' Lamps; Direct Wire to Socket	50	0.150	1.260	KT-LED10.5T8-48G-840-D	3
1682	SELINSGROVE	INTERIOR	S	1	278	6	24/7 & OCCUPIED		MOP CLOSET		2PL13DR	1	13 Watt Plug-In CFL Drum Fixture	26	0.026	S	1000	26		1	N LED14DR	New 12" Round 14 Watt LED Drum Fixture	14	0.014	0.144	54074143	19
1683	SELINSGROVE	INTERIOR	S	1	278	6	24/7 & OCCUPIED		MOP CLOSET		60A	1	60 Watt Incandescent A-Lamp Fixture	60	0.060	S	1000	60		1	LED 9A	Re-Lamp with (1) 9 Watt LED A19 Lamps	9	0.009	0.612	LA19/9/40K/D-46	8
1684	SELINSGROVE	INTERIOR	S	1	280	6	24/7 & OCCUPIED		HALL	286	2L25-1X4	10	T8 1x4 2-Lamp Troffer Fixture	43	0.430	Z	8760	3,767		10	R 2L-12.5LED	Retrofit with (2) 12.5 Watt LED T8 4' Lamps; Direct Wire to Socket	25	0.250	2.160	KT-LED10.5T8-48G-840-D	3
1685	SELINSGROVE	INTERIOR	S	1	281	6	24/7 & OCCUPIED		MULTI SENSORY ROOM		5CF5FLAME-CHAND	2	5 Watt 5-Lamp Compact Fluorescent Chandelier Flame Fixture	25	0.050	O	2340	117		2	LED 5-5CAND	Re-Lamp with (5) 5 Watt LED Candelabra	25	0.050	0.000	LCTC/5/830/D	12
1686	SELINSGROVE	INTERIOR	S	1	281	6	24/7 & OCCUPIED		MULTI SENSORY ROOM	290	CF23SC	6	23 Watt Compact Fluorescent Sconce Fixture	23	0.138	O	2340	323		6	LED 9A	Re-Lamp with (1) 9 Watt LED A19 Lamps	9	0.054	1.008	LA19/9/40K/D-46	8
1687	SELINSGROVE	INTERIOR	S	1	282	6	24/7 & OCCUPIED		OFFICE	291	2EC25-4'	3	T8 2x4 2-Lamp Egg Crate Fixture	43	0.129	O	2340	302		3	N 2W-12.5LED	New 1x4 2-Lamp Wrap Fixture with (2) 12.5 Watt LED T8 4' Lamp; Direct Wire to Socket	25	0.075	0.648	CCW-4'-2-T8LED /// KT-LED10.5T8-48G-840-D	51 + 3
1688	SELINSGROVE	INTERIOR	S	1	283	6	24/7 & OCCUPIED		OFFICE	292	2EC25-4'	3	T8 2x4 2-Lamp Egg Crate Fixture	43	0.129	O	2340	302		3	N 2W-12.5LED	New 1x4 2-Lamp Wrap Fixture with (2) 12.5 Watt LED T8 4' Lamp; Direct Wire to Socket	25	0.075	0.648	CCW-4'-2-T8LED /// KT-LED10.5T8-48G-840-D	51 + 3
1689	SELINSGROVE	INTERIOR	S	1	284	6	24/7 & OCCUPIED		OFFICE	293	2EC25-4'	3	T8 2x4 2-Lamp Egg Crate Fixture	43	0.129	O	2340	302		3	N 2W-12.5LED	New 1x4 2-Lamp Wrap Fixture with (2) 12.5 Watt LED T8 4' Lamp; Direct Wire to Socket	25	0.075	0.648	CCW-4'-2-T8LED /// KT-LED10.5T8-48G-840-D	51 + 3
1690	SELINSGROVE	INTERIOR	S	1	284	6	24/7 & OCCUPIED		PIPE CHASE		60A	1	60 Watt Incandescent A-Lamp Fixture	60	0.060	S	1000	60		1	LED 9A	Re-Lamp with (1) 9 Watt LED A19 Lamps	9	0.009	0.612	LA19/9/40K/D-46	8
1691	SELINSGROVE	INTERIOR	S	1	285	6	24/7 & OCCUPIED		WRR	296 / 297	2EC25-4'	2	T8 2x4 2-Lamp Egg Crate Fixture	43	0.086	Z	8760	753		2	N 2W-12.5LED	New 1x4 2-Lamp Wrap Fixture with (2) 12.5 Watt LED T8 4' Lamp; Direct Wire to Socket	25	0.050	0.432	CCW-4'-2-T8LED /// KT-LED10.5T8-48G-840-D	51 + 3
1692	SELINSGROVE	INTERIOR	S	1	286	6	24/7 & OCCUPIED		RR	295	NO ACCESS	1	No Access	0	0.000	Z	8760	0		1	ZZ DD	No Retrofit	0	0.000	0.000	N/A	N/A
1693	SELINSGROVE	INTERIOR	S	1	287	6	24/7 & OCCUPIED		MRR	298	1W17	2	T8 2x2 1-Lamp Wrap Fixture	22	0.044	Z	8760	385		2	R 1L-10LED2'	Retrofit with (1) 10 Watt LED T8 2' Lamp; Direct Wire to Socket	10	0.020	0.288	KT-LED7T8-24GC-840-D	1
1694	SELINSGROVE	INTERIOR	S	1	288	6	24/7 & OCCUPIED		THERAPY ROOM	299	4EC25-4'	4	T8 2x4 4-Lamp Egg Crate Fixture	85	0.340	O	2340	796		4	N 4W-12.5LED	New 1x4 4-Lamp Wrap Fixture with (4) 12.5 Watt LED T8 4' Lamp; Direct Wire to Socket	50	0.200	1.680	CCW-4'-4-T8LED /// KT-LED10.5T8-48G-840-D	53 + 3
1695	SELINSGROVE	INTERIOR	S	1	289	6	24/7 & OCCUPIED		OFFICE	2300	2EC25-4'	3	T8 2x4 2-Lamp Egg Crate Fixture	43	0.129	O	2340	302		3	N 2W-12.5LED	New 1x4 2-Lamp Wrap Fixture with (2) 12.5 Watt LED T8 4' Lamp; Direct Wire to Socket	25	0.075	0.648	CCW-4'-2-T8LED /// KT-LED10.5T8-48G-840-D	51 + 3
1696	SELINSGROVE	INTERIOR	S	1	290	6	24/7 & OCCUPIED		OFFICE	2301	2EC25-4'	6	T8 2x4 2-Lamp Egg Crate Fixture	43	0.258	O	2340	604		6	N 2W-12.5LED	New 1x4 2-Lamp Wrap Fixture with (2) 12.5 Watt LED T8 4' Lamp; Direct Wire to Socket	25	0.150	1.296	CCW-4'-2-T8LED /// KT-LED10.5T8-48G-840-D	51 + 3
1697	SELINSGROVE	INTERIOR	S	1	291	6	24/7 & OCCUPIED		GAME ROOM	289	2B25-1X4-DA	42	T8 1x4 2-Lamp Surface Mount Fixture; Difficult Access	43	1.806	O	2340	4,226		42	R 2L-12.5LED-DA	Retrofit with (2) 12.5 Watt LED T8 4' Lamps; Direct Wire to Socket; Difficult Access	25	1.050	9.072	KT-LED10.5T8-48G-840-D	3
1698	SELINSGROVE	INTERIOR	S	1	291	6	24/7 & OCCUPIED		GAME ROOM		XLED	1	3 Watt LED 2-Lamp Exit Sign	3	0.003	Z	8760	26		1	ZZ DD	No Retrofit	3	0.003	0.000	N/A	N/A
1699	SELINSGROVE	INTERIOR	S	1	291	6	24/7 & OCCUPIED		HALLWAY		2PL13DL	4	13 Watt Plug-In CFL 2-Lamp Downlight Fixture	26	0.104	Z	8760	911		4	R LLED9DL6	Retrofit with 9 Watt LED 6" Downlight Kit	9	0.036	0.816	LDN6RV 40/05 LR6AR LSS MVOLT EZ10	22
1700	SELINSGROVE	INTERIOR	S	1	291	6	24/7 & OCCUPIED		KITCHEN		4B25-4'	7	T8 2x4 4-Lamp Surface Mount Fixture	85	0.595	Z	8760	5,212		7	R 4L-12.5LED	Retrofit with (4) 12.5 Watt LED T8 4' Lamps; Direct Wire to Socket	50	0.350	2.940	KT-LED10.5T8-48G-840-D	3
1701	SELINSGROVE	INTERIOR	S	1	291	6	24/7 & OCCUPIED		RR		4W25-4'	2	T8 1x4 4-Lamp Wrap Fixture	85	0.170	Z	8760	1,489		2	R 4L-12.5LED	Retrofit with (4) 12.5 Watt LED T8 4' Lamps; Direct Wire to Socket	50	0.100	0.840	KT-LED10.5T8-48G-840-D	3
1702	SELINSGROVE	INTERIOR	S	1	292	6	24/7 & OCCUPIED		MULTI PURPOSE ROOM		4L25-4'-DIM	13	T8 2x4 4-Lamp Troffer Fixture; Dimming	85	1.105	O	2340	2,586		13	R 4L-14LED-DIM	Retrofit with (4) 14 Watt LED T8 4' Lamp and (2) LED Dimming Drivers	56.8	0.738	4.399	KT-LED14T8-48GC-840-S /// KTLD-2LEDT8-UV-IS-VDIM	4 + 6
1703	SELINSGROVE	INTERIOR	S	1	292	6	24/7 & OCCUPIED		MULTI PURPOSE ROOM		65PAR30DL	20	65 Watt Incandescent Par30 Downlight Fixture	65	1.300	O	2340	3,042		20	LED 10BR30	Re-Lamp with (1) 10 Watt LED BR30	10	0.200	13.200	LBR30/9/840/D-46	10
1704	SELINSGROVE	INTERIOR	S	1	292	6	24/7 & OCCUPIED		MULTI PURPOSE ROOM		65R30DL	1	65 Watt Incandescent R30 Downlight Fixture	65	0.065	O	2340	152		1	LED 10BR30	Re-Lamp with (1) 10 Watt LED BR30	10	0.010	0.660	LBR30/9/840/D-46	10
1705	SELINSGROVE	INTERIOR	S	1	292	6	24/7 & OCCUPIED		MULTI PURPOSE ROOM		XLED	2	3 Watt LED 2-Lamp Exit Sign	3	0.006	Z	8760	53		2	ZZ DD	No Retrofit	3	0.006	0.000	N/A	N/A
1706	SELINSGROVE	INTERIOR	S	1	293	6	24/7 & OCCUPIED		CATWALK ABOVE		60A	11	60 Watt Incandescent A-Lamp Fixture	60	0.660	S	1000	660		11	LED 9A	Re-Lamp with (1) 9 Watt LED A19 Lamps	9	0.099	6.732	LA19/9/40K/D-46	8
1707	SELINSGROVE	INTERIOR	S	1	294	6	24/7 & OCCUPIED		CHAPEL	238	2B25-1X4-DA	88	T8 1x4 2-Lamp Surface Mount Fixture; Difficult Access	43	3.784	O	2340	8,855		88	R 2L-12.5LED-DA	Retrofit with (2) 12.5 Watt LED T8 4' Lamps; Direct Wire to Socket; Difficult Access	25	2.200	19.008	KT-LED10.5T8-48G-840-D	3
1707	SELINSGROVE	INTERIOR	S	1	294	6	24/7 & OCCUPIED		CHAPEL	238	65R30	9	65 Watt Incandescent R30 Fixture	65	0.585	O	2340	1,369		9	LED 10BR30	Re-Lamp with (1) 10 Watt LED BR30	10	0.090	5.940	LBR30/9/840/D-46	10

											EXISTING FIXTURES									PROPOSED FIXTURE UPGRADE							
ID #	Facility Name	Phase	Utility Rate Code	Floor	Map #	Building Number	Building Usage Type	Building Section	Room Description	Room #	ECM Code	Qty	Description	Watts	kW	Burn Hour Code	Pre Burn Hours	kWh	x	Qty	New Code	Description	Watts	kW	Annual KW Saved	Part#	Cut Sheet #
1707	SELINSGROVE	INTERIOR	S	1	294	6	24/7 & OCCUPIED		CHAPEL	238	50MR16	3	50 Watt Incandescent MR16 Fixture	50	0.150	O	2340	351		3	LED 7MR16	Re-Lamp with (1) 7 Watt LED MR16	7	0.021	1.548	LM16/8/840/FL/D	14
1708	SELINSGROVE	INTERIOR	S	1	294	6	24/7 & OCCUPIED		CHAPEL		XLED	3	3 Watt LED 2-Lamp Exit Sign	3	0.009	Z	8760	79		3	ZZ DD	No Retrofit	3	0.009	0.000	N/A	N/A
1709	SELINSGROVE	INTERIOR	S	1	294	6	24/7 & OCCUPIED		CHAPEL RR		1W17	3	T8 2x2 1-Lamp Wrap Fixture	22	0.066	Z	8760	578		3	R 1L-10LED2'	Retrofit with (1) 10 Watt LED T8 2' Lamp; Direct Wire to Socket	10	0.030	0.432	KT-LED7T8-24GC-840-D	1
1710	SELINSGROVE	INTERIOR	S	1	295	6	24/7 & OCCUPIED		BEAUTY SHOP	241	4EC25-4'	6	T8 2x4 4-Lamp Egg Crate Fixture	85	0.510	O	2340	1,193		6	N 4W-12.5LED	New 1x4 4-Lamp Wrap Fixture with (4) 12.5 Watt LED T8 4' Lamp; Direct Wire to Socket	50	0.300	2.520	CCW-4'-4-T8LED /// KT-LED10.5T8-48G-840-D	53 + 3
1711	SELINSGROVE	INTERIOR	S	1	296	6	24/7 & OCCUPIED		OFFICE	242	4EC25-4'	4	T8 2x4 4-Lamp Egg Crate Fixture	85	0.340	O	2340	796		4	N 4W-12.5LED	New 1x4 4-Lamp Wrap Fixture with (4) 12.5 Watt LED T8 4' Lamp; Direct Wire to Socket	50	0.200	1.680	CCW-4'-4-T8LED /// KT-LED10.5T8-48G-840-D	53 + 3
1712	SELINSGROVE	INTERIOR	S	1	296	6	24/7 & OCCUPIED		OFFICE		2EC25-4'	2	T8 2x4 2-Lamp Egg Crate Fixture	43	0.086	O	2340	201		2	N 2W-12.5LED	New 1x4 2-Lamp Wrap Fixture with (2) 12.5 Watt LED T8 4' Lamp; Direct Wire to Socket	25	0.050	0.432	CCW-4'-2-T8LED /// KT-LED10.5T8-48G-840-D	51 + 3
1713	SELINSGROVE	INTERIOR	S	1	297	6	24/7 & OCCUPIED		DENTAL CLINIC	243	4EC25-4'	4	T8 2x4 4-Lamp Egg Crate Fixture	85	0.340	O	2340	796		4	N 4W-12.5LED	New 1x4 4-Lamp Wrap Fixture with (4) 12.5 Watt LED T8 4' Lamp; Direct Wire to Socket	50	0.200	1.680	CCW-4'-4-T8LED /// KT-LED10.5T8-48G-840-D	53 + 3
1714	SELINSGROVE	INTERIOR	S	1	298	6	24/7 & OCCUPIED		DENTAL OFFICE	244	4EC25-4'	3	T8 2x4 4-Lamp Egg Crate Fixture	85	0.255	O	2340	597		3	N 4W-12.5LED	New 1x4 4-Lamp Wrap Fixture with (4) 12.5 Watt LED T8 4' Lamp; Direct Wire to Socket	50	0.150	1.260	CCW-4'-4-T8LED /// KT-LED10.5T8-48G-840-D	53 + 3
1715	SELINSGROVE	INTERIOR	S	1	298	6	24/7 & OCCUPIED		LAB	245	2EC25-4'	1	T8 2x4 2-Lamp Egg Crate Fixture	43	0.043	O	2340	101		1	N 2W-12.5LED	New 1x4 2-Lamp Wrap Fixture with (2) 12.5 Watt LED T8 4' Lamp; Direct Wire to Socket	25	0.025	0.216	CCW-4'-2-T8LED /// KT-LED10.5T8-48G-840-D	51 + 3
1716	SELINSGROVE	INTERIOR	S	1	299	6	24/7 & OCCUPIED		BREAK ROOM	231	2EC25-4'	1	T8 2x4 2-Lamp Egg Crate Fixture	43	0.043	O	2340	101		1	N 2W-12.5LED	New 1x4 2-Lamp Wrap Fixture with (2) 12.5 Watt LED T8 4' Lamp; Direct Wire to Socket	25	0.025	0.216	CCW-4'-2-T8LED /// KT-LED10.5T8-48G-840-D	51 + 3
1717	SELINSGROVE	INTERIOR	S	1	299	6	24/7 & OCCUPIED		BREAK ROOM		4EC25-4'	1	T8 2x4 4-Lamp Egg Crate Fixture	85	0.085	O	2340	199		1	N 4W-12.5LED	New 1x4 4-Lamp Wrap Fixture with (4) 12.5 Watt LED T8 4' Lamp; Direct Wire to Socket	50	0.050	0.420	CCW-4'-4-T8LED /// KT-LED10.5T8-48G-840-D	53 + 3
1718	SELINSGROVE	INTERIOR	S	1	299	6	24/7 & OCCUPIED		PIPE CHASE		60A	1	60 Watt Incandescent A-Lamp Fixture	60	0.060	S	1000	60		1	LED 9A	Re-Lamp with (1) 9 Watt LED A19 Lamps	9	0.009	0.612	LA19/9/40K/D-46	8
1719	SELINSGROVE	INTERIOR	S	1	300	6	24/7 & OCCUPIED		OFFICE	250	2EC25-4'	3	T8 2x4 2-Lamp Egg Crate Fixture	43	0.129	O	2340	302		3	N 2W-12.5LED	New 1x4 2-Lamp Wrap Fixture with (2) 12.5 Watt LED T8 4' Lamp; Direct Wire to Socket	25	0.075	0.648	CCW-4'-2-T8LED /// KT-LED10.5T8-48G-840-D	51 + 3
1720	SELINSGROVE	INTERIOR	S	1	300	6	24/7 & OCCUPIED		OFFICE		CF13SQDL-8X8	1	13 Watt Compact Fluorescent Square Downlight Fixture; 8x8	13	0.013	O	2340	30		1	LED 9A	Re-Lamp with (1) 9 Watt LED A19 Lamps	9	0.009	0.048	LA19/9/40K/D-46	8
1721	SELINSGROVE	INTERIOR	S	1	300	6	24/7 & OCCUPIED		OFFICE		3PL13DR	1	13 Watt 3-Lamp Plug-In CFL Drum Fixture	45	0.045	O	2340	105		1	N LED22DR	New 16" Round 22 Watt LED Drum Fixture	22	0.022	0.276	54075142	20
1722	SELINSGROVE	INTERIOR	S	1	301	6	24/7 & OCCUPIED		OFFICE	254	4W25-4'	3	T8 1x4 4-Lamp Wrap Fixture	85	0.255	O	2340	597		3	R 4L-12.5LED	Retrofit with (4) 12.5 Watt LED T8 4' Lamps; Direct Wire to Socket	50	0.150	1.260	KT-LED10.5T8-48G-840-D	3
1723	SELINSGROVE	INTERIOR	S	1	302	6	24/7 & OCCUPIED		OFFICE	255	4L25-4'	1	T8 2x4 4-Lamp Troffer Fixture	85	0.085	O	2340	199		1	R 4L-12.5LED	Retrofit with (4) 12.5 Watt LED T8 4' Lamps; Direct Wire to Socket	50	0.050	0.420	KT-LED10.5T8-48G-840-D	3
1724	SELINSGROVE	INTERIOR	S	1	302	6	24/7 & OCCUPIED		STORAGE		2S25-4'	1	T8 1x4 2-Lamp Strip Fixture	43	0.043	S	1000	43		1	R 2L-12.5LED	Retrofit with (2) 12.5 Watt LED T8 4' Lamps; Direct Wire to Socket	25	0.025	0.216	KT-LED10.5T8-48G-840-D	3
1725	SELINSGROVE	INTERIOR	S	1	302	6	24/7 & OCCUPIED		HALL		4L25-4'	2	T8 2x4 4-Lamp Troffer Fixture	85	0.170	Z	8760	1,489		2	R 4L-12.5LED	Retrofit with (4) 12.5 Watt LED T8 4' Lamps; Direct Wire to Socket	50	0.100	0.840	KT-LED10.5T8-48G-840-D	3
1726	SELINSGROVE	INTERIOR	S	1	302	6	24/7 & OCCUPIED		HEARING		4L25-4'	1	T8 2x4 4-Lamp Troffer Fixture	85	0.085	O	2340	199		1	R 4L-12.5LED	Retrofit with (4) 12.5 Watt LED T8 4' Lamps; Direct Wire to Socket	50	0.050	0.420	KT-LED10.5T8-48G-840-D	3
1727	SELINSGROVE	INTERIOR	S	1	302	6	24/7 & OCCUPIED		OFFICE		4L25-4'	1	T8 2x4 4-Lamp Troffer Fixture	85	0.085	O	2340	199		1	R 4L-12.5LED	Retrofit with (4) 12.5 Watt LED T8 4' Lamps; Direct Wire to Socket	50	0.050	0.420	KT-LED10.5T8-48G-840-D	3
1728	SELINSGROVE	INTERIOR	S	1	302	6	24/7 & OCCUPIED		HEARING		2L34-1X4	1	T12 1x4 2-Lamp Fixture	72	0.072	O	2340	168		1	R 2L-12.5LED	Retrofit with (2) 12.5 Watt LED T8 4' Lamps; Direct Wire to Socket	25	0.025	0.564	KT-LED10.5T8-48G-840-D	3
1729	SELINSGROVE	INTERIOR	S	1	302	6	24/7 & OCCUPIED		HEARING		2L34-1X4	1	T12 1x4 2-Lamp Fixture	72	0.072	O	2340	168		1	R 2L-12.5LED	Retrofit with (2) 12.5 Watt LED T8 4' Lamps; Direct Wire to Socket	25	0.025	0.564	KT-LED10.5T8-48G-840-D	3
1730	SELINSGROVE	INTERIOR	S	1	303	6	24/7 & OCCUPIED		HALL	237	2L25-1X4	10	T8 1x4 2-Lamp Troffer Fixture	43	0.430	Z	8760	3,767		10	R 2L-12.5LED	Retrofit with (2) 12.5 Watt LED T8 4' Lamps; Direct Wire to Socket	25	0.250	2.160	KT-LED10.5T8-48G-840-D	3
1731	SELINSGROVE	INTERIOR	S	1	303	6	24/7 & OCCUPIED		HALL		XLED	2	3 Watt LED 2-Lamp Exit Sign	3	0.006	Z	8760	53		2	ZZ DD	No Retrofit	3	0.006	0.000	N/A	N/A
1732	SELINSGROVE	INTERIOR	S	1	302	6	24/7 & OCCUPIED		VEST	235	3PL13DR	2	13 Watt 3-Lamp Plug-In CFL Drum Fixture	45	0.090	Z	8760	788		2	N LED22DR	New 16" Round 22 Watt LED Drum Fixture	22	0.044	0.552	54075142	20
1733	SELINSGROVE	INTERIOR	S	1	303	6	24/7 & OCCUPIED		HALL	231	2L25-1X4	2	T8 1x4 2-Lamp Troffer Fixture	43	0.086	Z	8760	753		2	R 2L-12.5LED	Retrofit with (2) 12.5 Watt LED T8 4' Lamps; Direct Wire to Socket	25	0.050	0.432	KT-LED10.5T8-48G-840-D	3
1734	SELINSGROVE	INTERIOR	S	1	303	6	24/7 & OCCUPIED		HALL		XLED	1	3 Watt LED 2-Lamp Exit Sign	3	0.003	Z	8760	26		1	ZZ DD	No Retrofit	3	0.003	0.000	N/A	N/A
1735	SELINSGROVE	INTERIOR	S	1	304	6	24/7 & OCCUPIED		PIPE CHASE	234	60A	1	60 Watt Incandescent A-Lamp Fixture	60	0.060	S	1000	60		1	LED 9A	Re-Lamp with (1) 9 Watt LED A19 Lamps	9	0.009	0.612	LA19/9/40K/D-46	8
1736	SELINSGROVE	INTERIOR	S	1	305	6	24/7 & OCCUPIED		HALL	226	2L25-1X4	6	T8 1x4 2-Lamp Troffer Fixture	43	0.258	Z	8760	2,260		6	R 2L-12.5LED	Retrofit with (2) 12.5 Watt LED T8 4' Lamps; Direct Wire to Socket	25	0.150	1.296	KT-LED10.5T8-48G-840-D	3
1737	SELINSGROVE	INTERIOR	S	1	305	6	24/7 & OCCUPIED		HALL		XLED	2	3 Watt LED 2-Lamp Exit Sign	3	0.006	Z	8760	53		2	ZZ DD	No Retrofit	3	0.006	0.000	N/A	N/A
1738	SELINSGROVE	INTERIOR	S	1	306	6	24/7 & OCCUPIED		CHAIR STORAGE	233	2EC25-4'	3	T8 2x4 2-Lamp Egg Crate Fixture	43	0.129	S	1000	129		3	N 2W-12.5LED	New 1x4 2-Lamp Wrap Fixture with (2) 12.5 Watt LED T8 4' Lamp; Direct Wire to Socket	25	0.075	0.648	CCW-4'-2-T8LED /// KT-LED10.5T8-48G-840-D	51 + 3

											EXISTING FIXTURES									PROPOSED FIXTURE UPGRADE							
ID #	Facility Name	Phase	Utility Rate Code	Floor	Map #	Building Number	Building Usage Type	Building Section	Room Description	Room #	ECM Code	Qty	Description	Watts	kW	Burn Hour Code	Pre Burn Hours	kWh	x	Qty	New Code	Description	Watts	kW	Annual KW Saved	Part#	Cut Sheet #
1739	SELINSGROVE	INTERIOR	S	1	306	6	24/7 & OCCUPIED		PIPE CHASE		60A	1	60 Watt Incandescent A-Lamp Fixture	60	0.060	S	1000	60		1	LED 9A	Re-Lamp with (1) 9 Watt LED A19 Lamps	9	0.009	0.612	LA19/9/40K/D-46	8
1740	SELINSGROVE	INTERIOR	S	1	307	6	24/7 & OCCUPIED		JANITOR CLOSET	232	CF13RLM	1	13 Watt Compact Fluorescent RLM Fixture	13	0.013	S	1000	13		1	LED 9A	Re-Lamp with (1) 9 Watt LED A19 Lamps	9	0.009	0.048	LA19/9/40K/D-46	8
1741	SELINSGROVE	INTERIOR	S	1	308	6	24/7 & OCCUPIED		STAIR	115	2EC25-4'-DA	1	T8 2x4 2-Lamp Egg Crate Fixture; Difficult Access	43	0.043	Z	8760	377		1	N 2W-12.5LED-DA	New 1x4 2-Lamp Wrap Fixture with (2) 12.5 Watt LED T8 4' Lamp; Direct Wire to Socket; Difficult Access	25	0.025	0.216	CCW-4'-2-T8LED /// KT-LED10.5T8-48G-840-D	51 + 3
1742	SELINSGROVE	INTERIOR	S	1	308	6	24/7 & OCCUPIED		STAIR		2PL13WP-CM	1	13 Watt 2-Lamp Plug-In CFL Wall Pack Fixture; Ceiling Mount	30	0.030	Z	8760	263		1	N RLED24WP	New 24 Watt LED Wall Pack Fixture	24	0.024	0.072	WP2LED24	40
1743	SELINSGROVE	INTERIOR	S	1	309	6	24/7 & OCCUPIED		MRR	229	1W17	2	T8 2x2 1-Lamp Wrap Fixture	22	0.044	Z	8760	385		2	R 1L-10LED2'	Retrofit with (1) 10 Watt LED T8 2' Lamp; Direct Wire to Socket	10	0.020	0.288	KT-LED7T8-24GC-840-D	1
1744	SELINSGROVE	INTERIOR	S	1	309	6	24/7 & OCCUPIED		PIPE CHASE		60A	1	60 Watt Incandescent A-Lamp Fixture	60	0.060	S	1000	60		1	LED 9A	Re-Lamp with (1) 9 Watt LED A19 Lamps	9	0.009	0.612	LA19/9/40K/D-46	8
1745	SELINSGROVE	INTERIOR	S	1	310	6	24/7 & OCCUPIED		WRR	227	2EC25-4'	2	T8 2x4 2-Lamp Egg Crate Fixture	43	0.086	Z	8760	753		2	N 2W-12.5LED	New 1x4 2-Lamp Wrap Fixture with (2) 12.5 Watt LED T8 4' Lamp; Direct Wire to Socket	25	0.050	0.432	CCW-4'-2-T8LED /// KT-LED10.5T8-48G-840-D	51 + 3
1746	SELINSGROVE	INTERIOR	S	1	311	6	24/7 & OCCUPIED		OFFICE	225	2B25-1X4	4	T8 1x4 2-Lamp Surface Mount Fixture	43	0.172	O-ES	1638	282		4	R 2L-12.5LED	Retrofit with (2) 12.5 Watt LED T8 4' Lamps; Direct Wire to Socket	25	0.100	0.864	KT-LED10.5T8-48G-840-D	3
1747	SELINSGROVE	INTERIOR	S	1	312	6	24/7 & OCCUPIED		OFFICE	224	2B25-1X4	4	T8 1x4 2-Lamp Surface Mount Fixture	43	0.172	O-ES	1638	282		4	R 2L-12.5LED	Retrofit with (2) 12.5 Watt LED T8 4' Lamps; Direct Wire to Socket	25	0.100	0.864	KT-LED10.5T8-48G-840-D	3
1748	SELINSGROVE	INTERIOR	S	1	313	6	24/7 & OCCUPIED		OFFICE	223	2B25-1X4	3	T8 1x4 2-Lamp Surface Mount Fixture	43	0.129	O-ES	1638	211		3	R 2L-12.5LED	Retrofit with (2) 12.5 Watt LED T8 4' Lamps; Direct Wire to Socket	25	0.075	0.648	KT-LED10.5T8-48G-840-D	3
1749	SELINSGROVE	INTERIOR	S	1	314	6	24/7 & OCCUPIED		OFFICE	222	2B25-1X4	4	T8 1x4 2-Lamp Surface Mount Fixture	43	0.172	O	2340	402		4	R 2L-12.5LED	Retrofit with (2) 12.5 Watt LED T8 4' Lamps; Direct Wire to Socket	25	0.100	0.864	KT-LED10.5T8-48G-840-D	3
1750	SELINSGROVE	INTERIOR	S	1	315	6	24/7 & OCCUPIED		OFFICE	221	2B25-1X4	4	T8 1x4 2-Lamp Surface Mount Fixture	43	0.172	O	2340	402		4	R 2L-12.5LED	Retrofit with (2) 12.5 Watt LED T8 4' Lamps; Direct Wire to Socket	25	0.100	0.864	KT-LED10.5T8-48G-840-D	3
1751	SELINSGROVE	INTERIOR	S	1	316	6	24/7 & OCCUPIED		OFFICE	220	2B25-1X4	4	T8 1x4 2-Lamp Surface Mount Fixture	43	0.172	O-ES	1638	282		4	R 2L-12.5LED	Retrofit with (2) 12.5 Watt LED T8 4' Lamps; Direct Wire to Socket	25	0.100	0.864	KT-LED10.5T8-48G-840-D	3
1752	SELINSGROVE	INTERIOR	S	1	317	6	24/7 & OCCUPIED		OFFICE	220A	2B25-1X4	4	T8 1x4 2-Lamp Surface Mount Fixture	43	0.172	O-ES	1638	282		4	R 2L-12.5LED	Retrofit with (2) 12.5 Watt LED T8 4' Lamps; Direct Wire to Socket	25	0.100	0.864	KT-LED10.5T8-48G-840-D	3
1753	SELINSGROVE	INTERIOR	S	1	318	6	24/7 & OCCUPIED		OFFICE	219	2B25-1X4	2	T8 1x4 2-Lamp Surface Mount Fixture	43	0.086	O	2340	201		2	R 2L-12.5LED	Retrofit with (2) 12.5 Watt LED T8 4' Lamps; Direct Wire to Socket	25	0.050	0.432	KT-LED10.5T8-48G-840-D	3
1754	SELINSGROVE	INTERIOR	S	1	319	6	24/7 & OCCUPIED		OFFICE	218	2B25-1X4	6	T8 1x4 2-Lamp Surface Mount Fixture	43	0.258	O-ES	1638	423		6	R 2L-12.5LED	Retrofit with (2) 12.5 Watt LED T8 4' Lamps; Direct Wire to Socket	25	0.150	1.296	KT-LED10.5T8-48G-840-D	3
1755	SELINSGROVE	INTERIOR	S	1	320	6	24/7 & OCCUPIED		OFFICE	217	2B25-1X4	4	T8 1x4 2-Lamp Surface Mount Fixture	43	0.172	O	2340	402		4	R 2L-12.5LED	Retrofit with (2) 12.5 Watt LED T8 4' Lamps; Direct Wire to Socket	25	0.100	0.864	KT-LED10.5T8-48G-840-D	3
1756	SELINSGROVE	INTERIOR	S	1	320	6	24/7 & OCCUPIED		OFFICE	217	CF13SQDL-8X8	1	13 Watt Compact Fluorescent Square Downlight Fixture; 8x8	13	0.013	O	2340	30		1	LED 9A	Re-Lamp with (1) 9 Watt LED A19 Lamps	9	0.009	0.048	LA19/9/40K/D-46	8
1757	SELINSGROVE	INTERIOR	S	1	321	6	24/7 & OCCUPIED		WRR	205	2EC25-4'	1	T8 2x4 2-Lamp Egg Crate Fixture	43	0.043	Z	8760	377		1	N 2W-12.5LED	New 1x4 2-Lamp Wrap Fixture with (2) 12.5 Watt LED T8 4' Lamp; Direct Wire to Socket	25	0.025	0.216	CCW-4'-2-T8LED /// KT-LED10.5T8-48G-840-D	51 + 3
1758	SELINSGROVE	INTERIOR	S	1	322	6	24/7 & OCCUPIED		COPY	216	1W17	1	T8 2x2 1-Lamp Wrap Fixture	22	0.022	O	2340	51		1	R 1L-10LED2'	Retrofit with (1) 10 Watt LED T8 2' Lamp; Direct Wire to Socket	10	0.010	0.144	KT-LED7T8-24GC-840-D	1
1759	SELINSGROVE	INTERIOR	S	1	322	6	24/7 & OCCUPIED		COPY	216	2EC25-4'	1	T8 2x4 2-Lamp Egg Crate Fixture	43	0.043	O	2340	101		1	N 2W-12.5LED	New 1x4 2-Lamp Wrap Fixture with (2) 12.5 Watt LED T8 4' Lamp; Direct Wire to Socket	25	0.025	0.216	CCW-4'-2-T8LED /// KT-LED10.5T8-48G-840-D	51 + 3
1760	SELINSGROVE	INTERIOR	S	1	323	6	24/7 & OCCUPIED		OFFICE	204	2EC25-4'	18	T8 2x4 2-Lamp Egg Crate Fixture	43	0.774	O	2340	1,811		18	N 2W-12.5LED	New 1x4 2-Lamp Wrap Fixture with (2) 12.5 Watt LED T8 4' Lamp; Direct Wire to Socket	25	0.450	3.888	CCW-4'-2-T8LED /// KT-LED10.5T8-48G-840-D	51 + 3
1761	SELINSGROVE	INTERIOR	S	1	324	6	24/7 & OCCUPIED		STORAGE	204A	2EC25-4'	4	T8 2x4 2-Lamp Egg Crate Fixture	43	0.172	S	1000	172		4	N 2W-12.5LED	New 1x4 2-Lamp Wrap Fixture with (2) 12.5 Watt LED T8 4' Lamp; Direct Wire to Socket	25	0.100	0.864	CCW-4'-2-T8LED /// KT-LED10.5T8-48G-840-D	51 + 3
1762	SELINSGROVE	INTERIOR	S	1	325	6	24/7 & OCCUPIED		OFFICE	203	2EC25-4'	4	T8 2x4 2-Lamp Egg Crate Fixture	43	0.172	O	2340	402		4	N 2W-12.5LED	New 1x4 2-Lamp Wrap Fixture with (2) 12.5 Watt LED T8 4' Lamp; Direct Wire to Socket	25	0.100	0.864	CCW-4'-2-T8LED /// KT-LED10.5T8-48G-840-D	51 + 3
1763	SELINSGROVE	INTERIOR	S	1	326	6	24/7 & OCCUPIED		HALL	216	1W17	1	T8 2x2 1-Lamp Wrap Fixture	22	0.022	Z	8760	193		1	R 1L-10LED2'	Retrofit with (1) 10 Watt LED T8 2' Lamp; Direct Wire to Socket	10	0.010	0.144	KT-LED7T8-24GC-840-D	1
1764	SELINSGROVE	INTERIOR	S	1	326	6	24/7 & OCCUPIED		HALL		2L25-1X4	16	T8 1x4 2-Lamp Troffer Fixture	43	0.688	Z	8760	6,027		16	R 2L-12.5LED	Retrofit with (2) 12.5 Watt LED T8 4' Lamps; Direct Wire to Socket	25	0.400	3.456	KT-LED10.5T8-48G-840-D	3
1765	SELINSGROVE	INTERIOR	S	1	326	6	24/7 & OCCUPIED		HALL		XLED	2	3 Watt LED 2-Lamp Exit Sign	3	0.006	Z	8760	53		2	ZZ DD	No Retrofit	3	0.006	0.000	N/A	N/A
1766	SELINSGROVE	INTERIOR	S	1	326	6	24/7 & OCCUPIED		HALL		2EC25-4'	1	T8 2x4 2-Lamp Egg Crate Fixture	43	0.043	Z	8760	377		1	N 2W-12.5LED	New 1x4 2-Lamp Wrap Fixture with (2) 12.5 Watt LED T8 4' Lamp; Direct Wire to Socket	25	0.025	0.216	CCW-4'-2-T8LED /// KT-LED10.5T8-48G-840-D	51 + 3
1767	SELINSGROVE	INTERIOR	S	1	326	6	24/7 & OCCUPIED		HALL		2B25-1X4	1	T8 1x4 2-Lamp Surface Mount Fixture	43	0.043	Z	8760	377		1	R 2L-12.5LED	Retrofit with (2) 12.5 Watt LED T8 4' Lamps; Direct Wire to Socket	25	0.025	0.216	KT-LED10.5T8-48G-840-D	3
1768	SELINSGROVE	INTERIOR	S	1	327	6	24/7 & OCCUPIED		MAIN LOBBY	202	2L25-1X4-DA	20	T8 1x4 2-Lamp Troffer Fixture; Difficult Access	43	0.860	Z	8760	7,534		20	R 2L-12.5LED-DA	Retrofit with (2) 12.5 Watt LED T8 4' Lamps; Direct Wire to Socket; Difficult Access	25	0.500	4.320	KT-LED10.5T8-48G-840-D	3
1769	SELINSGROVE	INTERIOR	S	1	327	6	24/7 & OCCUPIED		MAIN LOBBY		95PAR38DL8-GOLD TRIM	4	95 Watt Incandescent 8" Downlight Fixture; Gold Trim	95	0.380	Z	8760	3,329		4	LED 17BR40	Re-Lamp with (1) 17 Watt LED BR40	17	0.068	3.744	LBR40/16/840/D-46	11
1770	SELINSGROVE	INTERIOR	S	1	327	6	24/7 & OCCUPIED		MAIN LOBBY		1W17	2	T8 2x2 1-Lamp Wrap Fixture	22	0.044	Z	8760	385		2	R 1L-10LED2'	Retrofit with (1) 10 Watt LED T8 2' Lamp; Direct Wire to Socket	10	0.020	0.288	KT-LED7T8-24GC-840-D	1

											EXISTING FIXTURES									PROPOSED FIXTURE UPGRADE							
ID #	Facility Name	Phase	Utility Rate Code	Floor	Map #	Building Number	Building Usage Type	Building Section	Room Description	Room #	ECM Code	Qty	Description	Watts	kW	Burn Hour Code	Pre Burn Hours	kWh	x	Qty	New Code	Description	Watts	kW	Annual KW Saved	Part#	Cut Sheet #
1771	SELINSGROVE	INTERIOR	S	1	327	6	24/7 & OCCUPIED		MAIN LOBBY		XLED	2	3 Watt LED 2-Lamp Exit Sign	3	0.006	Z	8760	53		2	ZZ DD	No Retrofit	3	0.006	0.000	N/A	N/A
1772	SELINSGROVE	INTERIOR	S	1	328	6	24/7 & OCCUPIED		MAIN VESTIBULE	201	2L25-1X4-DA	8	T8 1x4 2-Lamp Troffer Fixture; Difficult Access	43	0.344	Z	8760	3,013		8	R 2L-12.5LED-DA	Retrofit with (2) 12.5 Watt LED T8 4' Lamps; Direct Wire to Socket; Difficult Access	25	0.200	1.728	KT-LED10.5T8-48G-840-D	3
1773	SELINSGROVE	INTERIOR	S	1	329	6	24/7 & OCCUPIED		OFFICE	2326	2EC25-4'	4	T8 2x4 2-Lamp Egg Crate Fixture	43	0.172	O	2340	402		4	N 2W-12.5LED	New 1x4 2-Lamp Wrap Fixture with (2) 12.5 Watt LED T8 4' Lamp; Direct Wire to Socket	25	0.100	0.864	CCW-4'-2-T8LED /// KT-LED10.5T8-48G-840-D	51 + 3
1774	SELINSGROVE	INTERIOR	S	1	330	6	24/7 & OCCUPIED		OFFICE	2325	2EC25-4'	23	T8 2x4 2-Lamp Egg Crate Fixture	43	0.989	O	2340	2,314		23	N 2W-12.5LED	New 1x4 2-Lamp Wrap Fixture with (2) 12.5 Watt LED T8 4' Lamp; Direct Wire to Socket	25	0.575	4.968	CCW-4'-2-T8LED /// KT-LED10.5T8-48G-840-D	51 + 3
1775	SELINSGROVE	INTERIOR	S	1	331	6	24/7 & OCCUPIED		STAIR	206	1W17	2	T8 2x2 1-Lamp Wrap Fixture	22	0.044	Z	8760	385		2	R 1L-10LED2'	Retrofit with (1) 10 Watt LED T8 2' Lamp; Direct Wire to Socket	10	0.020	0.288	KT-LED7T8-24GC-840-D	1
1776	SELINSGROVE	INTERIOR	S	1	331	6	24/7 & OCCUPIED		STAIR		60G-HALO	1	60 Watt Incandescent Globe Fixture; Halo	60	0.060	Z	8760	526		1	LED 8GLOBE	Re-Lamp with (1) 8 Watt LED G25 Globe	8	0.008	0.624	LG25/6/827/D	13
1777	SELINSGROVE	INTERIOR	S	1	332	6	24/7 & OCCUPIED		BALCONY		60SQDL	4	60 Watt Incandescent Square Downlight Fixture	60	0.240	S	1000	240		4	LED 9A	Re-Lamp with (1) 9 Watt LED A19 Lamps	9	0.036	2.448	LA19/9/40K/D-46	8
1778	SELINSGROVE	INTERIOR	S	1	333	6	24/7 & OCCUPIED		PROJECTOR		2CF13DR	2	13 Watt 2-Lamp Compact Fluorescent Drum Fixture	26	0.052	O	2340	122		2	N LED14DR	New 12" Round 14 Watt LED Drum Fixture	14	0.028	0.288	54074143	19
1779	SELINSGROVE	INTERIOR	S	1	333	6	24/7 & OCCUPIED		PROJECTOR		95PAR38	3	95 Watt Incandescent PAR38 Fixture	95	0.285	O	2340	667		3	LED 17P38	Re-Lamp with (1) 17 Watt LED PAR38	17	0.051	2.808	LP38/17/840/FL/D	17
1780	SELINSGROVE	INTERIOR	S	1	334	6	24/7 & OCCUPIED		FIRE ALARM ROOM	207	4W25-4'	2	T8 1x4 4-Lamp Wrap Fixture	85	0.170	S	1000	170		2	R 4L-12.5LED	Retrofit with (4) 12.5 Watt LED T8 4' Lamps; Direct Wire to Socket	50	0.100	0.840	KT-LED10.5T8-48G-840-D	3
1781	SELINSGROVE	INTERIOR	S	1	335	6	24/7 & OCCUPIED		JANITOR CLOSET	208	CF13	1	13 Watt Compact Fluorescent Fixture	13	0.013	S	1000	13		1	LED 9A	Re-Lamp with (1) 9 Watt LED A19 Lamps	9	0.009	0.048	LA19/9/40K/D-46	8
1782	SELINSGROVE	INTERIOR	S	1	336	6	24/7 & OCCUPIED		STAIR	209	1W17	2	T8 2x2 1-Lamp Wrap Fixture	22	0.044	Z	8760	385		2	R 1L-10LED2'	Retrofit with (1) 10 Watt LED T8 2' Lamp; Direct Wire to Socket	10	0.020	0.288	KT-LED7T8-24GC-840-D	1
1783	SELINSGROVE	INTERIOR	S	1	336	6	24/7 & OCCUPIED		STAIR		60G-HALO	1	60 Watt Incandescent Globe Fixture; Halo	60	0.060	Z	8760	526		1	LED 8GLOBE	Re-Lamp with (1) 8 Watt LED G25 Globe	8	0.008	0.624	LG25/6/827/D	13
1784	SELINSGROVE	INTERIOR	S	1	337	6	24/7 & OCCUPIED		MRR	210	LEDDL	4	LED Downlight Fixture	20	0.080	Z	8760	701		4	ZZ DD	No Retrofit	20	0.080	0.000	N/A	N/A
1785	SELINSGROVE	INTERIOR	S	1	337	6	24/7 & OCCUPIED		MRR		LED-VAN	1	LED Vanity Fixture	15	0.015	Z	8760	131		1	ZZ DD	No Retrofit	15	0.015	0.000	N/A	N/A
1786	SELINSGROVE	INTERIOR	S	1	338	6	24/7 & OCCUPIED		BOARD ROOM	2324	8-60FL-CAND-CHAND	1	60 Watt 8-Lamp Candelabra Chandelier Fixture	480	0.480	O	2340	1,123		1	LED 8-5CAND	Re-Lamp with (8) 5 Watt LED Candelabra Lamps	40	0.040	5.280	LCTC/5/830/D	12
1787	SELINSGROVE	INTERIOR	S	1	338	6	24/7 & OCCUPIED		BOARD ROOM		2-60A	5	60 Watt Incandescent 2-Lamp Fixture	120	0.600	O	2340	1,404		5	LED 2-9A	Re-Lamp with (2) 9 Watt LED A19 Lamps	18	0.090	6.120	LA19/9/40K/D-46	8
1788	SELINSGROVE	INTERIOR	S	1	339	6	24/7 & OCCUPIED		OFFICE	2323	4L25-4'	2	T8 2x4 4-Lamp Troffer Fixture	85	0.170	O	2340	398		2	R 4L-12.5LED	Retrofit with (4) 12.5 Watt LED T8 4' Lamps; Direct Wire to Socket	50	0.100	0.840	KT-LED10.5T8-48G-840-D	3
1789	SELINSGROVE	INTERIOR	S	1	340	6	24/7 & OCCUPIED		OFFICE	2322	4EC25-1X4	1	T8 1x4 4-Lamp Egg Crate Fixture	85	0.085	O	2340	199		1	N 4W-12.5LED	New 1x4 4-Lamp Wrap Fixture with (4) 12.5 Watt LED T8 4' Lamp; Direct Wire to Socket	50	0.050	0.420	CCW-4'-4-T8LED /// KT-LED10.5T8-48G-840-D	53 + 3
1790	SELINSGROVE	INTERIOR	S	1	340	6	24/7 & OCCUPIED		RR		2L17	2	T8 2x2 2-Lamp Troffer Fixture	36	0.072	Z	8760	631		2	R 2L-10LED2'	Retrofit with (2) 10 Watt LED T8 2' Lamps; Direct Wire to Socket	20	0.040	0.384	KT-LED7T8-24GC-840-D	1
1791	SELINSGROVE	INTERIOR	S	1	340	6	24/7 & OCCUPIED		RR		CF13DR-DEC	1	13 Watt Compact Fluorescent Decorative Drum Fixture	13	0.013	Z	8760	114		1	LED 9A	Re-Lamp with (1) 9 Watt LED A19 Lamps	9	0.009	0.048	LA19/9/40K/D-46	8
1792	SELINSGROVE	INTERIOR	S	1	340	6	24/7 & OCCUPIED		SINK		2L17	2	T8 2x2 2-Lamp Troffer Fixture	36	0.072	S	1000	72		2	R 2L-10LED2'	Retrofit with (2) 10 Watt LED T8 2' Lamps; Direct Wire to Socket	20	0.040	0.384	KT-LED7T8-24GC-840-D	1
1793	SELINSGROVE	INTERIOR	S	1	341	6	24/7 & OCCUPIED		CONFERENCE	2318	4L25	8	T8 2x3 4-Lamp Troffer Fixture	88	0.704	O-ES	1638	1,153		8	RF 2LR-12.5LED	Retrofit with (2) 12.5 Watt LED T8 4' Lamps and (1) 2x4 2-Lamp White Reflector Kit; Direct Wire to Socket	25	0.200	6.048	KT-LED10.5T8-48G-840-D /// R-4-21-2-T8-X-W-X-X	3 + 56
1794	SELINSGROVE	INTERIOR	S	1	342	6	24/7 & OCCUPIED		OFFICE	2316	2B25-1X4	4	T8 1x4 2-Lamp Surface Mount Fixture	43	0.172	O	2340	402		4	R 2L-12.5LED	Retrofit with (2) 12.5 Watt LED T8 4' Lamps; Direct Wire to Socket	25	0.100	0.864	KT-LED10.5T8-48G-840-D	3
1795	SELINSGROVE	INTERIOR	S	1	343	6	24/7 & OCCUPIED		OFFICE	2317	2L25-1X4	6	T8 1x4 2-Lamp Troffer Fixture	43	0.258	O	2340	604		6	R 2L-12.5LED	Retrofit with (2) 12.5 Watt LED T8 4' Lamps; Direct Wire to Socket	25	0.150	1.296	KT-LED10.5T8-48G-840-D	3
1796	SELINSGROVE	INTERIOR	S	1	344	6	24/7 & OCCUPIED		OFFICE	2315	2B25-1X4	6	T8 1x4 2-Lamp Surface Mount Fixture	43	0.258	O	2340	604		6	R 2L-12.5LED	Retrofit with (2) 12.5 Watt LED T8 4' Lamps; Direct Wire to Socket	25	0.150	1.296	KT-LED10.5T8-48G-840-D	3
1797	SELINSGROVE	INTERIOR	S	1	345	6	24/7 & OCCUPIED		HALL		2L25-1X4	9	T8 1x4 2-Lamp Troffer Fixture	43	0.387	Z	8760	3,390		9	R 2L-12.5LED	Retrofit with (2) 12.5 Watt LED T8 4' Lamps; Direct Wire to Socket	25	0.225	1.944	KT-LED10.5T8-48G-840-D	3
1798	SELINSGROVE	INTERIOR	S	1	345	6	24/7 & OCCUPIED		HALL		2EC25-4'	1	T8 2x4 2-Lamp Egg Crate Fixture	43	0.043	Z	8760	377		1	N 2W-12.5LED	New 1x4 2-Lamp Wrap Fixture with (2) 12.5 Watt LED T8 4' Lamp; Direct Wire to Socket	25	0.025	0.216	CCW-4'-2-T8LED /// KT-LED10.5T8-48G-840-D	51 + 3
1799	SELINSGROVE	INTERIOR	S	1	345	6	24/7 & OCCUPIED		HALL		2B25-1X4	1	T8 1x4 2-Lamp Surface Mount Fixture	43	0.043	Z	8760	377		1	R 2L-12.5LED	Retrofit with (2) 12.5 Watt LED T8 4' Lamps; Direct Wire to Socket	25	0.025	0.216	KT-LED10.5T8-48G-840-D	3
1800	SELINSGROVE	INTERIOR	S	1	345	6	24/7 & OCCUPIED		HALL		XLED	2	3 Watt LED 2-Lamp Exit Sign	3	0.006	Z	8760	53		2	ZZ DD	No Retrofit	3	0.006	0.000	N/A	N/A
1801	SELINSGROVE	INTERIOR	S	1	345	6	24/7 & OCCUPIED		HALL		1W17	1	T8 2x2 1-Lamp Wrap Fixture	22	0.022	Z	8760	193		1	R 1L-10LED2'	Retrofit with (1) 10 Watt LED T8 2' Lamp; Direct Wire to Socket	10	0.010	0.144	KT-LED7T8-24GC-840-D	1
1802	SELINSGROVE	INTERIOR	S	1	346	6	24/7 & OCCUPIED		WRR	2311	2EC25-4'	3	T8 2x4 2-Lamp Egg Crate Fixture	43	0.129	Z	8760	1,130		3	N 2W-12.5LED	New 1x4 2-Lamp Wrap Fixture with (2) 12.5 Watt LED T8 4' Lamp; Direct Wire to Socket	25	0.075	0.648	CCW-4'-2-T8LED /// KT-LED10.5T8-48G-840-D	51 + 3

											EXISTING FIXTURES									PROPOSED FIXTURE UPGRADE							
ID #	Facility Name	Phase	Utility Rate Code	Floor	Map #	Building Number	Building Usage Type	Building Section	Room Description	Room #	ECM Code	Qty	Description	Watts	kW	Burn Hour Code	Pre Burn Hours	kWh	x	Qty	New Code	Description	Watts	kW	Annual KW Saved	Part#	Cut Sheet #
1803	SELINSGROVE	INTERIOR	S	1	346	6	24/7 & OCCUPIED		WRR - NURSING ROOM		2EC25-4'	1	T8 2x4 2-Lamp Egg Crate Fixture	43	0.043	Z	8760	377		1	N 2W-12.5LED	New 1x4 2-Lamp Wrap Fixture with (2) 12.5 Watt LED T8 4' Lamp; Direct Wire to Socket	25	0.025	0.216	CCW-4'-2-T8LED /// KT-LED10.5T8-48G-840-D	51 + 3
1804	SELINSGROVE	INTERIOR	S	1	347	6	24/7 & OCCUPIED		MRR	2308	1W17	2	T8 2x2 1-Lamp Wrap Fixture	22	0.044	Z	8760	385		2	R 1L-10LED2'	Retrofit with (1) 10 Watt LED T8 2' Lamp; Direct Wire to Socket	10	0.020	0.288	KT-LED7T8-24GC-840-D	1
1805	SELINSGROVE	INTERIOR	S	1	347	6	24/7 & OCCUPIED		PIPE CHASE		60A	1	60 Watt Incandescent A-Lamp Fixture	60	0.060	S	1000	60		1	LED 9A	Re-Lamp with (1) 9 Watt LED A19 Lamps	9	0.009	0.612	LA19/9/40K/D-46	8
1806	SELINSGROVE	INTERIOR	S	1	348	6	24/7 & OCCUPIED		JANITOR CLOSET	2307	CF13RLM	1	13 Watt Compact Fluorescent RLM Fixture	13	0.013	S	1000	13		1	LED 9A	Re-Lamp with (1) 9 Watt LED A19 Lamps	9	0.009	0.048	LA19/9/40K/D-46	8
1807	SELINSGROVE	INTERIOR	S	1	349	6	24/7 & OCCUPIED		STORAGE	2306	3PL13DR	2	13 Watt 3-Lamp Plug-In CFL Drum Fixture	45	0.090	S	1000	90		2	N LED22DR	New 16" Round 22 Watt LED Drum Fixture	22	0.044	0.552	54075142	20
1808	SELINSGROVE	INTERIOR	S	1	349	6	24/7 & OCCUPIED		PIPE CHASE		60A	1	60 Watt Incandescent A-Lamp Fixture	60	0.060	S	1000	60		1	LED 9A	Re-Lamp with (1) 9 Watt LED A19 Lamps	9	0.009	0.612	LA19/9/40K/D-46	8
1809	SELINSGROVE	INTERIOR	S	1	350	6	24/7 & OCCUPIED		STAIR	161	2EC25-4'-DA	1	T8 2x4 2-Lamp Egg Crate Fixture; Difficult Access	43	0.043	Z	8760	377		1	N 2W-12.5LED-DA	New 1x4 2-Lamp Wrap Fixture with (2) 12.5 Watt LED T8 4' Lamp; Direct Wire to Socket; Difficult Access	25	0.025	0.216	CCW-4'-2-T8LED /// KT-LED10.5T8-48G-840-D	51 + 3
1810	SELINSGROVE	INTERIOR	S	1	350	6	24/7 & OCCUPIED		STAIR		2PL13WP-CM	1	13 Watt 2-Lamp Plug-In CFL Wall Pack Fixture; Ceiling Mount	30	0.030	Z	8760	263		1	N RLED24WP	New 24 Watt LED Wall Pack Fixture	24	0.024	0.072	WP2LED24	40
1811	SELINSGROVE	INTERIOR	S	1	351	6	24/7 & OCCUPIED		HALL	2310	2L25-1X4	8	T8 1x4 2-Lamp Troffer Fixture	43	0.344	Z	8760	3,013		8	R 2L-12.5LED	Retrofit with (2) 12.5 Watt LED T8 4' Lamps; Direct Wire to Socket	25	0.200	1.728	KT-LED10.5T8-48G-840-D	3
1812	SELINSGROVE	INTERIOR	S	1	351	6	24/7 & OCCUPIED		HALL		XLED	2	3 Watt LED 2-Lamp Exit Sign	3	0.006	Z	8760	53		2	ZZ DD	No Retrofit	3	0.006	0.000	N/A	N/A
1813	SELINSGROVE	INTERIOR	S	1	352	6	24/7 & OCCUPIED		VESTIBULE	2303	3PL13DR	2	13 Watt 3-Lamp Plug-In CFL Drum Fixture	45	0.090	Z	8760	788		2	N LED22DR	New 16" Round 22 Watt LED Drum Fixture	22	0.044	0.552	54075142	20
1814	SELINSGROVE	INTERIOR	S	1	353	6	24/7 & OCCUPIED		PIPE CHASE	2305	60A	1	60 Watt Incandescent A-Lamp Fixture	60	0.060	S	1000	60		1	LED 9A	Re-Lamp with (1) 9 Watt LED A19 Lamps	9	0.009	0.612	LA19/9/40K/D-46	8
1815	SELINSGROVE	INTERIOR	S	1	354	6	24/7 & OCCUPIED		CENTER HALL	2328	2L25-1X4	6	T8 1x4 2-Lamp Troffer Fixture	43	0.258	Z	8760	2,260		6	R 2L-12.5LED	Retrofit with (2) 12.5 Watt LED T8 4' Lamps; Direct Wire to Socket	25	0.150	1.296	KT-LED10.5T8-48G-840-D	3
1816	SELINSGROVE	INTERIOR	S	1	354	6	24/7 & OCCUPIED		CENTER HALL		50MR16	11	50 Watt Incandescent MR16 Fixture	50	0.550	Z	8760	4,818		11	LED 7MR16	Re-Lamp with (1) 7 Watt LED MR16	7	0.077	5.676	LM16/8/840/FL/D	14
1817	SELINSGROVE	INTERIOR	S	1	354	6	24/7 & OCCUPIED		CENTER HALL		50PAR20DL4	6	50 Watt Incandescent 4" Downlight Par20 Fixture	50	0.300	Z	8760	2,628		6	LED 8P20	Re-Lamp with (1) 8 Watt LED PAR20	8	0.048	3.024	LP20/7/40K/D	15
1818	SELINSGROVE	INTERIOR	S	1	354	6	24/7 & OCCUPIED		SHOWCASE		1UC25	5	T8 2x3 1-Lamp Under Cabinet Wrap Fixture	22	0.110	Z	8760	964		5	R 1L-12LED3'	Retrofit with (1) 12 Watt LED T8 3' Lamp; Direct Wire to Socket	12	0.060	0.600	KT-LED12T8-36GC-840-D	2
1819	SELINSGROVE	INTERIOR	S	1	354	6	24/7 & OCCUPIED		CENTER HALL		CF13DR-DEC	3	13 Watt Compact Fluorescent Decorative Drum Fixture	13	0.039	Z	8760	342		3	LED 9A	Re-Lamp with (1) 9 Watt LED A19 Lamps	9	0.027	0.144	LA19/9/40K/D-46	8
1820	SELINSGROVE	INTERIOR	S	1	355	6	24/7 & OCCUPIED		COPY	2329	2L25-1X4	6	T8 1x4 2-Lamp Troffer Fixture	43	0.258	O	2340	604		6	R 2L-12.5LED	Retrofit with (2) 12.5 Watt LED T8 4' Lamps; Direct Wire to Socket	25	0.150	1.296	KT-LED10.5T8-48G-840-D	3
1821	SELINSGROVE	INTERIOR	S	1	355	6	24/7 & OCCUPIED		STORAGE		3PL13DR	2	13 Watt 3-Lamp Plug-In CFL Drum Fixture	45	0.090	S	1000	90		2	N LED22DR	New 16" Round 22 Watt LED Drum Fixture	22	0.044	0.552	54075142	20
1822	SELINSGROVE	INTERIOR	S	1	355	6	24/7 & OCCUPIED		STORAGE		3PL13DR	1	13 Watt 3-Lamp Plug-In CFL Drum Fixture	45	0.045	S	1000	45		1	N LED22DR	New 16" Round 22 Watt LED Drum Fixture	22	0.022	0.276	54075142	20
1823	SELINSGROVE	INTERIOR	S	1	356	6	24/7 & OCCUPIED		STAGE	215	2PL13DR	1	13 Watt Plug-In CFL Drum Fixture	26	0.026	Z	8760	228		1	N LED14DR	New 12" Round 14 Watt LED Drum Fixture	14	0.014	0.144	54074143	19
1824	SELINSGROVE	INTERIOR	S	1	356	6	24/7 & OCCUPIED		STAGE		60G-HALO	3	60 Watt Incandescent Globe Fixture; Halo	60	0.180	Z	8760	1,577		3	LED 8GLOBE	Re-Lamp with (1) 8 Watt LED G25 Globe	8	0.024	1.872	LG25/6/827/D	13
1825	SELINSGROVE	INTERIOR	S	1	356	6	24/7 & OCCUPIED		STAGE		60RLM-DA	4	60 Watt Incandescent RLM Fixture; Difficult Access	60	0.240	Z	8760	2,102		4	LED 9A-DA	Re-Lamp with (1) 9 Watt LED A19 Lamps; Difficult Access	9	0.036	2.448	LA19/9/40K/D-46	8
1826	SELINSGROVE	INTERIOR	S	1	357	6	24/7 & OCCUPIED		AUDITORIUM		200SQDL-14X14	60	200 Watt Incandescent Square Downlight Fixture; 14x14	200	12.000	Z	8760	105,120		60	LED 15A	Re-Lamp with (1) 15 Watt LED A19 Lamp	15	0.900	133.200	LA21/16/40K/D-46	9
1827	SELINSGROVE	INTERIOR	S	1	357	6	24/7 & OCCUPIED		AUDITORIUM		60SQDL-8X8	7	60 Watt Incandescent Square Downlight Fixture; 8x8	60	0.420	Z	8760	3,679		7	LED 9A	Re-Lamp with (1) 9 Watt LED A19 Lamps	9	0.063	4.284	LA19/9/40K/D-46	8
1828	SELINSGROVE	INTERIOR	S	1	357	6	24/7 & OCCUPIED		AUDITORIUM		1S17	16	T8 2x2 1-Lamp Strip Fixture	22	0.352	Z	8760	3,084		16	R 1L-10LED2'	Retrofit with (1) 10 Watt LED T8 2' Lamp; Direct Wire to Socket	10	0.160	2.304	KT-LED7T8-24GC-840-D	1
1829	SELINSGROVE	INTERIOR	S	1	357	6	24/7 & OCCUPIED		AUDITORIUM		1S25	32	T8 2x3 1-Lamp Strip Fixture	30	0.960	Z	8760	8,410		32	R 1L-12LED3'	Retrofit with (1) 12 Watt LED T8 3' Lamp; Direct Wire to Socket	12	0.384	6.912	KT-LED12T8-36GC-840-D	2
1830	SELINSGROVE	INTERIOR	S	1	357	6	24/7 & OCCUPIED		AUDITORIUM		XLED	6	3 Watt LED 2-Lamp Exit Sign	3	0.018	Z	8760	158		6	ZZ DD	No Retrofit	3	0.018	0.000	N/A	N/A
1831	SELINSGROVE	INTERIOR	S	BASEMENT	118	6	24/7 & OCCUPIED		MECHANICAL	161a	4L25-4'	4	T8 2x4 4-Lamp Troffer Fixture	85	0.340	S	1000	340		4	R 4L-12.5LED	Retrofit with (4) 12.5 Watt LED T8 4' Lamps; Direct Wire to Socket	50	0.200	1.680	KT-LED10.5T8-48G-840-D	3
1832	SELINSGROVE	INTERIOR	S	BASEMENT	119	6	24/7 & OCCUPIED		IT	161	2EC25-4'	8	T8 2x4 2-Lamp Egg Crate Fixture	43	0.344	O	2340	805		8	N 2W-12.5LED	New 1x4 2-Lamp Wrap Fixture with (2) 12.5 Watt LED T8 4' Lamp; Direct Wire to Socket	25	0.200	1.728	CCW-4'-2-T8LED /// KT-LED10.5T8-48G-840-D	51 + 3
1833	SELINSGROVE	INTERIOR	S	BASEMENT	119	6	24/7 & OCCUPIED		IT		4EC25-4'	1	T8 2x4 4-Lamp Egg Crate Fixture	85	0.085	O	2340	199		1	N 4W-12.5LED	New 1x4 4-Lamp Wrap Fixture with (4) 12.5 Watt LED T8 4' Lamp; Direct Wire to Socket	50	0.050	0.420	CCW-4'-4-T8LED /// KT-LED10.5T8-48G-840-D	53 + 3
1834	SELINSGROVE	INTERIOR	S	BASEMENT	119	6	24/7 & OCCUPIED		IT		CF18	2	18 Watt Compact Fluorescent Fixture	18	0.036	O	2340	84		2	LED 9A	Re-Lamp with (1) 9 Watt LED A19 Lamps	9	0.018	0.216	LA19/9/40K/D-46	8

											EXISTING FIXTURES									PROPOSED FIXTURE UPGRADE							
ID #	Facility Name	Phase	Utility Rate Code	Floor	Map #	Building Number	Building Usage Type	Building Section	Room Description	Room #	ECM Code	Qty	Description	Watts	kW	Burn Hour Code	Pre Burn Hours	kWh	x	Qty	New Code	Description	Watts	kW	Annual KW Saved	Part#	Cut Sheet #
1835	SELINSGROVE	INTERIOR	S	BASEMENT	120	6	24/7 & OCCUPIED		STORAGE	160	CF18RLM	1	18 Watt Compact Fluorescent RLM Fixture	18	0.018	S	1000	18		1	LED 9A	Re-Lamp with (1) 9 Watt LED A19 Lamps	9	0.009	0.108	LA19/9/40K/D-46	8
1836	SELINSGROVE	INTERIOR	S	BASEMENT	121	6	24/7 & OCCUPIED		HALL		3W25-4'	2	T8 1x4 3-Lamp Wrap Fixture	65	0.130	Z	8760	1,139		2	R 3L-12.5LED	Retrofit with (3) 12.5 Watt LED T8 4' Lamps; Direct Wire to Socket	37.5	0.075	0.660	KT-LED10.5T8-48G-840-D	3
1837	SELINSGROVE	INTERIOR	S	BASEMENT	121	6	24/7 & OCCUPIED		HALL		CF26	2	26 Watt Compact Fluorescent Fixture	26	0.052	Z	8760	456		2	LED 9A	Re-Lamp with (1) 9 Watt LED A19 Lamps	9	0.018	0.408	LA19/9/40K/D-46	8
1838	SELINSGROVE	INTERIOR	S	BASEMENT	121	6	24/7 & OCCUPIED		HALL		2PL13DR	2	13 Watt Plug-In CFL Drum Fixture	26	0.052	Z	8760	456		2	N LED14DR	New 12" Round 14 Watt LED Drum Fixture	14	0.028	0.288	54074143	19
1839	SELINSGROVE	INTERIOR	S	BASEMENT	122	6	24/7 & OCCUPIED		OFFICE / SHOP	164	2EC25-4'	2	T8 2x4 2-Lamp Egg Crate Fixture	43	0.086	O	2340	201		2	N 2W-12.5LED	New 1x4 2-Lamp Wrap Fixture with (2) 12.5 Watt LED T8 4' Lamp; Direct Wire to Socket	25	0.050	0.432	CCW-4'-2-T8LED /// KT-LED10.5T8-48G-840-D	51 + 3
1840	SELINSGROVE	INTERIOR	S	BASEMENT	122	6	24/7 & OCCUPIED		OFFICE / SHOP		4EC25-4'	1	T8 2x4 4-Lamp Egg Crate Fixture	85	0.085	O	2340	199		1	N 4W-12.5LED	New 1x4 4-Lamp Wrap Fixture with (4) 12.5 Watt LED T8 4' Lamp; Direct Wire to Socket	50	0.050	0.420	CCW-4'-4-T8LED /// KT-LED10.5T8-48G-840-D	53 + 3
1841	SELINSGROVE	INTERIOR	S	BASEMENT	123	6	24/7 & OCCUPIED		STORAGE	165	1V25-4'	2	T8 1x4 1-Lamp Vanity Fixture	22	0.044	S	1000	44		2	R 1L-12.5LED	Retrofit with (1) 12.5 Watt LED T8 4' Lamps; Direct Wire to Socket	12.5	0.025	0.228	KT-LED10.5T8-48G-840-D	3
1842	SELINSGROVE	INTERIOR	S	BASEMENT	123	6	24/7 & OCCUPIED		STORAGE		2EC25(EC)-4'	2	T8 2x4 2-Lamp Egg Crate Fixture; Damaged/Missing Lens	43	0.086	S	1000	86		2	N 2W-12.5LED	New 1x4 2-Lamp Wrap Fixture with (2) 12.5 Watt LED T8 4' Lamp; Direct Wire to Socket	25	0.050	0.432	CCW-4'-2-T8LED /// KT-LED10.5T8-48G-840-D	51 + 3
1843	SELINSGROVE	INTERIOR	S	BASEMENT	123	6	24/7 & OCCUPIED		STORAGE		CF26RLM	1	26 Watt Compact Fluorescent RLM Fixture	26	0.026	S	1000	26		1	LED 9A	Re-Lamp with (1) 9 Watt LED A19 Lamps	9	0.009	0.204	LA19/9/40K/D-46	8
1844	SELINSGROVE	INTERIOR	S	BASEMENT	124	6	24/7 & OCCUPIED		MORGUE	163	4L25-4'	1	T8 2x4 4-Lamp Troffer Fixture	85	0.085	O	2340	199		1	R 4L-12.5LED	Retrofit with (4) 12.5 Watt LED T8 4' Lamps; Direct Wire to Socket	50	0.050	0.420	KT-LED10.5T8-48G-840-D	3
1845	SELINSGROVE	INTERIOR	S	BASEMENT	125	6	24/7 & OCCUPIED		COOLER	158	CF26JJ	2	26 Watt Compact Fluorescent Jelly Jar Fixture	26	0.052	S	1000	52		2	LED 9A	Re-Lamp with (1) 9 Watt LED A19 Lamps	9	0.018	0.408	LA19/9/40K/D-46	8
1846	SELINSGROVE	INTERIOR	S	BASEMENT	126	6	24/7 & OCCUPIED		KITCHEN	157	2EC25-4'	7	T8 2x4 2-Lamp Egg Crate Fixture	43	0.301	Z	8760	2,637		7	N 2W-12.5LED	New 1x4 2-Lamp Wrap Fixture with (2) 12.5 Watt LED T8 4' Lamp; Direct Wire to Socket	25	0.175	1.512	CCW-4'-2-T8LED /// KT-LED10.5T8-48G-840-D	51 + 3
1847	SELINSGROVE	INTERIOR	S	BASEMENT	126	6	24/7 & OCCUPIED		KITCHEN / STORAGE		4EC25-4'	2	T8 2x4 4-Lamp Egg Crate Fixture	85	0.170	S	1000	170		2	N 4W-12.5LED	New 1x4 4-Lamp Wrap Fixture with (4) 12.5 Watt LED T8 4' Lamp; Direct Wire to Socket	50	0.100	0.840	CCW-4'-4-T8LED /// KT-LED10.5T8-48G-840-D	53 + 3
1848	SELINSGROVE	INTERIOR	S	BASEMENT	126	6	24/7 & OCCUPIED		KITCHEN / STORAGE		4W25-4'	1	T8 1x4 4-Lamp Wrap Fixture	85	0.085	S	1000	85		1	R 4L-12.5LED	Retrofit with (4) 12.5 Watt LED T8 4' Lamps; Direct Wire to Socket	50	0.050	0.420	KT-LED10.5T8-48G-840-D	3
1849	SELINSGROVE	INTERIOR	S	BASEMENT	127	6	24/7 & OCCUPIED		LOCKER	155	1W17	1	T8 2x2 1-Lamp Wrap Fixture	22	0.022	Z	8760	193		1	R 1L-10LED2'	Retrofit with (1) 10 Watt LED T8 2' Lamp; Direct Wire to Socket	10	0.010	0.144	KT-LED7T8-24GC-840-D	1
1850	SELINSGROVE	INTERIOR	S	BASEMENT	128	6	24/7 & OCCUPIED		RR	156	1W17	1	T8 2x2 1-Lamp Wrap Fixture	22	0.022	Z	8760	193		1	R 1L-10LED2'	Retrofit with (1) 10 Watt LED T8 2' Lamp; Direct Wire to Socket	10	0.010	0.144	KT-LED7T8-24GC-840-D	1
1851	SELINSGROVE	INTERIOR	S	BASEMENT	129	6	24/7 & OCCUPIED		COOLER	159	60JJ	2	60 Watt Incandescent A-Lamp Jelly Jar Fixture	60	0.120	S	1000	120		2	LED 9A	Re-Lamp with (1) 9 Watt LED A19 Lamps	9	0.018	1.224	LA19/9/40K/D-46	8
1852	SELINSGROVE	INTERIOR	S	BASEMENT	130	6	24/7 & OCCUPIED		FREEZER	153	60JJ	1	60 Watt Incandescent A-Lamp Jelly Jar Fixture	60	0.060	S	1000	60		1	LED 9A	Re-Lamp with (1) 9 Watt LED A19 Lamps	9	0.009	0.612	LA19/9/40K/D-46	8
1853	SELINSGROVE	INTERIOR	S	BASEMENT	131	6	24/7 & OCCUPIED		FREEZER	152	60JJ	1	60 Watt Incandescent A-Lamp Jelly Jar Fixture	60	0.060	S	1000	60		1	LED 9A	Re-Lamp with (1) 9 Watt LED A19 Lamps	9	0.009	0.612	LA19/9/40K/D-46	8
1854	SELINSGROVE	INTERIOR	S	BASEMENT	132	6	24/7 & OCCUPIED		COOLER	149	CF26JJ	1	26 Watt Compact Fluorescent Jelly Jar Fixture	26	0.026	S	1000	26		1	LED 9A	Re-Lamp with (1) 9 Watt LED A19 Lamps	9	0.009	0.204	LA19/9/40K/D-46	8
1855	SELINSGROVE	INTERIOR	S	BASEMENT	133	6	24/7 & OCCUPIED		WASH BAY	148	100JJ(JJ)	1	100 Watt Incandescent Jelly Jar Fixture; Damaged/Missing Lens	100	0.100	O	2340	234		1	N RLED26JJ	New 26 Watt LED Jelly Jar Fixture	27	0.027	0.876	VXBRLED26NDG	39
1856	SELINSGROVE	INTERIOR	S	BASEMENT	134	6	24/7 & OCCUPIED		ELEVATOR EQUIP	147	200RLM	1	200 Watt Incandescent RLM Fixture	200	0.200	S	1000	200		1	N 2I-12.5LED	New 1x4 2-Lamp Industrial Fixture with (2) 12.5 Watt LED T8 4' Lamp; Direct Wire to Socket	25	0.025	2.100	OCF-4'-2-T8LED /// KT-LED10.5T8-48G-840-D	45 + 3
1857	SELINSGROVE	INTERIOR	S	BASEMENT	135	6	24/7 & OCCUPIED		KITCHEN / STORAGE	144	4L25-4'	7	T8 2x4 4-Lamp Troffer Fixture	85	0.595	S	1000	595		7	R 4L-12.5LED	Retrofit with (4) 12.5 Watt LED T8 4' Lamps; Direct Wire to Socket	50	0.350	2.940	KT-LED10.5T8-48G-840-D	3
1858	SELINSGROVE	INTERIOR	S	BASEMENT	136	6	24/7 & OCCUPIED		COOLER	145	150JJ	1	150 Watt Incandescent Jelly Jar Fixture	150	0.150	S	1000	150		1	LED 15A	Re-Lamp with (1) 15 Watt LED A19 Lamp	15	0.015	1.620	LA21/16/40K/D-46	9
1859	SELINSGROVE	INTERIOR	S	BASEMENT	137	6	24/7 & OCCUPIED		KITCHEN / STORAGE	143	4L25-4'	4	T8 2x4 4-Lamp Troffer Fixture	85	0.340	S	1000	340		4	R 4L-12.5LED	Retrofit with (4) 12.5 Watt LED T8 4' Lamps; Direct Wire to Socket	50	0.200	1.680	KT-LED10.5T8-48G-840-D	3
1860	SELINSGROVE	INTERIOR	S	BASEMENT	138	6	24/7 & OCCUPIED		COOLER	140	CF26JJ(JJ)	1	26 Watt Compact Fluorescent Jelly Jar Fixture; Damaged/Missing Lens	26	0.026	S	1000	26		1	N RLED13JJ	New 13 Watt LED Jelly Jar Fixture	15	0.015	0.132	VXBRLED13NDG	38
1861	SELINSGROVE	INTERIOR	S	BASEMENT	139	6	24/7 & OCCUPIED		CLOSET	141	CF26RLM	1	26 Watt Compact Fluorescent RLM Fixture	26	0.026	S	1000	26		1	LED 9A	Re-Lamp with (1) 9 Watt LED A19 Lamps	9	0.009	0.204	LA19/9/40K/D-46	8
1862	SELINSGROVE	INTERIOR	S	BASEMENT	140	6	24/7 & OCCUPIED		STORAGE	142	4L25-4'	1	T8 2x4 4-Lamp Troffer Fixture	85	0.085	S	1000	85		1	R 4L-12.5LED	Retrofit with (4) 12.5 Watt LED T8 4' Lamps; Direct Wire to Socket	50	0.050	0.420	KT-LED10.5T8-48G-840-D	3
1863	SELINSGROVE	INTERIOR	S	BASEMENT	141	6	24/7 & OCCUPIED		JANITOR CLOSET	129	2PL13DR	1	13 Watt Plug-In CFL Drum Fixture	26	0.026	S	1000	26		1	N LED14DR	New 12" Round 14 Watt LED Drum Fixture	14	0.014	0.144	54074143	19
1864	SELINSGROVE	INTERIOR	S	BASEMENT	142	6	24/7 & OCCUPIED		COOLER	150	100JJ(JJ)	2	100 Watt Incandescent Jelly Jar Fixture; Damaged/Missing Lens	100	0.200	S	1000	200		2	N RLED26JJ	New 26 Watt LED Jelly Jar Fixture	27	0.054	1.752	VXBRLED26NDG	39
1865	SELINSGROVE	INTERIOR	S	BASEMENT	143	6	24/7 & OCCUPIED		FREEZER	151	100JJ(JJ)	1	100 Watt Incandescent Jelly Jar Fixture; Damaged/Missing Lens	100	0.100	S	1000	100		1	N RLED26JJ	New 26 Watt LED Jelly Jar Fixture	27	0.027	0.876	VXBRLED26NDG	39
1866	SELINSGROVE	INTERIOR	S	BASEMENT	144	6	24/7 & OCCUPIED		FREEZER	128	150JJ	2	150 Watt Incandescent Jelly Jar Fixture	150	0.300	S	1000	300		2	LED 15A	Re-Lamp with (1) 15 Watt LED A19 Lamp	15	0.030	3.240	LA21/16/40K/D-46	9

											EXISTING FIXTURES									PROPOSED FIXTURE UPGRADE						
ID #	Facility Name	Phase	Utility Rate Code	Floor	Map #	Building Number	Building Usage Type	Building Section	Room Description	Room #	ECM Code	Qty	Description	Watts	kW	Burn Hour Code	Pre Burn Hours	kWh	x	Qty	New Code	Description	Watts	kW	Annual KW Saved	Part#	Cut Sheet #
1867	SELINSGROVE	INTERIOR	S	BASEMENT	145	6	24/7 & OCCUPIED		STORAGE	130	2PL13DR	2	13 Watt Plug-In CFL Drum Fixture	26	0.052	S-ES	700	36		2	N LED14DR	New 12" Round 14 Watt LED Drum Fixture	14	0.028	0.288	54074143	19
1868	SELINSGROVE	INTERIOR	S	BASEMENT	145	6	24/7 & OCCUPIED		STORAGE		4EC25-4'	1	T8 2x4 4-Lamp Egg Crate Fixture	85	0.085	S	1000	85		1	N 4W-12.5LED	New 1x4 4-Lamp Wrap Fixture with (4) 12.5 Watt LED T8 4' Lamp; Direct Wire to Socket	50	0.050	0.420	CCW-4'-4-T8LED /// KT-LED10.5T8-48G-840-D	53 + 3
1869	SELINSGROVE	INTERIOR	S	BASEMENT	146	6	24/7 & OCCUPIED		STORAGE	131	150JJ(JJ)	1	150 Watt Incandescent Jelly Jar Fixture; Damaged/Missing Lens	150	0.150	S	1000	150		1	N LED15AJJ	New Jelly Jar Fixture with (1) 15 Watt LED A19	15	0.015	1.620	CJJ/WJJ /// LA21/16/40K/D-46	46 + 9
1870	SELINSGROVE	INTERIOR	S	BASEMENT	147	6	24/7 & OCCUPIED		LOCKER	136	1W17	1	T8 2x2 1-Lamp Wrap Fixture	22	0.022	Z	8760	193		1	R 1L-10LED2'	Retrofit with (1) 10 Watt LED T8 2' Lamp; Direct Wire to Socket	10	0.010	0.144	KT-LED7T8-24GC-840-D	1
1871	SELINSGROVE	INTERIOR	S	BASEMENT	148	6	24/7 & OCCUPIED		RR	137	1W17	1	T8 2x2 1-Lamp Wrap Fixture	22	0.022	Z	8760	193		1	R 1L-10LED2'	Retrofit with (1) 10 Watt LED T8 2' Lamp; Direct Wire to Socket	10	0.010	0.144	KT-LED7T8-24GC-840-D	1
1872	SELINSGROVE	INTERIOR	S	BASEMENT	149	6	24/7 & OCCUPIED		HALL		2L25-1X4	11	T8 1x4 2-Lamp Troffer Fixture	43	0.473	Z	8760	4,143		11	R 2L-12.5LED	Retrofit with (2) 12.5 Watt LED T8 4' Lamps; Direct Wire to Socket	25	0.275	2.376	KT-LED10.5T8-48G-840-D	3
1873	SELINSGROVE	INTERIOR	S	BASEMENT	149	6	24/7 & OCCUPIED		HALL		100SQDL-10X10	1	100 Watt Incandescent Square Downlight Fixture; 10x10	100	0.100	Z	8760	876		1	LED 15A	Re-Lamp with (1) 15 Watt LED A19 Lamp	15	0.015	1.020	LA21/16/40K/D-46	9
1874	SELINSGROVE	INTERIOR	S	BASEMENT	150	6	24/7 & OCCUPIED		STORAGE	134	2EC25-4'	14	T8 2x4 2-Lamp Egg Crate Fixture	43	0.602	S	1000	602		14	N 2W-12.5LED	New 1x4 2-Lamp Wrap Fixture with (2) 12.5 Watt LED T8 4' Lamp; Direct Wire to Socket	25	0.350	3.024	CCW-4'-2-T8LED /// KT-LED10.5T8-48G-840-D	51 + 3
1875	SELINSGROVE	INTERIOR	S	BASEMENT	151	6	24/7 & OCCUPIED		STORAGE	135	4L25-4'	4	T8 2x4 4-Lamp Troffer Fixture	85	0.340	S	1000	340		4	R 4L-12.5LED	Retrofit with (4) 12.5 Watt LED T8 4' Lamps; Direct Wire to Socket	50	0.200	1.680	KT-LED10.5T8-48G-840-D	3
1876	SELINSGROVE	INTERIOR	S	BASEMENT	151	6	24/7 & OCCUPIED		STORAGE		4EC25-4'	1	T8 2x4 4-Lamp Egg Crate Fixture	85	0.085	S	1000	85		1	N 4W-12.5LED	New 1x4 4-Lamp Wrap Fixture with (4) 12.5 Watt LED T8 4' Lamp; Direct Wire to Socket	50	0.050	0.420	CCW-4'-4-T8LED /// KT-LED10.5T8-48G-840-D	53 + 3
1877	SELINSGROVE	INTERIOR	S	BASEMENT	152	6	24/7 & OCCUPIED		KITCHEN / STORAGE	132	2EC25-4'	2	T8 2x4 2-Lamp Egg Crate Fixture	43	0.086	S-ES	700	60		2	N 2W-12.5LED	New 1x4 2-Lamp Wrap Fixture with (2) 12.5 Watt LED T8 4' Lamp; Direct Wire to Socket	25	0.050	0.432	CCW-4'-2-T8LED /// KT-LED10.5T8-48G-840-D	51 + 3
1878	SELINSGROVE	INTERIOR	S	BASEMENT	153	6	24/7 & OCCUPIED		STORAGE	133	2PL13DR	1	13 Watt Plug-In CFL Drum Fixture	26	0.026	S	1000	26		1	N LED14DR	New 12" Round 14 Watt LED Drum Fixture	14	0.014	0.144	54074143	19
1879	SELINSGROVE	INTERIOR	S	BASEMENT	154	6	24/7 & OCCUPIED		STORAGE	124	100JJ(JJ)	2	100 Watt Incandescent Jelly Jar Fixture; Damaged/Missing Lens	100	0.200	S	1000	200		2	N LED15AJJ	New Jelly Jar Fixture with (1) 15 Watt LED A19	15	0.030	2.040	CJJ/WJJ /// LA21/16/40K/D-46	46 + 9
1880	SELINSGROVE	INTERIOR	S	BASEMENT	155	6	24/7 & OCCUPIED		STORAGE	125	2L25-4'	1	T8 2x4 2-Lamp Troffer Fixture	43	0.043	S	1000	43		1	R 2L-12.5LED	Retrofit with (2) 12.5 Watt LED T8 4' Lamps; Direct Wire to Socket	25	0.025	0.216	KT-LED10.5T8-48G-840-D	3
1881	SELINSGROVE	INTERIOR	S	BASEMENT	156	6	24/7 & OCCUPIED		MECHANICAL	126	4EC25(EC)-4'	2	T8 2x4 4-Lamp Egg Crate Fixture; Damaged/Missing Lens	85	0.170	S	1000	170		2	N 4W-12.5LED	New 1x4 4-Lamp Wrap Fixture with (4) 12.5 Watt LED T8 4' Lamp; Direct Wire to Socket	50	0.100	0.840	CCW-4'-4-T8LED /// KT-LED10.5T8-48G-840-D	53 + 3
1882	SELINSGROVE	INTERIOR	S	BASEMENT	156	6	24/7 & OCCUPIED		MECHANICAL		4EC25-4'	2	T8 2x4 4-Lamp Egg Crate Fixture	85	0.170	S	1000	170		2	N 4W-12.5LED	New 1x4 4-Lamp Wrap Fixture with (4) 12.5 Watt LED T8 4' Lamp; Direct Wire to Socket	50	0.100	0.840	CCW-4'-4-T8LED /// KT-LED10.5T8-48G-840-D	53 + 3
1883	SELINSGROVE	INTERIOR	S	BASEMENT	156	6	24/7 & OCCUPIED		MECHANICAL		CF18	1	18 Watt Compact Fluorescent Fixture	18	0.018	S	1000	18		1	LED 9A	Re-Lamp with (1) 9 Watt LED A19 Lamps	9	0.009	0.108	LA19/9/40K/D-46	8
1884	SELINSGROVE	INTERIOR	S	BASEMENT	157	6	24/7 & OCCUPIED		STORAGE	182	100JJ	1	100 Watt Incandescent A-Lamp Jelly Jar Fixture	100	0.100	S	1000	100		1	LED 15A	Re-Lamp with (1) 15 Watt LED A19 Lamp	15	0.015	1.020	LA21/16/40K/D-46	9
1885	SELINSGROVE	INTERIOR	S	BASEMENT	158	6	24/7 & OCCUPIED		FREEZER	183	150JJ	1	150 Watt Incandescent Jelly Jar Fixture	150	0.150	S	1000	150		1	LED 15A	Re-Lamp with (1) 15 Watt LED A19 Lamp	15	0.015	1.620	LA21/16/40K/D-46	9
1886	SELINSGROVE	INTERIOR	S	BASEMENT	159	6	24/7 & OCCUPIED		FREEZER	184	150JJ	1	150 Watt Incandescent Jelly Jar Fixture	150	0.150	S	1000	150		1	LED 15A	Re-Lamp with (1) 15 Watt LED A19 Lamp	15	0.015	1.620	LA21/16/40K/D-46	9
1887	SELINSGROVE	INTERIOR	S	BASEMENT	160	6	24/7 & OCCUPIED		STORAGE	181	1I25	1	T8 2x3 1-Lamp Industrial Strip Fixture	36	0.036	S	1000	36		1	R 1L-12LED3'	Retrofit with (1) 12 Watt LED T8 3' Lamp; Direct Wire to Socket	12	0.012	0.288	KT-LED12T8-36GC-840-D	2
1888	SELINSGROVE	INTERIOR	S	BASEMENT	161	6	24/7 & OCCUPIED		MECHANICAL	122	3W25-4'	2	T8 1x4 3-Lamp Wrap Fixture	65	0.130	S	1000	130		2	R 3L-12.5LED	Retrofit with (3) 12.5 Watt LED T8 4' Lamps; Direct Wire to Socket	37.5	0.075	0.660	KT-LED10.5T8-48G-840-D	3
1889	SELINSGROVE	INTERIOR	S	BASEMENT	161	6	24/7 & OCCUPIED		MECHANICAL		4W25-4'	4	T8 1x4 4-Lamp Wrap Fixture	85	0.340	S	1000	340		4	R 4L-12.5LED	Retrofit with (4) 12.5 Watt LED T8 4' Lamps; Direct Wire to Socket	50	0.200	1.680	KT-LED10.5T8-48G-840-D	3
1890	SELINSGROVE	INTERIOR	S	BASEMENT	161	6	24/7 & OCCUPIED		MECHANICAL		2EC25-4'	2	T8 2x4 2-Lamp Egg Crate Fixture	43	0.086	S	1000	86		2	N 2W-12.5LED	New 1x4 2-Lamp Wrap Fixture with (2) 12.5 Watt LED T8 4' Lamp; Direct Wire to Socket	25	0.050	0.432	CCW-4'-2-T8LED /// KT-LED10.5T8-48G-840-D	51 + 3
1891	SELINSGROVE	INTERIOR	S	BASEMENT	161	6	24/7 & OCCUPIED		MECHANICAL		4EC25-4'	1	T8 2x4 4-Lamp Egg Crate Fixture	85	0.085	S	1000	85		1	N 4W-12.5LED	New 1x4 4-Lamp Wrap Fixture with (4) 12.5 Watt LED T8 4' Lamp; Direct Wire to Socket	50	0.050	0.420	CCW-4'-4-T8LED /// KT-LED10.5T8-48G-840-D	53 + 3
1892	SELINSGROVE	INTERIOR	S	BASEMENT	161	6	24/7 & OCCUPIED		MECHANICAL		CF65	1	65 Watt Compact Fluorescent Fixture	65	0.065	S	1000	65		1	LED 9A	Re-Lamp with (1) 9 Watt LED A19 Lamps	9	0.009	0.672	LA19/9/40K/D-46	8
1893	SELINSGROVE	INTERIOR	S	BASEMENT	162	6	24/7 & OCCUPIED		HALL	120	3W25(W)-4'	1	T8 1x4 3-Lamp Wrap Fixture; Damaged/Missing Lens	65	0.065	Z	8760	569		1	N 3W-12.5LED	New 1x4 3-Lamp Wrap Fixture with (3) 12.5 Watt LED T8 4' Lamp; Direct Wire to Socket	37.5	0.038	0.330	CCW-4'-3-T8LED /// KT-LED10.5T8-48G-840-D	52 + 3
1894	SELINSGROVE	INTERIOR	S	BASEMENT	162	6	24/7 & OCCUPIED		HALL		3W25-4'	3	T8 1x4 3-Lamp Wrap Fixture	65	0.195	Z	8760	1,708		3	R 3L-12.5LED	Retrofit with (3) 12.5 Watt LED T8 4' Lamps; Direct Wire to Socket	37.5	0.113	0.990	KT-LED10.5T8-48G-840-D	3
1895	SELINSGROVE	INTERIOR	S	BASEMENT	162	6	24/7 & OCCUPIED		HALL		1W17	3	T8 2x2 1-Lamp Wrap Fixture	22	0.066	Z	8760	578		3	R 1L-10LED2'	Retrofit with (1) 10 Watt LED T8 2' Lamp; Direct Wire to Socket	10	0.030	0.432	KT-LED7T8-24GC-840-D	1
1896	SELINSGROVE	INTERIOR	S	BASEMENT	162	6	24/7 & OCCUPIED		HALL		3W25	2	T8 2x3 3-Lamp Wrap Fixture	82	0.164	Z	8760	1,437		2	R 3L-12.5LED	Retrofit with (3) 12.5 Watt LED T8 4' Lamps; Direct Wire to Socket	37.5	0.075	1.068	KT-LED10.5T8-48G-840-D	3
1897	SELINSGROVE	INTERIOR	S	BASEMENT	162	6	24/7 & OCCUPIED		HALL		2PL13DR	2	13 Watt Plug-In CFL Drum Fixture	26	0.052	Z	8760	456		2	N LED14DR	New 12" Round 14 Watt LED Drum Fixture	14	0.028	0.288	54074143	19
1898	SELINSGROVE	INTERIOR	S	BASEMENT	162	6	24/7 & OCCUPIED		HALL	114	CF18RLM	1	18 Watt Compact Fluorescent RLM Fixture	18	0.018	Z	8760	158		1	LED 9A	Re-Lamp with (1) 9 Watt LED A19 Lamps	9	0.009	0.108	LA19/9/40K/D-46	8

											EXISTING FIXTURES									PROPOSED FIXTURE UPGRADE						
ID #	Facility Name	Phase	Utility Rate Code	Floor	Map #	Building Number	Building Usage Type	Building Section	Room Description	Room #	ECM Code	Qty	Description	Watts	kW	Burn Hour Code	Pre Burn Hours	kWh	x	Qty	New Code	Description	Watts	kW	Annual KW Saved	Part#	Cut Sheet #
1899	SELINSGROVE	INTERIOR	S	BASEMENT	163	6	24/7 & OCCUPIED		HALL		CF18RLM	1	18 Watt Compact Fluorescent RLM Fixture	18	0.018	Z	8760	158		1	LED 9A	Re-Lamp with (1) 9 Watt LED A19 Lamps	9	0.009	0.108	LA19/9/40K/D-46	8
1900	SELINSGROVE	INTERIOR	S	BASEMENT	163	6	24/7 & OCCUPIED		HALL		2PL13DR	1	13 Watt Plug-In CFL Drum Fixture	26	0.026	Z	8760	228		1	N LED14DR	New 12" Round 14 Watt LED Drum Fixture	14	0.014	0.144	54074143	19
1901	SELINSGROVE	INTERIOR	S	BASEMENT	164	6	24/7 & OCCUPIED		STORAGE	119	4EC25-4'	3	T8 2x4 4-Lamp Egg Crate Fixture	85	0.255	S	1000	255		3	N 4W-12.5LED	New 1x4 4-Lamp Wrap Fixture with (4) 12.5 Watt LED T8 4' Lamp; Direct Wire to Socket	50	0.150	1.260	CCW-4'-4-T8LED /// KT-LED10.5T8-48G-840-D	53 + 3
1902	SELINSGROVE	INTERIOR	S	BASEMENT	165	6	24/7 & OCCUPIED		STORAGE	121	2EC25(EC)-4'	13	T8 2x4 2-Lamp Egg Crate Fixture; Damaged/Missing Lens	43	0.559	S	1000	559		13	N 2W-12.5LED	New 1x4 2-Lamp Wrap Fixture with (2) 12.5 Watt LED T8 4' Lamp; Direct Wire to Socket	25	0.325	2.808	CCW-4'-2-T8LED /// KT-LED10.5T8-48G-840-D	51 + 3
1903	SELINSGROVE	INTERIOR	S	BASEMENT	165	6	24/7 & OCCUPIED		STORAGE		4EC25(EC)-4'	8	T8 2x4 4-Lamp Egg Crate Fixture; Damaged/Missing Lens	85	0.680	S	1000	680		8	N 4W-12.5LED	New 1x4 4-Lamp Wrap Fixture with (4) 12.5 Watt LED T8 4' Lamp; Direct Wire to Socket	50	0.400	3.360	CCW-4'-4-T8LED /// KT-LED10.5T8-48G-840-D	53 + 3
1904	SELINSGROVE	INTERIOR	S	BASEMENT	166	6	24/7 & OCCUPIED		HALL	114	2PL13DR	1	13 Watt Plug-In CFL Drum Fixture	26	0.026	Z	8760	228		1	N LED14DR	New 12" Round 14 Watt LED Drum Fixture	14	0.014	0.144	54074143	19
1905	SELINSGROVE	INTERIOR	S	BASEMENT	166	6	24/7 & OCCUPIED		HALL		1W17	2	T8 2x2 1-Lamp Wrap Fixture	22	0.044	Z	8760	385		2	R 1L-10LED2'	Retrofit with (1) 10 Watt LED T8 2' Lamp; Direct Wire to Socket	10	0.020	0.288	KT-LED7T8-24GC-840-D	1
1906	SELINSGROVE	INTERIOR	S	BASEMENT	167	6	24/7 & OCCUPIED		HALL	114	1W17	2	T8 2x2 1-Lamp Wrap Fixture	22	0.044	Z	8760	385		2	R 1L-10LED2'	Retrofit with (1) 10 Watt LED T8 2' Lamp; Direct Wire to Socket	10	0.020	0.288	KT-LED7T8-24GC-840-D	1
1907	SELINSGROVE	INTERIOR	S	BASEMENT	167	6	24/7 & OCCUPIED		HALL		2PL13DR	1	13 Watt Plug-In CFL Drum Fixture	26	0.026	Z	8760	228		1	N LED14DR	New 12" Round 14 Watt LED Drum Fixture	14	0.014	0.144	54074143	19
1908	SELINSGROVE	INTERIOR	S	BASEMENT	168	6	24/7 & OCCUPIED		STORAGE	166	4EC25-4'	2	T8 2x4 4-Lamp Egg Crate Fixture	85	0.170	S	1000	170		2	N 4W-12.5LED	New 1x4 4-Lamp Wrap Fixture with (4) 12.5 Watt LED T8 4' Lamp; Direct Wire to Socket	50	0.100	0.840	CCW-4'-4-T8LED /// KT-LED10.5T8-48G-840-D	53 + 3
1909	SELINSGROVE	INTERIOR	S	BASEMENT	169	6	24/7 & OCCUPIED		HALL	114	1W17	7	T8 2x2 1-Lamp Wrap Fixture	22	0.154	Z	8760	1,349		7	R 1L-10LED2'	Retrofit with (1) 10 Watt LED T8 2' Lamp; Direct Wire to Socket	10	0.070	1.008	KT-LED7T8-24GC-840-D	1
1910	SELINSGROVE	INTERIOR	S	BASEMENT	169	6	24/7 & OCCUPIED		HALL		3W25-4'	9	T8 1x4 3-Lamp Wrap Fixture	65	0.585	Z	8760	5,125		9	R 3L-12.5LED	Retrofit with (3) 12.5 Watt LED T8 4' Lamps; Direct Wire to Socket	37.5	0.338	2.970	KT-LED10.5T8-48G-840-D	3
1911	SELINSGROVE	INTERIOR	S	BASEMENT	170	6	24/7 & OCCUPIED		STORAGE	167	CF18	1	18 Watt Compact Fluorescent Fixture	18	0.018	S	1000	18		1	LED 9A	Re-Lamp with (1) 9 Watt LED A19 Lamps	9	0.009	0.108	LA19/9/40K/D-46	8
1912	SELINSGROVE	INTERIOR	S	BASEMENT	171	6	24/7 & OCCUPIED		HALL	168	2L25-4'	2	T8 2x4 2-Lamp Troffer Fixture	43	0.086	Z	8760	753		2	R 2L-12.5LED	Retrofit with (2) 12.5 Watt LED T8 4' Lamps; Direct Wire to Socket	25	0.050	0.432	KT-LED10.5T8-48G-840-D	3
1913	SELINSGROVE	INTERIOR	S	BASEMENT	172	6	24/7 & OCCUPIED		STORAGE	169	4EC25-4'	4	T8 2x4 4-Lamp Egg Crate Fixture	85	0.340	S	1000	340		4	N 4W-12.5LED	New 1x4 4-Lamp Wrap Fixture with (4) 12.5 Watt LED T8 4' Lamp; Direct Wire to Socket	50	0.200	1.680	CCW-4'-4-T8LED /// KT-LED10.5T8-48G-840-D	53 + 3
1914	SELINSGROVE	INTERIOR	S	BASEMENT	172	6	24/7 & OCCUPIED		STORAGE		2EC25-4'	2	T8 2x4 2-Lamp Egg Crate Fixture	43	0.086	S	1000	86		2	N 2W-12.5LED	New 1x4 2-Lamp Wrap Fixture with (2) 12.5 Watt LED T8 4' Lamp; Direct Wire to Socket	25	0.050	0.432	CCW-4'-2-T8LED /// KT-LED10.5T8-48G-840-D	51 + 3
1915	SELINSGROVE	INTERIOR	S	BASEMENT	173	6	24/7 & OCCUPIED		RR	170	2EC25(EC)-4'	1	T8 2x4 2-Lamp Egg Crate Fixture; Damaged/Missing Lens	43	0.043	Z	8760	377		1	N 2W-12.5LED	New 1x4 2-Lamp Wrap Fixture with (2) 12.5 Watt LED T8 4' Lamp; Direct Wire to Socket	25	0.025	0.216	CCW-4'-2-T8LED /// KT-LED10.5T8-48G-840-D	51 + 3
1916	SELINSGROVE	INTERIOR	S	BASEMENT	174	6	24/7 & OCCUPIED		MAIL ROOM	170	2W25-4'	1	T8 1x4 2-Lamp Wrap Fixture	43	0.043	O	2340	101		1	R 2L-12.5LED	Retrofit with (2) 12.5 Watt LED T8 4' Lamps; Direct Wire to Socket	25	0.025	0.216	KT-LED10.5T8-48G-840-D	3
1917	SELINSGROVE	INTERIOR	S	BASEMENT	175	6	24/7 & OCCUPIED		MAIL ROOM	172	4EC25-4'	3	T8 2x4 4-Lamp Egg Crate Fixture	85	0.255	O	2340	597		3	N 4W-12.5LED	New 1x4 4-Lamp Wrap Fixture with (4) 12.5 Watt LED T8 4' Lamp; Direct Wire to Socket	50	0.150	1.260	CCW-4'-4-T8LED /// KT-LED10.5T8-48G-840-D	53 + 3
1918	SELINSGROVE	INTERIOR	S	BASEMENT	175	6	24/7 & OCCUPIED		MAIL ROOM		2EC25-4'	1	T8 2x4 2-Lamp Egg Crate Fixture	43	0.043	O-ES	1638	70		1	N 2W-12.5LED	New 1x4 2-Lamp Wrap Fixture with (2) 12.5 Watt LED T8 4' Lamp; Direct Wire to Socket	25	0.025	0.216	CCW-4'-2-T8LED /// KT-LED10.5T8-48G-840-D	51 + 3
1919	SELINSGROVE	INTERIOR	S	BASEMENT	176	6	24/7 & OCCUPIED		WORK ROOM	173	2L25-4'	8	T8 2x4 2-Lamp Troffer Fixture	43	0.344	O	2340	805		8	R 2L-12.5LED	Retrofit with (2) 12.5 Watt LED T8 4' Lamps; Direct Wire to Socket	25	0.200	1.728	KT-LED10.5T8-48G-840-D	3
1920	SELINSGROVE	INTERIOR	S	BASEMENT	177	6	24/7 & OCCUPIED		OFFICE	174	4L25-4'	8	T8 2x4 4-Lamp Troffer Fixture	85	0.680	O	2340	1,591		8	R 4L-12.5LED	Retrofit with (4) 12.5 Watt LED T8 4' Lamps; Direct Wire to Socket	50	0.400	3.360	KT-LED10.5T8-48G-840-D	3
1921	SELINSGROVE	INTERIOR	S	BASEMENT	178	6	24/7 & OCCUPIED		OFFICE	175	4L25-4'	3	T8 2x4 4-Lamp Troffer Fixture	85	0.255	O-ES	1638	418		3	R 4L-12.5LED	Retrofit with (4) 12.5 Watt LED T8 4' Lamps; Direct Wire to Socket	50	0.150	1.260	KT-LED10.5T8-48G-840-D	3
1922	SELINSGROVE	INTERIOR	S	BASEMENT	179	6	24/7 & OCCUPIED		OFFICE	175A	4L25-4'	1	T8 2x4 4-Lamp Troffer Fixture	85	0.085	O	2340	199		1	R 4L-12.5LED	Retrofit with (4) 12.5 Watt LED T8 4' Lamps; Direct Wire to Socket	50	0.050	0.420	KT-LED10.5T8-48G-840-D	3
1923	SELINSGROVE	INTERIOR	S	BASEMENT	180	6	24/7 & OCCUPIED		STORAGE	176	2EC25-4'	8	T8 2x4 2-Lamp Egg Crate Fixture	43	0.344	S	1000	344		8	N 2W-12.5LED	New 1x4 2-Lamp Wrap Fixture with (2) 12.5 Watt LED T8 4' Lamp; Direct Wire to Socket	25	0.200	1.728	CCW-4'-2-T8LED /// KT-LED10.5T8-48G-840-D	51 + 3
1924	SELINSGROVE	INTERIOR	S	BASEMENT	180	6	24/7 & OCCUPIED		STORAGE		CF18	1	18 Watt Compact Fluorescent Fixture	18	0.018	S	1000	18		1	LED 9A	Re-Lamp with (1) 9 Watt LED A19 Lamps	9	0.009	0.108	LA19/9/40K/D-46	8
1925	SELINSGROVE	INTERIOR	S	BASEMENT	181	6	24/7 & OCCUPIED		OFFICE	177	4L25-4'	2	T8 2x4 4-Lamp Troffer Fixture	85	0.170	O	2340	398		2	R 4L-12.5LED	Retrofit with (4) 12.5 Watt LED T8 4' Lamps; Direct Wire to Socket	50	0.100	0.840	KT-LED10.5T8-48G-840-D	3
1926	SELINSGROVE	INTERIOR	S	BASEMENT	182	6	24/7 & OCCUPIED		HALL	101	4EC25-4'	1	T8 2x4 4-Lamp Egg Crate Fixture	85	0.085	Z	8760	745		1	N 4W-12.5LED	New 1x4 4-Lamp Wrap Fixture with (4) 12.5 Watt LED T8 4' Lamp; Direct Wire to Socket	50	0.050	0.420	CCW-4'-4-T8LED /// KT-LED10.5T8-48G-840-D	53 + 3
1927	SELINSGROVE	INTERIOR	S	BASEMENT	182	6	24/7 & OCCUPIED		HALL		2EC25-4'	12	T8 2x4 2-Lamp Egg Crate Fixture	43	0.516	Z	8760	4,520		12	N 2W-12.5LED	New 1x4 2-Lamp Wrap Fixture with (2) 12.5 Watt LED T8 4' Lamp; Direct Wire to Socket	25	0.300	2.592	CCW-4'-2-T8LED /// KT-LED10.5T8-48G-840-D	51 + 3
1928	SELINSGROVE	INTERIOR	S	BASEMENT	182	6	24/7 & OCCUPIED		HALL		100A	1	100 Watt Incandescent A-Lamp Fixture	100	0.100	Z	8760	876		1	LED 15A	Re-Lamp with (1) 15 Watt LED A19 Lamp	15	0.015	1.020	LA21/16/40K/D-46	9
1929	SELINSGROVE	INTERIOR	S	BASEMENT	183	6	24/7 & OCCUPIED		STORAGE	104	4EC25-4'	3	T8 2x4 4-Lamp Egg Crate Fixture	85	0.255	S	1000	255		3	N 4W-12.5LED	New 1x4 4-Lamp Wrap Fixture with (4) 12.5 Watt LED T8 4' Lamp; Direct Wire to Socket	50	0.150	1.260	CCW-4'-4-T8LED /// KT-LED10.5T8-48G-840-D	53 + 3
1930	SELINSGROVE	INTERIOR	S	BASEMENT	184	6	24/7 & OCCUPIED		OPEN OFFICE		4L25-4'	4	T8 2x4 4-Lamp Troffer Fixture	85	0.340	O	2340	796		4	R 4L-12.5LED	Retrofit with (4) 12.5 Watt LED T8 4' Lamps; Direct Wire to Socket	50	0.200	1.680	KT-LED10.5T8-48G-840-D	3

											EXISTING FIXTURES									PROPOSED FIXTURE UPGRADE						
ID #	Facility Name	Phase	Utility Rate Code	Floor	Map #	Building Number	Building Usage Type	Building Section	Room Description	Room #	ECM Code	Qty	Description	Watts	kW	Burn Hour Code	Pre Burn Hours	kWh	x	Qty	New Code	Description	Watts	kW	Annual KW Saved	Part#	Cut Sheet #
1931	SELINSGROVE	INTERIOR	S	BASEMENT	184	6	24/7 & OCCUPIED		OPEN OFFICE	102-01	4L25-4'	2	T8 2x4 4-Lamp Troffer Fixture	85	0.170	O	2340	398		2	R 4L-12.5LED	Retrofit with (4) 12.5 Watt LED T8 4' Lamps; Direct Wire to Socket	50	0.100	0.840	KT-LED10.5T8-48G-840-D	3
1932	SELINSGROVE	INTERIOR	S	BASEMENT	184	6	24/7 & OCCUPIED		OPEN OFFICE	102-02	4L25-4'	2	T8 2x4 4-Lamp Troffer Fixture	85	0.170	O	2340	398		2	R 4L-12.5LED	Retrofit with (4) 12.5 Watt LED T8 4' Lamps; Direct Wire to Socket	50	0.100	0.840	KT-LED10.5T8-48G-840-D	3
1933	SELINSGROVE	INTERIOR	S	BASEMENT	184	6	24/7 & OCCUPIED		OPEN OFFICE	102-03	4L25-4'	2	T8 2x4 4-Lamp Troffer Fixture	85	0.170	O	2340	398		2	R 4L-12.5LED	Retrofit with (4) 12.5 Watt LED T8 4' Lamps; Direct Wire to Socket	50	0.100	0.840	KT-LED10.5T8-48G-840-D	3
1934	SELINSGROVE	INTERIOR	S	BASEMENT	184	6	24/7 & OCCUPIED		OPEN OFFICE	102-04	4L25-4'	2	T8 2x4 4-Lamp Troffer Fixture	85	0.170	O	2340	398		2	R 4L-12.5LED	Retrofit with (4) 12.5 Watt LED T8 4' Lamps; Direct Wire to Socket	50	0.100	0.840	KT-LED10.5T8-48G-840-D	3
1935	SELINSGROVE	INTERIOR	S	BASEMENT	185	6	24/7 & OCCUPIED		OFFICE	105	4W25-4'-YELLOW	10	T8 1x4 4-Lamp Wrap Fixture; Yellow	85	0.850	O	2340	1,989		10	R 4L-12.5LED	Retrofit with (4) 12.5 Watt LED T8 4' Lamps; Direct Wire to Socket	50	0.500	4.200	KT-LED10.5T8-48G-840-D	3
1936	SELINSGROVE	INTERIOR	S	BASEMENT	186	6	24/7 & OCCUPIED		RECORDS	106	4W25-4'-YELLOW	10	T8 1x4 4-Lamp Wrap Fixture; Yellow	85	0.850	O	2340	1,989		10	R 4L-12.5LED	Retrofit with (4) 12.5 Watt LED T8 4' Lamps; Direct Wire to Socket	50	0.500	4.200	KT-LED10.5T8-48G-840-D	3
1937	SELINSGROVE	INTERIOR	S	BASEMENT	187	6	24/7 & OCCUPIED		FILE	107	4W25-4'-YELLOW	6	T8 1x4 4-Lamp Wrap Fixture; Yellow	85	0.510	O	2340	1,193		6	R 4L-12.5LED	Retrofit with (4) 12.5 Watt LED T8 4' Lamps; Direct Wire to Socket	50	0.300	2.520	KT-LED10.5T8-48G-840-D	3
1938	SELINSGROVE	INTERIOR	S	BASEMENT	187	6	24/7 & OCCUPIED		FILE		2L25-4'	6	T8 2x4 2-Lamp Troffer Fixture	43	0.258	O	2340	604		6	R 2L-12.5LED	Retrofit with (2) 12.5 Watt LED T8 4' Lamps; Direct Wire to Socket	25	0.150	1.296	KT-LED10.5T8-48G-840-D	3
1939	SELINSGROVE	INTERIOR	S	BASEMENT	187	6	24/7 & OCCUPIED		FILE		1W20	1	T12 2x2 1-Lamp Wrap Fixture	32	0.032	O	2340	75		1	R 1L-10LED2'	Retrofit with (1) 10 Watt LED T8 2' Lamp; Direct Wire to Socket	10	0.010	0.264	KT-LED7T8-24GC-840-D	1
1940	SELINSGROVE	INTERIOR	S	BASEMENT	188	6	24/7 & OCCUPIED		IT / OFFICE	108	4W25-4'-YELLOW	4	T8 1x4 4-Lamp Wrap Fixture; Yellow	85	0.340	O	2340	796		4	R 4L-12.5LED	Retrofit with (4) 12.5 Watt LED T8 4' Lamps; Direct Wire to Socket	50	0.200	1.680	KT-LED10.5T8-48G-840-D	3
1941	SELINSGROVE	INTERIOR	S	BASEMENT	189	6	24/7 & OCCUPIED		OFFICE	109	4L25-4'	2	T8 2x4 4-Lamp Troffer Fixture	85	0.170	O	2340	398		2	R 4L-12.5LED	Retrofit with (4) 12.5 Watt LED T8 4' Lamps; Direct Wire to Socket	50	0.100	0.840	KT-LED10.5T8-48G-840-D	3
1942	SELINSGROVE	INTERIOR	S	BASEMENT	190	6	24/7 & OCCUPIED		RR	110	4L25-4'	1	T8 2x4 4-Lamp Troffer Fixture	85	0.085	Z	8760	745		1	R 4L-12.5LED	Retrofit with (4) 12.5 Watt LED T8 4' Lamps; Direct Wire to Socket	50	0.050	0.420	KT-LED10.5T8-48G-840-D	3
1943	SELINSGROVE	INTERIOR	S	BASEMENT	191	6	24/7 & OCCUPIED		HALL	111	2L25-4'	2	T8 2x4 2-Lamp Troffer Fixture	43	0.086	Z	8760	753		2	R 2L-12.5LED	Retrofit with (2) 12.5 Watt LED T8 4' Lamps; Direct Wire to Socket	25	0.050	0.432	KT-LED10.5T8-48G-840-D	3
1944	SELINSGROVE	INTERIOR	S	BASEMENT	192	6	24/7 & OCCUPIED		STORAGE	112	4EC25-4'	3	T8 2x4 4-Lamp Egg Crate Fixture	85	0.255	S	1000	255		3	N 4W-12.5LED	New 1x4 4-Lamp Wrap Fixture with (4) 12.5 Watt LED T8 4' Lamp; Direct Wire to Socket	50	0.150	1.260	CCW-4'-4-T8LED /// KT-LED10.5T8-48G-840-D	53 + 3
1945	SELINSGROVE	INTERIOR	S	BASEMENT	193	6	24/7 & OCCUPIED		CLOSET	113	1W17	1	T8 2x2 1-Lamp Wrap Fixture	22	0.022	S	1000	22		1	R 1L-10LED2'	Retrofit with (1) 10 Watt LED T8 2' Lamp; Direct Wire to Socket	10	0.010	0.144	KT-LED7T8-24GC-840-D	1
1946	SELINSGROVE	INTERIOR	S	BASEMENT	194	6	24/7 & OCCUPIED		STORAGE	116	CF26	4	26 Watt Compact Fluorescent Fixture	26	0.104	S	1000	104		4	LED 9A	Re-Lamp with (1) 9 Watt LED A19 Lamps	9	0.036	0.816	LA19/9/40K/D-46	8
1947	SELINSGROVE	INTERIOR	S	BASEMENT	195	6	24/7 & OCCUPIED		STORAGE	117	2EC25-4'	3	T8 2x4 2-Lamp Egg Crate Fixture	43	0.129	S	1000	129		3	N 2W-12.5LED	New 1x4 2-Lamp Wrap Fixture with (2) 12.5 Watt LED T8 4' Lamp; Direct Wire to Socket	25	0.075	0.648	CCW-4'-2-T8LED /// KT-LED10.5T8-48G-840-D	51 + 3
1948	SELINSGROVE	INTERIOR	S	BASEMENT	196	6	24/7 & OCCUPIED		JANITOR CLOSET	118	2PL13DR	1	13 Watt Plug-In CFL Drum Fixture	26	0.026	S	1000	26		1	N LED14DR	New 12" Round 14 Watt LED Drum Fixture	14	0.014	0.144	54074143	19
1949	SELINSGROVE	INTERIOR	S	BASEMENT	197	6	24/7 & OCCUPIED		FILE	100	4EC25-4'	5	T8 2x4 4-Lamp Egg Crate Fixture	85	0.425	O	2340	995		5	N 4W-12.5LED	New 1x4 4-Lamp Wrap Fixture with (4) 12.5 Watt LED T8 4' Lamp; Direct Wire to Socket	50	0.250	2.100	CCW-4'-4-T8LED /// KT-LED10.5T8-48G-840-D	53 + 3
1950	SELINSGROVE	INTERIOR	S	1	358	7	24/7 & OCCUPIED	CF2	OFFICE	201	2EC25-4'	1	T8 2x4 2-Lamp Egg Crate Fixture	43	0.043	O	2340	101		1	N 2W-12.5LED	New 1x4 2-Lamp Wrap Fixture with (2) 12.5 Watt LED T8 4' Lamp; Direct Wire to Socket	25	0.025	0.216	CCW-4'-2-T8LED /// KT-LED10.5T8-48G-840-D	51 + 3
1951	SELINSGROVE	INTERIOR	S	1	359	7	24/7 & OCCUPIED	CF2	SOLARIUM	200	2L25-1X4	7	T8 1x4 2-Lamp Troffer Fixture	43	0.301	BH	5460	1,643		7	R 2L-12.5LED	Retrofit with (2) 12.5 Watt LED T8 4' Lamps; Direct Wire to Socket	25	0.175	1.512	KT-LED10.5T8-48G-840-D	3
1952	SELINSGROVE	INTERIOR	S	1	359	7	24/7 & OCCUPIED	CF2	SOLARIUM		XLED	1	3 Watt LED 2-Lamp Exit Sign	3	0.003	Z	8760	26		1	ZZ DD	No Retrofit	3	0.003	0.000	N/A	N/A
1953	SELINSGROVE	INTERIOR	S	1	360	7	24/7 & OCCUPIED	CF2	OFFICE	214	2EC25-4'	1	T8 2x4 2-Lamp Egg Crate Fixture	43	0.043	O	2340	101		1	N 2W-12.5LED	New 1x4 2-Lamp Wrap Fixture with (2) 12.5 Watt LED T8 4' Lamp; Direct Wire to Socket	25	0.025	0.216	CCW-4'-2-T8LED /// KT-LED10.5T8-48G-840-D	51 + 3
1954	SELINSGROVE	INTERIOR	S	1	361	7	24/7 & OCCUPIED	CF2	DAY ROOM		3L25-4'	18	T8 2x4 3-Lamp Troffer Fixture	65	1.170	BH	5460	6,388		18	R 3L-12.5LED	Retrofit with (3) 12.5 Watt LED T8 4' Lamps; Direct Wire to Socket	37.5	0.675	5.940	KT-LED10.5T8-48G-840-D	3
1955	SELINSGROVE	INTERIOR	S	1	361	7	24/7 & OCCUPIED	CF2	DAY ROOM		2PL13DR	2	13 Watt Plug-In CFL Drum Fixture	26	0.052	BH	5460	284		2	N LED14DR	New 12" Round 14 Watt LED Drum Fixture	14	0.028	0.288	54074143	19
1956	SELINSGROVE	INTERIOR	S	1	361	7	24/7 & OCCUPIED	CF2	DAY ROOM		XLED	2	3 Watt LED 2-Lamp Exit Sign	3	0.006	Z	8760	53		2	ZZ DD	No Retrofit	3	0.006	0.000	N/A	N/A
1957	SELINSGROVE	INTERIOR	S	1	362	7	24/7 & OCCUPIED	CF2	BED	203	1W17	2	T8 2x2 1-Lamp Wrap Fixture	22	0.044	BH	5460	240		2	R 1L-10LED2'	Retrofit with (1) 10 Watt LED T8 2' Lamp; Direct Wire to Socket	10	0.020	0.288	KT-LED7T8-24GC-840-D	1
1958	SELINSGROVE	INTERIOR	S	1	362	7	24/7 & OCCUPIED	CF2	BED		60SC	4	60 Watt Incandescent Sconce Fixture	60	0.240	BH	5460	1,310		4	LED 9A	Re-Lamp with (1) 9 Watt LED A19 Lamps	9	0.036	2.448	LA19/9/40K/D-46	8
1959	SELINSGROVE	INTERIOR	S	1	363	7	24/7 & OCCUPIED	CF2	BED	204	1W17	2	T8 2x2 1-Lamp Wrap Fixture	22	0.044	BH	5460	240		2	R 1L-10LED2'	Retrofit with (1) 10 Watt LED T8 2' Lamp; Direct Wire to Socket	10	0.020	0.288	KT-LED7T8-24GC-840-D	1
1960	SELINSGROVE	INTERIOR	S	1	363	7	24/7 & OCCUPIED	CF2	BED		60SC	3	60 Watt Incandescent Sconce Fixture	60	0.180	BH	5460	983		3	LED 9A	Re-Lamp with (1) 9 Watt LED A19 Lamps	9	0.027	1.836	LA19/9/40K/D-46	8
1961	SELINSGROVE	INTERIOR	S	1	364	7	24/7 & OCCUPIED	CF2	BED	206	1W17	2	T8 2x2 1-Lamp Wrap Fixture	22	0.044	BH	5460	240		2	R 1L-10LED2'	Retrofit with (1) 10 Watt LED T8 2' Lamp; Direct Wire to Socket	10	0.020	0.288	KT-LED7T8-24GC-840-D	1
1962	SELINSGROVE	INTERIOR	S	1	364	7	24/7 & OCCUPIED	CF2	BED		60SC	4	60 Watt Incandescent Sconce Fixture	60	0.240	BH	5460	1,310		4	LED 9A	Re-Lamp with (1) 9 Watt LED A19 Lamps	9	0.036	2.448	LA19/9/40K/D-46	8

											EXISTING FIXTURES									PROPOSED FIXTURE UPGRADE						
ID #	Facility Name	Phase	Utility Rate Code	Floor	Map #	Building Number	Building Usage Type	Building Section	Room Description	Room #	ECM Code	Qty	Description	Watts	kW	Burn Hour Code	Pre Burn Hours	kWh	x	Qty	New Code	Description	Watts	kW	Annual KW Saved	Part#	Cut Sheet #
1963	SELINSGROVE	INTERIOR	S	1	365	7	24/7 & OCCUPIED	CF2	BED	207	1W17	2	T8 2x2 1-Lamp Wrap Fixture	22	0.044	BH	5460	240		2	R 1L-10LED2'	Retrofit with (1) 10 Watt LED T8 2' Lamp; Direct Wire to Socket	10	0.020	0.288	KT-LED7T8-24GC-840-D	1
1964	SELINSGROVE	INTERIOR	S	1	365	7	24/7 & OCCUPIED	CF2	BED		60SC	4	60 Watt Incandescent Sconce Fixture	60	0.240	BH	5460	1,310		4	LED 9A	Re-Lamp with (1) 9 Watt LED A19 Lamps	9	0.036	2.448	LA19/9/40K/D-46	8
1965	SELINSGROVE	INTERIOR	S	1	365	7	24/7 & OCCUPIED	CF2	BED	210	1W17	2	T8 2x2 1-Lamp Wrap Fixture	22	0.044	BH	5460	240		2	R 1L-10LED2'	Retrofit with (1) 10 Watt LED T8 2' Lamp; Direct Wire to Socket	10	0.020	0.288	KT-LED7T8-24GC-840-D	1
1966	SELINSGROVE	INTERIOR	S	1	365	7	24/7 & OCCUPIED	CF2	BED		60SC	4	60 Watt Incandescent Sconce Fixture	60	0.240	BH	5460	1,310		4	LED 9A	Re-Lamp with (1) 9 Watt LED A19 Lamps	9	0.036	2.448	LA19/9/40K/D-46	8
1967	SELINSGROVE	INTERIOR	S	1	366	7	24/7 & OCCUPIED	CF2	BED	211	1W17	2	T8 2x2 1-Lamp Wrap Fixture	22	0.044	BH	5460	240		2	R 1L-10LED2'	Retrofit with (1) 10 Watt LED T8 2' Lamp; Direct Wire to Socket	10	0.020	0.288	KT-LED7T8-24GC-840-D	1
1968	SELINSGROVE	INTERIOR	S	1	366	7	24/7 & OCCUPIED	CF2	BED		60SC	1	60 Watt Incandescent Sconce Fixture	60	0.060	BH	5460	328		1	LED 9A	Re-Lamp with (1) 9 Watt LED A19 Lamps	9	0.009	0.612	LA19/9/40K/D-46	8
1969	SELINSGROVE	INTERIOR	S	1	367	7	24/7 & OCCUPIED	CF2	BED	212	1W17	2	T8 2x2 1-Lamp Wrap Fixture	22	0.044	BH	5460	240		2	R 1L-10LED2'	Retrofit with (1) 10 Watt LED T8 2' Lamp; Direct Wire to Socket	10	0.020	0.288	KT-LED7T8-24GC-840-D	1
1970	SELINSGROVE	INTERIOR	S	1	367	7	24/7 & OCCUPIED	CF2	BED		60SC	4	60 Watt Incandescent Sconce Fixture	60	0.240	BH	5460	1,310		4	LED 9A	Re-Lamp with (1) 9 Watt LED A19 Lamps	9	0.036	2.448	LA19/9/40K/D-46	8
1971	SELINSGROVE	INTERIOR	S	1	368	7	24/7 & OCCUPIED	CF2	BED	213	1W17	2	T8 2x2 1-Lamp Wrap Fixture	22	0.044	BH	5460	240		2	R 1L-10LED2'	Retrofit with (1) 10 Watt LED T8 2' Lamp; Direct Wire to Socket	10	0.020	0.288	KT-LED7T8-24GC-840-D	1
1972	SELINSGROVE	INTERIOR	S	1	368	7	24/7 & OCCUPIED	CF2	BED		60SC	4	60 Watt Incandescent Sconce Fixture	60	0.240	BH	5460	1,310		4	LED 9A	Re-Lamp with (1) 9 Watt LED A19 Lamps	9	0.036	2.448	LA19/9/40K/D-46	8
1973	SELINSGROVE	INTERIOR	S	1	369	7	24/7 & OCCUPIED	CF2	RR / SHOWER	208	2VT25-4'	2	T8 1x4 2-Lamp Vaportight Fixture	43	0.086	Z	8760	753		2	R 2L-12.5LED	Retrofit with (2) 12.5 Watt LED T8 4' Lamps; Direct Wire to Socket	25	0.050	0.432	KT-LED10.5T8-48G-840-D	3
1974	SELINSGROVE	INTERIOR	S	1	369	7	24/7 & OCCUPIED	CF2	RR		2VT25-4'	3	T8 1x4 2-Lamp Vaportight Fixture	43	0.129	Z	8760	1,130		3	R 2L-12.5LED	Retrofit with (2) 12.5 Watt LED T8 4' Lamps; Direct Wire to Socket	25	0.075	0.648	KT-LED10.5T8-48G-840-D	3
1975	SELINSGROVE	INTERIOR	S	1	369	7	24/7 & OCCUPIED	CF2	RR		2V17	1	T8 1x2 2-Lamp Vanity Fixture	29	0.029	Z	8760	254		1	R 2L-10LED2'	Retrofit with (2) 10 Watt LED T8 2' Lamps; Direct Wire to Socket	20	0.020	0.108	KT-LED7T8-24GC-840-D	1
1976	SELINSGROVE	INTERIOR	S	1	369	7	24/7 & OCCUPIED	CF2	RR		CF13DL10	1	13 Watt Compact Fluorescent 10" Downlight Fixture	13	0.013	Z	8760	114		1	R LLED9DL10	Retrofit with 9 Watt LED 10" Downlight Kit	9	0.009	0.048	LDN10RV 40/05 LR6AR LSS MVOLT EZ10	23
1977	SELINSGROVE	INTERIOR	S	1	369	7	24/7 & OCCUPIED	CF2	RR		2VT25-4'	1	T8 1x4 2-Lamp Vaportight Fixture	43	0.043	Z	8760	377		1	R 2L-12.5LED	Retrofit with (2) 12.5 Watt LED T8 4' Lamps; Direct Wire to Socket	25	0.025	0.216	KT-LED10.5T8-48G-840-D	3
1978	SELINSGROVE	INTERIOR	S	1	369	7	24/7 & OCCUPIED	CF2	RR		2V17	1	T8 1x2 2-Lamp Vanity Fixture	29	0.029	Z	8760	254		1	R 2L-10LED2'	Retrofit with (2) 10 Watt LED T8 2' Lamps; Direct Wire to Socket	20	0.020	0.108	KT-LED7T8-24GC-840-D	1
1979	SELINSGROVE	INTERIOR	S	1	369	7	24/7 & OCCUPIED	CF2	RR		2V17	1	T8 1x2 2-Lamp Vanity Fixture	29	0.029	Z	8760	254		1	R 2L-10LED2'	Retrofit with (2) 10 Watt LED T8 2' Lamps; Direct Wire to Socket	20	0.020	0.108	KT-LED7T8-24GC-840-D	1
1980	SELINSGROVE	INTERIOR	S	1	369	7	24/7 & OCCUPIED	CF2	RR		CF13DL10	1	13 Watt Compact Fluorescent 10" Downlight Fixture	13	0.013	Z	8760	114		1	R LLED9DL10	Retrofit with 9 Watt LED 10" Downlight Kit	9	0.009	0.048	LDN10RV 40/05 LR6AR LSS MVOLT EZ10	23
1981	SELINSGROVE	INTERIOR	S	1	369	7	24/7 & OCCUPIED	CF2	RR		2VT25-4'	1	T8 1x4 2-Lamp Vaportight Fixture	43	0.043	Z	8760	377		1	R 2L-12.5LED	Retrofit with (2) 12.5 Watt LED T8 4' Lamps; Direct Wire to Socket	25	0.025	0.216	KT-LED10.5T8-48G-840-D	3
1982	SELINSGROVE	INTERIOR	S	1	369	7	24/7 & OCCUPIED	CF2	PIPE CHASE		60A	1	60 Watt Incandescent A-Lamp Fixture	60	0.060	S	1000	60		1	LED 9A	Re-Lamp with (1) 9 Watt LED A19 Lamps	9	0.009	0.612	LA19/9/40K/D-46	8
1983	SELINSGROVE	INTERIOR	S	1	370	7	24/7 & OCCUPIED	CF2	RR	205	2VT25-4'	5	T8 1x4 2-Lamp Vaportight Fixture	43	0.215	Z	8760	1,883		5	R 2L-12.5LED	Retrofit with (2) 12.5 Watt LED T8 4' Lamps; Direct Wire to Socket	25	0.125	1.080	KT-LED10.5T8-48G-840-D	3
1984	SELINSGROVE	INTERIOR	S	1	370	7	24/7 & OCCUPIED	CF2	SHOWERS		CF13DL10	2	13 Watt Compact Fluorescent 10" Downlight Fixture	13	0.026	Z	8760	228		2	R LLED9DL10	Retrofit with 9 Watt LED 10" Downlight Kit	9	0.018	0.096	LDN10RV 40/05 LR6AR LSS MVOLT EZ10	23
1985	SELINSGROVE	INTERIOR	S	1	370	7	24/7 & OCCUPIED	CF2	SHOWERS		2V17	3	T8 1x2 2-Lamp Vanity Fixture	29	0.087	Z	8760	762		3	R 2L-10LED2'	Retrofit with (2) 10 Watt LED T8 2' Lamps; Direct Wire to Socket	20	0.060	0.324	KT-LED7T8-24GC-840-D	1
1986	SELINSGROVE	INTERIOR	S	1	370	7	24/7 & OCCUPIED	CF2	PIPE CHASE		60A	2	60 Watt Incandescent A-Lamp Fixture	60	0.120	S	1000	120		2	LED 9A	Re-Lamp with (1) 9 Watt LED A19 Lamps	9	0.018	1.224	LA19/9/40K/D-46	8
1987	SELINSGROVE	INTERIOR	S	1	371	7	24/7 & OCCUPIED	CF2	NURSE STATION	2456	2EC25-4'	1	T8 2x4 2-Lamp Egg Crate Fixture	43	0.043	Z	8760	377		1	N 2W-12.5LED	New 1x4 2-Lamp Wrap Fixture with (2) 12.5 Watt LED T8 4' Lamp; Direct Wire to Socket	25	0.025	0.216	CCW-4'-2-T8LED /// KT-LED10.5T8-48G-840-D	51 + 3
1988	SELINSGROVE	INTERIOR	S	1	372	7	24/7 & OCCUPIED	CF2	ELECTRIC	216	CF23	1	23 Watt Compact Fluorescent Fixture	23	0.023	S	1000	23		1	LED 9A	Re-Lamp with (1) 9 Watt LED A19 Lamps	9	0.009	0.168	LA19/9/40K/D-46	8
1989	SELINSGROVE	INTERIOR	S	1	373	7	24/7 & OCCUPIED	CF2	RR	217	CF13G-HALO	1	13 Watt Compact Fluorescent Globe Fixture; Halo	13	0.013	Z	8760	114		1	LED 9A	Re-Lamp with (1) 9 Watt LED A19 Lamps	9	0.009	0.048	LA19/9/40K/D-46	8
1990	SELINSGROVE	INTERIOR	S	1	374	7	24/7 & OCCUPIED	CF2	JANITOR CLOSET	218	CF23	1	23 Watt Compact Fluorescent Fixture	23	0.023	S	1000	23		1	LED 9A	Re-Lamp with (1) 9 Watt LED A19 Lamps	9	0.009	0.168	LA19/9/40K/D-46	8
1991	SELINSGROVE	INTERIOR	S	1	375	7	24/7 & OCCUPIED	CF2	MEDICAL SUPPLY	209	2EC25-4'	2	T8 2x4 2-Lamp Egg Crate Fixture	43	0.086	S	1000	86		2	N 2W-12.5LED	New 1x4 2-Lamp Wrap Fixture with (2) 12.5 Watt LED T8 4' Lamp; Direct Wire to Socket	25	0.050	0.432	CCW-4'-2-T8LED /// KT-LED10.5T8-48G-840-D	51 + 3
1992	SELINSGROVE	INTERIOR	S	1	376	7	24/7 & OCCUPIED	CF2	NURSE OFFICE	219	4EC25-4'	2	T8 2x4 4-Lamp Egg Crate Fixture	85	0.170	Z	8760	1,489		2	N 4W-12.5LED	New 1x4 4-Lamp Wrap Fixture with (4) 12.5 Watt LED T8 4' Lamp; Direct Wire to Socket	50	0.100	0.840	CCW-4'-4-T8LED /// KT-LED10.5T8-48G-840-D	53 + 3
1993	SELINSGROVE	INTERIOR	S	1	376	7	24/7 & OCCUPIED	CF2	RR		1W17	1	T8 2x2 1-Lamp Wrap Fixture	22	0.022	Z	8760	193		1	R 1L-10LED2'	Retrofit with (1) 10 Watt LED T8 2' Lamp; Direct Wire to Socket	10	0.010	0.144	KT-LED7T8-24GC-840-D	1
1994	SELINSGROVE	INTERIOR	S	1	376	7	24/7 & OCCUPIED	CF2	PIPE CHASE		60A	1	60 Watt Incandescent A-Lamp Fixture	60	0.060	S	1000	60		1	LED 9A	Re-Lamp with (1) 9 Watt LED A19 Lamps	9	0.009	0.612	LA19/9/40K/D-46	8

											EXISTING FIXTURES									PROPOSED FIXTURE UPGRADE							
ID #	Facility Name	Phase	Utility Rate Code	Floor	Map #	Building Number	Building Usage Type	Building Section	Room Description	Room #	ECM Code	Qty	Description	Watts	kW	Burn Hour Code	Pre Burn Hours	kWh	x	Qty	New Code	Description	Watts	kW	Annual KW Saved	Part#	Cut Sheet #
1995	SELINSGROVE	INTERIOR	S	1	377	7	24/7 & OCCUPIED	CF2	DINING ROOM	2455	1W17	4	T8 2x2 1-Lamp Wrap Fixture	22	0.088	Z	8760	771		4	R 1L-10LED2'	Retrofit with (1) 10 Watt LED T8 2' Lamp; Direct Wire to Socket	10	0.040	0.576	KT-LED7T8-24GC-840-D	1
1996	SELINSGROVE	INTERIOR	S	1	377	7	24/7 & OCCUPIED	CF2	DINING ROOM		3PL13DR	1	13 Watt 3-Lamp Plug-In CFL Drum Fixture	45	0.045	Z	8760	394		1	N LED22DR	New 16" Round 22 Watt LED Drum Fixture	22	0.022	0.276	54075142	20
1997	SELINSGROVE	INTERIOR	S	1	378	7	24/7 & OCCUPIED	CF2	MEDICAL SUPPLY	2454	2L25-1X4	8	T8 1x4 2-Lamp Troffer Fixture	43	0.344	S	1000	344		8	R 2L-12.5LED	Retrofit with (2) 12.5 Watt LED T8 4' Lamps; Direct Wire to Socket	25	0.200	1.728	KT-LED10.5T8-48G-840-D	3
1998	SELINSGROVE	INTERIOR	S	1	379	7	24/7 & OCCUPIED	CF2	STAIR	195	1W17	2	T8 2x2 1-Lamp Wrap Fixture	22	0.044	Z	8760	385		2	R 1L-10LED2'	Retrofit with (1) 10 Watt LED T8 2' Lamp; Direct Wire to Socket	10	0.020	0.288	KT-LED7T8-24GC-840-D	1
1999	SELINSGROVE	INTERIOR	S	1	379	7	24/7 & OCCUPIED	CF2	STAIR		2W25(W)-4'	1	T8 1x4 2-Lamp Wrap Fixture; Damaged/Missing Lens	43	0.043	Z	8760	377		1	N 2W-12.5LED	New 1x4 2-Lamp Wrap Fixture with (2) 12.5 Watt LED T8 4' Lamp; Direct Wire to Socket	25	0.025	0.216	CCW-4'-2-T8LED /// KT-LED10.5T8-48G-840-D	51 + 3
2000	SELINSGROVE	INTERIOR	S	1	379	7	24/7 & OCCUPIED	CF2	STAIR		XLED	1	3 Watt LED 2-Lamp Exit Sign	3	0.003	Z	8760	26		1	ZZ DD	No Retrofit	3	0.003	0.000	N/A	N/A
2001	SELINSGROVE	INTERIOR	S	1	379	7	24/7 & OCCUPIED	CF2	STAIR		1W17-DA	1	T8 1x2 1-Lamp Wrap Fixture; Difficult Access	17	0.017	Z	8760	149		1	R 1L-10LED2'-DA	Retrofit with (1) 10 Watt LED T8 2' Lamp; Direct Wire to Socket; Difficult Access	10	0.010	0.084	KT-LED7T8-24GC-840-D	1
2002	SELINSGROVE	INTERIOR	S	1	380	7	24/7 & OCCUPIED	CM2,4-5	HALL		1W17	2	T8 2x2 1-Lamp Wrap Fixture	22	0.044	Z	8760	385		2	R 1L-10LED2'	Retrofit with (1) 10 Watt LED T8 2' Lamp; Direct Wire to Socket	10	0.020	0.288	KT-LED7T8-24GC-840-D	1
2003	SELINSGROVE	INTERIOR	S	1	380	7	24/7 & OCCUPIED	CM2,4-5	HALL		2L25-1X4	2	T8 1x4 2-Lamp Troffer Fixture	43	0.086	Z	8760	753		2	R 2L-12.5LED	Retrofit with (2) 12.5 Watt LED T8 4' Lamps; Direct Wire to Socket	25	0.050	0.432	KT-LED10.5T8-48G-840-D	3
2004	SELINSGROVE	INTERIOR	S	1	380	7	24/7 & OCCUPIED	CM2,4-5	HALL		CF13SQDL-8X8	3	13 Watt Compact Fluorescent Square Downlight Fixture; 8x8	13	0.039	Z	8760	342		3	LED 9A	Re-Lamp with (1) 9 Watt LED A19 Lamps	9	0.027	0.144	LA19/9/40K/D-46	8
2005	SELINSGROVE	INTERIOR	S	1	380	7	24/7 & OCCUPIED	CM2,4-5	HALL		XLED	1	3 Watt LED 2-Lamp Exit Sign	3	0.003	Z	8760	26		1	ZZ DD	No Retrofit	3	0.003	0.000	N/A	N/A
2006	SELINSGROVE	INTERIOR	S	1	381	7	24/7 & OCCUPIED	CF2	NURSE STATION	221	2EC25-4'	2	T8 2x4 2-Lamp Egg Crate Fixture	43	0.086	Z	8760	753		2	N 2W-12.5LED	New 1x4 2-Lamp Wrap Fixture with (2) 12.5 Watt LED T8 4' Lamp; Direct Wire to Socket	25	0.050	0.432	CCW-4'-2-T8LED /// KT-LED10.5T8-48G-840-D	51 + 3
2007	SELINSGROVE	INTERIOR	S	1	381	7	24/7 & OCCUPIED	CF2	RR		CF13JJ	1	13 Watt Compact Fluorescent Jelly Jar Fixture	13	0.013	Z	8760	114		1	LED 9A	Re-Lamp with (1) 9 Watt LED A19 Lamps	9	0.009	0.048	LA19/9/40K/D-46	8
2008	SELINSGROVE	INTERIOR	S	1	382	7	24/7 & OCCUPIED	CF4	OFFICE	233	2EC25-4'	2	T8 2x4 2-Lamp Egg Crate Fixture	43	0.086	O	2340	201		2	N 2W-12.5LED	New 1x4 2-Lamp Wrap Fixture with (2) 12.5 Watt LED T8 4' Lamp; Direct Wire to Socket	25	0.050	0.432	CCW-4'-2-T8LED /// KT-LED10.5T8-48G-840-D	51 + 3
2009	SELINSGROVE	INTERIOR	S	1	383	7	24/7 & OCCUPIED	CF4	SOLARIUM	231	2L25-1X4	7	T8 1x4 2-Lamp Troffer Fixture	43	0.301	BH	5460	1,643		7	R 2L-12.5LED	Retrofit with (2) 12.5 Watt LED T8 4' Lamps; Direct Wire to Socket	25	0.175	1.512	KT-LED10.5T8-48G-840-D	3
2010	SELINSGROVE	INTERIOR	S	1	384	7	24/7 & OCCUPIED	CF4	OFFICE	232	4W25-4'	1	T8 1x4 4-Lamp Wrap Fixture	85	0.085	O	2340	199		1	R 4L-12.5LED	Retrofit with (4) 12.5 Watt LED T8 4' Lamps; Direct Wire to Socket	50	0.050	0.420	KT-LED10.5T8-48G-840-D	3
2011	SELINSGROVE	INTERIOR	S	1	384	7	24/7 & OCCUPIED	CF4	OFFICE		60SC	1	60 Watt Incandescent Sconce Fixture	60	0.060	O	2340	140		1	LED 9A	Re-Lamp with (1) 9 Watt LED A19 Lamps	9	0.009	0.612	LA19/9/40K/D-46	8
2012	SELINSGROVE	INTERIOR	S	1	385	7	24/7 & OCCUPIED	CF4	DAY ROOM	233	3L25-4'	18	T8 2x4 3-Lamp Troffer Fixture	65	1.170	BH	5460	6,388		18	R 3L-12.5LED	Retrofit with (3) 12.5 Watt LED T8 4' Lamps; Direct Wire to Socket	37.5	0.675	5.940	KT-LED10.5T8-48G-840-D	3
2013	SELINSGROVE	INTERIOR	S	1	385	7	24/7 & OCCUPIED	CF4	DAY ROOM		2PL13DR	2	13 Watt Plug-In CFL Drum Fixture	26	0.052	BH	5460	284		2	N LED14DR	New 12" Round 14 Watt LED Drum Fixture	14	0.028	0.288	54074143	19
2014	SELINSGROVE	INTERIOR	S	1	385	7	24/7 & OCCUPIED	CF4	DAY ROOM		XLED	2	3 Watt LED 2-Lamp Exit Sign	3	0.006	Z	8760	53		2	ZZ DD	No Retrofit	3	0.006	0.000	N/A	N/A
2015	SELINSGROVE	INTERIOR	S	1	385	7	24/7 & OCCUPIED	CF4	DAY ROOM		22CIR-DR	1	22 Watt T8 Circline Drum Fixture	26	0.026	BH	5460	142		1	N LED14DR	New 12" Round 14 Watt LED Drum Fixture	14	0.014	0.144	54074143	19
2016	SELINSGROVE	INTERIOR	S	1	386	7	24/7 & OCCUPIED	CF4	BED	226	1W17	2	T8 2x2 1-Lamp Wrap Fixture	22	0.044	BH	5460	240		2	R 1L-10LED2'	Retrofit with (1) 10 Watt LED T8 2' Lamp; Direct Wire to Socket	10	0.020	0.288	KT-LED7T8-24GC-840-D	1
2017	SELINSGROVE	INTERIOR	S	1	386	7	24/7 & OCCUPIED	CF4	BED		60SC	4	60 Watt Incandescent Sconce Fixture	60	0.240	BH	5460	1,310		4	LED 9A	Re-Lamp with (1) 9 Watt LED A19 Lamps	9	0.036	2.448	LA19/9/40K/D-46	8
2018	SELINSGROVE	INTERIOR	S	1	387	7	24/7 & OCCUPIED	CF4	BED	227	1W17	2	T8 2x2 1-Lamp Wrap Fixture	22	0.044	BH	5460	240		2	R 1L-10LED2'	Retrofit with (1) 10 Watt LED T8 2' Lamp; Direct Wire to Socket	10	0.020	0.288	KT-LED7T8-24GC-840-D	1
2019	SELINSGROVE	INTERIOR	S	1	387	7	24/7 & OCCUPIED	CF4	BED		60SC	4	60 Watt Incandescent Sconce Fixture	60	0.240	BH	5460	1,310		4	LED 9A	Re-Lamp with (1) 9 Watt LED A19 Lamps	9	0.036	2.448	LA19/9/40K/D-46	8
2020	SELINSGROVE	INTERIOR	S	1	388	7	24/7 & OCCUPIED	CF4	BED	229	1W17	2	T8 2x2 1-Lamp Wrap Fixture	22	0.044	BH	5460	240		2	R 1L-10LED2'	Retrofit with (1) 10 Watt LED T8 2' Lamp; Direct Wire to Socket	10	0.020	0.288	KT-LED7T8-24GC-840-D	1
2021	SELINSGROVE	INTERIOR	S	1	388	7	24/7 & OCCUPIED	CF4	BED		60SC	3	60 Watt Incandescent Sconce Fixture	60	0.180	BH	5460	983		3	LED 9A	Re-Lamp with (1) 9 Watt LED A19 Lamps	9	0.027	1.836	LA19/9/40K/D-46	8
2022	SELINSGROVE	INTERIOR	S	1	389	7	24/7 & OCCUPIED	CF4	BED	230	1W17	2	T8 2x2 1-Lamp Wrap Fixture	22	0.044	BH	5460	240		2	R 1L-10LED2'	Retrofit with (1) 10 Watt LED T8 2' Lamp; Direct Wire to Socket	10	0.020	0.288	KT-LED7T8-24GC-840-D	1
2023	SELINSGROVE	INTERIOR	S	1	389	7	24/7 & OCCUPIED	CF4	BED		60SC	2	60 Watt Incandescent Sconce Fixture	60	0.120	BH	5460	655		2	LED 9A	Re-Lamp with (1) 9 Watt LED A19 Lamps	9	0.018	1.224	LA19/9/40K/D-46	8
2024	SELINSGROVE	INTERIOR	S	1	390	7	24/7 & OCCUPIED	CF4	BED	234	1W17	2	T8 2x2 1-Lamp Wrap Fixture	22	0.044	BH	5460	240		2	R 1L-10LED2'	Retrofit with (1) 10 Watt LED T8 2' Lamp; Direct Wire to Socket	10	0.020	0.288	KT-LED7T8-24GC-840-D	1
2025	SELINSGROVE	INTERIOR	S	1	390	7	24/7 & OCCUPIED	CF4	BED		60SC	4	60 Watt Incandescent Sconce Fixture	60	0.240	BH	5460	1,310		4	LED 9A	Re-Lamp with (1) 9 Watt LED A19 Lamps	9	0.036	2.448	LA19/9/40K/D-46	8
2026	SELINSGROVE	INTERIOR	S	1	391	7	24/7 & OCCUPIED	CF4	BED	235	1W17	2	T8 2x2 1-Lamp Wrap Fixture	22	0.044	BH	5460	240		2	R 1L-10LED2'	Retrofit with (1) 10 Watt LED T8 2' Lamp; Direct Wire to Socket	10	0.020	0.288	KT-LED7T8-24GC-840-D	1

											EXISTING FIXTURES									PROPOSED FIXTURE UPGRADE							
ID #	Facility Name	Phase	Utility Rate Code	Floor	Map #	Building Number	Building Usage Type	Building Section	Room Description	Room #	ECM Code	Qty	Description	Watts	kW	Burn Hour Code	Pre Burn Hours	kWh	x	Qty	New Code	Description	Watts	kW	Annual KW Saved	Part#	Cut Sheet #
2027	SELINSGROVE	INTERIOR	S	1	391	7	24/7 & OCCUPIED	CF4	BED		60SC	4	60 Watt Incandescent Sconce Fixture	60	0.240	BH	5460	1,310		4	LED 9A	Re-Lamp with (1) 9 Watt LED A19 Lamps	9	0.036	2.448	LA19/9/40K/D-46	8
2028	SELINSGROVE	INTERIOR	S	1	392	7	24/7 & OCCUPIED	CF4	BED	236	1W17	2	T8 2x2 1-Lamp Wrap Fixture	22	0.044	BH	5460	240		2	R 1L-10LED2'	Retrofit with (1) 10 Watt LED T8 2' Lamp; Direct Wire to Socket	10	0.020	0.288	KT-LED7T8-24GC-840-D	1
2029	SELINSGROVE	INTERIOR	S	1	392	7	24/7 & OCCUPIED	CF4	BED		60SC	3	60 Watt Incandescent Sconce Fixture	60	0.180	BH	5460	983		3	LED 9A	Re-Lamp with (1) 9 Watt LED A19 Lamps	9	0.027	1.836	LA19/9/40K/D-46	8
2030	SELINSGROVE	INTERIOR	S	1	393	7	24/7 & OCCUPIED	CF4	BED	237	1W17	2	T8 2x2 1-Lamp Wrap Fixture	22	0.044	BH	5460	240		2	R 1L-10LED2'	Retrofit with (1) 10 Watt LED T8 2' Lamp; Direct Wire to Socket	10	0.020	0.288	KT-LED7T8-24GC-840-D	1
2031	SELINSGROVE	INTERIOR	S	1	393	7	24/7 & OCCUPIED	CF4	BED		60SC	4	60 Watt Incandescent Sconce Fixture	60	0.240	BH	5460	1,310		4	LED 9A	Re-Lamp with (1) 9 Watt LED A19 Lamps	9	0.036	2.448	LA19/9/40K/D-46	8
2032	SELINSGROVE	INTERIOR	S	1	394	7	24/7 & OCCUPIED	CF4	RR / SHOWER	238	2VT25-4'	2	T8 1x4 2-Lamp Vaportight Fixture	43	0.086	Z	8760	753		2	R 2L-12.5LED	Retrofit with (2) 12.5 Watt LED T8 4' Lamps; Direct Wire to Socket	25	0.050	0.432	KT-LED10.5T8-48G-840-D	3
2033	SELINSGROVE	INTERIOR	S	1	394	7	24/7 & OCCUPIED	CF4	RR-A		2VT25-4'	2	T8 1x4 2-Lamp Vaportight Fixture	43	0.086	Z	8760	753		2	R 2L-12.5LED	Retrofit with (2) 12.5 Watt LED T8 4' Lamps; Direct Wire to Socket	25	0.050	0.432	KT-LED10.5T8-48G-840-D	3
2034	SELINSGROVE	INTERIOR	S	1	394	7	24/7 & OCCUPIED	CF4	RR-A		2V17	1	T8 1x2 2-Lamp Vanity Fixture	29	0.029	Z	8760	254		1	R 2L-10LED2'	Retrofit with (2) 10 Watt LED T8 2' Lamps; Direct Wire to Socket	20	0.020	0.108	KT-LED7T8-24GC-840-D	1
2035	SELINSGROVE	INTERIOR	S	1	394	7	24/7 & OCCUPIED	CF4	RR-A		CF13DL10	1	13 Watt Compact Fluorescent 10" Downlight Fixture	13	0.013	Z	8760	114		1	R LLED9DL10	Retrofit with 9 Watt LED 10" Downlight Kit	9	0.009	0.048	LDN10RV 40/05 LR6AR LSS MVOLT EZ10	23
2036	SELINSGROVE	INTERIOR	S	1	394	7	24/7 & OCCUPIED	CF4	PIPE CHASE		60A	1	60 Watt Incandescent A-Lamp Fixture	60	0.060	S	1000	60		1	LED 9A	Re-Lamp with (1) 9 Watt LED A19 Lamps	9	0.009	0.612	LA19/9/40K/D-46	8
2037	SELINSGROVE	INTERIOR	S	1	394	7	24/7 & OCCUPIED	CF4	RR-B		2VT25-4'	1	T8 1x4 2-Lamp Vaportight Fixture	43	0.043	Z	8760	377		1	R 2L-12.5LED	Retrofit with (2) 12.5 Watt LED T8 4' Lamps; Direct Wire to Socket	25	0.025	0.216	KT-LED10.5T8-48G-840-D	3
2038	SELINSGROVE	INTERIOR	S	1	394	7	24/7 & OCCUPIED	CF4	RR-B		1V17	1	T8 2x2 1-Lamp Vanity Fixture	22	0.022	Z	8760	193		1	R 1L-10LED2'	Retrofit with (1) 10 Watt LED T8 2' Lamp; Direct Wire to Socket	10	0.010	0.144	KT-LED7T8-24GC-840-D	1
2039	SELINSGROVE	INTERIOR	S	1	394	7	24/7 & OCCUPIED	CF4	RR-B		CF13DL10	1	13 Watt Compact Fluorescent 10" Downlight Fixture	13	0.013	Z	8760	114		1	R LLED9DL10	Retrofit with 9 Watt LED 10" Downlight Kit	9	0.009	0.048	LDN10RV 40/05 LR6AR LSS MVOLT EZ10	23
2040	SELINSGROVE	INTERIOR	S	1	394	7	24/7 & OCCUPIED	CF4	PIPE CHASE		60A	1	60 Watt Incandescent A-Lamp Fixture	60	0.060	S	1000	60		1	LED 9A	Re-Lamp with (1) 9 Watt LED A19 Lamps	9	0.009	0.612	LA19/9/40K/D-46	8
2041	SELINSGROVE	INTERIOR	S	1	394	7	24/7 & OCCUPIED	CF4	RR-C		2V17	1	T8 1x2 2-Lamp Vanity Fixture	29	0.029	Z	8760	254		1	R 2L-10LED2'	Retrofit with (2) 10 Watt LED T8 2' Lamps; Direct Wire to Socket	20	0.020	0.108	KT-LED7T8-24GC-840-D	1
2042	SELINSGROVE	INTERIOR	S	1	395	7	24/7 & OCCUPIED	CF4	RR / SHOWER	224	2VT25-4'	3	T8 1x4 2-Lamp Vaportight Fixture	43	0.129	Z	8760	1,130		3	R 2L-12.5LED	Retrofit with (2) 12.5 Watt LED T8 4' Lamps; Direct Wire to Socket	25	0.075	0.648	KT-LED10.5T8-48G-840-D	3
2043	SELINSGROVE	INTERIOR	S	1	395	7	24/7 & OCCUPIED	CF4	JANITOR CLOSET		CF13G-HALO	1	13 Watt Compact Fluorescent Globe Fixture; Halo	13	0.013	S	1000	13		1	LED 9A	Re-Lamp with (1) 9 Watt LED A19 Lamps	9	0.009	0.048	LA19/9/40K/D-46	8
2044	SELINSGROVE	INTERIOR	S	1	395	7	24/7 & OCCUPIED	CF4	PIPE CHASE		60A	2	60 Watt Incandescent A-Lamp Fixture	60	0.120	S	1000	120		2	LED 9A	Re-Lamp with (1) 9 Watt LED A19 Lamps	9	0.018	1.224	LA19/9/40K/D-46	8
2045	SELINSGROVE	INTERIOR	S	1	395	7	24/7 & OCCUPIED	CF4	RR-A		2VT25-4'	1	T8 1x4 2-Lamp Vaportight Fixture	43	0.043	Z	8760	377		1	R 2L-12.5LED	Retrofit with (2) 12.5 Watt LED T8 4' Lamps; Direct Wire to Socket	25	0.025	0.216	KT-LED10.5T8-48G-840-D	3
2046	SELINSGROVE	INTERIOR	S	1	395	7	24/7 & OCCUPIED	CF4	RR-A		2V17	1	T8 1x2 2-Lamp Vanity Fixture	29	0.029	Z	8760	254		1	R 2L-10LED2'	Retrofit with (2) 10 Watt LED T8 2' Lamps; Direct Wire to Socket	20	0.020	0.108	KT-LED7T8-24GC-840-D	1
2047	SELINSGROVE	INTERIOR	S	1	395	7	24/7 & OCCUPIED	CF4	RR-A		CF13DL10	1	13 Watt Compact Fluorescent 10" Downlight Fixture	13	0.013	Z	8760	114		1	R LLED9DL10	Retrofit with 9 Watt LED 10" Downlight Kit	9	0.009	0.048	LDN10RV 40/05 LR6AR LSS MVOLT EZ10	23
2048	SELINSGROVE	INTERIOR	S	1	395	7	24/7 & OCCUPIED	CF4	RR-B		2VT25-4'	1	T8 1x4 2-Lamp Vaportight Fixture	43	0.043	Z	8760	377		1	R 2L-12.5LED	Retrofit with (2) 12.5 Watt LED T8 4' Lamps; Direct Wire to Socket	25	0.025	0.216	KT-LED10.5T8-48G-840-D	3
2049	SELINSGROVE	INTERIOR	S	1	395	7	24/7 & OCCUPIED	CF4	RR-B		2V17	1	T8 1x2 2-Lamp Vanity Fixture	29	0.029	Z	8760	254		1	R 2L-10LED2'	Retrofit with (2) 10 Watt LED T8 2' Lamps; Direct Wire to Socket	20	0.020	0.108	KT-LED7T8-24GC-840-D	1
2050	SELINSGROVE	INTERIOR	S	1	395	7	24/7 & OCCUPIED	CF4	RR-C		2VT25-4'	2	T8 1x4 2-Lamp Vaportight Fixture	43	0.086	Z	8760	753		2	R 2L-12.5LED	Retrofit with (2) 12.5 Watt LED T8 4' Lamps; Direct Wire to Socket	25	0.050	0.432	KT-LED10.5T8-48G-840-D	3
2051	SELINSGROVE	INTERIOR	S	1	395	7	24/7 & OCCUPIED	CF4	RR-C		2V17	1	T8 1x2 2-Lamp Vanity Fixture	29	0.029	Z	8760	254		1	R 2L-10LED2'	Retrofit with (2) 10 Watt LED T8 2' Lamps; Direct Wire to Socket	20	0.020	0.108	KT-LED7T8-24GC-840-D	1
2052	SELINSGROVE	INTERIOR	S	1	395	7	24/7 & OCCUPIED	CF4	RR-C		CF13DL10	1	13 Watt Compact Fluorescent 10" Downlight Fixture	13	0.013	Z	8760	114		1	R LLED9DL10	Retrofit with 9 Watt LED 10" Downlight Kit	9	0.009	0.048	LDN10RV 40/05 LR6AR LSS MVOLT EZ10	23
2053	SELINSGROVE	INTERIOR	S	1	396	7	24/7 & OCCUPIED	CF4	JANITOR CLOSET		CF13	1	13 Watt Compact Fluorescent Fixture	13	0.013	S	1000	13		1	LED 9A	Re-Lamp with (1) 9 Watt LED A19 Lamps	9	0.009	0.048	LA19/9/40K/D-46	8
2054	SELINSGROVE	INTERIOR	S	1	397	7	24/7 & OCCUPIED	CF5	RR	2428	2W25(W)-4'	1	T8 1x4 2-Lamp Wrap Fixture; Damaged/Missing Lens	43	0.043	Z	8760	377		1	N 2W-12.5LED	New 1x4 2-Lamp Wrap Fixture with (2) 12.5 Watt LED T8 4' Lamp; Direct Wire to Socket	25	0.025	0.216	CCW-4'-2-T8LED /// KT-LED10.5T8-48G-840-D	51 + 3
2055	SELINSGROVE	INTERIOR	S	1	397	7	24/7 & OCCUPIED	CF5	RR		2V17	1	T8 1x2 2-Lamp Vanity Fixture	29	0.029	Z	8760	254		1	R 2L-10LED2'	Retrofit with (2) 10 Watt LED T8 2' Lamps; Direct Wire to Socket	20	0.020	0.108	KT-LED7T8-24GC-840-D	1
2056	SELINSGROVE	INTERIOR	S	1	397	7	24/7 & OCCUPIED	CF5	PIPE CHASE		CF13	1	13 Watt Compact Fluorescent Fixture	13	0.013	S	1000	13		1	LED 9A	Re-Lamp with (1) 9 Watt LED A19 Lamps	9	0.009	0.048	LA19/9/40K/D-46	8
2057	SELINSGROVE	INTERIOR	S	1	397	7	24/7 & OCCUPIED	CF5	LAUNDRY		2W25(W)-4'	1	T8 1x4 2-Lamp Wrap Fixture; Damaged/Missing Lens	43	0.043	S	1000	43		1	N 2W-12.5LED	New 1x4 2-Lamp Wrap Fixture with (2) 12.5 Watt LED T8 4' Lamp; Direct Wire to Socket	25	0.025	0.216	CCW-4'-2-T8LED /// KT-LED10.5T8-48G-840-D	51 + 3
2058	SELINSGROVE	INTERIOR	S	1	397	7	24/7 & OCCUPIED	CF5	LAUNDRY		2V17	1	T8 1x2 2-Lamp Vanity Fixture	29	0.029	S	1000	29		1	R 2L-10LED2'	Retrofit with (2) 10 Watt LED T8 2' Lamps; Direct Wire to Socket	20	0.020	0.108	KT-LED7T8-24GC-840-D	1

											EXISTING FIXTURES									PROPOSED FIXTURE UPGRADE							
ID #	Facility Name	Phase	Utility Rate Code	Floor	Map #	Building Number	Building Usage Type	Building Section	Room Description	Room #	ECM Code	Qty	Description	Watts	kW	Burn Hour Code	Pre Burn Hours	kWh	x	Qty	New Code	Description	Watts	kW	Annual KW Saved	Part#	Cut Sheet #
2059	SELINSGROVE	INTERIOR	S	1	398	7	24/7 & OCCUPIED	CF5	SHOWER / RR		2W25(W)-4'	2	T8 1x4 2-Lamp Wrap Fixture; Damaged/Missing Lens	43	0.086	Z	8760	753		2	N 2W-12.5LED	New 1x4 2-Lamp Wrap Fixture with (2) 12.5 Watt LED T8 4' Lamp; Direct Wire to Socket	25	0.050	0.432	CCW-4'-2-T8LED /// KT-LED10.5T8-48G-840-D	51 + 3
2060	SELINSGROVE	INTERIOR	S	1	398	7	24/7 & OCCUPIED	CF5	SHOWER / RR		2V17	1	T8 1x2 2-Lamp Vanity Fixture	29	0.029	Z	8760	254		1	R 2L-10LED2'	Retrofit with (2) 10 Watt LED T8 2' Lamps; Direct Wire to Socket	20	0.020	0.108	KT-LED7T8-24GC-840-D	1
2061	SELINSGROVE	INTERIOR	S	1	398	7	24/7 & OCCUPIED	CF5	PIPE CHASE		CF13	1	13 Watt Compact Fluorescent Fixture	13	0.013	S	1000	13		1	LED 9A	Re-Lamp with (1) 9 Watt LED A19 Lamps	9	0.009	0.048	LA19/9/40K/D-46	8
2062	SELINSGROVE	INTERIOR	S	1	399	7	24/7 & OCCUPIED	CF5	STAFF RR	2430	2W25(W)-4'	1	T8 1x4 2-Lamp Wrap Fixture; Damaged/Missing Lens	43	0.043	Z	8760	377		1	N 2W-12.5LED	New 1x4 2-Lamp Wrap Fixture with (2) 12.5 Watt LED T8 4' Lamp; Direct Wire to Socket	25	0.025	0.216	CCW-4'-2-T8LED /// KT-LED10.5T8-48G-840-D	51 + 3
2063	SELINSGROVE	INTERIOR	S	1	399	7	24/7 & OCCUPIED	CF5	STAFF RR		2V17	1	T8 1x2 2-Lamp Vanity Fixture	29	0.029	Z	8760	254		1	R 2L-10LED2'	Retrofit with (2) 10 Watt LED T8 2' Lamps; Direct Wire to Socket	20	0.020	0.108	KT-LED7T8-24GC-840-D	1
2064	SELINSGROVE	INTERIOR	S	1	400	7	24/7 & OCCUPIED	CF5	KITCHEN	2431	2EC25-4'	1	T8 2x4 2-Lamp Egg Crate Fixture	43	0.043	Z	8760	377		1	N 2W-12.5LED	New 1x4 2-Lamp Wrap Fixture with (2) 12.5 Watt LED T8 4' Lamp; Direct Wire to Socket	25	0.025	0.216	CCW-4'-2-T8LED /// KT-LED10.5T8-48G-840-D	51 + 3
2065	SELINSGROVE	INTERIOR	S	1	400	7	24/7 & OCCUPIED	CF5	KITCHEN		2V20	1	T12 2x2 2-Lamp Vanity Fixture	42	0.042	Z	8760	368		1	R 2L-10LED2'	Retrofit with (2) 10 Watt LED T8 2' Lamps; Direct Wire to Socket	20	0.020	0.264	KT-LED7T8-24GC-840-D	1
2066	SELINSGROVE	INTERIOR	S	1	401	7	24/7 & OCCUPIED	CF5	BED	2432	2W25-4'	1	T8 1x4 2-Lamp Wrap Fixture	43	0.043	BH	5460	235		1	R 2L-12.5LED	Retrofit with (2) 12.5 Watt LED T8 4' Lamps; Direct Wire to Socket	25	0.025	0.216	KT-LED10.5T8-48G-840-D	3
2067	SELINSGROVE	INTERIOR	S	1	402	7	24/7 & OCCUPIED	CF5	LOCKER	2433	2VT25-4'	1	T8 1x4 2-Lamp Vaportight Fixture	43	0.043	Z	8760	377		1	R 2L-12.5LED	Retrofit with (2) 12.5 Watt LED T8 4' Lamps; Direct Wire to Socket	25	0.025	0.216	KT-LED10.5T8-48G-840-D	3
2068	SELINSGROVE	INTERIOR	S	1	403	7	24/7 & OCCUPIED	CF5	STAIRS		2PL13DR	1	13 Watt Plug-In CFL Drum Fixture	26	0.026	Z	8760	228		1	N LED14DR	New 12" Round 14 Watt LED Drum Fixture	14	0.014	0.144	54074143	19
2069	SELINSGROVE	INTERIOR	S	1	404	7	24/7 & OCCUPIED	CF5	BED	2434	2EC25-4'	1	T8 2x4 2-Lamp Egg Crate Fixture	43	0.043	BH	5460	235		1	N 2W-12.5LED	New 1x4 2-Lamp Wrap Fixture with (2) 12.5 Watt LED T8 4' Lamp; Direct Wire to Socket	25	0.025	0.216	CCW-4'-2-T8LED /// KT-LED10.5T8-48G-840-D	51 + 3
2070	SELINSGROVE	INTERIOR	S	1	405	7	24/7 & OCCUPIED	CF5	STORAGE	2435	2VT25-4'	1	T8 1x4 2-Lamp Vaportight Fixture	43	0.043	S	1000	43		1	R 2L-12.5LED	Retrofit with (2) 12.5 Watt LED T8 4' Lamps; Direct Wire to Socket	25	0.025	0.216	KT-LED10.5T8-48G-840-D	3
2071	SELINSGROVE	INTERIOR	S	1	406	7	24/7 & OCCUPIED	CF5	BED	2436	2EC25-4'	1	T8 2x4 2-Lamp Egg Crate Fixture	43	0.043	BH	5460	235		1	N 2W-12.5LED	New 1x4 2-Lamp Wrap Fixture with (2) 12.5 Watt LED T8 4' Lamp; Direct Wire to Socket	25	0.025	0.216	CCW-4'-2-T8LED /// KT-LED10.5T8-48G-840-D	51 + 3
2072	SELINSGROVE	INTERIOR	S	1	407	7	24/7 & OCCUPIED	CF5	BED	2437	2EC25-4'	1	T8 2x4 2-Lamp Egg Crate Fixture	43	0.043	BH	5460	235		1	N 2W-12.5LED	New 1x4 2-Lamp Wrap Fixture with (2) 12.5 Watt LED T8 4' Lamp; Direct Wire to Socket	25	0.025	0.216	CCW-4'-2-T8LED /// KT-LED10.5T8-48G-840-D	51 + 3
2073	SELINSGROVE	INTERIOR	S	1	408	7	24/7 & OCCUPIED	CF5	BED	2438	2EC25-4'	1	T8 2x4 2-Lamp Egg Crate Fixture	43	0.043	BH	5460	235		1	N 2W-12.5LED	New 1x4 2-Lamp Wrap Fixture with (2) 12.5 Watt LED T8 4' Lamp; Direct Wire to Socket	25	0.025	0.216	CCW-4'-2-T8LED /// KT-LED10.5T8-48G-840-D	51 + 3
2074	SELINSGROVE	INTERIOR	S	1	409	7	24/7 & OCCUPIED	CF5	BREAK ROOM	2439	2EC25-4'	1	T8 2x4 2-Lamp Egg Crate Fixture	43	0.043	O	2340	101		1	N 2W-12.5LED	New 1x4 2-Lamp Wrap Fixture with (2) 12.5 Watt LED T8 4' Lamp; Direct Wire to Socket	25	0.025	0.216	CCW-4'-2-T8LED /// KT-LED10.5T8-48G-840-D	51 + 3
2075	SELINSGROVE	INTERIOR	S	1	410	7	24/7 & OCCUPIED	CF5	OFFICE	2440	2EC25-4'	1	T8 2x4 2-Lamp Egg Crate Fixture	43	0.043	O	2340	101		1	N 2W-12.5LED	New 1x4 2-Lamp Wrap Fixture with (2) 12.5 Watt LED T8 4' Lamp; Direct Wire to Socket	25	0.025	0.216	CCW-4'-2-T8LED /// KT-LED10.5T8-48G-840-D	51 + 3
2076	SELINSGROVE	INTERIOR	S	1	411	7	24/7 & OCCUPIED	CF5	OFFICE	2441	2EC25-4'	1	T8 2x4 2-Lamp Egg Crate Fixture	43	0.043	O	2340	101		1	N 2W-12.5LED	New 1x4 2-Lamp Wrap Fixture with (2) 12.5 Watt LED T8 4' Lamp; Direct Wire to Socket	25	0.025	0.216	CCW-4'-2-T8LED /// KT-LED10.5T8-48G-840-D	51 + 3
2077	SELINSGROVE	INTERIOR	S	1	412	7	24/7 & OCCUPIED	CF5	BED	2442	2VT25-4'	1	T8 1x4 2-Lamp Vaportight Fixture	43	0.043	BH	5460	235		1	R 2L-12.5LED	Retrofit with (2) 12.5 Watt LED T8 4' Lamps; Direct Wire to Socket	25	0.025	0.216	KT-LED10.5T8-48G-840-D	3
2078	SELINSGROVE	INTERIOR	S	1	413	7	24/7 & OCCUPIED	CF5	BED	2443	2VT25-4'	1	T8 1x4 2-Lamp Vaportight Fixture	43	0.043	BH	5460	235		1	R 2L-12.5LED	Retrofit with (2) 12.5 Watt LED T8 4' Lamps; Direct Wire to Socket	25	0.025	0.216	KT-LED10.5T8-48G-840-D	3
2079	SELINSGROVE	INTERIOR	S	1	414	7	24/7 & OCCUPIED	CF5	TV ROOM	2444-2446	2VT25-4'	4	T8 1x4 2-Lamp Vaportight Fixture	43	0.172	BH	5460	939		4	R 2L-12.5LED	Retrofit with (2) 12.5 Watt LED T8 4' Lamps; Direct Wire to Socket	25	0.100	0.864	KT-LED10.5T8-48G-840-D	3
2080	SELINSGROVE	INTERIOR	S	1	415	7	24/7 & OCCUPIED	CF5	OFFICE	2447	2EC25-4'	1	T8 2x4 2-Lamp Egg Crate Fixture	43	0.043	O	2340	101		1	N 2W-12.5LED	New 1x4 2-Lamp Wrap Fixture with (2) 12.5 Watt LED T8 4' Lamp; Direct Wire to Socket	25	0.025	0.216	CCW-4'-2-T8LED /// KT-LED10.5T8-48G-840-D	51 + 3
2081	SELINSGROVE	INTERIOR	S	1	416	7	24/7 & OCCUPIED	CF5	OFFICE	2448	2EC25-4'	1	T8 2x4 2-Lamp Egg Crate Fixture	43	0.043	O	2340	101		1	N 2W-12.5LED	New 1x4 2-Lamp Wrap Fixture with (2) 12.5 Watt LED T8 4' Lamp; Direct Wire to Socket	25	0.025	0.216	CCW-4'-2-T8LED /// KT-LED10.5T8-48G-840-D	51 + 3
2082	SELINSGROVE	INTERIOR	S	1	417	7	24/7 & OCCUPIED	CF5	BED	2449	2EC25-4'	1	T8 2x4 2-Lamp Egg Crate Fixture	43	0.043	BH	5460	235		1	N 2W-12.5LED	New 1x4 2-Lamp Wrap Fixture with (2) 12.5 Watt LED T8 4' Lamp; Direct Wire to Socket	25	0.025	0.216	CCW-4'-2-T8LED /// KT-LED10.5T8-48G-840-D	51 + 3
2083	SELINSGROVE	INTERIOR	S	1	418	7	24/7 & OCCUPIED	CF5	BED	2450	2W25-4'	1	T8 1x4 2-Lamp Wrap Fixture	43	0.043	BH	5460	235		1	R 2L-12.5LED	Retrofit with (2) 12.5 Watt LED T8 4' Lamps; Direct Wire to Socket	25	0.025	0.216	KT-LED10.5T8-48G-840-D	3
2084	SELINSGROVE	INTERIOR	S	1	419	7	24/7 & OCCUPIED	CF5	HALL		4L25-4'	3	T8 2x4 4-Lamp Troffer Fixture	85	0.255	Z	8760	2,234		3	R 4L-12.5LED	Retrofit with (4) 12.5 Watt LED T8 4' Lamps; Direct Wire to Socket	50	0.150	1.260	KT-LED10.5T8-48G-840-D	3
2085	SELINSGROVE	INTERIOR	S	1	419	7	24/7 & OCCUPIED	CF5	HALL		2L25-1X4	6	T8 1x4 2-Lamp Troffer Fixture	43	0.258	Z	8760	2,260		6	R 2L-12.5LED	Retrofit with (2) 12.5 Watt LED T8 4' Lamps; Direct Wire to Socket	25	0.150	1.296	KT-LED10.5T8-48G-840-D	3
2086	SELINSGROVE	INTERIOR	S	1	419	7	24/7 & OCCUPIED	CF5	HALL		2PL13SC	3	13 Watt Plug-In CFL sconce Fixture	26	0.078	Z	8760	683		3	RK KLED7-REC	Retrofit with (1) 7 Watt LED Rectangular Retrofit Kit	8.5	0.026	0.630	KT-RKIT-RP-6-800-840-UV/G2	54
2087	SELINSGROVE	INTERIOR	S	1	419	7	24/7 & OCCUPIED	CF5	HALL		XLED	2	3 Watt LED 2-Lamp Exit Sign	3	0.006	Z	8760	53		2	ZZ DD	No Retrofit	3	0.006	0.000	N/A	N/A
2088	SELINSGROVE	INTERIOR	S	1	420	7	24/7 & OCCUPIED	CF5	OFFICE	2426	2EC25-4'	2	T8 2x4 2-Lamp Egg Crate Fixture	43	0.086	O	2340	201		2	N 2W-12.5LED	New 1x4 2-Lamp Wrap Fixture with (2) 12.5 Watt LED T8 4' Lamp; Direct Wire to Socket	25	0.050	0.432	CCW-4'-2-T8LED /// KT-LED10.5T8-48G-840-D	51 + 3
2089	SELINSGROVE	INTERIOR	S	1	420	7	24/7 & OCCUPIED	CF5	OFFICE		4W25-4'	1	T8 1x4 4-Lamp Wrap Fixture	85	0.085	O	2340	199		1	R 4L-12.5LED	Retrofit with (4) 12.5 Watt LED T8 4' Lamps; Direct Wire to Socket	50	0.050	0.420	KT-LED10.5T8-48G-840-D	3
2090	SELINSGROVE	INTERIOR	S	1	421	7	24/7 & OCCUPIED	CF5	BREAK ROOM	2425	2EC25-4'	2	T8 2x4 2-Lamp Egg Crate Fixture	43	0.086	O	2340	201		2	N 2W-12.5LED	New 1x4 2-Lamp Wrap Fixture with (2) 12.5 Watt LED T8 4' Lamp; Direct Wire to Socket	25	0.050	0.432	CCW-4'-2-T8LED /// KT-LED10.5T8-48G-840-D	51 + 3

											EXISTING FIXTURES									PROPOSED FIXTURE UPGRADE							
ID #	Facility Name	Phase	Utility Rate Code	Floor	Map #	Building Number	Building Usage Type	Building Section	Room Description	Room #	ECM Code	Qty	Description	Watts	kW	Burn Hour Code	Pre Burn Hours	kWh	x	Qty	New Code	Description	Watts	kW	Annual KW Saved	Part#	Cut Sheet #
2091	SELINSGROVE	INTERIOR	S	1	421	7	24/7 & OCCUPIED	CF5	BREAK ROOM		2V17	1	T8 1x2 2-Lamp Vanity Fixture	29	0.029	O	2340	68		1	R 2L-10LED2'	Retrofit with (2) 10 Watt LED T8 2' Lamps; Direct Wire to Socket	20	0.020	0.108	KT-LED7T8-24GC-840-D	1
2092	SELINSGROVE	INTERIOR	S	1	421	7	24/7 & OCCUPIED	CF5	BREAK ROOM		2PL13WP-CM	1	13 Watt 2-Lamp Plug-In CFL Wall Pack Fixture; Ceiling Mount	30	0.030	O	2340	70		1	N RLED24WP	New 24 Watt LED Wall Pack Fixture	24	0.024	0.072	WP2LED24	40
2093	SELINSGROVE	INTERIOR	S	1	422	7	24/7 & OCCUPIED	CF5	DINING ROOM	241	4L25-4'	4	T8 2x4 4-Lamp Troffer Fixture	85	0.340	Z	8760	2,978		4	R 4L-12.5LED	Retrofit with (4) 12.5 Watt LED T8 4' Lamps; Direct Wire to Socket	50	0.200	1.680	KT-LED10.5T8-48G-840-D	3
2094	SELINSGROVE	INTERIOR	S	1	423	7	24/7 & OCCUPIED	CF5	LAUNDRY	242	1I25-4'	2	T8 1x4 1-Lamp Industrial Strip Fixture	22	0.044	S	1000	44		2	R 1L-12.5LED	Retrofit with (1) 12.5 Watt LED T8 4' Lamps; Direct Wire to Socket	12.5	0.025	0.228	KT-LED10.5T8-48G-840-D	3
2095	SELINSGROVE	INTERIOR	S	1	424	7	24/7 & OCCUPIED	CF5	HALL	240	2L25-1X4	3	T8 1x4 2-Lamp Troffer Fixture	43	0.129	Z	8760	1,130		3	R 2L-12.5LED	Retrofit with (2) 12.5 Watt LED T8 4' Lamps; Direct Wire to Socket	25	0.075	0.648	KT-LED10.5T8-48G-840-D	3
2096	SELINSGROVE	INTERIOR	S	1	424	7	24/7 & OCCUPIED	CF5	HALL		1W17	3	T8 2x2 1-Lamp Wrap Fixture	22	0.066	Z	8760	578		3	R 1L-10LED2'	Retrofit with (1) 10 Watt LED T8 2' Lamp; Direct Wire to Socket	10	0.030	0.432	KT-LED7T8-24GC-840-D	1
2097	SELINSGROVE	INTERIOR	S	1	424	7	24/7 & OCCUPIED	CF5	HALL		2PL13FL-MONOPOINT-BK	1	13 Watt 2-Lamp Plug-In CFL Flood Fixture; Monopoint; Black	30	0.030	Z	8760	263		1	ZZ DD	No Retrofit	30	0.030	0.000	N/A	N/A
2098	SELINSGROVE	INTERIOR	S	1	425	7	24/7 & OCCUPIED	CF5	LINEN	243	1I25-4'	1	T8 1x4 1-Lamp Industrial Strip Fixture	22	0.022	S	1000	22		1	R 1L-12.5LED	Retrofit with (1) 12.5 Watt LED T8 4' Lamps; Direct Wire to Socket	12.5	0.013	0.114	KT-LED10.5T8-48G-840-D	3
2099	SELINSGROVE	INTERIOR	S	1	426	7	24/7 & OCCUPIED	CF5	MEETING	244	1W17	5	T8 2x2 1-Lamp Wrap Fixture	22	0.110	O	2340	257		5	R 1L-10LED2'	Retrofit with (1) 10 Watt LED T8 2' Lamp; Direct Wire to Socket	10	0.050	0.720	KT-LED7T8-24GC-840-D	1
2100	SELINSGROVE	INTERIOR	S	1	426	7	24/7 & OCCUPIED	CF5	MEETING		3PL13DR	1	13 Watt 3-Lamp Plug-In CFL Drum Fixture	45	0.045	O	2340	105		1	N LED22DR	New 16" Round 22 Watt LED Drum Fixture	22	0.022	0.276	54075142	20
2101	SELINSGROVE	INTERIOR	S	1	426	7	24/7 & OCCUPIED	CF5	MEETING	245	3PL13DR	1	13 Watt 3-Lamp Plug-In CFL Drum Fixture	45	0.045	O	2340	105		1	N LED22DR	New 16" Round 22 Watt LED Drum Fixture	22	0.022	0.276	54075142	20
2102	SELINSGROVE	INTERIOR	S	1	426	7	24/7 & OCCUPIED	CF5	MEETING		1W17	1	T8 2x2 1-Lamp Wrap Fixture	22	0.022	O	2340	51		1	R 1L-10LED2'	Retrofit with (1) 10 Watt LED T8 2' Lamp; Direct Wire to Socket	10	0.010	0.144	KT-LED7T8-24GC-840-D	1
2103	SELINSGROVE	INTERIOR	S	1	427	7	24/7 & OCCUPIED	CF5	LOUNGE	2424	3PL13DR	6	13 Watt 3-Lamp Plug-In CFL Drum Fixture	45	0.270	O	2340	632		6	N LED22DR	New 16" Round 22 Watt LED Drum Fixture	22	0.132	1.656	54075142	20
2104	SELINSGROVE	INTERIOR	S	1	428	7	24/7 & OCCUPIED	CF5	OFFICE		2W25-4'	1	T8 1x4 2-Lamp Wrap Fixture	43	0.043	O	2340	101		1	R 2L-12.5LED	Retrofit with (2) 12.5 Watt LED T8 4' Lamps; Direct Wire to Socket	25	0.025	0.216	KT-LED10.5T8-48G-840-D	3
2105	SELINSGROVE	INTERIOR	S	1	429	7	24/7 & OCCUPIED	CF5	OFFICE	2423	2W25-4'	1	T8 1x4 2-Lamp Wrap Fixture	43	0.043	O	2340	101		1	R 2L-12.5LED	Retrofit with (2) 12.5 Watt LED T8 4' Lamps; Direct Wire to Socket	25	0.025	0.216	KT-LED10.5T8-48G-840-D	3
2106	SELINSGROVE	INTERIOR	S	1	430	7	24/7 & OCCUPIED	CF5	BREAK ROOM	2422	3W25-4'	3	T8 1x4 3-Lamp Wrap Fixture	65	0.195	O	2340	456		3	R 3L-12.5LED	Retrofit with (3) 12.5 Watt LED T8 4' Lamps; Direct Wire to Socket	37.5	0.113	0.990	KT-LED10.5T8-48G-840-D	3
2107	SELINSGROVE	INTERIOR	S	1	431	7	24/7 & OCCUPIED	CF5	KITCHEN	2421	3W25-4'	3	T8 1x4 3-Lamp Wrap Fixture	65	0.195	Z	8760	1,708		3	R 3L-12.5LED	Retrofit with (3) 12.5 Watt LED T8 4' Lamps; Direct Wire to Socket	37.5	0.113	0.990	KT-LED10.5T8-48G-840-D	3
2108	SELINSGROVE	INTERIOR	S	1	431	7	24/7 & OCCUPIED	CF5	PIPE CHASE	2420	60A	1	60 Watt Incandescent A-Lamp Fixture	60	0.060	S	1000	60		1	LED 9A	Re-Lamp with (1) 9 Watt LED A19 Lamps	9	0.009	0.612	LA19/9/40K/D-46	8
2109	SELINSGROVE	INTERIOR	S	1	432	7	24/7 & OCCUPIED	CF6	NURSE STATION	246	2EC25-4'	2	T8 2x4 2-Lamp Egg Crate Fixture	43	0.086	Z	8760	753		2	N 2W-12.5LED	New 1x4 2-Lamp Wrap Fixture with (2) 12.5 Watt LED T8 4' Lamp; Direct Wire to Socket	25	0.050	0.432	CCW-4'-2-T8LED /// KT-LED10.5T8-48G-840-D	51 + 3
2110	SELINSGROVE	INTERIOR	S	1	432	7	24/7 & OCCUPIED	CF6	RR		2PL13DR	1	13 Watt Plug-In CFL Drum Fixture	26	0.026	Z	8760	228		1	N LED14DR	New 12" Round 14 Watt LED Drum Fixture	14	0.014	0.144	54074143	19
2111	SELINSGROVE	INTERIOR	S	1	437	7	24/7 & OCCUPIED	CF6-LED	CF6-LED		3L-LED	18	3-Lamp LED Fixture	40	0.720	O	2340	1,685		18	ZZ DD	No Retrofit	40	0.720	0.000	N/A	N/A
2112	SELINSGROVE	INTERIOR	S	1	437	7	24/7 & OCCUPIED	CF6-LED	CF6-LED		2PL13DR	2	13 Watt Plug-In CFL Drum Fixture	26	0.052	O	2340	122		2	N LED14DR	New 12" Round 14 Watt LED Drum Fixture	14	0.028	0.288	54074143	19
2113	SELINSGROVE	INTERIOR	S	1	437	7	24/7 & OCCUPIED	CF6-LED	CF6-LED		XLED	1	3 Watt LED 2-Lamp Exit Sign	3	0.003	Z	8760	26		1	ZZ DD	No Retrofit	3	0.003	0.000	N/A	N/A
2114	SELINSGROVE	INTERIOR	S	1	437	7	24/7 & OCCUPIED	CF6-LED	CF6-LED		1W17	1	T8 2x2 1-Lamp Wrap Fixture	22	0.022	O	2340	51		1	R 1L-10LED2'	Retrofit with (1) 10 Watt LED T8 2' Lamp; Direct Wire to Socket	10	0.010	0.144	KT-LED7T8-24GC-840-D	1
2115	SELINSGROVE	INTERIOR	S	1	437	7	24/7 & OCCUPIED	CF6-LED	BED		1WLED	16	1-Lamp LED Wrap Fixture	17	0.272	BH	5460	1,485		16	ZZ DD	No Retrofit	17	0.272	0.000	N/A	N/A
2116	SELINSGROVE	INTERIOR	S	1	437	7	24/7 & OCCUPIED	CF6-LED	RR		2VTLED	11	2-Lamp LED Vapor Tight Fixture	30	0.330	Z	8760	2,891		11	ZZ DD	No Retrofit	30	0.330	0.000	N/A	N/A
2117	SELINSGROVE	INTERIOR	S	1	437	7	24/7 & OCCUPIED	CF6-LED	RR		2V17	5	T8 1x2 2-Lamp Vanity Fixture	29	0.145	Z	8760	1,270		5	R 2L-10LED2'	Retrofit with (2) 10 Watt LED T8 2' Lamps; Direct Wire to Socket	20	0.100	0.540	KT-LED7T8-24GC-840-D	1
2118	SELINSGROVE	INTERIOR	S	1	437	7	24/7 & OCCUPIED	CF6-LED	RR		CF13DL10	3	13 Watt Compact Fluorescent 10" Downlight Fixture	13	0.039	Z	8760	342		3	R LLED9DL10	Retrofit with 9 Watt LED 10" Downlight Kit	9	0.027	0.144	LDN10RV 40/05 LR6AR LSS MVOLT EZ10	23
2119	SELINSGROVE	INTERIOR	S	1	437	7	24/7 & OCCUPIED	CF6-LED	PIPE CHASE		60A	4	60 Watt Incandescent A-Lamp Fixture	60	0.240	S	1000	240		4	LED 9A	Re-Lamp with (1) 9 Watt LED A19 Lamps	9	0.036	2.448	LA19/9/40K/D-46	8
2120	SELINSGROVE	INTERIOR	S	1	437	7	24/7 & OCCUPIED	CF6-LED	PIPE CHASE		LEDWP-DIM	5	LED Wall Pack Fixture; Dimming	35	0.175	S	1000	175		5	ZZ DD	No Retrofit	35	0.175	0.000	N/A	N/A
2121	SELINSGROVE	INTERIOR	S	1	437	7	24/7 & OCCUPIED	CF6-LED	PIPE CHASE		60SC	14	60 Watt Incandescent Sconce Fixture	60	0.840	S	1000	840		14	LED 9A	Re-Lamp with (1) 9 Watt LED A19 Lamps	9	0.126	8.568	LA19/9/40K/D-46	8
2122	SELINSGROVE	INTERIOR	S	1	437	7	24/7 & OCCUPIED	CF6-LED	PIPE CHASE		2L-LED	7	2-Lamp LED Fixture	25	0.175	S	1000	175		7	ZZ DD	No Retrofit	25	0.175	0.000	N/A	N/A

											EXISTING FIXTURES									PROPOSED FIXTURE UPGRADE							
ID #	Facility Name	Phase	Utility Rate Code	Floor	Map #	Building Number	Building Usage Type	Building Section	Room Description	Room #	ECM Code	Qty	Description	Watts	kW	Burn Hour Code	Pre Burn Hours	kWh	x	Qty	New Code	Description	Watts	kW	Annual KW Saved	Part#	Cut Sheet #
2123	SELINSGROVE	INTERIOR	S	1	437	7	24/7 & OCCUPIED	CF6-LED	OFFICE		3WLED	1	3-Lamp LED Wrap Fixture	32	0.032	O	2340	75		1	ZZ DD	No Retrofit	32	0.032	0.000	N/A	N/A
2124	SELINSGROVE	INTERIOR	S	1	437	7	24/7 & OCCUPIED	CF6-LED	OFFICE		3WLED	1	3-Lamp LED Wrap Fixture	32	0.032	O	2340	75		1	ZZ DD	No Retrofit	32	0.032	0.000	N/A	N/A
2125	SELINSGROVE	INTERIOR	S	1	437	7	24/7 & OCCUPIED	CF6-LED	OFFICE		CF13G-HALO	1	13 Watt Compact Fluorescent Globe Fixture; Halo	13	0.013	O	2340	30		1	LED 9A	Re-Lamp with (1) 9 Watt LED A19 Lamps	9	0.009	0.048	LA19/9/40K/D-46	8
2126	SELINSGROVE	INTERIOR	S	1	438	7	24/7 & OCCUPIED	CF6	JANITOR CLOSET	264	2PL13SC	1	13 Watt Plug-In CFL sconce Fixture	26	0.026	S	1000	26		1	RK KLED7-REC	Retrofit with (1) 7 Watt LED Rectangular Retrofit Kit	8.5	0.009	0.210	KT-RKIT-RP-6-800-840-UV /G2	54
2127	SELINSGROVE	INTERIOR	S	1	439	7	24/7 & OCCUPIED	CF6	SUPPLY	2393	2W25-4'	2	T8 1x4 2-Lamp Wrap Fixture	43	0.086	S	1000	86		2	R 2L-12.5LED	Retrofit with (2) 12.5 Watt LED T8 4' Lamps; Direct Wire to Socket	25	0.050	0.432	KT-LED10.5T8-48G-840-D	3
2128	SELINSGROVE	INTERIOR	S	1	439	7	24/7 & OCCUPIED	CF6	SUPPLY		2V17	1	T8 1x2 2-Lamp Vanity Fixture	29	0.029	S	1000	29		1	R 2L-10LED2'	Retrofit with (2) 10 Watt LED T8 2' Lamps; Direct Wire to Socket	20	0.020	0.108	KT-LED7T8-24GC-840-D	1
2129	SELINSGROVE	INTERIOR	S	1	439	7	24/7 & OCCUPIED	CF6	PIPE CHASE		CF13	1	13 Watt Compact Fluorescent Fixture	13	0.013	S	1000	13		1	LED 9A	Re-Lamp with (1) 9 Watt LED A19 Lamps	9	0.009	0.048	LA19/9/40K/D-46	8
2130	SELINSGROVE	INTERIOR	S	1	440	7	24/7 & OCCUPIED	CF6	BED	2394	2EC25-4'-DIM	2	T8 2x4 2-Lamp Egg Crate Fixture; Dimming	43	0.086	BH	5460	470		2	N 2W-14LED-DIM	New 1x4 2-Lamp Wrap Fixture with (2) 14 Watt LED T8 4' Lamp and (1) LED Dimming Driver	28.4	0.057	0.350	CCW-4'-2-T8LED /// KT-LED14T8-48GC-840-S /// KTLD-2LEDT8-UV-IS-VDIM	51 + 4 + 6
2131	SELINSGROVE	INTERIOR	S	1	440	7	24/7 & OCCUPIED	CF6	BED		60SC	2	60 Watt Incandescent Sconce Fixture	60	0.120	BH	5460	655		2	LED 9A	Re-Lamp with (1) 9 Watt LED A19 Lamps	9	0.018	1.224	LA19/9/40K/D-46	8
2132	SELINSGROVE	INTERIOR	S	1	440	7	24/7 & OCCUPIED	CF6	RR		2VT25-4'	1	T8 1x4 2-Lamp Vaportight Fixture	43	0.043	Z	8760	377		1	R 2L-12.5LED	Retrofit with (2) 12.5 Watt LED T8 4' Lamps; Direct Wire to Socket	25	0.025	0.216	KT-LED10.5T8-48G-840-D	3
2133	SELINSGROVE	INTERIOR	S	1	440	7	24/7 & OCCUPIED	CF6	RR		2V17	1	T8 1x2 2-Lamp Vanity Fixture	29	0.029	Z	8760	254		1	R 2L-10LED2'	Retrofit with (2) 10 Watt LED T8 2' Lamps; Direct Wire to Socket	20	0.020	0.108	KT-LED7T8-24GC-840-D	1
2134	SELINSGROVE	INTERIOR	S	1	440	7	24/7 & OCCUPIED	CF6	PIPE CHASE		60A	1	60 Watt Incandescent A-Lamp Fixture	60	0.060	S	1000	60		1	LED 9A	Re-Lamp with (1) 9 Watt LED A19 Lamps	9	0.009	0.612	LA19/9/40K/D-46	8
2135	SELINSGROVE	INTERIOR	S	1	440	7	24/7 & OCCUPIED	CF6	HALL		3L17	1	T8 2x2 3-Lamp Troffer Fixture	58	0.058	Z	8760	508		1	R 3L-10LED2'	Retrofit with (3) 10 Watt LED T8 2' Lamps; Direct Wire to Socket	30	0.030	0.336	KT-LED7T8-24GC-840-D	1
2136	SELINSGROVE	INTERIOR	S	1	441	7	24/7 & OCCUPIED	CF6	HALL	2393	2L17	4	T8 2x2 2-Lamp Troffer Fixture	36	0.144	Z	8760	1,261		4	R 2L-10LED2'	Retrofit with (2) 10 Watt LED T8 2' Lamps; Direct Wire to Socket	20	0.080	0.768	KT-LED7T8-24GC-840-D	1
2137	SELINSGROVE	INTERIOR	S	1	442	7	24/7 & OCCUPIED	CF6	DAY ROOM	2397	3W25-4'	2	T8 1x4 3-Lamp Wrap Fixture	65	0.130	BH	5460	710		2	R 3L-12.5LED	Retrofit with (3) 12.5 Watt LED T8 4' Lamps; Direct Wire to Socket	37.5	0.075	0.660	KT-LED10.5T8-48G-840-D	3
2138	SELINSGROVE	INTERIOR	S	1	442	7	24/7 & OCCUPIED	CF6	DAY ROOM		LEDWP-DIM	1	LED Wall Pack Fixture; Dimming	35	0.035	BH	5460	191		1	ZZ DD	No Retrofit	35	0.035	0.000	N/A	N/A
2139	SELINSGROVE	INTERIOR	S	1	442	7	24/7 & OCCUPIED	CF6	RR		2VT25-4'	1	T8 1x4 2-Lamp Vaportight Fixture	43	0.043	Z	8760	377		1	R 2L-12.5LED	Retrofit with (2) 12.5 Watt LED T8 4' Lamps; Direct Wire to Socket	25	0.025	0.216	KT-LED10.5T8-48G-840-D	3
2140	SELINSGROVE	INTERIOR	S	1	442	7	24/7 & OCCUPIED	CF6	RR		2V17	1	T8 1x2 2-Lamp Vanity Fixture	29	0.029	Z	8760	254		1	R 2L-10LED2'	Retrofit with (2) 10 Watt LED T8 2' Lamps; Direct Wire to Socket	20	0.020	0.108	KT-LED7T8-24GC-840-D	1
2141	SELINSGROVE	INTERIOR	S	1	443	7	24/7 & OCCUPIED	CF6	MEDICAL SUPPLY	2399	2EC25-4'	1	T8 2x4 2-Lamp Egg Crate Fixture	43	0.043	S	1000	43		1	N 2W-12.5LED	New 1x4 2-Lamp Wrap Fixture with (2) 12.5 Watt LED T8 4' Lamp; Direct Wire to Socket	25	0.025	0.216	CCW-4'-2-T8LED /// KT-LED10.5T8-48G-840-D	51 + 3
2142	SELINSGROVE	INTERIOR	S	1	444	7	24/7 & OCCUPIED	CF6	DAY ROOM	2400	3W25-4'	2	T8 1x4 3-Lamp Wrap Fixture	65	0.130	BH	5460	710		2	R 3L-12.5LED	Retrofit with (3) 12.5 Watt LED T8 4' Lamps; Direct Wire to Socket	37.5	0.075	0.660	KT-LED10.5T8-48G-840-D	3
2143	SELINSGROVE	INTERIOR	S	1	444	7	24/7 & OCCUPIED	CF6	DAY ROOM		LEDWP-DIM	1	LED Wall Pack Fixture; Dimming	35	0.035	BH	5460	191		1	ZZ DD	No Retrofit	35	0.035	0.000	N/A	N/A
2144	SELINSGROVE	INTERIOR	S	1	444	7	24/7 & OCCUPIED	CF6	PIPE CHASE		60A	1	60 Watt Incandescent A-Lamp Fixture	60	0.060	S	1000	60		1	LED 9A	Re-Lamp with (1) 9 Watt LED A19 Lamps	9	0.009	0.612	LA19/9/40K/D-46	8
2145	SELINSGROVE	INTERIOR	S	1	444	7	24/7 & OCCUPIED	CF6	RR		2VT25(VT)-4'	1	T8 1x4 2-Lamp Vaportight Fixture; Damaged/Missing Lens	43	0.043	Z	8760	377		1	N 2VT-12.5LED	New 1x4 2-Lamp Vaportight Fixture with (2) 12.5 Watt LED T8 4' Lamp; Direct Wire to Socket	25	0.025	0.216	VTU-4'-2-T8LED /// KT-LED10.5T8-48G-840-D	50 + 3
2146	SELINSGROVE	INTERIOR	S	1	444	7	24/7 & OCCUPIED	CF6	RR		2V17	1	T8 1x2 2-Lamp Vanity Fixture	29	0.029	Z	8760	254		1	R 2L-10LED2'	Retrofit with (2) 10 Watt LED T8 2' Lamps; Direct Wire to Socket	20	0.020	0.108	KT-LED7T8-24GC-840-D	1
2147	SELINSGROVE	INTERIOR	S	1	445	7	24/7 & OCCUPIED	CF6	HALL		2L17	2	T8 2x2 2-Lamp Troffer Fixture	36	0.072	Z	8760	631		2	R 2L-10LED2'	Retrofit with (2) 10 Watt LED T8 2' Lamps; Direct Wire to Socket	20	0.040	0.384	KT-LED7T8-24GC-840-D	1
2148	SELINSGROVE	INTERIOR	S	1	445	7	24/7 & OCCUPIED	CF6	HALL		3L17	1	T8 2x2 3-Lamp Troffer Fixture	58	0.058	Z	8760	508		1	R 3L-10LED2'	Retrofit with (3) 10 Watt LED T8 2' Lamps; Direct Wire to Socket	30	0.030	0.336	KT-LED7T8-24GC-840-D	1
2149	SELINSGROVE	INTERIOR	S	1	446	7	24/7 & OCCUPIED	CF6	BREAK ROOM	2403	2W25(W)-4'	2	T8 1x4 2-Lamp Wrap Fixture; Damaged/Missing Lens	43	0.086	O	2340	201		2	N 2W-12.5LED	New 1x4 2-Lamp Wrap Fixture with (2) 12.5 Watt LED T8 4' Lamp; Direct Wire to Socket	25	0.050	0.432	CCW-4'-2-T8LED /// KT-LED10.5T8-48G-840-D	51 + 3
2150	SELINSGROVE	INTERIOR	S	1	446	7	24/7 & OCCUPIED	CF6	LAUNDRY		1W17	1	T8 2x2 1-Lamp Wrap Fixture	22	0.022	S	1000	22		1	R 1L-10LED2'	Retrofit with (1) 10 Watt LED T8 2' Lamp; Direct Wire to Socket	10	0.010	0.144	KT-LED7T8-24GC-840-D	1
2151	SELINSGROVE	INTERIOR	S	1	446	7	24/7 & OCCUPIED	CF6	LAUNDRY		2PL13SC	1	13 Watt 2-Lamp Plug-In CFL Sconce Fixture	30	0.030	S	1000	30		1	RK KLED7-REC	Retrofit with (1) 7 Watt LED Rectangular Retrofit Kit	8.5	0.009	0.258	KT-RKIT-RP-6-800-840-UV /G2	54
2152	SELINSGROVE	INTERIOR	S	1	447	7	24/7 & OCCUPIED	CF6	STAIR		2W25-4'	1	T8 1x4 2-Lamp Wrap Fixture	43	0.043	Z	8760	377		1	R 2L-12.5LED	Retrofit with (2) 12.5 Watt LED T8 4' Lamps; Direct Wire to Socket	25	0.025	0.216	KT-LED10.5T8-48G-840-D	3
2153	SELINSGROVE	INTERIOR	S	1	447	7	24/7 & OCCUPIED	CF6	STAIR		2V25(V)-4'	5	T8 1x4 2-Lamp Vanity Fixture; Damaged/Missing Lens	43	0.215	Z	8760	1,883		5	N 2V-12.5LED	New 1x4 2-Lamp Vanity Fixture with (2) 12.5 Watt LED T8 4' Lamp; Direct Wire to Socket	25	0.125	1.080	VWF-4'-2-T8LED /// KT-LED10.5T8-48G-840-D	49 + 3
2154	SELINSGROVE	INTERIOR	S	1	447	7	24/7 & OCCUPIED	CF6	STAIR		XLED	1	3 Watt LED 2-Lamp Exit Sign	3	0.003	Z	8760	26		1	ZZ DD	No Retrofit	3	0.003	0.000	N/A	N/A

											EXISTING FIXTURES									PROPOSED FIXTURE UPGRADE							
ID #	Facility Name	Phase	Utility Rate Code	Floor	Map #	Building Number	Building Usage Type	Building Section	Room Description	Room #	ECM Code	Qty	Description	Watts	kW	Burn Hour Code	Pre Burn Hours	kWh	x	Qty	New Code	Description	Watts	kW	Annual KW Saved	Part#	Cut Sheet #
2155	SELINSGROVE	INTERIOR	S	1	448	7	24/7 & OCCUPIED	CF6	JANITOR CLOSET		CF13	1	13 Watt Compact Fluorescent Fixture	13	0.013	S	1000	13		1	LED 9A	Re-Lamp with (1) 9 Watt LED A19 Lamps	9	0.009	0.048	LA19/9/40K/D-46	8
2156	SELINSGROVE	INTERIOR	S	1	449	7	24/7 & OCCUPIED	CF6	BED		3W25-4'	2	T8 1x4 3-Lamp Wrap Fixture	65	0.130	BH	5460	710		2	R 3L-12.5LED	Retrofit with (3) 12.5 Watt LED T8 4' Lamps; Direct Wire to Socket	37.5	0.075	0.660	KT-LED10.5T8-48G-840-D	3
2157	SELINSGROVE	INTERIOR	S	1	449	7	24/7 & OCCUPIED	CF6	BED		LEDWP-DIM	2	LED Wall Pack Fixture; Dimming	35	0.070	BH	5460	382		2	ZZ DD	No Retrofit	35	0.070	0.000	N/A	N/A
2158	SELINSGROVE	INTERIOR	S	1	449	7	24/7 & OCCUPIED	CF6	RR		2VT25-4'	1	T8 1x4 2-Lamp Vaportight Fixture	43	0.043	Z	8760	377		1	R 2L-12.5LED	Retrofit with (2) 12.5 Watt LED T8 4' Lamps; Direct Wire to Socket	25	0.025	0.216	KT-LED10.5T8-48G-840-D	3
2159	SELINSGROVE	INTERIOR	S	1	450	7	24/7 & OCCUPIED	CF6	BED		3W25-4'	2	T8 1x4 3-Lamp Wrap Fixture	65	0.130	BH	5460	710		2	R 3L-12.5LED	Retrofit with (3) 12.5 Watt LED T8 4' Lamps; Direct Wire to Socket	37.5	0.075	0.660	KT-LED10.5T8-48G-840-D	3
2160	SELINSGROVE	INTERIOR	S	1	450	7	24/7 & OCCUPIED	CF6	RR		2VT25-4'	1	T8 1x4 2-Lamp Vaportight Fixture	43	0.043	Z	8760	377		1	R 2L-12.5LED	Retrofit with (2) 12.5 Watt LED T8 4' Lamps; Direct Wire to Socket	25	0.025	0.216	KT-LED10.5T8-48G-840-D	3
2161	SELINSGROVE	INTERIOR	S	1	450	7	24/7 & OCCUPIED	CF6	RR		2V17	1	T8 1x2 2-Lamp Vanity Fixture	29	0.029	Z	8760	254		1	R 2L-10LED2'	Retrofit with (2) 10 Watt LED T8 2' Lamps; Direct Wire to Socket	20	0.020	0.108	KT-LED7T8-24GC-840-D	1
2162	SELINSGROVE	INTERIOR	S	1	450	7	24/7 & OCCUPIED	CF6	PIPE CHASE		60A	1	60 Watt Incandescent A-Lamp Fixture	60	0.060	S	1000	60		1	LED 9A	Re-Lamp with (1) 9 Watt LED A19 Lamps	9	0.009	0.612	LA19/9/40K/D-46	8
2163	SELINSGROVE	INTERIOR	S	1	451	7	24/7 & OCCUPIED	CF6	HALL		2L17	2	T8 2x2 2-Lamp Troffer Fixture	36	0.072	Z	8760	631		2	R 2L-10LED2'	Retrofit with (2) 10 Watt LED T8 2' Lamps; Direct Wire to Socket	20	0.040	0.384	KT-LED7T8-24GC-840-D	1
2164	SELINSGROVE	INTERIOR	S	1	451	7	24/7 & OCCUPIED	CF6	HALL		3L17	1	T8 2x2 3-Lamp Troffer Fixture	58	0.058	Z	8760	508		1	R 3L-10LED2'	Retrofit with (3) 10 Watt LED T8 2' Lamps; Direct Wire to Socket	30	0.030	0.336	KT-LED7T8-24GC-840-D	1
2165	SELINSGROVE	INTERIOR	S	1	452	7	24/7 & OCCUPIED	CF6	OFFICE		2EC25-4'	1	T8 2x4 2-Lamp Egg Crate Fixture	43	0.043	O	2340	101		1	N 2W-12.5LED	New 1x4 2-Lamp Wrap Fixture with (2) 12.5 Watt LED T8 4' Lamp; Direct Wire to Socket	25	0.025	0.216	CCW-4'-2-T8LED /// KT-LED10.5T8-48G-840-D	51 + 3
2166	SELINSGROVE	INTERIOR	S	1	452	7	24/7 & OCCUPIED	CF6	OFFICE HALL		2L17	1	T8 2x2 2-Lamp Troffer Fixture	36	0.036	Z	8760	315		1	R 2L-10LED2'	Retrofit with (2) 10 Watt LED T8 2' Lamps; Direct Wire to Socket	20	0.020	0.192	KT-LED7T8-24GC-840-D	1
2167	SELINSGROVE	INTERIOR	S	1	453	7	24/7 & OCCUPIED	CF6	HALL		2L17	2	T8 2x2 2-Lamp Troffer Fixture	36	0.072	Z	8760	631		2	R 2L-10LED2'	Retrofit with (2) 10 Watt LED T8 2' Lamps; Direct Wire to Socket	20	0.040	0.384	KT-LED7T8-24GC-840-D	1
2168	SELINSGROVE	INTERIOR	S	1	453	7	24/7 & OCCUPIED	CF6	HALL		3L17	1	T8 2x2 3-Lamp Troffer Fixture	58	0.058	Z	8760	508		1	R 3L-10LED2'	Retrofit with (3) 10 Watt LED T8 2' Lamps; Direct Wire to Socket	30	0.030	0.336	KT-LED7T8-24GC-840-D	1
2169	SELINSGROVE	INTERIOR	S	1	454	7	24/7 & OCCUPIED	CF6	BED		2VT25-4'	2	T8 1x4 2-Lamp Vaportight Fixture	43	0.086	BH	5460	470		2	R 2L-12.5LED	Retrofit with (2) 12.5 Watt LED T8 4' Lamps; Direct Wire to Socket	25	0.050	0.432	KT-LED10.5T8-48G-840-D	3
2170	SELINSGROVE	INTERIOR	S	1	454	7	24/7 & OCCUPIED	CF6	BED		1W17	1	T8 2x2 1-Lamp Wrap Fixture	22	0.022	BH	5460	120		1	R 1L-10LED2'	Retrofit with (1) 10 Watt LED T8 2' Lamp; Direct Wire to Socket	10	0.010	0.144	KT-LED7T8-24GC-840-D	1
2171	SELINSGROVE	INTERIOR	S	1	455	7	24/7 & OCCUPIED	CF6	BED		2VT25-4'	2	T8 1x4 2-Lamp Vaportight Fixture	43	0.086	BH	5460	470		2	R 2L-12.5LED	Retrofit with (2) 12.5 Watt LED T8 4' Lamps; Direct Wire to Socket	25	0.050	0.432	KT-LED10.5T8-48G-840-D	3
2172	SELINSGROVE	INTERIOR	S	1	455	7	24/7 & OCCUPIED	CF6	BED		2VT25-4'	1	T8 1x4 2-Lamp Vaportight Fixture	43	0.043	BH	5460	235		1	R 2L-12.5LED	Retrofit with (2) 12.5 Watt LED T8 4' Lamps; Direct Wire to Socket	25	0.025	0.216	KT-LED10.5T8-48G-840-D	3
2173	SELINSGROVE	INTERIOR	S	1	455	7	24/7 & OCCUPIED	CF6	BED		LEDWP-DIM	1	LED Wall Pack Fixture; Dimming	35	0.035	BH	5460	191		1	ZZ DD	No Retrofit	35	0.035	0.000	N/A	N/A
2174	SELINSGROVE	INTERIOR	S	1	456	7	24/7 & OCCUPIED	CF6	STORAGE		1W17	3	T8 2x2 1-Lamp Wrap Fixture	22	0.066	S	1000	66		3	R 1L-10LED2'	Retrofit with (1) 10 Watt LED T8 2' Lamp; Direct Wire to Socket	10	0.030	0.432	KT-LED7T8-24GC-840-D	1
2175	SELINSGROVE	INTERIOR	S	1	457	7	24/7 & OCCUPIED	CF6	STORAGE		4EC25-4'	1	T8 2x4 4-Lamp Egg Crate Fixture	85	0.085	S	1000	85		1	N 4W-12.5LED	New 1x4 4-Lamp Wrap Fixture with (4) 12.5 Watt LED T8 4' Lamp; Direct Wire to Socket	50	0.050	0.420	CCW-4'-4-T8LED /// KT-LED10.5T8-48G-840-D	53 + 3
2176	SELINSGROVE	INTERIOR	S	1	458	7	24/7 & OCCUPIED	CF6	DINING ROOM	266	3W25-4'	4	T8 1x4 3-Lamp Wrap Fixture	65	0.260	Z	8760	2,278		4	R 3L-12.5LED	Retrofit with (3) 12.5 Watt LED T8 4' Lamps; Direct Wire to Socket	37.5	0.150	1.320	KT-LED10.5T8-48G-840-D	3
2177	SELINSGROVE	INTERIOR	S	1	459	7	24/7 & OCCUPIED	CF6	OFFICE	2387	2EC25-4'	1	T8 2x4 2-Lamp Egg Crate Fixture	43	0.043	O	2340	101		1	N 2W-12.5LED	New 1x4 2-Lamp Wrap Fixture with (2) 12.5 Watt LED T8 4' Lamp; Direct Wire to Socket	25	0.025	0.216	CCW-4'-2-T8LED /// KT-LED10.5T8-48G-840-D	51 + 3
2178	SELINSGROVE	INTERIOR	S	1	460	7	24/7 & OCCUPIED	CF6	OFFICE	2386	2EC25-4'	1	T8 2x4 2-Lamp Egg Crate Fixture	43	0.043	O	2340	101		1	N 2W-12.5LED	New 1x4 2-Lamp Wrap Fixture with (2) 12.5 Watt LED T8 4' Lamp; Direct Wire to Socket	25	0.025	0.216	CCW-4'-2-T8LED /// KT-LED10.5T8-48G-840-D	51 + 3
2179	SELINSGROVE	INTERIOR	S	1	461	7	24/7 & OCCUPIED	CF6	OFFICE	2385	2EC25-4'	1	T8 2x4 2-Lamp Egg Crate Fixture	43	0.043	O	2340	101		1	N 2W-12.5LED	New 1x4 2-Lamp Wrap Fixture with (2) 12.5 Watt LED T8 4' Lamp; Direct Wire to Socket	25	0.025	0.216	CCW-4'-2-T8LED /// KT-LED10.5T8-48G-840-D	51 + 3
2180	SELINSGROVE	INTERIOR	S	1	462	7	24/7 & OCCUPIED	CF6	STORAGE	267a	2W25-4'	2	T8 1x4 2-Lamp Wrap Fixture	43	0.086	S	1000	86		2	R 2L-12.5LED	Retrofit with (2) 12.5 Watt LED T8 4' Lamps; Direct Wire to Socket	25	0.050	0.432	KT-LED10.5T8-48G-840-D	3
2181	SELINSGROVE	INTERIOR	S	1	463	7	24/7 & OCCUPIED	CF6	OFFICE	268	2EC25-4'	2	T8 2x4 2-Lamp Egg Crate Fixture	43	0.086	O	2340	201		2	N 2W-12.5LED	New 1x4 2-Lamp Wrap Fixture with (2) 12.5 Watt LED T8 4' Lamp; Direct Wire to Socket	25	0.050	0.432	CCW-4'-2-T8LED /// KT-LED10.5T8-48G-840-D	51 + 3
2182	SELINSGROVE	INTERIOR	S	1	464	7	24/7 & OCCUPIED	CF6	HALL	265	1W17	6	T8 2x2 1-Lamp Wrap Fixture	22	0.132	Z	8760	1,156		6	R 1L-10LED2'	Retrofit with (1) 10 Watt LED T8 2' Lamp; Direct Wire to Socket	10	0.060	0.864	KT-LED7T8-24GC-840-D	1
2183	SELINSGROVE	INTERIOR	S	1	464	7	24/7 & OCCUPIED	CF6	HALL		2L25-1X4	4	T8 1x4 2-Lamp Troffer Fixture	43	0.172	Z	8760	1,507		4	R 2L-12.5LED	Retrofit with (2) 12.5 Watt LED T8 4' Lamps; Direct Wire to Socket	25	0.100	0.864	KT-LED10.5T8-48G-840-D	3
2184	SELINSGROVE	INTERIOR	S	1	464	7	24/7 & OCCUPIED	CF6	HALL		CF13SQDL-8X8	3	13 Watt Compact Fluorescent Square Downlight Fixture; 8x8	13	0.039	Z	8760	342		3	LED 9A	Re-Lamp with (1) 9 Watt LED A19 Lamps	9	0.027	0.144	LA19/9/40K/D-46	8
2185	SELINSGROVE	INTERIOR	S	1	465	7	24/7 & OCCUPIED	CF6	HALL	2392	2L25-4'	6	T8 2x4 2-Lamp Troffer Fixture	43	0.258	Z	8760	2,260		6	R 2L-12.5LED	Retrofit with (2) 12.5 Watt LED T8 4' Lamps; Direct Wire to Socket	25	0.150	1.296	KT-LED10.5T8-48G-840-D	3
2186	SELINSGROVE	INTERIOR	S	1	465	7	24/7 & OCCUPIED	CF6	HALL		4L25-4'	3	T8 2x4 4-Lamp Troffer Fixture	85	0.255	Z	8760	2,234		3	R 4L-12.5LED	Retrofit with (4) 12.5 Watt LED T8 4' Lamps; Direct Wire to Socket	50	0.150	1.260	KT-LED10.5T8-48G-840-D	3

											EXISTING FIXTURES									PROPOSED FIXTURE UPGRADE							
ID #	Facility Name	Phase	Utility Rate Code	Floor	Map #	Building Number	Building Usage Type	Building Section	Room Description	Room #	ECM Code	Qty	Description	Watts	kW	Burn Hour Code	Pre Burn Hours	kWh	x	Qty	New Code	Description	Watts	kW	Annual KW Saved	Part#	Cut Sheet #
2187	SELINSGROVE	INTERIOR	S	1	465	7	24/7 & OCCUPIED	CF6	HALL		2W25(W)-4'	2	T8 1x4 2-Lamp Wrap Fixture; Damaged/Missing Lens	43	0.086	Z	8760	753		2	N 2W-12.5LED	New 1x4 2-Lamp Wrap Fixture with (2) 12.5 Watt LED T8 4' Lamp; Direct Wire to Socket	25	0.050	0.432	CCW-4'-2-T8LED /// KT-LED10.5T8-48G-840-D	51 + 3
2188	SELINSGROVE	INTERIOR	S	1	465	7	24/7 & OCCUPIED	CF6	HALL		XLED	3	3 Watt LED 2-Lamp Exit Sign	3	0.009	Z	8760	79		3	ZZ DD	No Retrofit	3	0.009	0.000	N/A	N/A
2189	SELINSGROVE	INTERIOR	S	1	466	7	24/7 & OCCUPIED	CF6	WRR	270	1W17	1	T8 2x2 1-Lamp Wrap Fixture	22	0.022	Z	8760	193		1	R 1L-10LED2'	Retrofit with (1) 10 Watt LED T8 2' Lamp; Direct Wire to Socket	10	0.010	0.144	KT-LED7T8-24GC-840-D	1
2190	SELINSGROVE	INTERIOR	S	1	467	7	24/7 & OCCUPIED	CF6	MRR	266	1W17	1	T8 2x2 1-Lamp Wrap Fixture	22	0.022	Z	8760	193		1	R 1L-10LED2'	Retrofit with (1) 10 Watt LED T8 2' Lamp; Direct Wire to Socket	10	0.010	0.144	KT-LED7T8-24GC-840-D	1
2191	SELINSGROVE	INTERIOR	S	1	468	7	24/7 & OCCUPIED	CF6	OFFICE	267b	4W25-4'	4	T8 1x4 4-Lamp Wrap Fixture	85	0.340	O	2340	796		4	R 4L-12.5LED	Retrofit with (4) 12.5 Watt LED T8 4' Lamps; Direct Wire to Socket	50	0.200	1.680	KT-LED10.5T8-48G-840-D	3
2192	SELINSGROVE	INTERIOR	S	1	469	7	24/7 & OCCUPIED	CF6	FILE	2384	2VT25-4'	2	T8 1x4 2-Lamp Vaportight Fixture	43	0.086	O	2340	201		2	R 2L-12.5LED	Retrofit with (2) 12.5 Watt LED T8 4' Lamps; Direct Wire to Socket	25	0.050	0.432	KT-LED10.5T8-48G-840-D	3
2193	SELINSGROVE	INTERIOR	S	1	469	7	24/7 & OCCUPIED	CF6	FILE		60SC	1	60 Watt Incandescent Sconce Fixture	60	0.060	O	2340	140		1	LED 9A	Re-Lamp with (1) 9 Watt LED A19 Lamps	9	0.009	0.612	LA19/9/40K/D-46	8
2194	SELINSGROVE	INTERIOR	S	1	470	7	24/7 & OCCUPIED	CF6	OXYGEN ROOM	2382	2W25-4'	1	T8 1x4 2-Lamp Wrap Fixture	43	0.043	O	2340	101		1	R 2L-12.5LED	Retrofit with (2) 12.5 Watt LED T8 4' Lamps; Direct Wire to Socket	25	0.025	0.216	KT-LED10.5T8-48G-840-D	3
2195	SELINSGROVE	INTERIOR	S	1	471	7	24/7 & OCCUPIED	CF6	PIPE CHASE	2377	60A	1	60 Watt Incandescent A-Lamp Fixture	60	0.060	S	1000	60		1	LED 9A	Re-Lamp with (1) 9 Watt LED A19 Lamps	9	0.009	0.612	LA19/9/40K/D-46	8
2196	SELINSGROVE	INTERIOR	S	1	471	7	24/7 & OCCUPIED	CF6	PIPE CHASE		2PL13DR	1	13 Watt Plug-In CFL Drum Fixture	26	0.026	S	1000	26		1	N LED14DR	New 12" Round 14 Watt LED Drum Fixture	14	0.014	0.144	54074143	19
2197	SELINSGROVE	INTERIOR	S	1	472	7	24/7 & OCCUPIED	CF6	OFFICE	272	2W25-4'	1	T8 1x4 2-Lamp Wrap Fixture	43	0.043	O	2340	101		1	R 2L-12.5LED	Retrofit with (2) 12.5 Watt LED T8 4' Lamps; Direct Wire to Socket	25	0.025	0.216	KT-LED10.5T8-48G-840-D	3
2198	SELINSGROVE	INTERIOR	S	1	472	7	24/7 & OCCUPIED	CF6	RR		1W17	1	T8 2x2 1-Lamp Wrap Fixture	22	0.022	Z	8760	193		1	R 1L-10LED2'	Retrofit with (1) 10 Watt LED T8 2' Lamp; Direct Wire to Socket	10	0.010	0.144	KT-LED7T8-24GC-840-D	1
2199	SELINSGROVE	INTERIOR	S	1	472	7	24/7 & OCCUPIED	CF6	PIPE CHASE		60A	1	60 Watt Incandescent A-Lamp Fixture	60	0.060	S	1000	60		1	LED 9A	Re-Lamp with (1) 9 Watt LED A19 Lamps	9	0.009	0.612	LA19/9/40K/D-46	8
2200	SELINSGROVE	INTERIOR	S	1	473	7	24/7 & OCCUPIED	CF6	DINING ROOM	2378	2L25-4'	6	T8 2x4 2-Lamp Troffer Fixture	43	0.258	Z	8760	2,260		6	R 2L-12.5LED	Retrofit with (2) 12.5 Watt LED T8 4' Lamps; Direct Wire to Socket	25	0.150	1.296	KT-LED10.5T8-48G-840-D	3
2201	SELINSGROVE	INTERIOR	S	1	473	7	24/7 & OCCUPIED	CF6	HOOD		CF13	1	13 Watt Compact Fluorescent Fixture	13	0.013	Z	8760	114		1	LED 9A	Re-Lamp with (1) 9 Watt LED A19 Lamps	9	0.009	0.048	LA19/9/40K/D-46	8
2202	SELINSGROVE	INTERIOR	S	1	474	7	24/7 & OCCUPIED	CF6	JANITOR CLOSET	291	2W25-4'	1	T8 1x4 2-Lamp Wrap Fixture	43	0.043	S	1000	43		1	R 2L-12.5LED	Retrofit with (2) 12.5 Watt LED T8 4' Lamps; Direct Wire to Socket	25	0.025	0.216	KT-LED10.5T8-48G-840-D	3
2203	SELINSGROVE	INTERIOR	S	1	475	7	24/7 & OCCUPIED	CF8	NURSE STATION	273	2EC25-4'	2	T8 2x4 2-Lamp Egg Crate Fixture	43	0.086	Z	8760	753		2	N 2W-12.5LED	New 1x4 2-Lamp Wrap Fixture with (2) 12.5 Watt LED T8 4' Lamp; Direct Wire to Socket	25	0.050	0.432	CCW-4'-2-T8LED /// KT-LED10.5T8-48G-840-D	51 + 3
2204	SELINSGROVE	INTERIOR	S	1	475	7	24/7 & OCCUPIED	CF8	RR		2PL13SC	1	13 Watt Plug-In CFL sconce Fixture	26	0.026	Z	8760	228		1	RK KLED7-REC	Retrofit with (1) 7 Watt LED Rectangular Retrofit Kit	8.5	0.009	0.210	KT-RKIT-RP-6-800-840-UV /G2	54
2205	SELINSGROVE	INTERIOR	S	1	476	7	24/7 & OCCUPIED	CF8	OFFICE	284	2EC25-4'	1	T8 2x4 2-Lamp Egg Crate Fixture	43	0.043	O	2340	101		1	N 2W-12.5LED	New 1x4 2-Lamp Wrap Fixture with (2) 12.5 Watt LED T8 4' Lamp; Direct Wire to Socket	25	0.025	0.216	CCW-4'-2-T8LED /// KT-LED10.5T8-48G-840-D	51 + 3
2206	SELINSGROVE	INTERIOR	S	1	477	7	24/7 & OCCUPIED	CF8	SOLARIUM	283	2L25-1X4	7	T8 1x4 2-Lamp Troffer Fixture	43	0.301	BH	5460	1,643		7	R 2L-12.5LED	Retrofit with (2) 12.5 Watt LED T8 4' Lamps; Direct Wire to Socket	25	0.175	1.512	KT-LED10.5T8-48G-840-D	3
2207	SELINSGROVE	INTERIOR	S	1	477	7	24/7 & OCCUPIED	CF8	SOLARIUM		XLED	1	3 Watt LED 2-Lamp Exit Sign	3	0.003	Z	8760	26		1	ZZ DD	No Retrofit	3	0.003	0.000	N/A	N/A
2208	SELINSGROVE	INTERIOR	S	1	478	7	24/7 & OCCUPIED	CF8	STAIRS	285	1W17	2	T8 2x2 1-Lamp Wrap Fixture	22	0.044	Z	8760	385		2	R 1L-10LED2'	Retrofit with (1) 10 Watt LED T8 2' Lamp; Direct Wire to Socket	10	0.020	0.288	KT-LED7T8-24GC-840-D	1
2209	SELINSGROVE	INTERIOR	S	1	478	7	24/7 & OCCUPIED	CF8	STAIRS		4EC25-4'-DA	1	T8 2x4 4-Lamp Egg Crate Fixture; Difficult Access	85	0.085	Z	8760	745		1	N 4W-12.5LED-DA	New 1x4 4-Lamp Wrap Fixture with (4) 12.5 Watt LED T8 4' Lamp; Direct Wire to Socket; Difficult Access	50	0.050	0.420	CCW-4'-4-T8LED /// KT-LED10.5T8-48G-840-D	53 + 3
2210	SELINSGROVE	INTERIOR	S	1	478	7	24/7 & OCCUPIED	CF8	STAIRS		XLED	1	3 Watt LED 2-Lamp Exit Sign	3	0.003	Z	8760	26		1	ZZ DD	No Retrofit	3	0.003	0.000	N/A	N/A
2211	SELINSGROVE	INTERIOR	S	1	479	7	24/7 & OCCUPIED	CF8	DAY ROOM	280	3L25-4'	18	T8 2x4 3-Lamp Troffer Fixture	65	1.170	BH	5460	6,388		18	R 3L-12.5LED	Retrofit with (3) 12.5 Watt LED T8 4' Lamps; Direct Wire to Socket	37.5	0.675	5.940	KT-LED10.5T8-48G-840-D	3
2212	SELINSGROVE	INTERIOR	S	1	479	7	24/7 & OCCUPIED	CF8	DAY ROOM		2PL13DR	2	13 Watt Plug-In CFL Drum Fixture	26	0.052	BH	5460	284		2	N LED14DR	New 12" Round 14 Watt LED Drum Fixture	14	0.028	0.288	54074143	19
2213	SELINSGROVE	INTERIOR	S	1	479	7	24/7 & OCCUPIED	CF8	DAY ROOM		1W17	1	T8 2x2 1-Lamp Wrap Fixture	22	0.022	BH	5460	120		1	R 1L-10LED2'	Retrofit with (1) 10 Watt LED T8 2' Lamp; Direct Wire to Socket	10	0.010	0.144	KT-LED7T8-24GC-840-D	1
2214	SELINSGROVE	INTERIOR	S	1	479	7	24/7 & OCCUPIED	CF8	DAY ROOM		XLED	2	3 Watt LED 2-Lamp Exit Sign	3	0.006	Z	8760	53		2	ZZ DD	No Retrofit	3	0.006	0.000	N/A	N/A
2215	SELINSGROVE	INTERIOR	S	1	480	7	24/7 & OCCUPIED	CF8	BED	278	2W25-4'	2	T8 1x4 2-Lamp Wrap Fixture	43	0.086	BH	5460	470		2	R 2L-12.5LED	Retrofit with (2) 12.5 Watt LED T8 4' Lamps; Direct Wire to Socket	25	0.050	0.432	KT-LED10.5T8-48G-840-D	3
2216	SELINSGROVE	INTERIOR	S	1	480	7	24/7 & OCCUPIED	CF8	BED		60SC	4	60 Watt Incandescent Sconce Fixture	60	0.240	BH	5460	1,310		4	LED 9A	Re-Lamp with (1) 9 Watt LED A19 Lamps	9	0.036	2.448	LA19/9/40K/D-46	8
2217	SELINSGROVE	INTERIOR	S	1	481	7	24/7 & OCCUPIED	CF8	BED	279	2W25-4'	2	T8 1x4 2-Lamp Wrap Fixture	43	0.086	BH	5460	470		2	R 2L-12.5LED	Retrofit with (2) 12.5 Watt LED T8 4' Lamps; Direct Wire to Socket	25	0.050	0.432	KT-LED10.5T8-48G-840-D	3
2218	SELINSGROVE	INTERIOR	S	1	481	7	24/7 & OCCUPIED	CF8	BED		60SC	4	60 Watt Incandescent Sconce Fixture	60	0.240	BH	5460	1,310		4	LED 9A	Re-Lamp with (1) 9 Watt LED A19 Lamps	9	0.036	2.448	LA19/9/40K/D-46	8

											EXISTING FIXTURES									PROPOSED FIXTURE UPGRADE							
ID #	Facility Name	Phase	Utility Rate Code	Floor	Map #	Building Number	Building Usage Type	Building Section	Room Description	Room #	ECM Code	Qty	Description	Watts	kW	Burn Hour Code	Pre Burn Hours	kWh	x	Qty	New Code	Description	Watts	kW	Annual KW Saved	Part#	Cut Sheet #
2219	SELINSGROVE	INTERIOR	S	1	482	7	24/7 & OCCUPIED	CF8	BED	281	2W25-4'	2	T8 1x4 2-Lamp Wrap Fixture	43	0.086	BH	5460	470		2	R 2L-12.5LED	Retrofit with (2) 12.5 Watt LED T8 4' Lamps; Direct Wire to Socket	25	0.050	0.432	KT-LED10.5T8-48G-840-D	3
2220	SELINSGROVE	INTERIOR	S	1	482	7	24/7 & OCCUPIED	CF8	BED		60SC	4	60 Watt Incandescent Sconce Fixture	60	0.240	BH	5460	1,310		4	LED 9A	Re-Lamp with (1) 9 Watt LED A19 Lamps	9	0.036	2.448	LA19/9/40K/D-46	8
2221	SELINSGROVE	INTERIOR	S	1	483	7	24/7 & OCCUPIED	CF8	BED	282	2W25-4'	2	T8 1x4 2-Lamp Wrap Fixture	43	0.086	BH	5460	470		2	R 2L-12.5LED	Retrofit with (2) 12.5 Watt LED T8 4' Lamps; Direct Wire to Socket	25	0.050	0.432	KT-LED10.5T8-48G-840-D	3
2222	SELINSGROVE	INTERIOR	S	1	483	7	24/7 & OCCUPIED	CF8	BED		60SC	4	60 Watt Incandescent Sconce Fixture	60	0.240	BH	5460	1,310		4	LED 9A	Re-Lamp with (1) 9 Watt LED A19 Lamps	9	0.036	2.448	LA19/9/40K/D-46	8
2223	SELINSGROVE	INTERIOR	S	1	484	7	24/7 & OCCUPIED	CF8	BED	286	2W25-4'	2	T8 1x4 2-Lamp Wrap Fixture	43	0.086	BH	5460	470		2	R 2L-12.5LED	Retrofit with (2) 12.5 Watt LED T8 4' Lamps; Direct Wire to Socket	25	0.050	0.432	KT-LED10.5T8-48G-840-D	3
2224	SELINSGROVE	INTERIOR	S	1	484	7	24/7 & OCCUPIED	CF8	BED		60SC	4	60 Watt Incandescent Sconce Fixture	60	0.240	BH	5460	1,310		4	LED 9A	Re-Lamp with (1) 9 Watt LED A19 Lamps	9	0.036	2.448	LA19/9/40K/D-46	8
2225	SELINSGROVE	INTERIOR	S	1	485	7	24/7 & OCCUPIED	CF8	BED	287	2W25-4'	2	T8 1x4 2-Lamp Wrap Fixture	43	0.086	BH	5460	470		2	R 2L-12.5LED	Retrofit with (2) 12.5 Watt LED T8 4' Lamps; Direct Wire to Socket	25	0.050	0.432	KT-LED10.5T8-48G-840-D	3
2226	SELINSGROVE	INTERIOR	S	1	485	7	24/7 & OCCUPIED	CF8	BED		60SC	4	60 Watt Incandescent Sconce Fixture	60	0.240	BH	5460	1,310		4	LED 9A	Re-Lamp with (1) 9 Watt LED A19 Lamps	9	0.036	2.448	LA19/9/40K/D-46	8
2227	SELINSGROVE	INTERIOR	S	1	486	7	24/7 & OCCUPIED	CF8	BED	288	2W25-4'	2	T8 1x4 2-Lamp Wrap Fixture	43	0.086	BH	5460	470		2	R 2L-12.5LED	Retrofit with (2) 12.5 Watt LED T8 4' Lamps; Direct Wire to Socket	25	0.050	0.432	KT-LED10.5T8-48G-840-D	3
2228	SELINSGROVE	INTERIOR	S	1	486	7	24/7 & OCCUPIED	CF8	BED		60SC	4	60 Watt Incandescent Sconce Fixture	60	0.240	BH	5460	1,310		4	LED 9A	Re-Lamp with (1) 9 Watt LED A19 Lamps	9	0.036	2.448	LA19/9/40K/D-46	8
2229	SELINSGROVE	INTERIOR	S	1	487	7	24/7 & OCCUPIED	CF8	KITCHEN	289	4L25-4'	4	T8 2x4 4-Lamp Troffer Fixture	85	0.340	Z	8760	2,978		4	R 4L-12.5LED	Retrofit with (4) 12.5 Watt LED T8 4' Lamps; Direct Wire to Socket	50	0.200	1.680	KT-LED10.5T8-48G-840-D	3
2230	SELINSGROVE	INTERIOR	S	1	488	7	24/7 & OCCUPIED	CF8	RR / SHOWER	290	2W25-4'	2	T8 1x4 2-Lamp Wrap Fixture	43	0.086	Z	8760	753		2	R 2L-12.5LED	Retrofit with (2) 12.5 Watt LED T8 4' Lamps; Direct Wire to Socket	25	0.050	0.432	KT-LED10.5T8-48G-840-D	3
2231	SELINSGROVE	INTERIOR	S	1	488	7	24/7 & OCCUPIED	CF8	RR-A		2W25-4'	1	T8 1x4 2-Lamp Wrap Fixture	43	0.043	Z	8760	377		1	R 2L-12.5LED	Retrofit with (2) 12.5 Watt LED T8 4' Lamps; Direct Wire to Socket	25	0.025	0.216	KT-LED10.5T8-48G-840-D	3
2232	SELINSGROVE	INTERIOR	S	1	488	7	24/7 & OCCUPIED	CF8	RR-A		2V25(V)-4'	1	T8 1x4 2-Lamp Vanity Fixture; Damaged/Missing Lens	43	0.043	Z	8760	377		1	N 2V-12.5LED	New 1x4 2-Lamp Vanity Fixture with (2) 12.5 Watt LED T8 4' Lamp; Direct Wire to Socket	25	0.025	0.216	VWF-4'-2-T8LED /// KT-LED10.5T8-48G-840-D	49 + 3
2233	SELINSGROVE	INTERIOR	S	1	488	7	24/7 & OCCUPIED	CF8	PIPE CHASE		60A	2	60 Watt Incandescent A-Lamp Fixture	60	0.120	S	1000	120		2	LED 9A	Re-Lamp with (1) 9 Watt LED A19 Lamps	9	0.018	1.224	LA19/9/40K/D-46	8
2234	SELINSGROVE	INTERIOR	S	1	488	7	24/7 & OCCUPIED	CF8	RR-B		2W25-4'	1	T8 1x4 2-Lamp Wrap Fixture	43	0.043	Z	8760	377		1	R 2L-12.5LED	Retrofit with (2) 12.5 Watt LED T8 4' Lamps; Direct Wire to Socket	25	0.025	0.216	KT-LED10.5T8-48G-840-D	3
2235	SELINSGROVE	INTERIOR	S	1	488	7	24/7 & OCCUPIED	CF8	RR-B		2V25-4'	1	T8 1x4 2-Lamp Vanity Fixture	43	0.043	Z	8760	377		1	R 2L-12.5LED	Retrofit with (2) 12.5 Watt LED T8 4' Lamps; Direct Wire to Socket	25	0.025	0.216	KT-LED10.5T8-48G-840-D	3
2236	SELINSGROVE	INTERIOR	S	1	488	7	24/7 & OCCUPIED	CF8	RR-C		2V25-4'	1	T8 1x4 2-Lamp Vanity Fixture	43	0.043	Z	8760	377		1	R 2L-12.5LED	Retrofit with (2) 12.5 Watt LED T8 4' Lamps; Direct Wire to Socket	25	0.025	0.216	KT-LED10.5T8-48G-840-D	3
2237	SELINSGROVE	INTERIOR	S	1	489	7	24/7 & OCCUPIED	CF8	RR / SHOWER	276	2W25-4'	2	T8 1x4 2-Lamp Wrap Fixture	43	0.086	Z	8760	753		2	R 2L-12.5LED	Retrofit with (2) 12.5 Watt LED T8 4' Lamps; Direct Wire to Socket	25	0.050	0.432	KT-LED10.5T8-48G-840-D	3
2238	SELINSGROVE	INTERIOR	S	1	489	7	24/7 & OCCUPIED	CF8	JANITOR CLOSET		CF13G-HALO	1	13 Watt Compact Fluorescent Globe Fixture; Halo	13	0.013	S	1000	13		1	LED 9A	Re-Lamp with (1) 9 Watt LED A19 Lamps	9	0.009	0.048	LA19/9/40K/D-46	8
2239	SELINSGROVE	INTERIOR	S	1	489	7	24/7 & OCCUPIED	CF8	PIPE CHASE		60A	2	60 Watt Incandescent A-Lamp Fixture	60	0.120	S	1000	120		2	LED 9A	Re-Lamp with (1) 9 Watt LED A19 Lamps	9	0.018	1.224	LA19/9/40K/D-46	8
2240	SELINSGROVE	INTERIOR	S	1	489	7	24/7 & OCCUPIED	CF8	RR-A		2V25-4'	1	T8 1x4 2-Lamp Vanity Fixture	43	0.043	Z	8760	377		1	R 2L-12.5LED	Retrofit with (2) 12.5 Watt LED T8 4' Lamps; Direct Wire to Socket	25	0.025	0.216	KT-LED10.5T8-48G-840-D	3
2241	SELINSGROVE	INTERIOR	S	1	489	7	24/7 & OCCUPIED	CF8	RR-B		2W25-4'	1	T8 1x4 2-Lamp Wrap Fixture	43	0.043	Z	8760	377		1	R 2L-12.5LED	Retrofit with (2) 12.5 Watt LED T8 4' Lamps; Direct Wire to Socket	25	0.025	0.216	KT-LED10.5T8-48G-840-D	3
2242	SELINSGROVE	INTERIOR	S	1	489	7	24/7 & OCCUPIED	CF8	RR-B		2V25-4'	1	T8 1x4 2-Lamp Vanity Fixture	43	0.043	Z	8760	377		1	R 2L-12.5LED	Retrofit with (2) 12.5 Watt LED T8 4' Lamps; Direct Wire to Socket	25	0.025	0.216	KT-LED10.5T8-48G-840-D	3
2243	SELINSGROVE	INTERIOR	S	1	489	7	24/7 & OCCUPIED	CF8	RR-C		2W25-4'	2	T8 1x4 2-Lamp Wrap Fixture	43	0.086	Z	8760	753		2	R 2L-12.5LED	Retrofit with (2) 12.5 Watt LED T8 4' Lamps; Direct Wire to Socket	25	0.050	0.432	KT-LED10.5T8-48G-840-D	3
2244	SELINSGROVE	INTERIOR	S	1	490	7	24/7 & OCCUPIED	CF8	JANITOR CLOSET	2379	CF13	1	13 Watt Compact Fluorescent Fixture	13	0.013	S	1000	13		1	LED 9A	Re-Lamp with (1) 9 Watt LED A19 Lamps	9	0.009	0.048	LA19/9/40K/D-46	8
2245	SELINSGROVE	INTERIOR	S	1	491	7	24/7 & OCCUPIED	CF8	JANITOR CLOSET	2376	CF13G-HALO	1	13 Watt Compact Fluorescent Globe Fixture; Halo	13	0.013	S	1000	13		1	LED 9A	Re-Lamp with (1) 9 Watt LED A19 Lamps	9	0.009	0.048	LA19/9/40K/D-46	8
2246	SELINSGROVE	INTERIOR	S	1	492	7	24/7 & OCCUPIED	CF8	ELECTRIC		CF13	1	13 Watt Compact Fluorescent Fixture	13	0.013	S	1000	13		1	LED 9A	Re-Lamp with (1) 9 Watt LED A19 Lamps	9	0.009	0.048	LA19/9/40K/D-46	8
2247	SELINSGROVE	INTERIOR	S	1	493	7	24/7 & OCCUPIED	CF9	OFFICE	2371	2W25-4'	1	T8 1x4 2-Lamp Wrap Fixture	43	0.043	O	2340	101		1	R 2L-12.5LED	Retrofit with (2) 12.5 Watt LED T8 4' Lamps; Direct Wire to Socket	25	0.025	0.216	KT-LED10.5T8-48G-840-D	3
2248	SELINSGROVE	INTERIOR	S	1	494	7	24/7 & OCCUPIED	CF9	SOLARIUM	2369	2L25-1X4	4	T8 1x4 2-Lamp Troffer Fixture	43	0.172	BH	5460	939		4	R 2L-12.5LED	Retrofit with (2) 12.5 Watt LED T8 4' Lamps; Direct Wire to Socket	25	0.100	0.864	KT-LED10.5T8-48G-840-D	3
2249	SELINSGROVE	INTERIOR	S	1	494	7	24/7 & OCCUPIED	CF9	SOLARIUM		XLED	1	3 Watt LED 2-Lamp Exit Sign	3	0.003	Z	8760	26		1	ZZ DD	No Retrofit	3	0.003	0.000	N/A	N/A
2250	SELINSGROVE	INTERIOR	S	1	495	7	24/7 & OCCUPIED	CF9	STAIR	2370	1W17	2	T8 2x2 1-Lamp Wrap Fixture	22	0.044	Z	8760	385		2	R 1L-10LED2'	Retrofit with (1) 10 Watt LED T8 2' Lamp; Direct Wire to Socket	10	0.020	0.288	KT-LED7T8-24GC-840-D	1

											EXISTING FIXTURES									PROPOSED FIXTURE UPGRADE							
ID #	Facility Name	Phase	Utility Rate Code	Floor	Map #	Building Number	Building Usage Type	Building Section	Room Description	Room #	ECM Code	Qty	Description	Watts	kW	Burn Hour Code	Pre Burn Hours	kWh	x	Qty	New Code	Description	Watts	kW	Annual KW Saved	Part#	Cut Sheet #
2251	SELINSGROVE	INTERIOR	S	1	495	7	24/7 & OCCUPIED	CF9	STAIR		4EC25-4'-DA	1	T8 2x4 4-Lamp Egg Crate Fixture; Difficult Access	85	0.085	Z	8760	745		1	N 4W-12.5LED-DA	New 1x4 4-Lamp Wrap Fixture with (4) 12.5 Watt LED T8 4' Lamp; Direct Wire to Socket; Difficult Access	50	0.050	0.420	CCW-4'-4-T8LED /// KT-LED10.5T8-48G-840-D	53 + 3
2252	SELINSGROVE	INTERIOR	S	1	496	7	24/7 & OCCUPIED	CF9	DAY ROOM		3L25-4'	18	T8 2x4 3-Lamp Troffer Fixture	65	1.170	BH	5460	6,388		18	R 3L-12.5LED	Retrofit with (3) 12.5 Watt LED T8 4' Lamps; Direct Wire to Socket	37.5	0.675	5.940	KT-LED10.5T8-48G-840-D	3
2253	SELINSGROVE	INTERIOR	S	1	496	7	24/7 & OCCUPIED	CF9	DAY ROOM		2PL13DR	2	13 Watt Plug-In CFL Drum Fixture	26	0.052	BH	5460	284		2	N LED14DR	New 12" Round 14 Watt LED Drum Fixture	14	0.028	0.288	54074143	19
2254	SELINSGROVE	INTERIOR	S	1	496	7	24/7 & OCCUPIED	CF9	DAY ROOM		XLED	2	3 Watt LED 2-Lamp Exit Sign	3	0.006	Z	8760	53		2	ZZ DD	No Retrofit	3	0.006	0.000	N/A	N/A
2255	SELINSGROVE	INTERIOR	S	1	497	7	24/7 & OCCUPIED	CF9	BED	2372	1W17	2	T8 2x2 1-Lamp Wrap Fixture	22	0.044	BH	5460	240		2	R 1L-10LED2'	Retrofit with (1) 10 Watt LED T8 2' Lamp; Direct Wire to Socket	10	0.020	0.288	KT-LED7T8-24GC-840-D	1
2256	SELINSGROVE	INTERIOR	S	1	497	7	24/7 & OCCUPIED	CF9	BED		60SC	4	60 Watt Incandescent Sconce Fixture	60	0.240	BH	5460	1,310		4	LED 9A	Re-Lamp with (1) 9 Watt LED A19 Lamps	9	0.036	2.448	LA19/9/40K/D-46	8
2257	SELINSGROVE	INTERIOR	S	1	498	7	24/7 & OCCUPIED	CF9	BED	2373	1W17	2	T8 2x2 1-Lamp Wrap Fixture	22	0.044	BH	5460	240		2	R 1L-10LED2'	Retrofit with (1) 10 Watt LED T8 2' Lamp; Direct Wire to Socket	10	0.020	0.288	KT-LED7T8-24GC-840-D	1
2258	SELINSGROVE	INTERIOR	S	1	498	7	24/7 & OCCUPIED	CF9	BED		60SC	4	60 Watt Incandescent Sconce Fixture	60	0.240	BH	5460	1,310		4	LED 9A	Re-Lamp with (1) 9 Watt LED A19 Lamps	9	0.036	2.448	LA19/9/40K/D-46	8
2259	SELINSGROVE	INTERIOR	S	1	499	7	24/7 & OCCUPIED	CF9	BED	2374	1W17	2	T8 2x2 1-Lamp Wrap Fixture	22	0.044	BH	5460	240		2	R 1L-10LED2'	Retrofit with (1) 10 Watt LED T8 2' Lamp; Direct Wire to Socket	10	0.020	0.288	KT-LED7T8-24GC-840-D	1
2260	SELINSGROVE	INTERIOR	S	1	499	7	24/7 & OCCUPIED	CF9	BED		60SC	4	60 Watt Incandescent Sconce Fixture	60	0.240	BH	5460	1,310		4	LED 9A	Re-Lamp with (1) 9 Watt LED A19 Lamps	9	0.036	2.448	LA19/9/40K/D-46	8
2261	SELINSGROVE	INTERIOR	S	1	500	7	24/7 & OCCUPIED	CF9	BED	2375	1W17	2	T8 2x2 1-Lamp Wrap Fixture	22	0.044	BH	5460	240		2	R 1L-10LED2'	Retrofit with (1) 10 Watt LED T8 2' Lamp; Direct Wire to Socket	10	0.020	0.288	KT-LED7T8-24GC-840-D	1
2262	SELINSGROVE	INTERIOR	S	1	500	7	24/7 & OCCUPIED	CF9	BED		60SC	4	60 Watt Incandescent Sconce Fixture	60	0.240	BH	5460	1,310		4	LED 9A	Re-Lamp with (1) 9 Watt LED A19 Lamps	9	0.036	2.448	LA19/9/40K/D-46	8
2263	SELINSGROVE	INTERIOR	S	1	501	7	24/7 & OCCUPIED	CF9	BED	2364	1W17	2	T8 2x2 1-Lamp Wrap Fixture	22	0.044	BH	5460	240		2	R 1L-10LED2'	Retrofit with (1) 10 Watt LED T8 2' Lamp; Direct Wire to Socket	10	0.020	0.288	KT-LED7T8-24GC-840-D	1
2264	SELINSGROVE	INTERIOR	S	1	501	7	24/7 & OCCUPIED	CF9	BED		60SC	4	60 Watt Incandescent Sconce Fixture	60	0.240	BH	5460	1,310		4	LED 9A	Re-Lamp with (1) 9 Watt LED A19 Lamps	9	0.036	2.448	LA19/9/40K/D-46	8
2265	SELINSGROVE	INTERIOR	S	1	502	7	24/7 & OCCUPIED	CF9	BED	2365	1W17	2	T8 2x2 1-Lamp Wrap Fixture	22	0.044	BH	5460	240		2	R 1L-10LED2'	Retrofit with (1) 10 Watt LED T8 2' Lamp; Direct Wire to Socket	10	0.020	0.288	KT-LED7T8-24GC-840-D	1
2266	SELINSGROVE	INTERIOR	S	1	502	7	24/7 & OCCUPIED	CF9	BED		60SC	4	60 Watt Incandescent Sconce Fixture	60	0.240	BH	5460	1,310		4	LED 9A	Re-Lamp with (1) 9 Watt LED A19 Lamps	9	0.036	2.448	LA19/9/40K/D-46	8
2267	SELINSGROVE	INTERIOR	S	1	503	7	24/7 & OCCUPIED	CF9	BED	2367	1W17	2	T8 2x2 1-Lamp Wrap Fixture	22	0.044	BH	5460	240		2	R 1L-10LED2'	Retrofit with (1) 10 Watt LED T8 2' Lamp; Direct Wire to Socket	10	0.020	0.288	KT-LED7T8-24GC-840-D	1
2268	SELINSGROVE	INTERIOR	S	1	503	7	24/7 & OCCUPIED	CF9	BED		60SC	4	60 Watt Incandescent Sconce Fixture	60	0.240	BH	5460	1,310		4	LED 9A	Re-Lamp with (1) 9 Watt LED A19 Lamps	9	0.036	2.448	LA19/9/40K/D-46	8
2269	SELINSGROVE	INTERIOR	S	1	504	7	24/7 & OCCUPIED	CF9	BED	2368	1W17	2	T8 2x2 1-Lamp Wrap Fixture	22	0.044	BH	5460	240		2	R 1L-10LED2'	Retrofit with (1) 10 Watt LED T8 2' Lamp; Direct Wire to Socket	10	0.020	0.288	KT-LED7T8-24GC-840-D	1
2270	SELINSGROVE	INTERIOR	S	1	504	7	24/7 & OCCUPIED	CF9	BED		60SC	4	60 Watt Incandescent Sconce Fixture	60	0.240	BH	5460	1,310		4	LED 9A	Re-Lamp with (1) 9 Watt LED A19 Lamps	9	0.036	2.448	LA19/9/40K/D-46	8
2271	SELINSGROVE	INTERIOR	S	1	505	7	24/7 & OCCUPIED	CF9	RR / SHOWER		2W25-4'	3	T8 1x4 2-Lamp Wrap Fixture	43	0.129	Z	8760	1,130		3	R 2L-12.5LED	Retrofit with (2) 12.5 Watt LED T8 4' Lamps; Direct Wire to Socket	25	0.075	0.648	KT-LED10.5T8-48G-840-D	3
2272	SELINSGROVE	INTERIOR	S	1	505	7	24/7 & OCCUPIED	CF9	RR-C		2W25-4'	2	T8 1x4 2-Lamp Wrap Fixture	43	0.086	Z	8760	753		2	R 2L-12.5LED	Retrofit with (2) 12.5 Watt LED T8 4' Lamps; Direct Wire to Socket	25	0.050	0.432	KT-LED10.5T8-48G-840-D	3
2273	SELINSGROVE	INTERIOR	S	1	505	7	24/7 & OCCUPIED	CF9	RR-C		2V17	1	T8 1x2 2-Lamp Vanity Fixture	29	0.029	Z	8760	254		1	R 2L-10LED2'	Retrofit with (2) 10 Watt LED T8 2' Lamps; Direct Wire to Socket	20	0.020	0.108	KT-LED7T8-24GC-840-D	1
2274	SELINSGROVE	INTERIOR	S	1	505	7	24/7 & OCCUPIED	CF9	RR-B		2W25-4'	1	T8 1x4 2-Lamp Wrap Fixture	43	0.043	Z	8760	377		1	R 2L-12.5LED	Retrofit with (2) 12.5 Watt LED T8 4' Lamps; Direct Wire to Socket	25	0.025	0.216	KT-LED10.5T8-48G-840-D	3
2275	SELINSGROVE	INTERIOR	S	1	505	7	24/7 & OCCUPIED	CF9	RR-B		2V25-4'	1	T8 1x4 2-Lamp Vanity Fixture	43	0.043	Z	8760	377		1	R 2L-12.5LED	Retrofit with (2) 12.5 Watt LED T8 4' Lamps; Direct Wire to Socket	25	0.025	0.216	KT-LED10.5T8-48G-840-D	3
2276	SELINSGROVE	INTERIOR	S	1	506	7	24/7 & OCCUPIED	CF9	RR / SHOWER	2363	2W25-4'	5	T8 1x4 2-Lamp Wrap Fixture	43	0.215	Z	8760	1,883		5	R 2L-12.5LED	Retrofit with (2) 12.5 Watt LED T8 4' Lamps; Direct Wire to Socket	25	0.125	1.080	KT-LED10.5T8-48G-840-D	3
2277	SELINSGROVE	INTERIOR	S	1	506	7	24/7 & OCCUPIED	CF9	RR-A		2V25-4'	1	T8 1x4 2-Lamp Vanity Fixture	43	0.043	Z	8760	377		1	R 2L-12.5LED	Retrofit with (2) 12.5 Watt LED T8 4' Lamps; Direct Wire to Socket	25	0.025	0.216	KT-LED10.5T8-48G-840-D	3
2278	SELINSGROVE	INTERIOR	S	1	506	7	24/7 & OCCUPIED	CF9	RR-B		2V25-4'	1	T8 1x4 2-Lamp Vanity Fixture	43	0.043	Z	8760	377		1	R 2L-12.5LED	Retrofit with (2) 12.5 Watt LED T8 4' Lamps; Direct Wire to Socket	25	0.025	0.216	KT-LED10.5T8-48G-840-D	3
2279	SELINSGROVE	INTERIOR	S	1	506	7	24/7 & OCCUPIED	CF9	RR-B		2W25-4'	1	T8 1x4 2-Lamp Wrap Fixture	43	0.043	Z	8760	377		1	R 2L-12.5LED	Retrofit with (2) 12.5 Watt LED T8 4' Lamps; Direct Wire to Socket	25	0.025	0.216	KT-LED10.5T8-48G-840-D	3
2280	SELINSGROVE	INTERIOR	S	1	506	7	24/7 & OCCUPIED	CF9	RR-C		2W25-4'	1	T8 1x4 2-Lamp Wrap Fixture	43	0.043	Z	8760	377		1	R 2L-12.5LED	Retrofit with (2) 12.5 Watt LED T8 4' Lamps; Direct Wire to Socket	25	0.025	0.216	KT-LED10.5T8-48G-840-D	3
2281	SELINSGROVE	INTERIOR	S	1	506	7	24/7 & OCCUPIED	CF9	RR-D		2V25-4'	1	T8 1x4 2-Lamp Vanity Fixture	43	0.043	Z	8760	377		1	R 2L-12.5LED	Retrofit with (2) 12.5 Watt LED T8 4' Lamps; Direct Wire to Socket	25	0.025	0.216	KT-LED10.5T8-48G-840-D	3
2282	SELINSGROVE	INTERIOR	S	1	506	7	24/7 & OCCUPIED	CF9	PIPE CHASE		CF13	1	13 Watt Compact Fluorescent Fixture	13	0.013	S	1000	13		1	LED 9A	Re-Lamp with (1) 9 Watt LED A19 Lamps	9	0.009	0.048	LA19/9/40K/D-46	8

											EXISTING FIXTURES									PROPOSED FIXTURE UPGRADE						
ID #	Facility Name	Phase	Utility Rate Code	Floor	Map #	Building Number	Building Usage Type	Building Section	Room Description	Room #	ECM Code	Qty	Description	Watts	kW	Burn Hour Code	Pre Burn Hours	kWh	x	Qty	New Code	Description	Watts	kW	Annual KW Saved	Part#	Cut Sheet #
2283	SELINSGROVE	INTERIOR	S	1	506	7	24/7 & OCCUPIED	CF9	PIPE CHASE		60A	2	60 Watt Incandescent A-Lamp Fixture	60	0.120	S	1000	120		2	LED 9A	Re-Lamp with (1) 9 Watt LED A19 Lamps	9	0.018	1.224	LA19/9/40K/D-46	8
2284	SELINSGROVE	INTERIOR	S	1	507	7	24/7 & OCCUPIED	CF9	HALL	271	2L25-1X4	3	T8 1x4 2-Lamp Troffer Fixture	43	0.129	Z	8760	1,130		3	R 2L-12.5LED	Retrofit with (2) 12.5 Watt LED T8 4' Lamps; Direct Wire to Socket	25	0.075	0.648	KT-LED10.5T8-48G-840-D	3
2285	SELINSGROVE	INTERIOR	S	1	507	7	24/7 & OCCUPIED	CF9	HALL		1W17	5	T8 2x2 1-Lamp Wrap Fixture	22	0.110	Z	8760	964		5	R 1L-10LED2'	Retrofit with (1) 10 Watt LED T8 2' Lamp; Direct Wire to Socket	10	0.050	0.720	KT-LED7T8-24GC-840-D	1
2286	SELINSGROVE	INTERIOR	S	1	507	7	24/7 & OCCUPIED	CF9	HALL		XLED	3	3 Watt LED 2-Lamp Exit Sign	3	0.009	Z	8760	79		3	ZZ DD	No Retrofit	3	0.009	0.000	N/A	N/A
2287	SELINSGROVE	INTERIOR	S	1	507	7	24/7 & OCCUPIED	CF9	HALL		CF13SQDL-8X8	1	13 Watt Compact Fluorescent Square Downlight Fixture; 8x8	13	0.013	Z	8760	114		1	LED 9A	Re-Lamp with (1) 9 Watt LED A19 Lamps	9	0.009	0.048	LA19/9/40K/D-46	8
2288	SELINSGROVE	INTERIOR	S	1	508	7	24/7 & OCCUPIED	CF9	BREAK ROOM	2361	1W17	5	T8 2x2 1-Lamp Wrap Fixture	22	0.110	O-ES	1638	180		5	R 1L-10LED2'	Retrofit with (1) 10 Watt LED T8 2' Lamp; Direct Wire to Socket	10	0.050	0.720	KT-LED7T8-24GC-840-D	1
2289	SELINSGROVE	INTERIOR	S	1	508	7	24/7 & OCCUPIED	CF9	BREAK ROOM		3PL13DR	1	13 Watt 3-Lamp Plug-In CFL Drum Fixture	45	0.045	O	2340	105		1	N LED22DR	New 16" Round 22 Watt LED Drum Fixture	22	0.022	0.276	54075142	20
2290	SELINSGROVE	INTERIOR	S	1	509	7	24/7 & OCCUPIED	CF9	SENSORY	292	1W17	6	T8 2x2 1-Lamp Wrap Fixture	22	0.132	O	2340	309		6	R 1L-10LED2'	Retrofit with (1) 10 Watt LED T8 2' Lamp; Direct Wire to Socket	10	0.060	0.864	KT-LED7T8-24GC-840-D	1
2291	SELINSGROVE	INTERIOR	S	1	509	7	24/7 & OCCUPIED	CF9	SENSORY		3CF13CPY	3	13 Watt 3-Lamp Compact Fluorescent Canopy Fixture	39	0.117	O	2340	274		3	N RLED20CPY	New 20 Watt LED Canopy Fixture	21	0.063	0.648	VANLED20	27
2292	SELINSGROVE	INTERIOR	S	1	510	7	24/7 & OCCUPIED	CF9	STAIR	2360	1W17	1	T8 2x2 1-Lamp Wrap Fixture	22	0.022	Z	8760	193		1	R 1L-10LED2'	Retrofit with (1) 10 Watt LED T8 2' Lamp; Direct Wire to Socket	10	0.010	0.144	KT-LED7T8-24GC-840-D	1
2293	SELINSGROVE	INTERIOR	S	1	510	7	24/7 & OCCUPIED	CF9	STAIR		2PL13DR	1	13 Watt Plug-In CFL Drum Fixture	26	0.026	Z	8760	228		1	N LED14DR	New 12" Round 14 Watt LED Drum Fixture	14	0.014	0.144	54074143	19
2294	SELINSGROVE	INTERIOR	S	1	510	7	24/7 & OCCUPIED	CF9	STAIR		2EC25-4'	1	T8 2x4 2-Lamp Egg Crate Fixture	43	0.043	Z	8760	377		1	N 2W-12.5LED	New 1x4 2-Lamp Wrap Fixture with (2) 12.5 Watt LED T8 4' Lamp; Direct Wire to Socket	25	0.025	0.216	CCW-4'-2-T8LED /// KT-LED10.5T8-48G-840-D	51 + 3
2295	SELINSGROVE	INTERIOR	S	1	511	7	24/7 & OCCUPIED	CF9	LAUNDRY	293	1I25-4'	3	T8 1x4 1-Lamp Industrial Strip Fixture	22	0.066	S	1000	66		3	R 1L-12.5LED	Retrofit with (1) 12.5 Watt LED T8 4' Lamps; Direct Wire to Socket	12.5	0.038	0.342	KT-LED10.5T8-48G-840-D	3
2296	SELINSGROVE	INTERIOR	S	1	512	7	24/7 & OCCUPIED	CF9	CLOSET	2359	CF13	1	13 Watt Compact Fluorescent Fixture	13	0.013	S	1000	13		1	LED 9A	Re-Lamp with (1) 9 Watt LED A19 Lamps	9	0.009	0.048	LA19/9/40K/D-46	8
2297	SELINSGROVE	INTERIOR	S	1	513	7	24/7 & OCCUPIED	CF9	LINEN	293	1I25-4'	1	T8 1x4 1-Lamp Industrial Strip Fixture	22	0.022	S	1000	22		1	R 1L-12.5LED	Retrofit with (1) 12.5 Watt LED T8 4' Lamps; Direct Wire to Socket	12.5	0.013	0.114	KT-LED10.5T8-48G-840-D	3
2298	SELINSGROVE	INTERIOR	S	1	514	7	24/7 & OCCUPIED	CF9	OFFICE	2358	3W25-4'	4	T8 1x4 3-Lamp Wrap Fixture	65	0.260	O	2340	608		4	R 3L-12.5LED	Retrofit with (3) 12.5 Watt LED T8 4' Lamps; Direct Wire to Socket	37.5	0.150	1.320	KT-LED10.5T8-48G-840-D	3
2299	SELINSGROVE	INTERIOR	S	1	514	7	24/7 & OCCUPIED	CF9	RR		1W17	1	T8 2x2 1-Lamp Wrap Fixture	22	0.022	Z	8760	193		1	R 1L-10LED2'	Retrofit with (1) 10 Watt LED T8 2' Lamp; Direct Wire to Socket	10	0.010	0.144	KT-LED7T8-24GC-840-D	1
2300	SELINSGROVE	INTERIOR	S	1	514	7	24/7 & OCCUPIED	CF9	PIPE CHASE		60A	1	60 Watt Incandescent A-Lamp Fixture	60	0.060	S	1000	60		1	LED 9A	Re-Lamp with (1) 9 Watt LED A19 Lamps	9	0.009	0.612	LA19/9/40K/D-46	8
2301	SELINSGROVE	INTERIOR	S	1	515	7	24/7 & OCCUPIED	CF10	OFFICE	296	3W25-4'	6	T8 1x4 3-Lamp Wrap Fixture	65	0.390	O	2340	913		6	R 3L-12.5LED	Retrofit with (3) 12.5 Watt LED T8 4' Lamps; Direct Wire to Socket	37.5	0.225	1.980	KT-LED10.5T8-48G-840-D	3
2302	SELINSGROVE	INTERIOR	S	1	516	7	24/7 & OCCUPIED	CF10	ELEVATOR		2S25	4	T8 2x3 2-Lamp Strip Fixture	49	0.196	Z	8760	1,717		4	R 2L-12LED3'	Retrofit with (2) 12 Watt LED T8 3' Lamps; Direct Wire to Socket	24	0.096	1.200	KT-LED12T8-36GC-840-D	2
2303	SELINSGROVE	INTERIOR	S	1	517	7	24/7 & OCCUPIED	CF10	DINING ROOM	2357	4L25-4'	4	T8 2x4 4-Lamp Troffer Fixture	85	0.340	Z	8760	2,978		4	R 4L-12.5LED	Retrofit with (4) 12.5 Watt LED T8 4' Lamps; Direct Wire to Socket	50	0.200	1.680	KT-LED10.5T8-48G-840-D	3
2304	SELINSGROVE	INTERIOR	S	1	518	7	24/7 & OCCUPIED	CF10	NURSE STATION	2353	2EC25-4'	2	T8 2x4 2-Lamp Egg Crate Fixture	43	0.086	Z	8760	753		2	N 2W-12.5LED	New 1x4 2-Lamp Wrap Fixture with (2) 12.5 Watt LED T8 4' Lamp; Direct Wire to Socket	25	0.050	0.432	CCW-4'-2-T8LED /// KT-LED10.5T8-48G-840-D	51 + 3
2305	SELINSGROVE	INTERIOR	S	1	518	7	24/7 & OCCUPIED	CF10	NURSE STATION	279	2PL13SC	1	13 Watt Plug-In CFL sconce Fixture	26	0.026	Z	8760	228		1	RK KLED7-REC	Retrofit with (1) 7 Watt LED Rectangular Retrofit Kit	8.5	0.009	0.210	KT-RKIT-RP-6-800-840-UV /G2	54
2306	SELINSGROVE	INTERIOR	S	1	519	7	24/7 & OCCUPIED	CF10	OFFICE		2EC25-4'	1	T8 2x4 2-Lamp Egg Crate Fixture	43	0.043	O	2340	101		1	N 2W-12.5LED	New 1x4 2-Lamp Wrap Fixture with (2) 12.5 Watt LED T8 4' Lamp; Direct Wire to Socket	25	0.025	0.216	CCW-4'-2-T8LED /// KT-LED10.5T8-48G-840-D	51 + 3
2307	SELINSGROVE	INTERIOR	S	1	520	7	24/7 & OCCUPIED	CF10	SOLARIUM	2308	2L25-1X4	7	T8 1x4 2-Lamp Troffer Fixture	43	0.301	BH	5460	1,643		7	R 2L-12.5LED	Retrofit with (2) 12.5 Watt LED T8 4' Lamps; Direct Wire to Socket	25	0.175	1.512	KT-LED10.5T8-48G-840-D	3
2308	SELINSGROVE	INTERIOR	S	1	521	7	24/7 & OCCUPIED	CF10	STAIR	2307	1W17	2	T8 2x2 1-Lamp Wrap Fixture	22	0.044	Z	8760	385		2	R 1L-10LED2'	Retrofit with (1) 10 Watt LED T8 2' Lamp; Direct Wire to Socket	10	0.020	0.288	KT-LED7T8-24GC-840-D	1
2309	SELINSGROVE	INTERIOR	S	1	521	7	24/7 & OCCUPIED	CF10	STAIR	2109	4EC25-4'	1	T8 2x4 4-Lamp Egg Crate Fixture	85	0.085	Z	8760	745		1	N 4W-12.5LED	New 1x4 4-Lamp Wrap Fixture with (4) 12.5 Watt LED T8 4' Lamp; Direct Wire to Socket	50	0.050	0.420	CCW-4'-4-T8LED /// KT-LED10.5T8-48G-840-D	53 + 3
2310	SELINSGROVE	INTERIOR	S	1	521	7	24/7 & OCCUPIED	CF10	STAIR		XLED	1	3 Watt LED 2-Lamp Exit Sign	3	0.003	Z	8760	26		1	ZZ DD	No Retrofit	3	0.003	0.000	N/A	N/A
2311	SELINSGROVE	INTERIOR	S	1	522	7	24/7 & OCCUPIED	CF10	DAY ROOM	2304	3L25-4'	18	T8 2x4 3-Lamp Troffer Fixture	65	1.170	BH	5460	6,388		18	R 3L-12.5LED	Retrofit with (3) 12.5 Watt LED T8 4' Lamps; Direct Wire to Socket	37.5	0.675	5.940	KT-LED10.5T8-48G-840-D	3
2312	SELINSGROVE	INTERIOR	S	1	522	7	24/7 & OCCUPIED	CF10	DAY ROOM		2PL13DR	1	13 Watt Plug-In CFL Drum Fixture	26	0.026	BH	5460	142		1	N LED14DR	New 12" Round 14 Watt LED Drum Fixture	14	0.014	0.144	54074143	19
2313	SELINSGROVE	INTERIOR	S	1	522	7	24/7 & OCCUPIED	CF10	DAY ROOM		1W17	1	T8 2x2 1-Lamp Wrap Fixture	22	0.022	BH	5460	120		1	R 1L-10LED2'	Retrofit with (1) 10 Watt LED T8 2' Lamp; Direct Wire to Socket	10	0.010	0.144	KT-LED7T8-24GC-840-D	1
2314	SELINSGROVE	INTERIOR	S	1	523	7	24/7 & OCCUPIED	CF10	KITCHEN	2302	4L32	4	T8 2x4 4-Lamp Troffer Fixture	106	0.424	Z	8760	3,714		4	R 4L-12.5LED	Retrofit with (4) 12.5 Watt LED T8 4' Lamps; Direct Wire to Socket	50	0.200	2.688	KT-LED10.5T8-48G-840-D	3

											EXISTING FIXTURES									PROPOSED FIXTURE UPGRADE							
ID #	Facility Name	Phase	Utility Rate Code	Floor	Map #	Building Number	Building Usage Type	Building Section	Room Description	Room #	ECM Code	Qty	Description	Watts	kW	Burn Hour Code	Pre Burn Hours	kWh	x	Qty	New Code	Description	Watts	kW	Annual KW Saved	Part#	Cut Sheet #
2315	SELINSGROVE	INTERIOR	S	1	524	7	24/7 & OCCUPIED	CF10	BED	2303	1W25-4'	2	T8 1x4 1-Lamp Wrap Fixture	22	0.044	BH	5460	240		2	R 1L-12.5LED	Retrofit with (1) 12.5 Watt LED T8 4' Lamps; Direct Wire to Socket	12.5	0.025	0.228	KT-LED10.5T8-48G-840-D	3
2316	SELINSGROVE	INTERIOR	S	1	524	7	24/7 & OCCUPIED	CF10	BED	2303	60SC	4	60 Watt Incandescent Sconce Fixture	60	0.240	BH	5460	1,310		4	LED 9A	Re-Lamp with (1) 9 Watt LED A19 Lamps	9	0.036	2.448	LA19/9/40K/D-46	8
2317	SELINSGROVE	INTERIOR	S	1	525	7	24/7 & OCCUPIED	CF10	BED	2305	1W25-4'	2	T8 1x4 1-Lamp Wrap Fixture	22	0.044	BH	5460	240		2	R 1L-12.5LED	Retrofit with (1) 12.5 Watt LED T8 4' Lamps; Direct Wire to Socket	12.5	0.025	0.228	KT-LED10.5T8-48G-840-D	3
2318	SELINSGROVE	INTERIOR	S	1	525	7	24/7 & OCCUPIED	CF10	BED		60SC	4	60 Watt Incandescent Sconce Fixture	60	0.240	BH	5460	1,310		4	LED 9A	Re-Lamp with (1) 9 Watt LED A19 Lamps	9	0.036	2.448	LA19/9/40K/D-46	8
2319	SELINSGROVE	INTERIOR	S	1	526	7	24/7 & OCCUPIED	CF10	BED	2306	1W25-4'	2	T8 1x4 1-Lamp Wrap Fixture	22	0.044	BH	5460	240		2	R 1L-12.5LED	Retrofit with (1) 12.5 Watt LED T8 4' Lamps; Direct Wire to Socket	12.5	0.025	0.228	KT-LED10.5T8-48G-840-D	3
2320	SELINSGROVE	INTERIOR	S	1	526	7	24/7 & OCCUPIED	CF10	BED		60SC	4	60 Watt Incandescent Sconce Fixture	60	0.240	BH	5460	1,310		4	LED 9A	Re-Lamp with (1) 9 Watt LED A19 Lamps	9	0.036	2.448	LA19/9/40K/D-46	8
2321	SELINSGROVE	INTERIOR	S	1	527	7	24/7 & OCCUPIED	CF10	BED	2310	1W25-4'	2	T8 1x4 1-Lamp Wrap Fixture	22	0.044	BH	5460	240		2	R 1L-12.5LED	Retrofit with (1) 12.5 Watt LED T8 4' Lamps; Direct Wire to Socket	12.5	0.025	0.228	KT-LED10.5T8-48G-840-D	3
2322	SELINSGROVE	INTERIOR	S	1	527	7	24/7 & OCCUPIED	CF10	BED		60SC	4	60 Watt Incandescent Sconce Fixture	60	0.240	BH	5460	1,310		4	LED 9A	Re-Lamp with (1) 9 Watt LED A19 Lamps	9	0.036	2.448	LA19/9/40K/D-46	8
2323	SELINSGROVE	INTERIOR	S	1	528	7	24/7 & OCCUPIED	CF10	BED	2311	1W25-4'	2	T8 1x4 1-Lamp Wrap Fixture	22	0.044	BH	5460	240		2	R 1L-12.5LED	Retrofit with (1) 12.5 Watt LED T8 4' Lamps; Direct Wire to Socket	12.5	0.025	0.228	KT-LED10.5T8-48G-840-D	3
2324	SELINSGROVE	INTERIOR	S	1	528	7	24/7 & OCCUPIED	CF10	BED		60SC	4	60 Watt Incandescent Sconce Fixture	60	0.240	BH	5460	1,310		4	LED 9A	Re-Lamp with (1) 9 Watt LED A19 Lamps	9	0.036	2.448	LA19/9/40K/D-46	8
2325	SELINSGROVE	INTERIOR	S	1	529	7	24/7 & OCCUPIED	CF10	BED	2312	1W25-4'	2	T8 1x4 1-Lamp Wrap Fixture	22	0.044	BH	5460	240		2	R 1L-12.5LED	Retrofit with (1) 12.5 Watt LED T8 4' Lamps; Direct Wire to Socket	12.5	0.025	0.228	KT-LED10.5T8-48G-840-D	3
2326	SELINSGROVE	INTERIOR	S	1	529	7	24/7 & OCCUPIED	CF10	BED		60SC	4	60 Watt Incandescent Sconce Fixture	60	0.240	BH	5460	1,310		4	LED 9A	Re-Lamp with (1) 9 Watt LED A19 Lamps	9	0.036	2.448	LA19/9/40K/D-46	8
2327	SELINSGROVE	INTERIOR	S	1	530	7	24/7 & OCCUPIED	CF10	BED	2313	1W25-4'	2	T8 1x4 1-Lamp Wrap Fixture	22	0.044	BH	5460	240		2	R 1L-12.5LED	Retrofit with (1) 12.5 Watt LED T8 4' Lamps; Direct Wire to Socket	12.5	0.025	0.228	KT-LED10.5T8-48G-840-D	3
2328	SELINSGROVE	INTERIOR	S	1	530	7	24/7 & OCCUPIED	CF10	BED		60SC	4	60 Watt Incandescent Sconce Fixture	60	0.240	BH	5460	1,310		4	LED 9A	Re-Lamp with (1) 9 Watt LED A19 Lamps	9	0.036	2.448	LA19/9/40K/D-46	8
2329	SELINSGROVE	INTERIOR	S	1	531	7	24/7 & OCCUPIED	CF10	RR / SHOWER		2W25-4'	4	T8 1x4 2-Lamp Wrap Fixture	43	0.172	Z	8760	1,507		4	R 2L-12.5LED	Retrofit with (2) 12.5 Watt LED T8 4' Lamps; Direct Wire to Socket	25	0.100	0.864	KT-LED10.5T8-48G-840-D	3
2330	SELINSGROVE	INTERIOR	S	1	531	7	24/7 & OCCUPIED	CF10	RR / SHOWER		2V25-4'	2	T8 1x4 2-Lamp Vanity Fixture	43	0.086	Z	8760	753		2	R 2L-12.5LED	Retrofit with (2) 12.5 Watt LED T8 4' Lamps; Direct Wire to Socket	25	0.050	0.432	KT-LED10.5T8-48G-840-D	3
2331	SELINSGROVE	INTERIOR	S	1	531	7	24/7 & OCCUPIED	CF10	RR / SHOWER		2W25-4'	2	T8 1x4 2-Lamp Wrap Fixture	43	0.086	Z	8760	753		2	R 2L-12.5LED	Retrofit with (2) 12.5 Watt LED T8 4' Lamps; Direct Wire to Socket	25	0.050	0.432	KT-LED10.5T8-48G-840-D	3
2332	SELINSGROVE	INTERIOR	S	1	532	7	24/7 & OCCUPIED	CF10	RR	2300	2W32	2	T8 1x4 2-Lamp Wrap Fixture	62	0.124	Z	8760	1,086		2	R 2L-12.5LED	Retrofit with (2) 12.5 Watt LED T8 4' Lamps; Direct Wire to Socket	25	0.050	0.888	KT-LED10.5T8-48G-840-D	3
2333	SELINSGROVE	INTERIOR	S	1	532	7	24/7 & OCCUPIED	CF10	RR		2W32	1	T8 1x4 2-Lamp Wrap Fixture	62	0.062	Z	8760	543		1	R 2L-12.5LED	Retrofit with (2) 12.5 Watt LED T8 4' Lamps; Direct Wire to Socket	25	0.025	0.444	KT-LED10.5T8-48G-840-D	3
2334	SELINSGROVE	INTERIOR	S	1	532	7	24/7 & OCCUPIED	CF10	RR		2W32	2	T8 1x4 2-Lamp Wrap Fixture	62	0.124	Z	8760	1,086		2	R 2L-12.5LED	Retrofit with (2) 12.5 Watt LED T8 4' Lamps; Direct Wire to Socket	25	0.050	0.888	KT-LED10.5T8-48G-840-D	3
2335	SELINSGROVE	INTERIOR	S	1	532	7	24/7 & OCCUPIED	CF10	RR		2V25-4'	1	T8 1x4 2-Lamp Vanity Fixture	43	0.043	Z	8760	377		1	R 2L-12.5LED	Retrofit with (2) 12.5 Watt LED T8 4' Lamps; Direct Wire to Socket	25	0.025	0.216	KT-LED10.5T8-48G-840-D	3
2336	SELINSGROVE	INTERIOR	S	1	532	7	24/7 & OCCUPIED	CF10	RR		2V25-4'	1	T8 1x4 2-Lamp Vanity Fixture	43	0.043	Z	8760	377		1	R 2L-12.5LED	Retrofit with (2) 12.5 Watt LED T8 4' Lamps; Direct Wire to Socket	25	0.025	0.216	KT-LED10.5T8-48G-840-D	3
2337	SELINSGROVE	INTERIOR	S	1	532	7	24/7 & OCCUPIED	CF10	RR		CF13G-HALO	1	13 Watt Compact Fluorescent Globe Fixture; Halo	13	0.013	Z	8760	114		1	LED 9A	Re-Lamp with (1) 9 Watt LED A19 Lamps	9	0.009	0.048	LA19/9/40K/D-46	8
2338	SELINSGROVE	INTERIOR	S	1	532	7	24/7 & OCCUPIED	CF10	PIPE CHASE		CF13	2	13 Watt Compact Fluorescent Fixture	13	0.026	S	1000	26		2	LED 9A	Re-Lamp with (1) 9 Watt LED A19 Lamps	9	0.018	0.096	LA19/9/40K/D-46	8
2339	SELINSGROVE	INTERIOR	S	1	533	7	24/7 & OCCUPIED	CF10	JANITOR CLOSET	2356	60A	1	60 Watt Incandescent A-Lamp Fixture	60	0.060	S	1000	60		1	LED 9A	Re-Lamp with (1) 9 Watt LED A19 Lamps	9	0.009	0.612	LA19/9/40K/D-46	8
2340	SELINSGROVE	INTERIOR	S	1	534	7	24/7 & OCCUPIED	CF10	CLOSET		CF13G-HALO	1	13 Watt Compact Fluorescent Globe Fixture; Halo	13	0.013	S	1000	13		1	LED 9A	Re-Lamp with (1) 9 Watt LED A19 Lamps	9	0.009	0.048	LA19/9/40K/D-46	8
2341	SELINSGROVE	INTERIOR	S	1	535	7	24/7 & OCCUPIED	CF10	ELECTRIC		CF13	1	13 Watt Compact Fluorescent Fixture	13	0.013	S	1000	13		1	LED 9A	Re-Lamp with (1) 9 Watt LED A19 Lamps	9	0.009	0.048	LA19/9/40K/D-46	8
2342	SELINSGROVE	INTERIOR	S	1	536	7	24/7 & OCCUPIED	CF10	OFFICE	2346	2EC25-4'	1	T8 2x4 2-Lamp Egg Crate Fixture	43	0.043	O	2340	101		1	N 2W-12.5LED	New 1x4 2-Lamp Wrap Fixture with (2) 12.5 Watt LED T8 4' Lamp; Direct Wire to Socket	25	0.025	0.216	CCW-4'-2-T8LED /// KT-LED10.5T8-48G-840-D	51 + 3
2343	SELINSGROVE	INTERIOR	S	1	537	7	24/7 & OCCUPIED	CF10	SOLARIUM	2344	2L25-1X4	4	T8 1x4 2-Lamp Troffer Fixture	43	0.172	BH	5460	939		4	R 2L-12.5LED	Retrofit with (2) 12.5 Watt LED T8 4' Lamps; Direct Wire to Socket	25	0.100	0.864	KT-LED10.5T8-48G-840-D	3
2344	SELINSGROVE	INTERIOR	S	1	538	7	24/7 & OCCUPIED	CF10	STAIR	2345	1W17	2	T8 2x2 1-Lamp Wrap Fixture	22	0.044	Z	8760	385		2	R 1L-10LED2'	Retrofit with (1) 10 Watt LED T8 2' Lamp; Direct Wire to Socket	10	0.020	0.288	KT-LED7T8-24GC-840-D	1
2345	SELINSGROVE	INTERIOR	S	1	538	7	24/7 & OCCUPIED	CF10	STAIR		4EC25-4'-DA	1	T8 2x4 4-Lamp Egg Crate Fixture; Difficult Access	85	0.085	Z	8760	745		1	N 4W-12.5LED-DA	New 1x4 4-Lamp Wrap Fixture with (4) 12.5 Watt LED T8 4' Lamp; Direct Wire to Socket; Difficult Access	50	0.050	0.420	CCW-4'-4-T8LED /// KT-LED10.5T8-48G-840-D	53 + 3
2346	SELINSGROVE	INTERIOR	S	1	539	7	24/7 & OCCUPIED	CF10	DAY ROOM	2341	3L25-4'	18	T8 2x4 3-Lamp Troffer Fixture	65	1.170	BH	5460	6,388		18	R 3L-12.5LED	Retrofit with (3) 12.5 Watt LED T8 4' Lamps; Direct Wire to Socket	37.5	0.675	5.940	KT-LED10.5T8-48G-840-D	3

											EXISTING FIXTURES									PROPOSED FIXTURE UPGRADE						
ID #	Facility Name	Phase	Utility Rate Code	Floor	Map #	Building Number	Building Usage Type	Building Section	Room Description	Room #	ECM Code	Qty	Description	Watts	kW	Burn Hour Code	Pre Burn Hours	kWh	x	Qty	New Code	Description	Watts	kW	Annual KW Saved	Part#	Cut Sheet #
2347	SELINSGROVE	INTERIOR	S	1	539	7	24/7 & OCCUPIED	CF10	DAY ROOM		2PL13DR	2	13 Watt Plug-In CFL Drum Fixture	26	0.052	BH	5460	284		2	N LED14DR	New 12" Round 14 Watt LED Drum Fixture	14	0.028	0.288	54074143	19
2348	SELINSGROVE	INTERIOR	S	1	539	7	24/7 & OCCUPIED	CF10	DAY ROOM		60SC	1	60 Watt Incandescent Sconce Fixture	60	0.060	BH	5460	328		1	LED 9A	Re-Lamp with (1) 9 Watt LED A19 Lamps	9	0.009	0.612	LA19/9/40K/D-46	8
2349	SELINSGROVE	INTERIOR	S	1	540	7	24/7 & OCCUPIED	CF10	BED	2339	1W17	2	T8 2x2 1-Lamp Wrap Fixture	22	0.044	BH	5460	240		2	R 1L-10LED2'	Retrofit with (1) 10 Watt LED T8 2' Lamp; Direct Wire to Socket	10	0.020	0.288	KT-LED7T8-24GC-840-D	1
2350	SELINSGROVE	INTERIOR	S	1	540	7	24/7 & OCCUPIED	CF10	BED		60SC	4	60 Watt Incandescent Sconce Fixture	60	0.240	BH	5460	1,310		4	LED 9A	Re-Lamp with (1) 9 Watt LED A19 Lamps	9	0.036	2.448	LA19/9/40K/D-46	8
2351	SELINSGROVE	INTERIOR	S	1	541	7	24/7 & OCCUPIED	CF10	BED		1W17	2	T8 2x2 1-Lamp Wrap Fixture	22	0.044	BH	5460	240		2	R 1L-10LED2'	Retrofit with (1) 10 Watt LED T8 2' Lamp; Direct Wire to Socket	10	0.020	0.288	KT-LED7T8-24GC-840-D	1
2352	SELINSGROVE	INTERIOR	S	1	541	7	24/7 & OCCUPIED	CF10	BED	2340	60SC	4	60 Watt Incandescent Sconce Fixture	60	0.240	BH	5460	1,310		4	LED 9A	Re-Lamp with (1) 9 Watt LED A19 Lamps	9	0.036	2.448	LA19/9/40K/D-46	8
2353	SELINSGROVE	INTERIOR	S	1	542	7	24/7 & OCCUPIED	CF10	BED		1W17	2	T8 2x2 1-Lamp Wrap Fixture	22	0.044	BH	5460	240		2	R 1L-10LED2'	Retrofit with (1) 10 Watt LED T8 2' Lamp; Direct Wire to Socket	10	0.020	0.288	KT-LED7T8-24GC-840-D	1
2354	SELINSGROVE	INTERIOR	S	1	542	7	24/7 & OCCUPIED	CF10	BED	2342	60SC	4	60 Watt Incandescent Sconce Fixture	60	0.240	BH	5460	1,310		4	LED 9A	Re-Lamp with (1) 9 Watt LED A19 Lamps	9	0.036	2.448	LA19/9/40K/D-46	8
2355	SELINSGROVE	INTERIOR	S	1	543	7	24/7 & OCCUPIED	CF10	BED		1W17	2	T8 2x2 1-Lamp Wrap Fixture	22	0.044	BH	5460	240		2	R 1L-10LED2'	Retrofit with (1) 10 Watt LED T8 2' Lamp; Direct Wire to Socket	10	0.020	0.288	KT-LED7T8-24GC-840-D	1
2356	SELINSGROVE	INTERIOR	S	1	543	7	24/7 & OCCUPIED	CF10	BED	2343	60SC	4	60 Watt Incandescent Sconce Fixture	60	0.240	BH	5460	1,310		4	LED 9A	Re-Lamp with (1) 9 Watt LED A19 Lamps	9	0.036	2.448	LA19/9/40K/D-46	8
2357	SELINSGROVE	INTERIOR	S	1	544	7	24/7 & OCCUPIED	CF10	BED		1W17	2	T8 2x2 1-Lamp Wrap Fixture	22	0.044	BH	5460	240		2	R 1L-10LED2'	Retrofit with (1) 10 Watt LED T8 2' Lamp; Direct Wire to Socket	10	0.020	0.288	KT-LED7T8-24GC-840-D	1
2358	SELINSGROVE	INTERIOR	S	1	544	7	24/7 & OCCUPIED	CF10	BED	2347	60SC	4	60 Watt Incandescent Sconce Fixture	60	0.240	BH	5460	1,310		4	LED 9A	Re-Lamp with (1) 9 Watt LED A19 Lamps	9	0.036	2.448	LA19/9/40K/D-46	8
2359	SELINSGROVE	INTERIOR	S	1	545	7	24/7 & OCCUPIED	CF10	BED		1W17	2	T8 2x2 1-Lamp Wrap Fixture	22	0.044	BH	5460	240		2	R 1L-10LED2'	Retrofit with (1) 10 Watt LED T8 2' Lamp; Direct Wire to Socket	10	0.020	0.288	KT-LED7T8-24GC-840-D	1
2360	SELINSGROVE	INTERIOR	S	1	545	7	24/7 & OCCUPIED	CF10	BED	2348	60SC	4	60 Watt Incandescent Sconce Fixture	60	0.240	BH	5460	1,310		4	LED 9A	Re-Lamp with (1) 9 Watt LED A19 Lamps	9	0.036	2.448	LA19/9/40K/D-46	8
2361	SELINSGROVE	INTERIOR	S	1	546	7	24/7 & OCCUPIED	CF10	BED		1W17	2	T8 2x2 1-Lamp Wrap Fixture	22	0.044	BH	5460	240		2	R 1L-10LED2'	Retrofit with (1) 10 Watt LED T8 2' Lamp; Direct Wire to Socket	10	0.020	0.288	KT-LED7T8-24GC-840-D	1
2362	SELINSGROVE	INTERIOR	S	1	546	7	24/7 & OCCUPIED	CF10	BED	2349	60SC	4	60 Watt Incandescent Sconce Fixture	60	0.240	BH	5460	1,310		4	LED 9A	Re-Lamp with (1) 9 Watt LED A19 Lamps	9	0.036	2.448	LA19/9/40K/D-46	8
2363	SELINSGROVE	INTERIOR	S	1	547	7	24/7 & OCCUPIED	CF10	BED		1W17	2	T8 2x2 1-Lamp Wrap Fixture	22	0.044	BH	5460	240		2	R 1L-10LED2'	Retrofit with (1) 10 Watt LED T8 2' Lamp; Direct Wire to Socket	10	0.020	0.288	KT-LED7T8-24GC-840-D	1
2364	SELINSGROVE	INTERIOR	S	1	547	7	24/7 & OCCUPIED	CF10	BED	2350	60SC	4	60 Watt Incandescent Sconce Fixture	60	0.240	BH	5460	1,310		4	LED 9A	Re-Lamp with (1) 9 Watt LED A19 Lamps	9	0.036	2.448	LA19/9/40K/D-46	8
2365	SELINSGROVE	INTERIOR	S	1	548	7	24/7 & OCCUPIED	CF10	RR / SHOWER		2EC25-4'	3	T8 2x4 2-Lamp Egg Crate Fixture	43	0.129	Z	8760	1,130		3	N 2W-12.5LED	New 1x4 2-Lamp Wrap Fixture with (2) 12.5 Watt LED T8 4' Lamp; Direct Wire to Socket	25	0.075	0.648	CCW-4'-2-T8LED /// KT-LED10.5T8-48G-840-D	51 + 3
2366	SELINSGROVE	INTERIOR	S	1	548	7	24/7 & OCCUPIED	CF10	RR		2EC25-4'	2	T8 2x4 2-Lamp Egg Crate Fixture	43	0.086	Z	8760	753		2	N 2W-12.5LED	New 1x4 2-Lamp Wrap Fixture with (2) 12.5 Watt LED T8 4' Lamp; Direct Wire to Socket	25	0.050	0.432	CCW-4'-2-T8LED /// KT-LED10.5T8-48G-840-D	51 + 3
2367	SELINSGROVE	INTERIOR	S	1	548	7	24/7 & OCCUPIED	CF10	RR		2EC25-4'	2	T8 2x4 2-Lamp Egg Crate Fixture	43	0.086	Z	8760	753		2	N 2W-12.5LED	New 1x4 2-Lamp Wrap Fixture with (2) 12.5 Watt LED T8 4' Lamp; Direct Wire to Socket	25	0.050	0.432	CCW-4'-2-T8LED /// KT-LED10.5T8-48G-840-D	51 + 3
2368	SELINSGROVE	INTERIOR	S	1	548	7	24/7 & OCCUPIED	CF10	PIPE CHASE		60A	1	60 Watt Incandescent A-Lamp Fixture	60	0.060	S	1000	60		1	LED 9A	Re-Lamp with (1) 9 Watt LED A19 Lamps	9	0.009	0.612	LA19/9/40K/D-46	8
2369	SELINSGROVE	INTERIOR	S	1	549	7	24/7 & OCCUPIED	CF10	RR / SHOWER		2VT25-4'	2	T8 1x4 2-Lamp Vaportight Fixture	43	0.086	Z	8760	753		2	R 2L-12.5LED	Retrofit with (2) 12.5 Watt LED T8 4' Lamps; Direct Wire to Socket	25	0.050	0.432	KT-LED10.5T8-48G-840-D	3
2370	SELINSGROVE	INTERIOR	S	1	549	7	24/7 & OCCUPIED	CF10	RR-A		2VT25-4'	2	T8 1x4 2-Lamp Vaportight Fixture	43	0.086	Z	8760	753		2	R 2L-12.5LED	Retrofit with (2) 12.5 Watt LED T8 4' Lamps; Direct Wire to Socket	25	0.050	0.432	KT-LED10.5T8-48G-840-D	3
2371	SELINSGROVE	INTERIOR	S	1	549	7	24/7 & OCCUPIED	CF10	RR-A		2V17	1	T8 1x2 2-Lamp Vanity Fixture	29	0.029	Z	8760	254		1	R 2L-10LED2'	Retrofit with (2) 10 Watt LED T8 2' Lamps; Direct Wire to Socket	20	0.020	0.108	KT-LED7T8-24GC-840-D	1
2372	SELINSGROVE	INTERIOR	S	1	549	7	24/7 & OCCUPIED	CF10	RR-B		2VT25-4'	1	T8 1x4 2-Lamp Vaportight Fixture	43	0.043	Z	8760	377		1	R 2L-12.5LED	Retrofit with (2) 12.5 Watt LED T8 4' Lamps; Direct Wire to Socket	25	0.025	0.216	KT-LED10.5T8-48G-840-D	3
2373	SELINSGROVE	INTERIOR	S	1	549	7	24/7 & OCCUPIED	CF10	RR-C		2VT25-4'	2	T8 1x4 2-Lamp Vaportight Fixture	43	0.086	Z	8760	753		2	R 2L-12.5LED	Retrofit with (2) 12.5 Watt LED T8 4' Lamps; Direct Wire to Socket	25	0.050	0.432	KT-LED10.5T8-48G-840-D	3
2374	SELINSGROVE	INTERIOR	S	1	549	7	24/7 & OCCUPIED	CF10	PIPE CHASE		60A	2	60 Watt Incandescent A-Lamp Fixture	60	0.120	S	1000	120		2	LED 9A	Re-Lamp with (1) 9 Watt LED A19 Lamps	9	0.018	1.224	LA19/9/40K/D-46	8
2375	SELINSGROVE	INTERIOR	S	1	550	7	24/7 & OCCUPIED	CF10 & 11	HALL		2L25-1X4	4	T8 1x4 2-Lamp Troffer Fixture	43	0.172	Z	8760	1,507		4	R 2L-12.5LED	Retrofit with (2) 12.5 Watt LED T8 4' Lamps; Direct Wire to Socket	25	0.100	0.864	KT-LED10.5T8-48G-840-D	3
2376	SELINSGROVE	INTERIOR	S	1	550	7	24/7 & OCCUPIED	CF10 & 11	HALL		2EC25-4'	2	T8 2x4 2-Lamp Egg Crate Fixture	43	0.086	Z	8760	753		2	N 2W-12.5LED	New 1x4 2-Lamp Wrap Fixture with (2) 12.5 Watt LED T8 4' Lamp; Direct Wire to Socket	25	0.050	0.432	CCW-4'-2-T8LED /// KT-LED10.5T8-48G-840-D	51 + 3
2377	SELINSGROVE	INTERIOR	S	1	550	7	24/7 & OCCUPIED	CF10 & 11	HALL		CF13SQDL-8X8	3	13 Watt Compact Fluorescent Square Downlight Fixture; 8x8	13	0.039	Z	8760	342		3	LED 9A	Re-Lamp with (1) 9 Watt LED A19 Lamps	9	0.027	0.144	LA19/9/40K/D-46	8
2378	SELINSGROVE	INTERIOR	S	1	550	7	24/7 & OCCUPIED	CF10 & 11	HALL		X	3	25 Watt Incandescent 2-Lamp Exit Sign	50	0.150	Z	8760	1,314		3	N XLED	New 3 watt LED Exit Sign	3	0.009	1.692	ES-LED-RW-B	43

											EXISTING FIXTURES									PROPOSED FIXTURE UPGRADE							
ID #	Facility Name	Phase	Utility Rate Code	Floor	Map #	Building Number	Building Usage Type	Building Section	Room Description	Room #	ECM Code	Qty	Description	Watts	kW	Burn Hour Code	Pre Burn Hours	kWh	x	Qty	New Code	Description	Watts	kW	Annual KW Saved	Part#	Cut Sheet #
2379	SELINSGROVE	INTERIOR	S	1	551	7	24/7 & OCCUPIED	CF10	OFFICE	2326	4EC25-4'	2	T8 2x4 4-Lamp Egg Crate Fixture	85	0.170	O	2340	398		2	N 4W-12.5LED	New 1x4 4-Lamp Wrap Fixture with (4) 12.5 Watt LED T8 4' Lamp; Direct Wire to Socket	50	0.100	0.840	CCW-4'-4-T8LED /// KT-LED10.5T8-48G-840-D	53 + 3
2380	SELINSGROVE	INTERIOR	S	1	551	7	24/7 & OCCUPIED	CF10	OFFICE		1W17	3	T8 2x2 1-Lamp Wrap Fixture	22	0.066	O	2340	154		3	R 1L-10LED2'	Retrofit with (1) 10 Watt LED T8 2' Lamp; Direct Wire to Socket	10	0.030	0.432	KT-LED7T8-24GC-840-D	1
2381	SELINSGROVE	INTERIOR	S	1	551	7	24/7 & OCCUPIED	CF10	OFFICE		3PL13DR	1	13 Watt 3-Lamp Plug-In CFL Drum Fixture	45	0.045	O	2340	105		1	N LED22DR	New 16" Round 22 Watt LED Drum Fixture	22	0.022	0.276	54075142	20
2382	SELINSGROVE	INTERIOR	S	1	552	7	24/7 & OCCUPIED	CF10	HEALTH		4EC25-4'	4	T8 2x4 4-Lamp Egg Crate Fixture	85	0.340	O	2340	796		4	N 4W-12.5LED	New 1x4 4-Lamp Wrap Fixture with (4) 12.5 Watt LED T8 4' Lamp; Direct Wire to Socket	50	0.200	1.680	CCW-4'-4-T8LED /// KT-LED10.5T8-48G-840-D	53 + 3
2383	SELINSGROVE	INTERIOR	S	1	552	7	24/7 & OCCUPIED	CF10	HEALTH		1W17	1	T8 2x2 1-Lamp Wrap Fixture	22	0.022	O	2340	51		1	R 1L-10LED2'	Retrofit with (1) 10 Watt LED T8 2' Lamp; Direct Wire to Socket	10	0.010	0.144	KT-LED7T8-24GC-840-D	1
2384	SELINSGROVE	INTERIOR	S	1	552	7	24/7 & OCCUPIED	CF10	HEALTH		3PL13DR	1	13 Watt 3-Lamp Plug-In CFL Drum Fixture	45	0.045	O	2340	105		1	N LED22DR	New 16" Round 22 Watt LED Drum Fixture	22	0.022	0.276	54075142	20
2385	SELINSGROVE	INTERIOR	S	1	553	7	24/7 & OCCUPIED	CF12	OFFICE	2316	1W17	8	T8 2x2 1-Lamp Wrap Fixture	22	0.176	O	2340	412		8	R 1L-10LED2'	Retrofit with (1) 10 Watt LED T8 2' Lamp; Direct Wire to Socket	10	0.080	1.152	KT-LED7T8-24GC-840-D	1
2386	SELINSGROVE	INTERIOR	S	1	554	7	24/7 & OCCUPIED	CF12	JANITOR CLOSET	2335	CF13	1	13 Watt Compact Fluorescent Fixture	13	0.013	S	1000	13		1	LED 9A	Re-Lamp with (1) 9 Watt LED A19 Lamps	9	0.009	0.048	LA19/9/40K/D-46	8
2387	SELINSGROVE	INTERIOR	S	1	555	7	24/7 & OCCUPIED	CF12	RR	2334	CF13G-HALO	1	13 Watt Compact Fluorescent Globe Fixture; Halo	13	0.013	Z	8760	114		1	LED 9A	Re-Lamp with (1) 9 Watt LED A19 Lamps	9	0.009	0.048	LA19/9/40K/D-46	8
2388	SELINSGROVE	INTERIOR	S	1	556	7	24/7 & OCCUPIED	CF12	ELECTRIC	2333	CF13	1	13 Watt Compact Fluorescent Fixture	13	0.013	S	1000	13		1	LED 9A	Re-Lamp with (1) 9 Watt LED A19 Lamps	9	0.009	0.048	LA19/9/40K/D-46	8
2389	SELINSGROVE	INTERIOR	S	1	557	7	24/7 & OCCUPIED	CF12	NURSE STATION	2318	2EC25-4'	1	T8 2x4 2-Lamp Egg Crate Fixture	43	0.043	Z	8760	377		1	N 2W-12.5LED	New 1x4 2-Lamp Wrap Fixture with (2) 12.5 Watt LED T8 4' Lamp; Direct Wire to Socket	25	0.025	0.216	CCW-4'-2-T8LED /// KT-LED10.5T8-48G-840-D	51 + 3
2390	SELINSGROVE	INTERIOR	S	1	558	7	24/7 & OCCUPIED	CF12	BED	2327	2EC25-4'	1	T8 2x4 2-Lamp Egg Crate Fixture	43	0.043	BH	5460	235		1	N 2W-12.5LED	New 1x4 2-Lamp Wrap Fixture with (2) 12.5 Watt LED T8 4' Lamp; Direct Wire to Socket	25	0.025	0.216	CCW-4'-2-T8LED /// KT-LED10.5T8-48G-840-D	51 + 3
2391	SELINSGROVE	INTERIOR	S	1	559	7	24/7 & OCCUPIED	CF12	SOLARIUM	2325	2L25-1X4	7	T8 1x4 2-Lamp Troffer Fixture	43	0.301	BH	5460	1,643		7	R 2L-12.5LED	Retrofit with (2) 12.5 Watt LED T8 4' Lamps; Direct Wire to Socket	25	0.175	1.512	KT-LED10.5T8-48G-840-D	3
2392	SELINSGROVE	INTERIOR	S	1	559	7	24/7 & OCCUPIED	CF12	SOLARIUM		XLED	1	3 Watt LED 2-Lamp Exit Sign	3	0.003	Z	8760	26		1	ZZ DD	No Retrofit	3	0.003	0.000	N/A	N/A
2393	SELINSGROVE	INTERIOR	S	1	560	7	24/7 & OCCUPIED	CF12	STAIR	2326	1W17	3	T8 2x2 1-Lamp Wrap Fixture	22	0.066	Z	8760	578		3	R 1L-10LED2'	Retrofit with (1) 10 Watt LED T8 2' Lamp; Direct Wire to Socket	10	0.030	0.432	KT-LED7T8-24GC-840-D	1
2394	SELINSGROVE	INTERIOR	S	1	560	7	24/7 & OCCUPIED	CF12	STAIR		4EC25-4'-DA	1	T8 2x4 4-Lamp Egg Crate Fixture; Difficult Access	85	0.085	Z	8760	745		1	N 4W-12.5LED-DA	New 1x4 4-Lamp Wrap Fixture with (4) 12.5 Watt LED T8 4' Lamp; Direct Wire to Socket; Difficult Access	50	0.050	0.420	CCW-4'-4-T8LED /// KT-LED10.5T8-48G-840-D	53 + 3
2395	SELINSGROVE	INTERIOR	S	1	560	7	24/7 & OCCUPIED	CF12	STAIR		XLED	1	3 Watt LED 2-Lamp Exit Sign	3	0.003	Z	8760	26		1	ZZ DD	No Retrofit	3	0.003	0.000	N/A	N/A
2396	SELINSGROVE	INTERIOR	S	1	561	7	24/7 & OCCUPIED	CF12	DAY ROOM	2322	3L25-4'	18	T8 2x4 3-Lamp Troffer Fixture	65	1.170	BH	5460	6,388		18	R 3L-12.5LED	Retrofit with (3) 12.5 Watt LED T8 4' Lamps; Direct Wire to Socket	37.5	0.675	5.940	KT-LED10.5T8-48G-840-D	3
2397	SELINSGROVE	INTERIOR	S	1	561	7	24/7 & OCCUPIED	CF12	DAY ROOM		XLED	2	3 Watt LED 2-Lamp Exit Sign	3	0.006	Z	8760	53		2	ZZ DD	No Retrofit	3	0.006	0.000	N/A	N/A
2398	SELINSGROVE	INTERIOR	S	1	561	7	24/7 & OCCUPIED	CF12	DAY ROOM		2PL13DR	2	13 Watt Plug-In CFL Drum Fixture	26	0.052	BH	5460	284		2	N LED14DR	New 12" Round 14 Watt LED Drum Fixture	14	0.028	0.288	54074143	19
2399	SELINSGROVE	INTERIOR	S	1	562	7	24/7 & OCCUPIED	CF12	BED	2320	1W17	2	T8 2x2 1-Lamp Wrap Fixture	22	0.044	BH	5460	240		2	R 1L-10LED2'	Retrofit with (1) 10 Watt LED T8 2' Lamp; Direct Wire to Socket	10	0.020	0.288	KT-LED7T8-24GC-840-D	1
2400	SELINSGROVE	INTERIOR	S	1	562	7	24/7 & OCCUPIED	CF12	BED		60SC	4	60 Watt Incandescent Sconce Fixture	60	0.240	BH	5460	1,310		4	LED 9A	Re-Lamp with (1) 9 Watt LED A19 Lamps	9	0.036	2.448	LA19/9/40K/D-46	8
2401	SELINSGROVE	INTERIOR	S	1	563	7	24/7 & OCCUPIED	CF12	BED	2321	1W17	2	T8 2x2 1-Lamp Wrap Fixture	22	0.044	BH	5460	240		2	R 1L-10LED2'	Retrofit with (1) 10 Watt LED T8 2' Lamp; Direct Wire to Socket	10	0.020	0.288	KT-LED7T8-24GC-840-D	1
2402	SELINSGROVE	INTERIOR	S	1	563	7	24/7 & OCCUPIED	CF12	BED		60SC	4	60 Watt Incandescent Sconce Fixture	60	0.240	BH	5460	1,310		4	LED 9A	Re-Lamp with (1) 9 Watt LED A19 Lamps	9	0.036	2.448	LA19/9/40K/D-46	8
2403	SELINSGROVE	INTERIOR	S	1	564	7	24/7 & OCCUPIED	CF12	BED	2323	1W17	2	T8 2x2 1-Lamp Wrap Fixture	22	0.044	BH	5460	240		2	R 1L-10LED2'	Retrofit with (1) 10 Watt LED T8 2' Lamp; Direct Wire to Socket	10	0.020	0.288	KT-LED7T8-24GC-840-D	1
2404	SELINSGROVE	INTERIOR	S	1	564	7	24/7 & OCCUPIED	CF12	BED		60SC	4	60 Watt Incandescent Sconce Fixture	60	0.240	BH	5460	1,310		4	LED 9A	Re-Lamp with (1) 9 Watt LED A19 Lamps	9	0.036	2.448	LA19/9/40K/D-46	8
2405	SELINSGROVE	INTERIOR	S	1	565	7	24/7 & OCCUPIED	CF12	BED	2324	1W17	2	T8 2x2 1-Lamp Wrap Fixture	22	0.044	BH	5460	240		2	R 1L-10LED2'	Retrofit with (1) 10 Watt LED T8 2' Lamp; Direct Wire to Socket	10	0.020	0.288	KT-LED7T8-24GC-840-D	1
2406	SELINSGROVE	INTERIOR	S	1	565	7	24/7 & OCCUPIED	CF12	BED		60SC	4	60 Watt Incandescent Sconce Fixture	60	0.240	BH	5460	1,310		4	LED 9A	Re-Lamp with (1) 9 Watt LED A19 Lamps	9	0.036	2.448	LA19/9/40K/D-46	8
2407	SELINSGROVE	INTERIOR	S	1	566	7	24/7 & OCCUPIED	CF12	BED	2328	1W17	2	T8 2x2 1-Lamp Wrap Fixture	22	0.044	BH	5460	240		2	R 1L-10LED2'	Retrofit with (1) 10 Watt LED T8 2' Lamp; Direct Wire to Socket	10	0.020	0.288	KT-LED7T8-24GC-840-D	1
2408	SELINSGROVE	INTERIOR	S	1	566	7	24/7 & OCCUPIED	CF12	BED		60SC	4	60 Watt Incandescent Sconce Fixture	60	0.240	BH	5460	1,310		4	LED 9A	Re-Lamp with (1) 9 Watt LED A19 Lamps	9	0.036	2.448	LA19/9/40K/D-46	8
2409	SELINSGROVE	INTERIOR	S	1	567	7	24/7 & OCCUPIED	CF12	BED	2329	1W17	2	T8 2x2 1-Lamp Wrap Fixture	22	0.044	BH	5460	240		2	R 1L-10LED2'	Retrofit with (1) 10 Watt LED T8 2' Lamp; Direct Wire to Socket	10	0.020	0.288	KT-LED7T8-24GC-840-D	1
2410	SELINSGROVE	INTERIOR	S	1	567	7	24/7 & OCCUPIED	CF12	BED		60SC	4	60 Watt Incandescent Sconce Fixture	60	0.240	BH	5460	1,310		4	LED 9A	Re-Lamp with (1) 9 Watt LED A19 Lamps	9	0.036	2.448	LA19/9/40K/D-46	8

											EXISTING FIXTURES									PROPOSED FIXTURE UPGRADE						
ID #	Facility Name	Phase	Utility Rate Code	Floor	Map #	Building Number	Building Usage Type	Building Section	Room Description	Room #	ECM Code	Qty	Description	Watts	kW	Burn Hour Code	Pre Burn Hours	kWh	x	Qty	New Code	Description	Watts	kW	Annual KW Saved	Part#	Cut Sheet #
2411	SELINSGROVE	INTERIOR	S	1	568	7	24/7 & OCCUPIED	CF12	BED	2320	1W17	2	T8 2x2 1-Lamp Wrap Fixture	22	0.044	BH	5460	240		2	R 1L-10LED2'	Retrofit with (1) 10 Watt LED T8 2' Lamp; Direct Wire to Socket	10	0.020	0.288	KT-LED7T8-24GC-840-D	1
2412	SELINSGROVE	INTERIOR	S	1	568	7	24/7 & OCCUPIED	CF12	BED	2320	60SC	4	60 Watt Incandescent Sconce Fixture	60	0.240	BH	5460	1,310		4	LED 9A	Re-Lamp with (1) 9 Watt LED A19 Lamps	9	0.036	2.448	LA19/9/40K/D-46	8
2413	SELINSGROVE	INTERIOR	S	1	569	7	24/7 & OCCUPIED	CF12	KITCHEN	2331	4L25-4'	4	T8 2x4 4-Lamp Troffer Fixture	85	0.340	Z	8760	2,978		4	R 4L-12.5LED	Retrofit with (4) 12.5 Watt LED T8 4' Lamps; Direct Wire to Socket	50	0.200	1.680	KT-LED10.5T8-48G-840-D	3
2414	SELINSGROVE	INTERIOR	S	1	570	7	24/7 & OCCUPIED	CF12	RR / SHOWER	2332	2W25-4'	2	T8 1x4 2-Lamp Wrap Fixture	43	0.086	Z	8760	753		2	R 2L-12.5LED	Retrofit with (2) 12.5 Watt LED T8 4' Lamps; Direct Wire to Socket	25	0.050	0.432	KT-LED10.5T8-48G-840-D	3
2415	SELINSGROVE	INTERIOR	S	1	570	7	24/7 & OCCUPIED	CF12	RR-C		2W25-4'	2	T8 1x4 2-Lamp Wrap Fixture	43	0.086	Z	8760	753		2	R 2L-12.5LED	Retrofit with (2) 12.5 Watt LED T8 4' Lamps; Direct Wire to Socket	25	0.050	0.432	KT-LED10.5T8-48G-840-D	3
2416	SELINSGROVE	INTERIOR	S	1	570	7	24/7 & OCCUPIED	CF12	RR-C		2V25-4'	1	T8 1x4 2-Lamp Vanity Fixture	43	0.043	Z	8760	377		1	R 2L-12.5LED	Retrofit with (2) 12.5 Watt LED T8 4' Lamps; Direct Wire to Socket	25	0.025	0.216	KT-LED10.5T8-48G-840-D	3
2417	SELINSGROVE	INTERIOR	S	1	570	7	24/7 & OCCUPIED	CF12	RR-C		CF13CPY	1	13 Watt Compact Fluorescent Canopy Fixture	13	0.013	Z	8760	114		1	LED 9A	Re-Lamp with (1) 9 Watt LED A19 Lamps	9	0.009	0.048	LA19/9/40K/D-46	8
2418	SELINSGROVE	INTERIOR	S	1	570	7	24/7 & OCCUPIED	CF12	RR-B		2V25-4'	1	T8 1x4 2-Lamp Vanity Fixture	43	0.043	Z	8760	377		1	R 2L-12.5LED	Retrofit with (2) 12.5 Watt LED T8 4' Lamps; Direct Wire to Socket	25	0.025	0.216	KT-LED10.5T8-48G-840-D	3
2419	SELINSGROVE	INTERIOR	S	1	570	7	24/7 & OCCUPIED	CF12	RR-B		2W25-4'	1	T8 1x4 2-Lamp Wrap Fixture	43	0.043	Z	8760	377		1	R 2L-12.5LED	Retrofit with (2) 12.5 Watt LED T8 4' Lamps; Direct Wire to Socket	25	0.025	0.216	KT-LED10.5T8-48G-840-D	3
2420	SELINSGROVE	INTERIOR	S	1	570	7	24/7 & OCCUPIED	CF12	RR-A		2V25-4'	1	T8 1x4 2-Lamp Vanity Fixture	43	0.043	Z	8760	377		1	R 2L-12.5LED	Retrofit with (2) 12.5 Watt LED T8 4' Lamps; Direct Wire to Socket	25	0.025	0.216	KT-LED10.5T8-48G-840-D	3
2421	SELINSGROVE	INTERIOR	S	1	570	7	24/7 & OCCUPIED	CF12	PIPE CHASE		2W25-4'	1	T8 1x4 2-Lamp Wrap Fixture	43	0.043	S	1000	43		1	R 2L-12.5LED	Retrofit with (2) 12.5 Watt LED T8 4' Lamps; Direct Wire to Socket	25	0.025	0.216	KT-LED10.5T8-48G-840-D	3
2422	SELINSGROVE	INTERIOR	S	1	570	7	24/7 & OCCUPIED	CF12	PIPE CHASE		60A	1	60 Watt Incandescent A-Lamp Fixture	60	0.060	S	1000	60		1	LED 9A	Re-Lamp with (1) 9 Watt LED A19 Lamps	9	0.009	0.612	LA19/9/40K/D-46	8
2423	SELINSGROVE	INTERIOR	S	1	571	7	24/7 & OCCUPIED	CF12	RR / SHOWER	2317	2W25-4'	2	T8 1x4 2-Lamp Wrap Fixture	43	0.086	Z	8760	753		2	R 2L-12.5LED	Retrofit with (2) 12.5 Watt LED T8 4' Lamps; Direct Wire to Socket	25	0.050	0.432	KT-LED10.5T8-48G-840-D	3
2424	SELINSGROVE	INTERIOR	S	1	571	7	24/7 & OCCUPIED	CF12	RR-A		2VT25-4'	1	T8 1x4 2-Lamp Vaportight Fixture	43	0.043	Z	8760	377		1	R 2L-12.5LED	Retrofit with (2) 12.5 Watt LED T8 4' Lamps; Direct Wire to Socket	25	0.025	0.216	KT-LED10.5T8-48G-840-D	3
2425	SELINSGROVE	INTERIOR	S	1	571	7	24/7 & OCCUPIED	CF12	RR-B		2W25-4'	1	T8 1x4 2-Lamp Wrap Fixture	43	0.043	Z	8760	377		1	R 2L-12.5LED	Retrofit with (2) 12.5 Watt LED T8 4' Lamps; Direct Wire to Socket	25	0.025	0.216	KT-LED10.5T8-48G-840-D	3
2426	SELINSGROVE	INTERIOR	S	1	571	7	24/7 & OCCUPIED	CF12	RR-B		2V25-4'	1	T8 1x4 2-Lamp Vanity Fixture	43	0.043	Z	8760	377		1	R 2L-12.5LED	Retrofit with (2) 12.5 Watt LED T8 4' Lamps; Direct Wire to Socket	25	0.025	0.216	KT-LED10.5T8-48G-840-D	3
2427	SELINSGROVE	INTERIOR	S	1	571	7	24/7 & OCCUPIED	CF12	CLOSET		2W25-4'	1	T8 1x4 2-Lamp Wrap Fixture	43	0.043	S	1000	43		1	R 2L-12.5LED	Retrofit with (2) 12.5 Watt LED T8 4' Lamps; Direct Wire to Socket	25	0.025	0.216	KT-LED10.5T8-48G-840-D	3
2428	SELINSGROVE	INTERIOR	S	1	571	7	24/7 & OCCUPIED	CF12	PIPE CHASE		60A	2	60 Watt Incandescent A-Lamp Fixture	60	0.120	S	1000	120		2	LED 9A	Re-Lamp with (1) 9 Watt LED A19 Lamps	9	0.018	1.224	LA19/9/40K/D-46	8
2429	SELINSGROVE	INTERIOR	S	1	572	7	24/7 & OCCUPIED	CF12	HALL	294	2L25-1X4	4	T8 1x4 2-Lamp Troffer Fixture	43	0.172	Z	8760	1,507		4	R 2L-12.5LED	Retrofit with (2) 12.5 Watt LED T8 4' Lamps; Direct Wire to Socket	25	0.100	0.864	KT-LED10.5T8-48G-840-D	3
2430	SELINSGROVE	INTERIOR	S	1	572	7	24/7 & OCCUPIED	CF12	HALL		1W17	3	T8 2x2 1-Lamp Wrap Fixture	22	0.066	Z	8760	578		3	R 1L-10LED2'	Retrofit with (1) 10 Watt LED T8 2' Lamp; Direct Wire to Socket	10	0.030	0.432	KT-LED7T8-24GC-840-D	1
2431	SELINSGROVE	INTERIOR	S	1	572	7	24/7 & OCCUPIED	CF12	HALL		2EC25-4'	2	T8 2x4 2-Lamp Egg Crate Fixture	43	0.086	Z	8760	753		2	N 2W-12.5LED	New 1x4 2-Lamp Wrap Fixture with (2) 12.5 Watt LED T8 4' Lamp; Direct Wire to Socket	25	0.050	0.432	CCW-4'-2-T8LED /// KT-LED10.5T8-48G-840-D	51 + 3
2432	SELINSGROVE	INTERIOR	S	1	572	7	24/7 & OCCUPIED	CF12	HALL		CF13SQDL-8X8	3	13 Watt Compact Fluorescent Square Downlight Fixture; 8x8	13	0.039	Z	8760	342		3	LED 9A	Re-Lamp with (1) 9 Watt LED A19 Lamps	9	0.027	0.144	LA19/9/40K/D-46	8
2433	SELINSGROVE	INTERIOR	S	BASEMENT	573	7	24/7 & OCCUPIED	CF12	SOLARIUM	142	2L25-1X4	7	T8 1x4 2-Lamp Troffer Fixture	43	0.301	BH	5460	1,643		7	R 2L-12.5LED	Retrofit with (2) 12.5 Watt LED T8 4' Lamps; Direct Wire to Socket	25	0.175	1.512	KT-LED10.5T8-48G-840-D	3
2434	SELINSGROVE	INTERIOR	S	BASEMENT	573	7	24/7 & OCCUPIED	CF12	SOLARIUM		XLED	2	3 Watt LED 2-Lamp Exit Sign	3	0.006	Z	8760	53		2	ZZ DD	No Retrofit	3	0.006	0.000	N/A	N/A
2435	SELINSGROVE	INTERIOR	S	BASEMENT	574	7	24/7 & OCCUPIED	CF12	RR	143	1W17	2	T8 2x2 1-Lamp Wrap Fixture	22	0.044	Z	8760	385		2	R 1L-10LED2'	Retrofit with (1) 10 Watt LED T8 2' Lamp; Direct Wire to Socket	10	0.020	0.288	KT-LED7T8-24GC-840-D	1
2436	SELINSGROVE	INTERIOR	S	BASEMENT	574	7	24/7 & OCCUPIED	CF12	PIPE CHASE		60A	1	60 Watt Incandescent A-Lamp Fixture	60	0.060	S	1000	60		1	LED 9A	Re-Lamp with (1) 9 Watt LED A19 Lamps	9	0.009	0.612	LA19/9/40K/D-46	8
2437	SELINSGROVE	INTERIOR	S	BASEMENT	575	7	24/7 & OCCUPIED	CF12	PT	149	2L25-1X4-COVER	12	T8 1x4 2-Lamp Troffer Fixture; Cover	43	0.516	O	2340	1,207		12	R 2L-12.5LED	Retrofit with (2) 12.5 Watt LED T8 4' Lamps; Direct Wire to Socket	25	0.300	2.592	KT-LED10.5T8-48G-840-D	3
2438	SELINSGROVE	INTERIOR	S	BASEMENT	576	7	24/7 & OCCUPIED	CF12	EXERCISE ROOM	145	2L25-1X4-COVER	12	T8 1x4 2-Lamp Troffer Fixture; Cover	43	0.516	Z	8760	4,520		12	R 2L-12.5LED	Retrofit with (2) 12.5 Watt LED T8 4' Lamps; Direct Wire to Socket	25	0.300	2.592	KT-LED10.5T8-48G-840-D	3
2439	SELINSGROVE	INTERIOR	S	BASEMENT	577	7	24/7 & OCCUPIED	CF12	OFFICE	144	2L25-1X4-COVER	6	T8 1x4 2-Lamp Troffer Fixture; Cover	43	0.258	O	2340	604		6	R 2L-12.5LED	Retrofit with (2) 12.5 Watt LED T8 4' Lamps; Direct Wire to Socket	25	0.150	1.296	KT-LED10.5T8-48G-840-D	3
2440	SELINSGROVE	INTERIOR	S	BASEMENT	578	7	24/7 & OCCUPIED	CF12	COOKING CLASS	150	2L25-1X4-COVER	3	T8 1x4 2-Lamp Troffer Fixture; Cover	43	0.129	O	2340	302		3	R 2L-12.5LED	Retrofit with (2) 12.5 Watt LED T8 4' Lamps; Direct Wire to Socket	25	0.075	0.648	KT-LED10.5T8-48G-840-D	3
2441	SELINSGROVE	INTERIOR	S	BASEMENT	578	7	24/7 & OCCUPIED	CF12	COOKING CLASS		4L25-4'	3	T8 2x4 4-Lamp Troffer Fixture	85	0.255	O	2340	597		3	R 4L-12.5LED	Retrofit with (4) 12.5 Watt LED T8 4' Lamps; Direct Wire to Socket	50	0.150	1.260	KT-LED10.5T8-48G-840-D	3
2442	SELINSGROVE	INTERIOR	S	BASEMENT	579	7	24/7 & OCCUPIED	CF12	PROGRAM	150A	4W25-4'	2	T8 1x4 4-Lamp Wrap Fixture	85	0.170	CPS	1827	311		2	R 4L-12.5LED	Retrofit with (4) 12.5 Watt LED T8 4' Lamps; Direct Wire to Socket	50	0.100	0.840	KT-LED10.5T8-48G-840-D	3

											EXISTING FIXTURES									PROPOSED FIXTURE UPGRADE							
ID #	Facility Name	Phase	Utility Rate Code	Floor	Map #	Building Number	Building Usage Type	Building Section	Room Description	Room #	ECM Code	Qty	Description	Watts	kW	Burn Hour Code	Pre Burn Hours	kWh	x	Qty	New Code	Description	Watts	kW	Annual KW Saved	Part#	Cut Sheet #
2443	SELINSGROVE	INTERIOR	S	BASEMENT	579	7	24/7 & OCCUPIED	CF12	PROGRAM		2W25-4'	1	T8 1x4 2-Lamp Wrap Fixture	43	0.043	CPS	1827	79		1	R 2L-12.5LED	Retrofit with (2) 12.5 Watt LED T8 4' Lamps; Direct Wire to Socket	25	0.025	0.216	KT-LED10.5T8-48G-840-D	3
2444	SELINSGROVE	INTERIOR	S	BASEMENT	579	7	24/7 & OCCUPIED	CF12	OFFICE	153	2EC25-4'	2	T8 2x4 2-Lamp Egg Crate Fixture	43	0.086	O	2340	201		2	N 2W-12.5LED	New 1x4 2-Lamp Wrap Fixture with (2) 12.5 Watt LED T8 4' Lamp; Direct Wire to Socket	25	0.050	0.432	CCW-4'-2-T8LED /// KT-LED10.5T8-48G-840-D	51 + 3
2445	SELINSGROVE	INTERIOR	S	BASEMENT	579	7	24/7 & OCCUPIED	CF12	CLOSET	155	2PL13DR	1	13 Watt Plug-In CFL Drum Fixture	26	0.026	S	1000	26		1	N LED14DR	New 12" Round 14 Watt LED Drum Fixture	14	0.014	0.144	54074143	19
2446	SELINSGROVE	INTERIOR	S	BASEMENT	579	7	24/7 & OCCUPIED	CF12	CLOSET	152	60A	1	60 Watt Incandescent A-Lamp Fixture	60	0.060	S	1000	60		1	LED 9A	Re-Lamp with (1) 9 Watt LED A19 Lamps	9	0.009	0.612	LA19/9/40K/D-46	8
2447	SELINSGROVE	INTERIOR	S	BASEMENT	579	7	24/7 & OCCUPIED	CF12	MOP CLOSET		CF23	1	23 Watt Compact Fluorescent Fixture	23	0.023	S	1000	23		1	LED 9A	Re-Lamp with (1) 9 Watt LED A19 Lamps	9	0.009	0.168	LA19/9/40K/D-46	8
2448	SELINSGROVE	INTERIOR	S	BASEMENT	579	7	24/7 & OCCUPIED	CF12	PIPE CHASE		60A	1	60 Watt Incandescent A-Lamp Fixture	60	0.060	S	1000	60		1	LED 9A	Re-Lamp with (1) 9 Watt LED A19 Lamps	9	0.009	0.612	LA19/9/40K/D-46	8
2449	SELINSGROVE	INTERIOR	S	BASEMENT	579	7	24/7 & OCCUPIED	CF12	RR	151	4L25-4'	2	T8 2x4 4-Lamp Troffer Fixture	85	0.170	Z	8760	1,489		2	R 4L-12.5LED	Retrofit with (4) 12.5 Watt LED T8 4' Lamps; Direct Wire to Socket	50	0.100	0.840	KT-LED10.5T8-48G-840-D	3
2450	SELINSGROVE	INTERIOR	S	BASEMENT	579	7	24/7 & OCCUPIED	CF12	RR		1W17	2	T8 2x2 1-Lamp Wrap Fixture	22	0.044	Z	8760	385		2	R 1L-10LED2'	Retrofit with (1) 10 Watt LED T8 2' Lamp; Direct Wire to Socket	10	0.020	0.288	KT-LED7T8-24GC-840-D	1
2451	SELINSGROVE	INTERIOR	S	BASEMENT	579	7	24/7 & OCCUPIED	CF12	HALL		2EC25-4'	1	T8 2x4 2-Lamp Egg Crate Fixture	43	0.043	Z	8760	377		1	N 2W-12.5LED	New 1x4 2-Lamp Wrap Fixture with (2) 12.5 Watt LED T8 4' Lamp; Direct Wire to Socket	25	0.025	0.216	CCW-4'-2-T8LED /// KT-LED10.5T8-48G-840-D	51 + 3
2452	SELINSGROVE	INTERIOR	S	BASEMENT	579	7	24/7 & OCCUPIED	CF12	PIPE CHASE		60A	2	60 Watt Incandescent A-Lamp Fixture	60	0.120	S	1000	120		2	LED 9A	Re-Lamp with (1) 9 Watt LED A19 Lamps	9	0.018	1.224	LA19/9/40K/D-46	8
2453	SELINSGROVE	INTERIOR	S	BASEMENT	580	7	24/7 & OCCUPIED	CF12	MEETING ROOM	143	2L25-4'	6	T8 2x4 2-Lamp Troffer Fixture	43	0.258	O	2340	604		6	R 2L-12.5LED	Retrofit with (2) 12.5 Watt LED T8 4' Lamps; Direct Wire to Socket	25	0.150	1.296	KT-LED10.5T8-48G-840-D	3
2454	SELINSGROVE	INTERIOR	S	BASEMENT	581	7	24/7 & OCCUPIED	CF12	SPRINKLER VALVE	141	CF23RLM	2	23 Watt Compact Fluorescent RLM Fixture	23	0.046	S	1000	46		2	LED 9A	Re-Lamp with (1) 9 Watt LED A19 Lamps	9	0.018	0.336	LA19/9/40K/D-46	8
2455	SELINSGROVE	INTERIOR	S	BASEMENT	582	7	24/7 & OCCUPIED	CF12	RR	153B	3PL13DR	1	13 Watt 3-Lamp Plug-In CFL Drum Fixture	45	0.045	Z	8760	394		1	N LED22DR	New 16" Round 22 Watt LED Drum Fixture	22	0.022	0.276	54075142	20
2456	SELINSGROVE	INTERIOR	S	BASEMENT	582	7	24/7 & OCCUPIED	CF12	HALL		1W17	1	T8 2x2 1-Lamp Wrap Fixture	22	0.022	Z	8760	193		1	R 1L-10LED2'	Retrofit with (1) 10 Watt LED T8 2' Lamp; Direct Wire to Socket	10	0.010	0.144	KT-LED7T8-24GC-840-D	1
2457	SELINSGROVE	INTERIOR	S	BASEMENT	583	7	24/7 & OCCUPIED	CF12	PIPE CHASE	157	CF13	1	13 Watt Compact Fluorescent Fixture	13	0.013	S	1000	13		1	LED 9A	Re-Lamp with (1) 9 Watt LED A19 Lamps	9	0.009	0.048	LA19/9/40K/D-46	8
2458	SELINSGROVE	INTERIOR	S	BASEMENT	584	7	24/7 & OCCUPIED	CF12	STORAGE	158A	CF13JJ(JJ)	3	13 Watt Compact Fluorescent Jelly Jar Fixture; Damaged/Missing Lens	13	0.039	S	1000	39		3	N LED9AJJ	New Jelly Jar Fixture with (1) 9 Watt LED A19	9	0.027	0.144	CJJ/WJJ /// LA19/9/40K/D-46	46 + 8
2459	SELINSGROVE	INTERIOR	S	BASEMENT	585	7	24/7 & OCCUPIED	CF12	HALL	142	2EC25-4'	8	T8 2x4 2-Lamp Egg Crate Fixture	43	0.344	Z	8760	3,013		8	N 2W-12.5LED	New 1x4 2-Lamp Wrap Fixture with (2) 12.5 Watt LED T8 4' Lamp; Direct Wire to Socket	25	0.200	1.728	CCW-4'-2-T8LED /// KT-LED10.5T8-48G-840-D	51 + 3
2460	SELINSGROVE	INTERIOR	S	BASEMENT	586	7	24/7 & OCCUPIED	CF12	MECH	138	2EC25-4'	1	T8 2x4 2-Lamp Egg Crate Fixture	43	0.043	S	1000	43		1	N 2W-12.5LED	New 1x4 2-Lamp Wrap Fixture with (2) 12.5 Watt LED T8 4' Lamp; Direct Wire to Socket	25	0.025	0.216	CCW-4'-2-T8LED /// KT-LED10.5T8-48G-840-D	51 + 3
2461	SELINSGROVE	INTERIOR	S	BASEMENT	587	7	24/7 & OCCUPIED	CF12	MECH	137	60RLM	1	60 Watt Incandescent RLM Fixture	60	0.060	S	1000	60		1	LED 9A	Re-Lamp with (1) 9 Watt LED A19 Lamps	9	0.009	0.612	LA19/9/40K/D-46	8
2462	SELINSGROVE	INTERIOR	S	BASEMENT	587	7	24/7 & OCCUPIED	CF12	MECH		CF23RLM	1	23 Watt Compact Fluorescent RLM Fixture	23	0.023	S	1000	23		1	LED 9A	Re-Lamp with (1) 9 Watt LED A19 Lamps	9	0.009	0.168	LA19/9/40K/D-46	8
2463	SELINSGROVE	INTERIOR	S	BASEMENT	587	7	24/7 & OCCUPIED	CF12	MECH		2W25-4'	1	T8 1x4 2-Lamp Wrap Fixture	43	0.043	S	1000	43		1	R 2L-12.5LED	Retrofit with (2) 12.5 Watt LED T8 4' Lamps; Direct Wire to Socket	25	0.025	0.216	KT-LED10.5T8-48G-840-D	3
2464	SELINSGROVE	INTERIOR	S	BASEMENT	587	7	24/7 & OCCUPIED	CF12	MECH		2EC25-4'	1	T8 2x4 2-Lamp Egg Crate Fixture	43	0.043	S	1000	43		1	N 2W-12.5LED	New 1x4 2-Lamp Wrap Fixture with (2) 12.5 Watt LED T8 4' Lamp; Direct Wire to Socket	25	0.025	0.216	CCW-4'-2-T8LED /// KT-LED10.5T8-48G-840-D	51 + 3
2465	SELINSGROVE	INTERIOR	S	BASEMENT	588	7	24/7 & OCCUPIED	CF12	STORAGE	158	60RLM	1	60 Watt Incandescent RLM Fixture	60	0.060	S	1000	60		1	LED 9A	Re-Lamp with (1) 9 Watt LED A19 Lamps	9	0.009	0.612	LA19/9/40K/D-46	8
2466	SELINSGROVE	INTERIOR	S	BASEMENT	588	7	24/7 & OCCUPIED	CF12	STORAGE		1W17	1	T8 2x2 1-Lamp Wrap Fixture	22	0.022	S	1000	22		1	R 1L-10LED2'	Retrofit with (1) 10 Watt LED T8 2' Lamp; Direct Wire to Socket	10	0.010	0.144	KT-LED7T8-24GC-840-D	1
2467	SELINSGROVE	INTERIOR	S	BASEMENT	589	7	24/7 & OCCUPIED	CF12	HALL	133	2L25-1X4	9	T8 1x4 2-Lamp Troffer Fixture	43	0.387	Z	8760	3,390		9	R 2L-12.5LED	Retrofit with (2) 12.5 Watt LED T8 4' Lamps; Direct Wire to Socket	25	0.225	1.944	KT-LED10.5T8-48G-840-D	3
2468	SELINSGROVE	INTERIOR	S	BASEMENT	589	7	24/7 & OCCUPIED	CF12	HALL		2EC25-4'	1	T8 2x4 2-Lamp Egg Crate Fixture	43	0.043	Z	8760	377		1	N 2W-12.5LED	New 1x4 2-Lamp Wrap Fixture with (2) 12.5 Watt LED T8 4' Lamp; Direct Wire to Socket	25	0.025	0.216	CCW-4'-2-T8LED /// KT-LED10.5T8-48G-840-D	51 + 3
2469	SELINSGROVE	INTERIOR	S	BASEMENT	590	7	24/7 & OCCUPIED	CF12	PROGRAM B		4EC25-4'	2	T8 2x4 4-Lamp Egg Crate Fixture	85	0.170	CPS-ES	1279	217		2	N 4W-12.5LED	New 1x4 4-Lamp Wrap Fixture with (4) 12.5 Watt LED T8 4' Lamp; Direct Wire to Socket	50	0.100	0.840	CCW-4'-4-T8LED /// KT-LED10.5T8-48G-840-D	53 + 3
2470	SELINSGROVE	INTERIOR	S	BASEMENT	591	7	24/7 & OCCUPIED	CF12	PROGRAM C		1W17	4	T8 2x2 1-Lamp Wrap Fixture	22	0.088	CPS	1827	161		4	R 1L-10LED2'	Retrofit with (1) 10 Watt LED T8 2' Lamp; Direct Wire to Socket	10	0.040	0.576	KT-LED7T8-24GC-840-D	1
2471	SELINSGROVE	INTERIOR	S	BASEMENT	591	7	24/7 & OCCUPIED	CF12	PROGRAM C		2L25-1X4	4	T8 1x4 2-Lamp Troffer Fixture	43	0.172	CPS	1827	314		4	R 2L-12.5LED	Retrofit with (2) 12.5 Watt LED T8 4' Lamps; Direct Wire to Socket	25	0.100	0.864	KT-LED10.5T8-48G-840-D	3
2472	SELINSGROVE	INTERIOR	S	BASEMENT	592	7	24/7 & OCCUPIED	CF12	PROGRAM D		1W17	2	T8 2x2 1-Lamp Wrap Fixture	22	0.044	CPS-ES	1279	56		2	R 1L-10LED2'	Retrofit with (1) 10 Watt LED T8 2' Lamp; Direct Wire to Socket	10	0.020	0.288	KT-LED7T8-24GC-840-D	1
2473	SELINSGROVE	INTERIOR	S	BASEMENT	592	7	24/7 & OCCUPIED	CF12	PROGRAM D		2L25-1X4	2	T8 1x4 2-Lamp Troffer Fixture	43	0.086	CPS	1827	157		2	R 2L-12.5LED	Retrofit with (2) 12.5 Watt LED T8 4' Lamps; Direct Wire to Socket	25	0.050	0.432	KT-LED10.5T8-48G-840-D	3
2474	SELINSGROVE	INTERIOR	S	BASEMENT	593	7	24/7 & OCCUPIED	CF12	PROGRAM F		2L25-1X4	2	T8 1x4 2-Lamp Troffer Fixture	43	0.086	CPS-ES	1279	110		2	R 2L-12.5LED	Retrofit with (2) 12.5 Watt LED T8 4' Lamps; Direct Wire to Socket	25	0.050	0.432	KT-LED10.5T8-48G-840-D	3

											EXISTING FIXTURES									PROPOSED FIXTURE UPGRADE							
ID #	Facility Name	Phase	Utility Rate Code	Floor	Map #	Building Number	Building Usage Type	Building Section	Room Description	Room #	ECM Code	Qty	Description	Watts	kW	Burn Hour Code	Pre Burn Hours	kWh	x	Qty	New Code	Description	Watts	kW	Annual KW Saved	Part#	Cut Sheet #
2475	SELINSGROVE	INTERIOR	S	BASEMENT	593	7	24/7 & OCCUPIED	CF12	PROGRAM F		4EC25-4'	2	T8 2x4 4-Lamp Egg Crate Fixture	85	0.170	CPS	1827	311		2	N 4W-12.5LED	New 1x4 4-Lamp Wrap Fixture with (4) 12.5 Watt LED T8 4' Lamp; Direct Wire to Socket	50	0.100	0.840	CCW-4'-4-T8LED /// KT-LED10.5T8-48G-840-D	53 + 3
2476	SELINSGROVE	INTERIOR	S	BASEMENT	593	7	24/7 & OCCUPIED	CF12	PROGRAM F		2EC25-4'	1	T8 2x4 2-Lamp Egg Crate Fixture	43	0.043	CPS	1827	79		1	N 2W-12.5LED	New 1x4 2-Lamp Wrap Fixture with (2) 12.5 Watt LED T8 4' Lamp; Direct Wire to Socket	25	0.025	0.216	CCW-4'-2-T8LED /// KT-LED10.5T8-48G-840-D	51 + 3
2477	SELINSGROVE	INTERIOR	S	BASEMENT	594	7	24/7 & OCCUPIED	CF12	PROGRAM G		2L25-1X4	3	T8 1x4 2-Lamp Troffer Fixture	43	0.129	CPS	1827	236		3	R 2L-12.5LED	Retrofit with (2) 12.5 Watt LED T8 4' Lamps; Direct Wire to Socket	25	0.075	0.648	KT-LED10.5T8-48G-840-D	3
2478	SELINSGROVE	INTERIOR	S	BASEMENT	594	7	24/7 & OCCUPIED	CF12	PROGRAM G		4EC25-4'	2	T8 2x4 4-Lamp Egg Crate Fixture	85	0.170	CPS	1827	311		2	N 4W-12.5LED	New 1x4 4-Lamp Wrap Fixture with (4) 12.5 Watt LED T8 4' Lamp; Direct Wire to Socket	50	0.100	0.840	CCW-4'-4-T8LED /// KT-LED10.5T8-48G-840-D	53 + 3
2479	SELINSGROVE	INTERIOR	S	BASEMENT	595	7	24/7 & OCCUPIED	CF12	PROGRAM H		2EC25-4'	1	T8 2x4 2-Lamp Egg Crate Fixture	43	0.043	CPS	1827	79		1	N 2W-12.5LED	New 1x4 2-Lamp Wrap Fixture with (2) 12.5 Watt LED T8 4' Lamp; Direct Wire to Socket	25	0.025	0.216	CCW-4'-2-T8LED /// KT-LED10.5T8-48G-840-D	51 + 3
2480	SELINSGROVE	INTERIOR	S	BASEMENT	596	7	24/7 & OCCUPIED	CF12	PROGRAM A		2EC25-4'	2	T8 2x4 2-Lamp Egg Crate Fixture	43	0.086	CPS	1827	157		2	N 2W-12.5LED	New 1x4 2-Lamp Wrap Fixture with (2) 12.5 Watt LED T8 4' Lamp; Direct Wire to Socket	25	0.050	0.432	CCW-4'-2-T8LED /// KT-LED10.5T8-48G-840-D	51 + 3
2481	SELINSGROVE	INTERIOR	S	BASEMENT	596	7	24/7 & OCCUPIED	CF12	PROGRAM A		2L25-1X4	4	T8 1x4 2-Lamp Troffer Fixture	43	0.172	CPS	1827	314		4	R 2L-12.5LED	Retrofit with (2) 12.5 Watt LED T8 4' Lamps; Direct Wire to Socket	25	0.100	0.864	KT-LED10.5T8-48G-840-D	3
2482	SELINSGROVE	INTERIOR	S	BASEMENT	597	7	24/7 & OCCUPIED	CF12	COMP RM	129	2EC25-4'	2	T8 2x4 2-Lamp Egg Crate Fixture	43	0.086	S	1000	86		2	N 2W-12.5LED	New 1x4 2-Lamp Wrap Fixture with (2) 12.5 Watt LED T8 4' Lamp; Direct Wire to Socket	25	0.050	0.432	CCW-4'-2-T8LED /// KT-LED10.5T8-48G-840-D	51 + 3
2483	SELINSGROVE	INTERIOR	S	BASEMENT	597	7	24/7 & OCCUPIED	CF12	RR		1W17	1	T8 2x2 1-Lamp Wrap Fixture	22	0.022	Z	8760	193		1	R 1L-10LED2'	Retrofit with (1) 10 Watt LED T8 2' Lamp; Direct Wire to Socket	10	0.010	0.144	KT-LED7T8-24GC-840-D	1
2484	SELINSGROVE	INTERIOR	S	BASEMENT	597	7	24/7 & OCCUPIED	CF12	ELECTRIC		CF13	1	13 Watt Compact Fluorescent Fixture	13	0.013	S	1000	13		1	LED 9A	Re-Lamp with (1) 9 Watt LED A19 Lamps	9	0.009	0.048	LA19/9/40K/D-46	8
2485	SELINSGROVE	INTERIOR	S	BASEMENT	597	7	24/7 & OCCUPIED	CF12	STORAGE	130	1W17	1	T8 2x2 1-Lamp Wrap Fixture	22	0.022	S	1000	22		1	R 1L-10LED2'	Retrofit with (1) 10 Watt LED T8 2' Lamp; Direct Wire to Socket	10	0.010	0.144	KT-LED7T8-24GC-840-D	1
2486	SELINSGROVE	INTERIOR	S	BASEMENT	598	7	24/7 & OCCUPIED	CF12	JANITOR CLOSET	134	CF13	1	13 Watt Compact Fluorescent Fixture	13	0.013	S	1000	13		1	LED 9A	Re-Lamp with (1) 9 Watt LED A19 Lamps	9	0.009	0.048	LA19/9/40K/D-46	8
2487	SELINSGROVE	INTERIOR	S	BASEMENT	598	7	24/7 & OCCUPIED	CF12	JANITOR CLOSET		3PL13DR	1	13 Watt 3-Lamp Plug-In CFL Drum Fixture	45	0.045	S	1000	45		1	N LED22DR	New 16" Round 22 Watt LED Drum Fixture	22	0.022	0.276	54075142	20
2488	SELINSGROVE	INTERIOR	S	BASEMENT	599	7	24/7 & OCCUPIED	CF12	RR	135	1W17	2	T8 2x2 1-Lamp Wrap Fixture	22	0.044	Z	8760	385		2	R 1L-10LED2'	Retrofit with (1) 10 Watt LED T8 2' Lamp; Direct Wire to Socket	10	0.020	0.288	KT-LED7T8-24GC-840-D	1
2489	SELINSGROVE	INTERIOR	S	BASEMENT	600	7	24/7 & OCCUPIED	CF12	OFFICE	167	2EC25-4'	2	T8 2x4 2-Lamp Egg Crate Fixture	43	0.086	O	2340	201		2	N 2W-12.5LED	New 1x4 2-Lamp Wrap Fixture with (2) 12.5 Watt LED T8 4' Lamp; Direct Wire to Socket	25	0.050	0.432	CCW-4'-2-T8LED /// KT-LED10.5T8-48G-840-D	51 + 3
2490	SELINSGROVE	INTERIOR	S	BASEMENT	600	7	24/7 & OCCUPIED	CF12	CLOSET		1W17	1	T8 2x2 1-Lamp Wrap Fixture	22	0.022	S	1000	22		1	R 1L-10LED2'	Retrofit with (1) 10 Watt LED T8 2' Lamp; Direct Wire to Socket	10	0.010	0.144	KT-LED7T8-24GC-840-D	1
2491	SELINSGROVE	INTERIOR	S	BASEMENT	600	7	24/7 & OCCUPIED	CF12	RR		4W25-4'	1	T8 1x4 4-Lamp Wrap Fixture	85	0.085	Z	8760	745		1	R 4L-12.5LED	Retrofit with (4) 12.5 Watt LED T8 4' Lamps; Direct Wire to Socket	50	0.050	0.420	KT-LED10.5T8-48G-840-D	3
2492	SELINSGROVE	INTERIOR	S	BASEMENT	600	7	24/7 & OCCUPIED	CF12	CLOSET		CF13	1	13 Watt Compact Fluorescent Fixture	13	0.013	S	1000	13		1	LED 9A	Re-Lamp with (1) 9 Watt LED A19 Lamps	9	0.009	0.048	LA19/9/40K/D-46	8
2493	SELINSGROVE	INTERIOR	S	BASEMENT	601	7	24/7 & OCCUPIED	CF12	CERAMICS	159	4EC25-4'	8	T8 2x4 4-Lamp Egg Crate Fixture	85	0.680	O	2340	1,591		8	N 4W-12.5LED	New 1x4 4-Lamp Wrap Fixture with (4) 12.5 Watt LED T8 4' Lamp; Direct Wire to Socket	50	0.400	3.360	CCW-4'-4-T8LED /// KT-LED10.5T8-48G-840-D	53 + 3
2494	SELINSGROVE	INTERIOR	S	BASEMENT	601	7	24/7 & OCCUPIED	CF12	CERAMICS		2B25-4'	4	T8 2x4 2-Lamp Surface Mount Fixture	43	0.172	O	2340	402		4	R 2L-12.5LED	Retrofit with (2) 12.5 Watt LED T8 4' Lamps; Direct Wire to Socket	25	0.100	0.864	KT-LED10.5T8-48G-840-D	3
2495	SELINSGROVE	INTERIOR	S	BASEMENT	601	7	24/7 & OCCUPIED	CF12	CERAMICS	165	CF13	1	13 Watt Compact Fluorescent Fixture	13	0.013	O	2340	30		1	LED 9A	Re-Lamp with (1) 9 Watt LED A19 Lamps	9	0.009	0.048	LA19/9/40K/D-46	8
2496	SELINSGROVE	INTERIOR	S	BASEMENT	602	7	24/7 & OCCUPIED	CF12	KITCHEN	164	4L25-4'	2	T8 2x4 4-Lamp Troffer Fixture	85	0.170	Z	8760	1,489		2	R 4L-12.5LED	Retrofit with (4) 12.5 Watt LED T8 4' Lamps; Direct Wire to Socket	50	0.100	0.840	KT-LED10.5T8-48G-840-D	3
2497	SELINSGROVE	INTERIOR	S	BASEMENT	603	7	24/7 & OCCUPIED	CF12	CERAMICS	159	4L25-4'	9	T8 2x4 4-Lamp Troffer Fixture	85	0.765	O	2340	1,790		9	R 4L-12.5LED	Retrofit with (4) 12.5 Watt LED T8 4' Lamps; Direct Wire to Socket	50	0.450	3.780	KT-LED10.5T8-48G-840-D	3
2498	SELINSGROVE	INTERIOR	S	BASEMENT	603	7	24/7 & OCCUPIED	CF12	CERAMICS		CF23DL	15	23 Watt Compact Fluorescent Downlight Fixture	23	0.345	O	2340	807		15	LED 10BR30	Re-Lamp with (1) 10 Watt LED BR30	10	0.150	2.340	LBR30/9/840/D-46	10
2499	SELINSGROVE	INTERIOR	S	BASEMENT	603	7	24/7 & OCCUPIED	CF12	CERAMICS		75BR30-TRACK	6	75 Watt Incandescent BR30 Track Fixture	75	0.450	O	2340	1,053		6	LED 10BR30	Re-Lamp with (1) 10 Watt LED BR30	10	0.060	4.680	LBR30/9/840/D-46	10
2500	SELINSGROVE	INTERIOR	S	BASEMENT	604	7	24/7 & OCCUPIED	CF12	STORAGE	163	1W17	1	T8 2x2 1-Lamp Wrap Fixture	22	0.022	S	1000	22		1	R 1L-10LED2'	Retrofit with (1) 10 Watt LED T8 2' Lamp; Direct Wire to Socket	10	0.010	0.144	KT-LED7T8-24GC-840-D	1
2501	SELINSGROVE	INTERIOR	S	BASEMENT	605	7	24/7 & OCCUPIED	CF12	HALL-CERAMICS		2EC25-4'	1	T8 2x4 2-Lamp Egg Crate Fixture	43	0.043	Z	8760	377		1	N 2W-12.5LED	New 1x4 2-Lamp Wrap Fixture with (2) 12.5 Watt LED T8 4' Lamp; Direct Wire to Socket	25	0.025	0.216	CCW-4'-2-T8LED /// KT-LED10.5T8-48G-840-D	51 + 3
2502	SELINSGROVE	INTERIOR	S	BASEMENT	605	7	24/7 & OCCUPIED	CF12	HALL-CERAMICS		2EC25-4'	12	T8 2x4 2-Lamp Egg Crate Fixture	43	0.516	Z	8760	4,520		12	N 2W-12.5LED	New 1x4 2-Lamp Wrap Fixture with (2) 12.5 Watt LED T8 4' Lamp; Direct Wire to Socket	25	0.300	2.592	CCW-4'-2-T8LED /// KT-LED10.5T8-48G-840-D	51 + 3
2503	SELINSGROVE	INTERIOR	S	BASEMENT	606	7	24/7 & OCCUPIED	CF12	CERAMICS - D		4L25-4'	6	T8 2x4 4-Lamp Troffer Fixture	85	0.510	O	2340	1,193		6	R 4L-12.5LED	Retrofit with (4) 12.5 Watt LED T8 4' Lamps; Direct Wire to Socket	50	0.300	2.520	KT-LED10.5T8-48G-840-D	3
2504	SELINSGROVE	INTERIOR	S	BASEMENT	607	7	24/7 & OCCUPIED	CF12	CERAMICS - C		4L25-4'	4	T8 2x4 4-Lamp Troffer Fixture	85	0.340	O	2340	796		4	R 4L-12.5LED	Retrofit with (4) 12.5 Watt LED T8 4' Lamps; Direct Wire to Socket	50	0.200	1.680	KT-LED10.5T8-48G-840-D	3
2505	SELINSGROVE	INTERIOR	S	BASEMENT	607	7	24/7 & OCCUPIED	CF12	CERAMICS - C		LEDPAR38	1	LED Par38 Fixture	18	0.018	O	2340	42		1	ZZ DD	No Retrofit	18	0.018	0.000	N/A	N/A
2506	SELINSGROVE	INTERIOR	S	BASEMENT	608	7	24/7 & OCCUPIED	CF12	CERAMICS	159	4B25-4'	3	T8 2x4 4-Lamp Surface Mount Fixture	85	0.255	O	2340	597		3	R 4L-12.5LED	Retrofit with (4) 12.5 Watt LED T8 4' Lamps; Direct Wire to Socket	50	0.150	1.260	KT-LED10.5T8-48G-840-D	3

											EXISTING FIXTURES									PROPOSED FIXTURE UPGRADE							
ID #	Facility Name	Phase	Utility Rate Code	Floor	Map #	Building Number	Building Usage Type	Building Section	Room Description	Room #	ECM Code	Qty	Description	Watts	kW	Burn Hour Code	Pre Burn Hours	kWh	x	Qty	New Code	Description	Watts	kW	Annual KW Saved	Part#	Cut Sheet #
2507	SELINSGROVE	INTERIOR	S	BASEMENT	608	7	24/7 & OCCUPIED	CF12	CERAMICS		2B25-4'	7	T8 2x4 2-Lamp Surface Mount Fixture	43	0.301	O	2340	704		7	R 2L-12.5LED	Retrofit with (2) 12.5 Watt LED T8 4' Lamps; Direct Wire to Socket	25	0.175	1.512	KT-LED10.5T8-48G-840-D	3
2508	SELINSGROVE	INTERIOR	S	BASEMENT	608	7	24/7 & OCCUPIED	CF12	CERAMICS		XLED	1	3 Watt LED 2-Lamp Exit Sign	3	0.003	Z	8760	26		1	ZZ DD	No Retrofit	3	0.003	0.000	N/A	N/A
2509	SELINSGROVE	INTERIOR	S	BASEMENT	609	7	24/7 & OCCUPIED	CF12	RR-MENS	161	4EC25-4'	1	T8 2x4 4-Lamp Egg Crate Fixture	85	0.085	Z	8760	745		1	N 4W-12.5LED	New 1x4 4-Lamp Wrap Fixture with (4) 12.5 Watt LED T8 4' Lamp; Direct Wire to Socket	50	0.050	0.420	CCW-4'-4-T8LED /// KT-LED10.5T8-48G-840-D	53 + 3
2510	SELINSGROVE	INTERIOR	S	BASEMENT	610	7	24/7 & OCCUPIED	CF12	HALL		CF13SQSC	6	13 Watt Compact Fluorescent Square Sconce Fixture	13	0.078	Z	8760	683		6	LED 9A	Re-Lamp with (1) 9 Watt LED A19 Lamps	9	0.054	0.288	LA19/9/40K/D-46	8
2511	SELINSGROVE	INTERIOR	S	BASEMENT	610	7	24/7 & OCCUPIED	CF12	HALL		4L25-4'	1	T8 2x4 4-Lamp Troffer Fixture	85	0.085	Z	8760	745		1	R 4L-12.5LED	Retrofit with (4) 12.5 Watt LED T8 4' Lamps; Direct Wire to Socket	50	0.050	0.420	KT-LED10.5T8-48G-840-D	3
2512	SELINSGROVE	INTERIOR	S	BASEMENT	610	7	24/7 & OCCUPIED	CF12	HALL		2L25-1X4	10	T8 1x4 2-Lamp Troffer Fixture	43	0.430	Z	8760	3,767		10	R 2L-12.5LED	Retrofit with (2) 12.5 Watt LED T8 4' Lamps; Direct Wire to Socket	25	0.250	2.160	KT-LED10.5T8-48G-840-D	3
2513	SELINSGROVE	INTERIOR	S	BASEMENT	610	7	24/7 & OCCUPIED	CF12	HALL		1W17	2	T8 2x2 1-Lamp Wrap Fixture	22	0.044	Z	8760	385		2	R 1L-10LED2'	Retrofit with (1) 10 Watt LED T8 2' Lamp; Direct Wire to Socket	10	0.020	0.288	KT-LED7T8-24GC-840-D	1
2514	SELINSGROVE	INTERIOR	S	BASEMENT	610	7	24/7 & OCCUPIED	CF12	HALL		XLED	5	3 Watt LED 2-Lamp Exit Sign	3	0.015	Z	8760	131		5	ZZ DD	No Retrofit	3	0.015	0.000	N/A	N/A
2515	SELINSGROVE	INTERIOR	S	BASEMENT	611	7	24/7 & OCCUPIED	CF12	MECHANICAL	128	CF13RLM	2	13 Watt Compact Fluorescent RLM Fixture	13	0.026	S	1000	26		2	LED 9A	Re-Lamp with (1) 9 Watt LED A19 Lamps	9	0.018	0.096	LA19/9/40K/D-46	8
2516	SELINSGROVE	INTERIOR	S	BASEMENT	612	7	24/7 & OCCUPIED	CF12	MECHANICAL	171	CF13RLM	3	13 Watt Compact Fluorescent RLM Fixture	13	0.039	S	1000	39		3	LED 9A	Re-Lamp with (1) 9 Watt LED A19 Lamps	9	0.027	0.144	LA19/9/40K/D-46	8
2517	SELINSGROVE	INTERIOR	S	BASEMENT	612	7	24/7 & OCCUPIED	CF12	MECHANICAL		CF23	2	23 Watt Compact Fluorescent Fixture	23	0.046	S	1000	46		2	LED 9A	Re-Lamp with (1) 9 Watt LED A19 Lamps	9	0.018	0.336	LA19/9/40K/D-46	8
2518	SELINSGROVE	INTERIOR	S	BASEMENT	613	7	24/7 & OCCUPIED	CF12	MECHANICAL	127	CF23	1	23 Watt Compact Fluorescent Fixture	23	0.023	S	1000	23		1	LED 9A	Re-Lamp with (1) 9 Watt LED A19 Lamps	9	0.009	0.168	LA19/9/40K/D-46	8
2519	SELINSGROVE	INTERIOR	S	BASEMENT	614	7	24/7 & OCCUPIED	CF12	LINEN STORAGE	125	2EC25-4'	2	T8 2x4 2-Lamp Egg Crate Fixture	43	0.086	S	1000	86		2	N 2W-12.5LED	New 1x4 2-Lamp Wrap Fixture with (2) 12.5 Watt LED T8 4' Lamp; Direct Wire to Socket	25	0.050	0.432	CCW-4'-2-T8LED /// KT-LED10.5T8-48G-840-D	51 + 3
2520	SELINSGROVE	INTERIOR	S	BASEMENT	614	7	24/7 & OCCUPIED	CF12	LINEN STORAGE		4EC25-4'	2	T8 2x4 4-Lamp Egg Crate Fixture	85	0.170	S	1000	170		2	N 4W-12.5LED	New 1x4 4-Lamp Wrap Fixture with (4) 12.5 Watt LED T8 4' Lamp; Direct Wire to Socket	50	0.100	0.840	CCW-4'-4-T8LED /// KT-LED10.5T8-48G-840-D	53 + 3
2521	SELINSGROVE	INTERIOR	S	BASEMENT	615	7	24/7 & OCCUPIED	CF12	LINEN STORAGE	111	2L25-1X4	2	T8 1x4 2-Lamp Troffer Fixture	43	0.086	S	1000	86		2	R 2L-12.5LED	Retrofit with (2) 12.5 Watt LED T8 4' Lamps; Direct Wire to Socket	25	0.050	0.432	KT-LED10.5T8-48G-840-D	3
2522	SELINSGROVE	INTERIOR	S	BASEMENT	1	7	24/7 & OCCUPIED		STORAGE	196	CF26RLM	2	26 Watt Compact Fluorescent RLM Fixture	26	0.052	S	1000	52		2	LED 9A	Re-Lamp with (1) 9 Watt LED A19 Lamps	9	0.018	0.408	LA19/9/40K/D-46	8
2523	SELINSGROVE	INTERIOR	S	BASEMENT	2	7	24/7 & OCCUPIED		HALL		2PL13DR	2	13 Watt Plug-In CFL Drum Fixture	26	0.052	Z	8760	456		2	N LED14DR	New 12" Round 14 Watt LED Drum Fixture	14	0.028	0.288	54074143	19
2524	SELINSGROVE	INTERIOR	S	BASEMENT	3	7	24/7 & OCCUPIED		MECHANICAL	102	CF26	5	26 Watt Compact Fluorescent Fixture	26	0.130	S	1000	130		5	LED 9A	Re-Lamp with (1) 9 Watt LED A19 Lamps	9	0.045	1.020	LA19/9/40K/D-46	8
2525	SELINSGROVE	INTERIOR	S	BASEMENT	3	7	24/7 & OCCUPIED		MECHANICAL		4W25(W)-4'	1	T8 1x4 4-Lamp Wrap Fixture; Damaged/Missing Lens	85	0.085	S	1000	85		1	N 4W-12.5LED	New 1x4 4-Lamp Wrap Fixture with (4) 12.5 Watt LED T8 4' Lamp; Direct Wire to Socket	50	0.050	0.420	CCW-4'-4-T8LED /// KT-LED10.5T8-48G-840-D	53 + 3
2526	SELINSGROVE	INTERIOR	S	BASEMENT	4	7	24/7 & OCCUPIED		STORAGE		4L40	4	T12 2x4 4-Lamp Troffer Fixture	134	0.536	S	1000	536		4	R 4L-12.5LED	Retrofit with (4) 12.5 Watt LED T8 4' Lamps; Direct Wire to Socket	50	0.200	4.032	KT-LED10.5T8-48G-840-D	3
2527	SELINSGROVE	INTERIOR	S	BASEMENT	5	7	24/7 & OCCUPIED		STORAGE		2W40	2	T12 1x4 2-Lamp Wrap Fixture	75	0.150	S	1000	150		2	R 2L-12.5LED	Retrofit with (2) 12.5 Watt LED T8 4' Lamps; Direct Wire to Socket	25	0.050	1.200	KT-LED10.5T8-48G-840-D	3
2528	SELINSGROVE	INTERIOR	S	BASEMENT	6	7	24/7 & OCCUPIED		STORAGE		4L40	4	T12 2x4 4-Lamp Troffer Fixture	134	0.536	S	1000	536		4	R 4L-12.5LED	Retrofit with (4) 12.5 Watt LED T8 4' Lamps; Direct Wire to Socket	50	0.200	4.032	KT-LED10.5T8-48G-840-D	3
2529	SELINSGROVE	INTERIOR	S	BASEMENT	7	7	24/7 & OCCUPIED		STORAGE		4L40	2	T12 2x4 4-Lamp Troffer Fixture	134	0.268	S	1000	268		2	R 4L-12.5LED	Retrofit with (4) 12.5 Watt LED T8 4' Lamps; Direct Wire to Socket	50	0.100	2.016	KT-LED10.5T8-48G-840-D	3
2530	SELINSGROVE	INTERIOR	S	BASEMENT	8	7	24/7 & OCCUPIED		STORAGE		2EC40	2	T12 2x4 2-Lamp Egg Crate Fixture	75	0.150	S	1000	150		2	N 2W-12.5LED	New 1x4 2-Lamp Wrap Fixture with (2) 12.5 Watt LED T8 4' Lamp; Direct Wire to Socket	25	0.050	1.200	CCW-4'-2-T8LED /// KT-LED10.5T8-48G-840-D	51 + 3
2531	SELINSGROVE	INTERIOR	S	BASEMENT	9	7	24/7 & OCCUPIED		STORAGE		4L40	6	T12 2x4 4-Lamp Troffer Fixture	134	0.804	S	1000	804		6	R 4L-12.5LED	Retrofit with (4) 12.5 Watt LED T8 4' Lamps; Direct Wire to Socket	50	0.300	6.048	KT-LED10.5T8-48G-840-D	3
2532	SELINSGROVE	INTERIOR	S	BASEMENT	10	7	24/7 & OCCUPIED		STORAGE		CF26	1	26 Watt Compact Fluorescent Fixture	26	0.026	S	1000	26		1	LED 9A	Re-Lamp with (1) 9 Watt LED A19 Lamps	9	0.009	0.204	LA19/9/40K/D-46	8
2533	SELINSGROVE	INTERIOR	S	BASEMENT	11	7	24/7 & OCCUPIED		STAIRS		2W25(W)-4'	2	T8 1x4 2-Lamp Wrap Fixture; Damaged/Missing Lens	43	0.086	Z	8760	753		2	N 2W-12.5LED	New 1x4 2-Lamp Wrap Fixture with (2) 12.5 Watt LED T8 4' Lamp; Direct Wire to Socket	25	0.050	0.432	CCW-4'-2-T8LED /// KT-LED10.5T8-48G-840-D	51 + 3
2534	SELINSGROVE	INTERIOR	S	BASEMENT	11	7	24/7 & OCCUPIED		STAIRS		2W25-4'	1	T8 1x4 2-Lamp Wrap Fixture	43	0.043	Z	8760	377		1	R 2L-12.5LED	Retrofit with (2) 12.5 Watt LED T8 4' Lamps; Direct Wire to Socket	25	0.025	0.216	KT-LED10.5T8-48G-840-D	3
2535	SELINSGROVE	INTERIOR	S	BASEMENT	12	7	24/7 & OCCUPIED		S		4L40	16	T12 2x4 4-Lamp Troffer Fixture	134	2.144	S	1000	2,144		16	R 4L-12.5LED	Retrofit with (4) 12.5 Watt LED T8 4' Lamps; Direct Wire to Socket	50	0.800	16.128	KT-LED10.5T8-48G-840-D	3
2536	SELINSGROVE	INTERIOR	S	BASEMENT	13	7	24/7 & OCCUPIED		S		4L40	6	T12 2x4 4-Lamp Troffer Fixture	134	0.804	S	1000	804		6	R 4L-12.5LED	Retrofit with (4) 12.5 Watt LED T8 4' Lamps; Direct Wire to Socket	50	0.300	6.048	KT-LED10.5T8-48G-840-D	3
2537	SELINSGROVE	INTERIOR	S	BASEMENT	14	7	24/7 & OCCUPIED		S		4L40	6	T12 2x4 4-Lamp Troffer Fixture	134	0.804	S	1000	804		6	R 4L-12.5LED	Retrofit with (4) 12.5 Watt LED T8 4' Lamps; Direct Wire to Socket	50	0.300	6.048	KT-LED10.5T8-48G-840-D	3
2538	SELINSGROVE	INTERIOR	S	BASEMENT	15	7	24/7 & OCCUPIED		S		4L40	8	T12 2x4 4-Lamp Troffer Fixture	134	1.072	S	1000	1,072		8	R 4L-12.5LED	Retrofit with (4) 12.5 Watt LED T8 4' Lamps; Direct Wire to Socket	50	0.400	8.064	KT-LED10.5T8-48G-840-D	3

											EXISTING FIXTURES									PROPOSED FIXTURE UPGRADE						
ID #	Facility Name	Phase	Utility Rate Code	Floor	Map #	Building Number	Building Usage Type	Building Section	Room Description	Room #	ECM Code	Qty	Description	Watts	kW	Burn Hour Code	Pre Burn Hours	kWh	x	Qty	New Code	Description	Watts	kW	Annual KW Saved	Part#	Cut Sheet #
2539	SELINSGROVE	INTERIOR	S	BASEMENT	16	7	24/7 & OCCUPIED		S		4L40	2	T12 2x4 4-Lamp Troffer Fixture	134	0.268	S	1000	268		2	R 4L-12.5LED	Retrofit with (4) 12.5 Watt LED T8 4' Lamps; Direct Wire to Socket	50	0.100	2.016	KT-LED10.5T8-48G-840-D	3
2540	SELINSGROVE	INTERIOR	S	BASEMENT	17	7	24/7 & OCCUPIED		S		4L40	6	T12 2x4 4-Lamp Troffer Fixture	134	0.804	S	1000	804		6	R 4L-12.5LED	Retrofit with (4) 12.5 Watt LED T8 4' Lamps; Direct Wire to Socket	50	0.300	6.048	KT-LED10.5T8-48G-840-D	3
2541	SELINSGROVE	INTERIOR	S	BASEMENT	18	7	24/7 & OCCUPIED		S		4L40	4	T12 2x4 4-Lamp Troffer Fixture	134	0.536	S	1000	536		4	R 4L-12.5LED	Retrofit with (4) 12.5 Watt LED T8 4' Lamps; Direct Wire to Socket	50	0.200	4.032	KT-LED10.5T8-48G-840-D	3
2542	SELINSGROVE	INTERIOR	S	BASEMENT	19	7	24/7 & OCCUPIED		S		4L40	4	T12 2x4 4-Lamp Troffer Fixture	134	0.536	S	1000	536		4	R 4L-12.5LED	Retrofit with (4) 12.5 Watt LED T8 4' Lamps; Direct Wire to Socket	50	0.200	4.032	KT-LED10.5T8-48G-840-D	3
2543	SELINSGROVE	INTERIOR	S	BASEMENT	20	7	24/7 & OCCUPIED		S		4L40	2	T12 2x4 4-Lamp Troffer Fixture	134	0.268	S	1000	268		2	R 4L-12.5LED	Retrofit with (4) 12.5 Watt LED T8 4' Lamps; Direct Wire to Socket	50	0.100	2.016	KT-LED10.5T8-48G-840-D	3
2544	SELINSGROVE	INTERIOR	S	BASEMENT	21	7	24/7 & OCCUPIED		S		4L40	2	T12 2x4 4-Lamp Troffer Fixture	134	0.268	S	1000	268		2	R 4L-12.5LED	Retrofit with (4) 12.5 Watt LED T8 4' Lamps; Direct Wire to Socket	50	0.100	2.016	KT-LED10.5T8-48G-840-D	3
2545	SELINSGROVE	INTERIOR	S	BASEMENT	22	7	24/7 & OCCUPIED		S		4L40	2	T12 2x4 4-Lamp Troffer Fixture	134	0.268	S	1000	268		2	R 4L-12.5LED	Retrofit with (4) 12.5 Watt LED T8 4' Lamps; Direct Wire to Socket	50	0.100	2.016	KT-LED10.5T8-48G-840-D	3
2546	SELINSGROVE	INTERIOR	S	BASEMENT	23	7	24/7 & OCCUPIED		JANITOR CLOSET		100A	1	100 Watt Incandescent A-Lamp Fixture	100	0.100	S	1000	100		1	LED 15A	Re-Lamp with (1) 15 Watt LED A19 Lamp	15	0.015	1.020	LA21/16/40K/D-46	9
2547	SELINSGROVE	INTERIOR	S	BASEMENT	24	7	24/7 & OCCUPIED		RR		2W40	1	T12 1x4 2-Lamp Wrap Fixture	75	0.075	S	1000	75		1	R 2L-12.5LED	Retrofit with (2) 12.5 Watt LED T8 4' Lamps; Direct Wire to Socket	25	0.025	0.600	KT-LED10.5T8-48G-840-D	3
2548	SELINSGROVE	INTERIOR	S	BASEMENT	24	7	24/7 & OCCUPIED		RR		2V40	1	T12 1x4 2-Lamp Vanity Fixture	75	0.075	S	1000	75		1	R 2L-12.5LED	Retrofit with (2) 12.5 Watt LED T8 4' Lamps; Direct Wire to Socket	25	0.025	0.600	KT-LED10.5T8-48G-840-D	3
2549	SELINSGROVE	INTERIOR	S	BASEMENT	24	7	24/7 & OCCUPIED		RR		2-60DR	1	60 Watt 2-Lamp Incandescent A-Lamp Drum Fixture	120	0.120	S	1000	120		1	LED 2-9A	Re-Lamp with (2) 9 Watt LED A19 Lamps	18	0.018	1.224	LA19/9/40K/D-46	8
2550	SELINSGROVE	INTERIOR	S	BASEMENT	25	7	24/7 & OCCUPIED		RR-MENS		2W40	1	T12 1x4 2-Lamp Wrap Fixture	75	0.075	S	1000	75		1	R 2L-12.5LED	Retrofit with (2) 12.5 Watt LED T8 4' Lamps; Direct Wire to Socket	25	0.025	0.600	KT-LED10.5T8-48G-840-D	3
2551	SELINSGROVE	INTERIOR	S	BASEMENT	25	7	24/7 & OCCUPIED		RR-MENS		2V40	1	T12 1x4 2-Lamp Vanity Fixture	75	0.075	S	1000	75		1	R 2L-12.5LED	Retrofit with (2) 12.5 Watt LED T8 4' Lamps; Direct Wire to Socket	25	0.025	0.600	KT-LED10.5T8-48G-840-D	3
2552	SELINSGROVE	INTERIOR	S	BASEMENT	25	7	24/7 & OCCUPIED		RR-MENS		2-60DR	1	60 Watt 2-Lamp Incandescent A-Lamp Drum Fixture	120	0.120	S	1000	120		1	LED 2-9A	Re-Lamp with (2) 9 Watt LED A19 Lamps	18	0.018	1.224	LA19/9/40K/D-46	8
2553	SELINSGROVE	INTERIOR	S	BASEMENT	26	7	24/7 & OCCUPIED		STORAGE		4L40	4	T12 2x4 4-Lamp Troffer Fixture	134	0.536	S	1000	536		4	R 4L-12.5LED	Retrofit with (4) 12.5 Watt LED T8 4' Lamps; Direct Wire to Socket	50	0.200	4.032	KT-LED10.5T8-48G-840-D	3
2554	SELINSGROVE	INTERIOR	S	BASEMENT	27	7	24/7 & OCCUPIED		STORAGE		4L40	2	T12 2x4 4-Lamp Troffer Fixture	134	0.268	S	1000	268		2	R 4L-12.5LED	Retrofit with (4) 12.5 Watt LED T8 4' Lamps; Direct Wire to Socket	50	0.100	2.016	KT-LED10.5T8-48G-840-D	3
2555	SELINSGROVE	INTERIOR	S	BASEMENT	28	7	24/7 & OCCUPIED		CLOSET		2W40	2	T12 1x4 2-Lamp Wrap Fixture	75	0.150	S	1000	150		2	R 2L-12.5LED	Retrofit with (2) 12.5 Watt LED T8 4' Lamps; Direct Wire to Socket	25	0.050	1.200	KT-LED10.5T8-48G-840-D	3
2556	SELINSGROVE	INTERIOR	S	BASEMENT	29	7	24/7 & OCCUPIED		HALL		4L40	18	T12 2x4 4-Lamp Troffer Fixture	134	2.412	Z	8760	21,129		18	R 4L-12.5LED	Retrofit with (4) 12.5 Watt LED T8 4' Lamps; Direct Wire to Socket	50	0.900	18.144	KT-LED10.5T8-48G-840-D	3
2557	SELINSGROVE	INTERIOR	S	BASEMENT	29	7	24/7 & OCCUPIED		HALL		X	2	25 Watt Incandescent 2-Lamp Exit Sign	50	0.100	Z	8760	876		2	N XLED	New 3 watt LED Exit Sign	3	0.006	1.128	ES-LED-RW-B	43
2558	SELINSGROVE	INTERIOR	S	BASEMENT	29	7	24/7 & OCCUPIED		HALL		2S40	1	T12 1x4 2-Lamp Strip Fixture	75	0.075	Z	8760	657		1	R 2L-12.5LED	Retrofit with (2) 12.5 Watt LED T8 4' Lamps; Direct Wire to Socket	25	0.025	0.600	KT-LED10.5T8-48G-840-D	3
2559	SELINSGROVE	INTERIOR	S	BASEMENT	30	7	24/7 & OCCUPIED		STORAGE	103	4EC25(EC)-4'	2	T8 2x4 4-Lamp Egg Crate Fixture; Damaged/Missing Lens	85	0.170	S	1000	170		2	N 4W-12.5LED	New 1x4 4-Lamp Wrap Fixture with (4) 12.5 Watt LED T8 4' Lamp; Direct Wire to Socket	50	0.100	0.840	CCW-4'-4-T8LED /// KT-LED10.5T8-48G-840-D	53 + 3
2560	SELINSGROVE	INTERIOR	S	BASEMENT	31	7	24/7 & OCCUPIED		HALL	101	2PL13DR	1	13 Watt Plug-In CFL Drum Fixture	26	0.026	Z	8760	228		1	N LED14DR	New 12" Round 14 Watt LED Drum Fixture	14	0.014	0.144	54074143	19
2561	SELINSGROVE	INTERIOR	S	BASEMENT	31	7	24/7 & OCCUPIED		HALL		1W17	3	T8 2x2 1-Lamp Wrap Fixture	22	0.066	Z	8760	578		3	R 1L-10LED2'	Retrofit with (1) 10 Watt LED T8 2' Lamp; Direct Wire to Socket	10	0.030	0.432	KT-LED7T8-24GC-840-D	1
2562	SELINSGROVE	INTERIOR	S	BASEMENT	31	7	24/7 & OCCUPIED		HALL		3W25-4'	3	T8 1x4 3-Lamp Wrap Fixture	65	0.195	Z	8760	1,708		3	R 3L-12.5LED	Retrofit with (3) 12.5 Watt LED T8 4' Lamps; Direct Wire to Socket	37.5	0.113	0.990	KT-LED10.5T8-48G-840-D	3
2563	SELINSGROVE	INTERIOR	S	BASEMENT	32	7	24/7 & OCCUPIED		STORAGE	194	CF26RLM	2	26 Watt Compact Fluorescent RLM Fixture	26	0.052	S	1000	52		2	LED 9A	Re-Lamp with (1) 9 Watt LED A19 Lamps	9	0.018	0.408	LA19/9/40K/D-46	8
2564	SELINSGROVE	INTERIOR	S	BASEMENT	33	7	24/7 & OCCUPIED		STORAGE	193	2EC25-4'	1	T8 2x4 2-Lamp Egg Crate Fixture	43	0.043	S	1000	43		1	N 2W-12.5LED	New 1x4 2-Lamp Wrap Fixture with (2) 12.5 Watt LED T8 4' Lamp; Direct Wire to Socket	25	0.025	0.216	CCW-4'-2-T8LED /// KT-LED10.5T8-48G-840-D	51 + 3
2565	SELINSGROVE	INTERIOR	S	BASEMENT	33	7	24/7 & OCCUPIED		STORAGE		CF26	1	26 Watt Compact Fluorescent Fixture	26	0.026	S	1000	26		1	LED 9A	Re-Lamp with (1) 9 Watt LED A19 Lamps	9	0.009	0.204	LA19/9/40K/D-46	8
2566	SELINSGROVE	INTERIOR	S	BASEMENT	34	7	24/7 & OCCUPIED		STORAGE	105	CF26RLM	6	26 Watt Compact Fluorescent RLM Fixture	26	0.156	S	1000	156		6	LED 9A	Re-Lamp with (1) 9 Watt LED A19 Lamps	9	0.054	1.224	LA19/9/40K/D-46	8
2567	SELINSGROVE	INTERIOR	S	BASEMENT	35	7	24/7 & OCCUPIED		MEETING ROOM	106	3W25-4'	3	T8 1x4 3-Lamp Wrap Fixture	65	0.195	O	2340	456		3	R 3L-12.5LED	Retrofit with (3) 12.5 Watt LED T8 4' Lamps; Direct Wire to Socket	37.5	0.113	0.990	KT-LED10.5T8-48G-840-D	3
2568	SELINSGROVE	INTERIOR	S	BASEMENT	35	7	24/7 & OCCUPIED		MEETING ROOM		2EC25(EC)-4'	2	T8 2x4 2-Lamp Egg Crate Fixture; Damaged/Missing Lens	43	0.086	O	2340	201		2	N 2W-12.5LED	New 1x4 2-Lamp Wrap Fixture with (2) 12.5 Watt LED T8 4' Lamp; Direct Wire to Socket	25	0.050	0.432	CCW-4'-2-T8LED /// KT-LED10.5T8-48G-840-D	51 + 3
2569	SELINSGROVE	INTERIOR	S	BASEMENT	35	7	24/7 & OCCUPIED		MEETING ROOM		2EC25-4'	1	T8 2x4 2-Lamp Egg Crate Fixture	43	0.043	O	2340	101		1	N 2W-12.5LED	New 1x4 2-Lamp Wrap Fixture with (2) 12.5 Watt LED T8 4' Lamp; Direct Wire to Socket	25	0.025	0.216	CCW-4'-2-T8LED /// KT-LED10.5T8-48G-840-D	51 + 3
2570	SELINSGROVE	INTERIOR	S	BASEMENT	35	7	24/7 & OCCUPIED		MEETING ROOM		4EC25-4'	1	T8 2x4 4-Lamp Egg Crate Fixture	85	0.085	O	2340	199		1	N 4W-12.5LED	New 1x4 4-Lamp Wrap Fixture with (4) 12.5 Watt LED T8 4' Lamp; Direct Wire to Socket	50	0.050	0.420	CCW-4'-4-T8LED /// KT-LED10.5T8-48G-840-D	53 + 3

											EXISTING FIXTURES									PROPOSED FIXTURE UPGRADE						
ID #	Facility Name	Phase	Utility Rate Code	Floor	Map #	Building Number	Building Usage Type	Building Section	Room Description	Room #	ECM Code	Qty	Description	Watts	kW	Burn Hour Code	Pre Burn Hours	kWh	x	Qty	New Code	Description	Watts	kW	Annual KW Saved	Part#	Cut Sheet #
2571	SELINSGROVE	INTERIOR	S	BASEMENT	35	7	24/7 & OCCUPIED		MEETING ROOM		CF26	1	26 Watt Compact Fluorescent Fixture	26	0.026	O	2340	61		1	LED 9A	Re-Lamp with (1) 9 Watt LED A19 Lamps	9	0.009	0.204	LA19/9/40K/D-46	8
2572	SELINSGROVE	INTERIOR	S	BASEMENT	36	7	24/7 & OCCUPIED		MEETING ROOM	192C	4W25-4'	5	T8 1x4 4-Lamp Wrap Fixture	85	0.425	O	2340	995		5	R 4L-12.5LED	Retrofit with (4) 12.5 Watt LED T8 4' Lamps; Direct Wire to Socket	50	0.250	2.100	KT-LED10.5T8-48G-840-D	3
2573	SELINSGROVE	INTERIOR	S	BASEMENT	37	7	24/7 & OCCUPIED		STORAGE	192B	2PL13DR	2	13 Watt Plug-In CFL Drum Fixture	26	0.052	S	1000	52		2	N LED14DR	New 12" Round 14 Watt LED Drum Fixture	14	0.028	0.288	54074143	19
2574	SELINSGROVE	INTERIOR	S	BASEMENT	38	7	24/7 & OCCUPIED		STORAGE	192A	2PL13DR	4	13 Watt Plug-In CFL Drum Fixture	26	0.104	S	1000	104		4	N LED14DR	New 12" Round 14 Watt LED Drum Fixture	14	0.056	0.576	54074143	19
2575	SELINSGROVE	INTERIOR	S	BASEMENT	38	7	24/7 & OCCUPIED		STORAGE		2EC25(EC)-4'	4	T8 2x4 2-Lamp Egg Crate Fixture; Damaged/Missing Lens	43	0.172	S	1000	172		4	N 2W-12.5LED	New 1x4 2-Lamp Wrap Fixture with (2) 12.5 Watt LED T8 4' Lamp; Direct Wire to Socket	25	0.100	0.864	CCW-4'-2-T8LED /// KT-LED10.5T8-48G-840-D	51 + 3
2576	SELINSGROVE	INTERIOR	S	BASEMENT	39	7	24/7 & OCCUPIED		HALL		3W25-4'	2	T8 1x4 3-Lamp Wrap Fixture	65	0.130	Z	8760	1,139		2	R 3L-12.5LED	Retrofit with (3) 12.5 Watt LED T8 4' Lamps; Direct Wire to Socket	37.5	0.075	0.660	KT-LED10.5T8-48G-840-D	3
2577	SELINSGROVE	INTERIOR	S	BASEMENT	39	7	24/7 & OCCUPIED		HALL		CF65	1	65 Watt Compact Fluorescent Fixture	65	0.065	Z	8760	569		1	LED 9A	Re-Lamp with (1) 9 Watt LED A19 Lamps	9	0.009	0.672	LA19/9/40K/D-46	8
2578	SELINSGROVE	INTERIOR	S	BASEMENT	39	7	24/7 & OCCUPIED		HALL		1W17	3	T8 2x2 1-Lamp Wrap Fixture	22	0.066	Z	8760	578		3	R 1L-10LED2'	Retrofit with (1) 10 Watt LED T8 2' Lamp; Direct Wire to Socket	10	0.030	0.432	KT-LED7T8-24GC-840-D	1
2579	SELINSGROVE	INTERIOR	S	BASEMENT	39	7	24/7 & OCCUPIED		HALL		2PL13DR	1	13 Watt Plug-In CFL Drum Fixture	26	0.026	Z	8760	228		1	N LED14DR	New 12" Round 14 Watt LED Drum Fixture	14	0.014	0.144	54074143	19
2580	SELINSGROVE	INTERIOR	S	BASEMENT	39	7	24/7 & OCCUPIED		HALL		CF26	1	26 Watt Compact Fluorescent Fixture	26	0.026	Z	8760	228		1	LED 9A	Re-Lamp with (1) 9 Watt LED A19 Lamps	9	0.009	0.204	LA19/9/40K/D-46	8
2581	SELINSGROVE	INTERIOR	S	BASEMENT	40	7	24/7 & OCCUPIED		SEATING	191	4W25-4'	1	T8 1x4 4-Lamp Wrap Fixture	85	0.085	S	1000	85		1	R 4L-12.5LED	Retrofit with (4) 12.5 Watt LED T8 4' Lamps; Direct Wire to Socket	50	0.050	0.420	KT-LED10.5T8-48G-840-D	3
2582	SELINSGROVE	INTERIOR	S	BASEMENT	41	7	24/7 & OCCUPIED		RR	191A	2PL13DR	1	13 Watt Plug-In CFL Drum Fixture	26	0.026	Z	8760	228		1	N LED14DR	New 12" Round 14 Watt LED Drum Fixture	14	0.014	0.144	54074143	19
2583	SELINSGROVE	INTERIOR	S	BASEMENT	41	7	24/7 & OCCUPIED		RR		1W17	1	T8 2x2 1-Lamp Wrap Fixture	22	0.022	Z	8760	193		1	R 1L-10LED2'	Retrofit with (1) 10 Watt LED T8 2' Lamp; Direct Wire to Socket	10	0.010	0.144	KT-LED7T8-24GC-840-D	1
2584	SELINSGROVE	INTERIOR	S	BASEMENT	42	7	24/7 & OCCUPIED		OFFICE	190A	4L25-4'	4	T8 2x4 4-Lamp Troffer Fixture	85	0.340	O	2340	796		4	R 4L-12.5LED	Retrofit with (4) 12.5 Watt LED T8 4' Lamps; Direct Wire to Socket	50	0.200	1.680	KT-LED10.5T8-48G-840-D	3
2585	SELINSGROVE	INTERIOR	S	BASEMENT	43	7	24/7 & OCCUPIED		KITCHEN	190B	4L25-4'	4	T8 2x4 4-Lamp Troffer Fixture	85	0.340	Z	8760	2,978		4	R 4L-12.5LED	Retrofit with (4) 12.5 Watt LED T8 4' Lamps; Direct Wire to Socket	50	0.200	1.680	KT-LED10.5T8-48G-840-D	3
2586	SELINSGROVE	INTERIOR	S	BASEMENT	44	7	24/7 & OCCUPIED		LOCKER ROOM	190C	4EC25-4'	3	T8 2x4 4-Lamp Egg Crate Fixture	85	0.255	Z	8760	2,234		3	N 4W-12.5LED	New 1x4 4-Lamp Wrap Fixture with (4) 12.5 Watt LED T8 4' Lamp; Direct Wire to Socket	50	0.150	1.260	CCW-4'-4-T8LED /// KT-LED10.5T8-48G-840-D	53 + 3
2587	SELINSGROVE	INTERIOR	S	BASEMENT	45	7	24/7 & OCCUPIED		ELEVATOR LOBBY	190B	2W25-4'	1	T8 1x4 2-Lamp Wrap Fixture	43	0.043	Z	8760	377		1	R 2L-12.5LED	Retrofit with (2) 12.5 Watt LED T8 4' Lamps; Direct Wire to Socket	25	0.025	0.216	KT-LED10.5T8-48G-840-D	3
2588	SELINSGROVE	INTERIOR	S	BASEMENT	46	7	24/7 & OCCUPIED		ELEVATOR EQUIP	190C	4EC25-4'	1	T8 2x4 4-Lamp Egg Crate Fixture	85	0.085	S	1000	85		1	N 4W-12.5LED	New 1x4 4-Lamp Wrap Fixture with (4) 12.5 Watt LED T8 4' Lamp; Direct Wire to Socket	50	0.050	0.420	CCW-4'-4-T8LED /// KT-LED10.5T8-48G-840-D	53 + 3
2589	SELINSGROVE	INTERIOR	S	BASEMENT	47	7	24/7 & OCCUPIED		ELECTRIC	107	1I25-4'	1	T8 1x4 1-Lamp Industrial Strip Fixture	22	0.022	S	1000	22		1	R 1L-12.5LED	Retrofit with (1) 12.5 Watt LED T8 4' Lamps; Direct Wire to Socket	12.5	0.013	0.114	KT-LED10.5T8-48G-840-D	3
2590	SELINSGROVE	INTERIOR	S	BASEMENT	47	7	24/7 & OCCUPIED		ELECTRIC		2PL13DR	1	13 Watt Plug-In CFL Drum Fixture	26	0.026	S	1000	26		1	N LED14DR	New 12" Round 14 Watt LED Drum Fixture	14	0.014	0.144	54074143	19
2591	SELINSGROVE	INTERIOR	S	BASEMENT	48	7	24/7 & OCCUPIED		MEETING ROOM	108	2PL13DR	2	13 Watt Plug-In CFL Drum Fixture	26	0.052	O	2340	122		2	N LED14DR	New 12" Round 14 Watt LED Drum Fixture	14	0.028	0.288	54074143	19
2592	SELINSGROVE	INTERIOR	S	BASEMENT	48	7	24/7 & OCCUPIED		MEETING ROOM		1I25-4'	1	T8 1x4 1-Lamp Industrial Strip Fixture	22	0.022	O	2340	51		1	R 1L-12.5LED	Retrofit with (1) 12.5 Watt LED T8 4' Lamps; Direct Wire to Socket	12.5	0.013	0.114	KT-LED10.5T8-48G-840-D	3
2593	SELINSGROVE	INTERIOR	S	BASEMENT	49	7	24/7 & OCCUPIED		HALL		CF26	2	26 Watt Compact Fluorescent Fixture	26	0.052	Z	8760	456		2	LED 9A	Re-Lamp with (1) 9 Watt LED A19 Lamps	9	0.018	0.408	LA19/9/40K/D-46	8
2594	SELINSGROVE	INTERIOR	S	BASEMENT	50	7	24/7 & OCCUPIED		SHOP	189	CF26	1	26 Watt Compact Fluorescent Fixture	26	0.026	O	2340	61		1	LED 9A	Re-Lamp with (1) 9 Watt LED A19 Lamps	9	0.009	0.204	LA19/9/40K/D-46	8
2595	SELINSGROVE	INTERIOR	S	BASEMENT	50	7	24/7 & OCCUPIED		SHOP		2EC25-4'	4	T8 2x4 2-Lamp Egg Crate Fixture	43	0.172	O	2340	402		4	N 2W-12.5LED	New 1x4 2-Lamp Wrap Fixture with (2) 12.5 Watt LED T8 4' Lamp; Direct Wire to Socket	25	0.100	0.864	CCW-4'-2-T8LED /// KT-LED10.5T8-48G-840-D	51 + 3
2596	SELINSGROVE	INTERIOR	S	BASEMENT	50	7	24/7 & OCCUPIED		SHOP		2I25-4'	2	T8 1x4 2-Lamp Industrial Strip Fixture	43	0.086	O	2340	201		2	R 2L-12.5LED	Retrofit with (2) 12.5 Watt LED T8 4' Lamps; Direct Wire to Socket	25	0.050	0.432	KT-LED10.5T8-48G-840-D	3
2597	SELINSGROVE	INTERIOR	S	BASEMENT	51	7	24/7 & OCCUPIED		HALL		2EC25-4'	4	T8 2x4 2-Lamp Egg Crate Fixture	43	0.172	Z	8760	1,507		4	N 2W-12.5LED	New 1x4 2-Lamp Wrap Fixture with (2) 12.5 Watt LED T8 4' Lamp; Direct Wire to Socket	25	0.100	0.864	CCW-4'-2-T8LED /// KT-LED10.5T8-48G-840-D	51 + 3
2598	SELINSGROVE	INTERIOR	S	BASEMENT	51	7	24/7 & OCCUPIED		HALL		1W17	1	T8 2x2 1-Lamp Wrap Fixture	22	0.022	Z	8760	193		1	R 1L-10LED2'	Retrofit with (1) 10 Watt LED T8 2' Lamp; Direct Wire to Socket	10	0.010	0.144	KT-LED7T8-24GC-840-D	1
2599	SELINSGROVE	INTERIOR	S	BASEMENT	51	7	24/7 & OCCUPIED		HALL		3W25-4'	3	T8 1x4 3-Lamp Wrap Fixture	65	0.195	Z	8760	1,708		3	R 3L-12.5LED	Retrofit with (3) 12.5 Watt LED T8 4' Lamps; Direct Wire to Socket	37.5	0.113	0.990	KT-LED10.5T8-48G-840-D	3
2600	SELINSGROVE	INTERIOR	S	BASEMENT	51	7	24/7 & OCCUPIED		HALL		CF26	2	26 Watt Compact Fluorescent Fixture	26	0.052	Z	8760	456		2	LED 9A	Re-Lamp with (1) 9 Watt LED A19 Lamps	9	0.018	0.408	LA19/9/40K/D-46	8
2601	SELINSGROVE	INTERIOR	S	BASEMENT	52	7	24/7 & OCCUPIED		MEETING ROOM	109	1I25-4'	1	T8 1x4 1-Lamp Industrial Strip Fixture	22	0.022	O	2340	51		1	R 1L-12.5LED	Retrofit with (1) 12.5 Watt LED T8 4' Lamps; Direct Wire to Socket	12.5	0.013	0.114	KT-LED10.5T8-48G-840-D	3
2602	SELINSGROVE	INTERIOR	S	BASEMENT	52	7	24/7 & OCCUPIED		MEETING ROOM		CF26RLM	2	26 Watt Compact Fluorescent RLM Fixture	26	0.052	O	2340	122		2	LED 9A	Re-Lamp with (1) 9 Watt LED A19 Lamps	9	0.018	0.408	LA19/9/40K/D-46	8

											EXISTING FIXTURES									PROPOSED FIXTURE UPGRADE							
ID #	Facility Name	Phase	Utility Rate Code	Floor	Map #	Building Number	Building Usage Type	Building Section	Room Description	Room #	ECM Code	Qty	Description	Watts	kW	Burn Hour Code	Pre Burn Hours	kWh	x	Qty	New Code	Description	Watts	kW	Annual KW Saved	Part#	Cut Sheet #
2603	SELINSGROVE	INTERIOR	S	BASEMENT	53	7	24/7 & OCCUPIED		PIPE CHASE	188	CF26	1	26 Watt Compact Fluorescent Fixture	26	0.026	S	1000	26		1	LED 9A	Re-Lamp with (1) 9 Watt LED A19 Lamps	9	0.009	0.204	LA19/9/40K/D-46	8
2604	SELINSGROVE	INTERIOR	S	BASEMENT	54	7	24/7 & OCCUPIED		STORAGE	110	100A	1	100 Watt Incandescent A-Lamp Fixture	100	0.100	S	1000	100		1	LED 15A	Re-Lamp with (1) 15 Watt LED A19 Lamp	15	0.015	1.020	LA21/16/40K/D-46	9
2605	SELINSGROVE	INTERIOR	S	BASEMENT	55	7	24/7 & OCCUPIED		STORAGE	112	1I25-4'	1	T8 1x4 1-Lamp Industrial Strip Fixture	22	0.022	S	1000	22		1	R 1L-12.5LED	Retrofit with (1) 12.5 Watt LED T8 4' Lamps; Direct Wire to Socket	12.5	0.013	0.114	KT-LED10.5T8-48G-840-D	3
2606	SELINSGROVE	INTERIOR	S	BASEMENT	55	7	24/7 & OCCUPIED		STORAGE		CF26RLM	1	26 Watt Compact Fluorescent RLM Fixture	26	0.026	S	1000	26		1	LED 9A	Re-Lamp with (1) 9 Watt LED A19 Lamps	9	0.009	0.204	LA19/9/40K/D-46	8
2607	SELINSGROVE	INTERIOR	S	BASEMENT	56	7	24/7 & OCCUPIED		STORAGE	182	CF26RLM	1	26 Watt Compact Fluorescent RLM Fixture	26	0.026	S	1000	26		1	LED 9A	Re-Lamp with (1) 9 Watt LED A19 Lamps	9	0.009	0.204	LA19/9/40K/D-46	8
2608	SELINSGROVE	INTERIOR	S	BASEMENT	57	7	24/7 & OCCUPIED		OFFICE	184	2EC25-4'	2	T8 2x4 2-Lamp Egg Crate Fixture	43	0.086	O	2340	201		2	N 2W-12.5LED	New 1x4 2-Lamp Wrap Fixture with (2) 12.5 Watt LED T8 4' Lamp; Direct Wire to Socket	25	0.050	0.432	CCW-4'-2-T8LED /// KT-LED10.5T8-48G-840-D	51 + 3
2609	SELINSGROVE	INTERIOR	S	BASEMENT	58	7	24/7 & OCCUPIED		STORAGE	187	2PL13DR	1	13 Watt Plug-In CFL Drum Fixture	26	0.026	S	1000	26		1	N LED14DR	New 12" Round 14 Watt LED Drum Fixture	14	0.014	0.144	54074143	19
2610	SELINSGROVE	INTERIOR	S	BASEMENT	59	7	24/7 & OCCUPIED		ELECTRIC	186	CF26	1	26 Watt Compact Fluorescent Fixture	26	0.026	S	1000	26		1	LED 9A	Re-Lamp with (1) 9 Watt LED A19 Lamps	9	0.009	0.204	LA19/9/40K/D-46	8
2611	SELINSGROVE	INTERIOR	S	BASEMENT	60	7	24/7 & OCCUPIED		RR	185	1W17	1	T8 2x2 1-Lamp Wrap Fixture	22	0.022	Z	8760	193		1	R 1L-10LED2'	Retrofit with (1) 10 Watt LED T8 2' Lamp; Direct Wire to Socket	10	0.010	0.144	KT-LED7T8-24GC-840-D	1
2612	SELINSGROVE	INTERIOR	S	BASEMENT	61	7	24/7 & OCCUPIED		PROGRAM	178	2L25-1X4	37	T8 1x4 2-Lamp Troffer Fixture	43	1.591	CPS	1827	2,907		37	R 2L-12.5LED	Retrofit with (2) 12.5 Watt LED T8 4' Lamps; Direct Wire to Socket	25	0.925	7.992	KT-LED10.5T8-48G-840-D	3
2613	SELINSGROVE	INTERIOR	S	BASEMENT	62	7	24/7 & OCCUPIED		STORAGE	180	2EC25-4'	1	T8 2x4 2-Lamp Egg Crate Fixture	43	0.043	S	1000	43		1	N 2W-12.5LED	New 1x4 2-Lamp Wrap Fixture with (2) 12.5 Watt LED T8 4' Lamp; Direct Wire to Socket	25	0.025	0.216	CCW-4'-2-T8LED /// KT-LED10.5T8-48G-840-D	51 + 3
2614	SELINSGROVE	INTERIOR	S	BASEMENT	63	7	24/7 & OCCUPIED		RR	183	2V25-4'	1	T8 1x4 2-Lamp Vanity Fixture	43	0.043	Z	8760	377		1	R 2L-12.5LED	Retrofit with (2) 12.5 Watt LED T8 4' Lamps; Direct Wire to Socket	25	0.025	0.216	KT-LED10.5T8-48G-840-D	3
2615	SELINSGROVE	INTERIOR	S	BASEMENT	64	7	24/7 & OCCUPIED		STORAGE	181A	2W25-4'	1	T8 1x4 2-Lamp Wrap Fixture	43	0.043	S	1000	43		1	R 2L-12.5LED	Retrofit with (2) 12.5 Watt LED T8 4' Lamps; Direct Wire to Socket	25	0.025	0.216	KT-LED10.5T8-48G-840-D	3
2616	SELINSGROVE	INTERIOR	S	BASEMENT	65	7	24/7 & OCCUPIED		RR	181B	2W25-4'	1	T8 1x4 2-Lamp Wrap Fixture	43	0.043	Z	8760	377		1	R 2L-12.5LED	Retrofit with (2) 12.5 Watt LED T8 4' Lamps; Direct Wire to Socket	25	0.025	0.216	KT-LED10.5T8-48G-840-D	3
2617	SELINSGROVE	INTERIOR	S	BASEMENT	66	7	24/7 & OCCUPIED		HALL	176D	2W25-4'	2	T8 1x4 2-Lamp Wrap Fixture	43	0.086	Z	8760	753		2	R 2L-12.5LED	Retrofit with (2) 12.5 Watt LED T8 4' Lamps; Direct Wire to Socket	25	0.050	0.432	KT-LED10.5T8-48G-840-D	3
2618	SELINSGROVE	INTERIOR	S	BASEMENT	66	7	24/7 & OCCUPIED		RR		2V25-4'	1	T8 1x4 2-Lamp Vanity Fixture	43	0.043	Z	8760	377		1	R 2L-12.5LED	Retrofit with (2) 12.5 Watt LED T8 4' Lamps; Direct Wire to Socket	25	0.025	0.216	KT-LED10.5T8-48G-840-D	3
2619	SELINSGROVE	INTERIOR	S	BASEMENT	66	7	24/7 & OCCUPIED		SHOWER	176B	2PL13DR	1	13 Watt Plug-In CFL Drum Fixture	26	0.026	Z	8760	228		1	N LED14DR	New 12" Round 14 Watt LED Drum Fixture	14	0.014	0.144	54074143	19
2620	SELINSGROVE	INTERIOR	S	BASEMENT	66	7	24/7 & OCCUPIED		SHOWER		2V25-4'	1	T8 1x4 2-Lamp Vanity Fixture	43	0.043	Z	8760	377		1	R 2L-12.5LED	Retrofit with (2) 12.5 Watt LED T8 4' Lamps; Direct Wire to Socket	25	0.025	0.216	KT-LED10.5T8-48G-840-D	3
2621	SELINSGROVE	INTERIOR	S	BASEMENT	67	7	24/7 & OCCUPIED		OFFICE	174	4L25-4'	2	T8 2x4 4-Lamp Troffer Fixture	85	0.170	O	2340	398		2	R 4L-12.5LED	Retrofit with (4) 12.5 Watt LED T8 4' Lamps; Direct Wire to Socket	50	0.100	0.840	KT-LED10.5T8-48G-840-D	3
2622	SELINSGROVE	INTERIOR	S	BASEMENT	68	7	24/7 & OCCUPIED		SHOP	124	2EC25-4'	4	T8 2x4 2-Lamp Egg Crate Fixture	43	0.172	O	2340	402		4	N 2W-12.5LED	New 1x4 2-Lamp Wrap Fixture with (2) 12.5 Watt LED T8 4' Lamp; Direct Wire to Socket	25	0.100	0.864	CCW-4'-2-T8LED /// KT-LED10.5T8-48G-840-D	51 + 3
2623	SELINSGROVE	INTERIOR	S	BASEMENT	68	7	24/7 & OCCUPIED		SHOP		CF26RLM	1	26 Watt Compact Fluorescent RLM Fixture	26	0.026	O	2340	61		1	LED 9A	Re-Lamp with (1) 9 Watt LED A19 Lamps	9	0.009	0.204	LA19/9/40K/D-46	8
2624	SELINSGROVE	INTERIOR	S	BASEMENT	69	7	24/7 & OCCUPIED		PIPE CHASE	123	60A	1	60 Watt Incandescent A-Lamp Fixture	60	0.060	S	1000	60		1	LED 9A	Re-Lamp with (1) 9 Watt LED A19 Lamps	9	0.009	0.612	LA19/9/40K/D-46	8
2625	SELINSGROVE	INTERIOR	S	BASEMENT	70	7	24/7 & OCCUPIED		PIPE CHASE	175	CF18	1	18 Watt Compact Fluorescent Fixture	18	0.018	S	1000	18		1	LED 9A	Re-Lamp with (1) 9 Watt LED A19 Lamps	9	0.009	0.108	LA19/9/40K/D-46	8
2626	SELINSGROVE	INTERIOR	S	BASEMENT	71	7	24/7 & OCCUPIED		MECHANICAL	176	CF65RLM	1	65 Watt Compact Fluorescent RLM Fixture	65	0.065	S	1000	65		1	N 2I-10.5LED	New 1x4 2-Lamp Industrial Fixture with (2) 10.5 Watt LED T8 4' Lamp; Direct Wire to Socket	21	0.021	0.528	OCF-4'-2-T8LED /// KT-LED10.5T8-48G-840-D	45 + 3
2627	SELINSGROVE	INTERIOR	S	BASEMENT	72	7	24/7 & OCCUPIED		LAUNDRY	122	CF26RLM	2	26 Watt Compact Fluorescent RLM Fixture	26	0.052	S	1000	52		2	LED 9A	Re-Lamp with (1) 9 Watt LED A19 Lamps	9	0.018	0.408	LA19/9/40K/D-46	8
2628	SELINSGROVE	INTERIOR	S	BASEMENT	72	7	24/7 & OCCUPIED		LAUNDRY		2EC40	1	T12 2x4 2-Lamp Egg Crate Fixture	75	0.075	S	1000	75		1	N 2W-12.5LED	New 1x4 2-Lamp Wrap Fixture with (2) 12.5 Watt LED T8 4' Lamp; Direct Wire to Socket	25	0.025	0.600	CCW-4'-2-T8LED /// KT-LED10.5T8-48G-840-D	51 + 3
2629	SELINSGROVE	INTERIOR	S	BASEMENT	73	7	24/7 & OCCUPIED		OFFICE	114	1W17	2	T8 2x2 1-Lamp Wrap Fixture	22	0.044	O	2340	103		2	R 1L-10LED2'	Retrofit with (1) 10 Watt LED T8 2' Lamp; Direct Wire to Socket	10	0.020	0.288	KT-LED7T8-24GC-840-D	1
2630	SELINSGROVE	INTERIOR	S	BASEMENT	74	7	24/7 & OCCUPIED		RR	117	1W17	1	T8 2x2 1-Lamp Wrap Fixture	22	0.022	Z	8760	193		1	R 1L-10LED2'	Retrofit with (1) 10 Watt LED T8 2' Lamp; Direct Wire to Socket	10	0.010	0.144	KT-LED7T8-24GC-840-D	1
2631	SELINSGROVE	INTERIOR	S	BASEMENT	75	7	24/7 & OCCUPIED		ELECTRIC	116	CF26	1	26 Watt Compact Fluorescent Fixture	26	0.026	S	1000	26		1	LED 9A	Re-Lamp with (1) 9 Watt LED A19 Lamps	9	0.009	0.204	LA19/9/40K/D-46	8
2632	SELINSGROVE	INTERIOR	S	BASEMENT	76	7	24/7 & OCCUPIED		RR	1145	1W17	1	T8 2x2 1-Lamp Wrap Fixture	22	0.022	Z	8760	193		1	R 1L-10LED2'	Retrofit with (1) 10 Watt LED T8 2' Lamp; Direct Wire to Socket	10	0.010	0.144	KT-LED7T8-24GC-840-D	1
2633	SELINSGROVE	INTERIOR	S	BASEMENT	77	7	24/7 & OCCUPIED		JANITOR CLOSET	119	CF26	1	26 Watt Compact Fluorescent Fixture	26	0.026	S	1000	26		1	LED 9A	Re-Lamp with (1) 9 Watt LED A19 Lamps	9	0.009	0.204	LA19/9/40K/D-46	8
2634	SELINSGROVE	INTERIOR	S	BASEMENT	78	7	24/7 & OCCUPIED		RR	120	CF13DL	3	13 Watt Compact Fluorescent Downlight Fixture	13	0.039	Z	8760	342		3	LED 9A	Re-Lamp with (1) 9 Watt LED A19 Lamps	9	0.027	0.144	LA19/9/40K/D-46	8

											EXISTING FIXTURES									PROPOSED FIXTURE UPGRADE							
ID #	Facility Name	Phase	Utility Rate Code	Floor	Map #	Building Number	Building Usage Type	Building Section	Room Description	Room #	ECM Code	Qty	Description	Watts	kW	Burn Hour Code	Pre Burn Hours	kWh	x	Qty	New Code	Description	Watts	kW	Annual KW Saved	Part#	Cut Sheet #
2635	SELINSGROVE	INTERIOR	S	BASEMENT	79	7	24/7 & OCCUPIED		RR	121	1W17	2	T8 2x2 1-Lamp Wrap Fixture	22	0.044	Z	8760	385		2	R 1L-10LED2'	Retrofit with (1) 10 Watt LED T8 2' Lamp; Direct Wire to Socket	10	0.020	0.288	KT-LED7T8-24GC-840-D	1
2636	SELINSGROVE	INTERIOR	S	BASEMENT	80	7	24/7 & OCCUPIED		WORK ROOM	118A	2L25-1X4	6	T8 1x4 2-Lamp Troffer Fixture	43	0.258	O	2340	604		6	R 2L-12.5LED	Retrofit with (2) 12.5 Watt LED T8 4' Lamps; Direct Wire to Socket	25	0.150	1.296	KT-LED10.5T8-48G-840-D	3
2637	SELINSGROVE	INTERIOR	S	BASEMENT	80	7	24/7 & OCCUPIED		WORK ROOM		2EC25-4'	2	T8 2x4 2-Lamp Egg Crate Fixture	43	0.086	O	2340	201		2	N 2W-12.5LED	New 1x4 2-Lamp Wrap Fixture with (2) 12.5 Watt LED T8 4' Lamp; Direct Wire to Socket	25	0.050	0.432	CCW-4'-2-T8LED /// KT-LED10.5T8-48G-840-D	51 + 3
2638	SELINSGROVE	INTERIOR	S	BASEMENT	80	7	24/7 & OCCUPIED		WORK ROOM		4CF26	2	26 Watt 4-Lamp Compact Fluorescent Fixture	104	0.208	O	2340	487		2	LED 4-9A	Re-Lamp with (4) 9 Watt LED A19 Lamps	36	0.072	1.632	LA19/9/40K/D-46	8
2639	SELINSGROVE	INTERIOR	S	BASEMENT	81	7	24/7 & OCCUPIED		KITCHEN	118B	2L25-1X4	2	T8 1x4 2-Lamp Troffer Fixture	43	0.086	Z	8760	753		2	R 2L-12.5LED	Retrofit with (2) 12.5 Watt LED T8 4' Lamps; Direct Wire to Socket	25	0.050	0.432	KT-LED10.5T8-48G-840-D	3
2640	SELINSGROVE	INTERIOR	S	BASEMENT	82	7	24/7 & OCCUPIED		PROGRAM		2L25-1X4	1	T8 1x4 2-Lamp Troffer Fixture	43	0.043	CPS	1827	79		1	R 2L-12.5LED	Retrofit with (2) 12.5 Watt LED T8 4' Lamps; Direct Wire to Socket	25	0.025	0.216	KT-LED10.5T8-48G-840-D	3
2641	SELINSGROVE	INTERIOR	S	BASEMENT	82	7	24/7 & OCCUPIED		PROGRAM	118D& E	2EC25-4'	5	T8 2x4 2-Lamp Egg Crate Fixture	43	0.215	CPS	1827	393		5	N 2W-12.5LED	New 1x4 2-Lamp Wrap Fixture with (2) 12.5 Watt LED T8 4' Lamp; Direct Wire to Socket	25	0.125	1.080	CCW-4'-2-T8LED /// KT-LED10.5T8-48G-840-D	51 + 3
2642	SELINSGROVE	INTERIOR	S	BASEMENT	83	7	24/7 & OCCUPIED		PROGRAM	118N&I	2L25-1X4	6	T8 1x4 2-Lamp Troffer Fixture	43	0.258	CPS	1827	471		6	R 2L-12.5LED	Retrofit with (2) 12.5 Watt LED T8 4' Lamps; Direct Wire to Socket	25	0.150	1.296	KT-LED10.5T8-48G-840-D	3
2643	SELINSGROVE	INTERIOR	S	BASEMENT	83	7	24/7 & OCCUPIED		PROGRAM		2V25-4'	3	T8 1x4 2-Lamp Vanity Fixture	43	0.129	CPS	1827	236		3	R 2L-12.5LED	Retrofit with (2) 12.5 Watt LED T8 4' Lamps; Direct Wire to Socket	25	0.075	0.648	KT-LED10.5T8-48G-840-D	3
2644	SELINSGROVE	INTERIOR	S	BASEMENT	84	7	24/7 & OCCUPIED		PROGRAM	118F	4EC25-4'	1	T8 2x4 4-Lamp Egg Crate Fixture	85	0.085	CPS	1827	155		1	N 4W-12.5LED	New 1x4 4-Lamp Wrap Fixture with (4) 12.5 Watt LED T8 4' Lamp; Direct Wire to Socket	50	0.050	0.420	CCW-4'-4-T8LED /// KT-LED10.5T8-48G-840-D	53 + 3
2645	SELINSGROVE	INTERIOR	S	BASEMENT	85	7	24/7 & OCCUPIED		PROGRAM	118G	2L25-1X4	1	T8 1x4 2-Lamp Troffer Fixture	43	0.043	CPS-ES	1279	55		1	R 2L-12.5LED	Retrofit with (2) 12.5 Watt LED T8 4' Lamps; Direct Wire to Socket	25	0.025	0.216	KT-LED10.5T8-48G-840-D	3
2646	SELINSGROVE	INTERIOR	S	BASEMENT	85	7	24/7 & OCCUPIED		PROGRAM		2EC25-4'	1	T8 2x4 2-Lamp Egg Crate Fixture	43	0.043	CPS	1827	79		1	N 2W-12.5LED	New 1x4 2-Lamp Wrap Fixture with (2) 12.5 Watt LED T8 4' Lamp; Direct Wire to Socket	25	0.025	0.216	CCW-4'-2-T8LED /// KT-LED10.5T8-48G-840-D	51 + 3
2647	SELINSGROVE	INTERIOR	S	BASEMENT	86	7	24/7 & OCCUPIED		HALL		2L25-1X4	7	T8 1x4 2-Lamp Troffer Fixture	43	0.301	Z	8760	2,637		7	R 2L-12.5LED	Retrofit with (2) 12.5 Watt LED T8 4' Lamps; Direct Wire to Socket	25	0.175	1.512	KT-LED10.5T8-48G-840-D	3
2648	SELINSGROVE	INTERIOR	S	BASEMENT	86	7	24/7 & OCCUPIED		HALL		2EC25-4'	2	T8 2x4 2-Lamp Egg Crate Fixture	43	0.086	Z	8760	753		2	N 2W-12.5LED	New 1x4 2-Lamp Wrap Fixture with (2) 12.5 Watt LED T8 4' Lamp; Direct Wire to Socket	25	0.050	0.432	CCW-4'-2-T8LED /// KT-LED10.5T8-48G-840-D	51 + 3
2649	SELINSGROVE	INTERIOR	S	BASEMENT	87	7	24/7 & OCCUPIED		HALL		2L25-1X4	7	T8 1x4 2-Lamp Troffer Fixture	43	0.301	Z	8760	2,637		7	R 2L-12.5LED	Retrofit with (2) 12.5 Watt LED T8 4' Lamps; Direct Wire to Socket	25	0.175	1.512	KT-LED10.5T8-48G-840-D	3
2650	SELINSGROVE	INTERIOR	S	BASEMENT	87	7	24/7 & OCCUPIED		HALL		1W17	4	T8 2x2 1-Lamp Wrap Fixture	22	0.088	Z	8760	771		4	R 1L-10LED2'	Retrofit with (1) 10 Watt LED T8 2' Lamp; Direct Wire to Socket	10	0.040	0.576	KT-LED7T8-24GC-840-D	1
2650	SELINSGROVE	INTERIOR	S			TUNNEL	OUT OF SCOPE		TUNNEL		CF20	90	20 Watt Compact Fluorescent Fixture	20	1.800	S	1000	1,800		90	ZZ DD	No Retrofit	20	1.800	0.000	N/A	N/A
2651	SELINSGROVE	EXTERIOR	S			5,6,7	24/7 & OCCUPIED	CM12	BACK	A	2PL13WP-SMALL	2	13 Watt 2-Lamp Plug-In CFL Small Wall Pack Fixture	30	0.060	EX	4380	263		2	N RLED12TWP	New 12 Watt LED Tall Wall Pack Fixture	14	0.028	0.384	ENTRA12	42
2652	SELINSGROVE	EXTERIOR	S			5,6,7	24/7 & OCCUPIED	CM12	SIDE	A	2PL13WP-SMALL	2	13 Watt 2-Lamp Plug-In CFL Small Wall Pack Fixture	30	0.060	EX	4380	263		2	N RLED12TWP	New 12 Watt LED Tall Wall Pack Fixture	14	0.028	0.384	ENTRA12	42
2653	SELINSGROVE	EXTERIOR	S			5,6,7	24/7 & OCCUPIED	CM12	SIDE	A	2PL13WP-SMALL	2	13 Watt 2-Lamp Plug-In CFL Small Wall Pack Fixture	30	0.060	EX	4380	263		2	N RLED12TWP	New 12 Watt LED Tall Wall Pack Fixture	14	0.028	0.384	ENTRA12	42
2654	SELINSGROVE	EXTERIOR	S			5,6,7	24/7 & OCCUPIED	CM12	SIDE	A	2PL13WP-SMALL	1	13 Watt 2-Lamp Plug-In CFL Small Wall Pack Fixture	30	0.030	EX	4380	131		1	N RLED12TWP	New 12 Watt LED Tall Wall Pack Fixture	14	0.014	0.192	ENTRA12	42
2655	SELINSGROVE	EXTERIOR	S			5,6,7	24/7 & OCCUPIED	CM10		B	2PL26WP-LARGE	1	26 Watt 2-Lamp Plug-In CFL Large Wall Pack Fixture	58	0.058	EX	4380	254		1	N RLED12TWP	New 12 Watt LED Tall Wall Pack Fixture	14	0.014	0.528	ENTRA12	42
2656	SELINSGROVE	EXTERIOR	S			5,6,7	24/7 & OCCUPIED	CM10		C	2CF23JJ	2	23 Watt 2-Lamp Compact Fluorescent Jelly Jar Fixture	46	0.092	EX	4380	403		2	N LED15AJJ	New Jelly Jar Fixture with (1) 15 Watt LED A19	15	0.030	0.744	CJJ/WJJ /// LA21/16/40K/D-46	46 + 9
2657	SELINSGROVE	EXTERIOR	S			5,6,7	24/7 & OCCUPIED	CM10/8		D	2CF23	1	23 Watt 2-Lamp Compact Fluorescent Fixture	46	0.046	EX	4380	201		1	LED 2-15A	Re-Lamp with (2) 15 Watt LED A19 Lamps	30	0.030	0.192	LA21/16/40K/D-46	9
2658	SELINSGROVE	EXTERIOR	S			5,6,7	24/7 & OCCUPIED	CM10/8		E	HPS150FL	2	150 Watt High Pressure Sodium Flood Fixture	188	0.376	EX	4380	1,647		2	N RLED52FL	New 52 Watt LED Flood Fixture	54	0.108	3.216	FFLED52	31
2659	SELINSGROVE	EXTERIOR	S			5,6,7	24/7 & OCCUPIED	CM10/8		A	2PL13WP-SMALL	3	13 Watt 2-Lamp Plug-In CFL Small Wall Pack Fixture	30	0.090	EX	4380	394		3	N RLED12TWP	New 12 Watt LED Tall Wall Pack Fixture	14	0.042	0.576	ENTRA12	42
2660	SELINSGROVE	EXTERIOR	S			5,6,7	24/7 & OCCUPIED	CM8		B	2PL26WP-LARGE	1	26 Watt 2-Lamp Plug-In CFL Large Wall Pack Fixture	58	0.058	EX	4380	254		1	N RLED12TWP	New 12 Watt LED Tall Wall Pack Fixture	14	0.014	0.528	ENTRA12	42
2661	SELINSGROVE	EXTERIOR	S			5,6,7	24/7 & OCCUPIED	CM8/6	CANOPY	F	CF13JJ	5	13 Watt Compact Fluorescent Jelly Jar Fixture	13	0.065	EX	4380	285		5	LED 9A	Re-Lamp with (1) 9 Watt LED A19 Lamps	9	0.045	0.240	LA19/9/40K/D-46	8
2662	SELINSGROVE	EXTERIOR	S			5,6,7	24/7 & OCCUPIED	CM8/6	FLAG	G	Q100FL	1	100 Watt Quartz Flood Fixture	100	0.100	EX	4380	438		1	N RLED18FL	New 18 Watt LED Flood Fixture	22	0.022	0.936	FFLED18	29
2663	SELINSGROVE	EXTERIOR	S			5,6,7	24/7 & OCCUPIED	CM8/6		H	2PL13CPY	1	13 Watt 2-Lamp Plug-In CFL Canopy Fixture	30	0.030	EX	4380	131		1	N RLED10CPY	New 10 Watt LED Canopy Fixture	12	0.012	0.216	VANLED10	25
2664	SELINSGROVE	EXTERIOR	S			5,6,7	24/7 & OCCUPIED	CM6		B	2PL26WP-LARGE	1	26 Watt 2-Lamp Plug-In CFL Large Wall Pack Fixture	58	0.058	EX	4380	254		1	N RLED12TWP	New 12 Watt LED Tall Wall Pack Fixture	14	0.014	0.528	ENTRA12	42
2665	SELINSGROVE	EXTERIOR	S			5,6,7	24/7 & OCCUPIED	CM6/4		E	HPS150FL	2	150 Watt High Pressure Sodium Flood Fixture	188	0.376	EX	4380	1,647		2	N RLED52FL	New 52 Watt LED Flood Fixture	54	0.108	3.216	FFLED52	31

											EXISTING FIXTURES									PROPOSED FIXTURE UPGRADE						
ID #	Facility Name	Phase	Utility Rate Code	Floor	Map #	Building Number	Building Usage Type	Building Section	Room Description	Room #	ECM Code	Qty	Description	Watts	kW	Burn Hour Code	Pre Burn Hours	kWh	x	Qty	New Code	Description	Watts	kW	Annual KW Saved	Part#	Cut Sheet #
2666	SELINSGROVE	EXTERIOR	S			5,6,7	24/7 & OCCUPIED	CM6/4		A	2PL13WP-SMALL	1	13 Watt 2-Lamp Plug-In CFL Small Wall Pack Fixture	30	0.030	EX	4380	131		1	N RLED12TWP	New 12 Watt LED Tall Wall Pack Fixture	14	0.014	0.192	ENTRA12	42
2667	SELINSGROVE	EXTERIOR	S			5,6,7	24/7 & OCCUPIED	CM4		B	2PL26WP-LARGE	1	26 Watt 2-Lamp Plug-In CFL Large Wall Pack Fixture	58	0.058	EX	4380	254		1	N RLED12TWP	New 12 Watt LED Tall Wall Pack Fixture	14	0.014	0.528	ENTRA12	42
2668	SELINSGROVE	EXTERIOR	S			5,6,7	24/7 & OCCUPIED	CM2		F	CF13JJ	1	13 Watt Compact Fluorescent Jelly Jar Fixture	13	0.013	EX	4380	57		1	LED 9A	Re-Lamp with (1) 9 Watt LED A19 Lamps	9	0.009	0.048	LA19/9/40K/D-46	8
2669	SELINSGROVE	EXTERIOR	S			5,6,7	24/7 & OCCUPIED	CM2		B	2PL26WP-LARGE	2	26 Watt 2-Lamp Plug-In CFL Large Wall Pack Fixture	58	0.116	EX	4380	508		2	N RLED12TWP	New 12 Watt LED Tall Wall Pack Fixture	14	0.028	1.056	ENTRA12	42
2670	SELINSGROVE	EXTERIOR	S			5,6,7	24/7 & OCCUPIED	CM2	STAIRS	B	2PL26WP-LARGE	1	26 Watt 2-Lamp Plug-In CFL Large Wall Pack Fixture	58	0.058	EX	4380	254		1	N RLED12TWP	New 12 Watt LED Tall Wall Pack Fixture	14	0.014	0.528	ENTRA12	42
2671	SELINSGROVE	EXTERIOR	S			5,6,7	24/7 & OCCUPIED	CM6		A	2PL13WP-SMALL	2	13 Watt 2-Lamp Plug-In CFL Small Wall Pack Fixture	30	0.060	EX	4380	263		2	N RLED12TWP	New 12 Watt LED Tall Wall Pack Fixture	14	0.028	0.384	ENTRA12	42
2672	SELINSGROVE	EXTERIOR	S			5,6,7	24/7 & OCCUPIED	CM6		I	CF26DL-12X12	2	26 Watt Compact Fluorescent Downlight Fixture; 12x12	26	0.052	EX	4380	228		2	LED 14PAR30	Re-Lamp with (1) 14 Watt LED Par30 Lamp	14	0.028	0.288	LP30/10/40K/D	16
2673	SELINSGROVE	EXTERIOR	S			5,6,7	24/7 & OCCUPIED	CM6		B	2PL26WP-LARGE	1	26 Watt 2-Lamp Plug-In CFL Large Wall Pack Fixture	58	0.058	EX	4380	254		1	N RLED12TWP	New 12 Watt LED Tall Wall Pack Fixture	14	0.014	0.528	ENTRA12	42
2674	SELINSGROVE	EXTERIOR	S			5,6,7	24/7 & OCCUPIED	CM6	SIDE	J	2-Q100FL	2	2-Head Incandescent Quartz Flood Fixture	200	0.400	EX	4380	1,752		2	N RLED52FL	New 52 Watt LED Flood Fixture	54	0.108	3.504	FFLED52	31
2675	SELINSGROVE	EXTERIOR	S			5,6,7	24/7 & OCCUPIED	CM6	CANOPY	K	65BR40DL	10	65 Watt Incandescent BR40 Downlight Fixture	65	0.650	EX	4380	2,847		10	LED 10BR30	Re-Lamp with (1) 10 Watt LED BR30	10	0.100	6.600	LBR30/9/840/D-46	10
2676	SELINSGROVE	EXTERIOR	S			5,6,7	24/7 & OCCUPIED	CM6	FRONT	E	HPS150FL	1	150 Watt High Pressure Sodium Flood Fixture	188	0.188	EX	4380	823		1	N RLED52FL	New 52 Watt LED Flood Fixture	54	0.054	1.608	FFLED52	31
2677	SELINSGROVE	EXTERIOR	S			5,6,7	24/7 & OCCUPIED	CM6		L	2PARLEDFL	1	2-Lamp LED Par Flood Fixture	36	0.036	EX	4380	158		1	ZZ DD	No Retrofit	36	0.036	0.000	N/A	N/A
2678	SELINSGROVE	EXTERIOR	S			5,6,7	24/7 & OCCUPIED	CM6		L	PARLEDFL	1	1-Lamp LED Par Flood Fixture	18	0.018	EX	4380	79		1	ZZ DD	No Retrofit	18	0.018	0.000	N/A	N/A
2679	SELINSGROVE	EXTERIOR	S			5,6,7	24/7 & OCCUPIED	MAIN ENTRANCE		M	75PAR38DL8	6	75 Watt Incandescent 8" Downlight Par38 Fixture	75	0.450	EX	4380	1,971		6	LED 17BR40	Re-Lamp with (1) 17 Watt LED BR40	17	0.102	4.176	LBR40/16/840/D-46	11
2680	SELINSGROVE	EXTERIOR	S			5,6,7	24/7 & OCCUPIED	CM6		A	2PL13WP-SMALL	2	13 Watt 2-Lamp Plug-In CFL Small Wall Pack Fixture	30	0.060	EX	4380	263		2	N RLED12TWP	New 12 Watt LED Tall Wall Pack Fixture	14	0.028	0.384	ENTRA12	42
2681	SELINSGROVE	EXTERIOR	S			5,6,7	24/7 & OCCUPIED	CM6		I	CF26DL-12X12	2	26 Watt Compact Fluorescent Downlight Fixture; 12x12	26	0.052	EX	4380	228		2	LED 14PAR30	Re-Lamp with (1) 14 Watt LED Par30 Lamp	14	0.028	0.288	LP30/10/40K/D	16
2682	SELINSGROVE	EXTERIOR	S			5,6,7	24/7 & OCCUPIED	CM6		B	2PL26WP-LARGE	2	26 Watt 2-Lamp Plug-In CFL Large Wall Pack Fixture	58	0.116	EX	4380	508		2	N RLED12TWP	New 12 Watt LED Tall Wall Pack Fixture	14	0.028	1.056	ENTRA12	42
2683	SELINSGROVE	EXTERIOR	S			5,6,7	24/7 & OCCUPIED	CF2		B	2PL26WP-LARGE	2	26 Watt 2-Lamp Plug-In CFL Large Wall Pack Fixture	58	0.116	EX	4380	508		2	N RLED12TWP	New 12 Watt LED Tall Wall Pack Fixture	14	0.028	1.056	ENTRA12	42
2684	SELINSGROVE	EXTERIOR	S			5,6,7	24/7 & OCCUPIED	CF2		F	CF13JJ	2	13 Watt Compact Fluorescent Jelly Jar Fixture	13	0.026	EX	4380	114		2	LED 9A	Re-Lamp with (1) 9 Watt LED A19 Lamps	9	0.018	0.096	LA19/9/40K/D-46	8
2685	SELINSGROVE	EXTERIOR	S			5,6,7	24/7 & OCCUPIED	CF2	FRONT	B	2PL26WP-LARGE	1	26 Watt 2-Lamp Plug-In CFL Large Wall Pack Fixture	58	0.058	EX	4380	254		1	N RLED12TWP	New 12 Watt LED Tall Wall Pack Fixture	14	0.014	0.528	ENTRA12	42
2686	SELINSGROVE	EXTERIOR	S			5,6,7	24/7 & OCCUPIED	PAVILION CANOPY		F	CF13JJ	2	13 Watt Compact Fluorescent Jelly Jar Fixture	13	0.026	EX	4380	114		2	LED 9A	Re-Lamp with (1) 9 Watt LED A19 Lamps	9	0.018	0.096	LA19/9/40K/D-46	8
2687	SELINSGROVE	EXTERIOR	S			5,6,7	24/7 & OCCUPIED	SMALL BUILDING		A	2PL13WP-SMALL	1	13 Watt 2-Lamp Plug-In CFL Small Wall Pack Fixture	30	0.030	EX	4380	131		1	N RLED12TWP	New 12 Watt LED Tall Wall Pack Fixture	14	0.014	0.192	ENTRA12	42
2688	SELINSGROVE	EXTERIOR	S			5,6,7	24/7 & OCCUPIED	SMALL BUILDING		N	LEDWP-DIM	1	LED Wall Pack Fixture; Dimming	35	0.035	EX	4380	153		1	ZZ DD	No Retrofit	35	0.035	0.000	N/A	N/A
2689	SELINSGROVE	EXTERIOR	S			5,6,7	24/7 & OCCUPIED	CF4		B	2PL26WP-LARGE	1	26 Watt 2-Lamp Plug-In CFL Large Wall Pack Fixture	58	0.058	EX	4380	254		1	N RLED12TWP	New 12 Watt LED Tall Wall Pack Fixture	14	0.014	0.528	ENTRA12	42
2690	SELINSGROVE	EXTERIOR	S			5,6,7	24/7 & OCCUPIED	CF4/6		E	HPS150FL	2	150 Watt High Pressure Sodium Flood Fixture	188	0.376	EX	4380	1,647		2	N RLED52FL	New 52 Watt LED Flood Fixture	54	0.108	3.216	FFLED52	31
2691	SELINSGROVE	EXTERIOR	S			5,6,7	24/7 & OCCUPIED	CF4/6		A	2PL13WP-SMALL	1	13 Watt 2-Lamp Plug-In CFL Small Wall Pack Fixture	30	0.030	EX	4380	131		1	N RLED12TWP	New 12 Watt LED Tall Wall Pack Fixture	14	0.014	0.192	ENTRA12	42
2692	SELINSGROVE	EXTERIOR	S			5,6,7	24/7 & OCCUPIED	CF6		B	2PL26WP-LARGE	1	26 Watt 2-Lamp Plug-In CFL Large Wall Pack Fixture	58	0.058	EX	4380	254		1	N RLED12TWP	New 12 Watt LED Tall Wall Pack Fixture	14	0.014	0.528	ENTRA12	42
2693	SELINSGROVE	EXTERIOR	S			5,6,7	24/7 & OCCUPIED	CF6	CANOPY	B	2PL26WP-LARGE	1	26 Watt 2-Lamp Plug-In CFL Large Wall Pack Fixture	58	0.058	EX	4380	254		1	N RLED12TWP	New 12 Watt LED Tall Wall Pack Fixture	14	0.014	0.528	ENTRA12	42
2694	SELINSGROVE	EXTERIOR	S			5,6,7	24/7 & OCCUPIED	CF6		F	CF13JJ	5	13 Watt Compact Fluorescent Jelly Jar Fixture	13	0.065	EX	4380	285		5	LED 9A	Re-Lamp with (1) 9 Watt LED A19 Lamps	9	0.045	0.240	LA19/9/40K/D-46	8
2695	SELINSGROVE	EXTERIOR	S			5,6,7	24/7 & OCCUPIED	CF6		H	2PL13CPY	1	13 Watt 2-Lamp Plug-In CFL Canopy Fixture	30	0.030	EX	4380	131		1	N RLED10CPY	New 10 Watt LED Canopy Fixture	12	0.012	0.216	VANLED10	25
2696	SELINSGROVE	EXTERIOR	S			5,6,7	24/7 & OCCUPIED	CF8		B	2PL26WP-LARGE	1	26 Watt 2-Lamp Plug-In CFL Large Wall Pack Fixture	58	0.058	EX	4380	254		1	N RLED12TWP	New 12 Watt LED Tall Wall Pack Fixture	14	0.014	0.528	ENTRA12	42
2697	SELINSGROVE	EXTERIOR	S			5,6,7	24/7 & OCCUPIED	CF8/10		E	HPS150FL	1	150 Watt High Pressure Sodium Flood Fixture	188	0.188	EX	4380	823		1	N RLED52FL	New 52 Watt LED Flood Fixture	54	0.054	1.608	FFLED52	31

											EXISTING FIXTURES									PROPOSED FIXTURE UPGRADE						
ID #	Facility Name	Phase	Utility Rate Code	Floor	Map #	Building Number	Building Usage Type	Building Section	Room Description	Room #	ECM Code	Qty	Description	Watts	kW	Burn Hour Code	Pre Burn Hours	kWh	x	Qty	New Code	Description	Watts	kW	Annual KW Saved	Part#	Cut Sheet #
2698	SELINSGROVE	EXTERIOR	S			5,6,7	24/7 & OCCUPIED	CF8/10		A	2PL13WP-SMALL	1	13 Watt 2-Lamp Plug-In CFL Small Wall Pack Fixture	30	0.030	EX	4380	131		1	N RLED12TWP	New 12 Watt LED Tall Wall Pack Fixture	14	0.014	0.192	ENTRA12	42
2699	SELINSGROVE	EXTERIOR	S			5,6,7	24/7 & OCCUPIED	CF10		B	2PL26WP-LARGE	1	26 Watt 2-Lamp Plug-In CFL Large Wall Pack Fixture	58	0.058	EX	4380	254		1	N RLED12TWP	New 12 Watt LED Tall Wall Pack Fixture	14	0.014	0.528	ENTRA12	42
2700	SELINSGROVE	EXTERIOR	S			5,6,7	24/7 & OCCUPIED	CF10/12		A	2PL13WP-SMALL	5	13 Watt 2-Lamp Plug-In CFL Small Wall Pack Fixture	30	0.150	EX	4380	657		5	N RLED12TWP	New 12 Watt LED Tall Wall Pack Fixture	14	0.070	0.960	ENTRA12	42
2701	SELINSGROVE	EXTERIOR	S			5,6,7	24/7 & OCCUPIED	CF12		A	2PL13WP-SMALL	2	13 Watt 2-Lamp Plug-In CFL Small Wall Pack Fixture	30	0.060	EX	4380	263		2	N RLED12TWP	New 12 Watt LED Tall Wall Pack Fixture	14	0.028	0.384	ENTRA12	42
2702	SELINSGROVE	EXTERIOR	S			5,6,7	24/7 & OCCUPIED	CF11		A	2PL13WP-SMALL	1	13 Watt 2-Lamp Plug-In CFL Small Wall Pack Fixture	30	0.030	EX	4380	131		1	N RLED12TWP	New 12 Watt LED Tall Wall Pack Fixture	14	0.014	0.192	ENTRA12	42
2703	SELINSGROVE	EXTERIOR	S			5,6,7	24/7 & OCCUPIED	CF11		O	MH1000FL-Y	1	1000 Watt Metal Halide Flood Fixture	1085	1.085	EX	4380	4,752		1	N RLED300FLT	New 300 Watt LED Flood Fixture; Trunnion	315	0.315	9.240	FXLED300T/PCT	34
2704	SELINSGROVE	EXTERIOR	S			5,6,7	24/7 & OCCUPIED	CF11		A	2PL13WP-SMALL	2	13 Watt 2-Lamp Plug-In CFL Small Wall Pack Fixture	30	0.060	EX	4380	263		2	N RLED12TWP	New 12 Watt LED Tall Wall Pack Fixture	14	0.028	0.384	ENTRA12	42
2705	SELINSGROVE	EXTERIOR	S			5,6,7	24/7 & OCCUPIED	CF9		E	HPS150FL	1	150 Watt High Pressure Sodium Flood Fixture	188	0.188	EX	4380	823		1	N RLED52FL	New 52 Watt LED Flood Fixture	54	0.054	1.608	FFLED52	31
2706	SELINSGROVE	EXTERIOR	S			5,6,7	24/7 & OCCUPIED	CF9		A	2PL13WP-SMALL	1	13 Watt 2-Lamp Plug-In CFL Small Wall Pack Fixture	30	0.030	EX	4380	131		1	N RLED12TWP	New 12 Watt LED Tall Wall Pack Fixture	14	0.014	0.192	ENTRA12	42
2707	SELINSGROVE	EXTERIOR	S			5,6,7	24/7 & OCCUPIED	CF9		A	2PL13WP-SMALL	4	13 Watt 2-Lamp Plug-In CFL Small Wall Pack Fixture	30	0.120	EX	4380	526		4	N RLED12TWP	New 12 Watt LED Tall Wall Pack Fixture	14	0.056	0.768	ENTRA12	42
2708	SELINSGROVE	EXTERIOR	S			5,6,7	24/7 & OCCUPIED	BUILDING 6		E	HPS150FL	1	150 Watt High Pressure Sodium Flood Fixture	188	0.188	EX	4380	823		1	N RLED52FL	New 52 Watt LED Flood Fixture	54	0.054	1.608	FFLED52	31
2709	SELINSGROVE	EXTERIOR	S			5,6,7	24/7 & OCCUPIED	BUILDING 6		P	MH400FL-Y	1	400 Watt Metal Halide Flood Fixture; Yoke	455	0.455	EX	4380	1,993		1	N RLED125FLT	New 125 Watt LED Flood Fixture; Trunion	125	0.125	3.960	FXLED125T/PCT	33
2710	SELINSGROVE	EXTERIOR	S			5,6,7	24/7 & OCCUPIED	BUILDING 6		A	2PL13WP-SMALL	1	13 Watt 2-Lamp Plug-In CFL Small Wall Pack Fixture	30	0.030	EX	4380	131		1	N RLED12TWP	New 12 Watt LED Tall Wall Pack Fixture	14	0.014	0.192	ENTRA12	42
2711	SELINSGROVE	EXTERIOR	S			5,6,7	24/7 & OCCUPIED	CF6		B	2PL26WP-LARGE	1	26 Watt 2-Lamp Plug-In CFL Large Wall Pack Fixture	58	0.058	EX	4380	254		1	N RLED12TWP	New 12 Watt LED Tall Wall Pack Fixture	14	0.014	0.528	ENTRA12	42
2712	SELINSGROVE	EXTERIOR	S			5,6,7	24/7 & OCCUPIED	CF6		H	2PL13CPY	3	13 Watt 2-Lamp Plug-In CFL Canopy Fixture	30	0.090	EX	4380	394		3	N RLED10CPY	New 10 Watt LED Canopy Fixture	12	0.036	0.648	VANLED10	25
2713	SELINSGROVE	EXTERIOR	S			5,6,7	24/7 & OCCUPIED	CF6		B	2PL26WP-LARGE	1	26 Watt 2-Lamp Plug-In CFL Large Wall Pack Fixture	58	0.058	EX	4380	254		1	N RLED12TWP	New 12 Watt LED Tall Wall Pack Fixture	14	0.014	0.528	ENTRA12	42
2714	SELINSGROVE	EXTERIOR	S			5,6,7	24/7 & OCCUPIED	CF6		H	2PL13CPY	1	13 Watt 2-Lamp Plug-In CFL Canopy Fixture	30	0.030	EX	4380	131		1	N RLED10CPY	New 10 Watt LED Canopy Fixture	12	0.012	0.216	VANLED10	25
2715	SELINSGROVE	EXTERIOR	S			5,6,7	24/7 & OCCUPIED	CF6		A	2PL13WP-SMALL	1	13 Watt 2-Lamp Plug-In CFL Small Wall Pack Fixture	30	0.030	EX	4380	131		1	N RLED12TWP	New 12 Watt LED Tall Wall Pack Fixture	14	0.014	0.192	ENTRA12	42
2716	SELINSGROVE	EXTERIOR	S			5,6,7	24/7 & OCCUPIED	CF6		E	HPS150FL	1	150 Watt High Pressure Sodium Flood Fixture	188	0.188	EX	4380	823		1	N RLED52FL	New 52 Watt LED Flood Fixture	54	0.054	1.608	FFLED52	31
2717	SELINSGROVE	EXTERIOR	S			5,6,7	24/7 & OCCUPIED	CM9	BACK	L	2PARLEDFL	1	2-Lamp LED Par Flood Fixture	36	0.036	EX	4380	158		1	ZZ DD	No Retrofit	36	0.036	0.000	N/A	N/A
2718	SELINSGROVE	EXTERIOR	S			5,6,7	24/7 & OCCUPIED	CM9		A	2PL13WP-SMALL	2	13 Watt 2-Lamp Plug-In CFL Small Wall Pack Fixture	30	0.060	EX	4380	263		2	N RLED12TWP	New 12 Watt LED Tall Wall Pack Fixture	14	0.028	0.384	ENTRA12	42
2719	SELINSGROVE	EXTERIOR	S			5,6,7	24/7 & OCCUPIED	CM9		O	MH1000FL-Y	1	1000 Watt Metal Halide Flood Fixture	1085	1.085	EX	4380	4,752		1	N RLED300FLT	New 300 Watt LED Flood Fixture; Trunnion	315	0.315	9.240	FXLED300T/PCT	34
2720	SELINSGROVE	EXTERIOR	S			5,6,7	24/7 & OCCUPIED	CM9/11		A	2PL13WP-SMALL	3	13 Watt 2-Lamp Plug-In CFL Small Wall Pack Fixture	30	0.090	EX	4380	394		3	N RLED12TWP	New 12 Watt LED Tall Wall Pack Fixture	14	0.042	0.576	ENTRA12	42
2721	SELINSGROVE	EXTERIOR	S			5,6,7	24/7 & OCCUPIED	CM9/11		E	HPS150FL	1	150 Watt High Pressure Sodium Flood Fixture	188	0.188	EX	4380	823		1	N RLED52FL	New 52 Watt LED Flood Fixture	54	0.054	1.608	FFLED52	31
2722	SELINSGROVE	EXTERIOR	S			5,6,7	24/7 & OCCUPIED	CM11		A	2PL13WP-SMALL	2	13 Watt 2-Lamp Plug-In CFL Small Wall Pack Fixture	30	0.060	EX	4380	263		2	N RLED12TWP	New 12 Watt LED Tall Wall Pack Fixture	14	0.028	0.384	ENTRA12	42
2723	SELINSGROVE	EXTERIOR	S			5,6,7	24/7 & OCCUPIED	CM11		P	MH400FL-Y	1	400 Watt Metal Halide Flood Fixture; Yoke	455	0.455	EX	4380	1,993		1	N RLED125FLT	New 125 Watt LED Flood Fixture; Trunion	125	0.125	3.960	FXLED125T/PCT	33
2724	SELINSGROVE	EXTERIOR	S			5,6,7	24/7 & OCCUPIED	CM11		A	2PL13WP-SMALL	2	13 Watt 2-Lamp Plug-In CFL Small Wall Pack Fixture	30	0.060	EX	4380	263		2	N RLED12TWP	New 12 Watt LED Tall Wall Pack Fixture	14	0.028	0.384	ENTRA12	42
2725	SELINSGROVE	EXTERIOR	S			5,6,7	24/7 & OCCUPIED	CM11		Q	60A	4	60 Watt Incandescent A-Lamp Fixture	60	0.240	EX	4380	1,051		4	LED 9A	Re-Lamp with (1) 9 Watt LED A19 Lamps	9	0.036	2.448	LA19/9/40K/D-46	8
2726	SELINSGROVE	INTERIOR	S	1	14	24/7 & OCCUPIED		CAFÉ /SEATING			6B25-4'-4X4-DECO-WOOD-DROPLENS	6	T8 4x4 6-Lamp Surface Mount Decorative Wooden Fixture; Drop Lens	125	0.750	K	1827	1,370		6	R 6L-12.5LED	Retrofit with (6) 12.5 Watt LED T8 4' Lamps; Direct Wire to Socket	75	0.450	3.600	KT-LED10.5T8-48G-840-D	3
2727	SELINSGROVE	INTERIOR	S	2	14	24/7 & OCCUPIED		KITCHEN			PARLEDDL	6	1-Lamp LED Par Downlight Fixture	15	0.090	K	1827	164		6	ZZ DD	No Retrofit	15	0.090	0.000	N/A	N/A
2728	SELINSGROVE	INTERIOR	S	2	14	24/7 & OCCUPIED		KITCHEN			4L25-4'	3	T8 2x4 4-Lamp Troffer Fixture	85	0.255	K	1827	466		3	R 4L-12.5LED	Retrofit with (4) 12.5 Watt LED T8 4' Lamps; Direct Wire to Socket	50	0.150	1.260	KT-LED10.5T8-48G-840-D	3
2729	SELINSGROVE	INTERIOR	S	2	14	24/7 & OCCUPIED		KITCHEN			2W25-4'	4	T8 1x4 2-Lamp Wrap Fixture	43	0.172	K	1827	314		4	R 2L-12.5LED	Retrofit with (2) 12.5 Watt LED T8 4' Lamps; Direct Wire to Socket	25	0.100	0.864	KT-LED10.5T8-48G-840-D	3

											EXISTING FIXTURES									PROPOSED FIXTURE UPGRADE							
ID #	Facility Name	Phase	Utility Rate Code	Floor	Map #	Building Number	Building Usage Type	Building Section	Room Description	Room #	ECM Code	Qty	Description	Watts	kW	Burn Hour Code	Pre Burn Hours	kWh	x	Qty	New Code	Description	Watts	kW	Annual KW Saved	Part#	Cut Sheet #
2730	SELINSGROVE	INTERIOR	S		3	14	24/7 & OCCUPIED		LOBBY		6B25-4'-4X4-DECO-WOOD-DROPLENS	8	T8 4x4 6-Lamp Surface Mount Decorative Wooden Fixture; Drop Lens	125	1.000	H	3863	3,863		8	R 6L-12.5LED	Retrofit with (6) 12.5 Watt LED T8 4' Lamps; Direct Wire to Socket	75	0.600	4.800	KT-LED10.5T8-48G-840-D	3
2731	SELINSGROVE	INTERIOR	S		3	14	24/7 & OCCUPIED		WOMENS RESTROOM		2B25-1X4	4	T8 1x4 2-Lamp Surface Mount Fixture	43	0.172	RR	3863	664		4	R 2L-12.5LED	Retrofit with (2) 12.5 Watt LED T8 4' Lamps; Direct Wire to Socket	25	0.100	0.864	KT-LED10.5T8-48G-840-D	3
2732	SELINSGROVE	INTERIOR	S		3	14	24/7 & OCCUPIED		WOMENS RESTROOM		1V25-4'	1	T8 1x4 1-Lamp Vanity Fixture	22	0.022	RR	3863	85		1	R 1L-12.5LED	Retrofit with (1) 12.5 Watt LED T8 4' Lamps; Direct Wire to Socket	12.5	0.013	0.114	KT-LED10.5T8-48G-840-D	3
2733	SELINSGROVE	INTERIOR	S		4	14	24/7 & OCCUPIED		GYM		4L32-1X1-PARA	56	T8 1x1 4-Lamp Troffer Fixture; Paracube	106	5.936	G	3640	21,607		56	R 4L-12.5LED	Retrofit with (4) 12.5 Watt LED T8 4' Lamps; Direct Wire to Socket	50	2.800	37.632	KT-LED10.5T8-48G-840-D	3
2734	SELINSGROVE	INTERIOR	S		4	14	24/7 & OCCUPIED		GYM		4L54HB-WG	8	T5 HO 2x4 4-Lamp High Bay Fixture; Wire Guard	236	1.888	G	3640	6,872		8	N RLED185HB-WG	New 185 Watt LED High Bay Fixture; Wire Guard	183	1.464	5.088	RAIL185W/D10 /// GDRAIL22W	37
2735	SELINSGROVE	INTERIOR	S		5	14	24/7 & OCCUPIED		STAGE		2W32-DA	4	T8 1x4 2-Lamp Wrap Fixture; Difficult Access	62	0.248	A	1500	372		4	R 2L-12.5LED-DA	Retrofit with (2) 12.5 Watt LED T8 4' Lamps; Direct Wire to Socket; Difficult Access	25	0.100	1.776	KT-LED10.5T8-48G-840-D	3
2736	SELINSGROVE	INTERIOR	S		6	14	24/7 & OCCUPIED		DRESSING 1		2B25-1X4	2	T8 1x4 2-Lamp Surface Mount Fixture	43	0.086	S	1000	86		2	R 2L-12.5LED	Retrofit with (2) 12.5 Watt LED T8 4' Lamps; Direct Wire to Socket	25	0.050	0.432	KT-LED10.5T8-48G-840-D	3
2737	SELINSGROVE	INTERIOR	S		6	14	24/7 & OCCUPIED		RR		1V17	1	T8 2x2 1-Lamp Vanity Fixture	22	0.022	RR	3863	85		1	R 1L-10LED2'	Retrofit with (1) 10 Watt LED T8 2' Lamp; Direct Wire to Socket	10	0.010	0.144	KT-LED7T8-24GC-840-D	1
2738	SELINSGROVE	INTERIOR	S		6	14	24/7 & OCCUPIED		CLOSET		CF26	1	26 Watt Compact Fluorescent Fixture	26	0.026	S	1000	26		1	LED 9A	Re-Lamp with (1) 9 Watt LED A19 Lamps	9	0.009	0.204	LA19/9/40K/D-46	8
2739	SELINSGROVE	INTERIOR	S		7	14	24/7 & OCCUPIED		DRESSING 2		2B25-1X4	2	T8 1x4 2-Lamp Surface Mount Fixture	43	0.086	S	1000	86		2	R 2L-12.5LED	Retrofit with (2) 12.5 Watt LED T8 4' Lamps; Direct Wire to Socket	25	0.050	0.432	KT-LED10.5T8-48G-840-D	3
2740	SELINSGROVE	INTERIOR	S		7	14	24/7 & OCCUPIED		RR		2PL13VAN	1	13 Watt 2-Lamp Plug-In CFL Vanity Fixture	30	0.030	RR	3863	116		1	N 2V-12.5LED	New 1x4 2-Lamp Vanity Fixture with (2) 12.5 Watt LED T8 4' Lamp; Direct Wire to Socket	25	0.025	0.060	VWF-4'-2-T8LED /// KT-LED10.5T8-48G-840-D	49 + 3
2741	SELINSGROVE	INTERIOR	S		7	14	24/7 & OCCUPIED		CLOSET		CF26	1	26 Watt Compact Fluorescent Fixture	26	0.026	S	1000	26		1	LED 9A	Re-Lamp with (1) 9 Watt LED A19 Lamps	9	0.009	0.204	LA19/9/40K/D-46	8
2742	SELINSGROVE	INTERIOR	S		8	14	24/7 & OCCUPIED		HALL	107	2B25-1X4	3	T8 1x4 2-Lamp Surface Mount Fixture	43	0.129	H	3863	498		3	R 2L-12.5LED	Retrofit with (2) 12.5 Watt LED T8 4' Lamps; Direct Wire to Socket	25	0.075	0.648	KT-LED10.5T8-48G-840-D	3
2743	SELINSGROVE	INTERIOR	S		9	14	24/7 & OCCUPIED		STORAGE	116	2W25-4'	3	T8 1x4 2-Lamp Wrap Fixture	43	0.129	S	1000	129		3	R 2L-12.5LED	Retrofit with (2) 12.5 Watt LED T8 4' Lamps; Direct Wire to Socket	25	0.075	0.648	KT-LED10.5T8-48G-840-D	3
2744	SELINSGROVE	INTERIOR	S		10	14	24/7 & OCCUPIED		STORAGE	116A	2B25(B)-1X4	1	T8 1x4 2-Lamp Surface Mount Fixture; Damaged/Missing Lens	43	0.043	S	1000	43		1	N 2W-12.5LED	New 1x4 2-Lamp Wrap Fixture with (2) 12.5 Watt LED T8 4' Lamp; Direct Wire to Socket	25	0.025	0.216	CCW-4'-2-T8LED /// KT-LED10.5T8-48G-840-D	51 + 3
2745	SELINSGROVE	INTERIOR	S		10	14	24/7 & OCCUPIED		STORAGE		2B25-1X4	1	T8 1x4 2-Lamp Surface Mount Fixture	43	0.043	S	1000	43		1	R 2L-12.5LED	Retrofit with (2) 12.5 Watt LED T8 4' Lamps; Direct Wire to Socket	25	0.025	0.216	KT-LED10.5T8-48G-840-D	3
2746	SELINSGROVE	INTERIOR	S		11	14	24/7 & OCCUPIED		STORAGE	115	2W25-4'-YELLOW	4	T8 1x4 2-Lamp Wrap Fixture; Yellow	43	0.172	S	1000	172		4	R 2L-12.5LED	Retrofit with (2) 12.5 Watt LED T8 4' Lamps; Direct Wire to Socket	25	0.100	0.864	KT-LED10.5T8-48G-840-D	3
2747	SELINSGROVE	INTERIOR	S		12	14	24/7 & OCCUPIED		STORAGE	120	2W25-4'-YELLOW	6	T8 1x4 2-Lamp Wrap Fixture; Yellow	43	0.258	S	1000	258		6	R 2L-12.5LED	Retrofit with (2) 12.5 Watt LED T8 4' Lamps; Direct Wire to Socket	25	0.150	1.296	KT-LED10.5T8-48G-840-D	3
2748	SELINSGROVE	INTERIOR	S		13	14	24/7 & OCCUPIED		JANITOR CLOSET		150A	1	150 Watt Incandescent A-Lamp Fixture	150	0.150	S	1000	150		1	LED 15A	Re-Lamp with (1) 15 Watt LED A19 Lamp	15	0.015	1.620	LA21/16/40K/D-46	9
2749	SELINSGROVE	INTERIOR	S		14	14	24/7 & OCCUPIED		SAFE ROOM		4L25-4'	2	T8 2x4 4-Lamp Troffer Fixture	85	0.170	S	1000	170		2	R 4L-12.5LED	Retrofit with (4) 12.5 Watt LED T8 4' Lamps; Direct Wire to Socket	50	0.100	0.840	KT-LED10.5T8-48G-840-D	3
2750	SELINSGROVE	INTERIOR	S		14	14	24/7 & OCCUPIED		RR		2PL13DR	1	13 Watt Plug-In CFL Drum Fixture	26	0.026	RR	3863	100		1	N LED14DR	New 12" Round 14 Watt LED Drum Fixture	14	0.014	0.144	54074143	19
2751	SELINSGROVE	INTERIOR	S		15	14	24/7 & OCCUPIED		HALL		2L25-1X4	6	T8 1x4 2-Lamp Troffer Fixture	43	0.258	H	3863	997		6	R 2L-12.5LED	Retrofit with (2) 12.5 Watt LED T8 4' Lamps; Direct Wire to Socket	25	0.150	1.296	KT-LED10.5T8-48G-840-D	3
2752	SELINSGROVE	INTERIOR	S		16	14	24/7 & OCCUPIED		STORAGE		2L25-1X4	69	T8 1x4 2-Lamp Troffer Fixture	43	2.967	S	1000	2,967		69	R 2L-12.5LED	Retrofit with (2) 12.5 Watt LED T8 4' Lamps; Direct Wire to Socket	25	1.725	14.904	KT-LED10.5T8-48G-840-D	3
2753	SELINSGROVE	INTERIOR	S		16	14	24/7 & OCCUPIED		JANITOR CLOSET		CF26	1	26 Watt Compact Fluorescent Fixture	26	0.026	S	1000	26		1	LED 9A	Re-Lamp with (1) 9 Watt LED A19 Lamps	9	0.009	0.204	LA19/9/40K/D-46	8
2754	SELINSGROVE	INTERIOR	S		16	14	24/7 & OCCUPIED		RR		75DL	1	75 Watt Incandescent A-Lamp Downlight Fixture	75	0.075	RR-ES	2705	203		1	LED 10BR30	Re-Lamp with (1) 10 Watt LED BR30	10	0.010	0.780	LBR30/9/840/D-46	10
2755	SELINSGROVE	INTERIOR	S		16	14	24/7 & OCCUPIED		RR		75DL	1	75 Watt Incandescent A-Lamp Downlight Fixture	75	0.075	RR	3863	290		1	LED 10BR30	Re-Lamp with (1) 10 Watt LED BR30	10	0.010	0.780	LBR30/9/840/D-46	10
2756	SELINSGROVE	INTERIOR	S		16	14	24/7 & OCCUPIED		STORAGE		4L25-4'	1	T8 2x4 4-Lamp Troffer Fixture	85	0.085	S	1000	85		1	R 4L-12.5LED	Retrofit with (4) 12.5 Watt LED T8 4' Lamps; Direct Wire to Socket	50	0.050	0.420	KT-LED10.5T8-48G-840-D	3
2757	SELINSGROVE	INTERIOR	S		16	14	24/7 & OCCUPIED		STORAGE		2W25-4'	1	T8 1x4 2-Lamp Wrap Fixture	43	0.043	S	1000	43		1	R 2L-12.5LED	Retrofit with (2) 12.5 Watt LED T8 4' Lamps; Direct Wire to Socket	25	0.025	0.216	KT-LED10.5T8-48G-840-D	3
2758	SELINSGROVE	INTERIOR	S		17	14	24/7 & OCCUPIED		MENS LOCKER ROOM		2B25-1X4	12	T8 1x4 2-Lamp Surface Mount Fixture	43	0.516	LR	3863	1,993		12	R 2L-12.5LED	Retrofit with (2) 12.5 Watt LED T8 4' Lamps; Direct Wire to Socket	25	0.300	2.592	KT-LED10.5T8-48G-840-D	3
2759	SELINSGROVE	INTERIOR	S		18	14	24/7 & OCCUPIED		MENS SHOWERS		CF23DL-10X10	7	23 Watt Compact Fluorescent Downlight Fixture; 10x10	23	0.161	S	1000	161		7	LED 9A	Re-Lamp with (1) 9 Watt LED A19 Lamps	9	0.063	1.176	LA19/9/40K/D-46	8
2760	SELINSGROVE	INTERIOR	S		19	14	24/7 & OCCUPIED		SUPPLIES		CF23DL-8X8	1	23 Watt Compact Fluorescent Downlight Fixture; 8x8	23	0.023	S	1000	23		1	LED 9A	Re-Lamp with (1) 9 Watt LED A19 Lamps	9	0.009	0.168	LA19/9/40K/D-46	8
2761	SELINSGROVE	INTERIOR	S		20	14	24/7 & OCCUPIED		LAUNDRY		2W25-4'	3	T8 1x4 2-Lamp Wrap Fixture	43	0.129	LR	3863	498		3	R 2L-12.5LED	Retrofit with (2) 12.5 Watt LED T8 4' Lamps; Direct Wire to Socket	25	0.075	0.648	KT-LED10.5T8-48G-840-D	3

											EXISTING FIXTURES									PROPOSED FIXTURE UPGRADE						
ID #	Facility Name	Phase	Utility Rate Code	Floor	Map #	Building Number	Building Usage Type	Building Section	Room Description	Room #	ECM Code	Qty	Description	Watts	kW	Burn Hour Code	Pre Burn Hours	kWh	x	Qty	New Code	Description	Watts	kW	Annual KW Saved	Part#	Cut Sheet #
2762	SELINSGROVE	INTERIOR	S		21	14	24/7 & OCCUPIED		STORAGE		CF23DL-8X8	1	23 Watt Compact Fluorescent Downlight Fixture; 8x8	23	0.023	S	1000	23		1	LED 9A	Re-Lamp with (1) 9 Watt LED A19 Lamps	9	0.009	0.168	LA19/9/40K/D-46	8
2763	SELINSGROVE	INTERIOR	S		22	14	24/7 & OCCUPIED		WOMENS LOCKER ROOM	137	2B25-1X4	11	T8 1x4 2-Lamp Surface Mount Fixture	43	0.473	LR	3863	1,827		11	R 2L-12.5LED	Retrofit with (2) 12.5 Watt LED T8 4' Lamps; Direct Wire to Socket	25	0.275	2.376	KT-LED10.5T8-48G-840-D	3
2764	SELINSGROVE	INTERIOR	S		22	14	24/7 & OCCUPIED		WOMENS LOCKER ROOM	137	4L32	1	T8 2x4 4-Lamp Troffer Fixture	106	0.106	LR	3863	409		1	R 4L-12.5LED	Retrofit with (4) 12.5 Watt LED T8 4' Lamps; Direct Wire to Socket	50	0.050	0.672	KT-LED10.5T8-48G-840-D	3
2765	SELINSGROVE	INTERIOR	S		22	14	24/7 & OCCUPIED		SHOWER		CF23DL-8X8	8	23 Watt Compact Fluorescent Downlight Fixture; 8x8	23	0.184	LR	3863	711		8	LED 9A	Re-Lamp with (1) 9 Watt LED A19 Lamps	9	0.072	1.344	LA19/9/40K/D-46	8
2766	SELINSGROVE	INTERIOR	S		22	14	24/7 & OCCUPIED		RR		2B25-1X4	2	T8 1x4 2-Lamp Surface Mount Fixture	43	0.086	RR	3863	332		2	R 2L-12.5LED	Retrofit with (2) 12.5 Watt LED T8 4' Lamps; Direct Wire to Socket	25	0.050	0.432	KT-LED10.5T8-48G-840-D	3
2767	SELINSGROVE	INTERIOR	S		22	14	24/7 & OCCUPIED		RR		1V25-4'	1	T8 1x4 1-Lamp Vanity Fixture	22	0.022	RR	3863	85		1	R 1L-12.5LED	Retrofit with (1) 12.5 Watt LED T8 4' Lamps; Direct Wire to Socket	12.5	0.013	0.114	KT-LED10.5T8-48G-840-D	3
2768	SELINSGROVE	INTERIOR	S		23	14	24/7 & OCCUPIED		POOL		2L25-1X4	50	T8 1x4 2-Lamp Troffer Fixture	43	2.150	G	3640	7,826		50	R 2L-12.5LED	Retrofit with (2) 12.5 Watt LED T8 4' Lamps; Direct Wire to Socket	25	1.250	10.800	KT-LED10.5T8-48G-840-D	3
2769	SELINSGROVE	INTERIOR	S		23	14	24/7 & OCCUPIED		OFFICE	138	2B25-1X4	4	T8 1x4 2-Lamp Surface Mount Fixture	43	0.172	O	2340	402		4	R 2L-12.5LED	Retrofit with (2) 12.5 Watt LED T8 4' Lamps; Direct Wire to Socket	25	0.100	0.864	KT-LED10.5T8-48G-840-D	3
2770	SELINSGROVE	INTERIOR	S		24	14	24/7 & OCCUPIED		STAIRS		1W17	2	T8 2x2 1-Lamp Wrap Fixture	22	0.044	Z	8760	385		2	R 1L-10LED2'	Retrofit with (1) 10 Watt LED T8 2' Lamp; Direct Wire to Socket	10	0.020	0.288	KT-LED7T8-24GC-840-D	1
2771	SELINSGROVE	INTERIOR	S		24	14	24/7 & OCCUPIED		STAIRS		2PL13DR	1	13 Watt Plug-In CFL Drum Fixture	26	0.026	Z	8760	228		1	N LED14DR	New 12" Round 14 Watt LED Drum Fixture	14	0.014	0.144	54074143	19
2772	SELINSGROVE	INTERIOR	S		25	14	24/7 & OCCUPIED		BASEMENT		2I32	8	T8 1x4 2-Lamp Industrial Strip Fixture	62	0.496	S	1000	496		8	R 2L-12.5LED	Retrofit with (2) 12.5 Watt LED T8 4' Lamps; Direct Wire to Socket	25	0.200	3.552	KT-LED10.5T8-48G-840-D	3
2773	SELINSGROVE	INTERIOR	S		26	14	24/7 & OCCUPIED		MECHANICAL		2I32	8	T8 1x4 2-Lamp Industrial Strip Fixture	62	0.496	S	1000	496		8	R 2L-12.5LED	Retrofit with (2) 12.5 Watt LED T8 4' Lamps; Direct Wire to Socket	25	0.200	3.552	KT-LED10.5T8-48G-840-D	3
2774	SELINSGROVE	INTERIOR	S		27	14	24/7 & OCCUPIED		ELECTRIC		2I32	6	T8 1x4 2-Lamp Industrial Strip Fixture	62	0.372	S	1000	372		6	R 2L-12.5LED	Retrofit with (2) 12.5 Watt LED T8 4' Lamps; Direct Wire to Socket	25	0.150	2.664	KT-LED10.5T8-48G-840-D	3
2775	SELINSGROVE	INTERIOR	S		28	14	24/7 & OCCUPIED		1ST FLOOR		X-TRITIUM	3	Tritium Exit Sign	0	0.000	Z	8760	0		3	ZZ DD	No Retrofit	0	0.000	0.000	N/A	N/A
2776	SELINSGROVE	INTERIOR	S		28	14	24/7 & OCCUPIED		RR-MENS		2B25-1X4	4	T8 1x4 2-Lamp Surface Mount Fixture	43	0.172	RR	3863	664		4	R 2L-12.5LED	Retrofit with (2) 12.5 Watt LED T8 4' Lamps; Direct Wire to Socket	25	0.100	0.864	KT-LED10.5T8-48G-840-D	3
2777	SELINSGROVE	INTERIOR	S		28	14	24/7 & OCCUPIED		RR-MENS		1V25-4'	1	T8 1x4 1-Lamp Vanity Fixture	22	0.022	RR	3863	85		1	R 1L-12.5LED	Retrofit with (1) 12.5 Watt LED T8 4' Lamps; Direct Wire to Socket	12.5	0.013	0.114	KT-LED10.5T8-48G-840-D	3
2778	SELINSGROVE	INTERIOR	S		29	14	24/7 & OCCUPIED		OFFICE	1200	4L25-4'	6	T8 2x4 4-Lamp Troffer Fixture	85	0.510	O-ES	1638	835		6	R 4L-12.5LED	Retrofit with (4) 12.5 Watt LED T8 4' Lamps; Direct Wire to Socket	50	0.300	2.520	KT-LED10.5T8-48G-840-D	3
2779	SELINSGROVE	INTERIOR	S		30	14	24/7 & OCCUPIED		STORAGE	198	4L25-4'	3	T8 2x4 4-Lamp Troffer Fixture	85	0.255	S-ES	700	179		3	R 4L-12.5LED	Retrofit with (4) 12.5 Watt LED T8 4' Lamps; Direct Wire to Socket	50	0.150	1.260	KT-LED10.5T8-48G-840-D	3
2780	SELINSGROVE	INTERIOR	S		31	14	24/7 & OCCUPIED		STORAGE	199	2L25-1X4	6	T8 1x4 2-Lamp Troffer Fixture	43	0.258	S-ES	700	181		6	R 2L-12.5LED	Retrofit with (2) 12.5 Watt LED T8 4' Lamps; Direct Wire to Socket	25	0.150	1.296	KT-LED10.5T8-48G-840-D	3
2781	SELINSGROVE	INTERIOR	S		32	14	24/7 & OCCUPIED		HALL		2L25-1X4	4	T8 1x4 2-Lamp Troffer Fixture	43	0.172	H	3863	664		4	R 2L-12.5LED	Retrofit with (2) 12.5 Watt LED T8 4' Lamps; Direct Wire to Socket	25	0.100	0.864	KT-LED10.5T8-48G-840-D	3
2782	SELINSGROVE	INTERIOR	S		33	14	24/7 & OCCUPIED		STORAGE	197	4L25-4'	6	T8 2x4 4-Lamp Troffer Fixture	85	0.510	S	1000	510		6	R 4L-12.5LED	Retrofit with (4) 12.5 Watt LED T8 4' Lamps; Direct Wire to Socket	50	0.300	2.520	KT-LED10.5T8-48G-840-D	3
2783	SELINSGROVE	INTERIOR	S		34	14	24/7 & OCCUPIED		STORAGE	192	CF26DL-8X8	2	26 Watt Compact Fluorescent Downlight Fixture; 8x8	26	0.052	S-ES	700	36		2	LED 9A	Re-Lamp with (1) 9 Watt LED A19 Lamps	9	0.018	0.408	LA19/9/40K/D-46	8
2784	SELINSGROVE	INTERIOR	S		34	14	24/7 & OCCUPIED		LOCKER ROOM		2B25-1X4	2	T8 1x4 2-Lamp Surface Mount Fixture	43	0.086	LR	3863	332		2	R 2L-12.5LED	Retrofit with (2) 12.5 Watt LED T8 4' Lamps; Direct Wire to Socket	25	0.050	0.432	KT-LED10.5T8-48G-840-D	3
2785	SELINSGROVE	INTERIOR	S		34	14	24/7 & OCCUPIED		RR		2B25-1X4	1	T8 1x4 2-Lamp Surface Mount Fixture	43	0.043	RR	3863	166		1	R 2L-12.5LED	Retrofit with (2) 12.5 Watt LED T8 4' Lamps; Direct Wire to Socket	25	0.025	0.216	KT-LED10.5T8-48G-840-D	3
2786	SELINSGROVE	INTERIOR	S		34	14	24/7 & OCCUPIED		SHOWER		CF26DL-8X8	1	26 Watt Compact Fluorescent Downlight Fixture; 8x8	26	0.026	LR	3863	100		1	LED 9A	Re-Lamp with (1) 9 Watt LED A19 Lamps	9	0.009	0.204	LA19/9/40K/D-46	8
2787	SELINSGROVE	INTERIOR	S		35	14	24/7 & OCCUPIED		STORAGE	187	CF26DL-8X8	2	26 Watt Compact Fluorescent Downlight Fixture; 8x8	26	0.052	S-ES	700	36		2	LED 9A	Re-Lamp with (1) 9 Watt LED A19 Lamps	9	0.018	0.408	LA19/9/40K/D-46	8
2788	SELINSGROVE	INTERIOR	S		35	14	24/7 & OCCUPIED		STORAGE	191	CF26DL-8X8	2	26 Watt Compact Fluorescent Downlight Fixture; 8x8	26	0.052	S-ES	700	36		2	LED 9A	Re-Lamp with (1) 9 Watt LED A19 Lamps	9	0.018	0.408	LA19/9/40K/D-46	8
2789	SELINSGROVE	INTERIOR	S		35	14	24/7 & OCCUPIED		LOCKER ROOM	188	2B25-1X4	2	T8 1x4 2-Lamp Surface Mount Fixture	43	0.086	LR	3863	332		2	R 2L-12.5LED	Retrofit with (2) 12.5 Watt LED T8 4' Lamps; Direct Wire to Socket	25	0.050	0.432	KT-LED10.5T8-48G-840-D	3
2790	SELINSGROVE	INTERIOR	S		35	14	24/7 & OCCUPIED		RR		1V17	1	T8 2x2 1-Lamp Vanity Fixture	22	0.022	RR	3863	85		1	R 1L-10LED2'	Retrofit with (1) 10 Watt LED T8 2' Lamp; Direct Wire to Socket	10	0.010	0.144	KT-LED7T8-24GC-840-D	1
2791	SELINSGROVE	INTERIOR	S		35	14	24/7 & OCCUPIED		SHOWER		CF26DL-10X10	1	26 Watt Compact Fluorescent Downlight Fixture; 10x10	26	0.026	LR	3863	100		1	LED 9A	Re-Lamp with (1) 9 Watt LED A19 Lamps	9	0.009	0.204	LA19/9/40K/D-46	8
2792	SELINSGROVE	INTERIOR	S		36	14	24/7 & OCCUPIED		OFFICE	186	2W25-4'	4	T8 1x4 2-Lamp Wrap Fixture	43	0.172	O	2340	402		4	R 2L-12.5LED	Retrofit with (2) 12.5 Watt LED T8 4' Lamps; Direct Wire to Socket	25	0.100	0.864	KT-LED10.5T8-48G-840-D	3
2793	SELINSGROVE	INTERIOR	S		37	14	24/7 & OCCUPIED		CONFERENCE	185	2W25-4'	4	T8 1x4 2-Lamp Wrap Fixture	43	0.172	O	2340	402		4	R 2L-12.5LED	Retrofit with (2) 12.5 Watt LED T8 4' Lamps; Direct Wire to Socket	25	0.100	0.864	KT-LED10.5T8-48G-840-D	3

											EXISTING FIXTURES									PROPOSED FIXTURE UPGRADE							
ID #	Facility Name	Phase	Utility Rate Code	Floor	Map #	Building Number	Building Usage Type	Building Section	Room Description	Room #	ECM Code	Qty	Description	Watts	kW	Burn Hour Code	Pre Burn Hours	kWh	x	Qty	New Code	Description	Watts	kW	Annual KW Saved	Part#	Cut Sheet #
2794	SELINSGROVE	INTERIOR	S		38	14	24/7 & OCCUPIED		ACTIVITY ROOM	154	2L25-1X4	50	T8 1x4 2-Lamp Troffer Fixture	43	2.150	G	3640	7,826		50	R 2L-12.5LED	Retrofit with (2) 12.5 Watt LED T8 4' Lamps; Direct Wire to Socket	25	1.250	10.800	KT-LED10.5T8-48G-840-D	3
2795	SELINSGROVE	INTERIOR	S		38	14	24/7 & OCCUPIED		RR	158	CF26DL-8X8	1	26 Watt Compact Fluorescent Downlight Fixture; 8x8	26	0.026	RR	3863	100		1	LED 9A	Re-Lamp with (1) 9 Watt LED A19 Lamps	9	0.009	0.204	LA19/9/40K/D-46	8
2796	SELINSGROVE	INTERIOR	S		38	14	24/7 & OCCUPIED		RR-HANDICAP	156	CF26DL-8X8	1	26 Watt Compact Fluorescent Downlight Fixture; 8x8	26	0.026	RRP	522	14		1	LED 9A	Re-Lamp with (1) 9 Watt LED A19 Lamps	9	0.009	0.204	LA19/9/40K/D-46	8
2797	SELINSGROVE	INTERIOR	S		38	14	24/7 & OCCUPIED		LOUNGE		4L25-4'	2	T8 2x4 4-Lamp Troffer Fixture	85	0.170	K	1827	311		2	R 4L-12.5LED	Retrofit with (4) 12.5 Watt LED T8 4' Lamps; Direct Wire to Socket	50	0.100	0.840	KT-LED10.5T8-48G-840-D	3
2798	SELINSGROVE	INTERIOR	S		38	14	24/7 & OCCUPIED		RR	165	CF26DL-8X8	1	26 Watt Compact Fluorescent Downlight Fixture; 8x8	26	0.026	RR	3863	100		1	LED 9A	Re-Lamp with (1) 9 Watt LED A19 Lamps	9	0.009	0.204	LA19/9/40K/D-46	8
2799	SELINSGROVE	INTERIOR	S		38	14	24/7 & OCCUPIED		RR	163	CF26DL-8X8	1	26 Watt Compact Fluorescent Downlight Fixture; 8x8	26	0.026	RR	3863	100		1	LED 9A	Re-Lamp with (1) 9 Watt LED A19 Lamps	9	0.009	0.204	LA19/9/40K/D-46	8
2800	SELINSGROVE	INTERIOR	S		39	14	24/7 & OCCUPIED		JANITOR CLOSET	160	CF18	1	18 Watt Compact Fluorescent Fixture	18	0.018	S	1000	18		1	LED 9A	Re-Lamp with (1) 9 Watt LED A19 Lamps	9	0.009	0.108	LA19/9/40K/D-46	8
2801	SELINSGROVE	INTERIOR	S		40	14	24/7 & OCCUPIED		ACTIVITY ROOM	176	2L25-1X4	48	T8 1x4 2-Lamp Troffer Fixture	43	2.064	G	3640	7,513		48	R 2L-12.5LED	Retrofit with (2) 12.5 Watt LED T8 4' Lamps; Direct Wire to Socket	25	1.200	10.368	KT-LED10.5T8-48G-840-D	3
2802	SELINSGROVE	INTERIOR	S		40	14	24/7 & OCCUPIED		STORAGE 1	181	2L25-1X4	2	T8 1x4 2-Lamp Troffer Fixture	43	0.086	S	1000	86		2	R 2L-12.5LED	Retrofit with (2) 12.5 Watt LED T8 4' Lamps; Direct Wire to Socket	25	0.050	0.432	KT-LED10.5T8-48G-840-D	3
2803	SELINSGROVE	INTERIOR	S		40	14	24/7 & OCCUPIED		STORAGE 2	182	2L25-1X4	2	T8 1x4 2-Lamp Troffer Fixture	43	0.086	S	1000	86		2	R 2L-12.5LED	Retrofit with (2) 12.5 Watt LED T8 4' Lamps; Direct Wire to Socket	25	0.050	0.432	KT-LED10.5T8-48G-840-D	3
2804	SELINSGROVE	INTERIOR	S		40	14	24/7 & OCCUPIED		STORAGE 3	183	2L25-1X4	2	T8 1x4 2-Lamp Troffer Fixture	43	0.086	S	1000	86		2	R 2L-12.5LED	Retrofit with (2) 12.5 Watt LED T8 4' Lamps; Direct Wire to Socket	25	0.050	0.432	KT-LED10.5T8-48G-840-D	3
2805	SELINSGROVE	INTERIOR	S		40	14	24/7 & OCCUPIED		STORAGE 4	184	2L25-1X4	2	T8 1x4 2-Lamp Troffer Fixture	43	0.086	S	1000	86		2	R 2L-12.5LED	Retrofit with (2) 12.5 Watt LED T8 4' Lamps; Direct Wire to Socket	25	0.050	0.432	KT-LED10.5T8-48G-840-D	3
2806	SELINSGROVE	INTERIOR	S		40	14	24/7 & OCCUPIED		RR		CF26DL-8X8	1	26 Watt Compact Fluorescent Downlight Fixture; 8x8	26	0.026	RR	3863	100		1	LED 9A	Re-Lamp with (1) 9 Watt LED A19 Lamps	9	0.009	0.204	LA19/9/40K/D-46	8
2807	SELINSGROVE	INTERIOR	S		40	14	24/7 & OCCUPIED		RR		CF26DL-8X8	1	26 Watt Compact Fluorescent Downlight Fixture; 8x8	26	0.026	RR	3863	100		1	LED 9A	Re-Lamp with (1) 9 Watt LED A19 Lamps	9	0.009	0.204	LA19/9/40K/D-46	8
2808	SELINSGROVE	INTERIOR	S		41	14	24/7 & OCCUPIED		STORAGE	172	2L25-1X4	6	T8 1x4 2-Lamp Troffer Fixture	43	0.258	S	1000	258		6	R 2L-12.5LED	Retrofit with (2) 12.5 Watt LED T8 4' Lamps; Direct Wire to Socket	25	0.150	1.296	KT-LED10.5T8-48G-840-D	3
2809	SELINSGROVE	INTERIOR	S		42	14	24/7 & OCCUPIED		ACTIVITY ROOM	155	2L25-1X4	28	T8 1x4 2-Lamp Troffer Fixture	43	1.204	G	3640	4,383		28	R 2L-12.5LED	Retrofit with (2) 12.5 Watt LED T8 4' Lamps; Direct Wire to Socket	25	0.700	6.048	KT-LED10.5T8-48G-840-D	3
2810	SELINSGROVE	INTERIOR	S		42	14	24/7 & OCCUPIED		RR	170	CF26DL-8X8	1	26 Watt Compact Fluorescent Downlight Fixture; 8x8	26	0.026	RR	3863	100		1	LED 9A	Re-Lamp with (1) 9 Watt LED A19 Lamps	9	0.009	0.204	LA19/9/40K/D-46	8
2811	SELINSGROVE	INTERIOR	S		42	14	24/7 & OCCUPIED		RR	168	CF26DL-8X8	1	26 Watt Compact Fluorescent Downlight Fixture; 8x8	26	0.026	RR	3863	100		1	LED 9A	Re-Lamp with (1) 9 Watt LED A19 Lamps	9	0.009	0.204	LA19/9/40K/D-46	8
2812	SELINSGROVE	INTERIOR	S		43	14	24/7 & OCCUPIED		ACTIVITY ROOM	121	2L25-1X4	32	T8 1x4 2-Lamp Troffer Fixture	43	1.376	G	3640	5,009		32	R 2L-12.5LED	Retrofit with (2) 12.5 Watt LED T8 4' Lamps; Direct Wire to Socket	25	0.800	6.912	KT-LED10.5T8-48G-840-D	3
2813	SELINSGROVE	INTERIOR	S		43	14	24/7 & OCCUPIED		RR		CF26DL-8X8	1	26 Watt Compact Fluorescent Downlight Fixture; 8x8	26	0.026	RR	3863	100		1	LED 9A	Re-Lamp with (1) 9 Watt LED A19 Lamps	9	0.009	0.204	LA19/9/40K/D-46	8
2814	SELINSGROVE	INTERIOR	S		43	14	24/7 & OCCUPIED		RR	174	CF26DL-8X8	1	26 Watt Compact Fluorescent Downlight Fixture; 8x8	26	0.026	RR	3863	100		1	LED 9A	Re-Lamp with (1) 9 Watt LED A19 Lamps	9	0.009	0.204	LA19/9/40K/D-46	8
2815	SELINSGROVE	INTERIOR	S		44	14	24/7 & OCCUPIED		HALL		2L25-1X4	8	T8 1x4 2-Lamp Troffer Fixture	43	0.344	H	3863	1,329		8	R 2L-12.5LED	Retrofit with (2) 12.5 Watt LED T8 4' Lamps; Direct Wire to Socket	25	0.200	1.728	KT-LED10.5T8-48G-840-D	3
2816	SELINSGROVE	INTERIOR	S		45	14	24/7 & OCCUPIED		STAIR 1		1W17	3	T8 2x2 1-Lamp Wrap Fixture	22	0.066	Z	8760	578		3	R 1L-10LED2'	Retrofit with (1) 10 Watt LED T8 2' Lamp; Direct Wire to Socket	10	0.030	0.432	KT-LED7T8-24GC-840-D	1
2817	SELINSGROVE	INTERIOR	S		46	14	24/7 & OCCUPIED		LARGE STORAGE		2I25-4'	30	T8 1x4 2-Lamp Industrial Strip Fixture	43	1.290	S	1000	1,290		30	R 2L-12.5LED	Retrofit with (2) 12.5 Watt LED T8 4' Lamps; Direct Wire to Socket	25	0.750	6.480	KT-LED10.5T8-48G-840-D	3
2818	SELINSGROVE	INTERIOR	S		47	14	24/7 & OCCUPIED		MECHANICAL		2I25-4'	8	T8 1x4 2-Lamp Industrial Strip Fixture	43	0.344	S	1000	344		8	R 2L-12.5LED	Retrofit with (2) 12.5 Watt LED T8 4' Lamps; Direct Wire to Socket	25	0.200	1.728	KT-LED10.5T8-48G-840-D	3
2819	SELINSGROVE	EXTERIOR	S		A	14	24/7 & OCCUPIED		SITE		LEDPAR38	6	LED Par38 Fixture	18	0.108	EX	4380	473		6	ZZ DD	No Retrofit	18	0.108	0.000	N/A	N/A
2820	SELINSGROVE	EXTERIOR	S		B	14	24/7 & OCCUPIED		SITE		2PL13WP	16	13 Watt 2-Lamp Plug-In CFL Wall Pack Fixture	30	0.480	EX	4380	2,102		16	N RLED12TWP	New 12 Watt LED Tall Wall Pack Fixture	14	0.224	3.072	ENTRA12	42
2821	SELINSGROVE	INTERIOR	S		1	31	24/7 & OCCUPIED		GARAGE SHOP		3L54HB	6	T5 HO 2x4 3-Lamp High Bay Fixture	185	1.110	O	2340	2,597		6	N RLED95HB	New 95 Watt LED High Bay Fixture	93	0.558	6.624	RAIL95W/D10	35
2822	SELINSGROVE	INTERIOR	S		1	31	24/7 & OCCUPIED		GARAGE SHOP		2W32-1X8	25	T8 1x8 2-Lamp Wrap Fixture	62	1.550	O	2340	3,627		25	R 2L-12.5LED	Retrofit with (2) 12.5 Watt LED T8 4' Lamps; Direct Wire to Socket	25	0.625	11.100	KT-LED10.5T8-48G-840-D	3
2823	SELINSGROVE	INTERIOR	S		1	31	24/7 & OCCUPIED		GARAGE SHOP		4EC32	3	T8 2x4 4-Lamp Egg Crate Fixture	106	0.318	O	2340	744		3	N 4W-12.5LED	New 1x4 4-Lamp Wrap Fixture with (4) 12.5 Watt LED T8 4' Lamp; Direct Wire to Socket	50	0.150	2.016	CCW-4'-4-T8LED /// KT-LED10.5T8-48G-840-D	53 + 3
2824	SELINSGROVE	INTERIOR	S		2	31	24/7 & OCCUPIED		PARTS		2W25-4'	2	T8 1x4 2-Lamp Wrap Fixture	43	0.086	S	1000	86		2	R 2L-12.5LED	Retrofit with (2) 12.5 Watt LED T8 4' Lamps; Direct Wire to Socket	25	0.050	0.432	KT-LED10.5T8-48G-840-D	3
2825	SELINSGROVE	INTERIOR	S		2	31	24/7 & OCCUPIED		PARTS		1W25-4'	2	T8 1x4 1-Lamp Wrap Fixture	22	0.044	S	1000	44		2	R 1L-12.5LED	Retrofit with (1) 12.5 Watt LED T8 4' Lamps; Direct Wire to Socket	12.5	0.025	0.228	KT-LED10.5T8-48G-840-D	3

											EXISTING FIXTURES									PROPOSED FIXTURE UPGRADE						
ID #	Facility Name	Phase	Utility Rate Code	Floor	Map #	Building Number	Building Usage Type	Building Section	Room Description	Room #	ECM Code	Qty	Description	Watts	kW	Burn Hour Code	Pre Burn Hours	kWh	x	Qty	New Code	Description	Watts	kW	Annual KW Saved	Part#	Cut Sheet #
2826	SELINSGROVE	INTERIOR	S		3	31	24/7 & OCCUPIED		BREAK ROOM		4L25-4'	3	T8 2x4 4-Lamp Troffer Fixture	85	0.255	O-ES	1638	418		3	R 4L-12.5LED	Retrofit with (4) 12.5 Watt LED T8 4' Lamps; Direct Wire to Socket	50	0.150	1.260	KT-LED10.5T8-48G-840-D	3
2827	SELINSGROVE	INTERIOR	S		4	31	24/7 & OCCUPIED		OFFICE		4W25-4'	2	T8 1x4 4-Lamp Wrap Fixture	85	0.170	O	2340	398		2	R 4L-12.5LED	Retrofit with (4) 12.5 Watt LED T8 4' Lamps; Direct Wire to Socket	50	0.100	0.840	KT-LED10.5T8-48G-840-D	3
2828	SELINSGROVE	INTERIOR	S		5	31	24/7 & OCCUPIED		OFFICE		4W25-4'	2	T8 1x4 4-Lamp Wrap Fixture	85	0.170	O	2340	398		2	R 4L-12.5LED	Retrofit with (4) 12.5 Watt LED T8 4' Lamps; Direct Wire to Socket	50	0.100	0.840	KT-LED10.5T8-48G-840-D	3
2829	SELINSGROVE	INTERIOR	S		5	31	24/7 & OCCUPIED		CLOSET		2PL13DR	1	13 Watt Plug-In CFL Drum Fixture	26	0.026	S	1000	26		1	N LED14DR	New 12" Round 14 Watt LED Drum Fixture	14	0.014	0.144	54074143	19
2830	SELINSGROVE	INTERIOR	S		6	31	24/7 & OCCUPIED		RR		2PL13DR	1	13 Watt Plug-In CFL Drum Fixture	26	0.026	RR	3863	100		1	N LED14DR	New 12" Round 14 Watt LED Drum Fixture	14	0.014	0.144	54074143	19
2831	SELINSGROVE	INTERIOR	S		6	31	24/7 & OCCUPIED		RR		1W17	1	T8 2x2 1-Lamp Wrap Fixture	22	0.022	RR	3863	85		1	R 1L-10LED2'	Retrofit with (1) 10 Watt LED T8 2' Lamp; Direct Wire to Socket	10	0.010	0.144	KT-LED7T8-24GC-840-D	1
2832	SELINSGROVE	INTERIOR	S		7	31	24/7 & OCCUPIED		RR-MENS		2W25-4'	6	T8 1x4 2-Lamp Wrap Fixture	43	0.258	RR	3863	997		6	R 2L-12.5LED	Retrofit with (2) 12.5 Watt LED T8 4' Lamps; Direct Wire to Socket	25	0.150	1.296	KT-LED10.5T8-48G-840-D	3
2833	SELINSGROVE	INTERIOR	S		7	31	24/7 & OCCUPIED		BREAK ROOM		1W25-4'	1	T8 1x4 1-Lamp Wrap Fixture	22	0.022	O	2340	51		1	R 1L-12.5LED	Retrofit with (1) 12.5 Watt LED T8 4' Lamps; Direct Wire to Socket	12.5	0.013	0.114	KT-LED10.5T8-48G-840-D	3
2834	SELINSGROVE	EXTERIOR	S		7	31	24/7 & OCCUPIED		SITE		2PL13WP	11	13 Watt 2-Lamp Plug-In CFL Wall Pack Fixture	30	0.330	EX	4380	1,445		11	N RLED12TWP	New 12 Watt LED Tall Wall Pack Fixture	14	0.154	2.112	ENTRA12	42
2835	SELINSGROVE	EXTERIOR	S		7	31	24/7 & OCCUPIED		SITE		2PL13CPY	4	13 Watt 2-Lamp Plug-In CFL Canopy Fixture	30	0.120	EX	4380	526		4	N RLED10CPY	New 10 Watt LED Canopy Fixture	12	0.048	0.864	VANLED10	25
2836	SELINSGROVE	EXTERIOR	S		7	31	24/7 & OCCUPIED		SITE		2PL13WP-SMALL	3	13 Watt 2-Lamp Plug-In CFL Small Wall Pack Fixture	30	0.090	EX	4380	394		3	N RLED12TWP	New 12 Watt LED Tall Wall Pack Fixture	14	0.042	0.576	ENTRA12	42
2837	SELINSGROVE	EXTERIOR	S		7	31	24/7 & OCCUPIED		SITE		HPS100FL	1	100 Watt High Pressure Sodium Flood Fixture	125	0.125	EX	4380	548		1	N RLED39FL	New 39 Watt LED Flood Fixture	41	0.041	1.008	FFLED39	30
2838	SELINSGROVE	EXTERIOR	S		7	31	24/7 & OCCUPIED		SITE		2-75PAR38-HOLDER	1	75 Watt 2-Lamp Incandescent Par38 Holder Fixture	150	0.150	EX	4380	657		1	LED 2-17P38	Re-Lamp with (2) 17 Watt LED PAR38	34	0.034	1.392	LP38/17/840/FL/D	17
2839	SELINSGROVE	INTERIOR	S		1	32	24/7 & OCCUPIED		STORAGE		2PL13DR	3	13 Watt Plug-In CFL Drum Fixture	26	0.078	S	1000	78		3	N LED14DR	New 12" Round 14 Watt LED Drum Fixture	14	0.042	0.432	54074143	19
2840	SELINSGROVE	INTERIOR	S		2	32	24/7 & OCCUPIED		SHOP		1I25-4'-WG	19	T8 1x4 1-Lamp Industrial Strip Fixture; Wire Guard	22	0.418	O	2340	978		19	R 1L-12.5LED	Retrofit with (1) 12.5 Watt LED T8 4' Lamps; Direct Wire to Socket	12.5	0.238	2.166	KT-LED10.5T8-48G-840-D	3
2841	SELINSGROVE	INTERIOR	S		2	32	24/7 & OCCUPIED		SHOP		3W25-4'	3	T8 1x4 3-Lamp Wrap Fixture	65	0.195	O	2340	456		3	R 3L-12.5LED	Retrofit with (3) 12.5 Watt LED T8 4' Lamps; Direct Wire to Socket	37.5	0.113	0.990	KT-LED10.5T8-48G-840-D	3
2842	SELINSGROVE	INTERIOR	S		2	32	24/7 & OCCUPIED		SHOP		2PL13DR	1	13 Watt Plug-In CFL Drum Fixture	26	0.026	O	2340	61		1	N LED14DR	New 12" Round 14 Watt LED Drum Fixture	14	0.014	0.144	54074143	19
2843	SELINSGROVE	INTERIOR	S		3	32	24/7 & OCCUPIED		BREAK ROOM		4L25-4'	4	T8 2x4 4-Lamp Troffer Fixture	85	0.340	O	2340	796		4	R 4L-12.5LED	Retrofit with (4) 12.5 Watt LED T8 4' Lamps; Direct Wire to Socket	50	0.200	1.680	KT-LED10.5T8-48G-840-D	3
2844	SELINSGROVE	INTERIOR	S		4	32	24/7 & OCCUPIED		HALL		1W25-4'	3	T8 1x4 1-Lamp Wrap Fixture	22	0.066	H	3863	255		3	R 1L-12.5LED	Retrofit with (1) 12.5 Watt LED T8 4' Lamps; Direct Wire to Socket	12.5	0.038	0.342	KT-LED10.5T8-48G-840-D	3
2845	SELINSGROVE	INTERIOR	S		5	32	24/7 & OCCUPIED		TOOM ROOM		4W25-4'	3	T8 1x4 4-Lamp Wrap Fixture	85	0.255	S	1000	255		3	R 4L-12.5LED	Retrofit with (4) 12.5 Watt LED T8 4' Lamps; Direct Wire to Socket	50	0.150	1.260	KT-LED10.5T8-48G-840-D	3
2846	SELINSGROVE	INTERIOR	S		6	32	24/7 & OCCUPIED		OFFICE		4L25-4'	1	T8 2x4 4-Lamp Troffer Fixture	85	0.085	O	2340	199		1	R 4L-12.5LED	Retrofit with (4) 12.5 Watt LED T8 4' Lamps; Direct Wire to Socket	50	0.050	0.420	KT-LED10.5T8-48G-840-D	3
2847	SELINSGROVE	INTERIOR	S		7	32	24/7 & OCCUPIED		SHOP		1W25-4'	3	T8 1x4 1-Lamp Wrap Fixture	22	0.066	O	2340	154		3	R 1L-12.5LED	Retrofit with (1) 12.5 Watt LED T8 4' Lamps; Direct Wire to Socket	12.5	0.038	0.342	KT-LED10.5T8-48G-840-D	3
2848	SELINSGROVE	INTERIOR	S		7	32	24/7 & OCCUPIED		SHOP		4W25-4'	1	T8 1x4 4-Lamp Wrap Fixture	85	0.085	O	2340	199		1	R 4L-12.5LED	Retrofit with (4) 12.5 Watt LED T8 4' Lamps; Direct Wire to Socket	50	0.050	0.420	KT-LED10.5T8-48G-840-D	3
2849	SELINSGROVE	INTERIOR	S		7	32	24/7 & OCCUPIED		SHOP		2PL13DR	1	13 Watt Plug-In CFL Drum Fixture	26	0.026	O	2340	61		1	N LED14DR	New 12" Round 14 Watt LED Drum Fixture	14	0.014	0.144	54074143	19
2850	SELINSGROVE	INTERIOR	S		8	32	24/7 & OCCUPIED		STORAGE		CF105	1	105 Watt Compact Fluorescent Fixture	105	0.105	S	1000	105		1	LED 9A	Re-Lamp with (1) 9 Watt LED A19 Lamps	9	0.009	1.152	LA19/9/40K/D-46	8
2851	SELINSGROVE	INTERIOR	S		9	32	24/7 & OCCUPIED		STORAGE		CF105	1	105 Watt Compact Fluorescent Fixture	105	0.105	S	1000	105		1	LED 9A	Re-Lamp with (1) 9 Watt LED A19 Lamps	9	0.009	1.152	LA19/9/40K/D-46	8
2852	SELINSGROVE	INTERIOR	S		10	32	24/7 & OCCUPIED		PARTS		1I25-4'-WG	3	T8 1x4 1-Lamp Industrial Strip Fixture; Wire Guard	22	0.066	S	1000	66		3	R 1L-12.5LED	Retrofit with (1) 12.5 Watt LED T8 4' Lamps; Direct Wire to Socket	12.5	0.038	0.342	KT-LED10.5T8-48G-840-D	3
2853	SELINSGROVE	INTERIOR	S		11	32	24/7 & OCCUPIED		SHOP		4W25-4'	3	T8 1x4 4-Lamp Wrap Fixture	85	0.255	O	2340	597		3	R 4L-12.5LED	Retrofit with (4) 12.5 Watt LED T8 4' Lamps; Direct Wire to Socket	50	0.150	1.260	KT-LED10.5T8-48G-840-D	3
2854	SELINSGROVE	INTERIOR	S		11	32	24/7 & OCCUPIED		SHOP		2PL13DR	3	13 Watt Plug-In CFL Drum Fixture	26	0.078	O	2340	183		3	N LED14DR	New 12" Round 14 Watt LED Drum Fixture	14	0.042	0.432	54074143	19
2855	SELINSGROVE	INTERIOR	S		11	32	24/7 & OCCUPIED		SHOP		2EC25-4'	2	T8 2x4 2-Lamp Egg Crate Fixture	43	0.086	O	2340	201		2	N 2W-12.5LED	New 1x4 2-Lamp Wrap Fixture with (2) 12.5 Watt LED T8 4' Lamp; Direct Wire to Socket	25	0.050	0.432	CCW-4'-2-T8LED /// KT-LED10.5T8-48G-840-D	51 + 3
2856	SELINSGROVE	INTERIOR	S		12	32	24/7 & OCCUPIED		PAINT SHOP		1I25-4'-WG	10	T8 1x4 1-Lamp Industrial Strip Fixture; Wire Guard	22	0.220	O	2340	515		10	R 1L-12.5LED	Retrofit with (1) 12.5 Watt LED T8 4' Lamps; Direct Wire to Socket	12.5	0.125	1.140	KT-LED10.5T8-48G-840-D	3
2857	SELINSGROVE	INTERIOR	S		12	32	24/7 & OCCUPIED		PAINT SHOP		RLM-NO LAMP	1	Empty RLM Fixture	0	0.000	O	2340	0		1	LED 9A	Re-Lamp with (1) 9 Watt LED A19 Lamps	9	0.009	-0.108	LA19/9/40K/D-46	8

											EXISTING FIXTURES									PROPOSED FIXTURE UPGRADE						
ID #	Facility Name	Phase	Utility Rate Code	Floor	Map #	Building Number	Building Usage Type	Building Section	Room Description	Room #	ECM Code	Qty	Description	Watts	kW	Burn Hour Code	Pre Burn Hours	kWh	x	Qty	New Code	Description	Watts	kW	Annual KW Saved	Part#	Cut Sheet #
2858	SELINSGROVE	INTERIOR	S		12	32	24/7 & OCCUPIED		SPRAY BOOTH		1I25-4'-WG	4	T8 1x4 1-Lamp Industrial Strip Fixture; Wire Guard	22	0.088	O	2340	206		4	R 1L-12.5LED	Retrofit with (1) 12.5 Watt LED T8 4' Lamps; Direct Wire to Socket	12.5	0.050	0.456	KT-LED10.5T8-48G-840-D	3
2859	SELINSGROVE	INTERIOR	S		13	32	24/7 & OCCUPIED		STORAGE		4W25(W)-4'	1	T8 1x4 4-Lamp Wrap Fixture; Damaged/Missing Lens	85	0.085	S	1000	85		1	N 4W-12.5LED	New 1x4 4-Lamp Wrap Fixture with (4) 12.5 Watt LED T8 4' Lamp; Direct Wire to Socket	50	0.050	0.420	CCW-4'-4-T8LED /// KT-LED10.5T8-48G-840-D	53 + 3
2860	SELINSGROVE	INTERIOR	S		13	32	24/7 & OCCUPIED		STORAGE		2PL13DR	7	13 Watt Plug-In CFL Drum Fixture	26	0.182	S	1000	182		7	N LED14DR	New 12" Round 14 Watt LED Drum Fixture	14	0.098	1.008	54074143	19
2861	SELINSGROVE	INTERIOR	S		13	32	24/7 & OCCUPIED		STORAGE		4EC25-4'	1	T8 2x4 4-Lamp Egg Crate Fixture	85	0.085	S	1000	85		1	N 4W-12.5LED	New 1x4 4-Lamp Wrap Fixture with (4) 12.5 Watt LED T8 4' Lamp; Direct Wire to Socket	50	0.050	0.420	CCW-4'-4-T8LED /// KT-LED10.5T8-48G-840-D	53 + 3
2862	SELINSGROVE	INTERIOR	S		13	32	24/7 & OCCUPIED		RR		4L25-4'	1	T8 2x4 4-Lamp Troffer Fixture	85	0.085	RRP	522	44		1	R 4L-12.5LED	Retrofit with (4) 12.5 Watt LED T8 4' Lamps; Direct Wire to Socket	50	0.050	0.420	KT-LED10.5T8-48G-840-D	3
2863	SELINSGROVE	EXTERIOR	S		SITE	32	24/7 & OCCUPIED		SITE		MV175DTD	1	175 Watt Mercury Vapor Dusk to Dawn Fixture	210	0.210	EX	4380	920		1	N RLED26BY	New 26 Watt LED Dusk to Dawn Barnyard Fixture	26	0.026	2.208	YBLED26/PCT	28
2864	SELINSGROVE	INTERIOR	S		1	33	24/7 & OCCUPIED		WELD SHOP		4W25-4'	10	T8 1x4 4-Lamp Wrap Fixture	85	0.850	O	2340	1,989		10	R 4L-12.5LED	Retrofit with (4) 12.5 Watt LED T8 4' Lamps; Direct Wire to Socket	50	0.500	4.200	KT-LED10.5T8-48G-840-D	3
2865	SELINSGROVE	INTERIOR	S		1	33	24/7 & OCCUPIED		WELD SHOP		4EC25-4'	2	T8 2x4 4-Lamp Egg Crate Fixture	85	0.170	O	2340	398		2	N 4W-12.5LED	New 1x4 4-Lamp Wrap Fixture with (4) 12.5 Watt LED T8 4' Lamp; Direct Wire to Socket	50	0.100	0.840	CCW-4'-4-T8LED /// KT-LED10.5T8-48G-840-D	53 + 3
2866	SELINSGROVE	INTERIOR	S		2	33	24/7 & OCCUPIED		RR		1I25-4'-WG	2	T8 1x4 1-Lamp Industrial Strip Fixture; Wire Guard	22	0.044	RRP	522	23		2	R 1L-12.5LED	Retrofit with (1) 12.5 Watt LED T8 4' Lamps; Direct Wire to Socket	12.5	0.025	0.228	KT-LED10.5T8-48G-840-D	3
2867	SELINSGROVE	INTERIOR	S		2	33	24/7 & OCCUPIED		RR		2PL13DR	2	13 Watt Plug-In CFL Drum Fixture	26	0.052	RRP	522	27		2	N LED14DR	New 12" Round 14 Watt LED Drum Fixture	14	0.028	0.288	54074143	19
2868	SELINSGROVE	INTERIOR	S		3	33	24/7 & OCCUPIED		STORAGE		2EC25-4'	2	T8 2x4 2-Lamp Egg Crate Fixture	43	0.086	S	1000	86		2	N 2W-12.5LED	New 1x4 2-Lamp Wrap Fixture with (2) 12.5 Watt LED T8 4' Lamp; Direct Wire to Socket	25	0.050	0.432	CCW-4'-2-T8LED /// KT-LED10.5T8-48G-840-D	51 + 3
2869	SELINSGROVE	INTERIOR	S		3	33	24/7 & OCCUPIED		STORAGE		4EC25(EC)-4'	1	T8 2x4 4-Lamp Egg Crate Fixture; Damaged/Missing Lens	85	0.085	S	1000	85		1	N 4W-12.5LED	New 1x4 4-Lamp Wrap Fixture with (4) 12.5 Watt LED T8 4' Lamp; Direct Wire to Socket	50	0.050	0.420	CCW-4'-4-T8LED /// KT-LED10.5T8-48G-840-D	53 + 3
2870	SELINSGROVE	INTERIOR	S		3	33	24/7 & OCCUPIED		STORAGE		2EC25-4'	4	T8 2x4 2-Lamp Egg Crate Fixture	43	0.172	S	1000	172		4	N 2W-12.5LED	New 1x4 2-Lamp Wrap Fixture with (2) 12.5 Watt LED T8 4' Lamp; Direct Wire to Socket	25	0.100	0.864	CCW-4'-2-T8LED /// KT-LED10.5T8-48G-840-D	51 + 3
2871	SELINSGROVE	INTERIOR	S		4	33	24/7 & OCCUPIED		STORAGE		2PL13DR	2	13 Watt Plug-In CFL Drum Fixture	26	0.052	S	1000	52		2	N LED14DR	New 12" Round 14 Watt LED Drum Fixture	14	0.028	0.288	54074143	19
2872	SELINSGROVE	INTERIOR	S		5	33	24/7 & OCCUPIED		SHOP		1I25-4'-WG	8	T8 1x4 1-Lamp Industrial Strip Fixture; Wire Guard	22	0.176	O	2340	412		8	R 1L-12.5LED	Retrofit with (1) 12.5 Watt LED T8 4' Lamps; Direct Wire to Socket	12.5	0.100	0.912	KT-LED10.5T8-48G-840-D	3
2873	SELINSGROVE	INTERIOR	S		5	33	24/7 & OCCUPIED		SHOP		2EC25-4'	2	T8 2x4 2-Lamp Egg Crate Fixture	43	0.086	O	2340	201		2	N 2W-12.5LED	New 1x4 2-Lamp Wrap Fixture with (2) 12.5 Watt LED T8 4' Lamp; Direct Wire to Socket	25	0.050	0.432	CCW-4'-2-T8LED /// KT-LED10.5T8-48G-840-D	51 + 3
2874	SELINSGROVE	INTERIOR	S		5	33	24/7 & OCCUPIED		SHOP		CF65	1	65 Watt Compact Fluorescent Fixture	65	0.065	O	2340	152		1	LED 9A	Re-Lamp with (1) 9 Watt LED A19 Lamps	9	0.009	0.672	LA19/9/40K/D-46	8
2875	SELINSGROVE	INTERIOR	S		5	33	24/7 & OCCUPIED		SHOP		2PL13DR	1	13 Watt Plug-In CFL Drum Fixture	26	0.026	O	2340	61		1	N LED14DR	New 12" Round 14 Watt LED Drum Fixture	14	0.014	0.144	54074143	19
2876	SELINSGROVE	EXTERIOR	S		SITE	33	24/7 & OCCUPIED		SITE		2PL13WP	6	13 Watt 2-Lamp Plug-In CFL Wall Pack Fixture	30	0.180	EX	4380	788		6	N RLED12TWP	New 12 Watt LED Tall Wall Pack Fixture	14	0.084	1.152	ENTRA12	42
2877	SELINSGROVE	INTERIOR	S	3	1	26	OUT OF SCOPE		HALL		1W25-4'	6	T8 1x4 1-Lamp Wrap Fixture	22	0.132	Z-MR	8760	1,156		6	ZZ DD	No Retrofit	22	0.132	0.000	N/A	N/A
2878	SELINSGROVE	INTERIOR	S	3	1	26	OUT OF SCOPE		HALL		60JJ	3	60 Watt Incandescent A-Lamp Jelly Jar Fixture	60	0.180	Z-MR	8760	1,577		3	ZZ DD	No Retrofit	60	0.180	0.000	N/A	N/A
2879	SELINSGROVE	INTERIOR	S	3	1	26	OUT OF SCOPE		HALL		X	2	25 Watt Incandescent 2-Lamp Exit Sign	50	0.100	Z	8760	876		2	ZZ DD	No Retrofit	50	0.100	0.000	N/A	N/A
2880	SELINSGROVE	INTERIOR	S	2	2	26	OUT OF SCOPE		ROOM	212	2W25-4'	6	T8 1x4 2-Lamp Wrap Fixture	43	0.258	Z-MR	8760	2,260		6	ZZ DD	No Retrofit	43	0.258	0.000	N/A	N/A
2881	SELINSGROVE	INTERIOR	S	2	2	26	OUT OF SCOPE		ROOM	212	X	1	25 Watt Incandescent 2-Lamp Exit Sign	50	0.050	Z	8760	438		1	ZZ DD	No Retrofit	50	0.050	0.000	N/A	N/A
2882	SELINSGROVE	INTERIOR	S	2	3	26	OUT OF SCOPE		HALL		2W25-4'	2	T8 1x4 2-Lamp Wrap Fixture	43	0.086	Z-MR	8760	753		2	ZZ DD	No Retrofit	43	0.086	0.000	N/A	N/A
2883	SELINSGROVE	INTERIOR	S	2	4	26	OUT OF SCOPE		VESTIBULE		2PL13DR	1	13 Watt Plug-In CFL Drum Fixture	26	0.026	Z-MR	8760	228		1	ZZ DD	No Retrofit	26	0.026	0.000	N/A	N/A
2884	SELINSGROVE	INTERIOR	S	2	5	26	OUT OF SCOPE		ROOM	205	2W25-4'	6	T8 1x4 2-Lamp Wrap Fixture	43	0.258	Z-MR	8760	2,260		6	ZZ DD	No Retrofit	43	0.258	0.000	N/A	N/A
2885	SELINSGROVE	INTERIOR	S	1	6	26	OUT OF SCOPE		ROOM	108	2W25-4'	6	T8 1x4 2-Lamp Wrap Fixture	43	0.258	Z-MR	8760	2,260		6	ZZ DD	No Retrofit	43	0.258	0.000	N/A	N/A
2886	SELINSGROVE	INTERIOR	S	1	6	26	OUT OF SCOPE		ROOM		60JJ	2	60 Watt Incandescent A-Lamp Jelly Jar Fixture	60	0.120	Z-MR	8760	1,051		2	ZZ DD	No Retrofit	60	0.120	0.000	N/A	N/A
2887	SELINSGROVE	INTERIOR	S	1	6	26	OUT OF SCOPE		ROOM		X	1	25 Watt Incandescent 2-Lamp Exit Sign	50	0.050	Z	8760	438		1	ZZ DD	No Retrofit	50	0.050	0.000	N/A	N/A
2888	SELINSGROVE	INTERIOR	S	1	7	26	OUT OF SCOPE		VESTIBULE		2W25-4'	1	T8 1x4 2-Lamp Wrap Fixture	43	0.043	Z-MR	8760	377		1	ZZ DD	No Retrofit	43	0.043	0.000	N/A	N/A
2889	SELINSGROVE	INTERIOR	S	1	8	26	OUT OF SCOPE		HALL		2W25-4'	1	T8 1x4 2-Lamp Wrap Fixture	43	0.043	Z-MR	8760	377		1	ZZ DD	No Retrofit	43	0.043	0.000	N/A	N/A

											EXISTING FIXTURES									PROPOSED FIXTURE UPGRADE							
ID #	Facility Name	Phase	Utility Rate Code	Floor	Map #	Building Number	Building Usage Type	Building Section	Room Description	Room #	ECM Code	Qty	Description	Watts	kW	Burn Hour Code	Pre Burn Hours	kWh	x	Qty	New Code	Description	Watts	kW	Annual KW Saved	Part#	Cut Sheet #
2890	SELINSGROVE	INTERIOR	S	1	9	26	OUT OF SCOPE		ROOM	115	2W25-4'	6	T8 1x4 2-Lamp Wrap Fixture	43	0.258	Z-MR	8760	2,260		6	ZZ DD	No Retrofit	43	0.258	0.000	N/A	N/A
2891	SELINSGROVE	INTERIOR	S	1	9	26	OUT OF SCOPE		ROOM		60JJ	2	60 Watt Incandescent A-Lamp Jelly Jar Fixture	60	0.120	Z-MR	8760	1,051		2	ZZ DD	No Retrofit	60	0.120	0.000	N/A	N/A
2892	SELINSGROVE	INTERIOR	S	1	9	26	OUT OF SCOPE		ROOM		X	1	25 Watt Incandescent 2-Lamp Exit Sign	50	0.050	Z	8760	438		1	ZZ DD	No Retrofit	50	0.050	0.000	N/A	N/A
2893	SELINSGROVE	INTERIOR	S	1	10	26	OUT OF SCOPE		ROOM	110	1W32	3	T8 1x4 1-Lamp Wrap Fixture	30	0.090	Z-MR	8760	788		3	ZZ DD	No Retrofit	30	0.090	0.000	N/A	N/A
2894	SELINSGROVE	INTERIOR	S	1	10	26	OUT OF SCOPE		ROOM		CF20DR	2	20 Watt Compact Fluorescent Drum Fixture	20	0.040	Z-MR	8760	350		2	ZZ DD	No Retrofit	20	0.040	0.000	N/A	N/A
2895	SELINSGROVE	INTERIOR	S	1	10	26	OUT OF SCOPE		ROOM		X	2	25 Watt Incandescent 2-Lamp Exit Sign	50	0.100	Z	8760	876		2	ZZ DD	No Retrofit	50	0.100	0.000	N/A	N/A
2896	SELINSGROVE	INTERIOR	S	1	10	26	OUT OF SCOPE		ROOM		60JJ	3	60 Watt Incandescent A-Lamp Jelly Jar Fixture	60	0.180	Z-MR	8760	1,577		3	ZZ DD	No Retrofit	60	0.180	0.000	N/A	N/A
2897	SELINSGROVE	INTERIOR	S	1	11	26	OUT OF SCOPE		ENTRANCE HALL		CF20DR	2	20 Watt Compact Fluorescent Drum Fixture	20	0.040	Z-MR	8760	350		2	ZZ DD	No Retrofit	20	0.040	0.000	N/A	N/A
2898	SELINSGROVE	INTERIOR	S	1	11	26	OUT OF SCOPE		ENTRANCE HALL		4EC25-4'	2	T8 2x4 4-Lamp Egg Crate Fixture	85	0.170	Z-MR	8760	1,489		2	ZZ DD	No Retrofit	85	0.170	0.000	N/A	N/A
2899	SELINSGROVE	INTERIOR	S	1	11	26	OUT OF SCOPE		ENTRANCE HALL		60JJ	2	60 Watt Incandescent A-Lamp Jelly Jar Fixture	60	0.120	Z-MR	8760	1,051		2	ZZ DD	No Retrofit	60	0.120	0.000	N/A	N/A
2900	SELINSGROVE	INTERIOR	S	1	12	26	OUT OF SCOPE		STAIRS-UP		4EC25-4'-DA	1	T8 2x4 4-Lamp Egg Crate Fixture; Difficult Access	85	0.085	Z-MR	8760	745		1	ZZ DD	No Retrofit	85	0.085	0.000	N/A	N/A
2901	SELINSGROVE	INTERIOR	S	1	13	26	OUT OF SCOPE		STAIRS - DOWN		CF20	2	20 Watt Compact Fluorescent Fixture	20	0.040	Z-MR	8760	350		2	ZZ DD	No Retrofit	20	0.040	0.000	N/A	N/A
2902	SELINSGROVE	INTERIOR	S	1	14	26	OUT OF SCOPE		STAIRS		2PL13DR	3	13 Watt Plug-In CFL Drum Fixture	26	0.078	Z-MR	8760	683		3	ZZ DD	No Retrofit	26	0.078	0.000	N/A	N/A
2903	SELINSGROVE	INTERIOR	S	1	15	26	OUT OF SCOPE		STAIRS		2PL13DR	3	13 Watt Plug-In CFL Drum Fixture	26	0.078	Z-MR	8760	683		3	ZZ DD	No Retrofit	26	0.078	0.000	N/A	N/A
2904	SELINSGROVE	INTERIOR	S	BASEMENT	16	26	OUT OF SCOPE		ROOM	15	2W25-4'	1	T8 1x4 2-Lamp Wrap Fixture	43	0.043	Z-MR	8760	377		1	ZZ DD	No Retrofit	43	0.043	0.000	N/A	N/A
2905	SELINSGROVE	INTERIOR	S	BASEMENT	16	26	OUT OF SCOPE		ROOM		60JJ	1	60 Watt Incandescent A-Lamp Jelly Jar Fixture	60	0.060	Z-MR	8760	526		1	ZZ DD	No Retrofit	60	0.060	0.000	N/A	N/A
2906	SELINSGROVE	INTERIOR	S	BASEMENT	17	26	OUT OF SCOPE		VESTIBULE	14	CF20	1	20 Watt Compact Fluorescent Fixture	20	0.020	Z-MR	8760	175		1	ZZ DD	No Retrofit	20	0.020	0.000	N/A	N/A
2907	SELINSGROVE	INTERIOR	S	BASEMENT	17	26	OUT OF SCOPE		VESTIBULE		XLED	1	3 Watt LED 2-Lamp Exit Sign	3	0.003	Z	8760	26		1	ZZ DD	No Retrofit	3	0.003	0.000	N/A	N/A
2908	SELINSGROVE	INTERIOR	S	BASEMENT	18	26	OUT OF SCOPE		OFFICE	13	CF20	5	20 Watt Compact Fluorescent Fixture	20	0.100	Z-MR	8760	876		5	ZZ DD	No Retrofit	20	0.100	0.000	N/A	N/A
2909	SELINSGROVE	INTERIOR	S	BASEMENT	18	26	OUT OF SCOPE		OFFICE		2W25-4'	2	T8 1x4 2-Lamp Wrap Fixture	43	0.086	Z-MR	8760	753		2	ZZ DD	No Retrofit	43	0.086	0.000	N/A	N/A
2910	SELINSGROVE	INTERIOR	S	BASEMENT	18	26	OUT OF SCOPE		OFFICE		X	2	25 Watt Incandescent 2-Lamp Exit Sign	50	0.100	Z	8760	876		2	ZZ DD	No Retrofit	50	0.100	0.000	N/A	N/A
2911	SELINSGROVE	INTERIOR	S	BASEMENT	19	26	OUT OF SCOPE		HALL		CF20	3	20 Watt Compact Fluorescent Fixture	20	0.060	Z-MR	8760	526		3	ZZ DD	No Retrofit	20	0.060	0.000	N/A	N/A
2912	SELINSGROVE	INTERIOR	S	BASEMENT	19	26	OUT OF SCOPE		HALL		XLED	1	3 Watt LED 2-Lamp Exit Sign	3	0.003	Z	8760	26		1	ZZ DD	No Retrofit	3	0.003	0.000	N/A	N/A
2913	SELINSGROVE	INTERIOR	S	BASEMENT	20	26	OUT OF SCOPE		GENERATOR		2W25-4'	1	T8 1x4 2-Lamp Wrap Fixture	43	0.043	Z-MR	8760	377		1	ZZ DD	No Retrofit	43	0.043	0.000	N/A	N/A
2914	SELINSGROVE	INTERIOR	S	BASEMENT	20	26	OUT OF SCOPE		GENERATOR		CF20	1	20 Watt Compact Fluorescent Fixture	20	0.020	Z-MR	8760	175		1	ZZ DD	No Retrofit	20	0.020	0.000	N/A	N/A
2915	SELINSGROVE	INTERIOR	S	BASEMENT	20	26	OUT OF SCOPE		GENERATOR		XLED-BUG	1	LED Bug-Eye Exit Sign Fixture	3	0.003	Z	8760	26		1	ZZ DD	No Retrofit	3	0.003	0.000	N/A	N/A
2916	SELINSGROVE	EXTERIOR	S	EXTERIOR	21	26	OUT OF SCOPE		EXTERIOR		2PL13WP-PC-SMALL	3	13 Watt 2-Lamp Plug-In CFL Small Wall Pack Fixture; Photocell	30	0.090	EX	4380	394		3	ZZ DD	No Retrofit	30	0.090	0.000	N/A	N/A
2917	SELINSGROVE	EXTERIOR	S	EXTERIOR	21	26	OUT OF SCOPE		EXTERIOR		2PL13WP-PC-LARGE	5	13 Watt 2-Lamp Plug-In CFL Large Wall Pack Fixture; Photocell	30	0.150	EX	4380	657		5	ZZ DD	No Retrofit	30	0.150	0.000	N/A	N/A
2918	SELINSGROVE	EXTERIOR	S	EXTERIOR	21	26	OUT OF SCOPE		EXTERIOR		2PL13CPY-PC	1	13 Watt 2-Lamp Plug-In CFL Canopy Fixture; Photocell	30	0.030	EX	4380	131		1	ZZ DD	No Retrofit	30	0.030	0.000	N/A	N/A
2919	SELINSGROVE	INTERIOR	S	1	1	10	MISSION READY		VESTIBULE		2W17	1	T8 2x2 2-Lamp Wrap Fixture	36	0.036	Z-MR	8760	315		1	R 2L-10LED2'	Retrofit with (2) 10 Watt LED T8 2' Lamps; Direct Wire to Socket	20	0.020	0.192	KT-LED7T8-24GC-840-D	1
2920	SELINSGROVE	INTERIOR	S	1	1	10	MISSION READY		VESTIBULE		XLED	1	3 Watt LED 2-Lamp Exit Sign	3	0.003	Z	8760	26		1	ZZ DD	No Retrofit	3	0.003	0.000	N/A	N/A
2921	SELINSGROVE	INTERIOR	S	1	2	10	MISSION READY		OPEN OFFICE	119	1W17	16	T8 2x2 1-Lamp Wrap Fixture	22	0.352	Z-MR	8760	3,084		16	R 1L-10LED2'	Retrofit with (1) 10 Watt LED T8 2' Lamp; Direct Wire to Socket	10	0.160	2.304	KT-LED7T8-24GC-840-D	1

											EXISTING FIXTURES									PROPOSED FIXTURE UPGRADE							
ID #	Facility Name	Phase	Utility Rate Code	Floor	Map #	Building Number	Building Usage Type	Building Section	Room Description	Room #	ECM Code	Qty	Description	Watts	kW	Burn Hour Code	Pre Burn Hours	kWh	x	Qty	New Code	Description	Watts	kW	Annual KW Saved	Part#	Cut Sheet #
2922	SELINSGROVE	INTERIOR	S	1	2	10	MISSION READY		OPEN OFFICE		CF13SC	2	13 Watt Compact Fluorescent Sconce Fixture	13	0.026	Z-MR	8760	228		2	LED 9A	Re-Lamp with (1) 9 Watt LED A19 Lamps	9	0.018	0.096	LA19/9/40K/D-46	8
2923	SELINSGROVE	INTERIOR	S	1	2	10	MISSION READY		OPEN OFFICE		XLED	2	3 Watt LED 2-Lamp Exit Sign	3	0.006	Z	8760	53		2	ZZ DD	No Retrofit	3	0.006	0.000	N/A	N/A
2924	SELINSGROVE	INTERIOR	S	1	3	10	MISSION READY		OPEN OFFICE	123	1W17	16	T8 2x2 1-Lamp Wrap Fixture	22	0.352	Z-MR	8760	3,084		16	R 1L-10LED2'	Retrofit with (1) 10 Watt LED T8 2' Lamp; Direct Wire to Socket	10	0.160	2.304	KT-LED7T8-24GC-840-D	1
2925	SELINSGROVE	INTERIOR	S	1	3	10	MISSION READY		OPEN OFFICE		XLED	2	3 Watt LED 2-Lamp Exit Sign	3	0.006	Z	8760	53		2	ZZ DD	No Retrofit	3	0.006	0.000	N/A	N/A
2926	SELINSGROVE	INTERIOR	S	1	3	10	MISSION READY		OPEN OFFICE		2PL13SQDR	3	13 Watt 2-Lamp Plug-In CFL Square Drum Fixture	30	0.090	Z-MR	8760	788		3	N LED14SQDR	New Square 14 Watt LED Drum Fixture	14	0.042	0.576	54640142	18
2927	SELINSGROVE	INTERIOR	S	1	4	10	MISSION READY		HALL	121	1W17	3	T8 2x2 1-Lamp Wrap Fixture	22	0.066	Z-MR	8760	578		3	R 1L-10LED2'	Retrofit with (1) 10 Watt LED T8 2' Lamp; Direct Wire to Socket	10	0.030	0.432	KT-LED7T8-24GC-840-D	1
2928	SELINSGROVE	INTERIOR	S	1	4	10	MISSION READY		HALL		4EC25-4'	2	T8 2x4 4-Lamp Egg Crate Fixture	85	0.170	Z-MR	8760	1,489		2	N 4W-12.5LED	New 1x4 4-Lamp Wrap Fixture with (4) 12.5 Watt LED T8 4' Lamp; Direct Wire to Socket	50	0.100	0.840	CCW-4'-4-T8LED /// KT-LED10.5T8-48G-840-D	53 + 3
2929	SELINSGROVE	INTERIOR	S	1	4	10	MISSION READY		HALL		LEDDL	1	LED Downlight Fixture	20	0.020	Z-MR	8760	175		1	ZZ DD	No Retrofit	20	0.020	0.000	N/A	N/A
2930	SELINSGROVE	INTERIOR	S	1	4	10	MISSION READY		HALL		1SSQDL	1	15 Watt Incandescent A-Lamp Square Downlight Fixture	15	0.015	Z-MR	8760	131		1	LED 6A	Re-Lamp with (1) 6 Watt LED A19 Lamps	6	0.006	0.108	LA19/5/40K/D-46	7
2931	SELINSGROVE	INTERIOR	S	1	5	10	MISSION READY		HALL	112-111	3EC25-4'	1	T8 2x4 3-Lamp Egg Crate Fixture	65	0.065	Z-MR	8760	569		1	N 3W-12.5LED	New 1x4 3-Lamp Wrap Fixture with (3) 12.5 Watt LED T8 4' Lamp; Direct Wire to Socket	37.5	0.038	0.330	CCW-4'-3-T8LED /// KT-LED10.5T8-48G-840-D	52 + 3
2932	SELINSGROVE	INTERIOR	S	1	5	10	MISSION READY		HALL		2EC25-4'	1	T8 2x4 2-Lamp Egg Crate Fixture	43	0.043	Z-MR	8760	377		1	N 2W-12.5LED	New 1x4 2-Lamp Wrap Fixture with (2) 12.5 Watt LED T8 4' Lamp; Direct Wire to Socket	25	0.025	0.216	CCW-4'-2-T8LED /// KT-LED10.5T8-48G-840-D	51 + 3
2933	SELINSGROVE	INTERIOR	S	1	5	10	MISSION READY		HALL		X	1	25 Watt Incandescent 2-Lamp Exit Sign	50	0.050	Z	8760	438		1	N XLED	New 3 watt LED Exit Sign	3	0.003	0.564	ES-LED-RW-B	43
2934	SELINSGROVE	INTERIOR	S	1	5	10	MISSION READY		HALL		1SSQDL	1	15 Watt Incandescent A-Lamp Square Downlight Fixture	15	0.015	Z-MR	8760	131		1	LED 6A	Re-Lamp with (1) 6 Watt LED A19 Lamps	6	0.006	0.108	LA19/5/40K/D-46	7
2935	SELINSGROVE	INTERIOR	S	1	5	10	MISSION READY		HALL		CF13SQDL	1	13 Watt Compact Fluorescent Square Downlight Fixture	13	0.013	Z-MR	8760	114		1	LED 9A	Re-Lamp with (1) 9 Watt LED A19 Lamps	9	0.009	0.048	LA19/9/40K/D-46	8
2936	SELINSGROVE	INTERIOR	S	1	6	10	MISSION READY		VESTIBULE TO RR		1W17	1	T8 2x2 1-Lamp Wrap Fixture	22	0.022	Z-MR	8760	193		1	R 1L-10LED2'	Retrofit with (1) 10 Watt LED T8 2' Lamp; Direct Wire to Socket	10	0.010	0.144	KT-LED7T8-24GC-840-D	1
2937	SELINSGROVE	INTERIOR	S	1	7	10	MISSION READY		HALL	127-131	1W17	1	T8 2x2 1-Lamp Wrap Fixture	22	0.022	Z-MR	8760	193		1	R 1L-10LED2'	Retrofit with (1) 10 Watt LED T8 2' Lamp; Direct Wire to Socket	10	0.010	0.144	KT-LED7T8-24GC-840-D	1
2938	SELINSGROVE	INTERIOR	S	1	7	10	MISSION READY		HALL		2EC25-4'	2	T8 2x4 2-Lamp Egg Crate Fixture	43	0.086	Z-MR	8760	753		2	N 2W-12.5LED	New 1x4 2-Lamp Wrap Fixture with (2) 12.5 Watt LED T8 4' Lamp; Direct Wire to Socket	25	0.050	0.432	CCW-4'-2-T8LED /// KT-LED10.5T8-48G-840-D	51 + 3
2939	SELINSGROVE	INTERIOR	S	1	7	10	MISSION READY		HALL		CF29SQDL	2	29 Watt Compact Fluorescent Square Downlight Fixture	29	0.058	Z-MR	8760	508		2	LED 9A	Re-Lamp with (1) 9 Watt LED A19 Lamps	9	0.018	0.480	LA19/9/40K/D-46	8
2940	SELINSGROVE	INTERIOR	S	1	7	10	MISSION READY		HALL		XLED	1	3 Watt LED 2-Lamp Exit Sign	3	0.003	Z	8760	26		1	ZZ DD	No Retrofit	3	0.003	0.000	N/A	N/A
2941	SELINSGROVE	INTERIOR	S	1	8	10	MISSION READY		VESTIBULE	104	4B25-4'-DIM	4	T8 2x4 4-Lamp Surface Mount Fixture; Dimming	85	0.340	Z-MR	8760	2,978		4	R 4L-14LED-DIM	Retrofit with (4) 14 Watt LED T8 4' Lamp and (2) LED Dimming Drivers	56.8	0.227	1.354	KT-LED14T8-48GC-840-S /// KTLD-2LED T8-UV-IS-VDIM	4 + 6
2942	SELINSGROVE	INTERIOR	S	1	8	10	MISSION READY		VESTBULE		2PL13DR	1	13 Watt Plug-In CFL Drum Fixture	26	0.026	Z-MR	8760	228		1	N LED14DR	New 12" Round 14 Watt LED Drum Fixture	14	0.014	0.144	54074143	19
2943	SELINSGROVE	INTERIOR	S	1	8	10	MISSION READY		VESTIBULE		XLED	1	3 Watt LED 2-Lamp Exit Sign	3	0.003	Z	8760	26		1	ZZ DD	No Retrofit	3	0.003	0.000	N/A	N/A
2944	SELINSGROVE	INTERIOR	S	1	9	10	MISSION READY		OPEN OFFICE	134	1W17	7	T8 2x2 1-Lamp Wrap Fixture	22	0.154	Z-MR	8760	1,349		7	R 1L-10LED2'	Retrofit with (1) 10 Watt LED T8 2' Lamp; Direct Wire to Socket	10	0.070	1.008	KT-LED7T8-24GC-840-D	1
2945	SELINSGROVE	INTERIOR	S	1	9	10	MISSION READY		OPEN OFFICE		CF20SQDL	7	20 Watt Compact Fluorescent Square Downlight Fixture	20	0.140	Z-MR	8760	1,226		7	LED 9A	Re-Lamp with (1) 9 Watt LED A19 Lamps	9	0.063	0.924	LA19/9/40K/D-46	8
2946	SELINSGROVE	INTERIOR	S	1	9	10	MISSION READY		OPEN OFFICE		2EC25-4'	1	T8 2x4 2-Lamp Egg Crate Fixture	43	0.043	Z-MR	8760	377		1	N 2W-12.5LED	New 1x4 2-Lamp Wrap Fixture with (2) 12.5 Watt LED T8 4' Lamp; Direct Wire to Socket	25	0.025	0.216	CCW-4'-2-T8LED /// KT-LED10.5T8-48G-840-D	51 + 3
2947	SELINSGROVE	INTERIOR	S	1	9	10	MISSION READY		OPEN OFFICE		60SC	1	60 Watt Incandescent Sconce Fixture	60	0.060	Z-MR	8760	526		1	LED 9A	Re-Lamp with (1) 9 Watt LED A19 Lamps	9	0.009	0.612	LA19/9/40K/D-46	8
2948	SELINSGROVE	INTERIOR	S	1	9	10	MISSION READY		OPEN OFFICE		CF20SC	1	20 Watt Compact Fluorescent Sconce Fixture	20	0.020	Z-MR	8760	175		1	LED 9A	Re-Lamp with (1) 9 Watt LED A19 Lamps	9	0.009	0.132	LA19/9/40K/D-46	8
2949	SELINSGROVE	INTERIOR	S	1	9	10	MISSION READY		OPEN OFFICE		CF13SC	1	13 Watt Compact Fluorescent Sconce Fixture	13	0.013	Z-MR	8760	114		1	LED 9A	Re-Lamp with (1) 9 Watt LED A19 Lamps	9	0.009	0.048	LA19/9/40K/D-46	8
2950	SELINSGROVE	INTERIOR	S	1	10	10	MISSION READY		HALL	101	1W17	1	T8 2x2 1-Lamp Wrap Fixture	22	0.022	Z-MR	8760	193		1	R 1L-10LED2'	Retrofit with (1) 10 Watt LED T8 2' Lamp; Direct Wire to Socket	10	0.010	0.144	KT-LED7T8-24GC-840-D	1
2951	SELINSGROVE	INTERIOR	S	1	10	10	MISSION READY		HALL		2W17	1	T8 2x2 2-Lamp Wrap Fixture	36	0.036	Z-MR	8760	315		1	R 2L-10LED2'	Retrofit with (2) 10 Watt LED T8 2' Lamps; Direct Wire to Socket	20	0.020	0.192	KT-LED7T8-24GC-840-D	1
2952	SELINSGROVE	INTERIOR	S	1	10	10	MISSION READY		HALL		XLED	2	3 Watt LED 2-Lamp Exit Sign	3	0.006	Z	8760	53		2	ZZ DD	No Retrofit	3	0.006	0.000	N/A	N/A
2953	SELINSGROVE	INTERIOR	S	1	11	10	MISSION READY		VESTIBULE	100	2W17	1	T8 2x2 2-Lamp Wrap Fixture	36	0.036	Z-MR	8760	315		1	R 2L-10LED2'	Retrofit with (2) 10 Watt LED T8 2' Lamps; Direct Wire to Socket	20	0.020	0.192	KT-LED7T8-24GC-840-D	1

											EXISTING FIXTURES									PROPOSED FIXTURE UPGRADE							
ID #	Facility Name	Phase	Utility Rate Code	Floor	Map #	Building Number	Building Usage Type	Building Section	Room Description	Room #	ECM Code	Qty	Description	Watts	kW	Burn Hour Code	Pre Burn Hours	kWh	x	Qty	New Code	Description	Watts	kW	Annual KW Saved	Part#	Cut Sheet #
2954	SELINSGROVE	INTERIOR	S	1	11	10	MISSION READY		VESTIBULE		XLED	1	3 Watt LED 2-Lamp Exit Sign	3	0.003	Z	8760	26		1	ZZ DD	No Retrofit	3	0.003	0.000	N/A	N/A
2955	SELINSGROVE	INTERIOR	S	1	12	10	MISSION READY		STAIRS	105	1W17	2	T8 2x2 1-Lamp Wrap Fixture	22	0.044	Z-MR	8760	385		2	R 1L-10LED2'	Retrofit with (1) 10 Watt LED T8 2' Lamp; Direct Wire to Socket	10	0.020	0.288	KT-LED7T8-24GC-840-D	1
2956	SELINSGROVE	INTERIOR	S	1	12	10	MISSION READY		STAIRS		CF20SQDL	1	20 Watt Compact Fluorescent Square Downlight Fixture	20	0.020	Z-MR	8760	175		1	LED 9A	Re-Lamp with (1) 9 Watt LED A19 Lamps	9	0.009	0.132	LA19/9/40K/D-46	8
2957	SELINSGROVE	INTERIOR	S	1	12	10	MISSION READY		STAIRS		2PL13DR	1	13 Watt Plug-In CFL Drum Fixture	26	0.026	Z-MR	8760	228		1	N LED14DR	New 12" Round 14 Watt LED Drum Fixture	14	0.014	0.144	54074143	19
2958	SELINSGROVE	INTERIOR	S	1	12	10	MISSION READY		STAIRS		CF20JJ	1	20 Watt Compact Fluorescent Jelly Jar Fixture	20	0.020	Z-MR	8760	175		1	LED 9A	Re-Lamp with (1) 9 Watt LED A19 Lamps	9	0.009	0.132	LA19/9/40K/D-46	8
2959	SELINSGROVE	INTERIOR	S	1	12	10	MISSION READY		STAIRS		XLED	1	3 Watt LED 2-Lamp Exit Sign	3	0.003	Z	8760	26		1	ZZ DD	No Retrofit	3	0.003	0.000	N/A	N/A
2960	SELINSGROVE	INTERIOR	S	BASEMENT	13	10	MISSION READY		VESTIBULE	4	1I25-4'	3	T8 1x4 1-Lamp Industrial Strip Fixture	22	0.066	Z-MR	8760	578		3	R 1L-12.5LED	Retrofit with (1) 12.5 Watt LED T8 4' Lamps; Direct Wire to Socket	12.5	0.038	0.342	KT-LED10.5T8-48G-840-D	3
2961	SELINSGROVE	INTERIOR	S	BASEMENT	13	10	MISSION READY		VESTIBULE		CF20RLM	1	20 Watt Compact Fluorescent RLM Fixture	20	0.020	Z-MR	8760	175		1	LED 9A	Re-Lamp with (1) 9 Watt LED A19 Lamps	9	0.009	0.132	LA19/9/40K/D-46	8
2962	SELINSGROVE	INTERIOR	S	BASEMENT	13	10	MISSION READY		VESTIBULE		2PL13DR	1	13 Watt Plug-In CFL Drum Fixture	26	0.026	Z-MR	8760	228		1	N LED14DR	New 12" Round 14 Watt LED Drum Fixture	14	0.014	0.144	54074143	19
2963	SELINSGROVE	INTERIOR	S	BASEMENT	13	10	MISSION READY		VESTIBULE		XLED	1	3 Watt LED 2-Lamp Exit Sign	3	0.003	Z	8760	26		1	ZZ DD	No Retrofit	3	0.003	0.000	N/A	N/A
2964	SELINSGROVE	INTERIOR	S	BASEMENT	14	10	MISSION READY		OPEN AREA	8	2W25-4'	9	T8 1x4 2-Lamp Wrap Fixture	43	0.387	Z-MR	8760	3,390		9	R 2L-12.5LED	Retrofit with (2) 12.5 Watt LED T8 4' Lamps; Direct Wire to Socket	25	0.225	1.944	KT-LED10.5T8-48G-840-D	3
2965	SELINSGROVE	INTERIOR	S	BASEMENT	14	10	MISSION READY		OPEN AREA		XLED	2	3 Watt LED 2-Lamp Exit Sign	3	0.006	Z	8760	53		2	ZZ DD	No Retrofit	3	0.006	0.000	N/A	N/A
2966	SELINSGROVE	INTERIOR	S	BASEMENT	15	10	MISSION READY		OPEN AREA	6	1I25-4'-WG	20	T8 1x4 1-Lamp Industrial Strip Fixture; Wire Guard	22	0.440	Z-MR	8760	3,854		20	R 1L-12.5LED	Retrofit with (1) 12.5 Watt LED T8 4' Lamps; Direct Wire to Socket	12.5	0.250	2.280	KT-LED10.5T8-48G-840-D	3
2967	SELINSGROVE	INTERIOR	S	BASEMENT	15	10	MISSION READY		OPEN AREA		CF20RLM	2	20 Watt Compact Fluorescent RLM Fixture	20	0.040	Z-MR	8760	350		2	LED 9A	Re-Lamp with (1) 9 Watt LED A19 Lamps	9	0.018	0.264	LA19/9/40K/D-46	8
2968	SELINSGROVE	INTERIOR	S	BASEMENT	15	10	MISSION READY		OPEN AREA		PL13DR	1	13 Watt Plug-In CFL Drum Fixture	13	0.013	Z-MR	8760	114		1	N LED14DR	New 12" Round 14 Watt LED Drum Fixture	14	0.014	-0.012	54074143	19
2969	SELINSGROVE	INTERIOR	S	BASEMENT	15	10	MISSION READY		OPEN AREA		4W25(W)-4'	1	T8 1x4 4-Lamp Wrap Fixture; Damaged/Missing Lens	85	0.085	Z-MR	8760	745		1	N 4W-12.5LED	New 1x4 4-Lamp Wrap Fixture with (4) 12.5 Watt LED T8 4' Lamp; Direct Wire to Socket	50	0.050	0.420	CCW-4'-4-T8LED /// KT-LED10.5T8-48G-840-D	53 + 3
2970	SELINSGROVE	INTERIOR	S	BASEMENT	15	10	MISSION READY		OPEN AREA		XLED	3	3 Watt LED 2-Lamp Exit Sign	3	0.009	Z	8760	79		3	ZZ DD	No Retrofit	3	0.009	0.000	N/A	N/A
2971	SELINSGROVE	INTERIOR	S	BASEMENT	15	10	MISSION READY		OPEN AREA		CF20JJ	1	20 Watt Compact Fluorescent Jelly Jar Fixture	20	0.020	Z-MR	8760	175		1	LED 9A	Re-Lamp with (1) 9 Watt LED A19 Lamps	9	0.009	0.132	LA19/9/40K/D-46	8
2972	SELINSGROVE	INTERIOR	S	BASEMENT	15	10	MISSION READY		OPEN AREA		XLED-BUG	1	LED Bug-Eye Exit Sign Fixture	3	0.003	Z	8760	26		1	ZZ DD	No Retrofit	3	0.003	0.000	N/A	N/A
2973	SELINSGROVE	INTERIOR	S	BASEMENT	16	10	MISSION READY		HALL	2	CF20RLM	3	20 Watt Compact Fluorescent RLM Fixture	20	0.060	Z-MR	8760	526		3	LED 9A	Re-Lamp with (1) 9 Watt LED A19 Lamps	9	0.027	0.396	LA19/9/40K/D-46	8
2974	SELINSGROVE	INTERIOR	S	BASEMENT	16	10	MISSION READY		HALL		2PL13DR	2	13 Watt Plug-In CFL Drum Fixture	26	0.052	Z-MR	8760	456		2	N LED14DR	New 12" Round 14 Watt LED Drum Fixture	14	0.028	0.288	54074143	19
2975	SELINSGROVE	INTERIOR	S	BASEMENT	16	10	MISSION READY		HALL		X	2	25 Watt Incandescent 2-Lamp Exit Sign	50	0.100	Z	8760	876		2	N XLED	New 3 watt LED Exit Sign	3	0.006	1.128	ES-LED-RW-B	43
2976	SELINSGROVE	INTERIOR	S	BASEMENT	17	10	MISSION READY		VESTIBULE	140	2L25-4'	2	T8 2x4 2-Lamp Troffer Fixture	43	0.086	Z-MR	8760	753		2	R 2L-12.5LED	Retrofit with (2) 12.5 Watt LED T8 4' Lamps; Direct Wire to Socket	25	0.050	0.432	KT-LED10.5T8-48G-840-D	3
2977	SELINSGROVE	INTERIOR	S	BASEMENT	17	10	MISSION READY		VESTIBULE		3PL13DR	1	13 Watt 3-Lamp Plug-In CFL Drum Fixture	45	0.045	Z-MR	8760	394		1	N LED22DR	New 16" Round 22 Watt LED Drum Fixture	22	0.022	0.276	54075142	20
2978	SELINSGROVE	INTERIOR	S	BASEMENT	17	10	MISSION READY		VESTBULE		XLED	1	3 Watt LED 2-Lamp Exit Sign	3	0.003	Z	8760	26		1	ZZ DD	No Retrofit	3	0.003	0.000	N/A	N/A
2979	SELINSGROVE	EXTERIOR	S		18	10	MISSION READY		EXTERIOR FRONT		2PL13WP-PC-LARGE	5	13 Watt 2-Lamp Plug-In CFL Large Wall Pack Fixture; Photocell	30	0.150	EX	4380	657		5	N RLED12TWP	New 12 Watt LED Tall Wall Pack Fixture	14	0.070	0.960	ENTRA12	42
2980	SELINSGROVE	EXTERIOR	S		18	10	MISSION READY		EXTERIOR FRONT		2PL13WP-PC-SMALL	3	13 Watt 2-Lamp Plug-In CFL Small Wall Pack Fixture; Photocell	30	0.090	EX	4380	394		3	N RLED12TWP	New 12 Watt LED Tall Wall Pack Fixture	14	0.042	0.576	ENTRA12	42
2981	SELINSGROVE	EXTERIOR	S		18	10	MISSION READY		EXTERIOR FRONT		4-40CANDLE-CHAND	1	40 Watt 4-Lamp Incandescent Candelabra Sconce Fixture	160	0.160	EX	4380	701		1	LED 4-5CAND	Re-Lamp with (4) 5 Watt LED Candelabra	20	0.020	1.680	LCTC/5/830/D	12
2982	SELINSGROVE	EXTERIOR	S		19	10	MISSION READY		EXTERIOR BACK		2PL13WP-PC-LARGE	2	13 Watt 2-Lamp Plug-In CFL Large Wall Pack Fixture; Photocell	30	0.060	EX	4380	263		2	N RLED12TWP	New 12 Watt LED Tall Wall Pack Fixture	14	0.028	0.384	ENTRA12	42
2983	SELINSGROVE	EXTERIOR	S		19	10	MISSION READY		EXTERIOR BACK		2PL13CPY-PC	1	13 Watt 2-Lamp Plug-In CFL Canopy Fixture; Photocell	30	0.030	EX	4380	131		1	N RLED10CPY-PC	New 10 Watt LED Canopy Fixture; Photocell	12	0.012	0.216	VANLED10/PCS2	26

Global
Energy Services

Lighting Submittals

for

Selinsgrove

Submittals for Selinsgrove

August 22nd, 2018 Rev 0.0

Lamps

LED……..

Description	Manufacturer	Model #
(1) 7 Watt LED T8 2’ Lamp	Keystone	KT-LED7T8-24GC-840-D
(2) 12 Watt LED T8 3’ Lamp	Keystone	KT-LED12T8-36GC-840-D
(3) 10.5 Watt LED T8 4’ Lamp	Keystone	KT-LED10.5T8-48G-840-D
(4) 14 Watt LED T8 4’ Dimming Lamp	Keystone	KT-LED14T8-48GC-840-S
(5) 36 Watt LED COB Lamp	Keystone	KT-LED36HID-EX39-850-D /G2
(6) LED T8 Dimming Driver	Keystone	KTLD-2LEDT8-UV-IS-VDIM
(7) 5 Watt LED A19 Lamp	Topaz	LA19/5/40K/D-46
(8) 9.5 Watt LED A19 Lamp	Topaz	LA19/9/40K/D-46
(9) 15.5 Watt LED A21 Lamp	Topaz	LA21/16/40K/D-46
(10) 9.5 Watt LED BR30 Lamp	Topaz	LBR30/9/840/D-46
(11) 16.5 Watt LED BR40 Lamp	Topaz	LBR40/16/840/D-46
(12) 4.7 Watt LED Candelabra Lamp	Topaz	LCTC/5/830/D
(13) 6 Watt LED Globe Lamp	Topaz	LG25/6/827/D
(14) 8 Watt LED MR16 Lamp	Topaz	LM16/8/840/FL/D
(15) 6.5 Watt LED Par20 Lamp	Topaz	LP20/7/40K/D

Submittals for Selinsgrove

August 22nd, 2018 Rev 0.0

Lamps

LED Lamps Continued.....

Description	Manufacturer	Model #
(16) 10.5 Watt LED Par30	Topaz	LP30/10/40K/D
(17) 16.5 Watt LED Par38 Lamp	Topaz	LP38/17/840/FL/D

Submittals for Selinsgrove

August 22nd, 2018 Rev 0.0

Fixtures

LED Fixtures.....

Description	Manufacturer	Model #
(18) 14 Watt LED Square Drum Fixture	ETI	54640142
(19) 14 Watt LED 12" Round Drum Fixture	ETI	54074143
(20) 22 Watt LED 16" Round Drum Fixture	ETI	54075142
(21) 13 Watt LED 8x8 Square Downlight Fixture	GE	LRX-S8-10-8-40-MD
(22) 9 Watt LED 6" Downlight Fixture	Lithonia	LDN6RV 40/05 LR6AR LSS MVOLT EZ10
(23) 9 Watt LED 10" Downlight Fixture	Lithonia	LDN10RV 40/05 LR6AR LSS MVOLT EZ10
(24) LED Emergency Battery Backup Fixture	Lithonia	EU2 LED M12
(25) 10 Watt LED Canopy Fixture	RAB	VANLED10
(26) 10 Watt LED Canopy Fixture; Photocell	RAB	VANLED10/PCS2
(27) 20 Watt LED Canopy Fixture	RAB	VANLED20
(28) 26 Watt LED Dusk to Dawn Fixture	RAB	YBLED26/PCT
(29) 18 Watt LED Flood Fixture	RAB	FFLED18
(30) 39 Watt LED Flood Fixture	RAB	FFLED39
(31) 52 Watt LED Flood Fixture	RAB	FFLED52
(32) 78 Watt LED Flood Fixture	RAB	FXLED78SF/PCT
(33) 125 Watt LED Flood Fixture; Trunion	RAB	FXLED125T/PCT

Submittals for Selinsgrove

August 22nd, 2018 Rev 0.0

LED Fixtures Continued.....

Description	Manufacturer	Model #
(34) 300 Watt LED Flood Fixture; Trunion	RAB	FXLED300T/PCT
(35) 95 Watt LED Highbay Fixture	RAB	RAIL95W/D10
(36) 150 Watt LED Highbay Fixture	RAB	RAIL150W/D10
(37) 185 Watt LED Highbay Fixture	RAB	RAIL185W/D10
(38) 13 Watt LED Jelly Jar Fixture	RAB	VXBRLED13NDG
(39) 26 Watt LED Jelly Jar Fixture	RAB	VXBRLED26NDG
(40) 24 Watt LED Wallpack Fixture	RAB	WP2LED24
(41) 55 Watt LED Wallpack Fixture	RAB	WP3LED55
(42) 12 Watt LED Tall Wallpack Fixture	RAB	ENTRA12
(43) LED Exit Sign	Topaz	ES-LED-RW-B

Submittals for Selinsgrove

August 22nd, 2018 Rev 0.0

LED T8 Fixtures.....

Description	Manufacturer	Model #
(44) 2x2 2-Lamp Box Fixture	Monmouth	SF22-2x2-2-T8LED
(45) 1x4 2-Lamp Industrial Fixture	Monmouth	OCF-4'-2-T8LED
(46) Jelly Jar Fixture	Monmouth	CJJ/WJJ
(47) 1x4 2-Lamp Lay-In Troffer Fixture	Monmouth	RFN14-1X4-2-T8LED
(48) 1x4 1-Lamp Vanity Fixture	Monmouth	VWF-4'-1-T8LED
(49) 1x4 2-Lamp Vanity Fixture	Monmouth	VWF-4'-2-T8LED
(50) 1x4 2-Lamp Vaportight Fixture	Monmouth	VTU-4'-2-T8LED
(51) 1x4 2-Lamp Wrap Fixture	Monmouth	CCW-4'-2-T8LED
(52) 1x4 3-Lamp Wrap Fixture	Monmouth	CCW-4'-3-T8LED
(53) 1x4 4-Lamp Wrap Fixture	Monmouth	CCW-4'-4-T8LED

Submittals for Selinsgrove

August 22nd, 2018 Rev 0.0

Retrofit Kits

Retrofit Kits……

Description	Manufacturer	Model #
(54) Rectangular Retrofit Kit	Keystone	KT-RKIT-RP-6-800-840-UV /G2
(55) 2x2 2-Lamp White Reflector Kit	TechBrite	R-2-21-2-T8-X-W-X-X
(56) 2x4 2-Lamp White Reflector Kit	TechBrite	R-4-21-2-T8-X-W-X-X

Sensors

Occupancy Sensors.....

Description	Manufacturer	Model #
(57) Soda Machine Occupancy Sensor	USA Tech	VM170

Global Energy Services

Submittals for Selinsgrove

August 22nd, 2018 Rev 0.0

Lamps

SINCE 1945 KEYSTONE | DIRECTDRIVE LED
LINE VOLTAGE T8 TUBES

KT-LED7T8-24GC-840-D

T8 LED LAMP

DESCRIPTION

7W T8 LED | 4000K | >83 CRI | High Efficiency

RoHS Compliant | 5 YEAR WARRANTY

LAMP TYPE: Linear
BULB TYPE: T8 LED
BASE TYPE: G13 (Medium Bi-Pin)
WATTAGE: 7W
COLOR TEMPERATURE: 4000K
COLOR RENDERING INDEX (CRI): >83
WARRANTY: 5 Years

PRODUCT FEATURES

- Replacement for Conventional Fluorescent Lamp
- 50,000+ Hour Lifetime
- Environmentally Friendly: No Mercury Used
- Instant Startup
- Frosted Lens Eliminates Pixelation
- UL Classified; Listed on DLC Qualified Product List
- Operating Temperature: -20ºC/-4ºF to 45ºC/113ºF
- Integral Driver (Isolated), Eliminates the Need for External Driver or Ballast
- 110+ Lumens per Watt
- Improved Lamp Durability with Shatterproof Coated Glass, designed to pass drop tests of 6' on hard surface
- ETL Sanitation Listed NSF/ANSI Standard 2 - Food Equipment, Splash Zone (Not for Direct Food Zone without additional fixture considerations)

OPERATING SPECIFICATIONS

ELECTRICAL CHARACTERISTICS

Input Voltage	Power Consumption	Power Factor	Input Current
120-277Vac	7W	>0.9	0.06A @ 120V 0.03A @ 277V

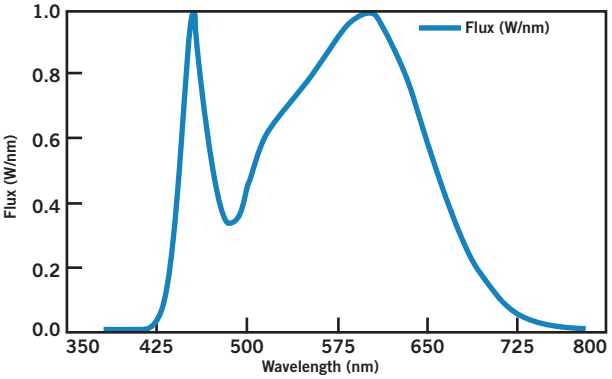
PHOTOMETRIC CHARACTERISTICS

Color Temperature (CCT)	4000K
Luminous Flux	900 lm
Color Rendering Index (CRI)	>83
Efficacy	129 lm/W
Beam Angle	240º
Visible Light Area	325º

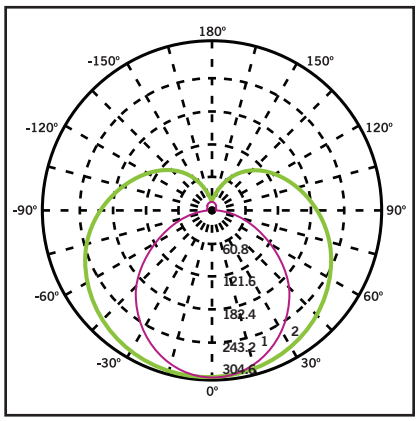
RATED LIFE

L70 (Hours)	50,000

SPECTRAL DISTRIBUTION



POLAR CANDELA DISTRIBUTION



Maximum Candela = 1248.55
Located at Horizontal Angle = 0, Vertical Angle 0

1. **Violet** Vertical Plane through Horizontal Angles (90-270)
2. **Green** Vertical Plane through Horizontal Angles (0-180)

SINCE 1945 KEYSTONE | DIRECTDRIVE LED LINE VOLTAGE T8 TUBES

KT-LED7T8-24GC-840-D

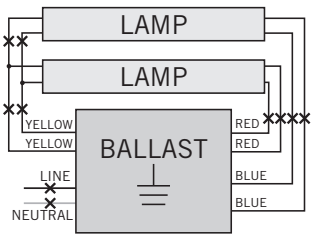
T8 LED LAMP

WIRING DIAGRAMS

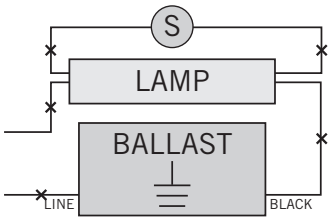
1. Cut all existing connections to ballast as shown below and remove ballast.

Typical Ballast Configurations:

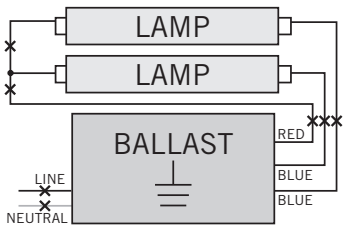
PROGAM START



PREHEAT WITH STARTER

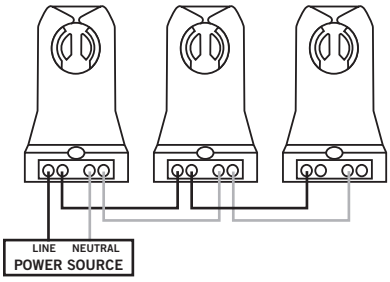


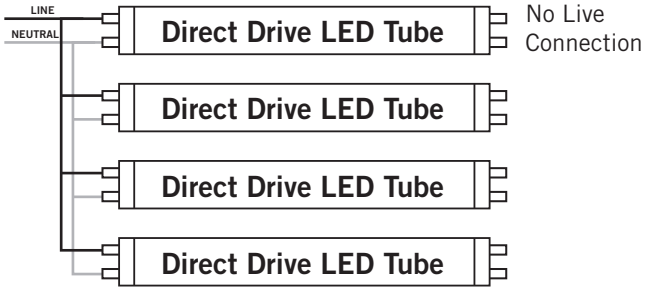
INSTANT START



CAUTION: INSTANT START BALLAST WITH SHUNTED SOCKETS.

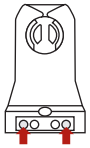
2. Re-wire fixture as shown below.





No Live Connection

Typical Non-Shunted Lampholder



Connect wires directly to these terminals

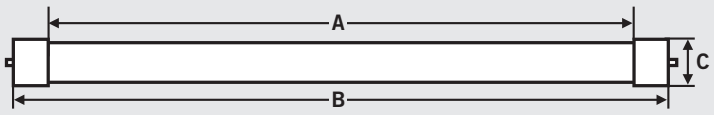
CAUTION: Use only non-shunted lampholders.

Do not install product in a fixture with shunted lampholders (found in all fixtures using instant start ballasts). If the current lampholders are shunted, remove them and replace them with non-shunted lampholders. Make new connections directly to terminals as indicated above.

Keystone can provide any style replacement lampholders. Call us at 800-464-2680.

PHYSICAL CHARACTERISTICS

LAMP DIMENSIONS



A (Illuminated Length)	20.31”
B (Body Length)	23.19”
C (Diameter)	1.10”

NOMINAL LENGTH: 24” **BASE TYPE:** G13 (Medium Bi-Pin)

ORDERING INFORMATION

ORDER CODE	PACKAGING STYLE	PACK QTY.	ITEM STATUS
KT-LED7T8-24GC-840-D-CP	Carton Pack (Egg Crate Packaging)	25	Quick Ship
KT-LED7T8-24GC-840-D-DP	Distributor Pack (Individual Cartons)	12	Quick Ship

CATALOG NUMBER BREAKDOWN

KT-LED7T8-24GC-840-D-CP

KT	LED7	T8	24	GC	840	D	CP
Keystone Technologies	LED Lamp	Wattage	Lamp Type	Nominal Length (Inches)	Shatter-Proof Coated Glass	800 Series	Color Temp.	Direct Drive Series	Packaging Style

SINCE 1945 KEYSTONE | DIRECTDRIVE LED
LINE VOLTAGE T8 TUBES

KT-LED12T8-36GC-840-D

T8 LED LAMP

DESCRIPTION

12W T8 LED | 4000K | >83 CRI | High Efficiency

RoHS Compliant | 5 YEAR WARRANTY

LAMP TYPE: Linear
BULB TYPE: T8 LED
BASE TYPE: G13 (Medium Bi-Pin)
WATTAGE: 12W
COLOR TEMPERATURE: 4000K
COLOR RENDERING INDEX (CRI): >83
WARRANTY: 5 Years

PRODUCT FEATURES

- Replacement for Conventional Fluorescent Lamp
- 50,000+ Hour Lifetime
- Environmentally Friendly: No Mercury Used
- Instant Startup
- Frosted Lens Eliminates Pixelation
- UL Classified
- Operating Temperature: -20ºC/-4ºF to 45ºC/113ºF
- Integral Driver (Isolated), Eliminates the Need for External Driver or Ballast
- 100+ Lumens per Watt
- Improved Lamp Durability with Shatterproof Coated Glass

OPERATING SPECIFICATIONS

ELECTRICAL CHARACTERISTICS

Input Voltage	Power Consumption	Power Factor	Input Current
120-277Vac	12W	>0.9	0.108A @ 120V 0.043A @ 277V

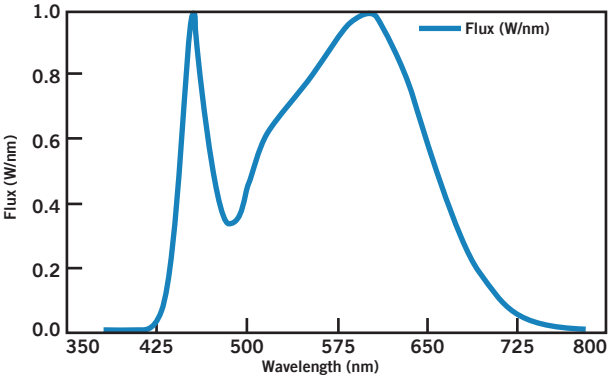
PHOTOMETRIC CHARACTERISTICS

Color Temperature (CCT)	4000K
Luminous Flux	1250 lm
Color Rendering Index (CRI)	>83
Efficacy	104 lm/W
Beam Angle	240º
Visible Light Area	325º

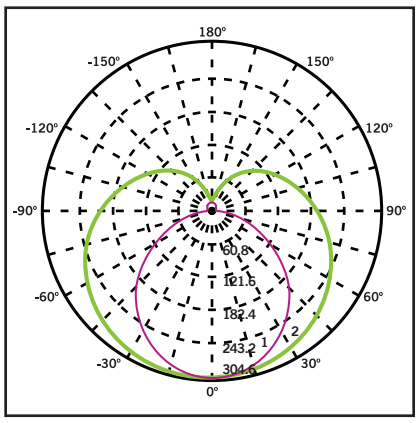
RATED LIFE

L70 (Hours)	50,000

SPECTRAL DISTRIBUTION



POLAR CANDELA DISTRIBUTION



Maximum Candela = 1248.55
Located at Horizontal Angle = 0, Vertical Angle 0

1. **Violet** Vertical Plane through Horizontal Angles (90-270)
2. **Green** Vertical Plane through Horizontal Angles (0-180)

SINCE 1945 KEYSTONE | DIRECTDRIVE LED LINE VOLTAGE T8 TUBES

KT-LED12T8-36GC-840-D

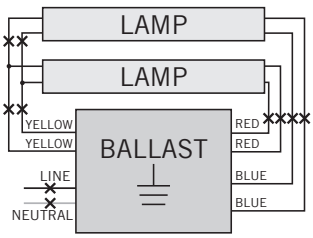
T8 LED LAMP

WIRING DIAGRAMS

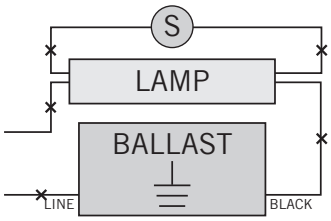
1. Cut all existing connections to ballast as shown below and remove ballast.

Typical Ballast Configurations:

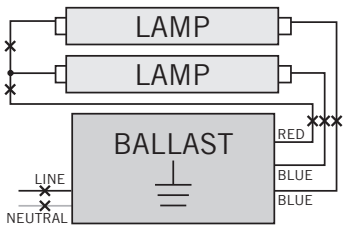
PROGAM START



PREHEAT WITH STARTER

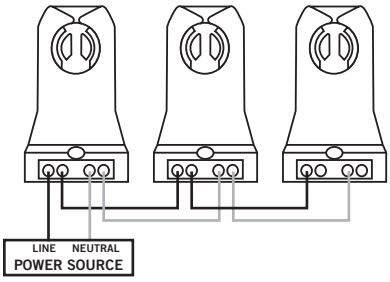


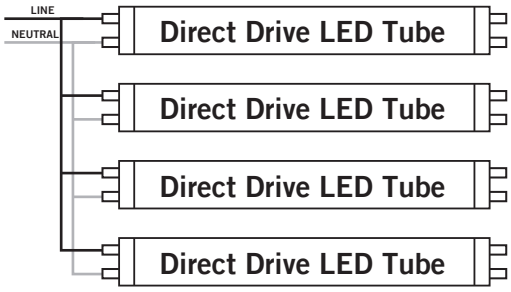
INSTANT START



CAUTION: INSTANT START BALLAST WITH SHUNTED SOCKETS.

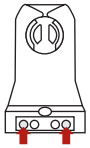
2. Re-wire fixture as shown below.





No Live Connection

Typical Non-Shunted Lampholder



Connect wires directly to these terminals

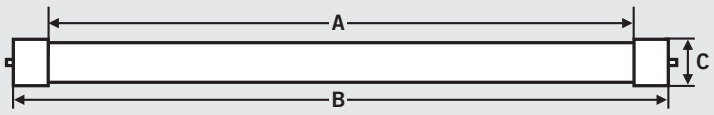
CAUTION: Use only non-shunted lampholders.

Do not install product in a fixture with shunted lampholders (found in all fixtures using instant start ballasts). If the current lampholders are shunted, remove them and replace them with non-shunted lampholders. Make new connections directly to terminals as indicated above.

Keystone can provide any style replacement lampholders. Call us at 800-464-2680.

PHYSICAL CHARACTERISTICS

LAMP DIMENSIONS



A (Illuminated Length)	32.36”
B (Body Length)	35.19”
C (Diameter)	1.10”

NOMINAL LENGTH: 36” **BASE TYPE:** G13 (Medium Bi-Pin)

ORDERING INFORMATION

ORDER CODE	PACKAGING STYLE	PACK QTY.	ITEM STATUS
KT-LED12T8-36GC-840-D-CP	Carton Pack (Egg Crate Packaging)	25	Quick Ship
KT-LED12T8-36GC-840-D-DP	Distributor Pack (Individual Cartons)	12	Quick Ship

CATALOG NUMBER BREAKDOWN

KT-LED12T8-36GC-840-D-CP

KT	LED12	T8	36	GC	840	D	CP
Keystone Technologies	LED Lamp	Wattage	Lamp Type	Nominal Length (Inches)	Shatter-Proof Coated Glass	800 Series	Color Temp.	Direct Drive Series	Packaging Style

SINCE 1945 KEYSTONE

DIRECT DRIVE LED
LINE VOLTAGE T8 TUBES

KT-LED10.5T8-48G-840-D
T8 LED LAMP

DESCRIPTION
10.5W T8 LED | 4000K | >83 CRI | High Efficiency

RoHS Compliant | 5 YEAR WARRANTY

LAMP TYPE: Linear
BULB TYPE: T8 LED
BASE TYPE: G13 (Medium Bi-Pin)
WATTAGE: 10.5W
COLOR TEMPERATURE: 4000K
COLOR RENDERING INDEX (CRI): >83
WARRANTY: 5 Years

PRODUCT FEATURES
- Replacement for Conventional Fluorescent Lamp
- 50,000+ Hour Lifetime
- Approximately 40% More Energy Efficient that Standard F32T8 Lamps
- Environmentally Friendly: No Mercury Used
- UL Classified
- Operating Temperature: -20ºC/-4ºF to 45ºC/113ºF
- Listed on DLC Qualified Product List
- Integral Driver (Isolated), Eliminates the Need for External Driver or Ballast
- 100+ Lumens per Watt
- Instant Startup
- Frosted Lens Eliminates Pixelation

OPERATING SPECIFICATIONS

ELECTRICAL CHARACTERISTICS

Input Voltage	Power Consumption	Power Factor	Input Current
120-277Vac	10.5W	>0.9	.094A @ 120V .040A @ 277V

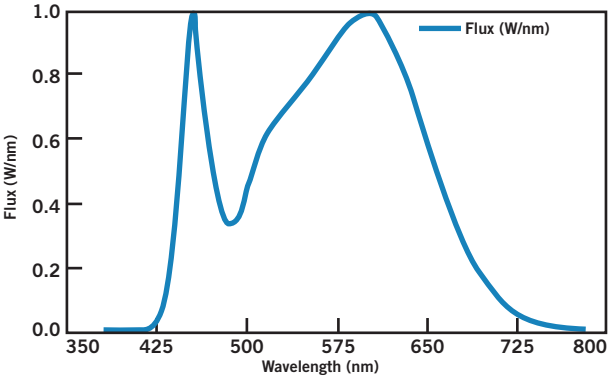
PHOTOMETRIC CHARACTERISTICS

Color Temperature (CCT)	4000K
Luminous Flux	1730 lm
Color Rendering Index (CRI)	>83
Efficacy	160 lm/W
Beam Angle	240º
Visible Light Area	325º

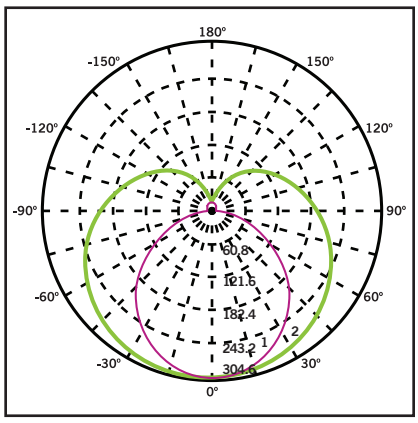
RATED LIFE

L70 (Hours)	50,000

SPECTRAL DISTRIBUTION



POLAR CANDELA DISTRIBUTION



Maximum Candela = 1248.55
Located at Horizontal Angle = 0, Vertical Angle 0

1. **Violet** Vertical Plane through Horizontal Angles (90-270)
2. **Green** Vertical Plane through Horizontal Angles (0-180)

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SINCE 1945 KEYSTONE

DIRECT DRIVE LED
LINE VOLTAGE T8 TUBES

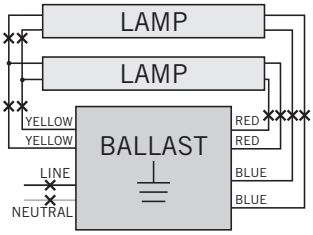
KT-LED10.5T8-48G-840-D
T8 LED LAMP

WIRING DIAGRAMS

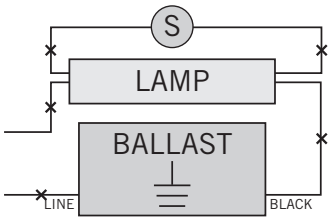
1. Cut all existing connections to ballast as shown below and remove ballast.

Typical Ballast Configurations:

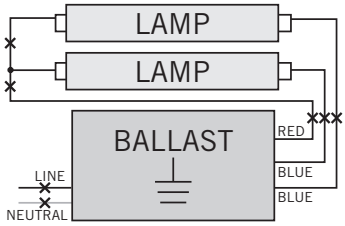
PROGAM START



PREHEAT WITH STARTER

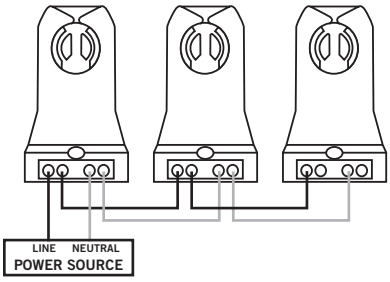


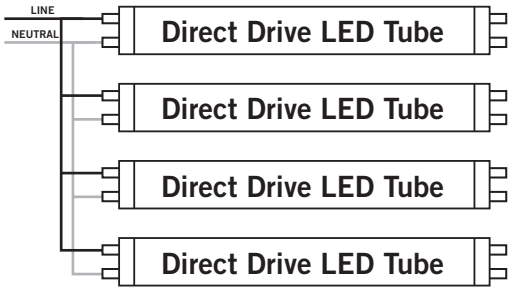
INSTANT START



CAUTION: INSTANT START BALLAST WITH SHUNTED SOCKETS.

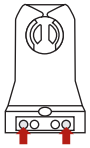
2. Re-wire fixture as shown below.





No Live Connection

Typical Non-Shunted Lampholder



Connect wires directly to these terminals

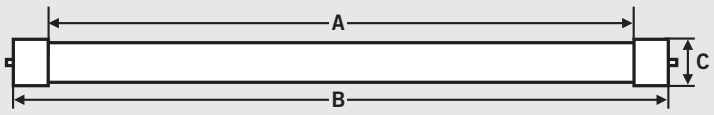
CAUTION: Use only non-shunted lampholders.

Do not install product in a fixture with shunted lampholders (found in all fixtures using instant start ballasts). If the current lampholders are shunted, remove them and replace them with non-shunted lampholders. Make new connections directly to terminals as indicated above.

Keystone can provide any style replacement lampholders. Call us at 800-464-2680.

PHYSICAL CHARACTERISTICS

LAMP DIMENSIONS



A (Illuminated Length)	44.38”
B (Body Length)	47.15”
C (Diameter)	1.10”

NOMINAL LENGTH: 48” **BASE TYPE:** G13 (Medium Bi-Pin)

ORDERING INFORMATION

ORDER CODE	PACKAGING STYLE	PACK QTY.	ITEM STATUS
KT-LED10.5T8-48G-840-D-CP	Carton Pack (Egg Crate Packaging)	25	Quick Ship

CATALOG NUMBER BREAKDOWN

KT-LED10.5T8-48G-840-D-CP

Keystone Technologies	LED Lamp	Wattage	Lamp Type	Nominal Length (Inches)	Glass	800 Series	Color Temp.	Direct Drive Series	Packaging Style

SINCE 1945 KEYSTONE | SMARTDRIVE LED PLUG & PLAY WITH BALLAST

KT-LED14T8-48GC-840-S

T8 LED LAMP

DESCRIPTION

14W T8 LED | 4000K | >80 CRI | High Efficiency | Ballast Compatible

c UL us LISTED RoHS Compliant 5 YEAR WARRANTY

LAMP TYPE: Linear
BULB TYPE: T8 LED
BASE TYPE: G13 (Medium Bi-Pin)
WATTAGE: 14W
COLOR TEMPERATURE: 4000K
COLOR RENDERING INDEX (CRI): >80
WARRANTY: 5 Years

PRODUCT FEATURES

- **Compatible with Most Instant and Program Start Electronic T8 Ballasts, Contact Keystone for Ballast Compatibility List**
- Direct Replacement for the Following Fluorescent Lamps: F32T8/32W, F32T8/30W, F32T8/28W, F32T8/25W
- UL Listed; Was Listed on DLC QPL prior to April 2017
- 50,000+ Hour Lifetime
- Environmentally Friendly: No Mercury Used
- Instant Startup
- Frosted Lens Eliminates Pixelation
- Operating Temperature: -20ºC/-4ºF to 45ºC/113ºF
- 100+ Lumens per Watt (Bare Lamp Efficacy)
- Suitable for Dry and Damp Locations
- Improved Lamp Durability with Shatterproof Coated Glass

OPERATING SPECIFICATIONS

ELECTRICAL AND PERFORMANCE CHARACTERISTICS

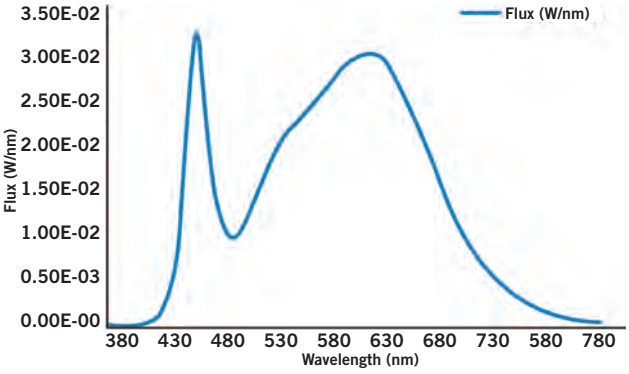
Input Voltage	CRI	Bare Lamp Wattage	Nominal Lamp Lumens	System Wattage*			Initial Lumens*			Beam Angle	Nominal Bare Lamp Efficacy	Power Factor	Max. THD
				0.78BF	0.88BF	1.18BF	0.78BF	0.88BF	1.18BF				
Ballast Dependent	>80	14W	1800 lm	14.2W	16.4W	22.1W	1670 lm	1940 lm	2560 lm	220º	128.6	>0.9	20%

** Nominal values. Actual values may vary depending on electronic ballast used.*

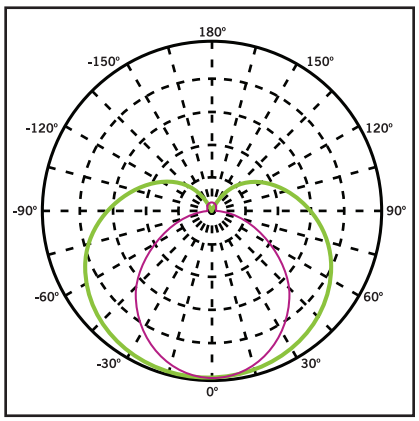
RATED LIFE

L70 (Hours)	50,000

SPECTRAL DISTRIBUTION



POLAR CANDELA DISTRIBUTION



Maximum Candela = 1248.55
Located at Horizontal Angle = 0, Vertical Angle 0

1. **Violet** Vertical Plane through Horizontal Angles (90-270)
2. **Green** Vertical Plane through Horizontal Angles (0-180)

Beam Angle: 220º

Visible Light Area: 325º

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SINCE 1945 KEYSTONE | SMARTDRIVE LED PLUG & PLAY WITH BALLAST

KT-LED14T8-48GC-840-S

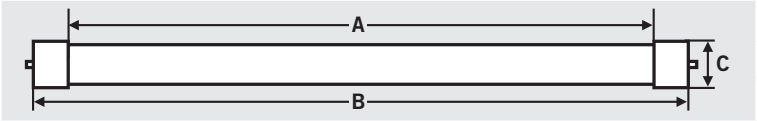
T8 LED LAMP

WIRING

Plug and Play: Simply replace the existing fluorescent lamp with Keystone Smart Drive LED lamp. No changes to the existing fluorescent ballast wiring needed. For ballast compability questions, please contact Keystone.

PHYSICAL CHARACTERISTICS

LAMP DIMENSIONS



A (Illuminated Length)	44.70”
B (Body Length)	47.15”
C (Diameter)	1.00”

NOMINAL LENGTH: 48” **BASE TYPE:** G13 (Medium Bi-Pin)

ORDERING INFORMATION

ORDER CODE	PACKAGING STYLE	PACK QTY.	ITEM STATUS
KT-LED14T8-48GC-840-S-CP	Carton Pack (Egg Crate Packaging)	25	Quick Ship
KT-LED14T8-48GC-840-S-DP	Distributor Pack (Individual Cartons)	20	Quick Ship

CATALOG NUMBER BREAKDOWN

KT-LED14T8-48GC-840-S-CP

KT	LED14T8	48	GC	840	S	CP
Keystone Technologies	LED Lamp	Wattage	Lamp Type	Nominal Length (Inches)	Shatterproof Coated Glass	800 Series	Color Temp.	Smart Drive Series	Packaging Style

KT-LED36HID-EX39-850-D /G2

HID REPLACEMENT LED LAMP

DESCRIPTION

36W HID Replacement LED Lamp | 5000K | >80 CRI | IP64 Rated

LAMP TYPE: HID Replacement LED
BASE TYPE: EX39 (Mogul)
WATTAGE:36W
COLOR TEMPERATURE: 5000K
METAL HALIDE EQUIVALENT: 150W
COLOR RENDERING INDEX (CRI): >80
WARRANTY: 5 Years

PRODUCT FEATURES

- Replacement for Conventional Metal Halide Lamp
- Non-Dimmable; Do Not Dim
- 50,000+ Hour Lifetime
- Environmentally Friendly: No Mercury Used
- Instant Startup
- UL Listed
- Operating Temperature: -29ºC/-20ºF to 60ºC/140ºF
- Integral Driver, Eliminates the Need for External Driver or Ballast; Includes 4kV Surge Protection
- IP64 Rated; Integrated Heat Sink Quickly Dissipates Heat and Guides Water Intrusion Out of the Lamp
- Suitable for Use in Fully Enclosed Fixture

OPERATING SPECIFICATIONS

ELECTRICAL CHARACTERISTICS

Input Voltage	Power Consumption	Power Factor	Input Current
120-277Vac	36W	>0.9	0.30A @ 120V 0.13A @ 277V

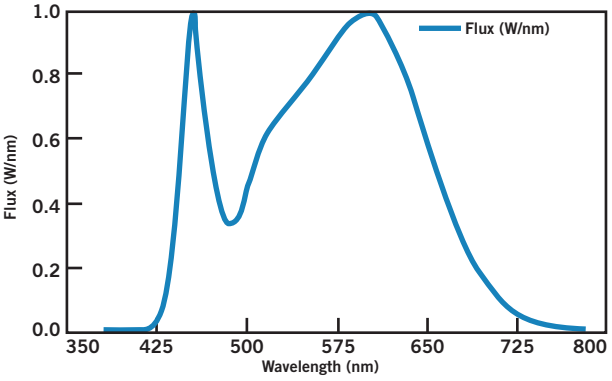
RATED LIFE

L70 (Hours)	50,000

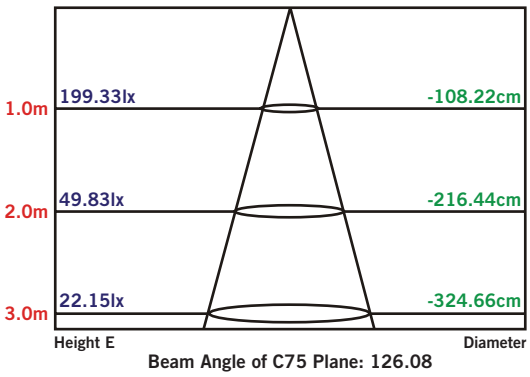
PHOTOMETRIC CHARACTERISTICS

Color Temperature (CCT)	5000K
Luminous Flux	5400 lm
Color Rendering Index (CRI)	>80
Efficacy	150 lm/W
Visible Light Area	360º

SPECTRAL DISTRIBUTION



LUX DISTANCE CURVE



Beam Angle of C75 Plane: 126.08

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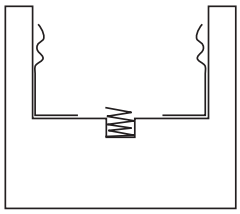
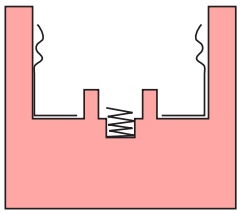
KT-LED36HID-EX39-850-D /G2

HID REPLACEMENT LED LAMP



E39 MOGUL SOCKET



EX39 MOGUL SOCKET

EX39-based lamps will work in both E39 and EX39 sockets.

WIRING DIAGRAM

STEP 1
Disconnect power. Disconnect and remove existing ballast, capacitor, and/or ignitor (where applicable) from fixture.

STEP 2
Rewire for line voltage to the lamp socket.

STEP 3
Install new LED replacement lamp. Ensure lamp is operating properly when power is turned on.

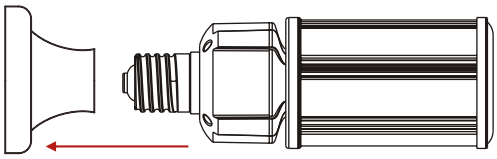


FIGURE 1

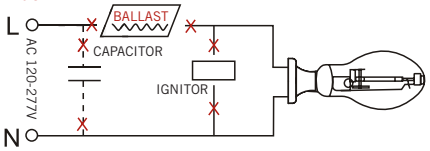


FIGURE 2

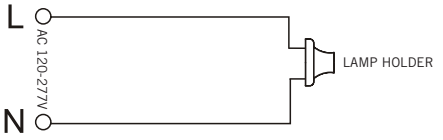
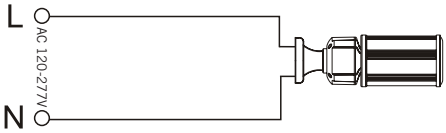
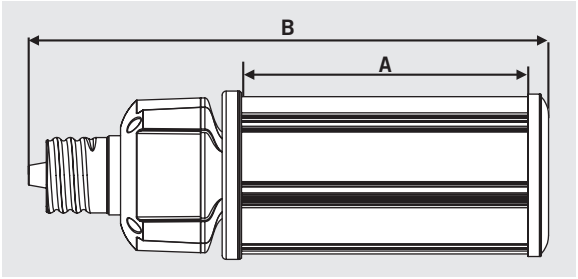
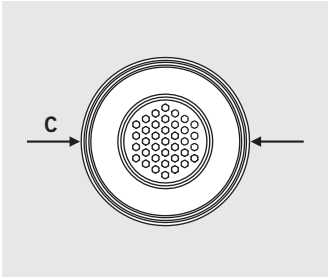


FIGURE 3



PHYSICAL CHARACTERISTICS





LAMP DIMENSIONS

A (Illuminated Length)	5.66"
B (Body Length)	8.62"
C (Diameter)	3.34"

BASE TYPE: EX39 (Mogul)

ORDERING INFORMATION

ORDER CODE	PACKAGING STYLE	PACK QTY.	ITEM STATUS
KT-LED36HID-EX39-850-D /G2-DP	Distributor Pack (Individual Cartons)	16	Quick Ship

CATALOG NUMBER BREAKDOWN

KT-LED36HID-EX39-850-D /G2-DP

- KT — Keystone Technologies
- LED36 — LED Lamp
- HID — Wattage
- EX39 — Lamp Type
- 850 — Base Type
- D — 800 Series
- /G2 — Color Temp.
- -DP — Direct Drive Series; 2nd Generation; Packaging Style

KTLD-2LEDT8-UV-IS-VDIM

LED T8 DIMMING DRIVER

DESCRIPTION

1 or 2 x LED T8 | 120-277 Multi-Voltage | High Power Factor | 0-10V Dimming

STARTING METHOD: Instant Start
LAMP CONNECTION: Series
INPUT VOLTAGE: 120-277Vac ±10%
INPUT FREQUENCY: 50/60 Hz
POWER FACTOR: High
WARRANTY: 5 Years

PRODUCT FEATURES

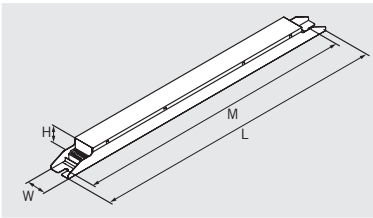
- Dimmable LED Driver for UL Type A LED Tubes
- Compatible with Most 10W-18W UL Type A LED Tubes
- Sound Rated: A
- Maximum Case Temperature: 167ºF, 75ºC
- Meets FCC Part 15 (Class A) Non-Consumer Limits
- Operating Ambient Temperature -20ºC/-4ºF to 50ºC/122ºF
- UL 8750 Recognized Component
- Dimming Type: 0-10V
- Type HL
- Efficiency: 80%
- **Not Compatible with Fluorescent Lamps**

ELECTRICAL SPECIFICATIONS

Lamp Type	No. of Lamps	Input Voltage	Maximum Dimmer Position				Minimum Dimmer Position				Minimum Dimming Level
			System Level Electrical Data (Driver + Lamp + Dimmer)				System Level Electrical Data (Driver + Lamp + Dimmer)				
			Input Current	Input Power	Power Factor	THD	Input Current	Input Power	Power Factor	THD	
KT-LED11.5T8-48GC-8xx-S	2	120V	0.236A	28.16W	0.992	6.2%	0.060A	6.9W	0.946	19.70%	21.80%
		277V	0.105A	27.76W	0.947	15.7%	0.039A	7.33W	0.666	24.20%	22.10%
	1	120V	0.130A	15.4W	0.982	9.2%	0.042A	4.75W	0.920	19.30%	20.20%
		277V	0.064A	15.77W	0.885	21.3%	0.032A	5.04W	0.561	28.60%	20.60%
KT-LED14T8-48GC-8xx-S	2	120V	0.263A	31.47W	0.994	7.7%	0.061A	6.96W	0.943	24.6%	20.0%
		277V	0.117A	31.06W	0.957	13.8%	0.040A	7.49W	0.671	23.4%	20.5%
	1	120V	0.128A	15.27W	0.982	9.8%	0.040A	4.39W	0.905	20.9%	19.1%
		277V	0.064A	15.68W	0.885	22.6%	0.031A	4.70W	0.512	28.5%	19.7%
KT-LED15T8-48GC-8xx-S	2	120V	0.310A	37.21W	0.995	6%	0.073A	8.57W	0.964	13.10%	19.20%
		277V	0.136A	36.50W	0.965	13.20%	0.043A	9.01W	0.747	26%	19.50%
	1	120V	0.169A	20.15W	0.986	8.70%	0.046A	5.16W	0.926	16.20%	20.20%
		277V	0.079A	20.29W	0.918	20.50%	0.033A	5.51W	0.587	25.20%	20.50%
KT-LED17T8-48GC-8xx-S	2	120V	0.318A	38.09W	0.995	4.3%	0.066A	7.68W	0.957	19.1%	17.0%
		277V	0.139A	37.29W	0.967	12.2%	0.041A	8.24W	0.721	23.5%	17.4%
	1	120V	0.179A	21.65W	0.988	17.8%	0.045A	4.97W	0.918	17.1%	17.9%
		277V	0.840A	21.57W	0.926	19.7%	0.035A	5.32W	0.557	30.3%	18.2%

KTLD-2LEDT8-UV-IS-VDIM
LED T8 DIMMING DRIVER

PHYSICAL SPECIFICATIONS

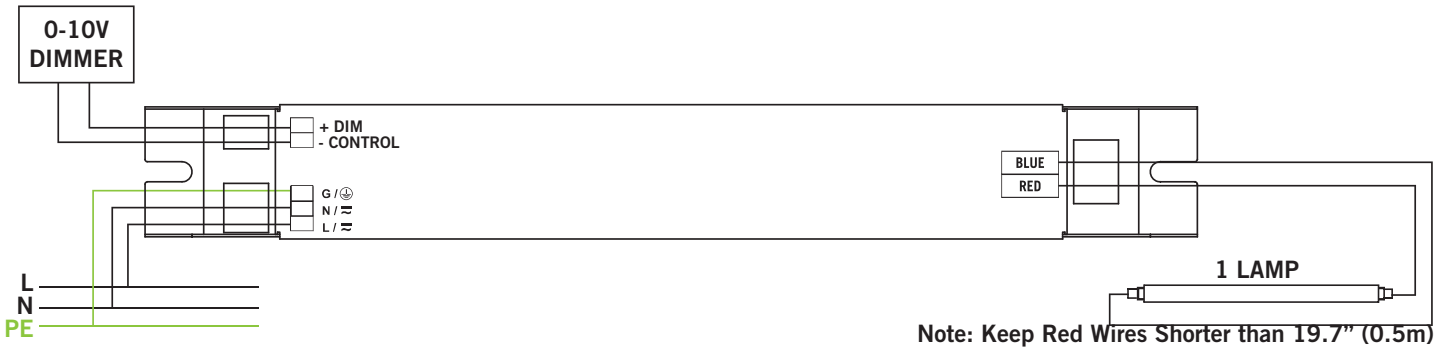


LENGTH	14.17”
WIDTH	1.20”
HEIGHT	1.00”
MOUNTING	13.50”
CASE STYLE	U2

Lead wires are 18 AWG105ºC/600V, solid copper.
Wire are included with ballast.

CASE MATERIAL: Steel

WIRING DIAGRAMS



Note: Keep Red Wires Shorter than 19.7” (0.5m)

ORDERING INFORMATION

ORDER CODE	PACKAGING STYLE	PACK QTY.	ITEM STATUS
KTLD-2LEDT8-UV-IS-VDIM-CP	Carton Pack	20	Quick Ship

CATALOG NUMBER BREAKDOWN

KTLD-2LEDT8-UV-IS-VDIM

KTLD	2	LEDT8	UV	IS	VDIM
Keystone Technologies LED Driver	2 Lamp	Lamp Type	Universal Voltage	Instant Start	0-10V Dimming

Job Name/Title:_____Catalog Number_____

Contractor:_____Notes:_____

LED Omnidirectional A19 and A21

SPEC SHEET

A19 A21

True Omnidirectional Light Distribution

Topaz LED Omnidirectional A19 and A21 lamps are ideal for both residential and commercial settings including down lights, wall sconces, ceiling fans, table and floor lamps. Dimmable down to 10% for additional energy savings and ambiance control.

FEATURES

- 300° beam spread
- 85% energy savings compared to incandescent lamps
- Suitable for use in totally enclosed luminaires
- Long life – up to 10X longer than traditional incandescents
- RoHS compliant and mercury free
- Plastic lens material provides shatter protection

APPLICATIONS

- Fan lights, decorative, recessed, task lighting
- Residential, hospitality, retail, restaurants, commercial

ENERGY STAR | c UL us LISTED E338632 | RoHS COMPLIANT | DAMP LOCATION | 5 YEAR WARRANTY

Job Name/Title:_____Catalog Number_____

Contractor:_____Notes:_____

LED Omnidirectional A19 and A21

SPEC SHEET

GENERAL SPECIFICATIONS

Input Voltage: 120V

Average Rated Life: 25,000 Hours

CRI: 80

THD: <15%

Beam Angle: 220°

Ambient temp: -4°F to 104°F

PK-QTY: 1/6/24

SPECIFICATIONS / ORDER INFO

Item #	Order Code	UPC Code	Shape	Watts	Equivalent Wattage	Base	CCT (Kelvin)	Avg. Lumens	MOL In.	MOD In	Energy Star	Dimmable
LA19/5/27K/D-46	77004	751338002708	A19	5	40W A19	E26	2700	450	4.35"	2.37"	Y	Y
LA19/5/30K/D-46	77005	751338002777	A19	5	40W A19	E26	3000	450	4.35"	2.37"	Y	Y
LA19/5/40K/D-46	77006	751338002784	A19	5	40W A19	E26	4000	450	4.35"	2.37"	Y	Y
LA19/5/50K/D-46	77007	751338002791	A19	5	40W A19	E26	5000	450	4.35"	2.37"	Y	Y
LA19/9/27K/D-46	77008	751338002807	A19	9.5	60W A19	E26	2700	800	4.35"	2.37"	-	Y
LA19/9/30K/D-46	77009	751338002814	A19	9.5	60W A19	E26	3000	800	4.35"	2.37"	Y	Y
LA19/9/40K/D-46	77010	751338002821	A19	9.5	60W A19	E26	4000	800	4.35"	2.37"	Y	Y
LA19/9/50K/D-46	77011	751338002838	A19	9.5	60W A19	E26	5000	800	4.35"	2.37"	Y	Y
LA19/12/27K/D-46	77012	751338002845	A19	11.5	75W A19	E26	2700	1,100	4.65"	2.37"	Y	Y
LA19/12/30K/D-46	77013	751338002852	A19	11.5	75W A19	E26	3000	1,100	4.65"	2.37"	Y	Y
LA19/12/40K/D-46	77014	751338002869	A19	11.5	75W A19	E26	4000	1,100	4.65"	2.37"	Y	Y
LA19/12/50K/D-46	77015	751338002876	A19	11.5	75W A19	E26	5000	1,100	4.65"	2.37"	Y	Y
LA21/16/27K/D-46	77018	751338002883	A21	15.5	100W A21	E26	2700	1,600	5.55"	2.65"	Y	Y
LA21/16/30K/D-46	77019	751338002890	A21	15.5	100W A21	E26	3000	1,600	5.55"	2.65"	Y	Y
LA21/16/40K/D-46	77020	751338002906	A21	15.5	100W A21	E26	4000	1,600	5.55"	2.65"	Y	Y
LA21/16/50K/D-46	77021	751338002913	A21	15.5	100W A21	E26	5000	1,600	5.55"	2.65"	Y	Y
LA19/9/27K/GU24D-46	71024	751338003378	A19	9.5	60W A19	GU24	2700	800	4.55"	2.37"	-	Y
LA19/9/30K/GU24D-46	71025	751338003385	A19	9.5	60W A19	GU24	3000	800	4.55"	2.37"	-	Y
LA19/9/40K/GU24D-46	71026	751338003392	A19	9.5	60W A19	GU24	4000	800	4.55"	2.37"	-	Y
LA19/12/30K/GU24D-46	74152	751338016286	A19	11.5	75W A19	GU24	3000	1,100	4.55"	2.37"	-	Y

NOMENCLATURE

Example: LA19/5/27K/D

LA19=LED A19 Shape / **5**=5 Watt / **27K**=2700K / **D**=Dimmable

ENERGY SAVINGS

	LED Watts	Incandescent Watts	Energy Saving, Watts	Yearly Saving, Fixture	5 Year Cost Savings
Based on 5 hours/day and .11¢/kwhr					
LA19/5/XXK/D	5	40	35	$7.03	$35.13
LA19/9/XXK/D	9.5	60	50.5	$10.14	$50.69
LA19/12/XXK/D	11.5	75	63.5	$12.75	$63.74
LA21/16/XXK/D	15.5	100	84.5	$16.96	$84.82

Suitable for enclosed fixtures. This device is not intended for use with emergency exits.

This device complies with Part 15 of the FCC Rules. Operation is subject to the following two conditions: (1) this device may not cause harmful interference, and (2) this device must accept any interference received, including interference that may cause undesired operation. Specifications subject to change without notice.

FIVE (5) YEAR LIMITED WARRANTY: TOPAZ LIGHTING CORP. warrants to the original purchaser that all TOPAZ LED lamps shall be free from defects of material and workmanship for a period of five (5) years from the date of purchase. Based on 12 hours of use per day. TOPAZ LIGHTING CORP. will, at its option, repair or replace without charge a defective LED lamp that has not been misused, carelessly handled or improperly installed. Repair or replacement, as stated above, shall constitute the purchaser's exclusive warranty, which does not extend to transportation, installation, labor or any other consequential charges. www.topaz-usa.com

Specifications subject to change without notice.

Job Name/Title:_____ Catalog Number_____

Contractor:_____ Notes:_____

LED Indoor Reflector Series

SPEC SHEET

R20 | BR30 and BR30 ECO | BR40

Efficient High Quality LED Solution

Featuring advanced thermal management, optics and chip on board LED technology, the Topaz indoor reflector series rivals traditional incandescent lighting. Available in multiple sizes, a variety of color temperatures and lumen packages. With energy savings up to 80%, our lamps are dimmable for ambiance control and additional energy savings. Rated for indoor use, applications are ideal for track, downlighting and spotlights in residential, retail, hospitality and commercial environments.

FEATURES

- Approximately 80% energy savings over halogen reflectors
- Dimmable down to 10% of total light output*
- Lasts up to 10X longer than traditional incandescent lamps
- Available in a wide variety of color temperatures
- Contains NO mercury
- Select models California Title 24 and JA8 Compliant
- Energy Star Certified

APPLICATIONS

- Recessed downlighting, track lights, task lighting
- Residential, hospitality, retail, restaurants, commercial

Meets TITLE 24 High Efficacy Requirements | ENERGY STAR | c UL us LISTED E338632 | DAMP LOCATION | RoHS COMPLIANT | DIMMABLE LED | 5 YEAR WARRANTY

Job Name/Title:_____ Catalog Number_____

Contractor:_____ Notes:_____

LED Indoor Reflector Series

SPEC SHEET

GENERAL SPECIFICATIONS

Input Voltage: 120V
Average Rated Life: 25,000 Hours
Base: Medium E26
Ambient temp: -4°F to 104°F

SPECIFICATIONS / ORDER INFO

Item #	Code	UPC Code	Watts	Beam Spread	CRI	CCT (Kelvin)	Rated Lumens	CBCP (cd)	MOL In.	Equiv. Wattage	ENERGY STAR	Dimmable	PK-Qty
R20													
LR20/6/827/D-46	73425	751338001459	6.5	107°	80	2700	525	180	3.9"	50	Y	Y	1/6
LR20/6/830/D-46	73426	751338002036	6.5	107°	80	3000	525	180	3.9"	50	Y	Y	1/6
LR20/6/840/D-46	73427	751338002043	6.5	107°	80	4000	525	180	3.9"	50	Y	Y	1/6
LR20/6/850/D-46	73428	751338002050	6.5	107°	80	5000	525	180	3.9"	50	Y	Y	1/6
BR30 ECO													
LBR30/8/827/D-46	74166	751338016125	8	105°	80	2700	650	220	5.2"	65	Y	Y	1/6
LBR30/8/830/D-46	74167	751338015838	8	105°	80	3000	650	220	5.2"	65	Y	Y	1/6
BR30													
LBR30/9/827/D-46	78930	751338002203	9.5	105°	80	2700	750	260	5.2"	65	Y	Y	1/6
LBR30/9/830/D-46	73413	751338001442	9.5	105°	80	3000	750	260	5.2"	65	Y	Y	1/6
LBR30/9/840/D-46	73414	751338001657	9.5	105°	80	4000	750	260	5.2"	65	Y	Y	1/6
LBR30/9/850/D-46	78931	751338002210	9.5	105°	80	5000	750	260	5.2"	65	Y	Y	1/6
LBR30/9/927/D-46**	70740	751338016439	9.5	105°	90	2700	650	220	5.85"	65	Y	Y	1/6
LBR30/9/930/D-46**	70741	751338016446	9.5	105°	90	3000	650	220	5.85"	65	Y	Y	1/6
BR40													
LBR40/11/827/D-46	75712	751338001213	11.5	103°	80	2700	940	340	6.5"	75	Y	Y	1/6
LBR40/11/830/D-46	78932	751338002227	11.5	103°	80	3000	940	340	6.5"	75	Y	Y	1/6
LBR40/11/840/D-46	78933	751338002234	11.5	103°	80	4000	940	340	6.5"	75	Y	Y	1/6
LBR40/11/850/D-46	75728	751338001855	11.5	103°	80	5000	940	340	6.5"	75	Y	Y	1/6
LBR40/16/827/D-46	73407	751338001428	16.5	103°	80	2700	1,200	445	6.5"	85	Y	Y	1/6
LBR40/16/830/D-46	73408	751338002111	16.5	103°	80	3000	1,200	445	6.5"	85	Y	Y	1/6
LBR40/16/840/D-46	73409	751338001435	16.5	103°	80	4000	1,200	445	6.5"	85	Y	Y	1/6
LBR40/16/850/D-46	73410	751338002166	16.5	103°	80	5000	1,200	445	6.5"	85	Y	Y	1/6

NOMENCLATURE

Example: **LR20/6/827/D**
LR20=LED R20 Shape / **6**=6 Watt / **827**=2700K / **D**=Dimmable

ENERGY SAVINGS

	LED Watts	Incandescent Watts	Energy Saving, Watts	Yearly Saving, Fixture	5 Year Cost Savings
Based on 6 hours/day and .11¢/kwhr					
LR20/6/8XX/D	6.5	50	43.5	$10.48	$52.40
LBR30/8/8XX/D	8	65	57	$13.73	$68.65
LBR30/9/8XX/D	9.5	65	55.5	$13.37	$66.85
LBR40/11/8XX/D	11.5	75	63.5	$15.30	$76.50
LBR40/16/8XX/D	16.5	85	68.5	$16.50	$82.50

***Dimming - This lamp is designed to be compatible with most leading edge or incandescent style rotary or slide type dimmers. (Dimming range 100% - 10%) Performance may vary depending on dimmer**

****Select models California Title 24 and JA8 Compliant**

This device is not intended for use with emergency exits. This device complies with Part 15 of the FCC Rules. Operation is subject to the following two conditions: (1) this device may not cause harmful interference, and (2) this device must accept any interference received, including interference that may cause undesired operation. Specifications subject to change without notice.FIVE (5) YEAR LIMITED WARRANTY: TOPAZ LIGHTING CORP. warrants to the original purchaser that all TOPAZ LED lamps shall be free from defects of material and workmanship for a period of five (5) years from the date of purchase. Based on 12 hours of use per day. TOPAZ LIGHTING CORP. will, at its option, repair or replace without charge a defective LED lamp that has not been misused, carelessly handled or improperly installed. Repair or replacement, as stated above, shall constitute the purchaser's exclusive warranty, which does not extend to transportation, installation, labor or any other consequential charges. www.topaz-usa.com.

Specifications subject to change without notice.

Job Name/Title:_____Catalog Number_____

Contractor:_____Notes:_____

LED Decorative Candelabra Series

SPEC SHEET

Give Your Home a Cozy Look and Feel

Topaz LED Decorative candelabra lamps are the energy savings alternative to traditional lighting. Available in blunt or flame tip configurations and offered in aesthetically pleasing warm 2700K and 3000K color temperatures. Dimmable for complete ambiance control and additional energy and maintenance savings. A long lasting direct replacement for incandescent lamps in ceiling fans, wall sconces and chandeliers.

FEATURES

- Blunt tip and flame tip models available
- Filament style best replicates the aesthetic appeal of incandescents lamps
- Up to 90% energy savings over incandescent
- Long life – up to 10X longer than traditional incandescents
- RoHS compliant and mercury free

APPLICATIONS

- Decorative lighting, wall sconces, chandeliers
- Residential, hospitality, commercial

ENERGY STAR | c UL us LISTED E338632 | RoHS COMPLIANT | DIMMABLE LED | 5 YEAR WARRANTY

Job Name/Title:_____ Catalog Number_____

Contractor:_____ Notes:_____

LED Decorative Candelabra Series

SPEC SHEET

GENERAL SPECIFICATIONS

Input Voltage: 120V
THD: <15%
Ambient Temperature: -4°F to 104°F

LETC/3 LCTC/3 LCTF/5 LCFF/5 LCFC/5 LCTC/5 LCTC/7

SPECIFICATIONS / ORDER INFO

Item #	Code	UPC Code	Watts	Volts	Shape	Base	CRI	CCT (KELVIN)	Initial Lumens	Avg. Rated Life	MOL	Equiv. Wattage	Dimming	Energy Star	PK QTY
Clear															
LCTC/3/830/D	79981	751338097766	3	120	Blunt Tip	E12	80	3000	165	25,000	3.8"	25	Y	-	1/20/100
LETC/3/830/D	79989	751338097827	3	120	Blunt Tip	E26	80	3000	165	25,000	3.8"	25	Y	-	1/20/100
LCFC/5/830/D	78914	751338002197	4.7	120	Flame Tip	E12**	82	3000	315	25,000	4.55"	40	Y	Y	1/20/100
LCTC/5/830/D	79896	751338001800	4.7	120	Blunt Tip	E12**	82	3000	315	25,000	4.15"	40	Y	-	1/20/100
LCTC/7/827/D	79346	751338000971	6.5	120	Blunt Tip	E12	80	2700	500	25,000	4.5"	60	Y	Y	1/20/100
LCTC/7/830/D	79348	751338000988	6.5	120	Blunt Tip	E12	80	3000	500	25,000	4.5"	60	Y	Y	1/20/100
Frosted															
LCFF/5/830/F/D	70728	751338016675	4.5	120	Flame Tip	E12**	80	3000	300	15,000	3.98"	40	Y	Y	1/12/48
LCTF/5/830/F/D	70729	751338016682	4.5	120	Blunt Tip	E12**	80	3000	300	15,000	3.85"	40	Y	Y	1/12/48

NOMENCLATURE

Example: LCTC/3/830/D

LCTC=LED Candleabra Torpedo E12 Base Clear / **3**=3 Watt / **830**=3000K / **D**=Dimmable

ENERGY SAVINGS

Item #	LED Watts	Incandescent Watts	Energy Savings, Watts	Yearly Cost Savings	5 Year Cost Savings
Based on 8 hours/day and .11¢/kwhr					
LCTC/3/830/D	3	25	22	$7.07	$35.33
LETC/3/830/D	3	25	22	$7.07	$35.33
LCTC/5/830/D	4.7	40	35.3	$11.34	$56.70
LCFC/5/830/D	4.7	40	35.3	$11.34	$56.70
LCFF/5/830/F/D	4.5	40	35.5	$11.40	$57.00
LCTF/5/830/F/D	4.5	40	35.5	$11.40	$57.00
LCTC/7/827/D	6.5	60	53.5	$17.80	$85.90
LCTC/7/830/D	6.5	60	53.5	$17.80	$85.90

*Dimming - This lamp is designed to be compatible with most leading edge or incandescent style rotary or slide type dimmers. (Dimming range 100% - 10%) Performance may vary depending on dimmer

** E26 Adapter included

This device is not intended for use with emergency exits.

This device complies with Part 15 of the FCC Rules. Operation is subject to the following two conditions: (1) this device may not cause harmful interference, and (2) this device must accept any interference received, including interference that may cause undesired operation. Specifications subject to change without notice.

FIVE (5) YEAR LIMITED WARRANTY: TOPAZ LIGHTING CORP. warrants to the original purchaser that all TOPAZ LED lamps shall be free from defects of material and workmanship for a period of five (5) years from the date of purchase. Based on 12 hours of use per day. TOPAZ LIGHTING CORP. will, at its option, repair or replace without charge a defective LED lamp that has not been misused, carelessly handled or improperly installed. Repair or replacement, as stated above, shall constitute the purchaser's exclusive warranty, which does not extend to transportation, installation, labor or any other consequential charges. www.topaz-usa.com

Specifications subject to change without notice.

Job Name/Title:_____Catalog Number_____

Contractor:_____Notes:_____

LED Dimmable Globe Lamp

SPEC SHEET

Excellent Light Distribution

Topaz Dimmable LED Globe lamps are a long lasting and energy savings alternative to traditional incandescent lighting. 2700K color temperature replicates the aesthetically pleasing and warm color of incandescent lighting. 40W replacement can save up to 80% of energy. Dimmable for ambiance control and additional energy savings. Ideal for direct replacement in bathroom vanity lighting and decorative lighting used in residential, retail, hospitality and commercial applications.

FEATURES

- Up to 85% energy savings vs. 40W incandescent
- Dimmable down to 5%*
- 2700K Color temperature best replicates the aesthetic appeal of incandescents
- 80 CRI for quality color rendering
- Long Life – up to 18X longer than traditional incandescents

APPLICATIONS

- Bathroom vanity lighting, decorative and task lighting
- Residential, hospitality, retail, commercial

ENERGY STAR | c UL us LISTED E338632 | RoHS COMPLIANT | DIMMABLE LED | 5 YEAR WARRANTY

Job Name/Title:_____Catalog Number_____

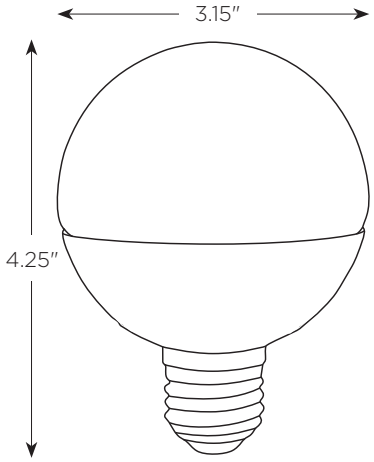
Contractor:_____Notes:_____

LED Dimmable Globe Lamp

SPEC SHEET

GENERAL SPECIFICATIONS

Input Voltage: 120V
CRI: 80
Finish: White
Beam Angle: 175°
Ambient temp: -4°F to 104°F



SPECIFICATIONS / ORDER INFO

Item #	Code	UPC Code	Watts	Shape	Base	CCT (KELVIN)	Initial Lumens	Avg. Rated Life	Equiv. Wattage	Energy Star	Dimmable	PK-Qty
LG25/6/827/D	79781	75133806435	6	G25	E26 Med.	2700	450	25,000	40	Y	Y	1/6/24

NOMENCLATURE

Example: **LG25/6/827/D**
LG25=LED G25 Shape Globe / **6**=6 Watt / **827**=2700K / **D**=Dimmable

ENERGY SAVINGS

Item #	LED Watts	Incandescent Watts	Energy Savings, Watts	Yearly Cost Savings	5 Year Cost Savings
Based on 5 hours/day and .11¢/kwhr LG25/6/827/D	6	40	34	$6.83	$34.13

*Dimming - This lamp is designed to be compatible with most leading edge or incandescent style rotary or slide type dimmers. (Dimming range 100% - 10%) Performance may vary depending on dimmer

Suitable for use in totally enclosed fixtures . This device is not intended for use with emergency exits.

This device complies with Part 15 of the FCC Rules. Operation is subject to the following two conditions: (1) this device may not cause harmful interference, and (2) this device must accept any interference received, including interference that may cause undesired operation. Specifications subject to change without notice.

FIVE (5) YEAR LIMITED WARRANTY: TOPAZ LIGHTING CORP. warrants to the original purchaser that all TOPAZ LED lamps shall be free from defects of material and workmanship for a period of five (5) years from the date of purchase. Based on 12 hours of use per day. TOPAZ LIGHTING CORP. will, at its option, repair or replace without charge a defective LED lamp that has not been misused, carelessly handled or improperly installed. Repair or replacement, as stated above, shall constitute the purchaser's exclusive warranty, which does not extend to transportation, installation, labor or any other consequential charges. www.topaz-usa.com

Specifications subject to change without notice.

LM16/5/8XX/FL/D-62
LM16/8/8XX/FL/D-62
Rev. 02

Job Name/Title:_____ Catalog Number_____

Contractor:_____ Notes:_____

LED Mini-Reflectors

5W and 8W Dimmable LED MR16

Features

- Long life—up to 10 times longer than traditional incandescent/halogen lamps
- Advanced thermal management for cool-to-touch operation
- Dimmable to 10% for additional energy savings and ambiance control*
- RoHS compliant and mercury free
- Use with electronic low voltage power supply**

GU5.3 Base

Specs

- 70 Lumens Per Watt (LPW)
- 12V
- 80 CRI
- 25,000 Average Rated Life
- -20°C Minimum start temp
- 35° Beam angle

Applications

- Track lighting, displays & accent lighting

Intertek

Catalog Number	Product Code	UPC Code	Color Temp	Watts	Lumens	CBCP	Input Current Amps	Energy Star	ETL Listed	Case Qty
LM16/5/830/FL/D	74140	751338015500	3000K	5	350	906cd	600mA	-	Y	1/24
LM16/5/840/FL/D	74141	751338015517	4000K	5	350	906cd	600mA	-	Y	1/24
LM16/5/850/FL/D	74142	751338015555	5000K	5	350	906cd	600mA	-	Y	1/24
LM16/8/830/FL/D	74143	751338015562	3000K	8	560	1315cd	900mA	-	Y	1/24
LM16/8/840/FL/D	74144	751338015586	4000K	8	560	1315cd	900mA	-	Y	1/24
LM16/8/850/FL/D	74145	751338015593	5000K	8	560	1315cd	900mA	-	Y	1/24

Specifications are subject to change without prior notice.
Not suitable for use in enclosed fixtures.
*Compatible with most electronic low voltage dimmers, such as: Lutron SELV-300 (300P), CTELV-300P (303P), MAELV-600, Leviton IPE04, 6615. Visit www.topaz-usa.com for up-to-date dimmer compatibility information
**Recommended for use with electronic low volt power supplies; not recommended for use with magnetic low voltage power supply
Must adhere to minimum load/max load power supply requirements.

TOPAZ
Friendly Service ... Powerful Solutions™

High-Power LED PAR

LP20/7/40K/D

6.5 Watt LED PAR20 Lamp

- *Dimmable down to 10%*
- *Advanced Optics & Thermal Management*
- *Contains no mercury*

Item #	LP20/7/40K/D-46
Product Code	70924
UPC Code	751338002951
Watts	6.5
Volts	120
Lamp Shape	PAR20
Base	E26 Medium
Beam Spread	25°
CRI	80
Color Temp	4000K
Initial Lumens	500
Average Rated Life	25,000
MOL	3.25"
Equivalent Wattage	50
Warranty	5 years

Specifications are subject to change without prior notice.

Suitable for Enclosed Fixtures

ENERGY STAR

c UL us LISTED
E338632

WET LOCATION · RoHS COMPLIANT · LED · DIMMABLE LED · 5 YEAR WARRANTY

TOPAZ
Friendly Service ... Powerful Solutions™

www.topaz-usa.com

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CA Office: *225 Parkside Drive, San Fernando, CA 91340 • 888-551-2852 or 818-838-3123 • Fax: 888-690-2852 or 818-838-3102*
FL Office: *2020 West 26th Street, Jacksonville, FL 32209 • 800-338-2852 • Fax: 772-778-5386*

TOPAZ
Friendly Service ... Powerful Solutions™

High-Power LED PAR

LP30/10/40K/D

10.5 Watt LED PAR30 Lamp

- *Dimmable down to 10%*
- *Advanced Optics & Thermal Management*
- *Contains no mercury*

Item #	LP30/10/40K/D-46
Product Code	70928
UPC Code	751338002999
Watts	10.5
Volts	120
Lamp Shape	PAR30
Base	E26 Medium
Beam Spread	40°
CRI	80
Color Temp	4000K
Initial Lumens	810
Average Rated Life	25,000
MOL	3.625”
Equivalent Wattage	75
Warranty	5 years

Specifications are subject to change without prior notice.

Not suitable for use in enclosed fixtures

ENERGY STAR

c UL us LISTED
E338632

WET LOCATION

RoHS COMPLIANT

DIMMABLE LED

5 YEAR WARRANTY

TOPAZ
Friendly Service ... Powerful Solutions™

www.topaz-usa.com

NY Office: *925 Waverly Ave • Holtsville, NY 11742 • 800-666-2852 • Fax: 631-758-8026*
CA Office: *225 Parkside Drive, San Fernando, CA 91340 • 888-551-2852 or 818-838-3123 • Fax: 888-690-2852 or 818-838-3102*
FL Office: *2020 West 26th Street, Jacksonville, FL 32209 • 800-338-2852 • Fax: 772-778-5386*

TOPAZ
Friendly Service... Powerful Solutions™

LED PAR38

LP38/17/840/FL/D

16.5W LED PAR38 Retrofit

- *No Mercury*
- *Equivalent to 90W PAR38 (Lumens) and 120W PAR38 (CBCP)*
- *Dimmable*
- *Wet location rated*

Item #	LP38/17/840/FL/D-46
Product Code	79673
UPC Code	751338042667
Watts	16.5
Volts	120
Lamp Shape	PAR38
Base	E26 Medium
Beam Spread	40°
CRI	80
Color Temp	4000K
Initial Lumens	1,300
Average Rated Life	35,000
Temperature Range	-20°C - 40°C
MOL	5.15″
Equivalent Wattage	100
Warranty	5 years

Specifications are subject to change without prior notice.

*Compatible with most leading edge or incandescent style dimmers.

Damp location rated. Not suitable for totally enclosed fixtures.

ENERGY STAR · c UL us LISTED · FC · RoHS COMPLIANT · WET LOCATION · DIMMABLE LED · 5 YEAR WARRANTY

TOPAZ
Friendly Service... Powerful Solutions™

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NY Office: *925 Waverly Ave • Holtsville, NY 11742 • 800-666-2852 • Fax: 631-758-8026*
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FL Office: *2020 West 26th Street, Jacksonville, FL 32209 • 800-338-2852 • Fax: 772-778-5386*

Global Energy Services

Submittals for Selinsgrove

August 22nd, 2018 Rev 0.0

Fixtures

www.etissl.com

11” Square Flush Mount LED

14 Watt 980lms Square Flush Mount

Specifications

The ETi 14 watt 980 lumen LED square flush mount fixture offers exceptional performance for precision lighting applications, while reducing energy and maintenance cost when compared with conventional light sources. Lasting over 10 times longer, these flush mount fixtures are high quality replacements for incan-descent flush mount fixtures and is available in 4000K. They are UL listed for use in damp and dry locations. Warranty 5 years. Suitable for installations from – 4° F to 95° F.

KEY FEATURES & BENEFITS

- 14 Watt Low Power and High Performance
- 980 lumens
- Dimmable
- 82 CRI, 4000K
- UL-Damp and Dry Locations
- Replaces most applications using 75w incan-descent lamps
- Rated life 50,000 hours

c UL us LISTED

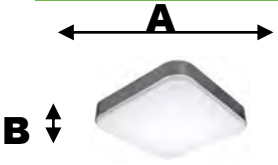
LEAD-FREE

Hg

RoHS compliant

This light source meets restrictions on hazardous substances.

FIXTURE DIMENSIONS



SKU# 54640142

Dimension A = 11.0”
Dimension B = 3.5”

This device complies with part 15 of the FCC Rules. Operation is subject to the following two conditions: (1) This device may not cause harmful interference, and (2) this device must accept any interference received, including interference that may cause undesired operation. For FCC Part 15 user information, please see www.etiled.us/fcc15b

APPLICATION INFORMATION

Designed to be used anywhere a standard incandescent fixture is used. Typically used in bedrooms, hallways, kitchens, living rooms and recreational rooms. Other applications apply in commercial, office, retail, restaurants, schools, hospitals and hotel/motel locations.

ENERGY STAR

ETi SOLID STATE™ LIGHTING INC.

14 Watt 980lms 11” Square Flush Mount LED

SPECIFICATION DATA

Project _____

Item Number_____

Prepared by_____Date_____

ORDERING INFORMATION

Item Number	Description	Wattage	Input Voltage (VAC)	Average Rated Life[1]	Typical Lumens[2]	CCT[3]	CRI[4]	Power Factor	R9	Duv	CBCP	Beam	Operating Frequency
54640142	LED14w FLUSH-MOUNT 82116 DIM	14	120	50,000	980	4000K	89.9	>.99	54	-0.0019	295	116	60Hz

[1] Hours lifetime with 70% lumen maintenance

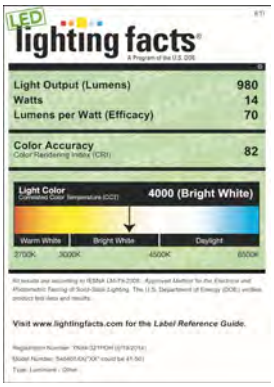
[2] Thermally stable typical lumens (±10%)

[3] Thermally stable CCT (±10%)

[4] Color rendering index/Ra

SHIPPING INFORMATION

Item Number	Item UPC	Item Dimensions (H x L x W)	Item Weight (lbs)	Inner Pack Qty	Inner Carton Bar Code	Inner Carton Dimensions (H x L x W)	Inner Pack Weight (lbs)	Master Pack Qty	Master Carton Bar Code	Master Dimen-sions (H x L x W)	Master Pack Weight (lbs)
54640142	836607 009388	12.6” x 12.5” x 4”	2.2	N/A	N/A	N/A	N/A	4	50836607 009383	13.6” x 18” x 13”	10.5



ADA Compliant

Meets American with Disabilities Act standard extension requirements

The Americas Headquarters
26650 Renaissance Parkway, STE 6
Cleveland, OH 44128

855-384-7754 **www.etissl.com**

www.etiled.us

12" Round Flush Mount LED

54074143

14 Watt 1000lms Round Flush Mount
Specifications

The ETi 14 watt 1000 lumen LED round flush mount fixture offers exceptional performance for precision lighting applications, while reducing energy and maintenance cost when compared with conventional light sources. Lasting over 10 times longer, these flush mount fixtures are high quality replacements for incandescent flush mount fixtures and is available in 4000°K. They are UL listed for use in damp and dry locations. ENERGY STAR rated. Suitable for installations from – 4° F to 95° F.

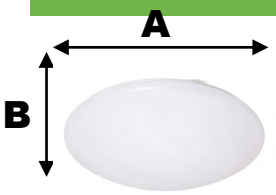
KEY FEATURES & BENEFITS

- 14 Watts
- Multi-volt 100-277V
- 1000 lumen, 4000K CCT
- Non-dimmable
- UL damp location rated
- No UV, IR or mercury
- Warranty 5 years or 50,000 hours

c UL us LISTED

RoHS Compliant

FIXTURE DIMENSIONS



SKU# 54074143

Dimension A = 11.8”
Dimension B = 3.7”

This device complies with part 15 of the FCC Rules. Operation is subject to the following two conditions: (1) This device may not cause harmful interference, and (2) this device must accept any interference received, including interference that may cause undesired operation. For FCC Part 15 user information, please see www.etiled.us/fcc15b

APPLICATION INFORMATION

Designed to be used anywhere a standard incandescent fixture is used. Typically used in bedrooms, hallways, kitchens, living rooms and recreational rooms. The LED round flush mount fixture carries a 5 year Warranty.

ENERGY STAR

ETi SOLID STATE LIGHTING INC.

12" Round Flush Mount LED

SPECIFICATION DATA

Project _____

Item Number_____

Prepared by_____Date_____

ORDERING INFORMATION

Item Number	Description	Wattage	Input Voltage (VAC)	Average Rated Life[1]	Typical Lumens[2]	CCT[3]	CRI[4]	Power Factor	R9	Duv	CBCP	Beam	Operating Frequency
54074143	LED14w FLUSH-MOUNT 840100-277 NDIM	14	100-277	50,000	1000	4000K	82	>.95	26.1	.0015	270	120	50/60Hz

[1] Hours lifetime with 70% lumen maintenance

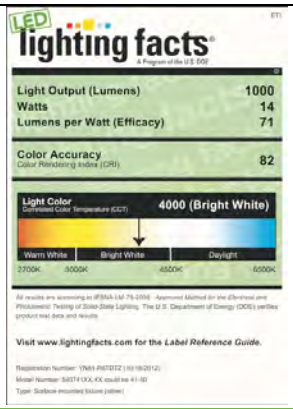
[2] Thermally stable typical lumens (±10%)

[3] Thermally stable CCT (±10%)

[4] Color rendering index/Ra

SHIPPING INFORMATION

Item Number	Item UPC	Item Dimensions (H x L x W)	Item Weight (lbs)	Inner Pack Qty	Inner Carton Bar Code	Inner Carton Dimensions (H x L x W)	Inner Pack Weight (lbs)	Master Pack Qty	Master Carton Bar Code	Master Dimen-sions (H x L x W)	Master Pack Weight (lbs)
54074143	836607 008879	12.9" x 12.8" x 4.4"	1.8	N/A	N/A	N/A	N/A	6	50836607 008874	14.1" x 27.8" x13.8"	15.2



ENERGY STAR

The Americas Headquarters
720 Corporate Woods PKWY
Vernon Hills, IL 60061

www.etiled.us

16" Round Flush Mount

LED 54075142

22 Watt 1700lms Round Flush Mount

Specifications

The ETi 22 watt 1700 lumen LED round flush mount fixture offers exceptional performance for precision lighting applications, while reducing energy and maintenance cost when compared with conventional light sources. Lasting over 10 times longer, these flush mount fixtures are high quality replacements for incandescent flush mount fixtures and is available in 4000°K. They are UL listed for use in damp and dry locations. ENERGY STAR rated. Suitable for installations from – 4° F to 95° F.

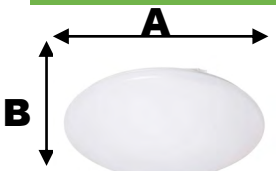
KEY FEATURES & BENEFITS

- 22 Watts
- Multi-volt 100-277V
- 1700 lumen, 4000K CCT
- Non-dimmable
- UL damp location rated
- No UV, IR or mercury
- Warranty 5 years or 50,000 hours

c UL us LISTED

RoHS Compliant

FIXTURE DIMENSIONS



SKU# 54075142

Dimension A = 16.0”
Dimension B = 4.6”

This device complies with part 15 of the FCC Rules. Operation is subject to the following two conditions: (1) This device may not cause harmful interference, and (2) this device must accept any interference received, including interference that may cause undesired operation. For FCC Part 15 user information, please see www.etiled.us/fcc15b

APPLICATION INFORMATION

Designed to be used anywhere a standard incandescent fixture is used. Typically used in bedrooms, hallways, kitchens, living rooms and recreational rooms. The LED round flush mount fixture carries a 3 year warranty.

ENERGY STAR

ETi SOLID STATE LIGHTING INC.

16" Round Flush Mount

LED
54075142

SPECIFICATION DATA

Project _____

Item Number_____

Prepared by_____Date_____

ORDERING INFORMATION

Item Number	Description	Wattage	Input Voltage (VAC)	Average Rated Life[1]	Typical Lumens[2]	CCT[3]	CRI[4]	Power Factor	R9	Duv	CBCP	Beam	Operating Frequency
54075142	LED22w FLUSH-MOUNT 840100-277 NDIM	22	100-277	50,000	1700	4000K	82	>.95	28.6	.0011	472	120	50/60Hz

[1] Hours lifetime with 70% lumen maintenance

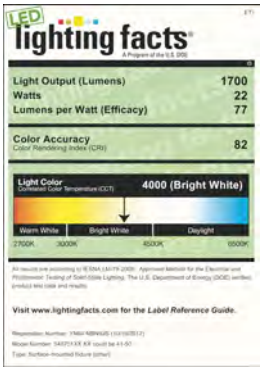
[2] Thermally stable typical lumens (±10%)

[3] Thermally stable CCT (±10%)

[4] Color rendering index/Ra

SHIPPING INFORMATION

Item Number	Item UPC	Item Dimensions (H x L x W)	Item Weight (lbs)	Inner Pack Qty	Inner Carton Bar Code	Inner Carton Dimensions (H x L x W)	Inner Pack Weight (lbs)	Master Pack Qty	Master Carton Bar Code	Master Dimen-sions (H x L x W)	Master Pack Weight (lbs)
54075142	836607 008824	16” x 16” x 4.6”	2	N/A	N/A	N/A	N/A	4	50836607 008829	21.2” x 18.3” x 17.7”	15



ENERGY STAR

The Americas Headquarters
720 Corporate Woods PKWY
Vernon Hills, IL 60061

855-384-7754 **www.etiled.us**

Lumination™ LED Luminaires

LRX Series
LED Downlights

Project name _____
Date _____
Type _____

Product Description:

The Lumination LRX Series LED downlights are the ideal retrofit or new construction solution for traditional downlight fixtures. They install in just minutes into most 4-inch, 6-inch, and 8-inch rough-in frames and bring afresh look to the space. Unlike plug-in LED lamps, the LRX downlight gives you a new power supply and 50,000 hour life rating, so that you won't have to worry about compatibility or maintenance issues with the original ballasts. All downlights in the LRX family utilize a non-conductive poly carbonate trim perfect for wet rated applications.

*LPW based on LRXR8

Input Voltage: 120 - 277V, 120V (Phase Dimming)
Standard Dimming Controls: 0-10V down to 10%, Forward Phase Dim down to 10%**CCT:** 3000K, 3500K, 4000K
CRI: 82
Lifetime Rating: L85 @ 50,000 Hours
Input Frequency (Hz): 50/60Hz
Power Factor: >0.9
Mounting Options: Spring clips clamp on to existing frame or directly to ceiling **Weight:** 0.6 lb
IC Rating: Non-IC Rated
Limited Warranty: 5 years system
Files Available: LM79, LM80, IES

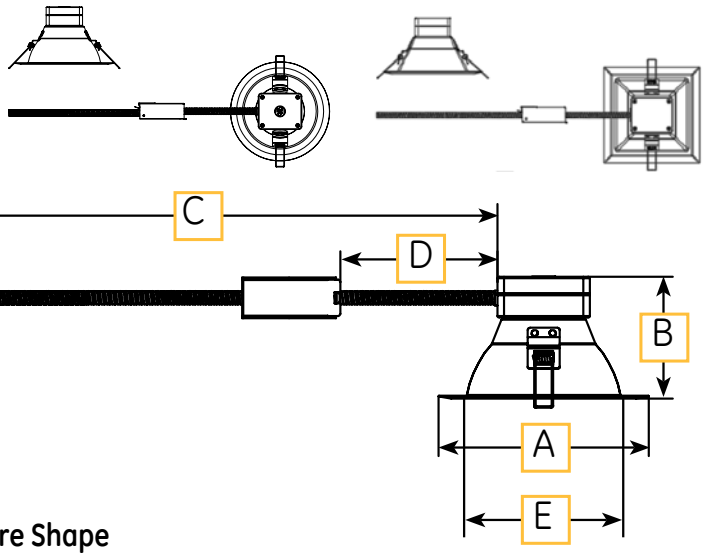
Listings: c UL us LISTED
- UL and cUL Listed.
- Suitable for wet locations

ENERGY STAR

DaintreeNetworks
Simplifying Building Energy Management

a product of ecomagination℠

Product Dimensions:



Square Shape

4 inch:
A= 5.75" (146 mm) B= 3.74" (95 mm)
C= 24" (609.6 mm) D = 6" (152.4 mm)
E = Ceiling Cutout Min: 4" for ceiling thickness ≤ 10mm; 4.2" for ceiling thickness > 10mm

6 inch:
A=7.75" (196.8mm) B=4.5" (114.2mm)
C=24" (609.6mm) D=6" (152.4mm)
E = Ceiling Cutout Min: 5.6"

8 inch:
A=9.75" (247.6mm) B=5.1" (129.4mm)
C=24" (609.6mm) D=6" (152.4mm)
E = Ceiling Cutout Min: 7.6"

Round Shape

4-inch
A = 5.6" (142.3 mm) B = 3.74" (95 mm)
C = 24" (609.6 mm) D = 6" (152.4 mm)
E = Ceiling Cutout Min: 4.4"

6-inch
A = 7.75" (196.8 mm) B = 4.5" (114.2 mm)
C = 24.0" (609.6 mm) D = 6" (152.4 mm)
E = Ceiling Cutout Min: 5.7"

8-inch
A = 9.75" (247.6 mm) B = 5.1" (129.4 mm)
C = 24.0" (609.6 mm) D = 6" (152.4 mm)
E = Ceiling Cutout Min: 7.7"

Ordering Information:

LRX ___ __ __ **8** __ __ __ __

PRODUCT FAMILY	SHAPE/SIZE	LUMENS	CRI	CCT	DIMMING	OPTIONS
LRX = Lumination RX Series Downlight	**R4** = 4" Round Retrofit Downlight **S4** = 4" Square Retrofit Downlight	**10**[1] = 1000lm/650lm	**8** = 82 CRI	**30** = 3000K **35** = 3500K **40** = 4000K	**MD** = 0-10V Dimming **PH**[3] = 120V Forward Phase Dimmable	**BLANK** = None **EL**[4] = EMBB Ready
	R6 = 6" Round Retrofit Downlight **S6** = 6" Square Retrofit Downlight	**10**[1] = 1000lm/650lm **18** = 1800lm			[3] Forward Phase Dimmable only available in Round Shape	[4] Must order "EL" option + LRXEMBBKIT (sold separately) for complete EMBB solution.
	R8 = 8" Round Retrofit Downlight **S8** = 8" Square Retrofit Downlight	**10**[1] = 1000lm/650lm **18** = 1800lm **30** = 3000lm **40**[2] = 4000lm				

[1] 1000lm models feature a selectable lumen package to allow field adjustments to light output. See page 2 for further info.

[2] 4000lm model only available with phase dimming and Round Shape

The standard trim is white. Colored trim options are available, please see page 2 for details.

current powered by GE

Delivered Lumen Multipliers

CCT	MULTIPLIERS
4000K	1
3500K	0.98
3000K	0.94

Performance Summary:

0-10V Dimming

NOMINAL LUMENS	650	1000	1800	3000
Delivered Lumens-LRX*4	700	1020	N/A	N/A
Delivered Lumens-LRX*6	700	1050	1900	N/A
Delivered Lumens-LRX*8	750	1200	2000	3300
System Input Power (W)	8.5	13	22	35
System Efficacy (LPW)	88	92	91	94

Forward Phase Dimming

NOMINAL LUMENS	650	1000	1800	3000	4000
Delivered Lumens-LRXR4	620	990	N/A	N/A	N/A
Delivered Lumens-LRXR6	660	1060	1820	N/A	N/A
Delivered Lumens-LRXR8	710	990	1960	3180	4080
System Input Power (W)	7	11	19	29	41
System Efficacy (LPW)	101	103	103	109	99

*** LPW based off of LRXR8 delivered lumens**

Accessories:

PRODUCT DESCRIPTION	MATERIAL DESCRIPTION	MATERIAL	NOTES
6" WHITE PAINTED GOOF RING	GRRC6RPTWT	93018829	RECOMMENDED FOR OVER-SIZED HOLES IN CEILING
8" WHITE PAINTED GOOF RING	GRRC8RPTWT	93018831	RECOMMENDED FOR OVER-SIZED HOLES IN CEILING
4" NEW CONSTRUCTION FRAME KIT	FRAME4R	93090208	RECOMMENDED FOR NEW CONSTRUCTION APPLICATIONS
6" NEW CONSTRUCTION FRAME KIT	FRAME6R	93025091	RECOMMENDED FOR NEW CONSTRUCTION APPLICATIONS
8" NEW CONSTRUCTION FRAME KIT	FRAME8R	93025092	RECOMMENDED FOR NEW CONSTRUCTION APPLICATIONS
ENLIGHTED SENSOR KIT	LCACBAVQNUNGALV	93029451	SEE LCA KIT LITERATURE & INSTALL GUIDE
DAINTREE SENSOR KIT	LCACBAVTQUNGALV	93057194	SEE LCA KIT LITERATURE & INSTALL GUIDE
EMERGENCY BATTERY BACKUP KIT (7W)	LRXEMBBKIT07	93043031	7 WATT EMBB QUICK CONNECT KIT (MUST HAVE FIXTURE WITH "EL" OPTION)
EMERGENCY BATTERY BACKUP KIT (10W)	LRXEMBBKIT10	93043540	10 WATT EMBB QUICK CONNECT KIT (MUST HAVE FIXTURE WITH "EL" OPTION)
6" WHITE PAINTED GOOF RING	GRLRXS6PTWT	93051908	RECOMMENDED FOR OVER-SIZED HOLES IN CEILING
8" WHITE PAINTED GOOF RING	GRLRXS8PTWT	93051909	RECOMMENDED FOR OVER-SIZED HOLES IN CEILING
4" NEW CONSTRUCTION FRAME KIT	FRAME4S	93090209	RECOMMENDED FOR NEW CONSTRUCTION APPLICATIONS
6" NEW CONSTRUCTION FRAME KIT	FRAME6S	93045426	RECOMMENDED FOR NEW CONSTRUCTION APPLICATIONS
8" NEW CONSTRUCTION FRAME KIT	FRAME8S	93045427	RECOMMENDED FOR NEW CONSTRUCTION APPLICATIONS
347V KIT	LRX347V277	93036250	347V TRANSFORMER QUICK CONNECT KIT

Colored Trim Options (Round) :

	PRODUCT DESCRIPTION	MATERIAL DESCRIPTION	MATERIAL	LUMEN OUTPUT
	LRXR6 ROUND 6" TRIM INSERT, BLACK	LRXR6TRIMBL	93059501	70%
	LRXR6 ROUND 6" TRIM INSERT, SILVER	LRXR6TRIMSV	93059502	90%
	LRXR8 ROUND 8" TRIM INSERT, BLACK (NOT AVAILABLE IN 3000LM)	LRXR8TRIMBL	93059503	70%
	LRXR8 ROUND 8" TRIM INSERT, SILVER (NOT AVAILABLE IN 3000LM)	LRXR8TRIMSV	93059504	85%

Photometric Data: Lumination™ LRX Series Downlights

LRXR410830MD

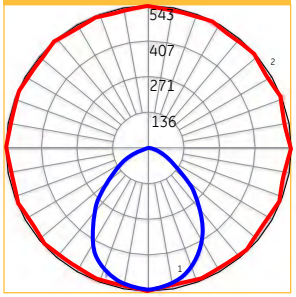
LUMINANCE DATA (CD/SQ.M)			
Angle	0°	45°	90°
45°	44163	43507	44576
55°	31383	30998	31794
65°	19283	19142	19599
75°	12977	12649	12986
85°	6327	6456	8002

ZONAL LUMEN SUMMARY	
Zone	Lumens
0-10	50.98
10-20	143.53
20-30	208.85
30-40	226.68
40-50	194.68
50-60	131.45
60-70	66.78
70-80	29.04
80-90	6.9
90-100	0.04
100-110	0.04
110-120	0.03
120-130	0.02
130-140	0.02
140-150	0.02
150-160	0.02
160-170	0.01
170-180	0.00

COEFFICIENTS OF UTILIZATION																			
RC	80%				70%				50%			30%			10%			0%
RW	70%	50%	30%	10%	70%	50%	30%	10%	50%	30%	10%	50%	30%	10%	50%	30%	10%	0%
0	119	119	119	119	116	116	116	116	111	111	111	106	106	106	102	102	102	100
1	111	107	103	100	108	105	102	99	101	98	96	97	95	93	93	92	90	88
2	103	96	90	85	100	94	89	84	90	86	82	87	84	80	84	81	79	77
3	95	86	79	73	92	84	78	73	81	76	71	79	74	70	76	72	69	67
4	88	77	70	64	86	76	69	63	74	67	63	71	66	62	69	65	61	59
5	81	70	62	56	79	69	62	56	67	60	55	65	59	55	63	58	54	52
6	76	64	56	50	74	63	55	50	61	54	49	60	54	49	58	53	49	47
7	71	58	50	45	69	58	50	45	56	49	44	55	49	44	53	48	44	42
8	66	54	46	41	65	53	46	40	52	45	40	51	44	40	49	44	40	38
9	62	50	42	37	61	49	42	37	48	41	37	47	41	37	46	40	36	35
10	58	46	39	34	57	46	38	34	45	38	34	44	38	33	43	37	33	32

ZONAL LUMEN SUMMARY			
Zone	Lumens	% of Lamp	% of Fixture
0-20	194.51	N.A.	18.4
0-30	403.36	N.A.	38.1
0-40	630.04	N.A.	59.5
0-60	956.17	N.A.	90.3
0-80	1052	N.A.	99.3
0-90	1058.9	N.A.	100

POLAR GRAPH



Photometric Data: Lumination™ LRX Series Downlights

LRXR610830MD

ZONAL LUMEN SUMMARY	
Zone	Lumens
0-10°	48.26
10-20°	135.99
20-30°	199.14
30-40°	221.96
40-50°	188.12
50-60°	118.95
60-70°	54.04
70-80°	25.47
80-90°	7.78
90-100°	0.06
100-110°	0.02
110-120°	0.03
120-130°	0.03
130-140°	0.04
140-150°	0.05
150-160°	0.05
160-170°	0.03
170-180°	0.01

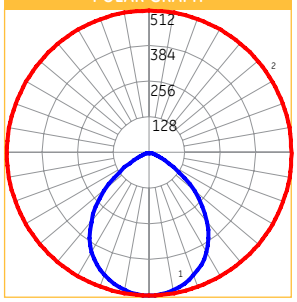
COEFFICIENTS OF UTILIZATION																			
RC	80%				70%				50%			30%			10%			0%	
RW	70%	50%	30%	10%	70%	50%	30%	10%	50%	30%	10%	50%	30%	10%	50%	30%	10%	0%	
0	119	119	119	119	116	116	116	116	111	111	111	106	106	106	102	102	102	100	
1	111	107	104	100	108	105	102	99	101	98	96	97	95	93	93	92	90	88	
2	103	96	90	85	100	94	89	85	91	86	83	87	84	81	85	82	79	77	
3	95	86	79	74	93	85	78	73	82	76	72	79	75	71	77	73	69	68	
4	88	78	70	64	86	76	69	64	74	68	63	72	67	62	70	65	62	60	
5	82	70	63	57	80	69	62	57	67	61	56	66	60	55	64	59	55	53	
6	76	64	56	51	74	63	56	50	62	55	50	60	54	50	59	53	49	47	
7	71	59	51	45	69	58	51	45	57	50	45	55	49	45	54	48	44	43	
8	66	54	46	41	65	53	46	41	52	45	41	51	45	40	50	44	40	39	
9	62	50	42	37	61	49	42	37	48	42	37	47	41	37	46	41	37	35	
10	59	46	39	34	57	46	39	34	45	38	34	44	38	34	43	38	34	32	

NOTE: Floor Cavity Reflectance : 20%

ZONAL LUMEN SUMMARY		
Zone	Lumens	% of Fixture
0-20°	184.25	18.40
0-30°	383.39	38.30
0-40°	605.34	60.50
0-60°	912.41	91.20
0-80°	991.92	99.20
0-90°	999.70	100.00

LUMINANCE DATA (CANDELA/m²)			
Gamma	0°	45°	90°
45°	17519	17519	17519
55°	11682	11682	11682
65°	6286	6286	6286
75°	4723	4723	4723
85°	4000	4000	4000

POLAR GRAPH



LRXR818830MD

ZONAL LUMEN SUMMARY	
Zone	Lumens
0-10°	87.00
10-20°	245.00
20-30°	357.94
30-40°	405.72
40-50°	355.72
50-60°	213.19
60-70°	84.35
70-80°	37.58
80-90°	10.61
90-100°	0.07
100-110°	0.14
110-120°	0.29
120-130°	0.44
130-140°	0.54
140-150°	0.55
150-160°	0.48
160-170°	0.31
170-180°	0.10

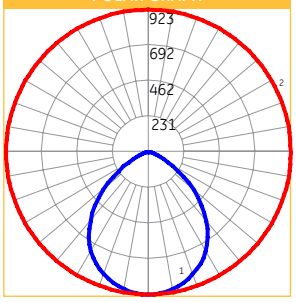
COEFFICIENTS OF UTILIZATION																			
RC	80%				70%				50%			30%			10%			0%	
RW	70%	50%	30%	10%	70%	50%	30%	10%	50%	30%	10%	50%	30%	10%	50%	30%	10%	0%	
0	119	119	119	119	116	116	116	116	111	111	111	106	106	106	102	102	102	100	
1	111	107	104	101	108	105	102	99	101	98	96	97	95	93	94	92	90	88	
2	103	96	91	86	101	94	89	85	91	87	83	88	84	81	85	82	79	78	
3	95	87	80	74	93	85	79	74	82	77	72	80	75	71	77	73	70	68	
4	88	78	71	65	86	77	70	65	75	68	64	72	67	63	70	66	62	60	
5	82	71	63	57	80	70	63	57	68	61	56	66	60	56	64	59	55	53	
6	76	65	57	51	75	64	56	51	62	55	50	60	54	50	59	54	50	48	
7	71	59	51	46	70	58	51	46	57	50	45	56	50	45	54	49	45	43	
8	67	54	47	41	65	54	46	41	52	46	41	51	45	41	50	45	41	39	
9	62	50	43	38	61	50	42	38	49	42	37	47	41	37	47	41	37	35	
10	59	47	39	34	57	46	39	34	45	39	34	44	38	34	43	38	34	32	

NOTE: Floor Cavity Reflectance : 20%

ZONAL LUMEN SUMMARY		
Zone	Lumens	% of Fixture
0-20°	332.00	18.40
0-30°	689.94	38.30
0-40°	1095.66	60.90
0-60°	1664.57	92.50
0-80°	1786.51	99.20
0-90°	1797.12	99.80

LUMINANCE DATA (CANDELA/m²)			
Gamma	0°	45°	90°
45°	8251	8251	8251
55°	4433	4433	4433
65°	1645	1645	1645
75°	827	827	827
85°	263	263	263

POLAR GRAPH



Photometric Data: Lumination™ LRX Series Downlights

LRXS410830MD

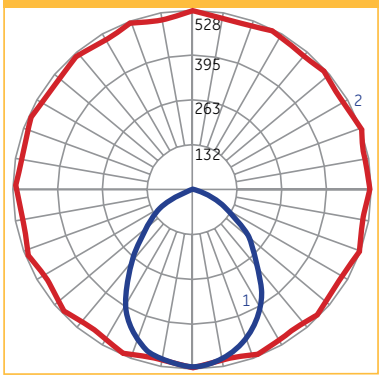
LUMINANCE DATA (CD/SQ.M)			
Angle	0°	45°	90°
45°	35273	36299	35256
55°	27588	27635	27301
65°	18968	18839	18210
75°	8602	9764	7882
85°	6858	7083	5183

ZONAL LUMEN SUMMARY	
Zone	Lumens
0-10	48.79
10-20	136.05
20-30	195.03
30-40	214.18
40-50	192.29
50-60	143.00
60-70	81.10
70-80	27.89
80-90	6.20
90-100	0.79
100-110	0.65
110-120	0.37
120-130	0.23
130-140	0.18
140-150	0.13
150-160	0.10
160-170	0.06
170-180	0.01

COEFFICIENTS OF UTILIZATION																		
RC	80%				70%				50%			30%			10%			0%
RW	70%	50%	30%	10%	70%	50%	30%	10%	50%	30%	10%	50%	30%	10%	50%	30%	10%	0%
0	119	119	119	119	116	116	116	116	111	111	111	106	106	106	102	102	102	100
1	111	107	103	100	108	104	101	98	100	98	95	96	94	92	93	91	89	87
2	102	95	89	84	100	93	88	83	90	85	81	86	83	79	83	80	78	76
3	94	85	78	72	92	83	77	71	80	75	70	78	73	69	75	71	68	66
4	87	76	68	63	85	75	68	62	73	66	61	70	65	60	68	64	60	58
5	81	69	61	55	79	68	60	55	66	59	54	64	58	53	62	57	53	51
6	75	63	54	49	73	62	54	48	60	53	48	58	52	48	57	51	47	45
7	70	57	49	44	68	56	49	43	55	48	43	54	47	43	52	47	42	41
8	65	53	45	39	64	52	44	39	51	44	39	49	43	39	48	43	38	37
9	61	49	41	36	60	48	41	36	47	40	35	46	40	35	45	39	35	33
10	57	45	38	33	56	44	37	33	43	37	32	43	37	32	42	36	32	30

ZONAL LUMEN SUMMARY			
Zone	Lumens	% of Lamp	% of Fixture
0-20	184.85	N.A.	17.7
0-30	379.88	N.A.	36.3
0-40	594.06	N.A.	56.7
0-60	929.35	N.A.	88.8
0-80	1038.34	N.A.	99.2
0-90	1044.54	N.A.	99.8

POLAR GRAPH



LRXS610830MD

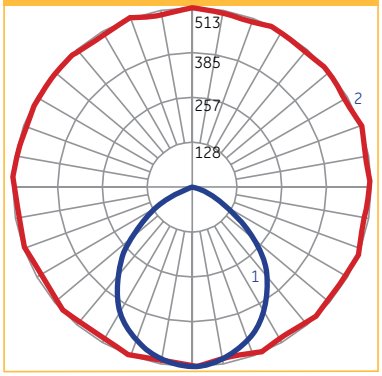
LUMINANCE DATA (CD/SQ.M)			
Angle	0°	45°	90°
45°	17826	19831	17826
55°	12430	14165	12430
65°	6627	8018	6627
75°	3963	4079	3963
85°	3057	3057	3057

ZONAL LUMEN SUMMARY	
Zone	Lumens
0-10	48.40
10-20	137.38
20-30	203.26
30-40	229.80
40-50	202.64
50-60	136.51
60-70	63.03
70-80	22.61
80-90	6.12
90-100	0.03
100-110	0.00
110-120	0.00
120-130	0.00
130-140	0.02
140-150	0.06
150-160	0.05
160-170	0.03
170-180	0.01

COEFFICIENTS OF UTILIZATION																		
RC	80%				70%				50%			30%			10%			0%
RW	70%	50%	30%	10%	70%	50%	30%	10%	50%	30%	10%	50%	30%	10%	50%	30%	10%	0%
0	119	119	119	119	116	116	116	116	111	111	111	106	106	106	102	102	102	100
1	111	107	104	101	108	105	102	99	101	98	96	97	95	93	93	92	90	88
2	103	96	90	85	100	94	89	84	91	86	82	87	84	81	84	81	79	77
3	95	86	79	73	93	84	78	73	81	76	71	79	74	70	76	72	69	67
4	88	77	70	64	86	76	69	63	74	67	63	71	66	62	69	65	61	59
5	81	70	62	56	79	69	61	56	67	60	55	65	59	55	63	58	54	52
6	76	64	56	50	74	63	55	50	61	54	49	59	53	49	58	53	48	47
7	70	58	50	45	69	57	50	44	56	49	44	55	48	44	53	48	44	42
8	66	53	46	40	64	53	45	40	51	45	40	50	44	40	49	44	39	38
9	62	49	42	37	60	49	41	36	48	41	36	47	40	36	46	40	36	34
10	58	46	38	33	57	45	38	33	44	38	33	43	37	33	42	37	33	31

ZONAL LUMEN SUMMARY			
Zone	Lumens	% of Lamp	% of Fixture
0-20	185.78	N.A.	17.70
0-30	389.04	N.A.	37.10
0-40	618.84	N.A.	58.90
0-60	957.99	N.A.	91.20
0-80	1043.63	N.A.	99.40
0-90	1049.74	N.A.	100.00

POLAR GRAPH



Photometric Data: Lumination™ LRX Series Downlights

LRXS810830MD

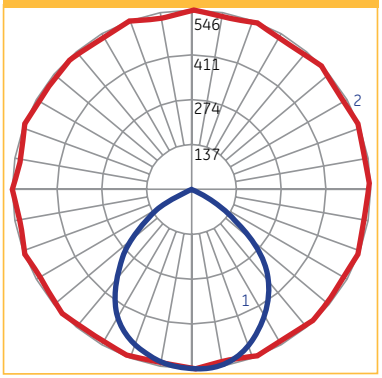
LUMINANCE DATA (CD/SQ.M)			
Angle	0°	45°	90°
45°	11581	12804	11581
55°	7966	10235	7966
65°	3805	5993	3805
75°	2116	3248	2116
85°	1680	3547	1680

ZONAL LUMEN SUMMARY	
Zone	Lumens
0-10	51.81
10-20	147.65
20-30	220.84
30-40	258.58
40-50	243.12
50-60	169.22
60-70	75.23
70-80	25.23
80-90	7.77
90-100	0.37
100-110	0.00
110-120	0.00
120-130	0.00
130-140	0.00
140-150	0.05
150-160	0.05
160-170	0.03
170-180	0.01

COEFFICIENTS OF UTILIZATION																		
RC	80%				70%				50%			30%			10%			0%
RW	70%	50%	30%	10%	70%	50%	30%	10%	50%	30%	10%	50%	30%	10%	50%	30%	10%	0%
0	119	119	119	119	116	116	116	116	111	111	111	106	106	106	102	102	102	100
1	111	107	103	100	108	105	101	99	100	98	95	97	95	93	93	91	90	88
2	102	95	90	85	100	94	88	84	90	86	82	87	83	80	84	81	78	76
3	94	85	78	73	92	84	77	72	81	75	71	78	73	69	76	72	68	66
4	87	77	69	63	85	75	68	62	73	67	62	71	65	61	69	64	60	58
5	81	69	61	55	79	68	60	55	66	59	54	64	58	54	62	57	53	51
6	75	63	55	49	73	62	54	49	60	53	48	58	52	48	57	52	47	45
7	70	57	49	43	68	56	49	43	55	48	43	54	47	43	52	47	42	41
8	65	52	45	39	64	52	44	39	50	44	39	49	43	39	48	43	38	37
9	61	48	41	35	59	48	40	35	47	40	35	46	39	35	45	39	35	33
10	57	45	37	32	56	44	37	32	43	37	32	42	36	32	41	36	32	30

ZONAL LUMEN SUMMARY			
Zone	Lumens	% of Lamp	% of Fixture
0-20	199.46	N.A.	16.6
0-30	420.3	N.A.	35
0-40	678.88	N.A.	56.6
0-60	1091.22	N.A.	90.9
0-80	1191.68	N.A.	99.3
0-90	1199.45	N.A.	100

POLAR GRAPH



Selectable Driver Package:

The LRX Series comes with a new Selectable Driver Package which allows customers to manually switch from full power (1000lm) to lower power (650lm) with just the switch of a button. This affords unprecedented flexibility for distributors to stock fewer SKUs. Reduces install risk by effectively having 2 lumen levels in 1 simple package.

*This feature is only available in the 1000/650lm package.

Product Specifications:

Construction:

- 16 gauge Aluminum spinning reflector housing, powder coating
- Custom engineered heat sink flange for passive cooling on all lumen options

Installation:

- Fixture mounting to an existing metal frame
- Conduit connect to quick-disconnect for easy installation

Optical System:

- Custom engineered reflectors for wide distributions.
- Semi-diffuse diffuser for ideal combination of optical efficiency and uniformity

Electrical System:

- High Efficiency, integrated driver with 0-10V dimming or Forward Phase Dimming
- Selectable Lumen Driver available in the 1000/650lm package.

For more information and access to all of our resources, including our design tool visit: www.gelighting.com

current powered by GE

LITHONIA LIGHTING®

Catalog Number	
Notes	
Type	

LDNRV

FEATURES & SPECIFICATIONS

INTENDED USE — LED downlight for retrofit of installed commercial mounting frames with incandescent, compact fluorescent (CFL), or high intensity discharge (HID) sources.

CONSTRUCTION — Innovative housing design that simultaneously retains and centers the fixture in the existing mounting frame.

See table for compatible ceiling opening and thickness ranges.

All installation can be performed from the room side without removing the existing mounting frame.

OPTICS — LEDs are binned to a 3-step SDCM; 80 CRI minimum.

LED light source concealed with diffusing optical lens.

General illumination lighting with 1.0 S/MH and 55° cutoff to source and source image.

Multiple lumen packages to replace the installed base of CFL or HID sources with energy savings of 50%-80%. See Lumen Equivalency Chart.

Self-flanged anodized reflectors in specular, semi-specular, or matte diffuse finishes. Also available in white and black painted reflectors.

ELECTRICAL — Multi-volt (120-277V, 50/60Hz) eldoLED 0-10V dimming drivers available in 10% or 1% minimum dimming levels. Line voltage dimming driver available.

70% lumen maintenance at 50,000 hours.

LISTINGS — Certified to US and Canadian safety standards. Damp location standard (wet location, covered ceiling optional). ENERGY STAR® certified product.

WARRANTY — 5-year limited warranty. Complete warranty terms located at: www.acuitybrands.com/CustomerResources/Terms_and_conditions.aspx

Note: Actual performance may differ as a result of end-user environment and application. All values are design or typical values, measured under laboratory conditions at 25 °C. Specifications subject to change without notice.

Open and Wallwash LED RETROFIT

A+ Capable options indicated by this color background.

ORDERING INFORMATION

Lead times will vary depending on options selected. Consult with your sales representative.

Example: LDN6RV 35/30 LR6AR LSS MVOLT EZ10

Series		Color temperature		Lumens[1]				Aperture/Trim Color					
LDN4RV	4-5" retrofit	27/	2700K	05	500 lumens	40	4000 lumens	LR	Downlight	4	4-5" aperture	AR	Clear
LDN6RV	6" retrofit	30/	3000K	10	1000 lumens	50	5000 lumens	LRW	Wallwash	6	6" aperture	WR[2]	White
LDN7RV	7" retrofit	35/	3500K	15	1500 lumens	60	6000 lumens			7	7" aperture	BR[2]	Black
LDN8RV	8" retrofit	40/	4000K	20	2000 lumens	80	8000 lumens			8	8" aperture		
LDN9RV	9" retrofit			25	2500 lumens	100	10000 lumens			9	9" aperture		
LDN10RV	10" retrofit			30	3000 lumens	120	12000 lumens			10	10" aperture		

Finish		Voltage		Driver		Options			
LSS	Semi-specular	MVOLT	Multi-volt	GZ10	0-10V driver dims to 10%	SF[4]	Single Fuse	WL	Wet location
LD	Matte diffuse	120	120V	GZ1	0-10V driver dims to 1%	TRW[5]	White painted flange	LH[6]	Lower overall height
LS	Specular	277	277V	EZ10	eldoLED 10% 0-10V	TRBL[5]	Black painted flange		
				EZ1	eldoLED 1% 0-10V				
				ELV[3]	Electronic line voltage / Forward phase / Triac dimming				

Accessories: *Order as separate catalog number.*

PS1055CP FCM	Power Sentry batteyrpack, T20 compliant, field installable, 10w constant power
EAC ISSM 375	Compact interruptible emergency AC power system
EAC ISSM 125	Compact interruptible emergency AC power system
RK2 SDT 347120 75VA13 AD JZ	347V step-down transformer mounted in box installed by others up to 5000lm
RK2 SDT 347277120 395VA AD JZ	347V step down transformer mounted in box installed by others 6000-12,000lm
LDN_RVRGIN	Rough-in frame. Fill in blank with appropriate aperture size (example: LDN6RVRGIN). Not available 9".
NPP16D(fn4)	nLight network power/relay pack with 0-10V dimming for non-eldoLED drivers (GZ10, GZ1).
NPP16DER(fn4)	nLight network power/relay pack with 0-10V dimming for non-eldoLED drivers (GZ10, GZ1). ER controls fixtures on emergency circuit.
NPS80EZ	nLight® dimming pack controls 0-10V eldoLED drivers (EZ10, EZ10).
NPS80EZER	nLight® dimming pack controls 0-10V eldoLED drivers (EZ10, EZ1). ER controls fixtures on emergency

Notes

1. Refer to Available Lumen Package Table for lumen range available per aperture size. 8"-10" trims utilize different trims based on lumen package selected. 5000lm and below supplied with low lumen ("LL") trim; 6000lm and above with high lumen ("HL") trim.
2. Not available with finishes.
3. Not available in 1500 lumens. 5000 lumen max.
4. Must specify voltage 120V or 277V.
5. Available with clear (AR) trim color only.
6. Select LH option for lower overall height. Consult table on Page 2 and dimensional drawings.

LDNRV

Available Lumen Package Table												
Series	500	1000	1500	2000	2500	3000	4000	5000	6000	8000	10000	12000
LDN4RV												
LDN6RV												
LDN7RV												
LDN8RV												
LDN9RV												
LDN10RV												
Approx. LED Wattage	8.5W	13W	20W	23W	30W	35W	44W	55W	68W	98W	117W	146W
Comparable Fluorescent	18W	26W	32W	1/42W 2/26W	2/32W 1/57W	>2/32W	2/42W	2/57W				
Comparable HID					50W	70W			100W	150W	>175W	250W
Comparable Incandescent	65W BR30	120W BR40	150W A21	200W A21		300W BR40						
Comparable Halogen PAR	50W	75W	90W	100W								

Dimensions*										
Series	Standard Height Max Lumens	LH Height Max Lumens	Standard Height	LH Height	Min Ceiling Opening	Ceiling Thickness at Min Opening	Max Ceiling Opening	Ceiling Thickness at Max Opening	Reflector Aperture	Reflector Flange Diameter
LDN4RV	500LM	2000LM	7-1/4"	N/A	4-7/8"	1/2"-1-1/2"	5-1/8"	1/2"-1-1/2"	4-5/8"	5-3/8"
LDN6RV	3000LM	1500LM	8-1/4"	6-1/2"	6"	1/2" - 2"	6-3/4"	1"-2"	5-1/4"	7-3/16"
LDN7RV	5000LM	N/A	8-7/8"	N/A	6-7/8"	1/2" - 2"	7-3/4"	1"-2"	6-1/4"	8-1/8"
LDN8RV	12,000LM	5000LM	13 11/16"	8-5/8" +	7-7/8"	1/2" - 2"	8-3/4"	3/4"-2"	7-1/4"	9-3/16"
LDN9RV	12,000LM	4000LM	13 11/16"	9-1/2"	8-7/8"	1/2" - 2"	9-7/8"	3/4"-2"	8-1/4"	11-7/16"
LDN10RV	12,000LM	4000LM	13 11/16"	9-1/2"	9-3/4"	3/4"-2"	10-3/4"	1"-2"	8-1/4"	11-7/16"
* All dimensions are inches + LH height 9-7/8" for-5000LM										

DOWNLIGHTING: One Lithonia Way Conyers, GA 30012 Phone: 800-315-4935 Fax: 770-860-3129 www.lithonia.com

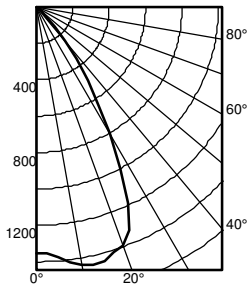
 Rev. 07/17/18

ELV COMPATIBLE DIMMER LIST		
ELV Dimmer List		Light Dimming Range
Mfg.	Model	Min.
Lutron	S-603PG	4%
Leviton	IPI06-1LZ	0%
Leviton	6631-2	3%
Lutron	DVCL-153P	3%
Lutron	DV600P	5%
Lutron	TGCL-153P	5%
Lutron	S600P	2%
Leviton	VPE06	10%
Lutron	DVELV303P	7%
Lutron	SELV300P	7%
Leviton	6683-IW	0%
Leviton	6161	15%
Leviton	6633-P	1%
Lutron	TG-600P	11%
Cooper	DLC03P	2%
Lutron	LG600P	5%
Lutron	CT103P	8%
Cooper	SLC03P	1%
Leviton	IPE04	6%
Lutron	MAELV600	12%
Lutron	FAELV500	12%
Lightolier	ZP260QEW	8%
Cooper	DAL06P	0%

PHOTOMETRY

Distribution Curve	Distribution Data	Output Data	Coefficient of Utilization	Illuminance Data at 30" Above Floor for a Single Luminaire

LDN4RV 35/15 LR4AR LS, input watts: 20.44, delivered lumens: 1443.8, LM/W=70.6, Spacing criterion at 0=1.04. ISF30712P88



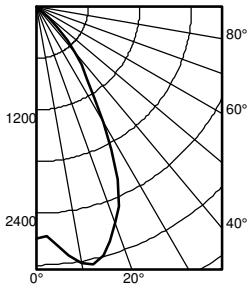
	Ave	Lumens
0	1353	
5	1382	134
15	1442	405
25	1191	525
35	491	308
45	69	68
55	1	2
65	1	1
75	0	0
85	0	0
90	0	

Zone	Lumens	% Lamp
0° - 30°	1064.0	73.7
0° - 40°	1372.4	95.1
0° - 60°	1443.1	100.0
0° - 90°	1443.8	100.0
90° - 120°	0.0	0.0
90° - 130°	0.0	0.0
90° - 150°	0.0	0.0
90° - 180°	0.0	0.0
0° - 180°	1443.8	*100.0
*Efficiency		

pf				20%								
pc			80%			70%			50%		
pw	50%	30%	10%	50%	30%	10%	50%	30%	10%
0	119	119	119	116	116	116	111	111	111
1	111	108	106	109	107	105	105	103	101
2	103	99	96	102	98	95	98	95	93
3	96	92	88	95	91	87	92	89	86
4	90	85	81	89	84	80	87	83	79
5	85	79	75	84	78	74	82	77	74
6	79	73	69	79	73	69	77	72	68
7	75	69	64	74	68	64	73	68	64
8	70	64	60	70	64	60	69	63	60
9	66	60	56	66	60	56	65	60	56
10	63	57	53	62	57	53	61	56	53

		50% beam - 55.6°		10% beam - 78.0°	
Mounting Height	Inital FC Center Beam	Diameter	FC	Diameter	FC
8.0	44.7	5.8	22.4	8.9	4.5
10.0	24.1	7.9	12.0	12.2	2.4
12.0	15.0	10.0	7.5	15.4	1.5
14.0	10.2	12.1	5.1	18.6	1.0
16.0	7.4	14.2	3.7	21.9	0.7

LDN7RV 35/30 LR7AR LS, input watts: 34.69, delivered lumens: 3033.9, LM/W=87.4, Spacing criterion at 0=1.02. ISF30716P117



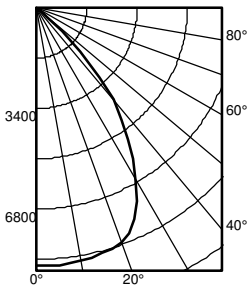
	Ave	Lumens
0	2693	
5	2782	274
15	2984	827
25	2212	991
35	1014	659
45	339	268
55	4	12
65	2	2
75	1	1
85	0	0
90	0	

Zone	Lumens	% Lamp
0° - 30°	2092.2	69.0
0° - 40°	2751.0	90.7
0° - 60°	3030.8	99.9
0° - 90°	3033.9	100.0
90° - 120°	0.0	0.0
90° - 130°	0.0	0.0
90° - 150°	0.0	0.0
90° - 180°	0.0	0.0
0° - 180°	3033.9	*100.0
*Efficiency		

pf				20%								
pc			80%			70%			50%		
pw	50%	30%	10%	50%	30%	10%	50%	30%	10%
0	119	119	119	116	116	116	111	111	111
1	111	108	106	109	106	104	104	103	101
2	103	99	95	101	97	94	98	95	92
3	96	91	87	94	90	86	92	88	85
4	89	84	79	88	83	79	86	81	78
5	83	77	73	82	77	73	81	76	72
6	78	72	68	77	72	67	76	71	67
7	73	67	63	73	67	63	71	66	62
8	69	63	59	68	62	58	67	62	58
9	65	59	55	64	59	55	63	58	54
10	61	55	51	61	55	51	60	55	51

		50% beam - 54.5°		10% beam - 82.2°	
Mounting Height	Inital FC Center Beam	Diameter	FC	Diameter	FC
8.0	89.0	5.7	44.5	9.6	8.9
10.0	47.9	7.7	23.9	13.1	4.8
12.0	29.8	9.8	14.9	16.6	3.0
14.0	20.4	11.8	10.2	20.1	2.0
16.0	14.8	13.9	7.4	23.6	1.5

LDN8RV 35/120 LR8AR LS, input watts: 145.5, delivered lumens: 11974.3, LM/W=82.3, Spacing criterion at 0=1.17. ISF33424P139



	Ave	Lumens
0	8706	
5	8755	831
15	8574	2429
25	7869	3567
35	5402	3354
45	2105	1647
55	58	124
65	10	10
75	5	5
85	1	1
90	0	

Zone	Lumens	% Lamp
0° - 30°	6826.4	57.0
0° - 40°	10180.1	85.0
0° - 60°	11951.2	99.8
0° - 90°	11968.0	99.9
90° - 120°	1.7	0.0
90° - 130°	2.2	0.0
90° - 150°	4.2	0.0
90° - 180°	6.2	0.1
0° - 180°	11974.1	*100.0
*Efficiency		

pf				20%								
pc			80%			70%			50%		
pw	50%	30%	10%	50%	30%	10%	50%	30%	10%
0	119	119	119	116	116	116	111	111	111
1	110	107	105	108	105	103	104	102	100
2	101	97	93	100	96	92	96	93	90
3	94	88	84	92	87	83	90	85	82
4	87	81	76	85	80	75	83	78	74
5	80	74	69	79	73	69	77	72	68
6	74	68	63	73	67	63	72	66	62
7	69	62	58	68	62	58	67	61	57
8	64	58	53	64	57	53	63	57	53
9	60	54	49	60	53	49	59	53	49
10	56	50	46	56	50	46	55	49	45

		50% beam - 60.1°		10% beam - 88.7°	
Mounting Height	Inital FC Center Beam	Diameter	FC	Diameter	FC
8.0	287.8	6.4	143.9	10.8	28.8
10.0	154.8	8.7	77.4	14.7	15.5
12.0	96.5	11.0	48.2	18.6	9.6
14.0	65.8	13.3	32.9	22.5	6.6
16.0	47.8	15.6	23.9	26.4	4.8

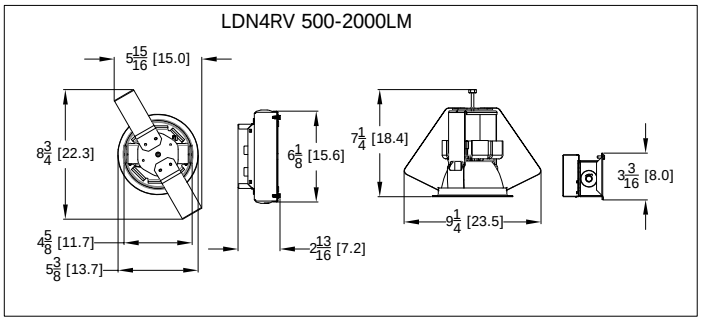
LUMEN OUTPUT MULTIPLIERS - FINISH			
	Clear (AR)	White (WR)	Black (BR)
Specular (LS)	1.0	N/A	N/A
Semi-specular (LSS)	0.950	N/A	N/A
Matte diffuse (LD)	0.85	N/A	N/A
Painted	N/A	0.87	0.73

LUMEN OUTPUT MULTIPLIERS - CCT				
	2700K	3000K	3500K	4000K
80CRI	0.950	0.966	1.000	1.025

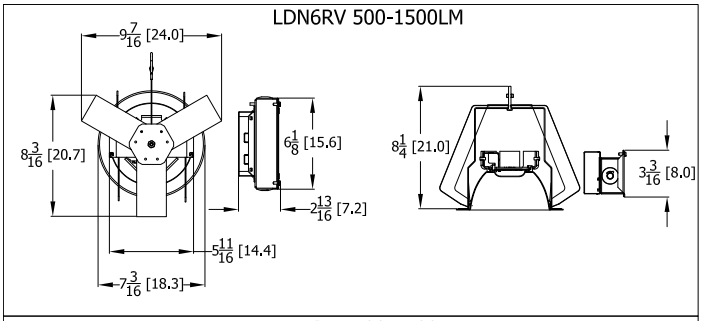
DOWNLIGHTING: One Lithonia Way Conyers, GA 30012 Phone: 800-315-4935 Fax: 770-860-3129 www.lithonia.com

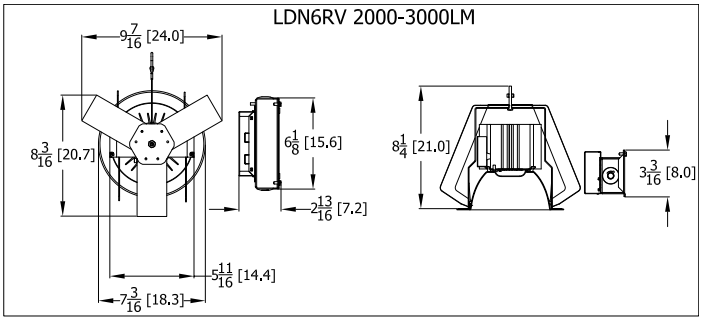
Rev. 07/17/18

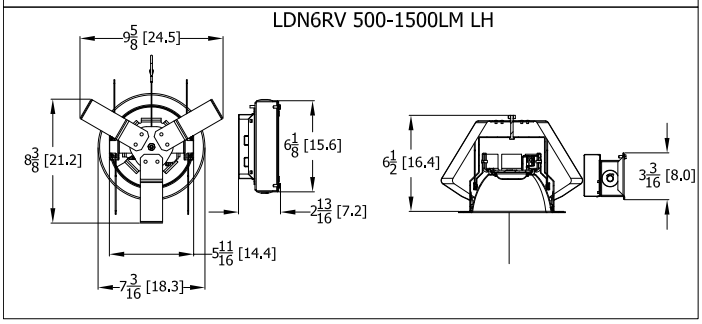
LDN4RV

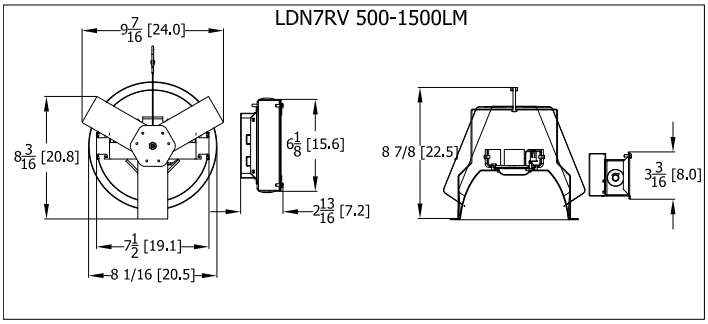


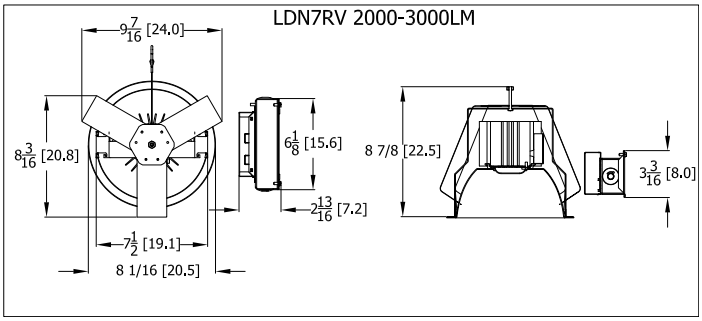
Flange Diamter (in Inches)	
LDN4RV	5.44
LDN6RV	7.2
LDN7RV	8.13
LDN8RV	9.2
LDN9RV	10.25
LDN10RV	11.45

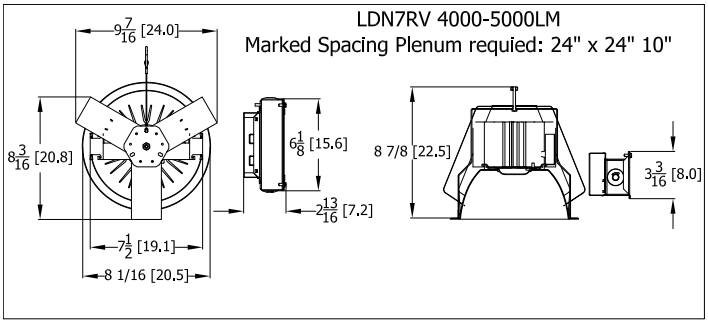




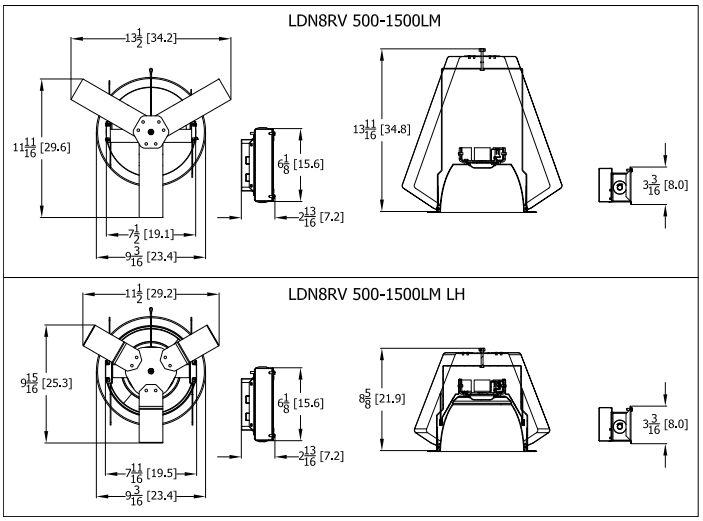


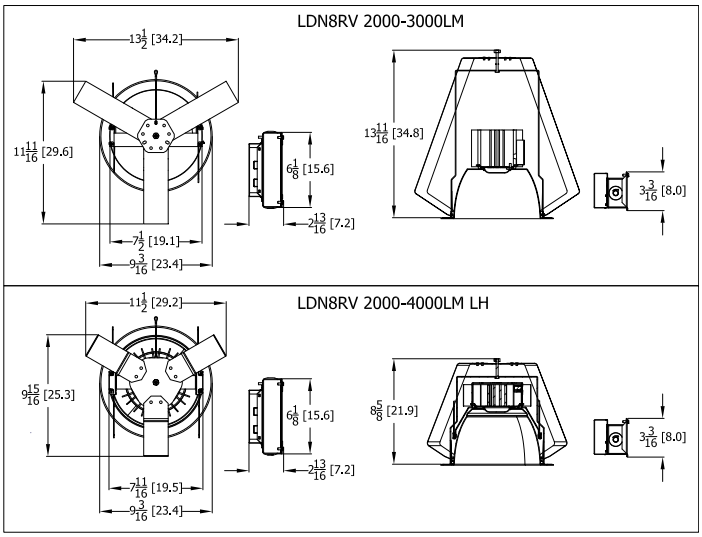


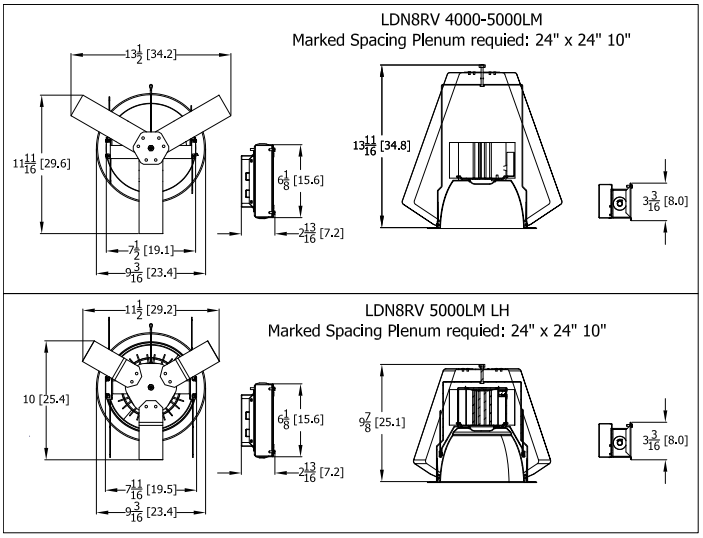


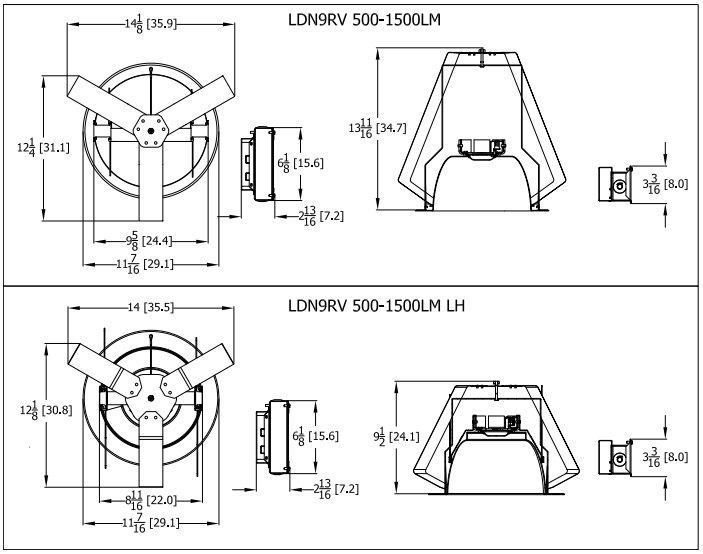


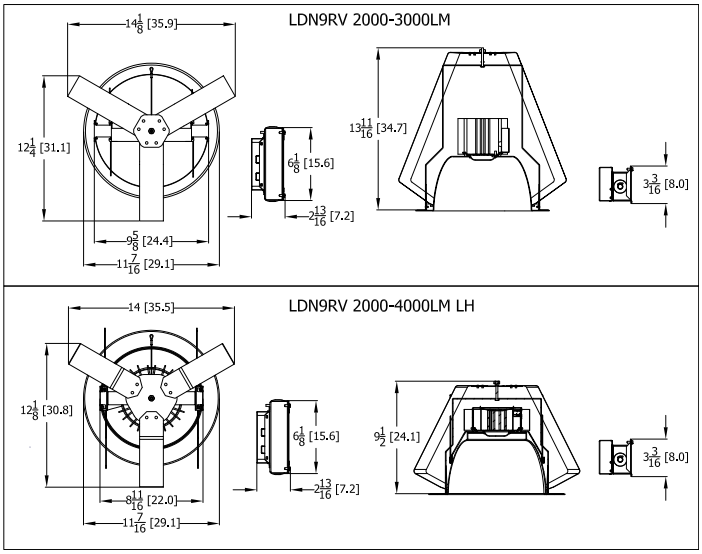
LDNRV











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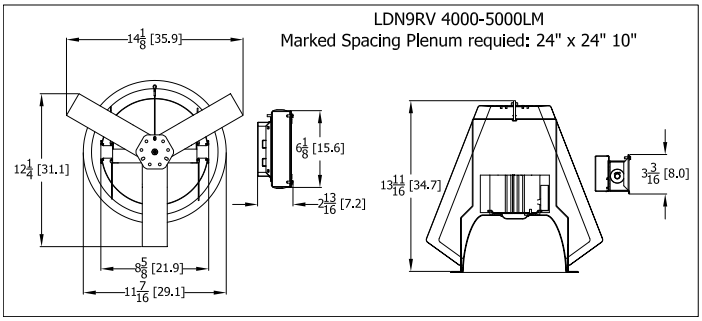
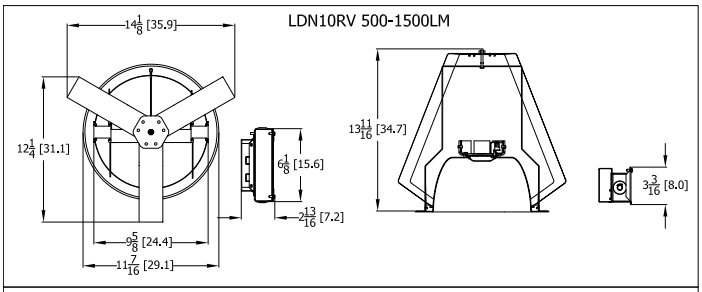
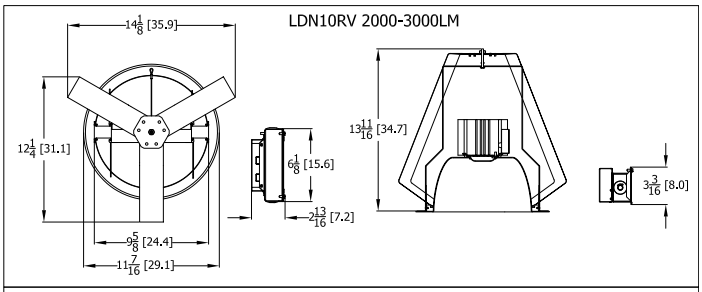
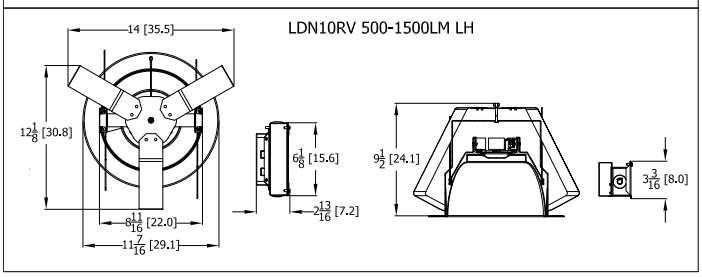
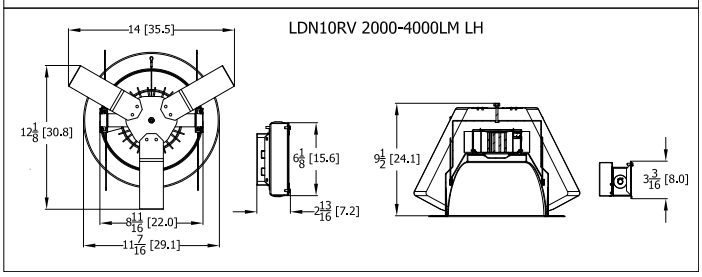
 Rev. 07/17/18

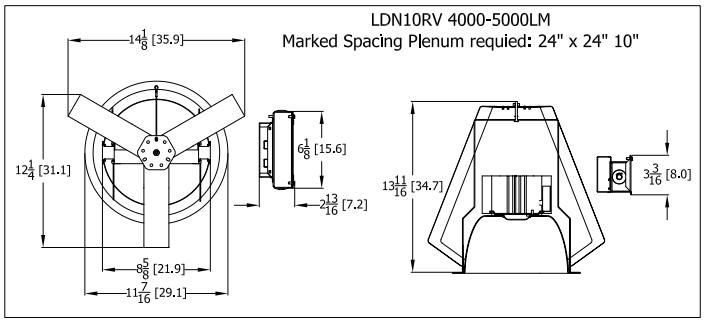












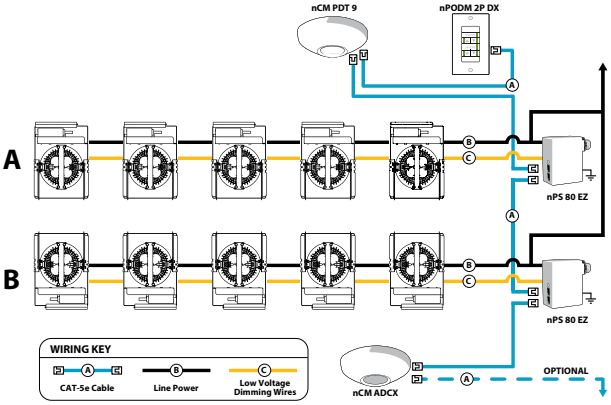
LDNRV

Choose Wall Controls.
nLIGHT offers multiple styles of wall controls – each with varying features and user experience.

Push-Button WallPod
Traditional tactile buttons and LED user feedback

Touch WallPod
Contemporary capacitive touch style buttons with audible clicker for user feedback

Graphic WallPod
Full color touch screen provides a sophisticated look and feel



EXAMPLE
Group Fixture Control*
*Application diagram applies for fixtures with eldoLED drivers only.

nPS 80 EZ Dimming/Control Pack (qty 2 required)
nPODM 2P DX Dual On/Off/Dim Push-Button WallPod
nCM ADCX Daylight Sensor with Automatic Dimming Control
nCM PDT 9 Dual Technology Occupancy Sensor

Description: This design provides a dual on/off/dim wall station that enables manual control of the fixtures in Row A and Row B separately. Additionally, a daylight harvesting sensor is provided so the lights in row B can be configured to dim automatically when daylight is available. An occupancy sensor turns off all lights when the space is vacant.

A+ Capable Luminaire

This item is an A+ capable luminaire, which has been designed and tested to provide consistent color appearance and out-of-the-box control compatibility with simple commissioning.

- All configurations of this luminaire meet the Acuity Brands' specification for chromatic consistency
- This luminaire is part of an A+ Certified solution for nLight® control networks when ordered with drivers marked by a shaded background*
- This luminaire is part of an A+ Certified solution for nLight control networks, providing advanced control functionality at the luminaire level, when selection includes driver and control options marked by a shaded background*

To learn more about A+, visit www.acuitybrands.com/aplus.

*See ordering tree for details

LITHONIA LIGHTING®

Catalog Number	
Notes	
Type	

FEATURES & SPECIFICATIONS

INTENDED USE

Suitable for emergency lighting applications such as stairways and hallways.

Certain airborne contaminants can diminish the integrity of acrylic and/or polycarbonate. Click here for Acrylic-Polycarbonate Compatibility table for suitable uses.

CONSTRUCTION

Injection-molded, flame-retardant, high-impact, thermoplastic housing with snap-fit design components with LED lamps for easy installation. Universal J-box pattern (j-box not included). Track and swivel arrangement permits full range of lamp adjustment.

OPTICS

The typical life of the LED is 10 years. Two 1W LED lamps for emergency light.

ELECTRICAL

Dual-voltage input 120V or 277V AC. Emergency unit provided with test switch, status indicator and rechargeable battery. Maintenance-free nickel-cadmium battery provides 90 minutes of emergency power.

Optional high-output battery to power both local and optional LED remote lamp heads simultaneously. The HO option provides additional 3W of LED remote capacity (up to 2 LED remote heads).

INSTALLATION

Wall mount only (not suitable for ceiling mount).

LISTINGS

UL Listed. Meets UL 924, NFPA 101, NFPA 70-NEC and OSHA illumination standards. Damp location 32°F to 122°F (0°C to 50°C) listed standard.

WARRANTY

2-year limited warranty. Complete warranty terms located at:
www.acuitybrands.com/CustomerResources/Terms_and_conditions.aspx

All life safety equipment, including emergency lighting for path of egress must be maintained, serviced, and tested in accordance with all National Fire Protection Association (NFPA) and local codes. Failure to perform the required maintenance, service, or testing could jeopardize the safety of occupants and will void all warranties.

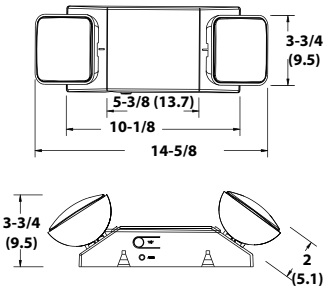
NOTE: Actual performance may differ as a result of end-user environment and application.

All values are design or typical values, measured under laboratory conditions at 25 °C.

Specifications subject to change without notice.

LED UNITS

LED Lamps



Weight: 4 lbs. (1.82 kgs.).

All dimensions are inches (centimeters) unless otherwise indicated.

ORDERING INFORMATION

All configurations of this product are considered "standard" and have short lead times.

Catalog Number	UPC	Description	Supply Voltage	Input Wattage[1]	Standard Pallet Qty.	Carton Qty.
EU2 LED M12	784231874493	Emergency lighting unit	120/277	1.8	324	12
EU2 LED HO M6	888791131215	Emergency lighting unit high output option	120/277	2.1	324	6

Accessories: *Order as separate items.*

ELA WG1	Wireguard (back mount only)[2]
ELA Q L0304	Single LED indoor remote head, white, 1.5W, 3.6V[3]
ELA T Q L0304	Twin LED indoor remote head, white, 3W, 3.6V[3]
ELA QWP L0304	Single LED weather-proof remote head, gray, 1.5W, 3.6V[3]
ELA T QWP L0304	Twin LED weather-proof remote head, gray, 1.5W, 3.6V[3]

Notes:

1. Per lamp head.
2. See spec sheet ELA-WG.
3. Available with HO option only.

EMERGENCY: One Lithonia Way Conyers, GA 30012 Phone: 800.334.8694 Email: techsupport-emergency@acuitybrands.com www.lithonia.com

Rev. 06/12/18

VANLED10

Low-profile vandal-resistant fixture covers the footprint of most traditional canopy lights. Available in flat or drop lens with frosted and unfrosted options.

Color: Bronze Weight: 12.0 lbs

Project:	Type:
Prepared By:	Date:

Driver Info		LED Info	
Type:	Constant Current	Watts:	10W
120V:	0.30A	Color Temp:	5000K (Cool)
208V:	0.20A	Color Accuracy:	78 CRI
240V:	0.17A	L70 Lifespan:	100000
277V:	0.15A	Lumens:	1681
Input Watts:	13W	Efficacy:	128 LPW
Efficiency:	76%		

Technical Specifications

Listings

UL Listing:

Suitable for Wet Locations. Covered Ceiling Mount Only.

DLC Listed:

This product is on the Design Lights Consortium (DLC) Qualified Products List and is eligible for rebates from DLC Member Utilities.
DLC Product Code: PMZZWGXN

IESNA LM-79 & LM-80 Testing:

RAB LED luminaires and LED components have been tested by an independent laboratory in accordance with IESNA LM-79 and LM-80.

Electrical

Driver:

Class 2, Constant Current, 100-277V, 50-60Hz, 280mA

THD:

16% at 277V

Construction

Maximum Ambient Temperature:

Suitable for use in 40°C (104°F) ambient temperatures

Cold Weather Starting:

Minimum starting temperature is -40°C (-40°F)

Housing:

Die-cast aluminum housing and lens frame with (4) 1/2" NPS side conduit entries and weatherproof rear wire plug and access plate

Mounting:

Ceiling mount to recessed junction with knockout template or directy to ceiling surface, utilizing side conduit entry points

IP Rating:

Ingress Protection rating of IP66 for dust and water

Lens:

Vandal-resistant polycarbonate textured opaque for low glare drop lens

Reflector:

Semi-specular, vacuum-metalized polycarbonate

Gaskets:

High-temperature silicone gaskets

Finish:

Our environmentally friendly polyester powder coatings are formulated for high-durability and long-lasting color

Green Technology:

Mercury and UV-free. RoHS compliant components. Polyester powder coat finish formulated without the use of VOCs or toxic heavy metals.

LED Characteristics

LEDs:

Discreet LEDs on PCB board

Color Stability:

RAB LEDs exceed industry standards for chromatic stability

Color Uniformity:

RAB's range of CCT (Correlated Color Temperature) follows the guidelines of the American National Standard for Specifications for the Chromaticity of Solid State Lighting (SSL) Products, ANSI C78.377-2017.

Other

Warranty:

RAB warrants that our LED products will be free from defects in materials and workmanship for a period of five (5) years from the date of delivery to the end user, including coverage of light output, color stability, driver performance and fixture finish. RAB's warranty is subject to all terms and conditions found at

Replacement:

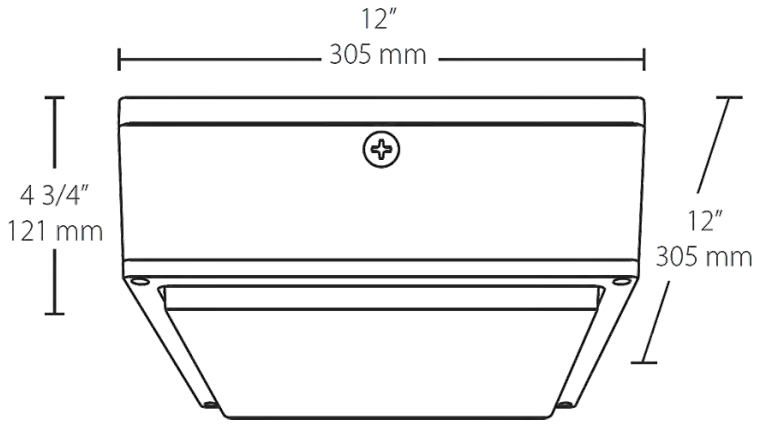
Replaces up to 50W Metal Halide

Buy American Act Compliance:

RAB values USA manufacturing! Upon request, RAB may be able to manufacture this product to be compliant with the Buy American Act (BAA). Please contact customer service to request a quote for the product to be made BAA compliant.

VANLED10

Dimensions



Features

- Fits the footprint of older canopy lights
- Vandal resistant and UV resistant lens
- Ultra-high efficiency
- Clean, contemporary, low-profile design
- Available with drop lens or flat lens
- IP66 rated, keeps dust, bugs and water out
- Photo and motion sensor options available

Ordering Matrix

Family	Wattage	Color Temp	Lens	Motion Sensor & Finish	Driver Options	Photocell Options	Other Options
VANLED	10	^	^	^	/D10	^	^
	75 = 75W **65** = 65W **52** = 52W **40** = 40W **20** = 20W **10** = 10W	**Blank** = 5000K (Cool) **N** = 4000K (Neutral) **Y** = 3000K (Warm)	**Blank** = Drop lens **F** = Flat lens **FR** = Frosted Drop Lens **FFR** = Frosted Flat Lens	**Blank** = Bronze, no sensor **W** = White, no sensor **MS** = Bronze w/ SMS500 mini-sensor **MSW** = White w/ SMS500 mini-sensor	**Blank** = On/Off driver **/D10** = 0-10V Dimming **/480** = 480V **/480/D10** = 480V w/ 0-10V dimming	**Blank** = No Option **/PCS** = 120V Swivel **/PCS2** = 277V Swivel **/PCS4** = 480V Swivel	**Blank** = Standard **USA** = BAA Compliant

VANLED10/PCS2

Low-profile vandal-resistant fixture covers the footprint of most traditional canopy lights. Available in flat or drop lens with frosted and unfrosted options.

Color: Bronze

Weight: 12.0 lbs

Project:	Type:
Prepared By:	Date:

Driver Info		LED Info	
Type:	Constant Current	Watts:	10W
120V:	N/A	Color Temp:	5000K (Cool)
208V:	0.20A	Color Accuracy:	78 CRI
240V:	0.17A	L70 Lifespan:	100000
277V:	0.15A	Lumens:	1681
Input Watts:	13W	Efficacy:	128 LPW
Efficiency:	76%		

Technical Specifications

Listings

UL Listing:

Suitable for Wet Locations. Covered Ceiling Mount Only.

DLC Listed:

This product is on the Design Lights Consortium (DLC) Qualified Products List and is eligible for rebates from DLC Member Utilities.
DLC Product Code: PMZZWGXN

IESNA LM-79 & LM-80 Testing:

RAB LED luminaires and LED components have been tested by an independent laboratory in accordance with IESNA LM-79 and LM-80.

Electrical

Driver:

Class 2, Constant Current, 100-277V, 50-60Hz, 280mA

THD:

16% at 277V

Photocell:

277V Swivel Photocell Included. Photocell is compatible with 208V-277V.

Construction

Maximum Ambient Temperature:

Suitable for use in 40°C (104°F) ambient temperatures

Cold Weather Starting:

Minimum starting temperature is -40°C (-40°F)

Housing:

Die-cast aluminum housing and lens frame with (4) 1/2" NPS side conduit entries and weatherproof rear wire plug and access plate

Mounting:

Ceiling mount to recessed junction with knockout template or directy to ceiling surface, utilizing side conduit entry points

IP Rating:

Ingress Protection rating of IP66 for dust and water

Lens:

Vandal-resistant polycarbonate textured opaque for low glare drop lens

Reflector:

Semi-specular, vacuum-metalized polycarbonate

Gaskets:

High-temperature silicone gaskets

Finish:

Our environmentally friendly polyester powder coatings are formulated for high-durability and long-lasting color

Green Technology:

Mercury and UV-free. RoHS compliant components. Polyester powder coat finish formulated without the use of VOCs or toxic heavy metals.

LED Characteristics

LEDs:

Discreet LEDs on PCB board

Color Stability:

RAB LEDs exceed industry standards for chromatic stability

Color Uniformity:

RAB's range of CCT (Correlated Color Temperature) follows the guidelines of the American National Standard for Specifications for the Chromaticity of Solid State Lighting (SSL) Products, ANSI C78.377-2017.

Other

Warranty:

RAB warrants that our LED products will be free from defects in materials and workmanship for a period of five (5) years from the date of delivery to the end user, including coverage of light output, color stability, driver performance and fixture finish. RAB's warranty is subject to all terms and conditions found at

Replacement:

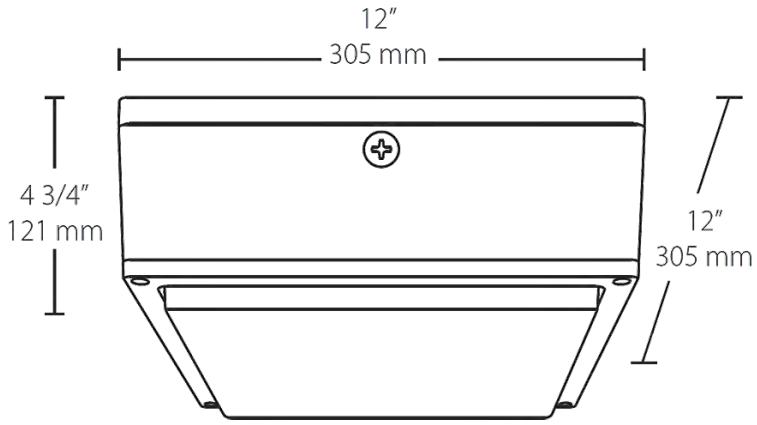
Replaces up to 50W Metal Halide

Buy American Act Compliance:

RAB values USA manufacturing! Upon request, RAB may be able to manufacture this product to be compliant with the Buy American Act (BAA). Please contact customer service to request a quote for the product to be made BAA compliant.

VANLED10/PCS2

Dimensions



Features

- Fits the footprint of older canopy lights
- Vandal resistant and UV resistant lens
- Ultra-high efficiency
- Clean, contemporary, low-profile design
- Available with drop lens or flat lens
- IP66 rated, keeps dust, bugs and water out
- Photo and motion sensor options available

Ordering Matrix

Family	Wattage	Color Temp	Lens	Motion Sensor & Finish	Driver Options	Photocell Options	Other Options
VANLED	10	^	^	^	/D10	/PCS2	^
	75 = 75W **65** = 65W **52** = 52W **40** = 40W **20** = 20W **10** = 10W	**Blank** = 5000K (Cool) **N** = 4000K (Neutral) **Y** = 3000K (Warm)	**Blank** = Drop lens **F** = Flat lens **FR** = Frosted Drop Lens **FFR** = Frosted Flat Lens	**Blank** = Bronze, no sensor **W** = White, no sensor **MS** = Bronze w/ SMS500 mini-sensor **MSW** = White w/ SMS500 mini-sensor	**Blank** = On/Off driver **/D10** = 0-10V Dimming **/480** = 480V **/480/D10** = 480V w/ 0-10V dimming	**Blank** = No Option **/PCS** = 120V Swivel **/PCS2** = 277V Swivel **/PCS4** = 480V Swivel	**Blank** = Standard **USA** = BAA Compliant

VANLED20

Low-profile vandal-resistant fixture covers the footprint of most traditional canopy lights. Available in flat or drop lens with frosted and unfrosted options.

Color: Bronze

Weight: 12.0 lbs

Project:	Type:
Prepared By:	Date:

Driver Info		LED Info	
Type:	Constant Current	Watts:	20W
120V:	0.30A	Color Temp:	5000K (Cool)
208V:	0.20A	Color Accuracy:	78 CRI
240V:	0.17A	L70 Lifespan:	100000
277V:	0.15A	Lumens:	2740
Input Watts:	22W	Efficacy:	126 LPW
Efficiency:	92%		

Technical Specifications

Listings

UL Listing:

Suitable for Wet Locations. Covered Ceiling Mount Only.

DLC Listed:

This product is on the Design Lights Consortium (DLC) Qualified Products List and is eligible for rebates from DLC Member Utilities.
DLC Product Code: PZQ1Z223

IESNA LM-79 & LM-80 Testing:

RAB LED luminaires and LED components have been tested by an independent laboratory in accordance with IESNA LM-79 and LM-80.

Electrical

Driver:

Class 2, Constant Current, 100-277V, 50-60Hz, 500mA

THD:

6.1% at 120V, 10.1% at 277V

Construction

Maximum Ambient Temperature:

Suitable for use in 40°C (104°F) ambient temperatures

Cold Weather Starting:

Minimum starting temperature is -40°C (-40°F)

Housing:

Die-cast aluminum housing and lens frame with (4) 1/2" NPS side conduit entries and weatherproof rear wire plug and access plate

Mounting:

Ceiling mount to recessed junction with knockout template or directy to ceiling surface, utilizing side conduit entry points

IP Rating:

Ingress Protection rating of IP66 for dust and water

Lens:

Vandal-resistant polycarbonate textured opaque for low glare drop lens

Reflector:

Semi-specular, vacuum-metalized polycarbonate

Gaskets:

High-temperature silicone gaskets

Finish:

Our environmentally friendly polyester powder coatings are formulated for high-durability and long-lasting color

Green Technology:

Mercury and UV-free. RoHS compliant components. Polyester powder coat finish formulated without the use of VOCs or toxic heavy metals.

LED Characteristics

LEDs:

Discreet LEDs on PCB board

Color Stability:

RAB LEDs exceed industry standards for chromatic stability

Color Uniformity:

RAB's range of CCT (Correlated Color Temperature) follows the guidelines of the American National Standard for Specifications for the Chromaticity of Solid State Lighting (SSL) Products, ANSI C78.377-2017.

Other

Warranty:

RAB warrants that our LED products will be free from defects in materials and workmanship for a period of five (5) years from the date of delivery to the end user, including coverage of light output, color stability, driver performance and fixture finish. RAB's warranty is subject to all terms and conditions found at

Replacement:

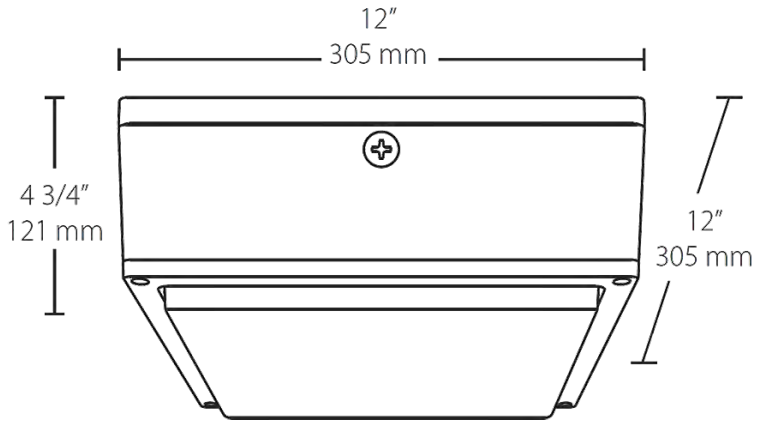
Replaces up to 70W Metal Halide

Buy American Act Compliance:

RAB values USA manufacturing! Upon request, RAB may be able to manufacture this product to be compliant with the Buy American Act (BAA). Please contact customer service to request a quote for the product to be made BAA compliant.

VANLED20

Dimensions



Features

- Fits the footprint of older canopy lights
- Vandal resistant and UV resistant lens
- Ultra-high efficiency
- Clean, contemporary, low-profile design
- Available with drop lens or flat lens
- IP66 rated, keeps dust, bugs and water out
- Photo and motion sensor options available

Ordering Matrix

Family	Wattage	Color Temp	Lens	Motion Sensor & Finish	Driver Options	Photocell Options	Other Options
VANLED	20	^	^	^	^	^	^
	75 = 75W **65** = 65W **52** = 52W **40** = 40W **20** = 20W **10** = 10W	**Blank** = 5000K (Cool) **N** = 4000K (Neutral) **Y** = 3000K (Warm)	**Blank** = Drop lens **F** = Flat lens **FR** = Frosted Drop Lens **FFR** = Frosted Flat Lens	**Blank** = Bronze, no sensor **W** = White, no sensor **MS** = Bronze w/ SMS500 mini-sensor **MSW** = White w/ SMS500 mini-sensor	**Blank** = On/Off driver **/D10** = 0-10V Dimming **/480** = 480V **/480/D10** = 480V w/ 0-10V dimming	**Blank** = No Option **/PCS** = 120V Swivel **/PCS2** = 277V Swivel **/PCS4** = 480V Swivel	**Blank** = Standard **USA** = BAA Compliant

YBLED26/PCT

High output 26W LED yardblaster delivers enough light to hit the broad side of a barn. Replaces 175W mercury vapor and 150W HPS barn lights. Durable finish withstands harsh environments.

Color: Silver gray

Weight: 6.9 lbs

Project:	Type:
Prepared By:	Date:

Driver Info		LED Info	
Type:	Constant Current	Watts:	26W
120V:	0.25A	Color Temp:	5000K (Cool)
208V:	0.16A	Color Accuracy:	67 CRI
240V:	0.14A	L70 Lifespan:	100000
277V:	0.12A	Lumens:	2689
Input Watts:	28W	Efficacy:	96 LPW
Efficiency:	93%		

Technical Specifications

Electrical

Photocell:

120-277V twistlock photocell included. Photocell is compatible with 120-277V.

Driver:

Constant Current, 120V, 50/60 Hz, 700mA, 120V: 0.6A

Power Factor:

99.3% at 120V, 92.5% at 277V

THD:

7.0% at 120V, 10.0% at 277V

Surge Protection:

2kV

Listings

UL Listing:

Suitable for wet locations

IESNA LM-79 & LM-80 Testing:

RAB LED luminaires and LED components have been tested by an independent laboratory in accordance with IESNA LM-79 and LM-80.

LED Characteristics

LEDs:

Multi-chip, high-output, long-life LED

Lifespan:

100,000-hour LED lifespan based on IES LM-80 results and TM-21 calculations

Color Stability:

LED color temperature is warrantied to shift no more than 200K in CCT over a 5 year period

Color Uniformity:

RAB's range of CCT (Correlated Color Temperature) follows the guidelines of the American National Standard for Specifications for the Chromaticity of Solid State Lighting (SSL) Products, ANSI C78.377-2017.

Construction

Cold Weather Starting:

Minimum starting temperature is -40°C (-40°F)

Housing:

Precision die-cast aluminum housing and arm

Mounting:

Mounts on wall or existing arm/pole YARM24 (1 5/8" diameter pipe)

Effective Projected Area:

EPA = 0.3

Recommended Mounting Height:

15 ft

Lens:

High-impact, frosted polycarbonate lens

Reflector:

High-reflectance white paint

Gaskets:

High-temperature silicone

Finish:

Our environmentally friendly polyester powder coatings are formulated for high-durability and long-lasting color

Green Technology:

Mercury and UV-free. RoHS compliant components. Polyester powder coat finish formulated without the use of VOCs or toxic heavy metals.

Other

Patents:

The design of YBLED26 is protected by patents pending in US, Canada, China, Taiwan and Mexico

Warranty:

RAB warrants that our LED products will be free from defects in materials and workmanship for a period of five (5) years from the date of delivery to the end user, including coverage of light output, color stability, driver performance and fixture finish. RAB's warranty is subject to all terms and conditions found at

Replacement:

Replaces 175W mercury vapor and 150W HPS

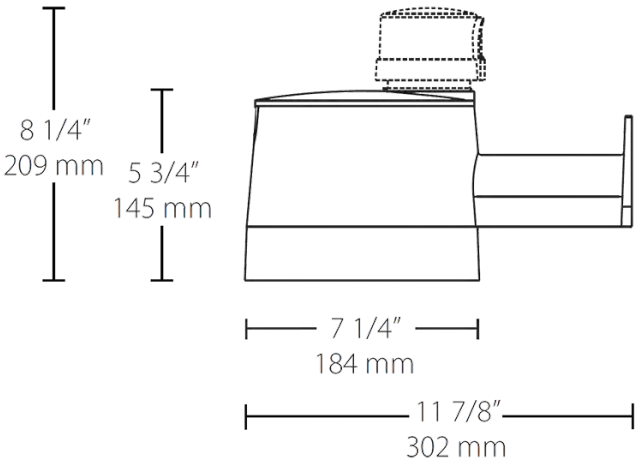
Optical

BUG Rating:

B1 U2 G1

YBLED26/PCT

Dimensions



Features

- Replaces 175W mercury vapor and 150W HPS barn lights
- Widespread light distribution illuminates large areas
- Vandal-resistant
- High-impact polycarbonate lens
- Rugged die-cast aluminum housing withstands harsh environments
- Integrated dusk to dawn photocell
- 100,000-hour LED lifespan

Ordering Matrix

Family	Wattage	Color Temp	Mounting	Dimming	Options
YBLED	26	^	^	^	/PCT
	60 = 60W **40** = 40W **26** = 26W	**Blank** = 5000K (Cool) **Y** = 3000K (Warm) **N** = 4000K (Neutral)	**Blank** = Wall **/ARM** = Arm	**Blank** = No Dimming **/D10** = 0-10V Dimming	**/PCT** = Twistlock Photocell **/5PR** = 5-Pin Receptacle **/LC** = Lightcloud® Controller **Blank** = Button Phootcell **/PCU** = Standard Button Photocell

FFLED18

Rectangular shaped LED floodlight designed to replace 70W Metal Halide. Patent Pending airflow technology ensures long LED and driver lifespan. Use for building facade lighting, sign lighting, LED landscape lighting and instant-on security lighting.

Color: Bronze

Weight: 4.8 lbs

Project:	Type:
Prepared By:	Date:

Driver Info		LED Info	
Type:	Constant Current	Watts:	18W
120V:	0.2A	Color Temp:	5000K (Cool)
208V:	0.15A	Color Accuracy:	72 CRI
240V:	0.13A	L70 Lifespan:	100000
277V:	0.11A	Lumens:	2310
Input Watts:	23W	Efficacy:	100 LPW
Efficiency:	78%		

Technical Specifications

Listings

UL Listing:

Suitable For Wet Locations. Suitable for ground mounting.

DLC Listed:

This product is on the Design Lights Consortium (DLC) Qualified Products List and is eligible for rebates from DLC Member Utilities.
DLC Product Code: P0000170B

IESNA LM-79 & LM-80 Testing:

RAB LED luminaires and LED components have been tested by an independent laboratory in accordance with IESNA LM-79 and LM-80.

LED Characteristics

Lifespan:

100,000-hour LED lifespan based on IES LM-80 results and TM-21 calculations

LEDs:

Multi-chip, high-output, long-life LEDs

Color Consistency:

7-step MacAdam Ellipse binning to achieve consistent fixture-to-fixture color

Color Stability:

LED color temperature is warrantied to shift no more than 200K in CCT over a 5 year period

Color Uniformity:

RAB's range of CCT (Correlated Color Temperature) follows the guidelines of the American National Standard for (SSL) Products, ANSI C78.377-2017.

Construction

IP Rating:

Ingress Protection rating of IP66 for dust and water

Airflow:

Airflow technology heat sink for superior cooling

Ambient Temperature:

SuitableFor use in 40°C (104°F) ambient temperatures

Cold Weather Starting:

Minimum starting temperature is -40°C (-40°F)

Thermal Management Housing:

Die-cast aluminum housing, lens frame and mounting arm

Mounting:

Heavy-duty mounting arm with "O" ring seal & stainless steel screw

Reflector:

Semi-specular anodized aluminum

Gaskets:

High-temperature silicone gaskets

Finish:

Formulated for high-durability and long lasting color

Green Technology:

Mercury and UV-free. RoHS compliant components. Polyester powder coat finish formulated without the use of VOCs or toxic heavy metals.

Optical

NEMA Type:

NEMA Beam Spread of 7H x 6V

Electrical

Driver:

Constant Current, Class 2, 100 - 277V, 50 - 60 Hz, 100 - 277VAC 0.4 Amps.

Surge Protection:

6kV

Other

Warranty:

RAB warrants that our LED products will be free from defects in materials and workmanship for a period of five (5) years from the date of delivery to the end user, including coverage of light output, color stability, driver performance and fixture finish. RAB's warranty is subject to all terms and conditions found at

Patents:

The FFLED design is protected by U.S. Pat. D643,147, Canada Pat. 140798, China Pat. ZL201130171304.1, Mexico Pat. 36757 and pending patent in Taiwan.

American Bureau of Shipping (ABS) :

For use on Mobile Offshore Drilling Units (MODU) and shipping vessels

Equivalency:

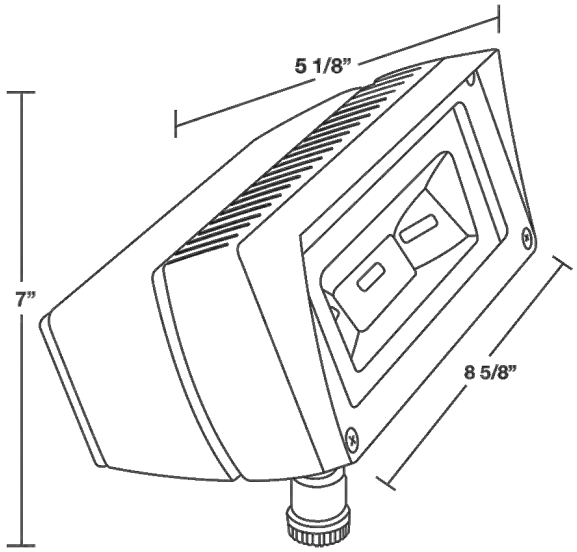
Equivalent to 70W Metal Halide

Buy American Act Compliance:

RAB values USA manufacturing! Upon request, RAB may be able to manufacture this product to be compliant with the Buy American Act (BAA). Please contact customer service to request a quote for the product to be made BAA compliant.

FFLED18

Dimensions



Features

- Ultra efficient LED and optical design
- Replaces 70W MH floodlights
- 100,000 hour life based on LM-80 tests
- NEMA type - 7H x 6V
- Air-flow technology heatsink
- 5-Year, No-Compromise Warranty

Ordering Matrix

Family	Wattage	Mounting	Color Temp	NEMA Type	Finish	Driver	Photocell Options	Other Options
FFLED	18	^	^	^	^	^	^	^
	80 = 80W **52** = 52W **39** = 39W **26** = 26W **18** = 18W	**Blank** = Swivel Arm **SF** = Slipfitter **T** = Trunnion	**Blank** = 5000K (Cool) **N** = 4000K (Neutral) **Y** = 3000K (Warm)	**Blank** = 7H x 6V **B55** = 5H x 5V **B44** = 4H x 4V	**Blank** = Bronze **W** = White	**Blank** = On/Off **/D10** = 0-10V Dimming **/480** = 480V On/Off (not available for 80W models)	**Blank** = No Option **/PC** = 120V Photocell **/PC2** = 277V Photocell **/PCS** = 120V Swivel Photocell **/PCS2** = 277V Swivel Photocell **/PCS4** = 480V Swivel Photocell	**Blank** = Standard **USA** = BAA Compliant

FFLED39

Rectangular shaped LED floodlight designed to replace 150W Metal Halide. Patent Pending airflow technology ensures long LED and driver lifespan. Use for building facade lighting, sign lighting, LED landscape lighting and instant-on security lighting.

Color: Bronze

Weight: 12.5 lbs

Project:	Type:
Prepared By:	Date:

Driver Info		LED Info	
Type:	Constant Current	Watts:	39W
120V:	0.35A	Color Temp:	5000K (Cool)
208V:	0.20A	Color Accuracy:	71 CRI
240V:	0.18A	L70 Lifespan:	100000
277V:	0.15A	Lumens:	5666
Input Watts:	42W	Efficacy:	136 LPW
Efficiency:	93%		

Technical Specifications

LED Characteristics

Lifespan:

100,000-hour LED lifespan based on IES LM-80 results and TM-21 calculations

LEDs:

Two multi-chip, 26Watt high performance LEDs

Color Consistency:

7-step MacAdam Ellipse binning to achieve consistent fixture-to-fixture color

Color Stability:

LED color temperature is warrantied to shift no more than 200K in CCT over a 5 year period

Color Uniformity:

RAB's range of CCT (Correlated Color Temperature) follows the guidelines of the American National Standard for (SSL) Products, ANSI C78.377-2017.

Listings

DLC Listed:

This product is on the Design Lights Consortium (DLC) Qualified Products List and is eligible for rebates from DLC Member Utilities.
DLC Product Code: P00001709

IESNA LM-79 & LM-80 Testing:

RAB LED luminaires and LED components have been tested by an independent laboratory in accordance with IESNA LM-79 and LM-80.

UL Listing:

Suitable For Wet Locations. Suitable for ground mounting.

Construction

IP Rating:

Ingress Protection rating of IP66 for dust and water

Ambient Temperature:

SuitableFor use in 40°C (104°F) ambient temperatures

Cold Weather Starting:

Minimum starting temperature is -40°C (-40°F)

Thermal Management Housing:

Superior heat sinking with external Air-Flow fins

Mounting:

Heavy-duty mounting arm with "O" ring seal & stainless steel screw

Effective Projected Area:

EPA = 0.65

Reflector:

Specular vacuum-metallized polycarbonate

Gaskets:

High-temperature silicone gaskets

Finish:

Formulated for high-durability and long lasting color

Green Technology:

Mercury and UV-free. RoHS compliant components. Polyester powder coat finish formulated without the use of VOCs or toxic heavy metals.

Threaded Size:

1/2" threaded arm

Optical

NEMA Type:

NEMA Beam Spread of 7H x 6V

Electrical

Driver:

Constant Current, Class 2, 1050mA, 100-277V, 50/60Hz, 0.6A, Power Factor 99%

Surge Protection:

4kV

Other

Warranty:

RAB warrants that our LED products will be free from defects in materials and workmanship for a period of five (5) years from the date of delivery to the end user, including coverage of light output, color stability, driver performance and fixture finish. RAB's warranty is subject to all terms and conditions found at

Patents:

The FFLED design is protected by U.S. Pat. D643,147, Canada Pat. 140798, China Pat. ZL201130171304.1, Mexico Pat. 36757 and pending patent in Taiwan.

American Bureau of Shipping (ABS) :

For use on Mobile Offshore Drilling Units (MODU) and shipping vessels

Equivalency:

Equivalent to 150W Metal Halide

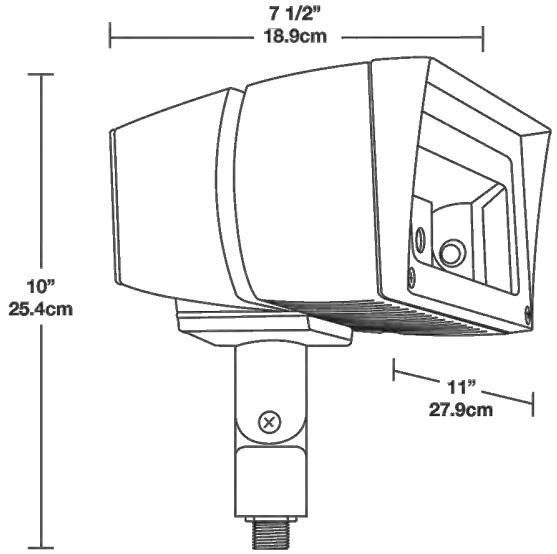
Technical Specifications (continued)

Other

Buy American Act Compliance:

RAB values USA manufacturing! Upon request, RAB may be able to manufacture this product to be compliant with the Buy American Act (BAA). Please contact customer service to request a quote for the product to be made BAA compliant.

Dimensions



Features

- Ultra efficient LED and optical design
- Replaces 150W MH floodlights
- 100,000 hour life based on LM-80 tests
- Air-flow technology heatsink
- 5-Year, No-Compromise Warranty

Ordering Matrix

Family	Wattage	Mounting	Color Temp	NEMA Type	Finish	Driver	Photocell Options	Other Options
FFLED	39	^	^	^	^	^	^	^
	80 = 80W **52** = 52W **39** = 39W **26** = 26W **18** = 18W	**Blank** = Swivel Arm **SF** = Slipfitter **T** = Trunnion	**Blank** = 5000K (Cool) **N** = 4000K (Neutral) **Y** = 3000K (Warm)	**Blank** = 7H x 6V **B55** = 5H x 5V **B44** = 4H x 4V	**Blank** = Bronze **W** = White	**Blank** = On/Off **/D10** = 0-10V Dimming **/480** = 480V On/Off (not available for 80W models)	**Blank** = No Option **/PC** = 120V Photocell **/PC2** = 277V Photocell **/PCS** = 120V Swivel Photocell **/PCS2** = 277V Swivel Photocell **/PCS4** = 480V Swivel Photocell	**USA** = BAA Compliant **Blank** = Standard

FFLED52

Rectangular shaped LED floodlight designed to replace 175W Metal Halide. Patent Pending airflow technology ensures long LED and driver lifespan. Use for building facade lighting, sign lighting, LED landscape lighting and instant-on security lighting.

Color: Bronze

Weight: 12.5 lbs

Project:	Type:
Prepared By:	Date:

Driver Info		LED Info	
Type:	Constant Current	Watts:	52W
120V:	0.45A	Color Temp:	5000K (Cool)
208V:	0.27A	Color Accuracy:	71 CRI
240V:	0.24A	L70 Lifespan:	100000
277V:	0.21A	Lumens:	6935
Input Watts:	55W	Efficacy:	125 LPW
Efficiency:	94%		

Technical Specifications

Listings

UL Listing:

Suitable For Wet Locations. Suitable for mounting within 1.2M(4FT) of the ground.

DLC Listed:

This product is on the Design Lights Consortium (DLC) Qualified Products List and is eligible for rebates from DLC Member Utilities.
DLC Product Code: P2CRRKPHQ

IESNA LM-79 & LM-80 Testing:

RAB LED luminaires and LED components have been tested by an independent laboratory in accordance with IESNA LM-79 and LM-80.

LED Characteristics

Lifespan:

100,000-hour LED lifespan based on IES LM-80 results and TM-21 calculations

LEDs:

Two multi-chip, 26Watt high performance LEDs

Color Consistency:

7-step MacAdam Ellipse binning to achieve consistent fixture-to-fixture color

Color Stability:

LED color temperature is warrantied to shift no more than 200K in CCT over a 5 year period

Color Uniformity:

RAB's range of CCT (Correlated Color Temperature) follows the guidelines of the American National Standard for (SSL) Products, ANSI C78.377-2017.

Construction

IP Rating:

Ingress Protection rating of IP66 for dust and water

Ambient Temperature:

SuitableFor use in 40°C (104°F) ambient temperatures

Cold Weather Starting:

Minimum starting temperature is -40°C (-40°F)

Thermal Management Housing:

Superior heat sinking with external Air-Flow fins

Housing:

Die-cast aluminum housing, lens frame and mounting arm

Threaded Size:

1/2" threaded arm

Mounting:

Heavy-duty mounting arm with "O" ring seal & stainless steel screw

Effective Projected Area:

EPA = 0.65

Reflector:

Specular polycarbonate

Gaskets:

High-temperature silicone gaskets

Finish:

Formulated for high-durability and long lasting color

Green Technology:

Mercury and UV-free. RoHS compliant components. Polyester powder coat finish formulated without the use of VOCs or toxic heavy metals.

Optical

NEMA Type:

NEMA Beam Spread of 7H x 6V

Electrical

Driver:

Constant Current, Class 2, 100-277V, 50/60 Hz, 4 kV surge protection, 120V: 0.45A, 208V: 0.27A, 240V: 0.24A, 277V: 0.21A

Other

Warranty:

RAB warrants that our LED products will be free from defects in materials and workmanship for a period of five (5) years from the date of delivery to the end user, including coverage of light output, color stability, driver performance and fixture finish. RAB's warranty is subject to all terms and conditions found at

Patents:

The FFLED design is protected by U.S. Pat. D643,147, Canada Pat. 140798, China Pat. ZL201130171304.1, Mexico Pat. 36757 and pending patent in Taiwan.

American Bureau of Shipping (ABS) :

For use on Mobile Offshore Drilling Units (MODU) and shipping vessels

Equivalency:

Equivalent to 175W Metal Halide

Technical Specifications (continued)

Other

Buy American Act Compliance:

RAB values USA manufacturing! Upon request, RAB may be able to manufacture this product to be compliant with the Buy American Act (BAA). Please contact customer service to request a quote for the product to be made BAA compliant.

Features

- Ultra efficient LED and optical design
- Replaces 175W MH floodlights
- 100,000 hour life based on LM-80 tests
- Air-flow technology heatsink
- 5-Year, No-Compromise Warranty

Ordering Matrix

Family	Wattage	Mounting	Color Temp	NEMA Type	Finish	Driver	Photocell Options	Other Options
FFLED	52	^	^	^	^	^	^	^
	80 = 80W **52** = 52W **39** = 39W **26** = 26W **18** = 18W	**Blank** = Swivel Arm **SF** = Slipfitter **T** = Trunnion	**Blank** = 5000K (Cool) **N** = 4000K (Neutral) **Y** = 3000K (Warm)	**Blank** = 7H x 6V **B55** = 5H x 5V **B44** = 4H x 4V	**Blank** = Bronze **W** = White	**Blank** = On/Off **/D10** = 0-10V Dimming **/480** = 480V On/Off (not available for 80W models)	**Blank** = No Option **/PC** = 120V Photocell **/PC2** = 277V Photocell **/PCS** = 120V Swivel Photocell **/PCS2** = 277V Swivel Photocell **/PCS4** = 480V Swivel Photocell	**USA** = BAA Compliant **Blank** = Standard

FXLED78SF/PCT

RAB Outdoor

Color: Bronze

Weight: 25.0 lbs

Project:	Type:
Prepared By:	Date:

Driver Info

Type:	Constant Current
120V:	0.66A
208V:	0.41A
240V:	0.35A
277V:	0.30A
Input Watts:	76W
Efficiency:	N/A

LED Info

Watts:	78W
Color Temp:	5100K (Cool)
Color Accuracy:	71 CRI
L70 Lifespan:	100,000
Lumens:	9,559
Efficacy:	126 LPW

Technical Specifications

Listings

UL Listing:

Suitable for wet locations. Suitable for ground mounting.

IESNA LM-79 & LM-80 Testing:

RAB LED luminaires and LED components have been tested by an independent laboratory in accordance with IESNA LM-79 and LM-80.

DLC Listed:

This product is on the Design Lights Consortium (DLC) Qualified Products List and is eligible for rebates from DLC Member Utilities.
DLC Product Code: P0000170A

Electrical

THD:

5% at 120V, 14.1% at 277V

Power Factor:

99.5% at 120V, 93.7% at 277V

Driver:

Constant Current, Class 2, 2000mA, 100-277V, 50-60Hz, 1.1A, Power Factor 99%

Surge Protection:

4kV

Photocell:

120-277V twistlock photocell included. Photocell is compatible with 120V - 277V.

LED Characteristics

Lifespan:

100,000-hour LED lifespan based on IES LM-80 results and TM-21 calculations

Note:

All values are typical (tolerance +/- 10%)

Color Consistency:

7-step MacAdam Ellipse binning to achieve consistent fixture-to-fixture color

Color Stability:

LED color temperature is warrantied to shift no more than 200K in CCT over a 5 year period

Color Uniformity:

RAB's range of CCT (Correlated Color Temperature) follows the guidelines of the American National Standard for (SSL) Products, ANSI C78.377-2017.

Construction

IP Rating:

Ingress Protection rating of IP66 for dust and water

EPA:

2

Ambient Temperature:

Suitable For use in 40°C (104°F)

Cold Weather Starting:

Minimum starting temperature is -40°C (-40°F)

Thermal Management:

Superior heat sinking with external Air-Flow fins

Lens:

Tempered glass lens

Housing:

Die-cast aluminum housing and door frame

Mounting:

Heavy-duty Slip Fitter for 2 3/8"OD pipe

Gaskets:

High-temperature silicone gaskets

Finish:

Formulated for high-durability and long lasting color

Green Technology:

Mercury and UV-free. RoHS compliant components.

Optical

NEMA Type:

NEMA Beam Spread of 6H x 6V

Other

Warranty:

RAB warrants that our LED products will be free from defects in materials and workmanship for a period of five (5) years from the date of delivery to the end user, including coverage of light output, color stability, driver performance and fixture finish. RAB's warranty is subject to all terms and conditions found at

Technical Specifications (continued)

Other

Patents:

The FXLED78 design is protected by U.S. Pat. D659,280, Canada Pat. 143155, China Pat. ZL201130443125.9, Mexico Pat. 36558 and pending patent in Taiwan.

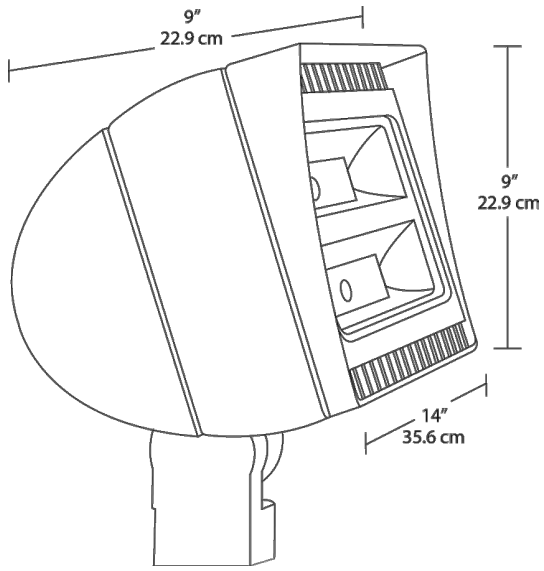
Equivalency:

Equivalent to 250W Metal Halide

Buy American Act Compliance:

RAB values USA manufacturing! Upon request, RAB may be able to manufacture this product to be compliant with the Buy American Act (BAA). Please contact customer service to request a quote for the product to be made BAA compliant.

Dimensions



Features

- 66% energy cost savings vs. HID
- NEMA Type - 6H x 6V
- Air-Flow technology heat dissipation
- 100,000-hour LED lifespan
- 5-year warranty

Ordering Matrix

Family	Wattage	Mounting	Color Temp	Finish	Driver	Options	Other Option
FXLED	78	SF	^	^	^	/PCT	^
	78 = 78W **105** = 105W **125** = 125W **150** = 150W	**SF** = Slipfitter **T** = Trunnion	**Blank** = 5000K (Cool) **N** = 4000K (Neutral) **Y** = 3000K (Warm)	**Blank** = Bronze **W** = White	**Blank** = Standard **/D10** = 0-10V Dimming **/BL** = Bi-Level **/480** = 480V	**Blank** = No Option **/LC** = Lightcloud Control **/PCT** = 100-277V Twistlock **/PCT4** = 480V Twistlock	**Blank** = Standard **USA** = BAA Compliant

FXLED125T/PCT

Color: Bronze

Weight: 25.0 lbs

Project:	Type:
Prepared By:	Date:

Driver Info		LED Info	
Type:	Constant Current	Watts:	125W
120V:	1.12A	Color Temp:	5000K (Cool)
208V:	0.70A	Color Accuracy:	72 CRI
240V:	0.61A	L70 Lifespan:	100000
277V:	0.52A	Lumens:	16951
Input Watts:	132W	Efficacy:	128 LPW
Efficiency:	94%		

Technical Specifications

Listings

UL Listing:

Suitable for wet locations. Suitable for ground mounting.

IESNA LM-79 & LM-80 Testing:

RAB LED luminaires and LED components have been tested by an independent laboratory in accordance with IESNA LM-79 and LM-80.

DLC Listed:

This product is on the Design Lights Consortium (DLC) Qualified Products List and is eligible for rebates from DLC Member Utilities.
DLC Product Code: P0000176D

Electrical

Driver:

One Driver, Constant Current, Class 2, 1800mA 100-277V, 50-60Hz, Power Factor 99%

THD:

5.1% at 120V, 16.5% at 277V

Power Factor:

99.4% at 120V, 91.8% at 277V

LED Characteristics

Lifespan:

100,000-hour LED lifespan based on IES LM-80 results and TM-21 calculations

LEDs:

Multip-chip, high-output, long-life LEDs

Color Consistency:

7-step MacAdam Ellipse binning to achieve consistent fixture-to-fixture color

Color Stability:

LED color temperature is warrantied to shift no more than 200K in CCT over a 5 year period

Color Uniformity:

RAB's range of CCT (Correlated Color Temperature) follows the guidelines of the American National Standard for Specifications for the Chromaticity of Solid State Lighting (SSL) Products, ANSI C78.377-2017.

Construction

IP Rating:

Ingress Protection rating of IP66 for dust and water

Maximum Ambient Temperature:

Suitable for use in 40°C (104°F) ambient temperatures

Effective Projected Area:

EPA = 2

Cold Weather Starting:

Minimum starting temperature is -40°C (-40°F)

Thermal Management:

Superior thermal management with external "Air-Flow" fins

Lens:

Tempered glass lens

Housing:

Die-cast aluminum housing and door frame

Mounting:

Heavy-duty Trunnion mount with stainless steel hardware

Reflector:

Specular, vacuum-metalized polycarbonate

Gaskets:

High-temperature silicone gaskets

Finish:

Formulated for high-durability and long lasting color

Green Technology:

Mercury and UV-free. RoHS compliant components. Polyester powder coat finish formulated without the use of VOCs or toxic heavy metals.

Optical

NEMA Type:

NEMA Beam Spread of 6H x 6V

Sensor Characteristics

Field & Beam Angles:

Horizontal Beam Angle (50%): 91.8°, Vertical Beam Angle (50%): 73.5° Horizontal Field Angle (10%): 121.0°, Vertical Field Angle (10%): 108.0°

Other

Warranty:

RAB warrants that our LED products will be free from defects in materials and workmanship for a period of five (5) years from the date of delivery to the end user, including coverage of light output, color stability, driver performance and fixture finish. RAB's warranty is subject to all terms and conditions found at

Technical Specifications (continued)

Other

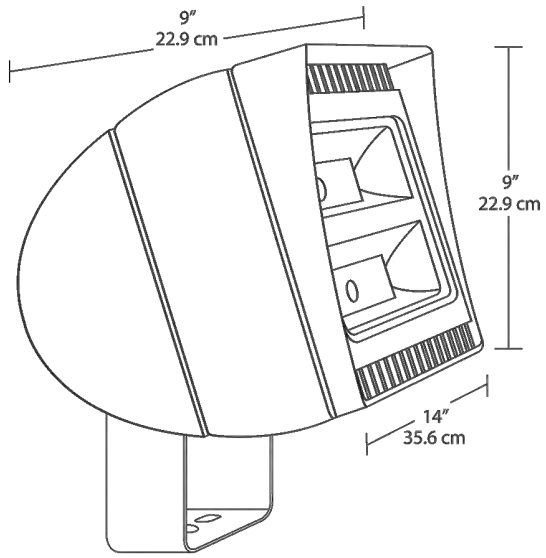
Patents:

The design of FXLED125 is protected by patents pending in US, Canada, China, Taiwan and Mexico

Replacement:

Replaces 320W Metal Halide

Dimensions



Features

- 66% energy cost savings vs. HID
- NEMA Type - 6H x 6V
- Air-Flow technology heat dissipation
- 100,000-hour LED lifespan
- 5-year warranty

Ordering Matrix

Family	Wattage	Mounting	Color Temp	Finish	Driver	Photocell Options	Other Option
FXLED	125	T	^	^	^	/PCT	^
	150 = 150W **125** = 125W **105** = 105W **78** = 78W	**SF** = Slipfitter **T** = Trunnion	**Blank** = 5000K (Cool) **N** = 4000K (Neutral) **Y** = 3000K (Warm)	**Blank** = Bronze **W** = White	**Blank** = Standard **/D10** = 0-10V Dimming **/BL** = Bi-Level **/480** = 480V	**Blank** = No Option **/PCT** = 100-277V Twistlock **/PCT4** = 480V Twistlock	**Blank** = Standard **USA** = BAA Compliant

FXLED300T/PCT

Ultra high output, high efficiency LED floodlight with NEMA Types: 7H x 6V, 6H x 4V, 4H x 6V, 5H x 5V and 3H x 3V. Patent Pending airflow technology ensures long LED and driver lifespan. Use for general and security lighting for large areas, building facades, signs and landscapes.

Color: Bronze

Weight: 66.1 lbs

Project:	Type:
Prepared By:	Date:

Driver Info		LED Info	
Type:	Constant Current	Watts:	300W
120V:	2.65A	Color Temp:	5000K (Cool)
208V:	1.59A	Color Accuracy:	72 CRI
240V:	1.38A	L70 Lifespan:	100000
277V:	1.17A	Lumens:	38292
Input Watts:	315W	Efficacy:	122 LPW
Efficiency:	95%		

Technical Specifications

Listings

UL Listing:

Suitable for wet locations. Suitable for ground mounting.

IESNA LM-79 & LM-80 Testing:

RAB LED luminaires and LED components have been tested by an independent laboratory in accordance with IESNA LM-79 and LM-80.

DLC Listed:

This product is on the Design Lights Consortium (DLC) Qualified Products List and is eligible for rebates from DLC Member Utilities.
DLC Product Code: PF5PMFXJ

Electrical

Drivers:

Constant Current, 1050mA, 50/60 Hz, 120-277V, 4 kV surge protection, 120V: 2.65A, 208V: 1.59A, 240V: 1.38A, 277V: 1.17A, THD <20%, Power Factor: 99%

THD:

6.8% at 120V, 10.9% at 277V

Photocell:

120-277V twistlock photocell included. Photocell is compatible with 120-277V.

Optical

NEMA Type:

NEMA Beam Spread of 7H x 6V

LED Characteristics

Lifespan:

100,000-hour LED lifespan based on IES LM-80 results and TM-21 calculations

LEDs:

Multip-chip, high-output, long-life LEDs

Color Consistency:

7-step MacAdam Ellipse binning to achieve consistent fixture-to-fixture color

Color Stability:

LED color temperature is warrantied to shift no more than 200K in CCT over a 5 year period

Color Uniformity:

RAB's range of CCT (Correlated Color Temperature) follows the guidelines of the American National Standard for Specifications for the Chromaticity of Solid State Lighting (SSL) Products, ANSI C78.377-2017.

Construction

IP Rating:

Ingress Protection rating of IP66 for dust and water

Maximum Ambient Temperature:

Suitable for use in 40°C (104°F) ambient temperatures

Effective Projected Area:

EPA = 4

Cold Weather Starting:

Minimum starting temperature is -40°C (-40°F)

Thermal Management:

Superior thermal management with external "Air-Flow" fins

Lens:

Tempered glass lens

Housing:

Die-cast aluminum housing and door frame

Mounting:

Heavy-duty Trunnion mount with stainless steel hardware

Reflector:

Specular and semi-specular vacuum metalized polycarbonate

Gaskets:

High-temperature silicone gaskets

Finish:

Formulated for high-durability and long lasting color

Green Technology:

Mercury and UV-free. RoHS compliant components. Polyester powder coat finish formulated without the use of VOCs or toxic heavy metals.

Other

Warranty:

RAB warrants that our LED products will be free from defects in materials and workmanship for a period of five (5) years from the date of delivery to the end user, including coverage of light output, color stability, driver performance and fixture finish. RAB's warranty is subject to all terms and conditions found at

American Bureau of Shipping (ABS) :

For use on Mobile Offshore Drilling Units (MODU) and shipping vessels

Technical Specifications (continued)

Other

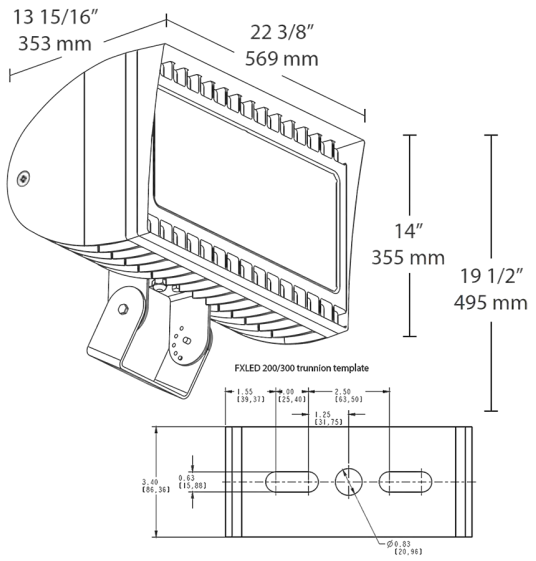
Replacement:

Replaces 1000W Metal Halide

Buy American Act Compliance:

RAB values USA manufacturing! Upon request, RAB may be able to manufacture this product to be compliant with the Buy American Act (BAA). Please contact customer service to request a quote for the product to be made BAA compliant.

Dimensions



Features

- 300W replaces 1000 MH floodlights
- 100,000-hour LED lifespan
- 5-Year, No-Compromise Warranty

Ordering Matrix

Family	Wattage	Mounting	Color Temp	NEMA Type	Finish	Driver Options	Options	Other Options
FXLED	300	T	^	^	^	^	/PCT	^
	200 = 200W **300** = 300W	**SF** = Slipfitter **T** = Trunnion	**Blank** = 5000K (Cool) **N** = 4000K (Neutral) **Y** = 3000K (Warm)	**Blank** = 7H x 6V **B64** = 6H x 4V **B55** = 5H x 5V **B33** = 3H x 3V **B46** = 4H x 6V	**Blank** = Bronze **W** = White	**Blank** = 120-277V **/480** = 480V **/BL** = Bi-Level (Slipfitters only) **/D10** = 0-10V Dimming	**Blank** = No option **/PCS** = 120V Swivel **/PCS2** = 277V Swivel **/PCT** = 120-277V Twistlock **/PCT4** = 480V Twistlock **/PCS4** = 480V Swivel **/LC** = Lightcloud Controller	**USA** = BAA Compliant **Blank** = Standard

RAIL95W/D10

LED High Bay fixture ideal for large indoor spaces, including warehouses, gymnasiums and distribution centers with high ceiling that require mounting heights of 50-60 feet. Replaces up to 1000W MH fixtures.

Color: White

Weight: 10.3 lbs

Project:	Type:
Prepared By:	Date:

Driver Info		LED Info	
Type:	Constant Current	Watts:	95W
120V:	0.77A	Color Temp:	5000K (Cool)
208V:	0.48A	Color Accuracy:	78 CRI
240V:	0.42A	L70 Lifespan:	100000
277V:	0.35A	Lumens:	12645
Input Watts:	92W	Efficacy:	137 LPW
Efficiency:	N/A		

Technical Specifications

Listings

UL Listing:

Suitable for damp locations

DLC Listed:

This product is listed by Design Lights Consortium (DLC) as an ultra-efficient premium product that qualifies for the highest tier of rebates from DLC Member Utilities.
DLC Product Code: PGR6PS9G

LED Characteristics

Lifespan:

100,000-hour LED lifespan based on IES LM-80 results and TM-21 calculations

Color Stability:

LED Color temperature is warrantied to shift no more than 200K in CCT over a 5 year period

Color Uniformity:

RAB's range of CCT (Correlated Color Temperature) follows the guidelines of the American National Standard for Specifications for the Chromaticity of Solid State Lighting (SSL) Products, ANSI C78.377-2017.

Electrical

Driver:

One Driver, Class 2, Constant Current, 100-277VAC, 50-60Hz, 4kV, 1.1A,

Dimming Driver:

Driver includes dimming control wiring for 0-10V dimming systems. Requires separate 0-10V DC dimming circuit. Dims as low as 10%.

THD:

5.6% at 120V, 9.8% at 277V

Power Factor:

99.8% at 120V, 92.6% at 277V

Construction

Ambient Temperature:

Suitable for use 12 hours a day, 6 days a week in 60°C (140°F). Suitable for 24/7 use in ambient temperatures up to 50°C (122°F).

Housing:

Extruded aluminum

Lens:

High-transmittance polystyrene

Reflector:

Specular, high-reflectance aluminum with 95% reflectivity

Mounting:

V hooks (chain by others)

Finish:

Formulated for high-durability and long lasting color

Green Technology:

Mercury and UV-free. RoHS compliant components. Polyester powder coat finish formulated without the use of VOCs or toxic heavy metals.

Recommended Mounting Height:

Up to 25 ft

Other

Replacement:

Replaces 100-250W MH

Warranty:

RAB warrants that our LED products will be free from defects in materials and workmanship for a period of five (5) years from the date of delivery to the end user, including coverage of light output, color stability, driver performance and fixture finish. RAB's warranty is subject to all terms and conditions found at

Sensor Specifications

Handheld Wireless Configuration Tool:

Adjust settings using handheld wireless configuration tool. Only available with 0-10V dimming driver options.

RAIL95W/D10

Features

Ideal for large spaces

100,000 hour lifespan - virtually maintenance free operation

0-10V driver for variable dimming down to 10%

Low-glare design with semi-diffuse lens

Ordering Matrix

Family	Wattage	Color Temp	Finish	Driver Options	Control Options	Other Options
RAIL	95	^	W	/D10	^	^
	400 = 400W **225** = 225W **185** = 185W **150** = 150W **95** = 95W	**Blank** = 5000K (Cool) **N** = 4000K (Neutral) **YN** = 3500K (Warm Neutral)	**W** = White	**/D10** = 120-277V, 0-10V Dim **/480/D10** = 480V, 0-10V Dim	**Blank** = No Option **/BL** = Bi-Level Control **/WS2** = Multi-Level Motion Sensor 20 ft. **/WS4** = Multi-Level Motion Sensor 40 ft. **/LOS** = LOSBAY 800 Sensor **/LC** = Lightcloud® Controller **/LCS** = Lightcloud® Sensor **/E2** = Emergency Battery Pack	**Blank** = Standard **USA** = BAA Compliant

RAIL150W/D10

LED High Bay fixture ideal for large indoor spaces, including warehouses, gymnasiums and distribution centers with high ceiling that require mounting heights of 50-60 feet. Replaces up to 1000W MH fixtures.

Color: White

Weight: 15.6 lbs

Project:	Type:
Prepared By:	Date:

Driver Info		LED Info	
Type:	Constant Current	Watts:	150W
120V:	1.12A	Color Temp:	5000K (Cool)
208V:	0.70A	Color Accuracy:	76 CRI
240V:	0.60A	L70 Lifespan:	100000
277V:	0.51A	Lumens:	18882
Input Watts:	132W	Efficacy:	143 LPW
Efficiency:	N/A		

Technical Specifications

Listings

UL Listing:

Suitable for damp locations

DLC Listed:

This product is listed by Design Lights Consortium (DLC) as an ultra-efficient premium product that qualifies for the highest tier of rebates from DLC Member Utilities.
DLC Product Code: PD5ZNY1S

LED Characteristics

Lifespan:

100,000-hour LED lifespan based on IES LM-80 results and TM-21 calculations

Color Stability:

LED Color temperature is warrantied to shift no more than 200K in CCT over a 5 year period

Color Uniformity:

RAB's range of CCT (Correlated Color Temperature) follows the guidelines of the American National Standard for Specifications for the Chromaticity of Solid State Lighting (SSL) Products, ANSI C78.377-2017.

Electrical

Driver:

Constant Current, Class 2, 120-277V, 50/60Hz, 120V: 1.12A, 208V: 0.70A, 240V: 0.60A, 277V 0.51A

Dimming Driver:

Driver includes dimming control wiring for 0-10V dimming systems. Requires separate 0-10V DC dimming circuit. Dims as low as 10%.

THD:

13.4% at 120V, 20.6% at 277V

Power Factor:

98.7% at 120V, 91.5% at 277V

Construction

Ambient Temperature:

Suitable for use 12 hours a day, 6 days a week in 60°C (140°F). Suitable for 24/7 use in ambient temperatures up to 55°C (131°F).

Housing:

Extruded aluminum

Lens:

High-transmittance polystyrene

Reflector:

Specular, high-reflectance aluminum with 95% reflectivity

Mounting:

V hooks (chain by others)

Finish:

Formulated for high-durability and long lasting color

Green Technology:

Mercury and UV-free. RoHS compliant components. Polyester powder coat finish formulated without the use of VOCs or toxic heavy metals.

Recommended Mounting Height:

Up to 30 ft

Other

Replacement:

Replaces 175-320W MH

Warranty:

RAB warrants that our LED products will be free from defects in materials and workmanship for a period of five (5) years from the date of delivery to the end user, including coverage of light output, color stability, driver performance and fixture finish. RAB's warranty is subject to all terms and conditions found at

Sensor Specifications

Handheld Wireless Configuration Tool:

Adjust settings using handheld wireless configuration tool. Only available with 0-10V dimming driver options.

RAIL150W/D10

Features

Ideal for large spaces

100,000 hour lifespan - virtually maintenance free operation

0-10V driver for variable dimming down to 10%

Low-glare design with semi-diffuse lens

Ordering Matrix

Family	Wattage	Color Temp	Finish	Driver Options	Control Options	Other Options
RAIL	150	^	W	/D10	^	^
	400 = 400W **225** = 225W **185** = 185W **150** = 150W **95** = 95W	**Blank** = 5000K (Cool) **N** = 4000K (Neutral) **YN** = 3500K (Warm Neutral)	**W** = White	**/D10** = 120-277V, 0-10V Dim **/480/D10** = 480V, 0-10V Dim	**Blank** = No Option **/BL** = Bi-Level Control **/WS2** = Multi-Level Motion Sensor 20 ft. **/WS4** = Multi-Level Motion Sensor 40 ft. **/LOS** = LOSBAY 800 Sensor **/LC** = Lightcloud® Controller **/LCS** = Lightcloud® Sensor **/E2** = Emergency Battery Pack	**Blank** = Standard **USA** = BAA Compliant

RAIL185W/D10

LED High Bay fixture ideal for large indoor spaces, including warehouses, gymnasiums and distribution centers with high ceiling that require mounting heights of 50-60 feet. Replaces up to 1000W MH fixtures.

Color: White

Weight: 17.6 lbs

Project:	Type:
Prepared By:	Date:

Driver Info		LED Info	
Type:	Constant Current	Watts:	185W
120V:	1.37A	Color Temp:	5000K (Cool)
208V:	0.81A	Color Accuracy:	76 CRI
240V:	0.71A	L70 Lifespan:	100000
277V:	0.60A	Lumens:	22640
Input Watts:	164W	Efficacy:	138 LPW
Efficiency:	N/A		

Technical Specifications

Listings

UL Listing:

Suitable for damp locations

DLC Listed:

This product is listed by Design Lights Consortium (DLC) as an ultra-efficient premium product that qualifies for the highest tier of rebates from DLC Member Utilities.
DLC Product Code: PUKD47UH

LED Characteristics

Lifespan:

100,000-hour LED lifespan based on IES LM-80 results and TM-21 calculations

Color Stability:

LED Color temperature is warrantied to shift no more than 200K in CCT over a 5 year period

Color Uniformity:

RAB's range of CCT (Correlated Color Temperature) follows the guidelines of the American National Standard for Specifications for the Chromaticity of Solid State Lighting (SSL) Products, ANSI C78.377-2017.

Electrical

Driver:

Constant Current, Class 2, 120-277V, 50/60Hz, 120V: 1.37A, 208V: 0.81A, 240V: 0.71A, 277V 0.60A

Dimming Driver:

Driver includes dimming control wiring for 0-10V dimming systems. Requires separate 0-10V DC dimming circuit. Dims as low as 10%.

THD:

5.4% at 120V, 7.5% at 277V

Optical

Power Factor:

99.8% at 120V, 96.6% at 277V

Construction

Ambient Temperature:

Suitable for use 12 hours a day, 6 days a week in 60°C (140°F). Suitable for 24/7 use in ambient temperatures up to 50°C (122°F).

Housing:

Extruded aluminum

Lens:

High-transmittance polystyrene

Reflector:

Specular, high-reflectance aluminum with 95% reflectivity

Mounting:

V hooks (chain by others)

Finish:

Formulated for high-durability and long lasting color

Green Technology:

Mercury and UV-free. RoHS compliant components. Polyester powder coat finish formulated without the use of VOCs or toxic heavy metals.

Recommended Mounting Height:

Up to 40 ft

Other

Replacement:

Replaces 250-400W MH

Warranty:

RAB warrants that our LED products will be free from defects in materials and workmanship for a period of five (5) years from the date of delivery to the end user, including coverage of light output, color stability, driver performance and fixture finish. RAB's warranty is subject to all terms and conditions found at

Sensor Specifications

Handheld Wireless Configuration Tool:

Adjust settings using handheld wireless configuration tool. Only available with 0-10V dimming driver options.

RAIL185W/D10

Features

Ideal for large spaces

100,000 hour lifespan - virtually maintenance free operation

0-10V driver for variable dimming down to 10%

Low-glare design with semi-diffuse lens

Ordering Matrix

Family	Wattage	Color Temp	Finish	Driver Options	Control Options	Other Options
RAIL	185	^	W	/D10	^	^
	400 = 400W **225** = 225W **185** = 185W **150** = 150W **95** = 95W	**Blank** = 5000K (Cool) **N** = 4000K (Neutral) **YN** = 3500K (Warm Neutral)	**W** = White	**/D10** = 120-277V, 0-10V Dim **/480/D10** = 480V, 0-10V Dim	**Blank** = No Option **/BL** = Bi-Level Control **/WS2** = Multi-Level Motion Sensor 20 ft. **/WS4** = Multi-Level Motion Sensor 40 ft. **/LOS** = LOSBAY 800 Sensor **/LC** = Lightcloud® Controller **/LCS** = Lightcloud® Sensor **/E2** = Emergency Battery Pack	**Blank** = Standard **USA** = BAA Compliant

VXBRLED13NDG

High performance, wall mount LED Vaporproof fixture. A classic design with cutting edge LED technology. Comes with die cast guard and frosted globe.

Color: Natural

Weight: 3.1 lbs

Project:	Type:
Prepared By:	Date:

Driver Info

Type:	Constant Current
120V:	0.13A
208V:	0.08A
240V:	0.07A
277V:	0.06A
Input Watts:	15W
Efficiency:	86%

LED Info

Watts:	13W
Color Temp:	4000K (Neutral)
Color Accuracy:	88 CRI
L70 Lifespan:	100000
Lumens:	595
Efficacy:	39 LPW

Technical Specifications

Listings

UL Listing:

UL Listed Suitable for Wet locations only with outer globe and as a Downlight

IESNA LM-79 & IESNA LM-80 Testing:

RAB LED luminaires and LED components have been tested by an independent laboratory in accordance with IESNA LM-79 and LM-80.

LED Characteristics

Lifespan:

100,000-hour LED lifespan based on IES LM-80 results and TM-21 calculations

Color Consistency:

3-step MacAdam Ellipse binning to achieve consistent fixture-to-fixture color

Color Stability:

LED color temperature is warrantied to shift no more than 200K in CCT over a 5 year period

Color Uniformity:

RAB's range of CCT (Correlated Color Temperature) follows the guidelines of the American National Standard for Specifications for the Chromaticity of Solid State Lighting (SSL) Products, ANSI C78.377-2017.

Construction

Specification:

These specifications are for fixture with Frosted Glass Globe and Die Cast Guard combination. Consult warehouse for different fixture combinations.

Globes and Guards:

Vaporproof LEDs are compatible with RAB Globes and Guards

Construction:

Die cast aluminum housing and door. Tether connects back housing halves for safety.

Cold Weather Starting:

Minimum starting temperature is -40°C (-40°F)

Ambient Temperature:

Suitable for use in 35°C (95°F) ambient temperatures

Housing:

Die cast aluminum housing and driver housing

Mounting:

Three 1/2" NPS conduit entry points

Guard and Globe:

Shot blasted guard with frosted globe

Reflector:

High quality hydroformed semi-specular aluminum

Gaskets:

High Temperature Silicone

Finish:

Natural shot blasted aluminum

Green Technology:

Mercury and UV-free. RoHS compliant components. Polyester powder coat finish formulated without the use of VOCs or toxic heavy metals.

Electrical

Driver:

Multi-chip single 13W high output long life LED Driver. Constant Current,100V-277V, 50/60 Hz., 100-240VAC.3-.15 Amps 277VAC.15 Amps. Will deliver 70% of its initial lumens at 100,000 hours based on LM-80 Tests.

Surge Protection:

4kV

Other

Warranty:

RAB warrants that our LED products will be free from defects in materials and workmanship for a period of five (5) years from the date of delivery to the end user, including coverage of light output, color stability, driver performance and fixture finish. RAB's warranty is subject to all terms and conditions found at

Patents:

The VXBRLED design is protected by Taiwan Patent 01510951 and patents pending in the U.S., Canada, China, and Mexico.

Buy American Act Compliance:

RAB values USA manufacturing! Upon request, RAB may be able to manufacture this product to be compliant with the Buy American Act (BAA). Please contact customer service to request a quote for the product to be made BAA compliant.

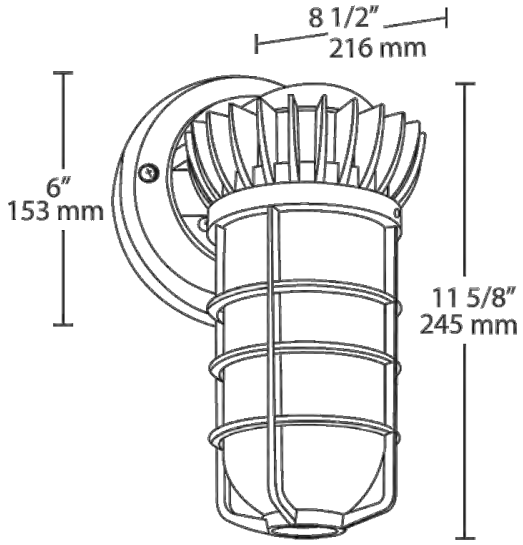
Optical

BUG Rating:

B0 U3 G1

VXBRLED13NDG

Dimensions



Features

- Vaporproof LED Wall Mount
- Superior Thermal Management (Patent Pending)
- All Die-Cast Aluminum Construction
- 100,000 hour life based on LM-80 tests
- Thermal Shock-Resistant Frosted Glass Globe
- Traditional Look, Cutting-Edge Technology
- 5-Year, No-Compromise Warranty

VXBRLED26NDG

High performance 26W LED Vaporproof fixture. A classic design with cutting edge LED technology. Comes with die cast guard and frosted globe.

Color: Natural

Weight: 5.0 lbs

Project:	Type:
Prepared By:	Date:

Driver Info		LED Info	
Type:	Constant Current	Watts:	26W
120V:	0.25A	Color Temp:	4000K (Neutral)
208V:	0.14A	Color Accuracy:	82 CRI
240V:	0.13A	L70 Lifespan:	100000
277V:	0.11A	Lumens:	1735
Input Watts:	27W	Efficacy:	65 LPW
Efficiency:	98%		

Technical Specifications

Listings

UL Listing:

Suitable for wet locations as downlight

IESNA LM-79 & LM-80 Testing:

RAB LED luminaires and LED components have been tested by an independent laboratory in accordance with IESNA LM-79 and LM-80.

LED Characteristics

Lifespan:

100,000-hour LED lifespan based on IES LM-80 results and TM-21 calculations

LED:

Multi-chip 26W high-output, long-life LED

Color Temperature:

4000K

Color Consistency:

3-step MacAdam Ellipse binning to achieve consistent fixture-to-fixture color

Color Stability:

LED color temperature is warrantied to shift no more than 200K in CCT over a 5 year period

Color Uniformity:

RAB's range of CCT (Correlated Color Temperature) follows the guidelines of the American National Standard for Specifications for the Chromaticity of Solid State Lighting (SSL) Products, ANSI C38.377-2011.

Construction

Globes and Guards:

Vaporproof LEDs are compatible with RAB Globes and Guards

Cold Weather Starting:

Minimum starting temperature is -40°C (-40°F)

Ambient Temperature:

SuitableFor use in 40°C (104°F) ambient temperatures

Housing:

All die-cast aluminum construction

Gaskets:

High temperature silicone

Finish:

Natural shot blasted aluminum

Mounting:

(3) 1/2" NPS conduit entry points

Guard and Globe:

Shot blasted guard with frosted globe

Green Technology:

Mercury and UV-free. RoHS compliant components. Polyester powder coat finish formulated without the use of VOCs or toxic heavy metals.

Electrical

Driver:

Constant Current, 100V-277V, 50/60 Hz, 0.48 Amp, Power Factor 97.9%.

Other

Patents:

The design of the LVAPOR is protected by the following patents US pat. pending; D651738 CN ZL201230040341.3; ZL201130028360.X, TW pat. 101301367 MX 35699; pat. pending CA.

Warranty:

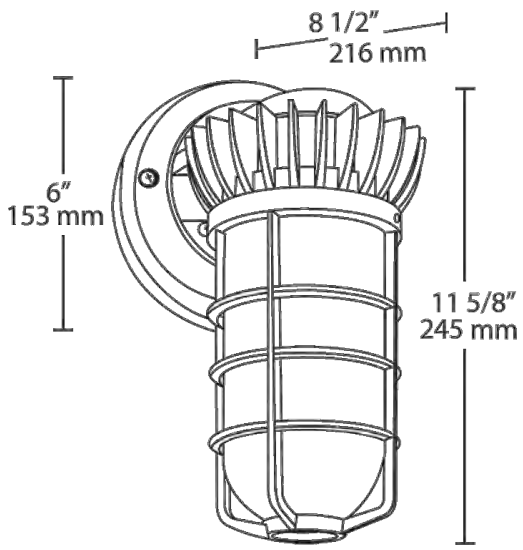
RAB warrants that our LED products will be free from defects in materials and workmanship for a period of five (5) years from the date of delivery to the end user, including coverage of light output, color stability, driver performance and fixture finish. RAB's warranty is subject to all terms and conditions found at

Buy American Act Compliance:

RAB values USA manufacturing! Upon request, RAB may be able to manufacture this product to be compliant with the Buy American Act (BAA). Please contact customer service to request a quote for the product to be made BAA compliant.

VXBRLED26NDG

Dimensions



Features

- Superior Thermal Management (Patent Pending)
- All Die-Cast Aluminum Construction
- 100,000 hour life based on LM-80 tests
- Thermal Shock-Resistant Frosted Glass Globe
- Traditional Look, Cutting-Edge Technology
- 5-Year, No-Compromise Warranty

Ordering Matrix

Family	Wattage	Color Temp	Guard	Size	Options	Other Options
VXBRLED	26	N	DG	^	^	^
	26 = 26W	**Blank** = 5000K (Cool) **N** = 4000K (Neutral) **Y** = 3000K (Warm)	**DG** = Die Cast Guard	**Blank** = Standard **4-Mar** = 3/4"	**Blank** = No Option **/PCS** = 120V Swivel Photocell **/PCS2** = 277V Swivel Photocell	**Blank** = Standard **USA** = BAA Compliant

WP2LED24

Affordable 37W and 24W LED wallpacks with traditional look. 100,000 hour L70 lifespan. 5-year, no-compromise warranty.

Color: Bronze

Weight: 9.6 lbs

Project:	Type:
Prepared By:	Date:

Driver Info		LED Info	
Type:	Constant Current	Watts:	24W
120V:	0.2A	Color Temp:	5000K (Cool)
208V:	0.13A	Color Accuracy:	83 CRI
240V:	0.11A	L70 Lifespan:	100000
277V:	0.09A	Lumens:	2998
Input Watts:	25W	Efficacy:	122 LPW
Efficiency:	98%		

Technical Specifications

Listings

UL Listing:

Suitable for wet locations. Wall mount only.

IESNA LM-79 & LM-80 Testing:

RAB LED luminaires and LED components have been tested by an independent laboratory in accordance with IESNA LM-79 and LM-80.

DLC Listed:

This product is on the Design Lights Consortium (DLC) Qualified Products List and is eligible for rebates from DLC Member Utilities.
DLC Product Code: P45YDNAR

Electrical

Driver:

Constant Current, Class 2, 450mA, 50/60 Hz. 100 - 277V, 4kV surge protection

Optical

BUG Rating:

B1 U3 G3

Construction

Thermal Management:

Superior thermal management with die-cast aluminum heatsink

Maximum Ambient Temperature:

Suitable for use in 40°C (104°F) ambient temperatures

Cold Weather Starting:

Minimum starting temperature is -40°C (-40°F)

Housing:

Precision die-cast aluminum housing

Mounting:

Die-cast backbox with four (4) conduit entry points and knockout pattern for junction box or direct wall mounting. Hinged door for easy re-assembly.

Lens:

Prismatic, heat-resistant borosilicate glass

Reflector:

High-gloss white aluminum

Gaskets:

High-temperature silicone gaskets

Finish:

Formulated for high-durability and long lasting color

Green Technology:

Mercury and UV-free. RoHS compliant components. Polyester powder coat finish formulated without the use of VOCs or toxic heavy metals.

LED Characteristics

Color Stability:

LED color temperature is warrantied to shift no more than 200K in CCT over a 5 year period

Color Uniformity:

RAB's range of CCT (Correlated Color Temperature) follows the guidelines of the American National Standard for Specifications for the Chromaticity of Solid State Lighting (SSL) Products, ANSI C78.377-2017.

Other

Replacement:

Replaces 70W Metal Halide

Warranty:

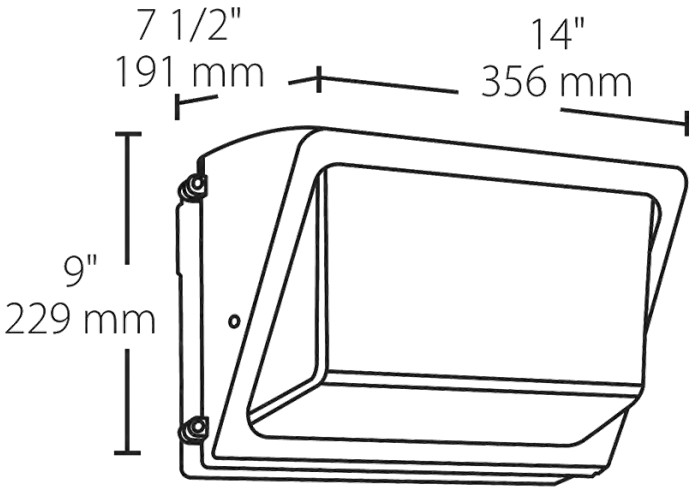
RAB warrants that our LED products will be free from defects in materials and workmanship for a period of five (5) years from the date of delivery to the end user, including coverage of light output, color stability, driver performance and fixture finish. RAB's warranty is subject to all terms and conditions found at

Buy American Act Compliance:

RAB values USA manufacturing! Upon request, RAB may be able to manufacture this product to be compliant with the Buy American Act (BAA). Please contact customer service to request a quote for the product to be made BAA compliant.

WP2LED24

Dimensions



Features

- Covers footprint of traditional HID wallpacks
- WP2LED replaces up to 175W MH
- 100,000-Hour LED lifespan

Ordering Matrix

Family	Wattage	Color Temp	Finish	Driver Options	Photocell Options
WP2LED	24	^	^	^	^
	37 = 37W **24** = 24W	**Blank** = 5000K (Cool) **N** = 4000K (Neutral) **Y** = 3000K (Warm)	**Blank** = Bronze **W** = White	**Blank** = 120-277V **/480** = 480V	**Blank** = No Option **/PC** = 120V Button **/PCS** = 120V Swivel **/PC2** = 277V Button **/PCS2** = 277V Swivel **/PCS4** = 480V Swivel

WP3LED55

Available in 55W, 65W, 82W, and 110W models with up to 15,531 lumens and 144 LPW. Covered by RAB's 5-year, no-compromise warranty.

Color: Bronze

Weight: 16.8 lbs

Project:	Type:
Prepared By:	Date:

Driver Info

Type:	Constant Current
120V:	0.46A
208V:	0.29A
240V:	0.25A
277V:	0.22A
Input Watts:	57W
Efficiency:	96%

LED Info

Watts:	55W
Color Temp:	5000K (Cool)
Color Accuracy:	82 CRI
L70 Lifespan:	100000
Lumens:	7026
Efficacy:	123 LPW

Technical Specifications

Listings

UL Listing:

Suitable for wet locations. Wall mount only.

IESNA LM-79 & LM-80 Testing:

RAB LED luminaires and LED components have been tested by an independent laboratory in accordance with IESNA LM-79 and LM-80.

DLC Listed:

This product is on the Design Lights Consortium (DLC) Qualified Products List and is eligible for rebates from DLC Member Utilities.
DLC Product Code: PYA29GUW

Electrical

Driver:

Constant Current, Class 2, 1400mA, 50/60 Hz. 100 - 277V, 4kV surge protection

Optical

BUG Rating:

B1 U4 G4

Construction

Thermal Management:

Superior thermal management with die-cast aluminum heatsink

Maximum Ambient Temperature:

Suitable for use in 40°C (104°F) ambient temperatures

Cold Weather Starting:

Minimum starting temperature is -40°C (-40°F)

Housing:

Precision die-cast aluminum housing

Mounting:

Die-cast backbox with four (4) conduit entry points and knockout pattern for junction box or direct wall mounting. Hinged door for easy re-assembly.

Lens:

Prismatic, heat-resistant borosilicate glass

Reflector:

High-gloss white aluminum

Gaskets:

High-temperature silicone gaskets

Finish:

Formulated for high-durability and long lasting color

Green Technology:

Mercury and UV-free. RoHS compliant components. Polyester powder coat finish formulated without the use of VOCs or toxic heavy metals.

LED Characteristics

Color Stability:

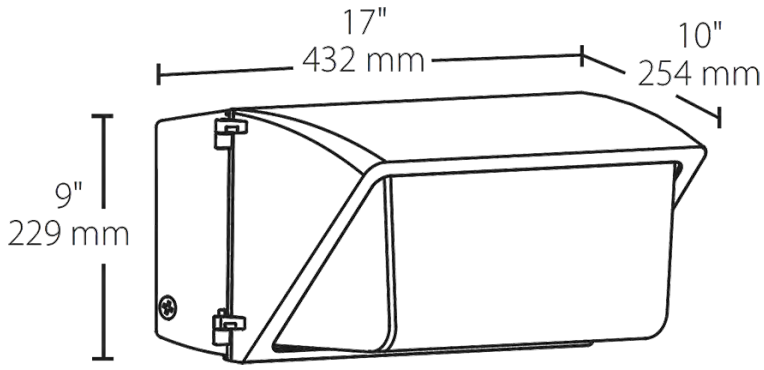
LED color temperature is warrantied to shift no more than 200K in CCT over a 5 year period

Color Uniformity:

RAB's range of CCT (Correlated Color Temperature) follows the guidelines of the American National Standard for Specifications for the Chromaticity of Solid State Lighting (SSL) Products, ANSI C78.377-2017.

WP3LED55

Dimensions



Features

- Affordable wallpack with traditional look
- Covers footprint of traditional HID wallpacks
- Optional photocell (button or swivel) available
- 480V models available

Ordering Matrix

Family	Wattage	Color Temp	Finish	Driver Options	Photocell Options
WP3LED	55	^	^	^	^
	110 = 110W **82** = 82W **65** = 65W **55** = 55W	**Blank** = 5000K (Cool) **Y** = 3000K (Warm) **N** = 4000K (Neutral)	**Blank** = Bronze **W** = White	**Blank** = 120-277V **/480** = 480V **/D10** = 0-10V Dimming **/480/D10** = 480V, 0-10V Dimming	**Blank** = No Option **/PC** = 120V Button **/PCS** = 120V Swivel **/PC2** = 277V Button **/PCS2** = 277V Swivel **/PCS4** = 480V Swivel

ENTRA12

Affordable, high-performance, low-maintenance LED doorway light. Suitable for mounting heights up to 10', and replaces 70W high pressure sodium. 100,000-Hour LED lifespan. 5-year, no-compromise warranty.

Color: Bronze

Weight: 3.0 lbs

Project:	Type:
Prepared By:	Date:

Driver Info		LED Info	
Type:	Constant Current	Watts:	12W
120V:	0.3A	Color Temp:	5000K (Cool)
208V:	0.3A	Color Accuracy:	70 CRI
240V:	0.3A	L70 Lifespan:	100000
277V:	0.3A	Lumens:	1284
Input Watts:	14W	Efficacy:	89 LPW
Efficiency:	83%		

Technical Specifications

Listings

UL Listing:

Suitable for wet locations as downlight. Suitable for mounting within 1.2m (4ft) of the ground.

ADA Compliant:

ENTRA™ is ADA Compliant

IESNA LM-79 & LM-80 Testing:

RAB LED luminaires and LED components have been tested by an independent laboratory in accordance with IESNA LM-79 and LM-80.

Construction

IP Rating:

Ingress Protection rating of IP66 for dust and water

Cold Weather Starting:

Minimum starting temperature is -40°C (-40°F)

Maximum Ambient Temperature:

Suitable for use in 40°C (104°F) ambient temperatures

Back Housing:

Die-cast aluminum

Lens/Housing Cover:

Vandal resistant polycarbonate molded housing cover and lens

Mounting:

Heavy die cast aluminum with 1/2" back knockout and mounting template for mounting to 4" box

Recommended Mounting Height:

Up to 10 ft

Reflectors (2):

White aluminum reflector topped with vacuum metalized polycarbonate LED reflector

Gaskets:

High-temperature silicone

Finish:

Formulated for high-durability and long lasting color

Green Technology:

Mercury and UV-free. RoHS compliant components. Polyester powder coat finish formulated without the use of VOCs or toxic heavy metals.

LED Characteristics

LED:

12W multi-chip, long life LED

Lifespan:

100,000-hour LED lifespan based on IES LM-80 results and TM-21 calculations

Color Stability:

LED color temperature is warrantied to shift no more than 200K in CCT over a 5 year period

Color Consistency:

7-step MacAdam Ellipse binning to achieve consistent fixture-to-fixture color

Electrical

Driver:

Constant Current, Class 2, 100-277V, 50/60Hz, 4kV Surge Protection, 350mA, 100-240VAC: 0.3 - 0.15 A, 277VAC: 0.15 A, Power Factor: 98.5%.

THD:

9.9% at 120V

Other

Patents:

The design of the ENTRA™ is protected by patents pending in US, Canada, China, Taiwan and Mexico

Warranty:

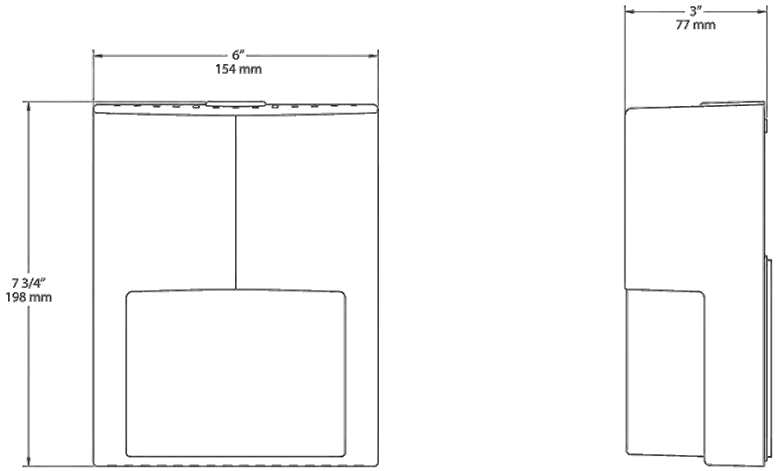
RAB warrants that our LED products will be free from defects in materials and workmanship for a period of five (5) years from the date of delivery to the end user, including coverage of light output, color stability, driver performance and fixture finish. RAB's warranty is subject to all terms and conditions found at

Equivalency:

Replaces 70W HPS

ENTRA12

Dimensions



Features

- Save over $700 in energy costs over life of fixture
- Equivalent to 70W high pressure sodium
- Durable vandal-resistant polycarbonate housing
- Low-profile and ADA compliant
- 100,000-hour LED lifespan
- 5-Year, No-Compromise Warranty

Ordering Matrix

Family	Wattage	Color Temp	Finish	Options	Other Options
ENTRA	12	^	^	^	^
	12 = 12W	**Blank** = 5000K (Cool) **N** = 4000K (Neutral) **Y** = 3000K (Warm)	**Blank** = Bronze **W** = White	**Blank** = No Options **/PC** = 120V Button **/PC2** = 277V Button **/PCS** = 120V Swivel **/PCS2** = 277V Swivel	**USA** = BAA Compliant **Blank** = Standard

TOPAZ

Friendly Service... Powerful Solutions™

ES-LED-RW-B

Emergency Exit Sign

STANDARD

UL LISTED | LED | DAMP LOCATION | MOUNTING CANOPY

ILLUMINATION

- *Ultra-bright, energy efficient, long-life Red LED.*

ELECTRICAL

- *Dual 120/277 voltage.*
- *Charge rate/power "ON" LED indicator light and push-to-test switch for mandated code compliance testing.*
- *4.8V long-life, maintenance-free, rechargeable NiCd battery.*
- *Internal solid-state transfer switch automatically connects the internal battery to LED board for minimum 90 minute emergency illumination.*
- *Fully automatic solid-state, two-rate charger initiates battery charging to recharge a discharged battery in 24 hours.*

MOUNTING

- *EZ-snap mounting canopy included for top or end mount.*
- *Universal K/O pattern on back plate for wall mount.*

HOUSING

- *Injection molded, engineering grade, 5VA flame retardant, high-impact resistant, thermoplastic in white finish.*
- *EZ snap out Chevron directional indicators.*
- *Compact, low-profile design.*

WARRANTY/LISTING

- *Five year warranty on all electronics and housing. Battery pro-rated for five years.*
- *Meets UL924, NFPA 101 Life Safety Code, NEC, OSHA, Local and State Codes..*
- *UL listed for damp locations. (0°C – 50°C)*

DIMENSIONS

Catalog Number	Input Watts (W)		Input Amps (A)	
	120V	277V	120V	277V
ES-LED-RW-B	3.8	3.8	0.034	0.020

www.topaz-usa.com

NY Office: *925 Waverly Ave • Holtsville, NY 11742 • 800-666-2852 • Fax: 631-758-8026*

CA Office: *225 Parkside Drive, San Fernando, CA 91340 • 888-551-2852 or 818-838-3123 • Fax: 888-690-2852 or 818-838-3102*

FL Office: *2020 West 26th Street, Jacksonville, FL 32209 • 800-338-2852 • Fax: 772-778-5386*

Global Energy Services

Submittals for Selinsgrove

August 22nd, 2018 Rev 0.0

LED T8 Fixtures

SF

Date:_____
Type:_____
Project:_____

General Description:
This surface static troffer is designed for quick installation onto plaster or sheet rock ceilings and is available with a wide variety of options.

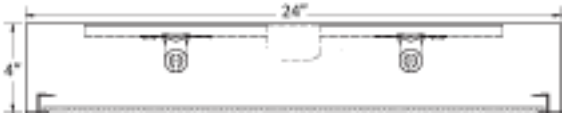
Features and Benefits:
- Housing is standard in heavy gauge die formed cold rolled steel, for strength and maximum heat dissipation.
- Finished in baked white enamel or post powder coated for maximum reflectivity and durability.
- Hinged door frame with mitered corners.
- Swivel motion cam latches for easy access.
- All units are stamped with 7/8” knock-outs in the top and includes access plates.
- Standard lens is prismatic acrylic pattern 12, which provides uniform light distribution.
- All units are furnished with a universal voltage UL Listed Class “P” thermally protected ballast.
- Meets or exceeds all requirements for UL Luminaire Standard #1598.
- Complies with National Energy Standards.

SF END VIEW

Application:

This fixture is suitable for use in all office, commercial, and industrial areas.

DIMENSIONS



Housing	Length	# of Lamps	Lamp Type	Ballast	Voltage	Options
SF22 SF24	2x2 2x4	2 3 4 6	-T8LED			

Notice: *Dimensions and specifications subject to change wit*
Consult factory for additional options and accessories.

5-C MARLEN DRIVE, HAMILTON, NJ 08691
PHONE: 609-587-7900 FAX: 609-613-5586
WWW.MONMOUTHLIGHTING.COM

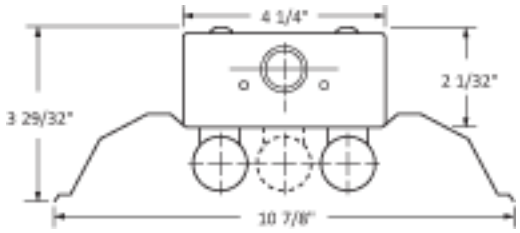
SIF

Date:_____
Type:_____
Project:_____

General Description:
This economical industrial fixture is designed for easy installation and is available in tandem configurations as well as with asymectrical reflectors.

Features and Benefits:
- Housing is standard in heavy gauge die formed cold rolled steel, for strength and maximum heat dissipation.
- Socket bar, end plate and ballast cover snap on for tool free assembly.
- End plate doubles as a joiner/aligner plate when fixtures are hung in continuous runs.
- Equipped with knockouts and holes for surface, pendant, chain, or cable mounting. This fixture can be mounted individually, or in continuous runs. End plates have 7/8" knock-outs for electrical connection from the end, if desired.
- All units are furnished with a universal voltage UL Listed Class "P" thermally protected ballast.
- Meets or exceeds all requirements for UL Luminaire Standard #1598.
- Complies with National Energy Standards.

SIF END VIEW



Application:
Ideal for use in commercial and industrial areas for general or task lighting

Housing	Length	# of Lamps	Lamp Type	Ballast	Voltage	Options
OCF	4' 8'	1 2 3 4 6				-T8LED

Notice: *Dimensions and specifications subject to change without*
Consult factory for additional options and accessories.

5-C MARLEN DRIVE, HAMILTON, NJ 08691
PHONE: 609-587-7900 FAX: 609-613-5586
WWW.MONMOUTHLIGHTING.COM

CJJ/WJJ

Date:_____
Type:_____
Project:_____

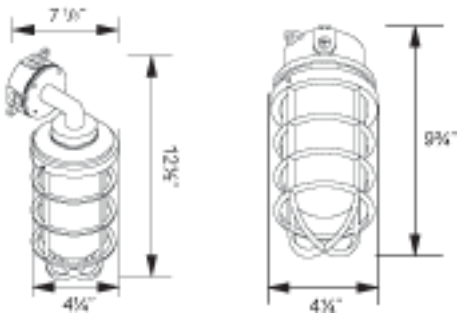
General Description:

Our wall or ceiling mounted Jelly Jar style fixtures are produced in heavy die cast aluminum The CJJ/WJJ is available with a wide variety of options including custom colors.

Features and Benefits:

- The housing is die cast aluminum finished in silver powdercoat over a chromate conversion coating.
- 1/2” coin plugs with O-rings for conduit and photocell on two sides and back.
- Lens is clear clear glass.
- Can supplied as a complete unit with Lamp
- Button photocell is optional.

DIMENSIONS



Application:

Available in Compact Flourescent and LED (medium base corn cob lamp), This fixture is both waterproof and corrosion resistant. Suitable uses for this fixture doorways, covered walkways and canopies.

Catalog #	Wattage	Lamp Type	Voltage	Options
CJJ (ceiling mount) **WJJ** (wall mount)				

Notice: *Dimensions and specifications subject to*
Consult factory for additional options and acces

5-C MARLEN DRIVE, HAMILTON, NJ 08691
PHONE: 609-587-7900 FAX: 609-613-5586
WWW.MONMOUTHLIGHTING.COM

RFN

Date:_____
Type:_____
Project:_____

General Description:
This narrow static troffer is designed for quick installation in “T” bar ceilings and is available with a wide variety of options.

Features and Benefits:
- Housing is standard in heavy gauge die formed cold rolled steel, for strength and maximum heat dissipation.
- Finished in baked white enamel or post powder coated for maximum reflectivity and durability.
- Hingded door frame with mitered corners.
- Swivel motion cam latches for easy access.
- All units are stamped with 7/8” knock-outs in the top, sides and includes access plates.
- For additional safety, this fixture has “earthquake clips” integrated in the housing.
- Standard lens is prismatic acrylic pattern 12, which provides uniform light distribution.
- All units are furnished with a universal voltage UL Listed Class “P” thermally protected ballast.
- Meets or exceeds all requirements for UL Luminaire Standard #1598.
- Complies with National Energy Standards.

DIMENSIONS

Application:
Ideal for corridors and for storage rooms with grid ceilings and narrow aisles.

Housing	Length	# of Lamps	Lamp Type	Ballast	Voltage	Options
RFN12 RFN14	1x2 1x4	1 2 3				

-T8LED

Notice: Dimensions and specifications subject to change witho
Consult factory for additional options and accessories.

5-C MARLEN DRIVE, HAMILTON, NJ 08691
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WWW.MONMOUTHLIGHTING.COM

VWF

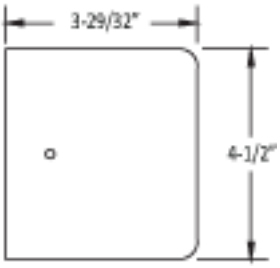
Date:_____
Type:_____
Project:_____

General Description:
The VWF fixture is a wrap fixture that is designed to be ceiling or wall mounted. It is available with a wide variety of options and is ADA compliant.

VFW END VIEW

Features and Benefits:
- Housing is standard in heavy gauge die formed cold rolled steel, for strength and maximum heat dissipation.
- Finished in Baked white enamel or post powder coat for maximum reflectivity and durability.
- End plates secure the lens to the fixture with acorn nuts.
- Socket plates are riveted to the housing, adding structural support to the assembly.
- All units are stamped with 7/8" knock-outs in the back/top and includes access plates.
- Standard lens is prismatic acrylic pattern 12, which provides uniform light distribution.
- All units are furnished with a universal voltage UL Listed Class "P" thermally protected ballast.
- Meets or exceeds all requirements for UL Luminaire Standard #1598.
- Complies with National Energy Standards.

DIMENSIONS



Application:
It is best used in corridors, classrooms, stairwells, hospital rooms, and at work stations for task lighting. Pendant mounting is available as well, for those that wish for a distinctive look.

Housing	Length	# of Lamps	Lamp Type	Ballast	Voltage	Options
VWF	2' 4' 8'	1 2 4				

-T8LED

Notice: *Dimensions and specifications subject to change witho*
Consult factory for additional options and accessories.

5-C MARLEN DRIVE, HAMILTON, NJ 08691
PHONE: 609-587-7900 FAX: 609-613-5586
WWW.MONMOUTHLIGHTING.COM

VTU

Date:_____
Type:_____
Project:_____

General Description:

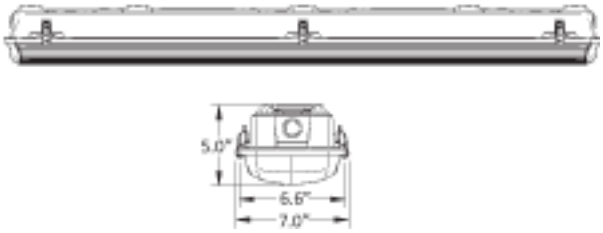
The VTU fixture is fully weatherproof fixture is designed for use in areas that are known to be subjected to moisture from either natural causes or intent. This fixture is both waterproof and corrosion resistant. The VTU is available with a wide variety of options.

VTU END VIEW

Features and Benefits:

- The housing exterior is designed from a single piece injection molded fiberglass/plastic blend.
- The waterproof seal is ensured by a neoprene gasket in conjunction with pressure locks around the housing.
- The interior gear tray unit is constructed of 23 gauge steel with a baked white enamel finish to ensure durability.
- Standard polycarbonate latches with stainless steel available as an option.
- All units include endplugs
- All units are furnished with a universal voltage UL Listed Class "P" thermally protected ballast.
- Meets or exceeds all requirements for UL Luminaire Standard #1598.
- Complies with National Energy Standards.

DIMENSIONS



Application:

This fixture is both waterproof and corrosion resistant. Suitable uses for this fixture are car washes, parking garages, kitchens and many other applications. Its waterproof construction makes this fixture safe for hose down

Housing	Length	# of Lamps	Lamp Type	Ballast	Voltage	Options
VTU	4' 8'	1 2 3 4 6	-T8LED			

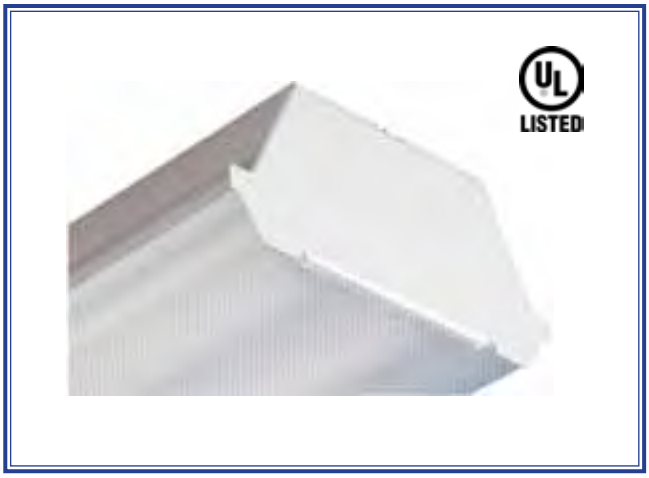
Notice: *Dimensions and specifications subject to change wit*
Consult factory for additional options and accessories.

5-C MARLEN DRIVE, HAMILTON, NJ 08691
PHONE: 609-587-7900 FAX: 609-613-5586
WWW.MONMOUTHLIGHTING.COM

CCW

Date:_____
Type:_____
Project:_____

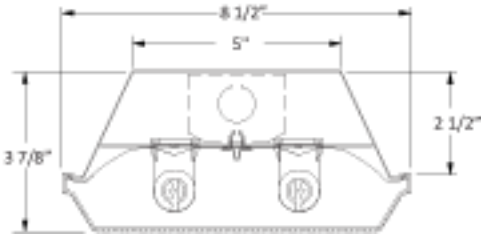
General Description:
The CCW fixture is a contemporary wrap fixture that is designed to be surface or pendant mounted. It is designed for quick installation onto plaster or sheet rock ceilings and is available with a wide variety of options.



CCW END VIEW

Features and Benefits:
- Housing is standard in heavy gauge die formed cold rolled steel, for strength and maximum heat dissipation.
- Finished in Baked white enamel or post powder coat for maximum reflectivity and durability.
- Clear acrylic prismatic diffuser snaps
- on and off for easy access to lamps
- All units are stamped with 7/8" knock-outs in the top and sides and includes access plates.
- Standard lens is prismatic acrylic pattern 12, which provides uniform light distribution.
- All units are furnished with a universal voltage UL Listed Class "P" thermally protected ballast.
- Meets or exceeds all requirements for UL Luminaire Standard #1598.
- Complies with National Energy Standards.

DIMENSIONS



Application:
This fixture is best used in corridors, classrooms, and other commercial or industrial areas where sheet rock or plaster ceilings are used.

Housing	Length	# of Lamps	Lamp Type	Ballast	Voltage	Options
CCW	2' 4' 8'	3 2 4	-T8LED			

Notice: *Dimensions and specifications subject to change without notice.*
Consult factory for additional options and accessories.

5-C MARLEN DRIVE, HAMILTON, NJ 08691
PHONE: 609-587-7900 FAX: 609-613-5586
WWW.MONMOUTHLIGHTING.COM

Global Energy Services

Submittals for Selinsgrove

August 22nd, 2018 Rev 0.0

Retrofit Kits

RECTANGULAR LED KITS
800 AND 1600 LUMEN OPTIONS

FUTURE FIT LED KITS

DESCRIPTION

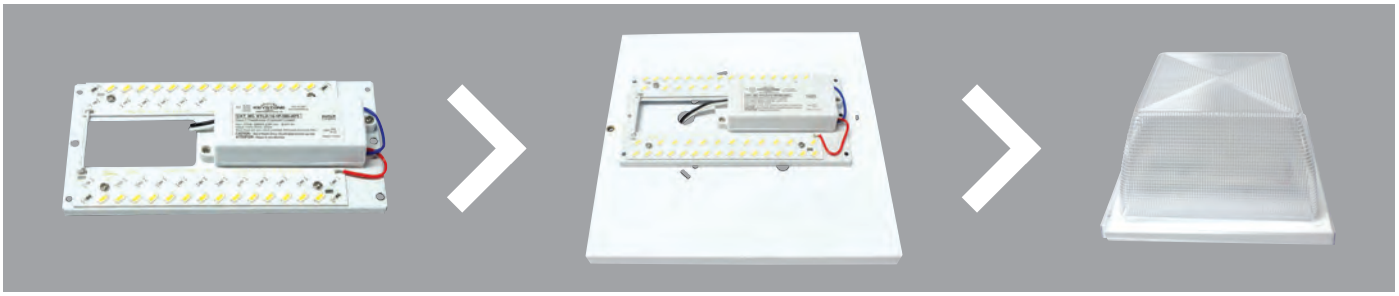
Pre-assembled UL 1598C Classified LED retrofit kit. Includes the following components:

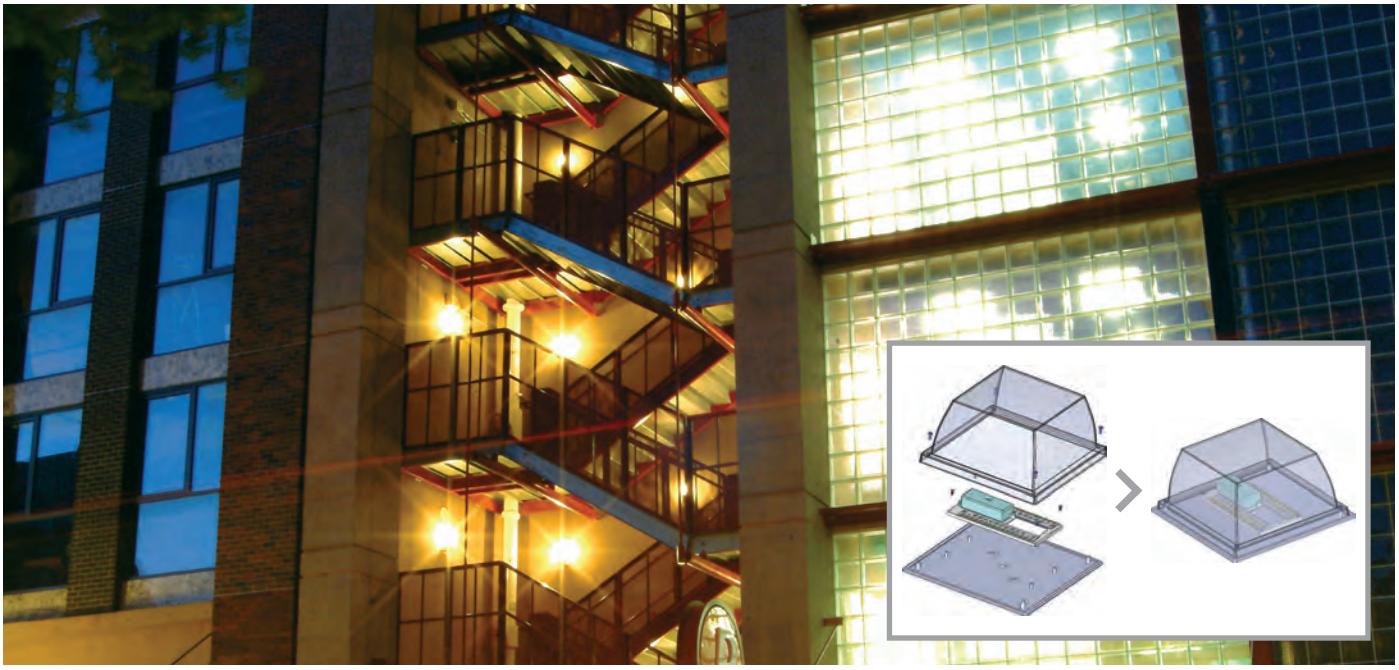
• (1) LED Driver • (1) LED Module • (1) Metal Pan • Mounting Accessories (Mounting Hardware and Wiring Hardware)

APPLICATION

Upgrade surface-mount canopy/security fluorescent-style luminaires to an LED solution. Suitable for after-market or OEM installation. (OEM must have UL LED Luminaire General Coverage file.)

TYPICAL FIXTURE APPLICATION





SYSTEM FEATURES

Module Features

- For Use in Class 2 Lighting Systems
- Highly Reflective White Soldermask
- Low Profile WAGO Push Connectors
- UL Recognized Components
- Single-Sided CEM3 Substrate
- 3-Step MacAdam Color Binning
- LM80 Tested LEDs by Samsung
- Beam Angle: 120°
- Reported Life Expectancy: L70 > 54,000 hours at Tc <85°C
- Calculated Life Expectancy: L70 = 160,000 hours at Tc <85°C
- Maximum Board Temperature at Tc Point: 85°C

Driver Features

- 120-277V Input
- UL 8750 Recognized Component LED Power Unit
- Meets FCC Part 15 Class B (Consumer) Limit for EMI
- Over Current, Short Circuit, and Open Circuit Protection
- Class 2 Output
- Type 1 Outdoor, Suitable for Dry and Damp Locations
- Up to 194°F/90°C Maximum Case Temperature
- THD: <20%

RECTANGULAR LED KITS
800 AND 1600 LUMEN OPTIONS

PERFORMANCE SPECIFICATIONS

3”x6”, 800 LUMEN RECTANGULAR

KIT SPECIFICATIONS:
Wiring: Series
Driver: (1) KTLD-14-UV-560-AF5
Module: (2) KTLM-1080-R1-8xx-18B

Color Temp	Input Voltage	LED Retrofit Kit Catalog Number	No. of Modules	Total System Drive Current	Drive Current per Module	Total Lumens per Module	Total System Lumens	Total Module Power	Module Efficacy	Driver Efficiency	Total System Power	Total System Efficacy
3000K	120-277V	KT-RKIT-RP-6-800-830-UV /G2	2	560mA	560mA	415	830	6.5W	128 lm/W	82%	8W	104 lm/W
4000K	120-277V	KT-RKIT-RP-6-800-840-UV /G2	2	560mA	560mA	425	850	6.5W	131 lm/W	82%	8W	106 lm/W
5000K	120-277V	KT-RKIT-RP-6-800-850-UV /G2	2	560mA	560mA	435	870	6.5W	134 lm/W	82%	8W	109 lm/W

3”x6”, 1600 LUMEN RECTANGULAR

KIT SPECIFICATIONS:
Wiring: Series
Driver: (1) KTLD-14-UV-560-AF5
Module: (2) KTLM-1080-R1-8xx-36B

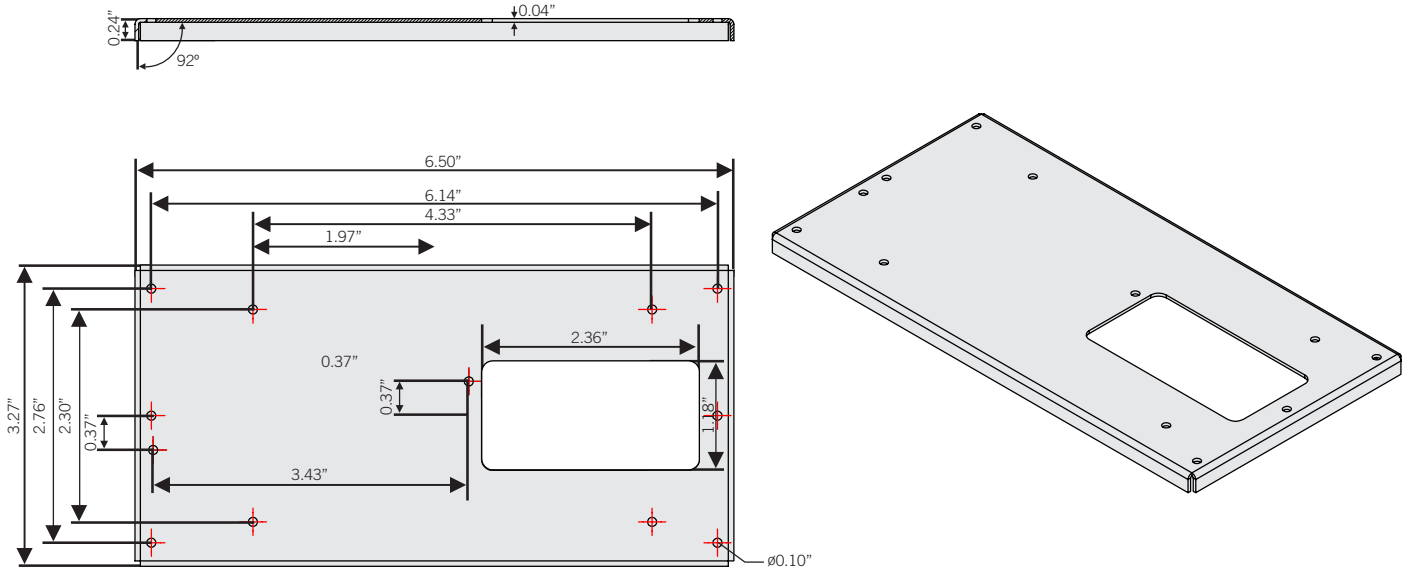
Color Temp	Input Voltage	LED Retrofit Kit Catalog Number	No. of Modules	Total System Drive Current	Drive Current per Module	Total Lumens per Module	Total System Lumens	Total Module Power	Module Efficacy	Driver Efficiency	Total System Power	Total System Efficacy
3000K	120-277V	KT-RKIT-RP-6-1600-830-UV /G2	2	560mA	560mA	775	1550	12.5W	124 lm/W	82%	15W	103 lm/W
4000K	120-277V	KT-RKIT-RP-6-1600-840-UV /G2	2	560mA	560mA	800	1600	12.5W	128 lm/W	82%	15W	107 lm/W
5000K	120-277V	KT-RKIT-RP-6-1600-850-UV /G2	2	560mA	560mA	825	1650	12.5W	132 lm/W	82%	15W	110 lm/W

Note: Catalog numbers ending in -UV replace the previous dedicated 120V version of the rectangular LED kits (catalog numbers KT-RKIT-RP-6-800-8xx and KT-RKIT-RP-6-1600-8xx)

RECTANGULAR LED KITS
800 AND 1600 LUMEN OPTIONS

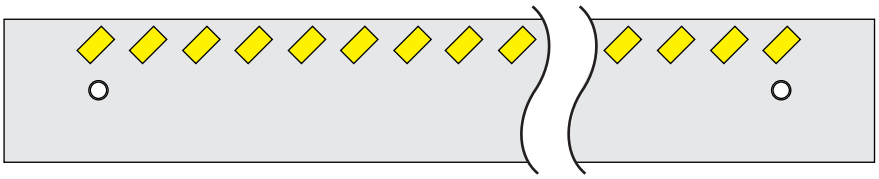
PHYSICAL SPECIFICATIONS

METAL PAN



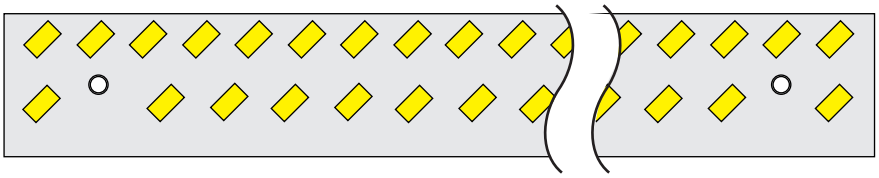
800 LUMEN MODULE

Part No. KTLM-1080-R1-8xx-18B

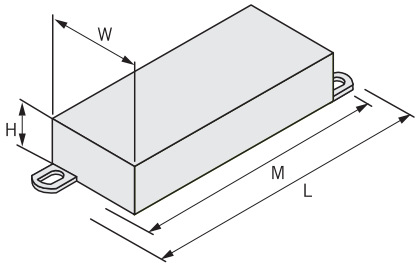


1600 LUMEN MODULE

Part No. KTLM-1080-R1-8xx-36B



LED DRIVER



LENGTH	3.70"
WIDTH	1.30"
HEIGHT	0.79"
MOUNTING	3.40"

Retro—Lay-In Troffer

TECHBRITE
Saving energy in the best possible LIGHT

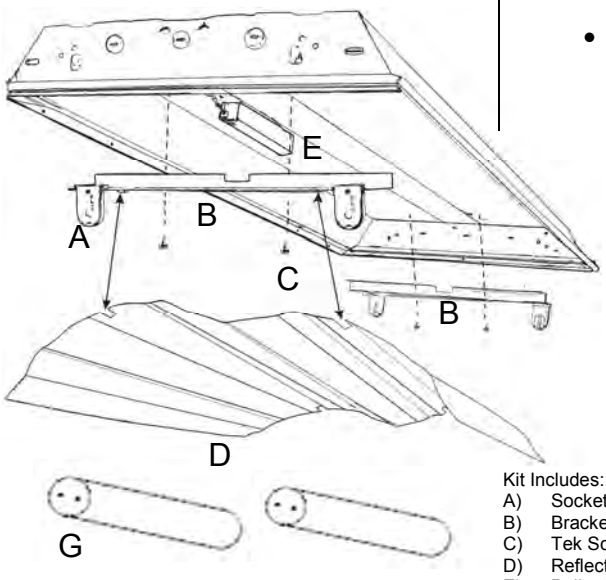
Applications

- Office
- Schools
- Universities
- Fitness Rooms
- Hospitals

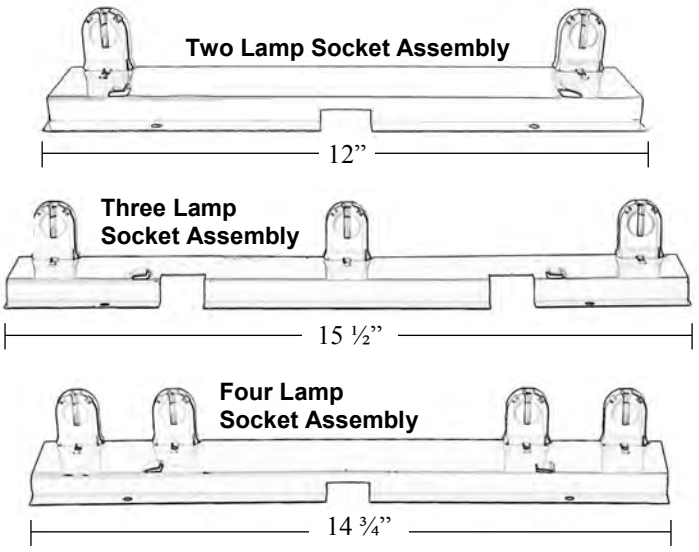
Features

Proudly made in the U.S.A

- White Reflector—92% Reflectivity
- Miro® 4 Reflector — 95% Reflectivity
- Available in 2x2 & 2x4 — 2, 3, and 4 lamp options
- Pinch fit reflector for quick installation
- Kit includes: reflector, sockets, socket bars, mounting screws
- Optional Ballast and Lamps
- Ask for “PreWire” and we do the wiring for you!



Kit Includes:
A) Sockets
B) Brackets
C) Tek Screws(4 per kit)
D) Reflector
E) Ballast
F) Ballast Disconnect (not pictured)
G) Lamps Optional



R	21	2						
Series	Fixture/ Reflector Length (in feet)	Reflector Width (in inches)	Number of Lamps	Type	Line Voltage	Reflector	Ballast	Ballast	Options
	2 or **4**... Troffer Retro			**T8** or **T5**					
R..... Troffer Retro		**21**.....Troffer Retro			**1** ..... Universal (120/277) **2** ..... (347/480) **X** ..... No Ballast	**W**.....White **M** .....Miro 4	**N**....Normal **L**....Low **H**....High **X**....No Ballast	**T** ....Instant start **Q**....Instant start High Performance **P** ....Program start **X**....No Ballast	Many options available, please ask your sales rep.

1000 Kieley Place., Cincinnati OH 45217 513-772-5070 office 513-252-0590 fax

www.techbrite.com

*Input wattage calculated using ballast manufacturer data in an open-air lamp application.
*Actual fixture wattage may vary based upon a variety of factors including: ballast factor; lamp wattage; input line voltage; ballast manufacturer; and/or environmental temperature.

Global Energy Services

Submittals for Selinsgrove

August 22nd, 2018 Rev 0.0

Sensors

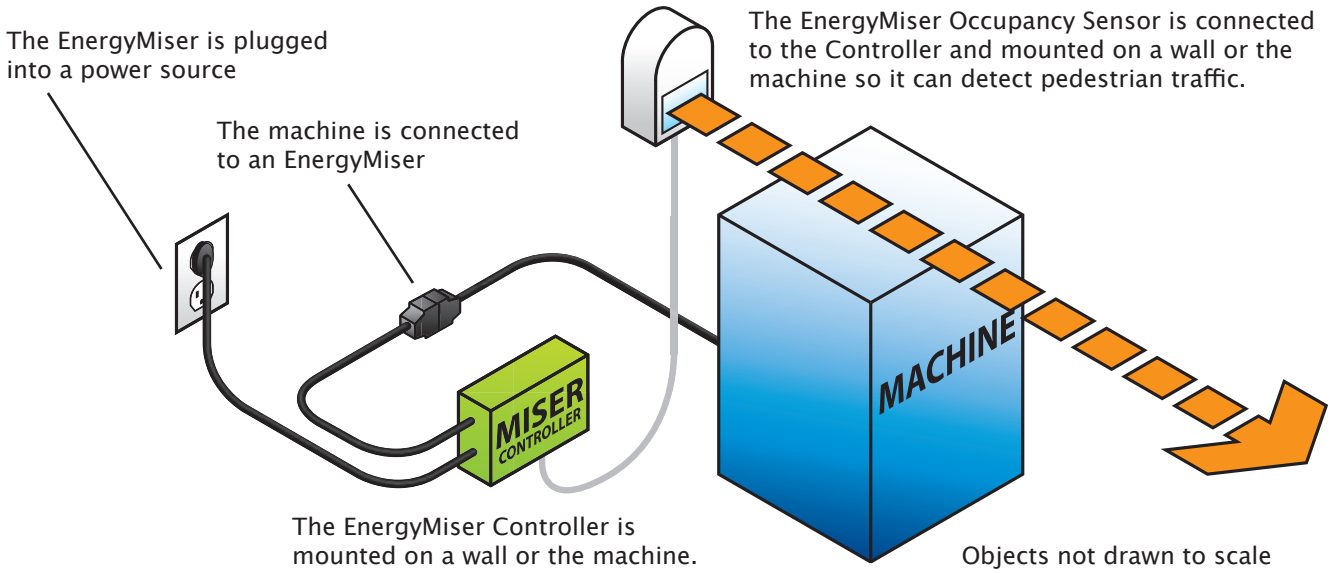
EnergyMisers

EnergyMiser® Products are easy to install devices designed to lower the energy consumption of vending machines, commercial coolers, and other "always on" machines and appliances. No other technology can compete with its price and ease of installation for the immediate energy savings that can be achieved.

- Win and retain accounts by offering energy-efficient technology
- Save clients up to $150 per machine, per year
- Typical return on investment in 12 months
- Easy retrofit field installation
- Reduction in machine energy use an average of 35-45%
- Reduced machine maintenance and longer machine lifespans
- Environmental benefits such as reducing pollution and natural resource use

How EnergyMisers Work

External EnergyMisers use a controller and a machine mounted sensor to monitor room occupancy and temperature. If 15 minutes pass without any pedestrian traffic, the EnergyMiser will power down the machine. The machine is powered back up when people return and at regular intervals to to keep the product cold. External controllers are best suited for low traffic areas.



Internal EnergyMisers use sales based intelligence to power down the cooling system while leaving lighting and controller electronics on. While the cooling system is powered down, the internal EnergyMiser monitors the room's temperature and automatically re-powers the cooling system at regular intervals to keep the product cold. Internal controllers are best suited for high traffic areas.

Who Uses EnergyMisers

Several large retailers such as Wal-Mart and Kroger have installed EnergyMiser Products at their locations. Educational facilities along with the US Government have purchased EnergyMisers through GSA. Also, many utilities offer rebates on the purchase of EnergyMiser products and several have provided customers with EnergyMiser Products at no cost through Turnkey Programs.

USA Technologies 100 Deerfield Lane, Suite 140, Malvern, PA 19355 • 800.633.0340 • www.usatech.com

EnergyMiser Products

VendingMiser®- for cold drink vending machines

VM150 - Indoor Wall Mount Controller with Occupancy Sensor
VM151 - Indoor Wall Mount Controller with 10' Repeater Cable
VM160 - Outdoor Wall Mount Controller with Occupancy Sensor and Weather-proof Enclosure
VM161 - Outdoor Wall Mount Controller with 10' Repeater Cable and Weather-proof Enclosure
VM170 - Indoor Controller with EZ Mount Z-Bracket and Occupancy Sensor
VM171 - Indoor Controller with EZ Mount L-Bracket and 10' Repeater Cable
VM180 - Outdoor Controller with EZ Mount Z-Bracket, Occupancy Sensor, and Weatherproof Enclosure
VM181 - Outdoor Controller with EZ Mount L-Bracket, 10' Repeater Cable and Weatherproof Enclosure
VM2iQ - Internal VendingMiser

CoolerMiser™- for commercial glass-front coolers

CM150 - Indoor Wall Mount Controller with Occupancy Sensor
CM151 - Indoor Wall Mount Controller with 10' Repeater Cable
CM170 - Indoor Controller with EZ Mount Z-Bracket and Occupancy Sensor
CM171 - Indoor Controller with EZ Mount L-Bracket and 10' Repeater Cable
CM2iQ - Internal CoolerMiser

SnackMiser®- for snack vending machines

SM150 - Indoor Wall Mount Controller with Occupancy Sensor
SM151 - Indoor Wall Mount Controller with 10' Repeater Cable
SM170 - Indoor Controller with EZ Mount Z-Bracket and Occupancy Sensor
SM171 - Indoor Controller with EZ Mount L-Bracket and 10' Repeater Cable

PlugMiser™- for most major electrical equipment

PM150 - Indoor Wall Mount Controller with Occupancy Sensor
PM151 - Indoor Wall Mount Controller with 10' Repeater Cable
PM190 - Indoor Controller with Leg Mount and Occupancy Sensor

VendingMiser VM150

CoolerMiser CM150

SnackMiser SM150

PlugMiser PM150

Visit www.energymisers.com for more information.

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Submittals for Selinsgrove

August 22nd, 2018 Rev 0.0

SUBMITTAL APPROVAL

Attached is a submittal package representing the array of products recommended for installation at the Selinsgrove project. The submittals are in PDF format and contain product information for your review and subsequent approval.

Please return this approval form via mail, email or fax to:

Sean Fitzgerald
Global Energy Services
20 West Aylesbury Road, Suite 2
Timonium, MD 21093
888.909.1660
Fax: 410.847.9867
sfitzgerald@globalenergyservice.us

☐ **APPROVED** ☐ **REJECTED (See attached comments)**

Print Name	Signature	Title	Date

COMMENTS

Attachment 3 – Energy Calculations

CALCULATIONS: **Selingsgrove Center**
Bldg #1

COST OF AIR LEAKAGE:

			Flow Factor		$(AP)^{\wedge n}$		A		CFM
1)	**Q**	**=**	**20**	**X**	**4.02**	**X**	**14.00**	**=**	**1125.60**

			Q		Degree Days				
2)	**Cost:**		**1125.60**	**X**	**5819**			**=**	**226.64** mlb/building
					28,900				
					heating effeciency factor				

HOLE AREA "A" BASED UPON:

Weatherstrip Doors 13 @ 20' x 1/16"	**=**	**1.35 FT^2**
Caulk Window Frames 4776' x 1/32"	**=**	**12.44 FT^2**
Weatherstrip & Ins Hatches 2ea x 10' x 1/8"	**=**	**0.21 FT^2**
	=	**0.00 FT^2**
	=	**0.00 FT^2**
TOTAL:	**=**	**14 FT^2**

CALCULATIONS: **Selingsgrove Center**
Bldg. No. 2

COST OF AIR LEAKAGE:

			Flow Factor		$(AP)^{\wedge n}$		A		CFM
1)	Q	=	20	X	4.02	X	13.34	=	1072.54

			Q		Degree Days				
2)	Cost:		1072.54	X	5819 / 28,900 heating effeciency factor			=	215.95 mlb/building

HOLE AREA "A" BASED UPON:

weatherstrip doors 5 @ 20' x 1/16"	=	0.52	FT.
weatherstrip and insulate access hatch 12' x 1/16"	=	0.06	FT.
foam seal terra cotta wall tops 1200' x 1/8"	=	12.50	FT.
blankoff fan & louver 15' x 1/8"	=	0.16	FT.
air seal ceiling penetrations 40+/- x .5' x 1/8"	=	0.10	FT.
TOTAL:	=	13.34	$FT.^2$

CALCULATIONS: **Selingsgrove Center**
Bldg #3

COST OF AIR LEAKAGE:

			Flow Factor		$(AP)^{\wedge n}$		A		CFM
1)	**Q**	**=**	**20**	**X**	**4.02**	**X**	**14.00**	**=**	**1125.60**

		Q		Degree Days			
2)	**Cost:**	**1125.60**	**X**	**5819**		**=**	**226.64** mlb/building
				28,900			
				heating effeciency factor			

HOLE AREA "A" BASED UPON:

Weatherstrip Doors 13 @ 20' x 1/16"	**=**	**1.35**	**FT^2**
Caulk Window Frames 4776' x 1/32"	**=**	**12.44**	**FT^2**
Weatherstrip & Ins Hatches 2ea x 10' x 1/8"	**=**	**0.21**	**FT^2**
	=	**0.00**	**FT^2**
	=	**0.00**	**FT^2**
TOTAL:	**=**	**14**	**FT^2**

CALCULATIONS: **Selingsgrove Center**
Bldg. No. 5

COST OF AIR LEAKAGE:

			Flow Factor		$(AP)^{\wedge n}$		A		CFM
1)	**Q**	**=**	**20**	**X**	**4.02**	**X**	**2.75**	**=**	**221.10**

			Q		Degree Days				
2)	**Cost:**		**221.10**	**X**	**5819**			**=**	**44.52** mlb/building
					28,900				
					heating effeciency factor				

HOLE AREA "A" BASED UPON:

Weatherstrip Doors 24 @ 20' x 1/16"	**=**	**2.75 FT.**
	=	**0.00 FT.**
TOTAL:	**=**	**2.75 FT.** ^{2}

CALCULATIONS: **Selingsgrove Center**
Bldg. No. 6

COST OF AIR LEAKAGE:

			Flow Factor		$(AP)^{\wedge n}$		A		CFM
1)	**Q**	**=**	**20**	**X**	**4.02**	**X**	**1.26**	**=**	**101.30**

			Q		Degree Days				
2)	**Cost:**		**101.30**	**X**	**5819**			**=**	**20.40** mlb/building
					28,900				
					heating effeciency factor				

HOLE AREA "A" BASED UPON:

Weatherstrip Doors 11 @ 22' x 1/16" **=** **1.26 FT.**

TOTAL: **=** **1.26 FT.** ^{2}

CALCULATIONS: **Selingsgrove Center**
Bldg. No. 7

COST OF AIR LEAKAGE:

			Flow Factor		$(AP)^{\wedge n}$		A		CFM
1)	**Q**	**=**	**20**	**X**	**4.02**	**X**	**2.86**	**=**	**229.94**

			Q		Degree Days				
2)	**Cost:**		**229.94**	**X**	**5819**			**=**	**46.30** mlb/building
					28,900				
					heating effeciency factor				

HOLE AREA "A" BASED UPON:

Weatherstrip Doors 25 @ 22' x 1/16"	**=**	**2.86 FT.**
	=	**0.00 FT.**
	=	**0.00 FT.**
TOTAL:	**=**	**2.86 FT.^{2}**

24-May-18

Selingsgrove Center
Bldg 13

COST OF AIR LEAKAGE:

			Flow Factor		$(AP)^{\wedge n}$		A		CFM
1)	**Q**	**=**	**20**	**X**	**4.02**	**X**	**10.90**	**=**	**876.36**

			Q		Degree Days				
2)	**Cost:**		**876.36**	**X**	**2689**			**=**	**519.40** mlb/building

4,537
heating effeciency factor

HOLE AREA "A" BASED UPON:

Air seal 10,125 SF attic	**=**	**8.10 FT.**	**2**
Weatherstrip 27 doors x 20' x 1/16"	**=**	**2.80 FT.**	**2**
TOTAL:	**=**	**10.9 FT.**	**2**

CALCULATIONS: **Selingsgrove Center**
Building 14 Rec Bldg

COST OF AIR LEAKAGE:

			Flow Factor		$(AP)^{\wedge n}$		A		CFM
1)	**Q**	**=**	**20**	**X**	**4.02**	**X**	**18.81**	**=**	**1512.32**

			Q		Degree Days				
2)	**Cost:**		**1512.32**	**X**	**5819**			**=**	**304.51** mlb/building
					28,900				
					heating effeciency factor				

HOLE AREA "A" BASED UPON:

Weatherstrip 30 Doors 30 x 20' x 1/16"	**=**	**0.31 FT.**
Foam seal Re & r/w 1136' x 3/16"	**=**	**17.75 FT.**
Install 48" sheathing @ entry soffit 12' x 1/4"	**=**	**0.25 FT.**
Inspect and seal if necessary 6 roof exh. Curbs	**=**	**0.50 FT.**
	=	**0.00 FT.**
TOTAL:	**=**	**18.81 FT.**

CALCULATIONS: **Selingsgrove Center**
Building 19

COST OF AIR LEAKAGE:

			Flow Factor		$(AP)^{\wedge n}$		A		CFM
1)	**Q**	**=**	**20**	**X**	**4.02**	**X**	**8.92**	**=**	**717.17**

			Q		Degree Days				
2)	**Cost:**		**717.17**	**X**	**5819**			**=**	**144.40** mlb/building
					28,900				
					heating effeciency factor				

HOLE AREA "A" BASED UPON:

Weatherstrip 8 Doors 8x 20' x 1/16"	**=**	**0.83 FT.**
Foam seal 220lf ofwall tops 220' x 3/16"	**=**	**3.44 FT.**
Install interioir window caulk 1684' x 1/32"	**=**	**4.39 FT.**
foam seal pens. 50 x .5' x 1/8"	**=**	**0.26 FT.**
	=	**0.00 FT.**
TOTAL:	**=**	**8.92 FT.**

CALCULATIONS: **Selingsgrove Center**
Building 29

COST OF AIR LEAKAGE:

			Flow Factor		$(AP)^{\wedge n}$		A		CFM
1)	**Q**	**=**	**20**	**X**	**4.02**	**X**	**6.48**	**=**	**520.99**

			Q		Degree Days			
2)	**Cost:**		**520.99**	**X**	**5819**		**=**	**104.90** mlb/building
					28,900			
					heating effeciency factor			

HOLE AREA "A" BASED UPON:

Weatherstrip Doors 12 x 20' x 1/16"	**=**	**1.25 FT.**
Weatherstrip Oversize doors 10 x 22' x 1/16"	**=**	**1.15 FT.**
Cover 1 door louver 8' x1/8"	**=**	**0.08 FT.**
Attic air seal	**=**	**4.00 FT.**
	=	**0.00 FT.**
TOTAL:	**=**	**6.48 FT.**

CALCULATIONS: **Selingsgrove Center**
Building 31 (garage)

COST OF AIR LEAKAGE:

			Flow Factor		$(AP)^{\wedge n}$		A		CFM	
1)	**Q**	**=**	**20**	**X**	**4.02**	**X**	**10.46**	**=**	**840.98**	

			Q		Degree Days				
2)	**Cost:**		**840.98**	**X**	**5819**		**=**	**169.33**	mlb/building
					28,900				
					heating effeciency factor				

HOLE AREA "A" BASED UPON:

Weatherstrip 4 Doors 4 x 20' x 1/16"	**=**	**0.42 FT.**
foam seal roof edge, roof/wall 580' x 1/8	**=**	**6.04 FT.**
air seal attic	**=**	**4.00 FT.**
Install efoil over rafters at black plastic (360sf)	**=**	**4.00 FT.**
TOTAL:	**=**	**10.46 FT.**

CALCULATIONS: **Selingsgrove Center**
Building 32

COST OF AIR LEAKAGE:

			Flow Factor		$(AP)^{\wedge n}$		A		CFM
1)	**Q**	**=**	**20**	**X**	**4.02**	**X**	**15.35**	**=**	**1234.46**

			Q		Degree Days			
2)	**Cost:**		**1234.46**	**X**	**5819**		**=**	**248.56** mlb/building
					28,900			
					heating effeciency factor			

HOLE AREA "A" BASED UPON:

Air seal Attic	**=**	**10.00 FT.**
build 3 new attic access hatches 3ea x 20' x 1/8"	**=**	**0.63 FT.**
weatherstrip 7 doors x 20' x 1/16"	**=**	**0.73 FT.**
install radiant barrier on inside of 5 Overhead doors	**=**	**4.00 FT.**
	=	**0.00 FT.**
TOTAL:	**=**	**15.35 FT.**

CALCULATIONS: **Selingsgrove Center**
Building 33 (Welding/Grounds)

COST OF AIR LEAKAGE:

			Flow Factor		$(AP)^{\wedge n}$		A		CFM
1)	**Q**	**=**	**20**	**X**	**4.02**	**X**	**6.13**	**=**	**492.85**

			Q		Degree Days			
2)	**Cost:**		**492.85**	**X**	**5819**		**=**	**99.24** mlb/building
					28,900			
					heating effeciency factor			

HOLE AREA "A" BASED UPON:

Install hatches at access holes 2ea x .5sf	**=**	**1.00 FT.**
cover fan 1ea x .5sf	**=**	**0.50 FT.**
seal clg. Cracks 1776' x 1/32"	**=**	**4.63 FT.**
TOTAL:	**=**	**6.13 FT.**

CALCULATIONS: **Selingsgrove Center**
Building 34 Mechanical Storeroom

COST OF AIR LEAKAGE:

			Flow Factor		$(AP)^{\wedge n}$		A		CFM
1)	**Q**	**=**	**20**	**X**	**4.02**	**X**	**12.09**	**=**	**972.04**

			Q		Degree Days				
2)	**Cost:**		**972.04**	**X**	**5819**			**=**	**195.72** mlb/building
					28,900				
					heating effeciency factor				

HOLE AREA "A" BASED UPON:

Weatherstrip 1 door x 20' x 1/16"	**=**	**0.10 FT.**
Weatherstrip 5 Overhead Doors 5ea x 30' x 1/16"	**=**	**0.78 FT.**
seal 4 abandoned clg fan holes 4ea x .5sf	**=**	**2.00 FT.**
Install 1600 sf radiant barrier below black plastic ceiling	**=**	**5.00 FT.**
Install 2 new attic access hatches 2ea x 10' x 1/8"	**=**	**0.21 FT.**
air seal ciling penetrations	**=**	**4.00 FT.**
TOTAL:	**=**	**12.09 FT.**

Table of Contents

Appendices

by: Don Hampton
Heating & Ventilation
Specialist

1. Introduction

1. This document has been developed to aid in the estimate of the heat lost due to building holes, gaps and cracks. It also covers the general location of these gaps in common building types.

2. The effect of these openings on the capacity required to compensate for this addes load has been established in the ASHRAE Handbood of Fundamentals(1). ASHRAE has not, however, made any serious effort to estimate the heat required for a typical year.

3. This paper presents a method of estimating the cost due to the infiltration. The equations are suitable for low buildings only as the predominant factor is the wind. The infiltration in high rise buildings is primarily affected by stack effects. The equations for low rise buildings are based on:
   1. the ASHRAE formulae for wind effects and stack effects, as described in (1);
   2. the ASHRAE crack method for infiltration effects and stack effects, as described in (1); and
   3. the ASHRAE Degree day method of heating estimates, as described in ASHRAE Systems Handbook (2).

4. The formulae requires information of the weather in the city. This information has been collected for various areas in Canada and is presented in Appendix B; the source of this information is:
   1. degree day records as included in the National Building Code Supplement No. 1 (3); and
   2. wind data as given in the Environment Canada booklet on Wind (4).

2. Considerations

1. ASHRAE'S System Handbook (2) has provided a method of allowing for infiltration by calling for an estimate of the number of "air changes" per hour. This is then converted into heat loss factors and combined with the conduction losses for the balance of the building. The resulting information is used in the heating requirements.

2. The method employed here is to quantify the infiltration by using the area of the holes and prevailing wind speed to calculate the infiltration due to winds. As the infiltration for low buildings is controlled by these factors the formulae presented here account for that mechanism only; infiltration due to the stack effect is negligible for buildings up to 10m high.

3. The calculations on fuel costs allow for heating equipment with a capacity of up to 100 kW operating at average efficiency. If the equipment being used has different efficiency the formulae can be adjusted.

4. The derivation of formulae is covered in Append. A. The formulae divide buildings into classes to cover different types of construction. Caution should be applied when selecting the formulae to ensure that the correct building construction is identified.

. Computer Programs

1. The National Research Council (NRC) has developed a computer program for houses with a sub-routine for infiltration that estimates the energy used for heating. The program is described in the NRC booklet 17663 (5) and is "...primarily intended for researchers, designers and consulting engineers. This sub-routine uses a variation of the ASHRAE method of establishing instantaneous heating requirements due to infiltration.

2. The ENCORE program utilises the weather data for Canadian Cities that has been collected by the Department of Environment. Part of this information includes the wind data as presented in the Department of Environment booklet(4

3. One Consulting Engineering Group has developed a computer program that enables them to establish the heating and cooling loss from a building. It requires the establishment of the building envelope's characteristics by a single pressure test, and uses this to predict the energy losses through the alogorithms for the flow of heat in the building

4. Where the problem has been established the pressure test can be used with a thermographic scan to establish the location of holes in the building.

. Formulae

1. Infiltration

$$Q = k \times (dP)^n \times A$$

Where "Q" is the average infiltration rate in litres per second (L/s)

k = 550 L/(s.Pa.m^2) For type *1 buildings
k = 400 L/(s.Pa.m^2) For type *2 buildings
k = 300 L/(s.Pa.m^2) For type *3 buildings

*Note: The building construction for each type of building is discussed in Appendix A with the derivation of the formulae.

"$(dP)^n$" is the pressure differential built up by the wind. The values are shown in Appendix B in terms of pascals (Pa).

"A" is the total area of the holes in the building,calculated in square metres (m^2).

2. Energy Costs

1. Oil cost $= \frac{Q \times °C.d \times \text{Oil price } ¢/L}{26\ 100}$ ($)

Note: °C.d is the measure of weather effects for the area, it is further explained and the values given in Appendix B.

2. Gas cost $= \frac{Q \times °C.d \times \text{Gas price } ¢/m^3}{26\ 700}$ ($)

3. Electrical cost $= \frac{Q \times °C.d \times \text{Energy costs } \$/MJ}{10}$ ($)

Note: The energy lost to infiltration is often partially balanced by other loads including loads, process work, and solar effects. It is further complicated by the mechanical systems and process cooling. The energy cost formulae are applicable only if all these factors are accounted for.

5. Other Factors

1. The total energy requirements for heating must allow for the heat lost through the building shell and the heat lost to air passing through the buildings. All other heating requirements are generally minimal; even the heating required for chemical processes is insignificant since most of the heat is rejected to the air or cooling water.

2. The heat used for lighting and power inside a building does have a significant effect on the building heating requirements. Most large office buildings are self heating during the occupied hours due to the heat from the lights. Similarly it is typical to find that if a warehouse is used continually the heat from the lights must be accounted for in the calculations.

3. In some buildings significant quantities of air are required for process purposes. It is preferable to direct the intake of these systems to fresh air make-up systems, however, it is not uncommon to find exhaust systems installed without make-up systems. This move is generally made on economic grounds; it is cheaper to install one system than two. The complication occurs when the make-up is taken from the working space, because this creates drafty conditions throughout the building.

4. Some energy is supplied to a building through solar heating. This heat is absorbed into the buildings through the walls and windows facing sourth, as well as through the roof. Various methods can be used to increase the proportion of heat from the sun, particularly by increasing the area of the south facing windows. Unfortunately any increase in the size of windows means that the prime heating systems have to be increased to compensate for the extra heat loss at night, etc.

Note: Each of these factors are considered in the calculations shown in Appendix C, and some of them are very complicated and require separate considerations. If an account is also to me made into the dynamics of the building, ie. if greater accuracy is required than a first order estimate, then an hour-by-hour simulation should be considered.

6. Pressure Testing

1. Some testing has been done on buildings to determine the effectiveness of the envelope as a protection against infiltration. Plots have been developed by NRC to classify the wall enclosures on the basis of air leakage versus the air pressure built up.

2. The National Association of Architectural Metal Manufacturerers has developed a specification (6) for testing curtainwall panels for static and dynamic wind conditions. This specification applies to manufacture items only and will require some field inspection and testing to ensure that the panels are installed satisfactorally.

3. The air handling systems can be used in conjunction with thermographic equipment to locate holes in buildings. The investigations of the RCMP North Ottawa barrick areas, the cafeteria and the swimming pool, and the North York Federal Building were all carried out partially using this technique.

4. Another technique has been developed by a group in the U.S. The requirements are limited to the introduction of a trace gas into the building and the opening of an evacuated container a given period later. With the condition of the building, ie. the temperatures and the wind speed, etc., some quantitative factors can be developed. Similar tests have been developed that can be measured instantaneously using electronic snifters.

Note: Any of these arrangements can help to develop an understanding of the severity of the infiltration problem; however, an experienced contractor can point out the problems for many buildings as they recur in similar places in most structures.

Typical Building Faults

1. Various techniques have been developed that allow the completion of buildings with a minimum attention to details. Typical is the fixing of windows and the installation of electrical outlets.

2. Most window manufacturers allow more than twenty-five millimetres clearance between the rough opening for a window and the window frame. The window is generally wedged into place with blochs and these are sufficient to ensure that the window is secure. Good practice calls for the building contractor to caulk the gap, but few complaints are registered by the building user as long as the trim strip covers the open area. The extra energy costs from this are significant.

3. Electrical outlet and switching boxes are generally installec after the wall, trim. The wires are often pulled through the otherwise finished wall and the electrical trade is not responsible for the damage to the air seal or the insulation. The result is an infiltration rate that costs the homeowner in Toronto, using gas heating, about $5.00/a for each electrical box on the outside wall.

4. The installation of mechanical services into the outside wall also leads to damage of the air seal. One generality that could be gleaned from this is that no services should be installed in the outside walls; that would leave the problem of sealing to the building trades.

5. The break of the air seal by the mechanical and electrical services, including the holes left around entrances and by services that have been removed, is still monor compared to the gaps that are left between the building components. Typical problem areas are the sill plate, the seal of the top of walls and the match line between the walls and columns

6. The gaps at the sill plate are generally narrower than other gaps as the walls tend to settle. With light construction walls, however, the gap may be large.

7. The gap at the top of the wall usually escapes the attention of the user as it cannot be seen and the air exfiltrates from it. The flow of air through this gap can lead to building damage and needs attention for many reasons.

8. Concrete blocks and some brick mortars shrink after a few years; this allows the walls to move away from the steel columns and show gaps along columns and at the top of walls.

9. All the above faults require a caulking seal; the other problem area is the seal around doors and opening windows.

10. The usual action of installing compression gaskets around doors and windows so that the gaps are sealed by forcing the moving item against a stop creates problems of tolerance: which are complicated by the expansion and shrinkage of these over the seasons. The film seal described in the next section is a viable alternate.

. Remedial Actions

1. General
    1. There are few products on the market that can be recommended for retrofit work; the need for retrofit in this area has not had the attention that it deserve and few innovations have been made.
    2. The standard rubberized products used for new construction are satisfactory; however, they are hard to install. Retrofit work should be completed simply and quickly as most of the work is taking place in areas that are commercially valuable.

2. Polyurethane
    1. The first product is a polyurethane foam. This material can be applied through an opening as small as six millimetres in diametre, and will expand to fill any size hole. This expansion can be controlled, with practice, so that the total void can be filled. (some caution is needed to ensure that the holes are not overfilled, thus causing too much pressure on the building components.) The material can be applied in almost any weather and is not affected by the low temperatures of the building.
    2. This product was used in the remedial actions taken in some Ottawa buildings for the RCMP. Other examples of the use of this product can be listed if required*.
    3. One example of the use of this product is the sealing of electrical outlet boxes, particularly in houses. The action required in removing the electrical hardwar after taking the usual precaution of shutting off the power to the area, is not difficult. The electrical components can usually be drawn out of the box with the wiring still connected. The applicator is then inserted through the electrical box holes and the foam injected into the space. The foam should be inserted on all sides of the box and through the back as well. The electrical connections should be checked before the electrical service is reconnected, with a special check on the tension of the screw connections if aluminium wiring has been used. This procedure has been shown in the sketches of Appendix D.

*Note: Request for information on this should be addressed to Chief, Mechanical Engineering, PWC.

3. Film Seal
    1. This technique requires the installation of a film in the door (or window) jamb so that the door folds the film between its edge and the door frame. This means that the seal will be maintained even if the moving component does not return to exactly the same position when closed.
    2. A polypropylene film, cut to the required width, with a preformed longitudinal notch and an adhesive protected by a peel-away protection is available. This product has the advantage of being applicable in all climates, but other combinations may be available using more common products.
    3. Details on the use of this product are shown in Appendix D.
    4. These products are being tested in various applications and the results are being monitored by Mechanical Engineering.

References

1. ASHRAE Handbook and Product Directory, 1977 Fundamentals American Society of Heating, Refrigeration and Air-Conditioning Engineers Inc., Chapter 21, "Infiltration and Ventilation"; New York 1977.

2. ASHRAE Handbook and Product Directory, 1976 Systems American Society of Heating, Refrigeration and Air-Conditioning Engineers Inc., Chapter 43, "Energy Estimating Methods:, New York 1976.

3. National Building Code of Canada, National Research Council of Canada, "Supplement No. 1 Climatic Information for Building Design in Canada", NRC No. 13986; Ottawa 1975.

4. Winds: Canadian Norms, Volume 3 1955 - 1972, Environment Canada; Downsview Canada.

5. Konrad A. & B.T. Larson, Encore Canada: Computer Program for the Study of Energy Consumption of Residential Building In Canada, DBR Paper No. 859, Division of Building Research NRC 17663; Ottawa 1978.

6. Specification TM-1-68T, National Association of Architectural Metal Manufacturers.

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1. Garden, GK. Use of Sealants, Canadian Building Digest NRC, DBR, CBD 97, Ottawa 1967.

2. Wilson, A.G. Air Leakage in Buildings, Canadian Building Digest NRC, DBR, CBD 23, Ottawa 1961

3. Tamblyn, R.T. Infiltration, the Thief in the Night Toronto, 1978.

4. Tamblyn, R.T. Infiltration Workshop, Toronto, 1978

5. Tanura, G.T. Measurements of Air Leakage Characteristics of House Enclosures, ASHRAE Transactions Volume B1, Part 1; 1975.

This formula has been developed from the instantaneous infiltration rates formula used by ASHRAE (1). The value of "k" has been based on observations of the heating requirements for various buildings.

Building Classification is calculated from the volume of the cavity of the room or building, if there are no partitions.

i.e. $\frac{\text{Volume of cavity (room)}}{\text{area of openings*}}$ = up to 10,000 Type 1 building
between 10,000 and 20,000 Type 2 building and above 20,000 Type 3 building.

*NOTE: This area is to allow for the doors that are being opened, i.e. based on an average time of the doors being opened, e.g. if a door is $2M^2$ and it is open 10% of the day, the effective area of this is $0.2m^2$.

Value of Heat Lost

Energy costs are derived from the equations for sensible heat:

Imperial		SI
	Heat Rate	
1.08 X Flow(cfm) X Δt (°F) (Btu/h)		1.21 X Flow (L/s) X Δt(°C) (W)
	Heat Lost per Year	
1.08 X Flow (cfm) X °F.d X 24 h/d =25.92 X Flow (cfm) X °F.d (Btu)		1.21 X Flow (L/s) X t(°C) X 24 h/d X3600 s/h = 104 544 X Flow (L/s) X °C.d

Fuel Factors

Natural Gas

1000 Btu/ft³	Calorific Value	37.26 kJ/L = 36.26 MJ/m³
"X" $/1000 ft³	Sold at	"Y"¢ m³

"X" $/1000 ft³ = "X"/28.3 $/m³
= Y ¢/283m³

"X" $/1 000 ft³ X 1 000 Btu/ft³ X 0.75 — Heating Value assuming 75% Efficiency — "Y" ¢/m³ X 37.26 MJ/m³ X 0.75
"X" $/750 000 Btu = "Y" ¢/27.95 MJ

i.e. "X" /750 000 Btu = "X" /791 MJ
& "Y" ¢/26 490 Btu = "Y" ¢/27.95 MJ

168 000 Btu/gal — Calorific Value — 39 MJ/L

"Z" ¢/gal — Sold at — "V" ¢/L

"Z" ¢/gal = "V"/4.55 ¢L

"Z" ¢/168 000 Btu X 0.7 — Heating Value assuming 70% efficiency — "V" ¢/39 X 0.7
"Z" ¢/117 600 Btu = "V" ¢/27.31 MJ

i.e. "Z" ¢/117 600 Btu = "Z" ¢/124 MJ
& "V" ¢/25 880 Btu = "V" ¢/27.31 MJ

ELECTRICAL

1 kW.h = 3 413 Btu — Calorific Value — N/A

"E" ¢/kW.h — Sold at — "B" $/MJ

"E" ¢/kW.h = "E"/3.6 MJ

"E" ¢/3 413 Btu — Heating value assuming 100% efficiency — "B" $/MJ

i.e. "E" ¢/3 413 Btu = "E" ¢/3.6 MJ
& "B" $/948 Btu = "B" $MJ

ENERGY COST FORMULAE

Oil Cost ($)

$$\frac{25.92 \times Q \times °F.d \times "Z"}{117\,600 \times 100} = \frac{Q \times °F.d \times "Z"}{45370}$$

$$\frac{104\,544 \times Q \times °C.d \times "V"}{10^6 \text{ MJ/J} \times 100 \text{ ¢/\$} \times 27.31 \text{ MJ}} = \frac{Q \times °C.d \times "V"}{26\,100}$$

Natural Gas Cost ($)

$$\frac{25.92 \times Q \times °F.d \times "X"}{750\,000} = \frac{Q \times °F.d \times "X"}{28\,900}$$

$$\frac{104\,544 \times Q\ °C.d \times "Y"}{10^6\ MJ/J \times 100\ ¢/\$ \times 27.31\ MJ} = \frac{Q \times °C.d. \times "Y"}{26\,735}$$

Electrical Cost ($)

$$\frac{25.92 \times °F.d \times "E" \times Q}{341 \times 100} = \frac{Q \times °F.d \times "E"}{13\,136}$$

$$\frac{104\,544 \times Q\ °C.d \times "B"}{10^6\ MJ/J \times 100\ ¢/\$} = \frac{Q \times °C.d \times "B"}{960}$$

Note: 1. The term "Q" has been used for both systems to denote air flow; for Imperial the term denotes flow in cubic feet per minute, (cfm), for SI the term denotes flow in litres per second, (L/s).

2. The constants have been rounded off in the text.

Derivation of formula $Q = k \times (dP)^n \times A$

The theory used is based on the Bernoulli's theorem and the relationship between the pressure and the velocity interchangability:

$$p = \frac{\rho \times v^2}{2}$$ which is expressed in terms of lb/ft^2 or pascals

Imperial measure	i.e.	SI measure
"ρ" in $slugs/ft^2$	density	"ρ" in kg/m^3
"v" in ft/s	velocity	"v" in m/s
"p" in lb/ft^2	pressure	"p" in pascals

For air at normal temperature and pressure*

"ρ" $= 13.35\ ft^3/lb$ density "ρ" $= 1.2\ kg/m^3$
$= 1/13.35 \times 32.2\ slug/ft^3$

Note: $g = 32.2$ slug/lb

"v" mph $= \frac{v\ mph \times 5280\ ft/mile}{3600\ s/h}$ velocity "v" km/h $= \frac{vkm/h \times 1000\ m/km}{3600\ s/h}$

$= 1.467 \times v$ ft/s $= 0.278 \times v$ m/s

$\frac{2.326 \times 10^{-3}\ slug \times (1.467 \times v)^2}{2}$ (lb/ft^2) pressure $p = \frac{\rho \times v^2}{2}$ $\frac{1.2\ kg/m^3 \times (0.278 \times v\ m/s)^2}{2}$

$= 2.5 \times 10^{-3} \times v^2\ lb/ft^2$
$= 0.000\ 481 \times v^2$ in of water $= 0.0464 \times v^2$ Pa

*NOTE: The formulae allows for the increased density of air at lower temperature through the "k" factor.

erivation of formula $Q = k \times (dP)^n \times A$ (cont'd)

he total wind pressure would not build up in a building because of the leakage from he building; this has been compensated by using the following factors for the alculation of the factor $(dP)^n$ i.e. be varying the value of "n".

or type 1 buildings n= 0.6
or type 2 buildings n= 0.65
or type 3 buildings n= 0.7

ith loosely constructed buildings, ie. with greater opening/cavity ratios, the flow f air will increase, hence the value of "k" increases for the lower quality buildings.

he area factor "A" is based on the total area of the opening. The actual infiltration ath is limited to approximately half the total openings; the user of this text can half he opening area and then double the flow factors if that has greater appeal.

Note on the use of Imperial Units

he value of the pressure build up in a building will be less than the value calculated rom the wind pressure; the use of the interger on the pressure calculated from the SI value f pressure will be reduced for the lower quality buildings which is as expected; however similar calculation using the pressure value in inches will show an increase in pressure. or this reason the values of pressure should not be calculated in Imperial, a straight onversion is to be made from the SI value i.e.

Infiltration Formulae

$=110 \times (dP)^n \times A$	Type 1 buildings	$Q = 550 \times (dP)^{0.6} \times A$
$= 80 \times (dP)^n \times A$	Type 2 buildings	$Q = 400 \times (dP)^{0.65} \times A$
$= 60 \times (dP)^n \times A$	Type 3 buildings	$Q = 300 \times (dP)^{0.7} \times A$

here $(dP)^n$ is in pascals for both the Imperial and SI calculations.

) is in cfm for Imperial
, is in square feet for Imperial
Q is in litres per second for SI
A is in square metres for SI.

CITY	WIND SPEED	WIND FACTOR		DEG DAY
	1	2	3	

PETERBOROUGH A	11.00	2.82	3.07	3.35	4592.90
PICKERING					4267.40
PICKLE LAKE	11.60	3.00	3.29	3.60	6911.80
POINT PELEE	14.70	3.99	4.47	5.02	3552.40
RAWSON LAKE	9.40	2.33	2.50	2.68	5955.70
RED LAKE A	10.60	2.69	2.92	3.18	6350.20
ST CATHERINES A	17.60	4.95	5.65	6.46	3657.60
SARNIA A	15.50	4.25	4.79	5.41	3886.20
SARNIA POLYSAR	15.20	4.15	4.67	5.26	3645.00
SAULT STE MARIE A	15.10	4.12	4.63	5.21	5119.70
SIMCOE	15.30	4.18	4.71	5.31	4025.70
SIOUX LOOKOUT A	12.10	3.16	3.47	3.82	6278.30
SOUTHAMPTON	10.40	2.63	2.85	3.09	4235.70
SOUTHAMPTON TOMORI	14.10	3.79	4.24	4.74	4438.40
SOUTH BAY MOUTH	15.80	4.35	4.91	5.55	4837.00
STIRLING	11.40	2.94	3.22	3.52	4463.50
SUDBURY A	20.50	5.94	6.89	8.00	5451.20
THUNDER BAY A	13.40	3.57	3.97	4.41	5767.90
TIMMINS A	13.60	3.63	4.04	4.50	6224.60
TORONTO AGINCOURT	15.80	4.35	4.91	5.55	4109.50
TORONTO DOWNSV'W A	15.20	4.15	4.67	5.26	3991.50
TORONTO INT'L A	15.40	4.22	4.75	5.36	4143.80
TORONTO ISLAND A	18.00	5.08	5.82	6.67	3876.90
TORONTO MET RES ST	13.60	3.63	4.04	4.50	4124.80
TOR SCARBOR'GH COL	9.90	2.48	2.68	2.89	3938.90
TRENTON A	15.80	4.35	4.91	5.55	4191.70
VINELAND STATION	14.70	3.99	4.47	5.02	3672.20
WATERLOO WEL'TON A	13.00	3.44	3.81	4.23	4301.20
WAWA A	7.60	1.81	1.90	1.99	5838.60
WHITE RIVER	8.50	2.07	2.20	2.33	6479.20
WIARTON A	16.40	4.55	5.16	5.85	4485.90
WINDSOR A	17.00	4.75	5.41	6.15	3622.40
WINISK A	18.30	5.19	5.95	6.82	8622.50

Attention Tony Woods,
Canam Air Leakage Control Systems Corporation.

The following table provides weather data for use with EC 128. As the degree days during Summer have limited effect on the operating cost of a heating system they have been separated - the effect is a reduction of about ten per cent on the degree days.

Don Hampton P.Eng 1997 01 12

		Total Degree Days	Winter Degree days	Winter Wind	Wind Factor	Winter Wind
Province	Weather	°C.d	°C.d	Velocity km/h	ΔP**0.65	Direction
	Site					
Alberta	Calgary Int'l	5200	4690	16.0	4.97	NNW
	Edmonton Int'l A	5830	5280	13.5	3.98	SSE
	Edmonton Municipal A	5320	4900	13	3.79	S
	Edmonton Namao	5630	5140	15.25	4.67	W
	Edmonton Stony Plain	5470	4970	11.5	3.23	NW
British Columbia						
	Kamloops A	3640	3280	14.8	4.51	
	Kelowna A	4040	3640	5.5	1.25	
	Kimberly A	4910	4420	10	2.71	
	Namiomi Dep. Bay	2900	2750	9.3	2.47	
	Prince Rupert A	4110	3700	14.8	4.51	
	Vancouver Int'l A	3002	2724	12	3.42	E

CITY	WIND SPEED	WIND FACTOR		DEG DAY
	1	2	3	
ALABAMA				
BIRMINGHAM	11.75	3.05	3.34	3.67 1495.28
HUNTSVILLE	13.03	3.45	3.83	4.24 1495.28
MOBILE	14.48	3.92	4.39	4.92 1495.28
MONTGOMERY	10.78	2.75	2.99	3.25 1495.28
ALASKA				
ANCHORAGE	10.94	2.80	3.05	3.32
ANNETTE	17.06	4.77	5.43	6.18
BARROW	18.99	5.42	6.24	7.18
BARTER ISLAND	21.08	6.14	7.15	8.32
BETHEL	20.76	6.03	7.01	8.14
BETTLES	10.78	2.75	2.99	3.25
BIG DELTA	13.19	3.50	3.89	4.32
COLD BAY	27.19	8.34	9.95	11.88
FAIRBANKS	8.69	2.12	2.26	2.40
GULKANA	10.94	2.80	3.05	3.32
HOMER	11.42	2.95	3.22	3.53
JUNEAU	13.52	3.61	4.01	4.46
KING SALMON	17.22	4.82	5.49	6.26
KODIAK	16.73	4.66	5.30	6.02
KOTZEBUE	20.92	6.09	7.08	8.23
MCGRATH	8.05	1.93	2.04	2.16
NOME	17.22	4.82	5.49	6.26
ST PAUL ISLAND	30.09	9.42	11.35	13.69
TALKEETNA	6.92	1.61	1.68	1.75
YALDEZ	9.65	2.41	2.59	2.79
YAKUTAT	12.07	3.15	3.46	3.81
ARIZONA				
FLAGSTAFF	11.91	3.10	3.40	3.74 1269.39
PHOENIX	9.98	2.50	2.70	2.92 1269.39
TUCSON	13.19	3.50	3.89	4.32 1269.39
WINSLOW	14.32	3.86	4.32	4.84 1269.39
YUMA INTL AIRPORT	12.55	3.30	3.64	4.02 1269.39
ARKANSAS				
FORT SMITH	12.23	3.20	3.52	3.88 1807.06

CITY	WIND SPEED	WIND FACTOR		DEG DAY
	1	2	3	
PAGE #2				
LITTLE ROCK	12.87	3.40	3.76	4.17 1807.06
CALIFORNIA				
BAKERSFIELD	10.30	2.60	2.82	3.05 1507.78
BLUE CANYON	12.87	3.40	3.76	4.17 1507.78
EUREKA	10.94	2.80	3.05	3.32 1507.78
FRESNO	10.30	2.60	2.82	3.05 1507.78
LONG BEACH	10.14	2.55	2.76	2.98 1507.78
LOS ANGELES	11.91	3.10	3.40	3.74 1507.78
OAKLAND	13.19	3.50	3.89	4.32 1507.78
RED BLUFF	13.84	3.71	4.14	4.61 1507.78
SACRAMENTO	13.03	3.45	3.83	4.24 1507.78
SAN DIEGO	10.94	2.80	3.05	3.32 1507.78
SAN FRANSISCO	16.89	4.71	5.36	6.10 1507.78
SANTA MARIA	11.26	2.90	3.16	3.46 1507.78
STOCKTON	11.91	3.10	3.40	3.74 1507.78
COLORADO				
COLORADO SPRINGS	16.41	4.55	5.16	5.86 3917.61
DENVER	14.32	3.86	4.32	4.84 3917.61
GRAND JUNCTION	13.03	3.45	3.83	4.24 3917.61
PUEBLO	14.00	3.76	4.20	4.69 3917.61
CONNECTICUT				
BRIDGEPORT	19.31	5.53	6.38	7.35 3402.06
HARTFORD	13.84	3.71	4.14	4.61 3402.06
FLORIDA				
APALACHICOLA	12.71	3.35	3.70	4.10 381.28
DAYTONA BEACH	14.32	3.86	4.32	4.84 381.28
FORT MYERS	13.19	3.50	3.89	4.32 381.28
JACKSONVILLE	13.19	3.50	3.89	4.32 381.28
KEY WEST	18.18	5.15	5.90	6.76 381.28
MIAMI	14.80	4.02	4.52	5.07 381.28
ORLANDO	13.84	3.71	4.14	4.61 381.28
PENSACOLA	13.52	3.61	4.01	4.46 381.28
TALLAHASS	10.62	2.70	2.93	3.18 381.28
TAMPA	13.84	3.71	4.14	4.61 381.28

CITY	WIND SPEED	WIND FACTOR		DEG DAY
	1	2	3	

WEST PALM	15.29	4.18	4.71	5.30	381.28
GEORGIA					
ATHENS	11.91	3.10	3.40	3.74	1491.44
ATLANTA	14.64	3.97	4.45	4.99	1491.44
AUGUSTA	10.62	2.70	2.93	3.18	1491.44
COLUMBUS	10.78	2.75	2.99	3.25	1491.44
MACON	12.39	3.25	3.58	3.95	1491.44
SAVANNAH	12.87	3.40	3.76	4.17	1491.44
HAWAII					
HILO	11.42	2.95	3.22	3.53	
HONOLULU	18.83	5.37	6.17	7.10	
KAHULUI	20.60	5.98	6.94	8.05	
LIHUE	18.99	5.42	6.24	7.18	
IDAHO					
BOISE	14.32	3.86	4.32	4.84	3826.11
POCATELLO	16.41	4.55	5.16	5.86	3826.11
ILLINOIS					
CAIRO	13.68	3.66	4.07	4.54	3390.00
CHICAGO	16.57	4.60	5.23	5.94	3390.00
MOLINE	16.09	4.44	5.03	5.70	3390.00
PEORIA	16.41	4.55	5.16	5.86	3390.00
ROCKFORD	15.93	4.39	4.97	5.62	3390.00
SPRINGFIELD	18.18	5.15	5.90	6.76	3390.00
INDIANA					
EVANSVILLE	13.19	3.50	3.89	4.32	3187.17
FORT WAYNE	16.41	4.55	5.16	5.86	3187.17
INDIANAPOLIS	15.45	4.23	4.77	5.38	3187.17
SOUTH BEND	16.73	4.66	5.30	6.02	3187.17
IOWA					
DES MOINE	17.70	4.98	5.70	6.51	3797.72
SIOUS CITY	17.54	4.93	5.63	6.43	3797.72
WATERLOO	17.22	4.82	5.49	6.26	3797.72

CITY	WIND SPEED	WIND FACTOR		DEG DAY
	1	2	3	
KANSAS				
CONCORDIA	19.63	5.64	6.52	7.53	2718.72
DODGE CITY	22.53	6.65	7.79	9.13	2718.72
GOODLAND	20.27	5.86	6.80	7.87	2718.72
TOPEKA	16.41	4.55	5.16	5.86	2718.72
WICHITA	19.95	5.75	6.66	7.70	2718.72
KENTUCKY				
CINCINATTI	14.64	3.97	4.45	4.99	2456.83
LEXINGTON	15.29	4.18	4.71	5.30	2456.83
LOUISVILLE	13.52	3.61	4.01	4.46	2456.83
LOUISIANA				
BATON ROUGE	12.39	3.25	3.58	3.95	946.89
LAKE CHARLES	13.84	3.71	4.14	4.61	946.89
NEW ORLEANS	13.19	3.50	3.89	4.32	946.89
SHREVEPORT	13.84	3.71	4.14	4.61	946.89
MAINE				
CARIBOU	18.02	5.09	5.83	6.68	4401.83
PORTLAND	14.00	3.76	4.20	4.69	4401.83
MARYLAND				
BALTIMORE	14.96	4.07	4.58	5.15	2656.72
MASSACHUSETTS				
BOSTON	20.11	5.81	6.73	7.79	3486.00
WORCESTER	16.73	4.66	5.30	6.02	3486.00
MICHIGAN				
ALPENA	12.55	3.30	3.64	4.02	3778.56
DETROIT	16.41	4.55	5.16	5.86	3778.56
FLINT	16.57	4.60	5.23	5.94	3778.56
GRAND RAP	15.93	4.39	4.97	5.62	3778.56
HOUGHTON LAKE	14.32	3.86	4.32	4.84	3778.56
LANSING	16.25	4.50	5.10	5.78	3778.56
MUSKEGON	17.22	4.82	5.49	6.26	3778.56

CITY	WIND SPEED	WIND FACTOR		DEG DAY
	1	2	3	

SAULT STE MARIE	15.12	4.13	4.64	5.23	3778.56
MINNESOTA					
DULUTH	18.02	5.09	5.83	6.68	4851.28
INTERNAT'L FALLS	14.48	3.92	4.39	4.92	4851.28
MINEAPOLIS	16.89	4.71	5.36	6.10	4851.28
ROCHESTER	20.76	6.03	7.01	8.14	4851.28
SAINT CLOUD	12.87	3.40	3.76	4.17	4851.28
MISSISSIPI					
JACKSON	11.75	3.05	3.34	3.67	1331.28
MERIDIAN	9.81	2.46	2.65	2.85	1331.28
MISSOURI					
COLUMBIA	15.77	4.34	4.90	5.54	2795.28
KANSAS CITY	17.06	4.77	5.43	6.18	2795.28
SAINT JOSEPH	16.09	4.44	5.03	5.70	2795.28
ST LOUIS	15.45	4.23	4.77	5.38	2795.28
SPRINGFIELD	17.54	4.93	5.63	6.43	2795.28
MONTANA					
BILLINGS	18.18	5.15	5.90	6.76	4551.33
GLASGOW	17.38	4.87	5.56	6.35	4551.33
GREAT FALLS	20.76	6.03	7.01	8.14	4551.33
HAVRE	16.41	4.55	5.16	5.86	4551.33
HELENA	12.55	3.30	3.64	4.02	4551.33
KALISPELL	10.62	2.70	2.93	3.18	4551.33
MILES CITY	16.41	4.55	5.16	5.86	4551.33
MISSOULA	9.81	2.46	2.65	2.85	4551.33
NEBRASKA					
GRAND ISLAND	19.31	5.53	6.38	7.35	3519.56
LINCOLN	16.73	4.66	5.30	6.02	3519.56
NORFOLK	19.31	5.53	6.38	7.35	3519.56
NORTH PLATTE	16.41	4.55	5.16	5.86	3519.56
OMAHA	17.06	4.77	5.43	6.18	3519.56
SCOTTSBLUFF	17.06	4.77	5.43	6.18	3519.56
VALENTINE	16.25	4.50	5.10	5.78	3519.56

CITY	WIND SPEED	WIND FACTOR		DEG DAY
	1	2	3	
NEVADA				
ELKO	9.65	2.41	2.59	2.79 2361.78
ELY	16.89	4.71	5.36	6.10 2361.78
LAS VEGAS	14.64	3.97	4.45	4.99 2361.78
RENO	10.30	2.60	2.82	3.05 2361.78
WINNEMUCCA	12.71	3.35	3.70	4.10 2361.78
NEW HAMPSHIRE				
CONCORD	10.94	2.80	3.05	3.32 4195.89
MT WASHINTON	56.48	20.05	25.74	33.05 4195.89
NEW JERSEY				
ATLANTIC CITY	16.57	4.60	5.23	5.94 2991.72
NEWARK	16.41	4.55	5.16	5.86 2991.72
TRENTON	14.48	3.92	4.39	4.92 2991.72
NEW MEXICO				
ALBUQUERQUE	14.48	3.92	4.39	4.92 2630.17
ROSWELL	14.00	3.76	4.20	4.69 2630.17
NEW YORK				
ALBANY	14.32	3.86	4.32	4.84 3299.89
BIRMINGTON	16.57	4.60	5.23	5.94 3299.89
BUFFALO	19.47	5.59	6.45	7.44 3299.89
NEW YORK	19.79	5.70	6.59	7.61 3299.89
ROCHESTER	15.77	4.34	4.90	5.54 3299.89
SYRACUSE	15.77	4.34	4.90	5.54 3299.89
NORTH CAROLINA				
ASHEVILLE	12.39	3.25	3.58	3.95 1878.89
CAPE HATTERAS	18.34	5.20	5.97	6.85 1878.89
CHARLOTTE	12.07	3.15	3.46	3.81 1878.89
GREENSBORO	12.23	3.20	3.52	3.88 1878.89
RALEIGH	12.55	3.30	3.64	4.02 1878.89
WILMINGTON	14.32	3.86	4.32	4.84 1878.89

CITY	WIND SPEED	WIND FACTOR 1	WIND FACTOR 2	WIND FACTOR 3	DEG DAY
NORTH DAKOTA					
BISMARK	16.57	4.60	5.23	5.94	5249.33
FARGO	20.11	5.81	6.73	7.79	5249.33
WILLISTON	16.25	4.50	5.10	5.78	5249.33
OHIO					
AKRON	15.77	4.34	4.90	5.54	3228.39
CINCINATTI	11.42	2.95	3.22	3.53	3228.39
CLEVELAND	17.38	4.87	5.56	6.35	3228.39
COLUMBUS	14.00	3.76	4.20	4.69	3228.39
DAYTON	16.41	4.55	5.16	5.86	3228.39
MANSFIELD	17.70	4.98	5.70	6.51	3228.39
TOLEDO	15.12	4.13	4.64	5.23	3228.39
YOUNGSTOWN	16.09	4.44	5.03	5.70	3228.39
OKLAHOMA					
OKLAHOMA CITY	20.27	5.86	6.80	7.87	1952.89
TULSA	16.89	4.71	5.36	6.10	1952.89
OREGON					
ASTORIA	13.68	3.66	4.07	4.54	2899.56
EUGENE	12.23	3.20	3.52	3.88	2899.56
MEDFORD	7.72	1.84	1.94	2.04	2899.56
PENDLETON	14.80	4.02	4.52	5.07	2899.56
PORTLAND	12.71	3.35	3.70	4.10	2899.56
SALEM	11.42	2.95	3.22	3.53	2899.56
SEXTON SUMMIT	18.99	5.42	6.24	7.18	2899.56
PACIFIC					
GUAM	11.91	3.10	3.40	3.74	
JOHNSTON ISLAND	25.42	7.69	9.12	10.81	
KOROR ISLAND	11.75	3.05	3.34	3.67	
KWAJALEIN ISLAND	21.24	6.20	7.22	8.40	
MAJURO	16.73	4.66	5.30	6.02	
PONAPE ISLAND	10.46	2.65	2.87	3.12	
TRUK	14.32	3.86	4.32	4.84	
WAKE ISLAND	22.04	6.48	7.58	8.85	
YAP ISLAND	12.87	3.40	3.76	4.17	

CITY	WIND SPEED	WIND FACTOR		DEG DAY
	1	2	3	
PENNSYLVANIA				
ALLENTOWN	14.96	4.07	4.58	5.15 3215.39
ERIE	18.02	5.09	5.83	6.68 3215.39
HARRISBURG	12.39	3.25	3.58	3.95 3215.39
PHILIDALPHEA	15.45	4.23	4.77	5.38 3215.39
PITTSBURG	14.80	4.02	4.52	5.07 3215.39
AVOCA	13.52	3.61	4.01	4.46 3215.39
WILLIAMSPORT	12.55	3.30	3.64	4.02 3215.39
RHODE ISLAND				
PROVIDENCE	17.06	4.77	5.43	6.18 3288.50
SOUTH CAROLINA				
CHARLESTON	14.00	3.76	4.20	4.69 1480.50
COLUMBIA	10.94	2.80	3.05	3.32 1480.50
GREENVILLE	10.78	2.75	2.99	3.25 1480.50
SOUTH DAKOTA				
ABERDEEN	18.02	5.09	5.83	6.68 4228.06
HURON	18.83	5.37	6.17	7.10 4228.06
RAPID CITY	18.02	5.09	5.83	6.68 4228.06
SIOUX FALLS	17.86	5.04	5.76	6.59 4228.06
TENNESSEE				
JOHNSON CITY	9.01	2.22	2.37	2.53 2125.22
CHATTANOOGA	9.98	2.50	2.70	2.92 2125.22
KNOXVILLE	11.42	2.95	3.22	3.53 2125.22
MEMPHIS	14.48	3.92	4.39	4.92 2125.22
NASHVILLE	12.87	3.40	3.76	4.17 2125.22
OAK RIDGE	7.08	1.66	1.73	1.81 2125.22
TEXAS				
ABILENE	19.63	5.64	6.52	7.53 1102.94
AMARILLO	22.04	6.48	7.58	8.85 1102.94
AUSTIN	14.96	4.07	4.58	5.15 1102.94
BROWNSVILLE	18.66	5.31	6.10	7.01 1102.94
CORPUS CHRISTI	19.31	5.53	6.38	7.35 1102.94

CITY	WIND SPEED	WIND FACTOR		DEG DAY
	1	2	3	
PAGE #9				
DALLAS	17.38	4.87	5.56	6.35	1102.94
DEL RIO	16.07	4.44	5.03	5.69	1102.94
EL PASO	14.96	4.07	4.58	5.15	1102.94
GALVESTON	17.70	4.98	5.70	6.51	1102.94
HOUSTON	12.55	3.30	3.64	4.02	1102.94
LUBBOCK	20.11	5.81	6.73	7.79	1102.94
MIDLAND	17.70	4.98	5.70	6.51	1102.94
PORT ARTHUR	16.09	4.44	5.03	5.70	1102.94
SAN ANGELO	16.89	4.71	5.36	6.10	1102.94
SAN ANTONIO	15.12	4.13	4.64	5.23	1102.94
VICTORIA	16.09	4.44	5.03	5.70	1102.94
WACO	18.18	5.15	5.90	6.76	1102.94
WICHITA FALLS	18.83	5.37	6.17	7.10	1102.94
UTAH					
SALT LAKE CITY	14.16	3.81	4.26	4.76	3605.61
VERMONT					
BURLINGTON	14.16	3.81	4.26	4.76	4417.28
VIRGINIA					
LYNCHBURG	12.55	3.30	3.64	4.02	2377.56
NORFOLK	16.89	4.71	5.36	6.10	2377.56
RICHMOND	12.07	3.15	3.46	3.81	2377.56
ROANOKE	13.35	3.55	3.95	4.39	2377.56
WASHINGTON					
OLYMPIA	10.78	2.75	2.99	3.25	3103.17
QUILLAYUT	9.98	2.50	2.70	2.92	3103.17
SEATTLE	14.64	3.97	4.45	4.99	3103.17
SPOKANE	14.00	3.76	4.20	4.69	3103.17
WALLA WALLA	8.53	2.07	2.20	2.34	3103.17
YAKIMA	11.42	2.95	3.22	3.53	3103.17
WEST VIRGINIA					
BECKLEY	14.96	4.07	4.58	5.15	2852.50
CHARLESTON	10.30	2.60	2.82	3.05	2852.50
ELKINS	10.14	2.55	2.76	2.98	2852.50

CITY	WIND SPEED	WIND FACTOR		DEG DAY
	1	2	3	

HUNTINGTON	10.30	2.60	2.82	3.05	2852.50
PARKERSBURG	10.14	2.55	2.76	2.98	2852.50
WISCONSIN					
GREEN BAY	16.25	4.50	5.10	5.78	4223.94
LA CROSSE	14.16	3.81	4.26	4.76	4223.94
MADISON	15.77	4.34	4.90	5.54	4223.94
MILWAUKEE	18.83	5.37	6.17	7.10	4223.94
WYOMING					
CASPER	20.76	6.03	7.01	8.14	4442.89
CHEYENNE	20.92	6.09	7.08	8.23	4442.89
LANDER	11.10	2.85	3.11	3.39	4442.89
SHERIDAN	13.03	3.45	3.83	4.24	4442.89

ITY	Wind Speed* km/h	Wind Factor $(dP)^n$ PA** Building Type			Degree Days***
		1	2	3	
NTARIO					
RMSTRONG	12.6	3.31	3.66	4.04	6921
ENTRALIA	18.7	5.32	6.11	7.02	3968
HAPLEAU	11.3	2.90	3.17	3.49	6056
ARLTON	16.1	4.44	5.03	5.69	5996
ERALDTON	12.1	3.15	3.47	3.82	6667
ORE BAY	16.4	4.54	5.15	5.84	5085
RAHAME	14.2	3.82	4.27	4.78	6577
ENORA	16.0	4.41	4.99	5.64	5998
INGSTON	16.4	4.54	5.15	5.84	4291
OUNT FOREST	14.8	4.01	4.51	5.06	4889
USKOKA	13.7	3.66	4.08	4.54	4866
AKINA	12.4	3.25	3.58	3.95	6649
ORTH BAY	15.3	4.18	4.71	5.30	5376
TTAWA	14.5	3.92	4.39	4.92	4829
AULTE STE. MARIE	15.3	4.18	4.71	5.30	5376
IMCOE	15.3	4.18	4.71	5.30	3994
TIRLING	11.4	2.94	3.21	3.51	4431
UDBURY	21.4	6.25	7.28	8.48	5333
HUNDER BAY	14.2	3.82	4.27	4.78	5781
IMMINS	14.3	3.35	4.31	4.82	6333
ORONTO	15.3	4.18	4.71	5.30	3793
RENTON	16.1	4.44	5.03	5.69	4172
HITE RIVER	8.4	2.03	2.16	2.29	6486
IARTON	17.4	4.88	5.56	6.35	4479
INDSOR	17.0	4.74	5.40	6.14	3654
UEBEC					
AGOTVILLE	16.4	4.54	5.15	5.84	5963
AIE COMEAU	15.8	4.34	4.91	5.55	5777
ORT CHIMO	16.4	4.54	5.15	5.84	8581
EGANTIC	16.2	4.47	5.07	5.74	5382
ONT JOLI	20.3	5.87	6.80	7.88	5513
ONTREAL	15.8	4.34	4.91	5.55	4557
ITCHEQUON	15.4	4.21	4.75	5.36	7999
UEBEC	16.7	4.64	5.27	5.99	4965
IVERE du LOUP	14.0	3.76	4.19	4.68	5500
OBERVAL	15.6	4.28	.83	5.45	5845
ST. AGATHE des MONTS	10.8	2.75	2.99	3.26	5484
SCHEFFERVILLE	18.0	5.08	5.81	6.66	8267
EPT ILES	18.2	5.15	5.90	6.76	6293
HERBROOKE	11.4	2.94	3.21	3.51	4712
AL D'OR	12.5	3.28	3.62	4.00	6205

*Taken from Ref (4)
**Derived in Appendix A
***Taken from Ref (2)

CITY	Wind Speed* K/h	Wind Factor $(dP)^n$ PA** Building Type			Degree Days*** °C.D
		1	2	3	
NEW BRUNSWICK					
CAMPBELTON	13.7	3.66	4.08	4.54	5199
CHATAM	15.1	4.11	4.63	5.21	5036
FREDERICTON	14.1	3.79	4.23	4.73	4762
MONCTON	18.7	5.32	6.11	7.02	4839
SAINT JOHN	19.0	5.42	6.24	7.18	4696
NOVA SCOTIA					
DEBERT	15.1	4.11	4.63	5.21	4666
GREENWOOD	15.8	4.34	4.91	5.55	4217
HALIFAX	18.2	5.15	5.90	6.76	4089
SYDNEY	22.5	6.64	7.77	9.10	4472
TRURO	14.2	3.82	4.27	4.78	4570
YARMOUTH	17.7	4.98	5.69	6.50	4078
PRINCE EDWARD ISLAND					
CHARLOTTETOWN	19.3	5.52	6.37	7.34	4714
SUMMERSIDE	23.2	6.89	8.09	9.50	4689
NEWFOUNDLAND					
ARGENTIA	23.2	6.89	8.09	9.50	4689
BONAVISTA	26.5	8.08	9.61	11.44	5111
BUCHANS	21.4	6.25	7.28	8.48	5632
CAPE HARRISON	21.1	6.14	7.15	8.32	7002
GANDER	20.9	6.07	7.06	8.21	5141
GOOSE BAY	16.0	4.41	4.99	5.64	6604
PORT aux BASQUES	23.0	6.81	8.00	9.38	4889
ST. ANTHONY	20.4	5.90	6.84	7.93	6053
ST. JOHN'S	24.3	7.28	8.59	10.13	4995
STEPHENVILLE	15.0	4.08	4.59	5.16	5398
WABUSH LAKE	13.7	3.66	4.08	4.54	7889

* Taken from Ref (4)
** Derived in Appendix A
*** Taken from Ref (2)

The basis of the calculations is the equivalent static pressure built up by the wind. The calculation of this follows the Bernoulli equation:

$$H = \frac{V^2}{2g} + \frac{P}{\rho} + z$$

H --total head of system
V --velocity of fluid
g --gravitational constant
P --pressure of fluid
ρ --density of fluid flowing
z --elevation above

with air the height factor can be ignored for the levels used for buildings; any change in the density of air will generally be minimal and if the area is more than 2000m above sea level, modification to the formulae can be applied by referring to this section.

The pressure build up will not reach the levels calculated directly from this formula as this pressure induces flow and this flow will reduce the pressure build up. The tighter the building the more pressure differential that will be built up, and with buildings that have been built to control the infiltration by installing air barriers in the walls the greater importance that can be placed on sealing the holes created by negligence, improper fits etc.

Derivation of $(dP)^n$

$$dP = \frac{V^2 x}{2g}$$

Imperial		SI
mph		velocity of air km/h
0.074 lb/ft^3		density of air kg/m^3
32.2 ft/s^S		gravitational constant 9.8 m/s

$$\frac{V^2 \times 2.15 \times 0.074 \frac{lb}{ft^3}}{2 \times 32.2 \text{ ft/s}^2} = 0.002\ 473 \times V^2 \text{ psi}$$

maximum pressure build up

Note: $\frac{1 \text{ mile}}{h} = 1.47$ ft/s

$$\frac{(1 \text{ mile})^2}{(h)} = 2.15 \text{ ft}^2/\text{s}^2$$

$(dP)^n = (0.002\ 473 \times V^2)^{0.6}$ Type 1 Building
$= (0.002\ 473 \times V^2)^{0.65}$ Type 2 Building
$= (0.002\ 473 \times V^2)^{0.7}$ Type 3 Building

1. GENERAL

1. The energy required by the air-conditioning system as a result of infiltration could be offset by the "free cooling" effect to the space; i.e. the infiltration of cold air will help offset the internal loads.

2. During peak conditions the infiltration will bring excessive fresh air into the space. This will generally be in addition to the design fresh air requirements allowed for in the fresh air components in the air-conditioning system and will add to the peak load.

3. The additional load will add to the installed capacity required (or it will mean discomfort to the occupants) and will raise the peak demand rates for the building.

2. AIR-CONDITIONING LOAD DUE TO INFILTRATION

1. The load from this extra air will be both sensible and latent, ie. the air coming in will require temperature and humidity reduction.

2. The amount of air will depend on the prevailing wind, and because the winds in summer are generally slower than in winter the average wind velocity for the summer months of July and August are to be used.

3. The cooling effects are to allow for the cooling of the air at the 2½ % condition (see ASHRAE Fundamentals (1)) and the room design condition.

4. The following example calculates the increased capacity required for a building in Ottawa and the cost of this in terms of extra capital cost and the increased demand charges for Ottawa Hydro.

Building is a type 2 building with a total opening area of 1.08 ft^2 , i.e. 0.1 m^2

From (4) the average wind velocity in Ottawa is 12.4 km/h.
From (1) the design condition (2½%) 30.5°C d.b. & 23.5°C w.b. (i.e.) 87°F d.b. and 74°F w.b.) Room conditions are 75°F/24°C & 50% R

$((dP)^n$ calculation

$dP = 0.0464 \times 12.4^2$
$= 7.13$ Pa
$(dP)^n = 7.13^{0.65}$
$= 3.59$ Pa (type 2 building)

Air Flow "Q"

$80 \times 3.59 \times 1.08$
$= 310$ cfm

$400 \times 3.59 \times 0.1$
$= 144$ L/s

1.08 X Δt°F X flow (cfm)
$= 1.08 \times (87°F - 75°F) \times 310$ cfm
$= 4018$ Btu/h

1.21 X Δt°C X flow L/s
$= 1.21 \times (30.5°C - 24°C) \times 144$
$= 1132$ W

2. Air-Conditioning Load due to Infiltration

0.68 X Δ hr X flow (Δhr = change in humidity ratio in gram/lb)

= 0.68 X (111 - 64) grains/lb X 310 cfm
= 9910 Btn/h

Latent Load 0.3 X Δhr X flow (L/s) (Δhr is the change in humidity ratio in dg/kg)

= 0.3 X 69 dg/kg X 144 L/s
= 2980 W

	Total Load
13 930 Btu/h	4110 W

3. Cost Estimate (Capital)

1. The cost of installing air-conditioning will depend on the size of the load, for some project the incremental load calculated for the area under consideration will be meaningless as the air-conditioning unit being proposed will have enough capacity for the infiltration in a standard size unit.

2. A typical cost of air-conditioning has been based on the total capacity; thence the extra cost for the load shown would be:

$$\frac{\$2{,}000/\text{TR} \quad 2{,}000 \times 13\,930\ \text{Btu/h}}{12\,000\ \text{Btu.h}^{-1}/\text{T.R.}} = \$2{,}320$$

$$\$600/\text{kW} = 600 \times 4.11 = \$2{,}470$$

i.e. the added cost due to a 1.08 ft² total infiltration will be $2,320.

i.e. the added cost for air-conditioning due to a 0.1 m² infiltration path in a building in Ottawa will be $2,470.00

4. Operating Cost.

1. The cost of operating the air-conditioning unit to produce the added cooling required for the space cannot be assessed in terms of the energy costs, the cost can be determined for the increased demand however

2. For buildings that are heated by sources other than electrical heating the added peaks of the air conditioning units will mean an additional hydro cost on the demand meters. For the example used for the Ottawa area the added cost for demand rates would be:

For a system operating at 1.2 kW/T.R.

$$\text{Demand increase} = \frac{13\,930 \times 1.2}{12000} = 1.4\ \text{kW}$$

With a C.O.P. of 3 (C.O.P. = coefficient of performance)

$$\text{Demand} = \frac{4.11}{3} = 1.4\ \text{kW}$$

For Ottawa the charge for demand is $2.80/kW per month, i.e. the total increased running cost would be

= 1.4 kW X $2.80k/W X 12 months/a = $47.00

i.e. the increased operating cost of a filtration path of 1.08 ft² (0.1m²) is approximately $50.00 per year.

Leakage in a Warehouse

The building has been surveyed and the following information gathered:

1. Dimensions 45 m X 55 m X 6 m tall.
2. Crackage, alsong the tope of the wall; continuous, 1 cm wide; alongside three columns; 1.5 cm wide; around the flues, (3 off), 3cm gap around the 20 cm stack; and a hole 15 cm in diameter.
3. The building has partitions and the walls are made of concrete block.
4. There are three windows on the south side; these are 1.5 m X 3 m each.
5. The building is kept lit ten hours per day and has a lighting power comsumption of 70 W/m^2.
6. The building is located in Ottawa.
7. There are no partitions.
8. The building is heated by oil-fired boilers, 70% efficient with a fuel cost of 16¢/L.
9. The walls are 20 cm concrete block; the roof is steel deck, with built up roofing and 5 cm insulation.
10. There are three shipping doors, 3m X 4m and two access doors, 0.8m X 2m; the doors are open 3% of the occupied time.

Calculating the infiltration due to the holes, cracks and gaps.

Area of Holes:

1. Crack at the top of the walls

$$= \frac{1\text{cm} \times (45\text{m} + 55\text{m})}{100\ \text{cm/m}} \times 2$$

$$= 2\text{m}^2$$

2. Crack alongside column

$$= \frac{1.5\ \text{cm} \times 6\ \text{m}}{100\text{cm/m}} \times 3$$

$$= 0.27\ \text{m}^2$$

3. Gap around flues

$$= \pi \times \frac{(26^2 - 20^2)}{100^2 \times 4} \times 3$$

$$= 0.065\ \text{m}^2$$

4. Hole

$$= \frac{\pi \times 15^2}{4 \times 100^2}$$

$$= 0.018\text{m}^2$$

TOTAL= 2.3530 m^2

Building is type 1, (large open building with poor seal on walls)

$(dP)^n = 3.92 Pa$
$k = 550 L/(s.Pa.m^2)$
ie. $Q = 550 \times 3.92 \times 2.353$
$= 4\ 593 L/s$

Calculating the cost of this from the formulae (no.4)

$$\text{Oil Cost} = \frac{Q \times °C.d \times \text{Oil price } ¢/L}{26\ 100}$$

$$= \frac{4\ 593\ L/s \times 4\ 829\ °C.d \times 16\ ¢/L}{26\ 100}$$

$$= \$13,597.00$$

This cost is a close enough estimate for this building; however, a closer estimate can be made if all the factors in the heat balance of the building are made. These calculations are normally made by mechanical engineers, the following is an example of the scope of calculations that can be made. These calculations should be made to ensure that the importance of the operating and building changes which can be made are realized by the building manager.

The following summarizes the calculations which have been made for the above building on a monthly basis. To calculate this the values of the wind velocity have been taken from Ref(4) and the values for the temperatures have been taken from Ref (7).

1. Heating Load Summary

MONTH (1980/1981)	Hours Occupied	Hours Unoccupied	Heating loads in kilowatts Transmission	Building Infiltration	Door Infil.
September	294 h	510 H	52.2 kW	25.6 kW	19.8kW
October	322 h	514 h	109.3 kW	59.2 kW	45.6 kW
November	308 h	500 h	108.0 kW	108.8 kW	83.0 kW
December	294 h	534 h	268.0 kW	160.0 kW	123.6 kW
January	294 h	534 h	294.1 kW	184.5 kW	144.5 kW
February	280 h	472 h	285.4 kW	183.5 kW	141.2 kW
March	308 h	524 h	223.5 kW	145.1 kW	111.8 kW
April	294 h	544 h	139.3 kW	88.4 kW	68.0 kW
May	280 h	544 h	73.5 kW	43.1 kW	33.2 kW

2. Energy Required Summary

MONTH (1980/1981)	Energy (GJ) for Building Infiltration	Total Heating Required for Building a) Unoccupied period	b) Occupied
September	47 GJ	142.8 GJ	0
October	153.8 GJ	311.8 GJ	47.3 GJ
November	279.4 GJ	518.0 GJ	219 GJ
December	430.2 GJ	588.7 GJ	400.1 GJ
January	494.2 GJ	687.1 GJ	476.1 GJ
February	443.9 GJ	631.9 GJ	440.0 GJ
March	388.6 GJ	537.9 GJ	340.5 GJ
April	229.1 GJ	296.8 GJ	129.1 GJ
May	84.4 GJ	119.1 GJ	0 GJ
	2 550.6 GJ	3 844.1 GJ	2 052.1 GJ

A further reduction in the heating requirement will result from the solar effects. During the occupied period the heating requirements will reduce by approximately 10% and the unoccupied period by 4%. Similarly, the heat required to compensate for the building infiltration will drop by about five percent.

ie. the final heating requirements will be:

Infiltration = 2 423 GJ; Unoccupied period = 3690 GJ ; Occupied period = 1 847 GJ

Cost of fuel to compensate for the infiltration:

$$= \frac{2\ 423\ GJ \times \$0.16 \times}{0.7 \quad \times 39 \times 10^3}\ GJ$$

Where oil cost 16¢/L and the calorific value of oil is 39 MJ/L; the efficiency is presumed to be 70%.

= $14,200.00, i.e. within 4% of the value calculated above.

NOTE: The calculations show very close correlation; however, if the door infiltration and the building heat losses were reduced the effects of the infiltration due to the cracks would be reduced as more heat was made available from the internal heating to compensate for the infiltration.

Calculation N - G

Door Infiltration

$Q = k. (dP)^n \times A$

For this example
$k = 550$ L/(s.Pa.m²)
$(dp)^n = 3.92$ Pa
A = area of doors

An average heat loss rate was established for the energy calculations.

Wall Infiltration

$Q = k. (dP)^n \times A$

$k^* = 0.08$ L/(s.m²Pa)
A = Wall area

*Note: "K" value compensates for the fact that only half the area is infiltration, the rest is exfiltrating.)

ONTARIO

INFILTRATION — TECHNICAL INFORMATION

EC128 — APPENDIX B

CITY	WIND SPEED 1	WIND FACTOR 2		DEG DAY 3	
ALBION FIELD CENTR	10.90	2.79	3.03	3.30	4371.00
ARMSTRONG A	11.90	3.09	3.40	3.74	6990.80
ATIKOKAN	7.70	1.84	1.93	2.03	6208.60
BIG TROUT LAKE	15.00	4.09	4.59	5.17	7698.70
CHAPLEAU	11.70	3.03	3.33	3.65	6214.00
CORNWALL ONT HYDRO	16.70	4.65	5.28	6.00	4456.30
DELHI CDA	9.60	2.39	2.57	2.77	3982.80
DRYDEN A	12.40	3.25	3.59	3.96	6067.60
EARLTON A	15.40	4.22	4.75	5.36	5915.40
ELORA RESEARCH STN	15.10	4.12	4.63	5.21	4519.80
FERGUS SHAND DAM	13.60	3.63	4.04	4.50	4615.10
GERALDTON	12.20	3.19	3.51	3.87	6752.70
GODERICH MUNICIP A	15.80	4.35	4.91	5.55	4001.90
GORE BAY A	16.70	4.65	5.28	6.00	4809.30
GRAHAM A	14.20	3.83	4.28	4.78	4929.80
GUELPH OAC	13.10	3.47	3.85	4.27	4304.40
HAMILTON A	17.70	4.98	5.70	6.51	4025.90
HAMILTON RGB	12.60	3.31	3.66	4.05	3772.10
KAPUSKASING A	14.00	3.76	4.20	4.69	6438.30
KEMPTVILLE	11.10	2.85	3.11	3.39	4621.50
KENORA A	15.20	4.15	4.67	5.26	5938.00
KILLALOE	11.60	3.00	3.29	3.60	5081.70
KINGSTON A	17.00	4.75	5.41	6.15	4285.80
LANDSDOWNE HOUSE	14.40	3.89	4.36	4.88	7198.90
LONDON A	16.00	4.41	5.00	5.65	4132.50
MOOSONEE	12.40	3.25	3.59	3.96	7010.90
MOUNT FOREST	14.20	3.83	4.28	4.78	4693.90
MUSKOKA A	13.90	3.73	4.16	4.64	4910.90
NAKINA A	12.40	3.25	3.59	3.96	6815.50
NIAGARA FALLS	15.00	4.09	4.59	5.17	3661.50
NORTH BAY A	14.60	3.95	4.43	4.97	5348.40
OTTAWA INT'L A	14.60	3.95	4.43	4.97	4690.90
OTTAWA NRC	11.80	3.06	3.36	3.69	4596.60
OTTAWA ROCKLIFFE A	13.80	3.70	4.12	4.60	4547.30
PAISLEY	13.80	3.70	4.12	4.60	4468.00
PELEE ISLAND	16.90	4.71	5.36	6.10	3595.70
PETAWAWA A	10.80	2.75	3.00	3.26	5160.00
PETAWA NAT FOREST	10.90	2.79	3.03	3.30	5124.90

METHOD OF DETERMINATION

HEATING COSTS DUE TO AIR LEAKAGE HAVE BEEN CALCULATED UTILIZING THE FORMULAE DEVELOPED IN PUBLIC WORKS CANADA STANDARDS AND GUIDELINES: EC 128, 1980-04-30.

1) $Q = k \times (dP)n \times A$

WHERE Q, IS THE AVERAGE INFILTRATION RATE IN LITRES PER SECOND. (L/S), (dP)n IS THE PRESSURE DIFFERENTIAL BUILT UP BY THE WIND IN TERMS OF PASCALS (PA) "A" IS THE TOTAL AREA OF THE HOLES IN THE BUILDING CALCULATED IN SQUARE METERS (SQ.M.)
NOTE: (dP) IS TO THE POWER OF "n")

k = 550 L/(s.Pa.Sq.m) TYPE 1 BUILDINGS (WAREHOUSES)
k = 400 L/(s.Pa.Sq.m) TYPE 2 BUILDINGS (SHOPPING MALLS)
k = 300 L/(s.Pa.Sq.m) TYPE 3 BUILDINGS (WITH FINISHED EXTERIOR WALLS & PARTITIONS, E.G.: HOUSES, SCHOOLS)

100 for condo

2) ENERGY COSTS

1) $$\text{OIL COST \$} = \frac{Q \times D.D. \times \text{OIL PRICE / L}}{26100}$$

WHERE D.D. = THE DEGREE DAYS CELSIUS FOR THE LOCATION

2) $$\text{GAS COST \$} = \frac{Q \times D.D. \times \text{GAS PRICE / Cu.m.}}{26700}$$

3) $$\text{ELECT.COST \$} = \frac{Q \times D.D. \times \text{ENERGY COST \$/MJ}}{10}$$

NOTE: "Q" REPRESENTS THE VOLUME OF AIR LEAKAGE WHICH CAN BE EFFECTIVELY CONTROLLED THROUGH THE RECTIFIABLE GAPS, CRACKS AND HOLES IN THE BUILDING ENVELOPE.

CALCULATIONS (REFER TO APPENDIX 1) PAGE

COST OF AIR LEAKAGE

1) Q = FLOW FACTOR X (AP)n X A = LITRES/SEC.

2) COST = (Q) X (DEG.DAYS) X (FUEL $) / (HEATING EFFICIENCY FACTOR) = $

3) + or - FACTOR ..... = $

4) TOTAL COST OF AIR LEAKAGE..... = $

5) COST TO RECTIFY AIR LEAKAGE..... = $

6) PAYBACK: ITEM 5 / ITEM 4..... =

PAYBACK = YEARS

NOTE: HOLE AREA "A" BASED UPON

Month	Make-Up Water (lbs)	Make-Up %	Peak Steam	HDD	CDD	lbs/HDD	Coal			Gas				Total MCF (Estimated)	Total Steam	Parts	Misc	Service	Repair	Wages	Wages Adjusted	Coal Startup/Shut Down Adjustment	Total	Electric		
							Coal Steam Produced (lbs)	Fuel Consumed (Tons)	Coal Efficiency	Gas Steam Produced (lbs)	Fuel Consumed (MCF)	Gas Efficiency	LBS/MCF											Generated	Purchased	Demand
Jan-14	3,258,438	23.87%	23,500	1353	0	10,089.76	13,651,443	937	49%					16,349	13,651,443	$22	$3,639	$68	$0	$68,818	$68,818	$0	$72,547	62,100	486,880	852
Feb-14	3,252,600	27.68%	21,500	1120	0	10,492.20	11,751,267	845	47%					14,073	11,751,267	$2,693	$3,232	$73	$0	$67,018	$67,018	$0	$73,016	58,210	390,000	797
Mar-14	2,830,596	24.64%	21,500	992	0	11,582.30	11,489,641	815	48%					13,760	11,489,641	$2,318	$4,235	$85	$0	$67,919	$67,919	$0	$74,557	56,990	362,680	768
Apr-14	1,774,752	23.56%	14,500	480	3	15,108.80	7,252,223	506.54	48%					8,685	7,252,223					$61,837	$61,837	$0	$61,837	8,560	479,760	890
May-14	1,256,838	24.65%	10,500	129	55	39,522.16	903,426	63	48%	4,194,932	4618	79.04%	908	5,700	5,098,358	$24,987	$266	$51	$0	$99,700	$61,700	$38,000	$125,004	0	444,880	965
Jun-14	1,002,468	28.92%	7,000	3	217	1,355,062.67	0	0		4,065,188	4542.5	77.87%	895	4,543	4,065,188					$94,966	$61,966	$33,000	$94,966	0	504,080	1097
Jul-14	922,404	22.79%	6,500	0	283		0	0		4,047,079	4562	77.19%	887	4,562	4,047,079	$327	$4,755	$0	$0	$62,666	$62,666	$0	$67,748	0	613,880	1248
Aug-14	858,186	21.77%	8,000	3	164	1,314,170.00	0	0		3,942,510	4444	77.19%	887	4,444	3,942,510	$4,655	$856	$0	$0	$60,605	$60,605	$0	$66,116	0	518,400	1152
Sep-14	793,134	19.33%	9,500	80	84	51,297.20	0	0		4,103,776	4629	77.14%	887	4,629	4,103,776	$279	$2,843	$0	$0	$65,480	$65,480	$0	$68,602	0	518,800	1115
Oct-14	1,015,812	17.84%	12,500	303	5	18,790.52	2,197,774	158	47%	3,495,754	3753	81.05%	931	6,385	5,693,528	$136	$644	$0	$7,450	$101,091	$63,091	$38,000	$109,321	0	477,320	812
Nov-14	1,193,454	13.56%	19,000	787	0	11,183.63	8,801,516	551	54%	0	0			10,541	8,801,516	$2,141	$95	$4,058	$0	$62,661	$62,661	$0	$68,955	0	452,320	874
Dec-14	1,617,128	17.38%	19,000	930	0	11,251.23	10,463,641	725.71	49%	0	0			12,531	10,463,641					$66,604	$66,604	$0	$66,604	0	482,640	904
Jan-15	1,951,560	23.87%	22,000	1241	0	10,224.99	12,689,214	884.12	49%	0	0			15,197	12,689,214					$66,604	$66,604	$0	$66,604	20,960	542,920	886
Feb-15	2,107,518	27.68%	23,500	1267	0	9,866.49	12,500,842	886.08	48%	0	0			14,971	12,500,842					$66,604	$66,604	$0	$66,604	69,500	374,040	862
Mar-15	2,335,200	24.64%	21,000	972	0	11,120.54	10,809,166	778.15	47%	0	0			12,945	10,809,166					$66,604	$66,604	$0	$66,604	49,720	388,200	781
Apr-15	1,778,088	23.56%	16,500	409	0	18,452.65	7,547,135	509	50%	0	0			9,038	7,547,135	$1,546	$2,759	$73	$0	$61,837	$61,837	$0	$66,215	4,750	480,120	875
May-15	1,383,606	26.98%	9,500	64	162	80,140.72	1,233,829	88	47%	3,895,177	4374	77.49%	891	5,852	5,129,006	$625	$1,595	$34	$2,572	$94,966	$64,966	$30,000	$99,792	0	503,080	1161
Jun-15	1,263,510	28.92%	7,500	14	228	312,050.57	0	0		4,368,708	4929	77.12%	886	4,929	4,368,708	$562	$2,696	$6,200	$0	$94,966	$64,966	$30,000	$104,424	0	550,880	1118
Jul-15	1,276,020	29.79%	6,500	0	315		0	0		4,283,585	4851	76.83%	883	4,851	4,283,585	$128	$410	$0	$0	$58,676	$58,676	$0	$59,214	0	613,800	1135
Aug-15	768,114	20.06%	6,000	0	218		0	0		3,828,446	4297	77.52%	891	4,297	3,828,446	$274	$277	$0	$0	$58,642	$58,642	$0	$59,193	0	604,800	1248
Sep-15	707,232	18.78%	7,000	30	150	125,556.30	0	0		3,766,689	4230	77.48%	890	4,230	3,766,689	$8,489	$693	$0	$1,425	$59,833	$59,833	$0	$70,440	0	565,360	1243
Oct-15	1,143,414	18.95%	12,500	392	0	15,392.50	3,841,866	267	49%	2,191,994	2487	76.69%	881	7,088	6,033,860	$2,521	$165	$784	$3,520	$92,428	$62,428	$30,000	$99,418	0	487,880	921
Nov-15	1,281,024	18.62%	15,500	526	0	13,078.53	6,879,309	481	48%	0	0			8,239	6,879,309	$11,008	$146	$101	$0	$64,302	$64,302	$0	$75,557	0	465,280	864
Dec-15	1,601,280	17.26%	16,000	702	0	13,216.68	9,278,106	667	47%	0	0			11,112	9,278,106	$71	$85	$140	$0	$62,463	$62,463	$0	$62,759	0	475,240	844
Jan-16	2,276,820	18.39%	22,500	1163	0	10,643.81	12,378,754	928	45%	0	0			14,825	12,378,754	$146	$108	$6,302	$0	$61,366	$61,366	$0	$67,922	60,070	485,360	855
Feb-16	1,919,034	16.89%	23,000	961	0	11,821.44	11,360,403	800	48%	0	0			13,605	11,360,403	$38	$6,506	$0	$0	$61,920	$61,920	$0	$68,464	56,050	383,160	714
Mar-16	1,418,634	15.83%	18,000	598	0	14,981.73	8,959,076	669	45%	0	0			10,729	8,959,076	$54	$366	$400	$0	$64,065	$64,065	$0	$64,885	0	475,360	901
Apr-16	1,155,924	15.34%	17,500	469	0	16,069.19	4,968,562	328	51%	2,567,887	2739	81.58%	938	8,689	7,536,449	$4,050	$3,142	$79	$0	$89,209	$64,209	$25,000	$96,480	0	474,240	913
May-16	990,792	17.26%	10,500	175	87	32,810.24	0	0		5,741,792	6231	80.18%	921	6,231	5,741,792	$4,725	$1,133	$29,900	$0	$59,086	$59,086	$0	$94,844	0	460,600	920
Jun-16	865,692	20.20%	8,500	16	236	267,844.75	0	0		4,285,516	4843	77.00%	885	4,843	4,285,516	$1,304	$276	$8,350	$0	$60,853	$60,853	$0	$70,783	0	553,480	1069
Jul-16	894,882	21.41%	6,000	0	430		0	0		4,179,041	4711	77.19%	887	4,711	4,179,041	$1,565	$6,206	$0	$7,950	$59,898	$59,898	$0	$75,619	0	574,200	1213
Aug-16	855,684	21.37%	6,500	0	399		0	0		4,004,490	4490	77.60%	892	4,490	4,004,490	$4,026	$338	$0	$0	$60,576	$60,576	$0	$64,940	0	592,200	1189
Sep-16	802,308	19.89%	8,500	50	171	80,688.12	0	0		4,034,406	4526	77.56%	891	4,526	4,034,406	$1,060	$600	$72,100	$0	$91,905	$63,905	$28,000	$165,665	0	591,600	1214
Oct-16	900,720	16.51%	13,500	286	13	19,078.71	1,384,386	98	48%	4,072,124	4575	77.45%	890	6,233	5,456,510	$12,018	$2,037	$0	$15,499	$61,098	$61,098	$0	$90,652	0	442,120	991
Nov-16	1,485,354	16.88%	17,000	650	0	13,533.90	8,797,034	566	53%	0	0			10,535	8,797,034	$2,280	$84	$68	$0	$65,283	$65,283	$0	$67,715	0	454120	934
Dec-16	2,007,438	17.41%	20,500	979	0	11,780.68	11,533,281	841	46%	0	0			13,812	11,533,281	$152	$174	$25,120	$0	$65,436	$65,436	$0	$90,882	52,960	436000	818
Jan-17	2,085,000	18.15%	20,500	995	0	11,542.81	11,485,097	873	44%	0	0			13,755	11,485,097	$1,919	$1,092	$750	$0	$74,552	$62,552	$12,000	$78,313	40,100	407080	855
Feb-17	1,587,102	16.73%	18,000	764	0	12,415.44	9,485,399	696	46%	0	0			11,360	9,485,399	$0	$3,402	$29,870	$0	$66,028	$66,028	$0	$99,300	44,450	373320	850
Mar-17	1,735,554	16.60%	19,000	872	0	11,986.64	10,452,353	759	47%	0	0			12,518	10,452,353	$245	$1,150	$0	$0	$60,700	$60,700	$0	$62,095	44,150	425920	845
Apr-17	1,103,382	16.14%	15,000	250	11	27,338.70	4,082,958	268	51%	2,751,716	2678	89.41%	1028	7,568	6,834,674	$5,197	$0	$2,790	$0	$67,150	$67,150	$0	$75,137	294	441840	859
May-17	854,850	13.07%	11,500	177	44.5	36,952.75	0	0		6,540,637	6345	89.69%	1031	6,345	6,540,637	$1,980	$105	$2,500	$0	$62,064	$62,064	$0	$66,649	0	449720	978
Jun-17	715,572	14.33%	10,000	20	255	249,718.15	0	0		4,994,363	4801	90.52%	1040	4,801	4,994,363	$1,012	$364	$0	$22,950	$55,697	$55,697	$0	$80,023	0	558720	1215
Jul-17	588,804	11.99%	11,000	0	252		0	0		4,909,315	4680	91.28%	1049	4,680	4,909,315	$0	$0	$0	$0	$64,025	$64,025	$0	$64,025	0	591221	1192
Aug-17	679,710	15.77%	12,000	16	132	269,445.13	0	0		4,311,122	4005	93.66%	1076	4,005	4,311,122	$0	$0	$0	$0	$61,027	$61,027	$0	$61,027	0	515963	1206
Sep-17	822,324	16.66%	10,000	102	91	48,402.02	0	0		4,937,006	5507	78.01%	896	5,507	4,937,006	$0	$0	$0	$0	$97,439	$64,439	$33,000	$97,439	0	550234	1158
Oct-17	838,170	13.66%	13,000	255	39	24,066.20	1,650,772	117	48%	4486108	4228	92.32%	1061	6,205	6,136,880	$0	$0	$0	$0	$63,520	$63,520	$0	$63,520	0	476897	1121
Nov-17	1,276,020	13.85%	16,000	912	0	10,103.78	9,214,644	575	54%	0	0			11,036	9,214,644	$0	$0	$0	$0	$95,228	$64,228	$31,000	$95,228	0	443022	868
Dec-17	1,660,494	14.50%	20,000	1101	0	10,403.12	11,453,834	784	49%	0	0			13,717	11,453,834	$0	$30,500	$0	$0	$50,248	$50,248	$0	$80,748	0	492413	873
Jan-18	1,908,192	38.21%	10,000		225		0	870	0%	4994363	4801	90.52%	1040	4,801	4,994,363	$0	$0	$0	$0	$55,697	$55,697	$0	$55,697	0	558720	1215
									46.81%		32,126	81.35%	835	100,654											
									Average Efficiency		MCF Existing Usage	Average Efficiency	PSFEI Input	MCF Total New Usage											

100,654 - 32,126 = 685,276 CCF Proposed Increase

x 1.15

788,067 MCF Shown Proposed Increase

Attachment 4 – DGS/DHS Provided Documentation

Alyssa Wingenfield

From: Kern, Anthony [akern@pa.gov]
Sent: Monday, July 09, 2018 2:44 PM
To: Alyssa Wingenfield
Cc: Brunson, Wheeler; Feger, Thomas
Subject: RE: Occupied/mission Ready Assumptions for Review

Alyssa,

According to my calculations I have the following notes. I have copied coworkers who may additional insight.

Building #13 is occasionally occupied around the clock.
Building #19 server farm has office space currently unused but I'm not sure it shouldn't be considered 24/7 due the need to maintain appropriate temperatures.
Building #29 Laundry is M-F 6A to 6P
Building #35 is not on my map. AT this moment TAS recycling is in Building #29 Laundry.

At this point we do provide heat to buildings 17, 18, 20 and 21 but they are unoccupied and do not need to be mission ready. Buildings 22, 23, 24, 25 and 26 are also being heated, not mission ready and possibly could be taken off the rolls.

Tony

From: Alyssa Wingenfield <alyssawingenfield@mcclureco.com>
Sent: Thursday, July 05, 2018 10:46 AM
To: Kern, Anthony <akern@pa.gov>
Cc: Chris Stultz <chrisstultz@mcclureco.com>
Subject: Occupied/mission Ready Assumptions for Review

Hi Tony,

Since we weren't able to connect this week, here are the occupied/mission ready assumptions for your review. Feel free to give us feedback / corrections prior to our 7/20 IGA submission date, and we will make changes accordingly.

#	Building (List Title)	Map Title	24/7	Occupied	Assumed hours	Mission Ready
1	Arbor Cottage	Children's Discovery Center		x	M-F 6A-6P	
2	Administrative Annex	Annex Building		x	M-F 6A-6P	
3	Bell Cottage	Bell Cottage Building		x	M-F 6A-6P	
4	Cedar Cottage	VH1 Building				x
5	Central Complex	CM Side Building	x			
6	Central Complex	Administration Office Building	x			
7	Central Complex	CF Side Building	x			
8	Fire House	Unit 1 Team Office Building		x	7 Days 6A-6P	
9	Training Center/School	Training Center		x	M-F 6A-6P	
10	Harmony Hall & Horizon	Harmony & Horizon				x
11	Dining Area	Unit 1 Clinic Building				x
12	Hickory Hall & Hemlock	Hickory & Hemlock				x

	Manor					
13	13 Chapel & T-1 Apartment	Chapel/Guest House		x	7 Days 6A-6P	
14	Recreation & TAS	TAS Recreation Building		x	7 Days 6A-6P	
15	Beechwood Terrance	Terrace Building				x
16	Applewood	Applewood Building				x
19	Server Farm			x	M-F 6A-6P	
28	Maintenance	Maintenance Dept Building		x	7 Days 6A-6P	
29	Laundry	Laundry Building		x	7 Days 6A-6P	
30	Power Plant	Power Plant Building	x			
31	Garage	Garage Building		x	M-F 6A-6P	
32	Carpenter Shop	Carpenter Shop Building		x	M-F 6A-6P	
33	Grounds/Welding Shop	Grounds/Welding Shop		x	M-F 6A-6P	
34	Mechanical Stores	Mechanical Stores Building		x	Storage	
35		TAS Recycling Building		x	Storage	
44	Water Treatment Plant	Water Treatment Building		x	Storage	

Sincerely,
Alyssa

Alyssa Wingenfield

From: Kern, Anthony [akern@pa.gov]
Sent: Thursday, June 14, 2018 3:35 PM
To: Alyssa Wingenfield
Subject: FW: Selinsgrove Center: Follow Up Items

Boiler rental: Power House
Fiscal year 2017
Dec. 2017 to May 2018: $153,000.00
Freight: $5,000.00
Connection: $88,900.00
Startup and technical assistance: $9,430.00
TOTAL: $256,330.00

June 2018 boiler rental $11,500.00
July, Aug & Sept. will be $11,500.00 per month.
Persumably the cost per month from October 2018 and going forward will be 25,500 per month.

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May 17, 2018

Mr. Michael G. Kapil, PE, Chief Engineer
Division of Facilities & Property Management
Dept. of Human Services
3 Ginkgo Drive
Hilltop Building 52
Harrisburg PA 17110

Re: Memorandum of Understanding

Dear Mr. Kapil,

This letter is to set forth the terms and conditions for an agreement between UGI Penn Natural Gas, Inc. ("UGI PNG") and Pennsylvania Department of Human Services – Selinsgrove Center ("DHS") (collectively the "Parties") to provide an increased level of firm natural gas service from 413 Mcf per day to 800 Mcf per day.

The Parties agree to the following terms and conditions:

1. In order to provide 800 Mcf per day of firm natural gas service to DHS, UGI PNG will need to complete the following infrastructure improvement projects (the "Projects"): (a) the installation of a new meter set, (b) the installation of approximately 1,500 feet of 12" HDPE pipe in Shamokin Dam, (c) the installation of approximately 2,000 feet of 12" HDPE along state highway routes 11 and 15, and (d) a high-pressure interconnection with UGI Central Penn Gas, Inc.

2. UGI PNG shall be responsible for all installation costs applicable to the Projects and accept the risk of possible cost overruns due to, but not limited to, permitting, environmental issues and rock removal.

3. The Parties agree to honor the terms of the existing Rate DS service agreement until such time that UGI PNG is able to complete the Projects to provide 800 Mcf per day of firm service to DHS, but no later than April 30, 2019.

4. UGI PNG offers the following agreement options once UGI PNG is able to complete the Projects.

   Option 1:

   DHS agrees to execute a Rate LFD service agreement for an initial term of ten (10) years that will include an annual minimum volume

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commitment that shall be the greater of 109,500 Mcf or the annual minimum volume as calculated by the load factor requirements as stated in the UGI PNG Tariff.

Option 2:

DHS agrees to execute a Rate LFD service agreement for an initial term of five (5) years with a DFR of 800 Mcf and pay a Contribution in Aid of Construction ("CIAC") of $50,000. The annual minimum volume commitment shall be the greater of 146,000 Mcf or the annual minimum volume as calculated by the load factor requirements as stated in the UGI PNG Tariff.

Option 3:

DHS agrees to execute a Rate LFD service agreement for an initial term of five (5) years with a DFR of 800 Mcf and agree to a Technology & Economic Development Rider ("TED Rider") of $0.09 per Mcf of gas billed. The annual minimum volume commitment shall be the greater of 146,000 Mcf or the annual minimum volume as calculated by the load factor requirements as stated in the UGI PNG Tariff.

This agreement contains the entire understanding between the Parties relating to DHS's election of a service option and UGI's installation of the infrastructure improvement and shall be construed in accordance with all the laws of the Commonwealth of Pennsylvania.

If you are agreeable to the terms stated above, please indicate such by signing and returning one original of this letter (retain one original for your file) by Friday, May 25, 2018, unless otherwise agreed upon in writing by the Parties.

Sincerely,

Shaun Hart
Director – Major Accounts
UGI Utilities, Inc.

Glenn E Williams

Pennsylvania Department of Human Services – Selinsgrove Center
Name Printed:
Title: Director
Date: 5/17/18

MONTHLY UTILITIES USAGE REPORT

Facility	Selinsgrove Center	Date (Month and Year of Report)	Jan-18
Total Facility Square Feet	987,572	Total Vacant Square Feet *(DPW only)*	253,199
Total Facility Occupied Square Feet *(DPW only)*	707,652	Total Leased Square Feet *(DPW only)*	26,721
Residents:	224	Staff:	743?

BOILER PLANT DATA & COSTS

1. Boiler Operating Pressure	175 psig	4. Makeup %	38.21%
2. Average Feedwater Temp.	220 ^{0}F	5. Peak Steam	10,000
3. Makeup Water Used (lbs) ☐ If no meter, check here	1,908,192 lb	6. Degree Days	19.5 HDD 225 CDD

	Coal	Gas (or Purchased Steam)	Oil	Total
Type of Coal ☑ Anthracite ☐ Bituminous				
7. Steam Produced (or Purchased)	0 lb	4,994,363 lb	lb	4,994,363
8. Fuel Consumed	870 ton	4,801 mcf	gal	
9. Evaporation (col.7 ÷ col. 8)	0.00 lb/lb	1,040 lb/mcuft	No Oil lb/gal	
10. Unit Fuel Cost	120.00 $/ton	4.26 $/mcuft	$/gal	
11. Fuel (or Steam) Cost	104,377 $	20,455 $	No Oil $	$
12. Fuel (or Steam) Cost per mlb Steam	#DIV/0! $/mlb	4.10 $/mlb	No Oil $/mlb	$ 124,832

13. Parts Used	$	?
Miscellaneous Supplies	$	?
Service Contracts ☐ If yearly, check here	$	?
Repair Contracts ☐ If yearly, check here	$	0
Wages & Salaries (Including Benefits)	$	55,697
Sub Total	$	#VALUE!

OTHER DATA

14. Miscellaneous Fuels	Natural Gas (mcuft)		mcuft	$/mcuft	0	Cost	$
	Propane (mcuft) [gal x 0.0894=mcuft]		mcuft	$/mcuft	0	Cost	$
	Total Gas mcuft	0		Total Gas Cost			$ 0
	Oil (gal)	0	gal	$/gal	0	Cost	$ 0
15. Facility Electric	Generated	0	kWh				
	Total Purchased	558,720	kWh	Total Electric Cost			$ 38,277
	Billing Demand	1,215	KW	$/kWh			$ 0.069
	Load Factor	0.63	hr				

16. Sewage	Total Quantity Sewage ☐ If No Meter, check here 1,887 mgal	Cost of Sewage Plant Operation (Including wages & benefits)		$ 0
		Sewage Charges Paid to Municipal Authority		$ 52,060
		$/mgal 27.59	Total Sewage Cost	$ 52,060

17. Comments	18. Water ☐ If No Meter, check here	Total Used	$/mgal		
#16 sewage paid quarterly.		229 mgal	32.51	Total	$ 7,438
				Grand Total	$ #VALUE!

Signature

Michael J. Cherry Date 8/30/17

Approved

Date

Revised 2/19/07

MONTHLY UTILITIES USAGE REPORT

Facility	Selinsgrove Center	Date (Month and Year of Report)	Jan-17
Total Facility Square Feet	987,572	Total Vacant Square Feet *(DPW only)*	253,199
Total Facility Occupied Square Feet *(DPW only)*	707,652	Total Leased Square Feet *(DPW only)*	26,721
Residents:	226	Staff:	747

BOILER PLANT DATA & COSTS

1. Boiler Operating Pressure	185 psig	4. Makeup %	18.15%
2. Average Feedwater Temp.	220 ^{0}F	5. Peak Steam	20,500
3. Makeup Water Used (lbs) ☐ If no meter, check here	2,085,000 lb	6. Degree Days	995 HDD / 0 CDD

	Coal	Gas (or Purchased Steam)	Oil	Total
Type of Coal ☑ Anthracite ☐ Bituminous				
7. Steam Produced (or Purchased)	11,485,097 lb	0 lb	lb	11,485,097
8. Fuel Consumed	873 ton	0 mcf	gal	
9. Evaporation (col.7 ÷ col. 8)	6.58 lb/lb	#DIV/0! lb/mcuft	No Oil lb/gal	
10. Unit Fuel Cost	116.00 $/ton	#DIV/0! $/mcuft	$/gal	
11. Fuel (or Steam) Cost	101,268 $	520 $	No Oil $	$
12. Fuel (or Steam) Cost per mlb Steam	8.82 $/mlb	#DIV/0! $/mlb	No Oil $/mlb	$ 101,788

13. Parts Used	$	1,919
Miscellaneous Supplies	$	1,092
Service Contracts ☐ If yearly, check here	$	750
Repair Contracts ☐ If yearly, check here	$	0
Wages & Salaries (Including Benefits)	$	74,552
Sub Total	$	180,101

OTHER DATA

14. Miscellaneous Fuels	Natural Gas (mcuft)		mcuft	$/mcuft	0	Cost	$
	Propane (mcuft) [gal x 0.0894=mcuft]		mcuft	$/mcuft	0	Cost	$
	Total Gas mcuft	0		Total Gas Cost			$ 0
	Oil (gal)	705	gal	$/gal	0	Cost	$ 0
15. Facility Electric	Generated	40,100	kWh				
	Total Purchased	407,080	kWh	Total Electric Cost			$ 6,027
	Billing Demand	855	KW	$/kWh			$ 0.015
	Load Factor	0.65	hr				

16. Sewage	Total Quantity Sewage ☐ If No Meter, check here: 1,719 mgal	Cost of Sewage Plant Operation (Including wages & benefits)		$ 0
		Sewage Charges Paid to Municipal Authority		$ 0
		$/mgal 0	Total Sewage Cost	$ 0

17. Comments	18. Water ☐ If No Meter, check here	Total Used	$/mgal	
#16 sewage paid quarterly.		3,118 mgal	2.39 Total	$ 7,438
			Grand Total	$ 193,566

Signature: Michael J. Cherry Date: 8/9/17

Approved: Date:

Revised 2/19/07

MONTHLY UTILITIES USAGE REPORT

Facility	Selinsgrove Center	Date (Month and Year of Report)	Feb-17
Total Facility Square Feet	987,572	Total Vacant Square Feet *(DPW only)*	253,199
Total Facility Occupied Square Feet *(DPW only)*	707,652	Total Leased Square Feet *(DPW only)*	26,721
Residents:	214	Staff:	743

BOILER PLANT DATA & COSTS

1. Boiler Operating Pressure	185 psig	4. Makeup %	16.73%
2. Average Feedwater Temp.	220 ^{0}F	5. Peak Steam	18,000
3. Makeup Water Used (lbs) ☐ If no meter, check here	1,587,102 lb	6. Degree Days	764 HDD 0 CDD

Type of Coal ☑ Anthracite ☐ Bituminous	Coal	Gas (or Purchased Steam)	Oil	Total
7. Steam Produced (or Purchased)	9,485,399 lb	0 lb	lb	9,485,399
8. Fuel Consumed	696 ton	0 mcf	gal	
9. Evaporation (col.7 ÷ col. 8)	6.81 lb/lb	#DIV/0! lb/mcuft	No Oil lb/gal	
10. Unit Fuel Cost	116.00 $/ton	#DIV/0! $/mcuft	$/gal	
11. Fuel (or Steam) Cost	80,736 $	520 $	No Oil $	$
12. Fuel (or Steam) Cost per mlb Steam	8.51 $/mlb	#DIV/0! $/mlb	No Oil $/mlb	$ 81,256

13. Parts Used		$ 0
Miscellaneous Supplies		$ 3,402
Service Contracts	☐ If yearly, check here	$ 29,870
Repair Contracts	☐ If yearly, check here	$ 0
Wages & Salaries (Including Benefits)		$ 66,028
	Sub Total	$ 180,556

OTHER DATA

14. Miscellaneous Fuels	Natural Gas (mcuft)		mcuft	$/mcuft	0	Cost	$
	Propane (mcuft) [gal x 0.0894=mcuft]		mcuft	$/mcuft	0	Cost	$
	Total Gas mcuft	0		Total Gas Cost			$ 0
	Oil (gal)	641	gal	$/gal	0	Cost	$ 0
15. Facility Electric	Generated	44,450	kWh				
	Total Purchased	373,320	kWh	Total Electric Cost			$ 25,429
	Billing Demand	850	KW	$/kWh			$ 0.068
	Load Factor	0.60	hr				

16. Sewage	Total Quantity Sewage ☐ If No Meter, check here 1,757 mgal	Cost of Sewage Plant Operation (Including wages & benefits)		$ 0
		Sewage Charges Paid to Municipal Authority		$ 0
		$/mgal 0	Total Sewage Cost	$ 0

17. Comments	18. Water ☐ If No Meter, check here	Total Used	$/mgal	
#16 sewage paid quarterly.		2,547 mgal	2.45 Total	$ 6,252
			Grand Total	$ 212,237

Signature

Michael J. Cherry Date 8/23/17

Approved

Date

Revised 2/19/07

MONTHLY UTILITIES USAGE REPORT

Facility	Selinsgrove Center	Date (Month and Year of Report)	Mar-17
Total Facility Square Feet	987,572	Total Vacant Square Feet *(DPW only)*	253,199
Total Facility Occupied Square Feet *(DPW only)*	707,652	Total Leased Square Feet *(DPW only)*	26,721
Residents:	226	Staff:	765

BOILER PLANT DATA & COSTS

1. Boiler Operating Pressure	185 psig	4. Makeup %	16.60%
2. Average Feedwater Temp.	220 ^{0}F	5. Peak Steam	19,000
3. Makeup Water Used (lbs) ☐ If no meter, check here	1,735,554 lb	6. Degree Days	872 HDD 0 CDD

	Coal	Gas (or Purchased Steam)	Oil	Total
Type of Coal ☑ Anthracite ☐ Bituminous				
7. Steam Produced (or Purchased)	10,452,353 lb	0 lb	lb	10,452,353
8. Fuel Consumed	759 ton	0 mcf	gal	
9. Evaporation (col.7 ÷ col. 8)	6.89 lb/lb	#DIV/0! lb/mcuft	No Oil lb/gal	
10. Unit Fuel Cost	116.00 $/ton	#DIV/0! $/mcuft	$/gal	
11. Fuel (or Steam) Cost	88,044 $	520 $	No Oil $	$
12. Fuel (or Steam) Cost per mlb Steam	8.42 $/mlb	#DIV/0! $/mlb	No Oil $/mlb	$ 88,564

13. Parts Used		$ 245
Miscellaneous Supplies		$ 1,150
Service Contracts	☐ If yearly, check here	$ 0
Repair Contracts	☐ If yearly, check here	$ 0
Wages & Salaries (Including Benefits)		$ 60,700
	Sub Total	$ 150,659

OTHER DATA

14. Miscellaneous Fuels	Natural Gas (mcuft)		mcuft	$/mcuft	0	Cost	$
	Propane (mcuft) [gal x 0.0894=mcuft]		mcuft	$/mcuft	0	Cost	$
	Total Gas mcuft	0		Total Gas Cost			$ 0
	Oil (gal)	615	gal	$/gal	0	Cost	$ 0
15. Facility Electric	Generated	44,150	kWh				
	Total Purchased	425,920	kWh	Total Electric Cost			$ 28,725
	Billing Demand	845	KW	$/kWh			$ 0.067
	Load Factor	0.69	hr				

16. Sewage	Total Quantity Sewage ☐ If No Meter, check here 2,935 mgal	Cost of Sewage Plant Operation (Including wages & benefits)		$ 0
		Sewage Charges Paid to Municipal Authority		$ 58,225
		$/mgal 19.84	Total Sewage Cost	$ 58,225

17. Comments	18. Water ☐ If No Meter, check here	Total Used	$/mgal	
#16 sewage paid quarterly.		3,816 mgal	1.95 Total	$ 7,438
			Grand Total	$ 245,047

Signature

Michael J. Cherry Date 8/23/17

Approved

Date

Revised 2/19/07

MONTHLY UTILITIES USAGE REPORT

Facility	Selinsgrove Center	Date (Month and Year of Report)	Apr-17
Total Facility Square Feet	987,572	Total Vacant Square Feet *(DPW only)*	253,199
Total Facility Occupied Square Feet *(DPW only)*	707,652	Total Leased Square Feet *(DPW only)*	26,721
Residents:	226	Staff:	763

BOILER PLANT DATA & COSTS

1. Boiler Operating Pressure	185 psig	4. Makeup %	16.14%
2. Average Feedwater Temp.	220 ^{0}F	5. Peak Steam	15,000
3. Makeup Water Used (lbs) ☐ If no meter, check here	1,103,382 lb	6. Degree Days	250 HDD 11 CDD

	Coal	Gas (or Purchased Steam)	Oil	Total
Type of Coal ☑ Anthracite ☐ Bituminous				
7. Steam Produced (or Purchased)	4,082,958 lb	2,751,716 lb	lb	6,834,674
8. Fuel Consumed	268 ton	2,678 mcf	gal	
9. Evaporation (col.7 ÷ col. 8)	7.62 lb/lb	1,028 lb/mcuft	No Oil lb/gal	
10. Unit Fuel Cost	116.00 $/ton	4.98 $/mcuft	$/gal	
11. Fuel (or Steam) Cost	31,088 $	13,338 $	No Oil $	$
12. Fuel (or Steam) Cost per mlb Steam	7.61 $/mlb	4.85 $/mlb	No Oil $/mlb	$ 44,426

13. Parts Used	$	5,197
Miscellaneous Supplies	$	0
Service Contracts ☐ If yearly, check here	$	2,790
Repair Contracts ☐ If yearly, check here	$	0
Wages & Salaries (Including Benefits)	$	67,150
Sub Total	$	119,563

OTHER DATA

14. Miscellaneous Fuels	Natural Gas (mcuft)		mcuft	$/mcuft	0	Cost	$
	Propane (mcuft) [gal x 0.0894=mcuft]		mcuft	$/mcuft	0	Cost	$
	Total Gas mcuft	0		Total Gas Cost			$ 0
	Oil (gal)	0	gal	$/gal	0	Cost	$ 0
15. Facility Electric	Generated	294	kWh				
	Total Purchased	441,840	kWh	Total Electric Cost			$ 29,635
	Billing Demand	859	KW	$/kWh			$ 0.067
	Load Factor	0.70	hr				

16. Sewage	Total Quantity Sewage ☐ If No Meter, check here 2,987 mgal	Cost of Sewage Plant Operation (Including wages & benefits)		$ 0
		Sewage Charges Paid to Municipal Authority		$ 0
		$/mgal 0	Total Sewage Cost	$ 0

17. Comments	18. Water ☐ If No Meter, check here	Total Used	$/mgal	
#16 sewage paid quarterly.		2,403 mgal	3.10 Total	$ 7,438
			Grand Total	$ 156,636

Signature

Michael J. Cherry Date 8/18/17

Approved

Date

Revised 2/19/07

MONTHLY UTILITIES USAGE REPORT

Facility	Selinsgrove Center	Date (Month and Year of Report)	May-17
Total Facility Square Feet	987,572	Total Vacant Square Feet *(DPW only)*	253,199
Total Facility Occupied Square Feet *(DPW only)*	707,652	Total Leased Square Feet *(DPW only)*	26,721
Residents:	226	Staff:	752

BOILER PLANT DATA & COSTS

1. Boiler Operating Pressure	125 psig	4. Makeup %	13.07%
2. Average Feedwater Temp.	220 ^{0}F	5. Peak Steam	11,500
3. Makeup Water Used (lbs) ☐ If no meter, check here	854,850 lb	6. Degree Days	177 HDD 44.5 CDD

Type of Coal ☑ Anthracite ☐ Bituminous	Coal	Gas (or Purchased Steam)	Oil	Total
7. Steam Produced (or Purchased)	0 lb	6,540,637 lb	lb	6,540,637
8. Fuel Consumed	0 ton	6,345 mcf	gal	
9. Evaporation (col.7 ÷ col. 8)	#DIV/0! lb/lb	1,031 lb/mcuft	No Oil lb/gal	
10. Unit Fuel Cost	116.00 $/ton	3.81 $/mcuft	$/gal	
11. Fuel (or Steam) Cost	0 $	24,176 $	No Oil $	$
12. Fuel (or Steam) Cost per mlb Steam	#DIV/0! $/mlb	3.70 $/mlb	No Oil $/mlb	$ 24,176

13. Parts Used		$ 1,980
Miscellaneous Supplies		$ 105
Service Contracts	☐ If yearly, check here	$ 2,500
Repair Contracts	☐ If yearly, check here	$ 0
Wages & Salaries (Including Benefits)		$ 62,064
	Sub Total	$ 90,825

OTHER DATA

14. Miscellaneous Fuels	Natural Gas (mcuft)		mcuft	$/mcuft	0	Cost	$
	Propane (mcuft) [gal x 0.0894=mcuft]		mcuft	$/mcuft	0	Cost	$
	Total Gas mcuft	0		Total Gas Cost			$ 0
	Oil (gal)	0	gal	$/gal	0	Cost	$ 0
15. Facility Electric	Generated	0	kWh				
	Total Purchased	449,720	kWh	Total Electric Cost			$ 30,375
	Billing Demand	978	KW	$/kWh			$ 0.068
	Load Factor	0.63	hr				

16. Sewage	Total Quantity Sewage ☐ If No Meter, check here 2,289 mgal	Cost of Sewage Plant Operation (Including wages & benefits)		$ 0
		Sewage Charges Paid to Municipal Authority		$ 0
		$/mgal 0	Total Sewage Cost	$ 0

17. Comments	18. Water ☐ If No Meter, check here	Total Used	$/mgal		
#16 sewage paid quarterly.		2,643 mgal	1.00	Total	$ 2,643
				Grand Total	$ 123,843

Signature

Michael J. Cherry — Date 8/30/17

Approved — Date

Revised 2/19/07

MONTHLY UTILITIES USAGE REPORT

Facility	Selinsgrove Center	Date (Month and Year of Report)	Jun-17
Total Facility Square Feet	987,572	Total Vacant Square Feet *(DPW only)*	253,199
Total Facility Occupied Square Feet *(DPW only)*	707,652	Total Leased Square Feet *(DPW only)*	26,721
Residents:	224	Staff:	765

BOILER PLANT DATA & COSTS

1. Boiler Operating Pressure	125 psig	4. Makeup %	14.33%
2. Average Feedwater Temp.	220 ^{0}F	5. Peak Steam	10,000
3. Makeup Water Used (lbs) ☐ If no meter, check here	715,572 lb	6. Degree Days	20 HDD 225 CDD

Type of Coal ☑ Anthracite ☐ Bituminous	Coal	Gas (or Purchased Steam)	Oil	Total
7. Steam Produced (or Purchased)	0 lb	4,994,363 lb	lb	4,994,363
8. Fuel Consumed	0 ton	4,801 mcf	gal	
9. Evaporation (col.7 ÷ col. 8)	#DIV/0! lb/lb	1,040 lb/mcuft	No Oil lb/gal	
10. Unit Fuel Cost	116.00 $/ton	4.26 $/mcuft	$/gal	
11. Fuel (or Steam) Cost	0 $	20,455 $	No Oil $	$
12. Fuel (or Steam) Cost per mlb Steam	#DIV/0! $/mlb	4.10 $/mlb	No Oil $/mlb	$ 20,455

13. Parts Used		$ 1,012
Miscellaneous Supplies		$ 364
Service Contracts	☐ If yearly, check here	$ 0
Repair Contracts	☐ If yearly, check here	$ 22,950
Wages & Salaries (Including Benefits)		$ 55,697
	Sub Total	$ 100,478

OTHER DATA

14. Miscellaneous Fuels	Natural Gas (mcuft)		mcuft	$/mcuft	0	Cost	$
	Propane (mcuft) [gal x 0.0894=mcuft]		mcuft	$/mcuft	0	Cost	$
	Total Gas mcuft	0		Total Gas Cost			$ 0
	Oil (gal)	0	gal	$/gal	0	Cost	$
15. Facility Electric	Generated	0	kWh				
	Total Purchased	558,720	kWh	Total Electric Cost			$ 38,277
	Billing Demand	1,215	KW	$/kWh			$ 0.069
	Load Factor	0.63	hr				

16. Sewage	Total Quantity Sewage ☐ If No Meter, check here 1,887 mgal	Cost of Sewage Plant Operation (Including wages & benefits)		$ 0
		Sewage Charges Paid to Municipal Authority		$ 55,314
		$/mgal 29.31	Total Sewage Cost	$ 55,314

17. Comments	18. Water ☐ If No Meter, check here	Total Used	$/mgal	
#16 sewage paid quarterly.		1,953 mgal	4.00 Total	$ 7,805
			Grand Total	$ 201,874

Signature			
Kolyn Kahley		Date	10/19/17
Approved			
		Date	

Revised 2/19/07

MONTHLY UTILITIES USAGE REPORT

Facility	Selinsgrove Center	Date (Month and Year of Report)	Jul-17
Total Facility Square Feet	987,572	Total Vacant Square Feet *(DPW only)*	253,199
Total Facility Occupied Square Feet *(DPW only)*	707,652	Total Leased Square Feet *(DPW only)*	26,721
Residents:	224	Staff:	743

BOILER PLANT DATA & COSTS

1. Boiler Operating Pressure	125 psig	4. Makeup %	11.99%
2. Average Feedwater Temp.	211 ^{0}F	5. Peak Steam	11,000
3. Makeup Water Used (lbs) ☐ If no meter, check here	588,804 lb	6. Degree Days	0 HDD 252 CDD

	Coal	Gas (or Purchased Steam)	Oil	Total
Type of Coal ☑ Anthracite ☐ Bituminous				
7. Steam Produced (or Purchased)	0 lb	4,909,315 lb	lb	4,909,315
8. Fuel Consumed	0 ton	4,680 mcf	gal	
9. Evaporation (col.7 ÷ col. 8)	#DIV/0! lb/lb	1,049 lb/mcuft	No Oil lb/gal	
10. Unit Fuel Cost	0.00 $/ton	4.33 $/mcuft	$/gal	
11. Fuel (or Steam) Cost	0 $	20,267 $	No Oil $	$
12. Fuel (or Steam) Cost per mlb Steam	#DIV/0! $/mlb	4.13 $/mlb	No Oil $/mlb	$ 20,267

13. Parts Used		$
Miscellaneous Supplies		$
Service Contracts	☐ If yearly, check here	$
Repair Contracts	☐ If yearly, check here	$ 0
Wages & Salaries (Including Benefits)		$ 64,025
	Sub Total	$ 84,292

OTHER DATA

14. Miscellaneous Fuels	Natural Gas (mcuft)		mcuft	$/mcuft	0	Cost	$
	Propane (mcuft) [gal x 0.0894=mcuft]		mcuft	$/mcuft	0	Cost	$
	Total Gas mcuft	0		Total Gas Cost			$ 0
	Oil (gal)	0	gal	$/gal	0	Cost	$ 0
15. Facility Electric	Generated	0	kWh				
	Total Purchased	591,221	kWh	Total Electric Cost			$ 26,762
	Billing Demand	1,192	KW	$/kWh			$ 0.045
	Load Factor	0.68	hr				

16. Sewage	Total Quantity Sewage ☐ If No Meter, check here 3,264 mgal	Cost of Sewage Plant Operation (Including wages & benefits)		$ 0
		Sewage Charges Paid to Municipal Authority		$ 0
		$/mgal 0	Total Sewage Cost	$ 0

17. Comments	18. Water ☐ If No Meter, check here	Total Used	$/mgal		
#16 sewage paid quarterly.		1,978 mgal	4.00	Total	$ 7,916
				Grand Total	$ 118,969
	Signature				
	Will W. Brunson			Date	5/8/18
	Approved				
				Date	

Revised 2/19/07

MONTHLY UTILITIES USAGE REPORT

Facility	Selinsgrove Center	Date (Month and Year of Report)	Aug-17
Total Facility Square Feet	987,572	Total Vacant Square Feet *(DPW only)*	253,199
Total Facility Occupied Square Feet *(DPW only)*	707,652	Total Leased Square Feet *(DPW only)*	26,721
Residents:	224	Staff:	743

BOILER PLANT DATA & COSTS

1. Boiler Operating Pressure	125 psig	4. Makeup %	15.77%
2. Average Feedwater Temp.	220 ^{0}F	5. Peak Steam	12,000
3. Makeup Water Used (lbs) ☐ If no meter, check here	679,710 lb	6. Degree Days	16 HDD 132 CDD

	Coal	Gas (or Purchased Steam)	Oil	Total
Type of Coal ☑ Anthracite ☐ Bituminous				
7. Steam Produced (or Purchased)	0 lb	4,311,122 lb	lb	4,311,122
8. Fuel Consumed	0 ton	4,005 mcf	gal	
9. Evaporation (col.7 ÷ col. 8)	#DIV/0! lb/lb	1,076 lb/mcuft	No Oil lb/gal	
10. Unit Fuel Cost	0.00 $/ton	4.35 $/mcuft	$/gal	
11. Fuel (or Steam) Cost	0 $	17,403 $	No Oil $	$
12. Fuel (or Steam) Cost per mlb Steam	#DIV/0! $/mlb	4.04 $/mlb	No Oil $/mlb	$ 17,403

13. Parts Used		$ 0
Miscellaneous Supplies		$ 0
Service Contracts	☐ If yearly, check here	$ 0
Repair Contracts	☐ If yearly, check here	$ 0
Wages & Salaries (Including Benefits)		$ 61,027
	Sub Total	$ 78,430

OTHER DATA

14. Miscellaneous Fuels	Natural Gas (mcuft)		mcuft	$/mcuft	0	Cost	$
	Propane (mcuft) [gal x 0.0894=mcuft]		mcuft	$/mcuft	0	Cost	$
	Total Gas mcuft	0		Total Gas Cost			$ 0
	Oil (gal)	0	gal	$/gal	0	Cost	$ 0
15. Facility Electric	Generated	0	kWh				
	Total Purchased	515,963	kWh	Total Electric Cost			$ 43,438
	Billing Demand	1,206	KW	$/kWh			$ 0.084
	Load Factor	0.59	hr				

16. Sewage	Total Quantity Sewage ☐ If No Meter, check here 2,067 mgal	Cost of Sewage Plant Operation (Including wages & benefits)		$ 0
		Sewage Charges Paid to Municipal Authority		$ 0
		$/mgal 0	Total Sewage Cost	$ 0

17. Comments	18. Water ☐ If No Meter, check here	Total Used	$/mgal		
#16 sewage paid quarterly.		2,374 mgal	2.58	Total	$ 6,135
				Grand Total	$ 128,003

Signature			
Will W. Brunson		Date	5/8/18
Approved			
		Date	

Revised 2/19/07

MONTHLY UTILITIES USAGE REPORT

Facility	Selinsgrove Center	Date (Month and Year of Report)	Sep-17
Total Facility Square Feet	987,572	Total Vacant Square Feet *(DPW only)*	253,199
Total Facility Occupied Square Feet *(DPW only)*	707,652	Total Leased Square Feet *(DPW only)*	26,721
Residents:	224	Staff:	743

BOILER PLANT DATA & COSTS

1. Boiler Operating Pressure	125 psig	4. Makeup %	16.66%
2. Average Feedwater Temp.	210 ^{0}F	5. Peak Steam	10,000
3. Makeup Water Used (lbs) ☐ If no meter, check here	822,324 lb	6. Degree Days	102 HDD 91 CDD

Type of Coal ☑ Anthracite ☐ Bituminous	Coal	Gas (or Purchased Steam)	Oil	Total
7. Steam Produced (or Purchased)	0 lb	4,937,006 lb	lb	4,937,006
8. Fuel Consumed	0 ton	5,507 mcf	gal	
9. Evaporation (col.7 ÷ col. 8)	#DIV/0! lb/lb	896 lb/mcuft	No Oil lb/gal	
10. Unit Fuel Cost	0.00 $/ton	4.17 $/mcuft	$/gal	
11. Fuel (or Steam) Cost	0 $	22,983 $	No Oil $	$
12. Fuel (or Steam) Cost per mlb Steam	#DIV/0! $/mlb	4.66 $/mlb	No Oil $/mlb	$ 22,983

13. Parts Used		$ 0
Miscellaneous Supplies		$ 0
Service Contracts	☐ If yearly, check here	$ 0
Repair Contracts	☐ If yearly, check here	$ 0
Wages & Salaries (Including Benefits)		$ 97,439
	Sub Total	$ 120,422

OTHER DATA

14. Miscellaneous Fuels	Natural Gas (mcuft)		mcuft	$/mcuft	0	Cost	$
	Propane (mcuft) [gal x 0.0894=mcuft]		mcuft	$/mcuft	0	Cost	$
	Total Gas mcuft	0		Total Gas Cost			$ 0
	Oil (gal)	0	gal	$/gal	0	Cost	$ 0
15. Facility Electric	Generated	0	kWh				
	Total Purchased	550,234	kWh	Total Electric Cost			$ 45,806
	Billing Demand	1,158	KW	$/kWh			$ 0.083
	Load Factor	0.65	hr				

16. Sewage	Total Quantity Sewage ☐ If No Meter, check here 1,692 mgal	Cost of Sewage Plant Operation (Including wages & benefits)		$ 0
		Sewage Charges Paid to Municipal Authority		$ 58,225
		$/mgal 34.41	Total Sewage Cost	$ 58,225

17. Comments	18. Water ☐ If No Meter, check here	Total Used	$/mgal	
#16 sewage paid quarterly.		1,953 mgal	3.81 Total	$ 7,438
			Grand Total	$ 231,891

Signature: Will W. Brunson Date: 5/8/18

Approved: Date:

Revised 2/19/07

MONTHLY UTILITIES USAGE REPORT

Facility	Selinsgrove Center	Date (Month and Year of Report)	Oct-17
Total Facility Square Feet	987,572	Total Vacant Square Feet *(DPW only)*	253,199
Total Facility Occupied Square Feet *(DPW only)*	707,652	Total Leased Square Feet *(DPW only)*	26,721
Residents:	224	Staff:	743

BOILER PLANT DATA & COSTS

1. Boiler Operating Pressure	125 psig	4. Makeup %	13.66%
2. Average Feedwater Temp.	210 ^{0}F	5. Peak Steam	13,000
3. Makeup Water Used (lbs) ☐ If no meter, check here	838,170 lb	6. Degree Days	255 HDD / 39 CDD

Type of Coal ☑ Anthracite ☐ Bituminous	Coal	Gas (or Purchased Steam)	Oil	Total
7. Steam Produced (or Purchased)	1,650,772 lb	4,486,108 lb	lb	6,136,880
8. Fuel Consumed	117 ton	4,228 mcf	gal	
9. Evaporation (col.7 ÷ col. 8)	7.07 lb/lb	1,061 lb/mcuft	No Oil lb/gal	
10. Unit Fuel Cost	119.40 $/ton	4.33 $/mcuft	$/gal	
11. Fuel (or Steam) Cost	13,941 $	18,322 $	No Oil $	$
12. Fuel (or Steam) Cost per mlb Steam	8.45 $/mlb	4.08 $/mlb	No Oil $/mlb	$ 32,263

13. Parts Used		$ 0
Miscellaneous Supplies		$ 0
Service Contracts	☐ If yearly, check here	$ 0
Repair Contracts	☐ If yearly, check here	$ 0
Wages & Salaries (Including Benefits)		$ 63,520
	Sub Total	$ 95,783

OTHER DATA

14. Miscellaneous Fuels	Natural Gas (mcuft)		mcuft	$/mcuft	0	Cost	$
	Propane (mcuft) [gal x 0.0894=mcuft]		mcuft	$/mcuft	0	Cost	$
	Total Gas mcuft	0		Total Gas Cost			$ 0
	Oil (gal)	110	gal	$/gal	0	Cost	$ 0
15. Facility Electric	Generated	0	kWh				
	Total Purchased	476,897	kWh	Total Electric Cost			$ 40,971
	Billing Demand	1,121	KW	$/kWh			$ 0.086
	Load Factor	0.58	hr				

16. Sewage	Total Quantity Sewage ☐ If No Meter, check here 2,123 mgal	Cost of Sewage Plant Operation (Including wages & benefits)		$ 0
		Sewage Charges Paid to Municipal Authority		$ 0
		$/mgal 0	Total Sewage Cost	$ 0

17. Comments	18. Water ☐ If No Meter, check here	Total Used	$/mgal	
#16 sewage paid quarterly.		2,024 mgal	3.22 Total	$ 6,527
			Grand Total	$ 143,281

Signature: Will W. Brunson Date: 5/9/18

Approved: Date:

Revised 2/19/07

MONTHLY UTILITIES USAGE REPORT

Facility	Selinsgrove Center	Date (Month and Year of Report)	Nov-17
Total Facility Square Feet	987,572	Total Vacant Square Feet *(DPW only)*	253,199
Total Facility Occupied Square Feet *(DPW only)*	707,652	Total Leased Square Feet *(DPW only)*	26,721
Residents:	224	Staff:	743

BOILER PLANT DATA & COSTS

1. Boiler Operating Pressure	175 psig	4. Makeup %	13.85%
2. Average Feedwater Temp.	208 ^{0}F	5. Peak Steam	16,000
3. Makeup Water Used (lbs) ☐ If no meter, check here	1,276,020 lb	6. Degree Days	912 HDD 0 CDD

Type of Coal ☑ Anthracite ☐ Bituminous	Coal	Gas (or Purchased Steam)	Oil	Total
7. Steam Produced (or Purchased)	9,214,644 lb	lb	lb	9,214,644
8. Fuel Consumed	575 ton	77 mcf	gal	
9. Evaporation (col.7 ÷ col. 8)	8.01 lb/lb	0 lb/mcuft	No Oil lb/gal	
10. Unit Fuel Cost	119.40 $/ton	78.24 $/mcuft	$/gal	
11. Fuel (or Steam) Cost	68,676 $	5,993 $	No Oil $	$
12. Fuel (or Steam) Cost per mlb Steam	7.45 $/mlb	No Gas or Steam $/mlb	No Oil $/mlb	$ 74,670

13. Parts Used		$
Miscellaneous Supplies		$
Service Contracts	☐ If yearly, check here	$
Repair Contracts	☐ If yearly, check here	$
Wages & Salaries (Including Benefits)		$ 95,228
	Sub Total	$ 169,898

OTHER DATA

14. Miscellaneous Fuels	Natural Gas (mcuft)		mcuft	$/mcuft	0	Cost	$
	Propane (mcuft) [gal x 0.0894=mcuft]		mcuft	$/mcuft	0	Cost	$
	Total Gas mcuft	0		Total Gas Cost			$ 0
	Oil (gal)		gal	$/gal	0	Cost	$
15. Facility Electric	Generated	0	kWh				
	Total Purchased	443,022	kWh	Total Electric Cost			$ 38,237
	Billing Demand	868	KW	$/kWh			$ 0.086
	Load Factor	0.70	hr				

16. Sewage	Total Quantity Sewage ☐ If No Meter, check here 1,767 mgal	Cost of Sewage Plant Operation (Including wages & benefits)		$ 0
		Sewage Charges Paid to Municipal Authority		$ 0
		$/mgal 0	Total Sewage Cost	$ 0

17. Comments	18. Water ☐ If No Meter, check here	Total Used	$/mgal	
#16 sewage paid quarterly.		2,237 mgal	2.97 Total	$ 6,637
			Grand Total	$ 214,772

Signature

Will W. Brunson Date 5/9/18

Approved

Date

Revised 2/19/07

MONTHLY UTILITIES USAGE REPORT

Facility	Selinsgrove Center	Date (Month and Year of Report)	Dec-17
Total Facility Square Feet	987,572	Total Vacant Square Feet *(DPW only)*	253,199
Total Facility Occupied Square Feet *(DPW only)*	707,652	Total Leased Square Feet *(DPW only)*	26,721
Residents:	224	Staff:	743

BOILER PLANT DATA & COSTS

1. Boiler Operating Pressure	175 psig	4. Makeup %	14.50%
2. Average Feedwater Temp.	209 ^{0}F	5. Peak Steam	20,000
3. Makeup Water Used (lbs) ☐ If no meter, check here	1,660,494 lb	6. Degree Days	1101 HDD / 0 CDD

	Coal	Gas (or Purchased Steam)	Oil	Total
Type of Coal ☑ Anthracite ☐ Bituminous				
7. Steam Produced (or Purchased)	11,453,834 lb	lb	lb	11,453,834
8. Fuel Consumed	784 ton	25 mcf	gal	
9. Evaporation (col.7 ÷ col. 8)	7.31 lb/lb	0 lb/mcuft	No Oil lb/gal	
10. Unit Fuel Cost	119.70 $/ton	236.22 $/mcuft	$/gal	
11. Fuel (or Steam) Cost	93,832 $	5,811 $	No Oil $	$
12. Fuel (or Steam) Cost per mlb Steam	8.19 $/mlb	No Gas or Steam $/mlb	No Oil $/mlb	$ 99,643

13. Parts Used		$
Miscellaneous Supplies		$ 30,500
Service Contracts ☐ If yearly, check here		$
Repair Contracts ☐ If yearly, check here		$
Wages & Salaries (Including Benefits)		$ 50,248
	Sub Total	$ 180,391

OTHER DATA

14. Miscellaneous Fuels	Natural Gas (mcuft)		mcuft	$/mcuft	0	Cost	$
	Propane (mcuft) [gal x 0.0894=mcuft]		mcuft	$/mcuft	0	Cost	$
	Total Gas mcuft	0		Total Gas Cost			$ 0
	Oil (gal)	4,654	gal	$/gal	2.22	Cost	$ 10,317
15. Facility Electric	Generated		kWh				
	Total Purchased	492,413	kWh	Total Electric Cost			$ 34,922
	Billing Demand	873	KW	$/kWh			$ 0.071
	Load Factor	0.77	hr				

16. Sewage	Total Quantity Sewage ☐ If No Meter, check here	1,590 mgal	Cost of Sewage Plant Operation (Including wages & benefits)		$
			Sewage Charges Paid to Municipal Authority		$ 55,314
		$/mgal 34.80	Total Sewage Cost		$ 55,314

17. Comments	18. Water ☐ If No Meter, check here	Total Used	$/mgal	
#16 sewage paid quarterly.		2,380 mgal	3.33 Total	$ 7,918
			Grand Total	$ 288,861
	Signature			
	Will W. Brunson		Date	5/9/18
	Approved			
			Date	

Revised 2/19/07

MONTHLY UTILITIES USAGE REPORT

Facility	Selinsgrove Center	Date (Month and Year of Report)	Jan-16
Total Facility Square Feet	987,572	Total Vacant Square Feet *(DPW only)*	253,199
Total Facility Occupied Square Feet *(DPW only)*	707,652	Total Leased Square Feet *(DPW only)*	26,721
Residents:	236	Staff:	803

BOILER PLANT DATA & COSTS

1. Boiler Operating Pressure	185 psig	4. Makeup %	18.39%
2. Average Feedwater Temp.	220 ^{0}F	5. Peak Steam	22,500
3. Makeup Water Used (lbs) ☐ If no meter, check here	2,276,820 lb	6. Degree Days	1163 HDD 0 CDD

	Coal	Gas (or Purchased Steam)	Oil	Total
Type of Coal ☑ Anthracite ☐ Bituminous				
7. Steam Produced (or Purchased)	12,378,754 lb	0 lb	lb	12,378,754
8. Fuel Consumed	928 ton	0 mcf	gal	
9. Evaporation (col.7 ÷ col. 8)	6.67 lb/lb	#DIV/0! lb/mcuft	No Oil lb/gal	
10. Unit Fuel Cost	118.90 $/ton	#DIV/0! $/mcuft	$/gal	
11. Fuel (or Steam) Cost	110,393 $	524 $	No Oil $	$
12. Fuel (or Steam) Cost per mlb Steam	8.92 $/mlb	#DIV/0! $/mlb	No Oil $/mlb	$ 110,917

13. Parts Used	$	146
Miscellaneous Supplies	$	108
Service Contracts ☐ If yearly, check here	$	6,302
Repair Contracts ☐ If yearly, check here	$	0
Wages & Salaries (Including Benefits)	$	61,366
Sub Total	$	178,840

OTHER DATA

14. Miscellaneous Fuels	Natural Gas (mcuft)		mcuft	$/mcuft	0	Cost	$
	Propane (mcuft) [gal x 0.0894=mcuft]		mcuft	$/mcuft	0	Cost	$
	Total Gas mcuft	0		Total Gas Cost			$ 0
	Oil (gal)	480	gal	$/gal	1.36	Cost	$ 653
15. Facility Electric	Generated	60,070	kWh				
	Total Purchased	485,360	kWh	Total Electric Cost			$ 43,832
	Billing Demand	855	KW	$/kWh			$ 0.090
	Load Factor	0.78	hr				

16. Sewage	Total Quantity Sewage ☐ If No Meter, check here 2,868 mgal	Cost of Sewage Plant Operation (Including wages & benefits)		$ 0
		Sewage Charges Paid to Municipal Authority		$ 0
		$/mgal 0	Total Sewage Cost	$ 0

17. Comments	18. Water ☐ If No Meter, check here	Total Used	$/mgal		
#16 sewage paid quarterly.		3,943 mgal	2.24	Total	$ 8,840
				Grand Total	$ 232,165
	Signature				
	Kolyn Kahley			Date	6/28/16
	Approved				
				Date	

Revised 2/19/07

MONTHLY UTILITIES USAGE REPORT

Facility	Selinsgrove Center	Date (Month and Year of Report)	Feb-16
Total Facility Square Feet	987,572	Total Vacant Square Feet *(DPW only)*	253,199
Total Facility Occupied Square Feet *(DPW only)*	707,652	Total Leased Square Feet *(DPW only)*	26,721
Residents:	233	Staff:	796

BOILER PLANT DATA & COSTS

1. Boiler Operating Pressure	185 psig	4. Makeup %	16.89%
2. Average Feedwater Temp.	220 ^{0}F	5. Peak Steam	23,000
3. Makeup Water Used (lbs) ☐ If no meter, check here	1,919,034 lb	6. Degree Days	961 HDD 0 CDD

Type of Coal ☑ Anthracite ☐ Bituminous	Coal	Gas (or Purchased Steam)	Oil	Total
7. Steam Produced (or Purchased)	11,360,403 lb	0 lb	lb	11,360,403
8. Fuel Consumed	800 ton	0 mcf	gal	
9. Evaporation (col.7 ÷ col. 8)	7.10 lb/lb	#DIV/0! lb/mcuft	No Oil lb/gal	
10. Unit Fuel Cost	118.60 $/ton	#DIV/0! $/mcuft	$/gal	
11. Fuel (or Steam) Cost	94,859 $	520 $	No Oil $	$
12. Fuel (or Steam) Cost per mlb Steam	8.35 $/mlb	#DIV/0! $/mlb	No Oil $/mlb	$ 95,379

13. Parts Used	$	38
Miscellaneous Supplies	$	6,506
Service Contracts ☐ If yearly, check here	$	0
Repair Contracts ☐ If yearly, check here	$	0
Wages & Salaries (Including Benefits)	$	61,920
Sub Total	$	163,843

OTHER DATA

14. Miscellaneous Fuels	Natural Gas (mcuft)		mcuft	$/mcuft	0	Cost	$
	Propane (mcuft) [gal x 0.0894=mcuft]		mcuft	$/mcuft	0	Cost	$
	Total Gas mcuft	0		Total Gas Cost			$ 0
	Oil (gal)	585	gal	$/gal	1.45	Cost	$ 848
15. Facility Electric	Generated	56,050	kWh				
	Total Purchased	383,160	kWh	Total Electric Cost			$ 32,757
	Billing Demand	714	KW	$/kWh			$ 0.085
	Load Factor	0.74	hr				

16. Sewage	Total Quantity Sewage ☐ If No Meter, check here	5,208 mgal	Cost of Sewage Plant Operation (Including wages & benefits)		$ 0
			Sewage Charges Paid to Municipal Authority		$ 0
		$/mgal 0	Total Sewage Cost		$ 0

17. Comments	18. Water ☐ If No Meter, check here	Total Used	$/mgal	
#16 sewage paid quarterly.		2,204 mgal	3.12 Total	$ 6,872
			Grand Total	$ 204,321

Signature

Kolyn Kahley Date 6/28/16

Approved

Date

Revised 2/19/07

MONTHLY UTILITIES USAGE REPORT

Facility	Selinsgrove Center	Date (Month and Year of Report)	Mar-16
Total Facility Square Feet	987,572	Total Vacant Square Feet *(DPW only)*	253,199
Total Facility Occupied Square Feet *(DPW only)*	707,652	Total Leased Square Feet *(DPW only)*	26,721
Residents:	233	Staff:	785

BOILER PLANT DATA & COSTS

1. Boiler Operating Pressure	185 psig	4. Makeup %	15.83%
2. Average Feedwater Temp.	220 ^{0}F	5. Peak Steam	18,000
3. Makeup Water Used (lbs) ☐ If no meter, check here	1,418,634 lb	6. Degree Days	598 HDD / 0 CDD

Type of Coal ☑ Anthracite ☐ Bituminous	Coal	Gas (or Purchased Steam)	Oil	Total
7. Steam Produced (or Purchased)	8,959,076 lb	0 lb	lb	8,959,076
8. Fuel Consumed	669 ton	0 mcf	gal	
9. Evaporation (col.7 ÷ col. 8)	6.70 lb/lb	#DIV/0! lb/mcuft	No Oil lb/gal	
10. Unit Fuel Cost	118.90 $/ton	#DIV/0! $/mcuft	$/gal	
11. Fuel (or Steam) Cost	79,544 $	522 $	No Oil $	$
12. Fuel (or Steam) Cost per mlb Steam	8.88 $/mlb	#DIV/0! $/mlb	No Oil $/mlb	$ 80,066

13. Parts Used	$	54
Miscellaneous Supplies	$	366
Service Contracts ☐ If yearly, check here	$	400
Repair Contracts ☐ If yearly, check here	$	0
Wages & Salaries (Including Benefits)	$	64,065
Sub Total	$	144,951

OTHER DATA

14. Miscellaneous Fuels	Natural Gas (mcuft)		mcuft	$/mcuft	0	Cost	$
	Propane (mcuft) [gal x 0.0894=mcuft]		mcuft	$/mcuft	0	Cost	$
	Total Gas mcuft	0		Total Gas Cost			$ 0
	Oil (gal)		gal	$/gal	0	Cost	$
15. Facility Electric	Generated	0	kWh				
	Total Purchased	475,360	kWh	Total Electric Cost			$ 11,387
	Billing Demand	901	KW	$/kWh			$ 0.024
	Load Factor	0.72	hr				

16. Sewage	Total Quantity Sewage ☐ If No Meter, check here: 2,040 mgal	Cost of Sewage Plant Operation (Including wages & benefits)		$ 0
		Sewage Charges Paid to Municipal Authority		$ 55,314
		$/mgal 27.11	Total Sewage Cost	$ 55,314

17. Comments

#16 sewage paid quarterly. #15 PJM Demand Response Credit applied to this months bill

18. Water ☐ If No Meter, check here	Total Used 2,617 mgal	$/mgal 3.14	Total	$ 8,228
			Grand Total	$ 219,880

Signature: Kolyn Kahley Date: 6/28/16

Approved: Date:

Revised 2/19/07

MONTHLY UTILITIES USAGE REPORT

Facility	Selinsgrove Center	Date (Month and Year of Report)	Apr-16
Total Facility Square Feet	987,572	Total Vacant Square Feet *(DPW only)*	253,199
Total Facility Occupied Square Feet *(DPW only)*	707,652	Total Leased Square Feet *(DPW only)*	26,721
Residents:	234	Staff:	788

BOILER PLANT DATA & COSTS

1. Boiler Operating Pressure	185 psig	4. Makeup %	15.34%
2. Average Feedwater Temp.	220 ^{0}F	5. Peak Steam	17,500
3. Makeup Water Used (lbs) ☐ If no meter, check here	1,155,924 lb	6. Degree Days	469 HDD 0 CDD

Type of Coal ☑ Anthracite ☐ Bituminous	Coal	Gas (or Purchased Steam)	Oil	Total
7. Steam Produced (or Purchased)	4,968,562 lb	2,567,887 lb	lb	7,536,449
8. Fuel Consumed	328 ton	2,739 mcf	gal	
9. Evaporation (col.7 ÷ col. 8)	7.57 lb/lb	937 lb/mcuft	No Oil lb/gal	
10. Unit Fuel Cost	119.20 $/ton	3.79 $/mcuft	$/gal	
11. Fuel (or Steam) Cost	39,098 $	10,388 $	No Oil $	$
12. Fuel (or Steam) Cost per mlb Steam	7.87 $/mlb	4.05 $/mlb	No Oil $/mlb	$ 49,486

13. Parts Used	$	4,050
Miscellaneous Supplies	$	3,142
Service Contracts ☐ If yearly, check here	$	79
Repair Contracts ☐ If yearly, check here	$	0
Wages & Salaries (Including Benefits)	$	89,209
Sub Total	$	145,966

OTHER DATA

14. Miscellaneous Fuels	Natural Gas (mcuft)		mcuft	$/mcuft	0	Cost	$
	Propane (mcuft) [gal x 0.0894=mcuft]		mcuft	$/mcuft	0	Cost	$
	Total Gas mcuft	0		Total Gas Cost			$ 0
	Oil (gal)	771	gal	$/gal	1.45	Cost	$ 1,118
15. Facility Electric	Generated	0	kWh				
	Total Purchased	474,240	kWh	Total Electric Cost			$ 37,834
	Billing Demand	913	KW	$/kWh			$ 0.080
	Load Factor	0.71	hr				

16. Sewage	Total Quantity Sewage ☐ If No Meter, check here 1,943 mgal	Cost of Sewage Plant Operation (Including wages & benefits)		$ 0
		Sewage Charges Paid to Municipal Authority		$ 0
		$/mgal 0	Total Sewage Cost	$ 0

17. Comments

#16 sewage paid quarterly.

18. Water ☐ If No Meter, check here	Total Used 2,102 mgal	$/mgal 4.61	Total	$ 9,686
			Grand Total	$ 194,604

Signature: Kolyn Kahley Date: 9/6/16

Approved: Date:

Revised 2/19/07

MONTHLY UTILITIES USAGE REPORT

Facility	Selinsgrove Center	Date (Month and Year of Report)	May-16
Total Facility Square Feet	987,572	Total Vacant Square Feet *(DPW only)*	253,199
Total Facility Occupied Square Feet *(DPW only)*	707,652	Total Leased Square Feet *(DPW only)*	26,721
Residents:	234	Staff:	817

BOILER PLANT DATA & COSTS

1. Boiler Operating Pressure	90 psig	4. Makeup %	17.26%
2. Average Feedwater Temp.	220 ^{0}F	5. Peak Steam	10,500
3. Makeup Water Used (lbs) ☐ If no meter, check here	990,792 lb	6. Degree Days	175 HDD 87 CDD

Type of Coal ☑ Anthracite ☐ Bituminous	Coal	Gas (or Purchased Steam)	Oil	Total
7. Steam Produced (or Purchased)	0 lb	5,741,792 lb	lb	5,741,792
8. Fuel Consumed	0 ton	6,231 mcf	gal	
9. Evaporation (col.7 ÷ col. 8)	#DIV/0! lb/lb	921 lb/mcuft	No Oil lb/gal	
10. Unit Fuel Cost	0.00 $/ton	3.96 $/mcuft	$/gal	
11. Fuel (or Steam) Cost	0 $	24,663 $	No Oil $	$
12. Fuel (or Steam) Cost per mlb Steam	#DIV/0! $/mlb	4.30 $/mlb	No Oil $/mlb	$ 24,663

13. Parts Used		$ 4,725
Miscellaneous Supplies		$ 1,133
Service Contracts	☐ If yearly, check here	$ 29,900
Repair Contracts	☐ If yearly, check here	$ 0
Wages & Salaries (Including Benefits)		$ 59,086
	Sub Total	$ 119,507

OTHER DATA

14. Miscellaneous Fuels	Natural Gas (mcuft)		mcuft	$/mcuft	0	Cost	$
	Propane (mcuft) [gal x 0.0894=mcuft]		mcuft	$/mcuft	0	Cost	$
	Total Gas mcuft	0		Total Gas Cost			$ 0
	Oil (gal)	0	gal	$/gal	0	Cost	$ 0
15. Facility Electric	Generated	0	kWh				
	Total Purchased	460,600	kWh	Total Electric Cost			$ 36,985
	Billing Demand	920	KW	$/kWh			$ 0.080
	Load Factor	0.69	hr				

16. Sewage	Total Quantity Sewage ☐ If No Meter, check here 1,537 mgal	Cost of Sewage Plant Operation (Including wages & benefits)		$ 0
		Sewage Charges Paid to Municipal Authority		$ 0
		$/mgal 0	Total Sewage Cost	$ 0

17. Comments

#16 sewage paid quarterly.

18. Water ☐ If No Meter, check here	Total Used 2,128 mgal	$/mgal 3.04	Total	$ 6,462
			Grand Total	$ 162,954

Signature

Kolyn Kahley — Date 9/7/16

Approved — Date

Revised 2/19/07

MONTHLY UTILITIES USAGE REPORT

Facility	Selinsgrove Center	Date (Month and Year of Report)	Jun-16
Total Facility Square Feet	987,572	Total Vacant Square Feet *(DPW only)*	253,199
Total Facility Occupied Square Feet *(DPW only)*	707,652	Total Leased Square Feet *(DPW only)*	26,721
Residents:	233	Staff:	804

BOILER PLANT DATA & COSTS

1. Boiler Operating Pressure	90 psig	4. Makeup %	20.20%
2. Average Feedwater Temp.	220 ^{0}F	5. Peak Steam	8,500
3. Makeup Water Used (lbs) ☐ If no meter, check here	865,692 lb	6. Degree Days	16 HDD 236 CDD

Type of Coal ☑ Anthracite ☐ Bituminous	Coal	Gas (or Purchased Steam)	Oil	Total
7. Steam Produced (or Purchased)	0 lb	4,285,516 lb	lb	4,285,516
8. Fuel Consumed	0 ton	4,843 mcf	gal	
9. Evaporation (col.7 ÷ col. 8)	#DIV/0! lb/lb	885 lb/mcuft	No Oil lb/gal	
10. Unit Fuel Cost	0.00 $/ton	3.59 $/mcuft	$/gal	
11. Fuel (or Steam) Cost	0 $	17,384 $	No Oil $	$
12. Fuel (or Steam) Cost per mlb Steam	#DIV/0! $/mlb	4.06 $/mlb	No Oil $/mlb	$ 17,384

13. Parts Used		$ 1,304
Miscellaneous Supplies		$ 276
Service Contracts	☐ If yearly, check here	$ 8,350
Repair Contracts	☐ If yearly, check here	$ 0
Wages & Salaries (Including Benefits)		$ 60,853
	Sub Total	$ 88,167

OTHER DATA

14. Miscellaneous Fuels	Natural Gas (mcuft)		mcuft	$/mcuft	0	Cost	$
	Propane (mcuft) [gal x 0.0894=mcuft]		mcuft	$/mcuft	0	Cost	$
	Total Gas mcuft	0		Total Gas Cost			$ 0
	Oil (gal)	0	gal	$/gal	0	Cost	$ 0
15. Facility Electric	Generated	0	kWh				
	Total Purchased	553,480	kWh	Total Electric Cost			$ 41,940
	Billing Demand	1,069	KW	$/kWh			$ 0.076
	Load Factor	0.71	hr				

16. Sewage	Total Quantity Sewage ☐ If No Meter, check here	1,483 mgal	Cost of Sewage Plant Operation (Including wages & benefits)	$ 0
			Sewage Charges Paid to Municipal Authority	$ 55,314
		$/mgal 37.30	Total Sewage Cost	$ 55,314

17. Comments	18. Water ☐ If No Meter, check here	Total Used	$/mgal	
#16 sewage paid quarterly.		2,164 mgal	6.07 Total	$ 13,126
			Grand Total	$ 198,546

Signature			
Kolyn Kahley		Date	9/13/16
Approved			
		Date	

Revised 2/19/07

MONTHLY UTILITIES USAGE REPORT

Facility	Selinsgrove Center	Date (Month and Year of Report)	Jul-16
Total Facility Square Feet	987,572	Total Vacant Square Feet *(DPW only)*	253,199
Total Facility Occupied Square Feet *(DPW only)*	707,652	Total Leased Square Feet *(DPW only)*	26,721
Residents:	233	Staff:	810

BOILER PLANT DATA & COSTS

1. Boiler Operating Pressure	90 psig	4. Makeup %	21.41%
2. Average Feedwater Temp.	220 ^{0}F	5. Peak Steam	6,000
3. Makeup Water Used (lbs) ☐ If no meter, check here	894,882 lb	6. Degree Days	0 HDD / 430 CDD

Type of Coal ☑ Anthracite ☐ Bituminous	Coal	Gas (or Purchased Steam)	Oil	Total
7. Steam Produced (or Purchased)	0 lb	4,179,041 lb	lb	4,179,041
8. Fuel Consumed	0 ton	4,711 mcf	gal	
9. Evaporation (col.7 ÷ col. 8)	#DIV/0! lb/lb	887 lb/mcuft	No Oil lb/gal	
10. Unit Fuel Cost	0.00 $/ton	3.56 $/mcuft	$/gal	
11. Fuel (or Steam) Cost	0 $	16,788 $	No Oil $	$
12. Fuel (or Steam) Cost per mlb Steam	#DIV/0! $/mlb	4.02 $/mlb	No Oil $/mlb	$ 16,788

13. Parts Used		$ 1,565
Miscellaneous Supplies		$ 6,206
Service Contracts	☐ If yearly, check here	$ 0
Repair Contracts	☐ If yearly, check here	$ 7,950
Wages & Salaries (Including Benefits)		$ 59,898
	Sub Total	$ 92,407

OTHER DATA

14. Miscellaneous Fuels	Natural Gas (mcuft)		mcuft	$/mcuft	0	Cost	$
	Propane (mcuft) [gal x 0.0894=mcuft]		mcuft	$/mcuft	0	Cost	$
	Total Gas mcuft	0		Total Gas Cost			$ 0
	Oil (gal)	0	gal	$/gal	0	Cost	$ 0
15. Facility Electric	Generated	0	kWh				
	Total Purchased	574,200	kWh	Total Electric Cost			$ 12,317
	Billing Demand	1,213	KW	$/kWh			$ 0.021
	Load Factor	0.65	hr				

16. Sewage	Total Quantity Sewage ☐ If No Meter, check here: 978 mgal	Cost of Sewage Plant Operation (Including wages & benefits)		$ 0
		Sewage Charges Paid to Municipal Authority		$ 0
		$/mgal 0	Total Sewage Cost	$ 0

17. Comments	18. Water ☐ If No Meter, check here	Total Used	$/mgal	
#16 sewage paid quarterly.		1,686 mgal	3.86 Total	$ 6,513
			Grand Total	$ 111,237

Signature: Kolyn Kahley Date: 1/25/17

Approved: Date:

Revised 2/19/07

MONTHLY UTILITIES USAGE REPORT

Facility	Selinsgrove Center	Date (Month and Year of Report)	Aug-16
Total Facility Square Feet	987,572	Total Vacant Square Feet *(DPW only)*	253,199
Total Facility Occupied Square Feet *(DPW only)*	707,652	Total Leased Square Feet *(DPW only)*	26,721
Residents:	233	Staff:	815

BOILER PLANT DATA & COSTS

1. Boiler Operating Pressure	90 psig	4. Makeup %	21.37%
2. Average Feedwater Temp.	220 ^{0}F	5. Peak Steam	6,500
3. Makeup Water Used (lbs) ☐ If no meter, check here	855,684 lb	6. Degree Days	0 HDD 399 CDD

Type of Coal ☑ Anthracite ☐ Bituminous	Coal	Gas (or Purchased Steam)	Oil	Total
7. Steam Produced (or Purchased)	0 lb	4,004,490 lb	lb	4,004,490
8. Fuel Consumed	0 ton	4,490 mcf	gal	
9. Evaporation (col.7 ÷ col. 8)	#DIV/0! lb/lb	892 lb/mcuft	No Oil lb/gal	
10. Unit Fuel Cost	0.00 $/ton	3.43 $/mcuft	$/gal	
11. Fuel (or Steam) Cost	0 $	15,423 $	No Oil $	$
12. Fuel (or Steam) Cost per mlb Steam	#DIV/0! $/mlb	3.85 $/mlb	No Oil $/mlb	$ 15,423

13. Parts Used		$ 4,026
Miscellaneous Supplies		$ 338
Service Contracts	☐ If yearly, check here	$ 0
Repair Contracts	☐ If yearly, check here	$ 0
Wages & Salaries (Including Benefits)		$ 60,576
	Sub Total	$ 80,363

OTHER DATA

14. Miscellaneous Fuels	Natural Gas (mcuft)		mcuft	$/mcuft	0	Cost	$
	Propane (mcuft) [gal x 0.0894=mcuft]		mcuft	$/mcuft	0	Cost	$
	Total Gas mcuft	0		Total Gas Cost			$ 0
	Oil (gal)	0	gal	$/gal	0	Cost	$ 0
15. Facility Electric	Generated	0	kWh				
	Total Purchased	592,200	kWh	Total Electric Cost			$ 39,387
	Billing Demand	1,189	KW	$/kWh			$ 0.067
	Load Factor	0.68	hr				

16. Sewage	Total Quantity Sewage ☐ If No Meter, check here 977 mgal	Cost of Sewage Plant Operation (Including wages & benefits)		$ 0
		Sewage Charges Paid to Municipal Authority		$ 0
		$/mgal 0	Total Sewage Cost	$ 0

17. Comments	18. Water ☐ If No Meter, check here	Total Used	$/mgal		
#16 sewage paid quarterly.		1,963 mgal	3.16	Total	$ 6,212
				Grand Total	$ 125,962

Signature: Kolyn Kahley Date: 1/25/17

Approved: Date:

Revised 2/19/07

MONTHLY UTILITIES USAGE REPORT

Facility	Selinsgrove Center	Date (Month and Year of Report)	Sep-16
Total Facility Square Feet	987,572	Total Vacant Square Feet *(DPW only)*	253,199
Total Facility Occupied Square Feet *(DPW only)*	707,652	Total Leased Square Feet *(DPW only)*	26,721
Residents:	230	Staff:	815

BOILER PLANT DATA & COSTS

1. Boiler Operating Pressure	90 psig	4. Makeup %	19.89%
2. Average Feedwater Temp.	220 ^{0}F	5. Peak Steam	8,500
3. Makeup Water Used (lbs) ☐ If no meter, check here	802,308 lb	6. Degree Days	50 HDD 171 CDD

Type of Coal ☑ Anthracite ☐ Bituminous	Coal	Gas (or Purchased Steam)	Oil	Total
7. Steam Produced (or Purchased)	0 lb	4,034,406 lb	lb	4,034,406
8. Fuel Consumed	0 ton	4,526 mcf	gal	
9. Evaporation (col.7 ÷ col. 8)	#DIV/0! lb/lb	891 lb/mcuft	No Oil lb/gal	
10. Unit Fuel Cost	0.00 $/ton	3.48 $/mcuft	$/gal	
11. Fuel (or Steam) Cost	0 $	15,757 $	No Oil $	$
12. Fuel (or Steam) Cost per mlb Steam	#DIV/0! $/mlb	3.91 $/mlb	No Oil $/mlb	$ 15,757

13. Parts Used		$ 1,060
Miscellaneous Supplies		$ 600
Service Contracts	☐ If yearly, check here	$ 72,100
Repair Contracts	☐ If yearly, check here	$ 0
Wages & Salaries (Including Benefits)		$ 91,905
	Sub Total	$ 181,422

OTHER DATA

14. Miscellaneous Fuels	Natural Gas (mcuft)		mcuft	$/mcuft	0	Cost	$
	Propane (mcuft) [gal x 0.0894=mcuft]		mcuft	$/mcuft	0	Cost	$
	Total Gas mcuft	0		Total Gas Cost			$ 0
	Oil (gal)	0	gal	$/gal	0	Cost	$ 0
15. Facility Electric	Generated	0	kWh				
	Total Purchased	591,600	kWh	Total Electric Cost			$ 39,482
	Billing Demand	1,214	KW	$/kWh			$ 0.067
	Load Factor	0.67	hr				

16. Sewage	Total Quantity Sewage ☐ If No Meter, check here	1,004 mgal	Cost of Sewage Plant Operation (Including wages & benefits)		$ 0
			Sewage Charges Paid to Municipal Authority		$ 55,314
		$/mgal 55.09	Total Sewage Cost		$ 55,314

17. Comments	18. Water ☐ If No Meter, check here	Total Used	$/mgal	
#16 sewage paid quarterly.		1,981 mgal	5.26 Total	$ 10,411
			Grand Total	$ 286,629

Signature			
Kolyn Kahley		Date	3/15/17
Approved			
		Date	

Revised 2/19/07

MONTHLY UTILITIES USAGE REPORT

Facility	Selinsgrove Center	Date (Month and Year of Report)	Oct-16
Total Facility Square Feet	987,572	Total Vacant Square Feet *(DPW only)*	253,199
Total Facility Occupied Square Feet *(DPW only)*	707,652	Total Leased Square Feet *(DPW only)*	26,721
Residents:	229	Staff:	735

BOILER PLANT DATA & COSTS

1. Boiler Operating Pressure	90 psig	4. Makeup %	16.51%
2. Average Feedwater Temp.	220 ^{0}F	5. Peak Steam	13,500
3. Makeup Water Used (lbs) ☐ If no meter, check here	900,720 lb	6. Degree Days	286 HDD 13 CDD

Type of Coal ☑ Anthracite ☐ Bituminous	Coal	Gas (or Purchased Steam)	Oil	Total
7. Steam Produced (or Purchased)	1,384,386 lb	4,072,124 lb	lb	5,456,510
8. Fuel Consumed	98 ton	4,575 mcf	gal	
9. Evaporation (col.7 ÷ col. 8)	7.06 lb/lb	890 lb/mcuft	No Oil lb/gal	
10. Unit Fuel Cost	116.00 $/ton	3.43 $/mcuft	$/gal	
11. Fuel (or Steam) Cost	11,368 $	15,674 $	No Oil $	$
12. Fuel (or Steam) Cost per mlb Steam	8.21 $/mlb	3.85 $/mlb	No Oil $/mlb	$ 27,042

13. Parts Used		$ 12,018
Miscellaneous Supplies		$ 2,037
Service Contracts	☐ If yearly, check here	$ 0
Repair Contracts	☐ If yearly, check here	$ 15,499
Wages & Salaries (Including Benefits)		$ 61,098
	Sub Total	$ 117,694

OTHER DATA

14. Miscellaneous Fuels	Natural Gas (mcuft)		mcuft	$/mcuft	0	Cost	$
	Propane (mcuft) [gal x 0.0894=mcuft]		mcuft	$/mcuft	0	Cost	$
	Total Gas mcuft	0		Total Gas Cost			$ 0
	Oil (gal)	0	gal	$/gal	0	Cost	$ 0
15. Facility Electric	Generated	0	kWh				
	Total Purchased	442,120	kWh	Total Electric Cost			$ 29,723
	Billing Demand	991	KW	$/kWh			$ 0.067
	Load Factor	0.61	hr				

16. Sewage	Total Quantity Sewage ☐ If No Meter, check here 1,055 mgal	Cost of Sewage Plant Operation (Including wages & benefits)		$ 0
		Sewage Charges Paid to Municipal Authority		$ 0
		$/mgal 0	Total Sewage Cost	$ 0

17. Comments	18. Water ☐ If No Meter, check here	Total Used	$/mgal	
#16 sewage paid quarterly.		1,903 mgal	3.84 Total	$ 7,307
			Grand Total	$ 154,724

Signature

Kolyn Kahley Date 5/5/17

Approved

Date

Revised 2/19/07

MONTHLY UTILITIES USAGE REPORT

Facility	Selinsgrove Center	Date (Month and Year of Report)	Nov-16
Total Facility Square Feet	987,572	Total Vacant Square Feet *(DPW only)*	253,199
Total Facility Occupied Square Feet *(DPW only)*	707,652	Total Leased Square Feet *(DPW only)*	26,721
Residents:	227	Staff:	757

BOILER PLANT DATA & COSTS

1. Boiler Operating Pressure	185 psig	4. Makeup %	16.88%
2. Average Feedwater Temp.	220 ^{0}F	5. Peak Steam	17,000
3. Makeup Water Used (lbs) ☐ If no meter, check here	1,485,354 lb	6. Degree Days	650 HDD 0 CDD

	Coal	Gas (or Purchased Steam)	Oil	Total
Type of Coal ☑ Anthracite ☐ Bituminous				
7. Steam Produced (or Purchased)	8,797,034 lb	0 lb	lb	8,797,034
8. Fuel Consumed	566 ton	205 mcf	gal	
9. Evaporation (col.7 ÷ col. 8)	7.77 lb/lb	0 lb/mcuft	No Oil lb/gal	
10. Unit Fuel Cost	116.00 $/ton	5.26 $/mcuft	$/gal	
11. Fuel (or Steam) Cost	65,656 $	1,079 $	No Oil $	$
12. Fuel (or Steam) Cost per mlb Steam	7.46 $/mlb	#DIV/0! $/mlb	No Oil $/mlb	$ 66,735

13. Parts Used		$ 2,280
Miscellaneous Supplies		$ 84
Service Contracts	☐ If yearly, check here	$ 68
Repair Contracts	☐ If yearly, check here	$ 0
Wages & Salaries (Including Benefits)		$ 65,283
	Sub Total	$ 134,450

OTHER DATA

14. Miscellaneous Fuels	Natural Gas (mcuft)		mcuft	$/mcuft	0	Cost	$
	Propane (mcuft) [gal x 0.0894=mcuft]		mcuft	$/mcuft	0	Cost	$
	Total Gas mcuft	0		Total Gas Cost			$ 0
	Oil (gal)	352	gal	$/gal	1.69	Cost	$ 595
15. Facility Electric	Generated	0	kWh				
	Total Purchased	454,120	kWh	Total Electric Cost			$ 30,380
	Billing Demand	934	KW	$/kWh			$ 0.067
	Load Factor	0.67	hr				

16. Sewage	Total Quantity Sewage ☐ If No Meter, check here 1,436 mgal	Cost of Sewage Plant Operation (Including wages & benefits)		$ 0
		Sewage Charges Paid to Municipal Authority		$ 0
		$/mgal 0	Total Sewage Cost	$ 0

17. Comments	18. Water ☐ If No Meter, check here	Total Used	$/mgal	
#16 sewage paid quarterly.		2,487 mgal	3.34 Total	$ 8,295
			Grand Total	$ 173,720
	Signature			
	Kolyn Kahley		Date	5/5/17
	Approved			
			Date	

Revised 2/19/07

MONTHLY UTILITIES USAGE REPORT

Facility	Selinsgrove Center	Date (Month and Year of Report)	Dec-16
Total Facility Square Feet	987,572	Total Vacant Square Feet *(DPW only)*	253,199
Total Facility Occupied Square Feet *(DPW only)*	707,652	Total Leased Square Feet *(DPW only)*	26,721
Residents:	226	Staff:	754

BOILER PLANT DATA & COSTS

1. Boiler Operating Pressure	185 psig	4. Makeup %	17.41%
2. Average Feedwater Temp.	220 ^{0}F	5. Peak Steam	20,500
3. Makeup Water Used (lbs) ☐ If no meter, check here	2,007,438 lb	6. Degree Days	979 HDD 0 CDD

Type of Coal ☑ Anthracite ☐ Bituminous	Coal	Gas (or Purchased Steam)	Oil	Total
7. Steam Produced (or Purchased)	11,533,281 lb	0 lb	lb	11,533,281
8. Fuel Consumed	841 ton	203 mcf	gal	
9. Evaporation (col.7 ÷ col. 8)	6.86 lb/lb	0 lb/mcuft	No Oil lb/gal	
10. Unit Fuel Cost	116.00 $/ton	5.32 $/mcuft	$/gal	
11. Fuel (or Steam) Cost	97,556 $	1,079 $	No Oil $	$
12. Fuel (or Steam) Cost per mlb Steam	8.46 $/mlb	#DIV/0! $/mlb	No Oil $/mlb	$ 98,635

13. Parts Used		$ 152
Miscellaneous Supplies		$ 174
Service Contracts	☐ If yearly, check here	$ 25,120
Repair Contracts	☐ If yearly, check here	$ 0
Wages & Salaries (Including Benefits)		$ 65,436
	Sub Total	$ 189,517

OTHER DATA

14. Miscellaneous Fuels	Natural Gas (mcuft)		mcuft	$/mcuft	0	Cost	$
	Propane (mcuft) [gal x 0.0894=mcuft]		mcuft	$/mcuft	0	Cost	$
	Total Gas mcuft	0		Total Gas Cost			$ 0
	Oil (gal)	0	gal	$/gal	0	Cost	$ 0
15. Facility Electric	Generated	52,960	kWh				
	Total Purchased	436,000	kWh	Total Electric Cost			$ 29,008
	Billing Demand	818	KW	$/kWh			$ 0.067
	Load Factor	0.73	hr				

16. Sewage	Total Quantity Sewage ☐ If No Meter, check here 1,410 mgal	Cost of Sewage Plant Operation (Including wages & benefits)		$ 0
		Sewage Charges Paid to Municipal Authority		$ 55,314
		$/mgal 39.23	Total Sewage Cost	$ 55,314

17. Comments	18. Water ☐ If No Meter, check here	Total Used	$/mgal	
#16 sewage paid quarterly.		2,920 mgal	2.31 Total	$ 6,742
			Grand Total	$ 280,581
	Signature			
	Michael J. Cherry		Date	8/9/17
	Approved			
			Date	

Revised 2/19/07

MONTHLY UTILITIES USAGE REPORT

Facility	Selinsgrove Center	Date (Month and Year of Report)	Jan-15
Total Facility Square Feet	987,572	Total Vacant Square Feet *(DPW only)*	253,653
Total Facility Occupied Square Feet *(DPW only)*	707,652	Total Leased Square Feet *(DPW only)*	26,267
Residents:	250	Staff:	834

BOILER PLANT DATA & COSTS

1. Boiler Operating Pressure	175 psig	4. Makeup %	15.38%		
2. Average Feedwater Temp.	220 ^{0}F	5. Peak Steam	22,000		
3. Makeup Water Used (lbs) ☐ If no meter, check here	1,951,560 lb	6. Degree Days	1241 HDD	0 CDD	

Type of Coal ☑ Anthracite ☐ Bituminous	Coal	Gas (or Purchased Steam)	Oil	Total
7. Steam Produced (or Purchased)	12,689,214 lb	lb	lb	12,689,214
8. Fuel Consumed	884 ton	0 mcf	gal	
9. Evaporation (col.7 ÷ col. 8)	7.18 lb/lb	#DIV/0! lb/mcuft	No Oil lb/gal	
10. Unit Fuel Cost	92.89 $/ton	#DIV/0! $/mcuft	$/gal	
11. Fuel (or Steam) Cost	82,115 $	512 $	No Oil $	$
12. Fuel (or Steam) Cost per mlb Steam	6.47 $/mlb	No Gas or Steam $/mlb	No Oil $/mlb	$ 82,627

13. Parts Used	$	207
Miscellaneous Supplies	$	3,020
Service Contracts ☐ If yearly, check here	$	68
Repair Contracts ☐ If yearly, check here	$	0
Wages & Salaries (Including Benefits)	$	61,181
Sub Total	$	147,103

OTHER DATA

14. Miscellaneous Fuels	Natural Gas (mcuft)		mcuft	$/mcuft	0	Cost	$
	Propane (mcuft) [gal x 0.0894=mcuft]		mcuft	$/mcuft	0	Cost	$
	Total Gas mcuft	0		Total Gas Cost			$ 0
	Oil (gal)	762	gal	$/gal	1.94	Cost	$ 1,482
15. Facility Electric	Generated	20,960	kWh				
	Total Purchased	542,920	kWh	Total Electric Cost			$ 49,491
	Billing Demand	886	KW	$/kWh			$ 0.091
	Load Factor	0.84	hr				

16. Sewage	Total Quantity Sewage ☐ If No Meter, check here 2,770 mgal	Cost of Sewage Plant Operation (Including wages & benefits)		$ 0
		Sewage Charges Paid to Municipal Authority		$ 0
		$/mgal 0	Total Sewage Cost	$ 0

17. Comments	18. Water ☐ If No Meter, check here	Total Used	$/mgal		
#16 sewage paid quarterly.		4,456 mgal	1.23	Total	$ 5,471
				Grand Total	$ 203,547

Signature

Kolyn Kahley Date 6/9/15

Approved

Date

Revised 2/19/07

MONTHLY UTILITIES USAGE REPORT

Facility	Selinsgrove Center	Date (Month and Year of Report)	Feb-15
Total Facility Square Feet	987,572	Total Vacant Square Feet *(DPW only)*	253,653
Total Facility Occupied Square Feet *(DPW only)*	707,652	Total Leased Square Feet *(DPW only)*	26,267
Residents:	250	Staff:	827

BOILER PLANT DATA & COSTS

1. Boiler Operating Pressure	175 psig	4. Makeup %	16.86%
2. Average Feedwater Temp.	220 ^{0}F	5. Peak Steam	23,500
3. Makeup Water Used (lbs) ☐ If no meter, check here	2,107,518 lb	6. Degree Days	1267 HDD 0 CDD

	Coal	Gas (or Purchased Steam)	Oil	Total
Type of Coal ☑ Anthracite ☐ Bituminous				
7. Steam Produced (or Purchased)	12,500,842 lb	lb	lb	12,500,842
8. Fuel Consumed	886 ton	0 mcf	gal	
9. Evaporation (col.7 ÷ col. 8)	7.05 lb/lb	#DIV/0! lb/mcuft	No Oil lb/gal	
10. Unit Fuel Cost	92.29 $/ton	#DIV/0! $/mcuft	$/gal	
11. Fuel (or Steam) Cost	81,769 $	512 $	No Oil $	$
12. Fuel (or Steam) Cost per mlb Steam	6.54 $/mlb	No Gas or Steam $/mlb	No Oil $/mlb	$ 82,281

13. Parts Used	$	202
Miscellaneous Supplies	$	3,431
Service Contracts ☐ If yearly, check here	$	68
Repair Contracts ☐ If yearly, check here	$	0
Wages & Salaries (Including Benefits)	$	66,209
Sub Total	$	152,191

OTHER DATA

14. Miscellaneous Fuels	Natural Gas (mcuft)		mcuft	$/mcuft	0	Cost	$
	Propane (mcuft) [gal x 0.0894=mcuft]		mcuft	$/mcuft	0	Cost	$
	Total Gas mcuft	0		Total Gas Cost			$ 0
	Oil (gal)	879	gal	$/gal	2.31	Cost	$ 2,032
15. Facility Electric	Generated	69,500	kWh				
	Total Purchased	374,040	kWh	Total Electric Cost			$ 16,468
	Billing Demand	862	KW	$/kWh			$ 0.044
	Load Factor	0.59	hr				

16. Sewage	Total Quantity Sewage ☐ If No Meter, check here 2,099 mgal	Cost of Sewage Plant Operation (Including wages & benefits)		$ 0
		Sewage Charges Paid to Municipal Authority		$ 0
		$/mgal 0	Total Sewage Cost	$ 0

17. Comments	18. Water ☐ If No Meter, check here	Total Used	$/mgal		
#16 sewage paid quarterly.		4,107 mgal	2.20	Total	$ 9,040
				Grand Total	$ 179,731
	Signature				
	Kolyn Kahley		Date	6/9/15	
	Approved				
			Date		

Revised 2/19/07

MONTHLY UTILITIES USAGE REPORT

Facility	Selinsgrove Center	Date (Month and Year of Report)	Mar-15
Total Facility Square Feet	987,572	Total Vacant Square Feet *(DPW only)*	253,653
Total Facility Occupied Square Feet *(DPW only)*	707,652	Total Leased Square Feet *(DPW only)*	26,267
Residents:	250	Staff:	830

BOILER PLANT DATA & COSTS

1. Boiler Operating Pressure	175 psig	4. Makeup %	21.60%
2. Average Feedwater Temp.	220 ^{0}F	5. Peak Steam	21,000
3. Makeup Water Used (lbs) ☐ If no meter, check here	2,335,200 lb	6. Degree Days	972 HDD / 0 CDD

Type of Coal ☑ Anthracite ☐ Bituminous	Coal	Gas (or Purchased Steam)	Oil	Total
7. Steam Produced (or Purchased)	10,809,166 lb	lb	lb	10,809,166
8. Fuel Consumed	778 ton	0 mcf	gal	
9. Evaporation (col.7 ÷ col. 8)	6.95 lb/lb	#DIV/0! lb/mcuft	No Oil lb/gal	
10. Unit Fuel Cost	93.79 $/ton	#DIV/0! $/mcuft	$/gal	
11. Fuel (or Steam) Cost	72,969 $	512 $	No Oil $	$
12. Fuel (or Steam) Cost per mlb Steam	6.75 $/mlb	No Gas or Steam $/mlb	No Oil $/mlb	$ 73,481

13. Parts Used		$ 51
Miscellaneous Supplies		$ 2,765
Service Contracts	☐ If yearly, check here	$ 85
Repair Contracts	☐ If yearly, check here	$ 0
Wages & Salaries (Including Benefits)		$ 63,022
	Sub Total	$ 139,404

OTHER DATA

14. Miscellaneous Fuels	Natural Gas (mcuft)		mcuft	$/mcuft	0	Cost	$
	Propane (mcuft) [gal x 0.0894=mcuft]		mcuft	$/mcuft	0	Cost	$
	Total Gas mcuft	0		Total Gas Cost			$ 0
	Oil (gal)	455	gal	$/gal	1.89	Cost	$ 860
15. Facility Electric	Generated	49,720	kWh				
	Total Purchased	388,200	kWh	Total Electric Cost			$ 37,099
	Billing Demand	781	KW	$/kWh			$ 0.096
	Load Factor	0.68	hr				

16. Sewage	Total Quantity Sewage ☐ If No Meter, check here	3,295 mgal	Cost of Sewage Plant Operation (Including wages & benefits)	$ 0
			Sewage Charges Paid to Municipal Authority	$ 61,821
		$/mgal 18.76	Total Sewage Cost	$ 61,821

17. Comments	18. Water ☐ If No Meter, check here	Total Used	$/mgal	
#16 sewage paid quarterly.		4,796 mgal	1.55 Total	$ 7,453
			Grand Total	$ 246,636

Signature			
Kolyn Kahley		Date	6/9/15
Approved			
		Date	

Revised 2/19/07

MONTHLY UTILITIES USAGE REPORT

Facility	Selinsgrove Center	Date (Month and Year of Report)	Apr-15
Total Facility Square Feet	987,572	Total Vacant Square Feet *(DPW only)*	253,199
Total Facility Occupied Square Feet *(DPW only)*	707,652	Total Leased Square Feet *(DPW only)*	26,721
Residents:	248	Staff:	836

BOILER PLANT DATA & COSTS

1. Boiler Operating Pressure	175 psig	4. Makeup %	23.56%
2. Average Feedwater Temp.	220 ^{0}F	5. Peak Steam	16,500
3. Makeup Water Used (lbs) ☐ If no meter, check here	1,778,088 lb	6. Degree Days	409 HDD 0 CDD

	Coal	Gas (or Purchased Steam)	Oil	Total
Type of Coal ☑ Anthracite ☐ Bituminous				
7. Steam Produced (or Purchased)	7,547,135 lb	lb	lb	7,547,135
8. Fuel Consumed	509 ton	0 mcf	gal	
9. Evaporation (col.7 ÷ col. 8)	7.41 lb/lb	#DIV/0! lb/mcuft	No Oil lb/gal	
10. Unit Fuel Cost	92.59 $/ton	#DIV/0! $/mcuft	$/gal	
11. Fuel (or Steam) Cost	47,128 $	621 $	No Oil $	$
12. Fuel (or Steam) Cost per mlb Steam	6.24 $/mlb	No Gas or Steam $/mlb	No Oil $/mlb	$ 47,749

13. Parts Used		$ 1,546
Miscellaneous Supplies		$ 2,759
Service Contracts	☐ If yearly, check here	$ 73
Repair Contracts	☐ If yearly, check here	$ 0
Wages & Salaries (Including Benefits)		$ 61,837
	Sub Total	$ 113,963

OTHER DATA

14. Miscellaneous Fuels	Natural Gas (mcuft)		mcuft	$/mcuft	0	Cost	$
	Propane (mcuft) [gal x 0.0894=mcuft]		mcuft	$/mcuft	0	Cost	$
	Total Gas mcuft	0		Total Gas Cost			$ 0
	Oil (gal)	0	gal	$/gal	0	Cost	$ 0
15. Facility Electric	Generated	4,750	kWh				
	Total Purchased	480,120	kWh	Total Electric Cost			$ 43,852
	Billing Demand	875	KW	$/kWh			$ 0.091
	Load Factor	0.75	hr				

16. Sewage	Total Quantity Sewage ☐ If No Meter, check here 2,882 mgal	Cost of Sewage Plant Operation (Including wages & benefits)		$ 0
		Sewage Charges Paid to Municipal Authority		$ 0
		$/mgal 0	Total Sewage Cost	$ 0

17. Comments	18. Water ☐ If No Meter, check here	Total Used	$/mgal	
#16 sewage paid quarterly.		3,753 mgal	3.65 Total	$ 13,709
			Grand Total	$ 171,525

Signature

Kolyn Kahley Date 8/31/15

Approved

Date

Revised 2/19/07

MONTHLY UTILITIES USAGE REPORT

Facility	Selinsgrove Center	Date (Month and Year of Report)	May-15
Total Facility Square Feet	987,572	Total Vacant Square Feet *(DPW only)*	253,199
Total Facility Occupied Square Feet *(DPW only)*	707,652	Total Leased Square Feet *(DPW only)*	26,721
Residents:	246	Staff:	833

BOILER PLANT DATA & COSTS

1. Boiler Operating Pressure	175 psig	4. Makeup %	26.98%
2. Average Feedwater Temp.	220 ^{0}F	5. Peak Steam	9,500
3. Makeup Water Used (lbs) ☐ If no meter, check here	1,383,606 lb	6. Degree Days	64 HDD 162 CDD

	Coal	Gas (or Purchased Steam)	Oil	Total
Type of Coal ☑ Anthracite ☐ Bituminous				
7. Steam Produced (or Purchased)	1,233,829 lb	3,895,177 lb	lb	5,129,006
8. Fuel Consumed	88 ton	4,374 mcf	gal	
9. Evaporation (col.7 ÷ col. 8)	7.01 lb/lb	891 lb/mcuft	No Oil lb/gal	
10. Unit Fuel Cost	93.19 $/ton	5.09 $/mcuft	$/gal	
11. Fuel (or Steam) Cost	8,201 $	22,267 $	No Oil $	$
12. Fuel (or Steam) Cost per mlb Steam	6.65 $/mlb	5.72 $/mlb	No Oil $/mlb	$ 30,467

13. Parts Used	$	625
Miscellaneous Supplies	$	1,595
Service Contracts ☐ If yearly, check here	$	34
Repair Contracts ☐ If yearly, check here	$	2,572
Wages & Salaries (Including Benefits)	$	94,966
Sub Total	$	130,259

OTHER DATA

14. Miscellaneous Fuels	Natural Gas (mcuft)		mcuft	$/mcuft	0	Cost	$
	Propane (mcuft) [gal x 0.0894=mcuft]		mcuft	$/mcuft	0	Cost	$
	Total Gas mcuft	0		Total Gas Cost			$ 0
	Oil (gal)	244	gal	$/gal	2.14	Cost	$ 522
15. Facility Electric	Generated	0	kWh				
	Total Purchased	503,080	kWh	Total Electric Cost			$ 45,998
	Billing Demand	1,161	KW	$/kWh			$ 0.091
	Load Factor	0.59	hr				

16. Sewage	Total Quantity Sewage ☐ If No Meter, check here 2,010 mgal	Cost of Sewage Plant Operation (Including wages & benefits)		$ 0
		Sewage Charges Paid to Municipal Authority		$ 0
		$/mgal 0	Total Sewage Cost	$ 0

17. Comments

#16 sewage paid quarterly.

18. Water ☐ If No Meter, check here	Total Used 4,276 mgal	$/mgal 2.56	Total	$ 10,966
			Grand Total	$ 187,745

Signature: Kolyn Kahley Date: 8/31/15

Approved: Date:

Revised 2/19/07

MONTHLY UTILITIES USAGE REPORT

Facility	Selinsgrove Center	Date (Month and Year of Report)	Jun-15
Total Facility Square Feet	987,572	Total Vacant Square Feet *(DPW only)*	253,199
Total Facility Occupied Square Feet *(DPW only)*	707,652	Total Leased Square Feet *(DPW only)*	26,721
Residents:	247	Staff:	820

BOILER PLANT DATA & COSTS

1. Boiler Operating Pressure	90 psig	4. Makeup %	28.92%
2. Average Feedwater Temp.	220 ^{0}F	5. Peak Steam	7,500
3. Makeup Water Used (lbs) ☐ If no meter, check here	1,263,510 lb	6. Degree Days	14 HDD / 228 CDD

Type of Coal ☑ Anthracite ☐ Bituminous	Coal	Gas (or Purchased Steam)	Oil	Total
7. Steam Produced (or Purchased)	0 lb	4,368,708 lb	lb	4,368,708
8. Fuel Consumed	0 ton	4,921 mcf	gal	
9. Evaporation (col.7 ÷ col. 8)	#DIV/0! lb/lb	888 lb/mcuft	No Oil lb/gal	
10. Unit Fuel Cost	0.00 $/ton	4.65 $/mcuft	$/gal	
11. Fuel (or Steam) Cost	0 $	22,893 $	No Oil $	$
12. Fuel (or Steam) Cost per mlb Steam	#DIV/0! $/mlb	5.24 $/mlb	No Oil $/mlb	$ 22,893

13. Parts Used		$ 562
Miscellaneous Supplies		$ 2,696
Service Contracts	☐ If yearly, check here	$ 6,200
Repair Contracts	☐ If yearly, check here	$
Wages & Salaries (Including Benefits)		$ 94,966
	Sub Total	$ 127,317

OTHER DATA

14. Miscellaneous Fuels	Natural Gas (mcuft)		mcuft	$/mcuft	0	Cost	$
	Propane (mcuft) [gal x 0.0894=mcuft]		mcuft	$/mcuft	0	Cost	$
	Total Gas mcuft	0		Total Gas Cost			$ 0
	Oil (gal)		gal	$/gal	0	Cost	$
15. Facility Electric	Generated	0	kWh				
	Total Purchased	550,880	kWh	Total Electric Cost			$ 48,791
	Billing Demand	1,118	KW	$/kWh			$ 0.089
	Load Factor	0.68	hr				

16. Sewage	Total Quantity Sewage ☐ If No Meter, check here	1,671 mgal	Cost of Sewage Plant Operation (Including wages & benefits)		$ 0
			Sewage Charges Paid to Municipal Authority		$ 61,821
		$/mgal 37.00	Total Sewage Cost		$ 61,821

17. Comments	18. Water ☐ If No Meter, check here	Total Used	$/mgal	
#16 sewage paid quarterly.		3,164 mgal	4.34 Total	$ 13,733
			Grand Total	$ 251,662

Signature			
Kolyn Kahley		Date	8/31/15
Approved			
		Date	

Revised 2/19/07

MONTHLY UTILITIES USAGE REPORT

Facility	Selinsgrove Center	Date (Month and Year of Report)	Jul-15
Total Facility Square Feet	987,572	Total Vacant Square Feet *(DPW only)*	253,199
Total Facility Occupied Square Feet *(DPW only)*	707,652	Total Leased Square Feet *(DPW only)*	26,721
Residents:	245	Staff:	816

BOILER PLANT DATA & COSTS

1. Boiler Operating Pressure	90 psig	4. Makeup %	29.79%
2. Average Feedwater Temp.	220 ^{0}F	5. Peak Steam	6,500
3. Makeup Water Used (lbs) ☐ If no meter, check here	1,276,020 lb	6. Degree Days	0 HDD 315 CDD

Type of Coal ☑ Anthracite ☐ Bituminous	Coal	Gas (or Purchased Steam)	Oil	Total
7. Steam Produced (or Purchased)	0 lb	4,283,585 lb	lb	4,283,585
8. Fuel Consumed	0 ton	4,851 mcf	gal	
9. Evaporation (col.7 ÷ col. 8)	#DIV/0! lb/lb	883 lb/mcuft	No Oil lb/gal	
10. Unit Fuel Cost	0.00 $/ton	4.87 $/mcuft	$/gal	
11. Fuel (or Steam) Cost	0 $	23,647 $	No Oil $	$
12. Fuel (or Steam) Cost per mlb Steam	#DIV/0! $/mlb	5.52 $/mlb	No Oil $/mlb	$ 23,647

13. Parts Used	$	128
Miscellaneous Supplies	$	410
Service Contracts ☐ If yearly, check here	$	
Repair Contracts ☐ If yearly, check here	$	
Wages & Salaries (Including Benefits)	$	58,676
Sub Total	$	82,861

OTHER DATA

14. Miscellaneous Fuels	Natural Gas (mcuft)		mcuft	$/mcuft	0	Cost	$
	Propane (mcuft) [gal x 0.0894=mcuft]		mcuft	$/mcuft	0	Cost	$
	Total Gas mcuft	0		Total Gas Cost			$ 0
	Oil (gal)		gal	$/gal	0	Cost	$
15. Facility Electric	Generated	0	kWh				
	Total Purchased	613,800	kWh	Total Electric Cost			$ 53,038
	Billing Demand	1,135	KW	$/kWh			$ 0.086
	Load Factor	0.74	hr				

16. Sewage	Total Quantity Sewage ☐ If No Meter, check here 2,684 mgal	Cost of Sewage Plant Operation (Including wages & benefits)		$ 0
		Sewage Charges Paid to Municipal Authority		$ 0
		$/mgal 0	Total Sewage Cost	$ 0

17. Comments

#16 sewage paid quarterly.

18. Water ☐ If No Meter, check here	Total Used 2,085 mgal	$/mgal 3.63	Total	$ 7,574
			Grand Total	$ 143,473

Signature

Kolyn Kahley — Date 12/31/15

Approved — Date

Revised 2/19/07

MONTHLY UTILITIES USAGE REPORT

Facility	Selinsgrove Center	Date (Month and Year of Report)	Aug-15
Total Facility Square Feet	987,572	Total Vacant Square Feet *(DPW only)*	253,199
Total Facility Occupied Square Feet *(DPW only)*	707,652	Total Leased Square Feet *(DPW only)*	26,721
Residents:	243	Staff:	813

BOILER PLANT DATA & COSTS

1. Boiler Operating Pressure	90 psig	4. Makeup %	20.06%
2. Average Feedwater Temp.	220 ^{0}F	5. Peak Steam	6,000
3. Makeup Water Used (lbs) ☐ If no meter, check here	768,114 lb	6. Degree Days	0 HDD 218 CDD

Type of Coal ☑ Anthracite ☐ Bituminous	Coal	Gas (or Purchased Steam)	Oil	Total
7. Steam Produced (or Purchased)	0 lb	3,828,446 lb	lb	3,828,446
8. Fuel Consumed	0 ton	4,297 mcf	gal	
9. Evaporation (col.7 ÷ col. 8)	#DIV/0! lb/lb	891 lb/mcuft	No Oil lb/gal	
10. Unit Fuel Cost	0.00 $/ton	4.80 $/mcuft	$/gal	
11. Fuel (or Steam) Cost	0 $	20,622 $	No Oil $	$
12. Fuel (or Steam) Cost per mlb Steam	#DIV/0! $/mlb	5.39 $/mlb	No Oil $/mlb	$ 20,622

13. Parts Used		$ 274
Miscellaneous Supplies		$ 277
Service Contracts	☐ If yearly, check here	$
Repair Contracts	☐ If yearly, check here	$
Wages & Salaries (Including Benefits)		$ 58,642
	Sub Total	$ 79,815

OTHER DATA

14. Miscellaneous Fuels	Natural Gas (mcuft)		mcuft	$/mcuft	0	Cost	$
	Propane (mcuft) [gal x 0.0894=mcuft]		mcuft	$/mcuft	0	Cost	$
	Total Gas mcuft	0		Total Gas Cost			$ 0
	Oil (gal)		gal	$/gal	0	Cost	$
15. Facility Electric	Generated	0	kWh				
	Total Purchased	604,800	kWh	Total Electric Cost			$ 52,793
	Billing Demand	1,248	KW	$/kWh			$ 0.087
	Load Factor	0.66	hr				

16. Sewage	Total Quantity Sewage ☐ If No Meter, check here 1,308 mgal	Cost of Sewage Plant Operation (Including wages & benefits)		$ 0
		Sewage Charges Paid to Municipal Authority		$ 0
		$/mgal 0	Total Sewage Cost	$ 0

17. Comments	18. Water ☐ If No Meter, check here	Total Used	$/mgal		
#16 sewage paid quarterly.		1,762 mgal	3.27	Total	$ 5,759
				Grand Total	$ 138,367
	Signature				
	Kolyn Kahley		Date	12/31/15	
	Approved				
			Date		

Revised 2/19/07

MONTHLY UTILITIES USAGE REPORT

Facility	Selinsgrove Center	Date (Month and Year of Report)	Sep-15
Total Facility Square Feet	987,572	Total Vacant Square Feet *(DPW only)*	253,199
Total Facility Occupied Square Feet *(DPW only)*	707,652	Total Leased Square Feet *(DPW only)*	26,721
Residents:	241	Staff:	815

BOILER PLANT DATA & COSTS

1. Boiler Operating Pressure	90 psig	4. Makeup %	18.78%
2. Average Feedwater Temp.	220 ^{0}F	5. Peak Steam	7,000
3. Makeup Water Used (lbs) ☐ If no meter, check here	707,232 lb	6. Degree Days	30 HDD 150 CDD

Type of Coal ☑ Anthracite ☐ Bituminous	Coal	Gas (or Purchased Steam)	Oil	Total
7. Steam Produced (or Purchased)	0 lb	3,766,689 lb	lb	3,766,689
8. Fuel Consumed	0 ton	4,230 mcf	gal	
9. Evaporation (col.7 ÷ col. 8)	#DIV/0! lb/lb	891 lb/mcuft	No Oil lb/gal	
10. Unit Fuel Cost	0.00 $/ton	5.03 $/mcuft	$/gal	
11. Fuel (or Steam) Cost	0 $	21,267 $	No Oil $	$
12. Fuel (or Steam) Cost per mlb Steam	#DIV/0! $/mlb	5.65 $/mlb	No Oil $/mlb	$ 21,267

13. Parts Used		$ 8,489
Miscellaneous Supplies		$ 693
Service Contracts	☐ If yearly, check here	$
Repair Contracts	☐ If yearly, check here	$ 1,425
Wages & Salaries (Including Benefits)		$ 59,833
	Sub Total	$ 91,707

OTHER DATA

14. Miscellaneous Fuels	Natural Gas (mcuft)		mcuft	$/mcuft	0	Cost	$
	Propane (mcuft) [gal x 0.0894=mcuft]		mcuft	$/mcuft	0	Cost	$
	Total Gas mcuft	0		Total Gas Cost			$ 0
	Oil (gal)		gal	$/gal	0	Cost	$
15. Facility Electric	Generated	0	kWh				
	Total Purchased	565,360	kWh	Total Electric Cost			$ 50,053
	Billing Demand	1,243	KW	$/kWh			$ 0.089
	Load Factor	0.62	hr				

16. Sewage	Total Quantity Sewage ☐ If No Meter, check here 812 mgal	Cost of Sewage Plant Operation (Including wages & benefits)		$ 0
		Sewage Charges Paid to Municipal Authority		$ 61,821
		$/mgal 76.13	Total Sewage Cost	$ 61,821

17. Comments	18. Water ☐ If No Meter, check here	Total Used	$/mgal	
#16 sewage paid quarterly.		2,112 mgal	4.34 Total	$ 9,171
			Grand Total	$ 212,752
	Signature			
	Kolyn Kahley		Date	12/31/15
	Approved			
			Date	

Revised 2/19/07

MONTHLY UTILITIES USAGE REPORT

Facility	Selinsgrove Center	Date (Month and Year of Report)	Oct-15
Total Facility Square Feet	987,572	Total Vacant Square Feet *(DPW only)*	253,199
Total Facility Occupied Square Feet *(DPW only)*	707,652	Total Leased Square Feet *(DPW only)*	26,721
Residents:	239	Staff:	799

BOILER PLANT DATA & COSTS

1. Boiler Operating Pressure	185 psig	4. Makeup %	18.95%
2. Average Feedwater Temp.	220 ^{0}F	5. Peak Steam	12,500
3. Makeup Water Used (lbs) ☐ If no meter, check here	1,143,414 lb	6. Degree Days	392 HDD 0 CDD

Type of Coal ☑ Anthracite ☐ Bituminous	Coal	Gas (or Purchased Steam)	Oil	Total
7. Steam Produced (or Purchased)	3,841,866 lb	2,191,994 lb	lb	6,033,860
8. Fuel Consumed	267 ton	2,487 mcf	gal	
9. Evaporation (col.7 ÷ col. 8)	7.19 lb/lb	881 lb/mcuft	No Oil lb/gal	
10. Unit Fuel Cost	120.10 $/ton	4.65 $/mcuft	$/gal	
11. Fuel (or Steam) Cost	32,067 $	11,574 $	No Oil $	$
12. Fuel (or Steam) Cost per mlb Steam	8.35 $/mlb	5.28 $/mlb	No Oil $/mlb	$ 43,641

13. Parts Used	$	2,521
Miscellaneous Supplies	$	165
Service Contracts ☐ If yearly, check here	$	784
Repair Contracts ☐ If yearly, check here	$	3,520
Wages & Salaries (Including Benefits)	$	92,428
Sub Total	$	143,059

OTHER DATA

14. Miscellaneous Fuels	Natural Gas (mcuft)		mcuft	$/mcuft	0	Cost	$
	Propane (mcuft) [gal x 0.0894=mcuft]		mcuft	$/mcuft	0	Cost	$
	Total Gas mcuft	0		Total Gas Cost			$ 0
	Oil (gal)		gal	$/gal	0	Cost	$
15. Facility Electric	Generated	0	kWh				
	Total Purchased	487,880	kWh	Total Electric Cost			$ 44,010
	Billing Demand	921	KW	$/kWh			$ 0.090
	Load Factor	0.73	hr				

16. Sewage	Total Quantity Sewage ☐ If No Meter, check here 1,354 mgal	Cost of Sewage Plant Operation (Including wages & benefits)		$ 0
		Sewage Charges Paid to Municipal Authority		$ 0
		$/mgal 0	Total Sewage Cost	$ 0

17. Comments

#16 sewage paid quarterly.

18. Water ☐ If No Meter, check here	Total Used 1,910 mgal	$/mgal 5.53	Total	$ 10,557
			Grand Total	$ 197,626

Signature

Kolyn Kahley — Date 3/31/16

Approved — Date

Revised 2/19/07

MONTHLY UTILITIES USAGE REPORT

Facility	Selinsgrove Center	Date (Month and Year of Report)	Nov-15
Total Facility Square Feet	987,572	Total Vacant Square Feet *(DPW only)*	253,199
Total Facility Occupied Square Feet *(DPW only)*	707,652	Total Leased Square Feet *(DPW only)*	26,721
Residents:	237	Staff:	812

BOILER PLANT DATA & COSTS

1. Boiler Operating Pressure	185 psig	4. Makeup %	18.62%
2. Average Feedwater Temp.	220 ^{0}F	5. Peak Steam	15,500
3. Makeup Water Used (lbs) ☐ If no meter, check here	1,281,024 lb	6. Degree Days	526 HDD / 0 CDD

Type of Coal ☑ Anthracite ☐ Bituminous	Coal	Gas (or Purchased Steam)	Oil	Total
7. Steam Produced (or Purchased)	6,879,309 lb	0 lb	lb	6,879,309
8. Fuel Consumed	481 ton	0 mcf	gal	
9. Evaporation (col.7 ÷ col. 8)	7.15 lb/lb	#DIV/0! lb/mcuft	No Oil lb/gal	
10. Unit Fuel Cost	120.10 $/ton	#DIV/0! $/mcuft	$/gal	
11. Fuel (or Steam) Cost	57,768 $	519 $	No Oil $	$
12. Fuel (or Steam) Cost per mlb Steam	8.40 $/mlb	#DIV/0! $/mlb	No Oil $/mlb	$ 58,288

13. Parts Used		$ 11,008
Miscellaneous Supplies		$ 146
Service Contracts	☐ If yearly, check here	$ 101
Repair Contracts	☐ If yearly, check here	$ 0
Wages & Salaries (Including Benefits)		$ 64,302
	Sub Total	$ 133,845

OTHER DATA

14. Miscellaneous Fuels	Natural Gas (mcuft)		mcuft	$/mcuft	0	Cost	$
	Propane (mcuft) [gal x 0.0894=mcuft]		mcuft	$/mcuft	0	Cost	$
	Total Gas mcuft	0		Total Gas Cost			$ 0
	Oil (gal)	150	gal	$/gal	1.75	Cost	$ 262
15. Facility Electric	Generated	0	kWh				
	Total Purchased	465,280	kWh	Total Electric Cost			$ 44,189
	Billing Demand	864	KW	$/kWh			$ 0.095
	Load Factor	0.74	hr				

16. Sewage	Total Quantity Sewage ☐ If No Meter, check here: 1,362 mgal	Cost of Sewage Plant Operation (Including wages & benefits)		$ 0
		Sewage Charges Paid to Municipal Authority		$ 0
		$/mgal 0	Total Sewage Cost	$ 0

17. Comments	18. Water ☐ If No Meter, check here	Total Used	$/mgal	
#16 sewage paid quarterly.		1,690 mgal	3.64 Total	$ 6,158
			Grand Total	$ 184,454

Signature			
Kolyn Kahley		Date	3/31/16
Approved			
		Date	

Revised 2/19/07

MONTHLY UTILITIES USAGE REPORT

Facility	Selinsgrove Center	Date (Month and Year of Report)	Dec-15
Total Facility Square Feet	987,572	Total Vacant Square Feet *(DPW only)*	253,199
Total Facility Occupied Square Feet *(DPW only)*	707,652	Total Leased Square Feet *(DPW only)*	26,721
Residents:	236	Staff:	806

BOILER PLANT DATA & COSTS

1. Boiler Operating Pressure	185 psig	4. Makeup %	17.26%
2. Average Feedwater Temp.	220 ^{0}F	5. Peak Steam	16,000
3. Makeup Water Used (lbs) ☐ If no meter, check here	1,601,280 lb	6. Degree Days	702 HDD 0 CDD

	Coal	Gas (or Purchased Steam)	Oil	Total
Type of Coal ☑ Anthracite ☐ Bituminous				
7. Steam Produced (or Purchased)	9,278,106 lb	0 lb	lb	9,278,106
8. Fuel Consumed	667 ton	0 mcf	gal	
9. Evaporation (col.7 ÷ col. 8)	6.96 lb/lb	#DIV/0! lb/mcuft	No Oil lb/gal	
10. Unit Fuel Cost	119.80 $/ton	#DIV/0! $/mcuft	$/gal	
11. Fuel (or Steam) Cost	79,907 $	521 $	No Oil $	$
12. Fuel (or Steam) Cost per mlb Steam	8.61 $/mlb	#DIV/0! $/mlb	No Oil $/mlb	$ 80,427

13. Parts Used	$	71
Miscellaneous Supplies	$	85
Service Contracts ☐ If yearly, check here	$	140
Repair Contracts ☐ If yearly, check here	$	0
Wages & Salaries (Including Benefits)	$	62,463
Sub Total	$	143,186

OTHER DATA

14. Miscellaneous Fuels	Natural Gas (mcuft)		mcuft	$/mcuft	0	Cost	$
	Propane (mcuft) [gal x 0.0894=mcuft]		mcuft	$/mcuft	0	Cost	$
	Total Gas mcuft	0		Total Gas Cost			$ 0
	Oil (gal)	342	gal	$/gal	1.56	Cost	$ 534
15. Facility Electric	Generated	0	kWh				
	Total Purchased	475,240	kWh	Total Electric Cost			$ 42,799
	Billing Demand	844	KW	$/kWh			$ 0.090
	Load Factor	0.77	hr				

16. Sewage	Total Quantity Sewage ☐ If No Meter, check here 2,042 mgal	Cost of Sewage Plant Operation (Including wages & benefits)		$ 0
		Sewage Charges Paid to Municipal Authority		$ 61,821
		$/mgal 30.27	Total Sewage Cost	$ 61,821

17. Comments	18. Water ☐ If No Meter, check here	Total Used	$/mgal	
#16 sewage paid quarterly.		2,213 mgal	3.23 Total	$ 7,150
			Grand Total	$ 255,490

Signature			
Kolyn Kahley		Date	3/31/16
Approved			
		Date	

Revised 2/19/07

MONTHLY UTILITIES USAGE REPORT

Facility	Selinsgrove Center	Date (Month and Year of Report)	Jan-14
Total Facility Square Feet	987,572	Total Vacant Square Feet *(DPW only)*	253,653
Total Facility Occupied Square Feet *(DPW only)*	707,652	Total Leased Square Feet *(DPW only)*	26,267
Residents:	267	Staff:	857

BOILER PLANT DATA & COSTS

1. Boiler Operating Pressure	185 psig	4. Makeup %	23.87%
2. Average Feedwater Temp.	220 ^{0}F	5. Peak Steam	23,500
3. Makeup Water Used (lbs) ☐ If no meter, check here	3,258,438 lb	6. Degree Days	1353 HDD / 0 CDD

	Coal	Gas (or Purchased Steam)	Oil	Total
Type of Coal ☑ Anthracite ☐ Bituminous				
7. Steam Produced (or Purchased)	13,651,443 lb	0 lb	lb	13,651,443
8. Fuel Consumed	937 ton	0 mcf	gal	
9. Evaporation (col.7 ÷ col. 8)	7.28 lb/lb	#DIV/0! lb/mcuft	No Oil lb/gal	
10. Unit Fuel Cost	96.49 $/ton	#DIV/0! $/mcuft	$/gal	
11. Fuel (or Steam) Cost	90,411 $	512 $	No Oil $	$
12. Fuel (or Steam) Cost per mlb Steam	6.62 $/mlb	#DIV/0! $/mlb	No Oil $/mlb	$ 90,923

13. Parts Used	$	22
Miscellaneous Supplies	$	3,639
Service Contracts ☐ If yearly, check here	$	68
Repair Contracts ☐ If yearly, check here	$	0
Wages & Salaries (Including Benefits)	$	68,818
Sub Total	$	163,470

OTHER DATA

14. Miscellaneous Fuels	Natural Gas (mcuft)		mcuft	$/mcuft	0	Cost	$
	Propane (mcuft) [gal x 0.0894=mcuft]		mcuft	$/mcuft	0	Cost	$
	Total Gas mcuft	0		Total Gas Cost			$ 0
	Oil (gal)	624	gal	$/gal	3.40	Cost	$ 2,119
15. Facility Electric	Generated	62,100	kWh				
	Total Purchased	486,880	kWh	Total Electric Cost			$ 14,309
	Billing Demand	852	KW	$/kWh			$ 0.029
	Load Factor	0.78	hr				

16. Sewage	Total Quantity Sewage ☐ If No Meter, check here	3,141 mgal	Cost of Sewage Plant Operation (Including wages & benefits)		$ 0
			Sewage Charges Paid to Municipal Authority		$ 0
		$/mgal 0	Total Sewage Cost		$ 0

17. Comments	18. Water ☐ If No Meter, check here	Total Used	$/mgal	
#16 sewage paid quarterly.		4,343 mgal	1.21 Total	$ 5,247
			Grand Total	$ 185,145

Signature

Kolyn Kahley — Date 4/25/14

Approved — Date

Revised 2/19/07

MONTHLY UTILITIES USAGE REPORT

Facility	Selinsgrove Center	Date (Month and Year of Report)	Feb-14
Total Facility Square Feet	987,572	Total Vacant Square Feet *(DPW only)*	253,653
Total Facility Occupied Square Feet *(DPW only)*	707,652	Total Leased Square Feet *(DPW only)*	26,267
Residents:	264	Staff:	869

BOILER PLANT DATA & COSTS

1. Boiler Operating Pressure	185 psig	4. Makeup %	27.68%
2. Average Feedwater Temp.	220 ^{0}F	5. Peak Steam	21,500
3. Makeup Water Used (lbs) ☐ If no meter, check here	3,252,600 lb	6. Degree Days	1120 HDD 0 CDD

	Coal	Gas (or Purchased Steam)	Oil	Total
Type of Coal ☑ Anthracite ☐ Bituminous				
7. Steam Produced (or Purchased)	11,751,267 lb	0 lb	lb	11,751,267
8. Fuel Consumed	845 ton	0 mcf	gal	
9. Evaporation (col.7 ÷ col. 8)	6.95 lb/lb	#DIV/0! lb/mcuft	No Oil lb/gal	
10. Unit Fuel Cost	97.69 $/ton	#DIV/0! $/mcuft	$/gal	
11. Fuel (or Steam) Cost	82,548 $	512 $	No Oil $	$
12. Fuel (or Steam) Cost per mlb Steam	7.02 $/mlb	#DIV/0! $/mlb	No Oil $/mlb	$ 83,060

13. Parts Used	$	2,693
Miscellaneous Supplies	$	3,232
Service Contracts ☐ If yearly, check here	$	73
Repair Contracts ☐ If yearly, check here	$	0
Wages & Salaries (Including Benefits)	$	67,018
Sub Total	$	156,076

OTHER DATA

14. Miscellaneous Fuels	Natural Gas (mcuft)		mcuft	$/mcuft	0	Cost	$
	Propane (mcuft) [gal x 0.0894=mcuft]		mcuft	$/mcuft	0	Cost	$
	Total Gas mcuft	0		Total Gas Cost			$ 0
	Oil (gal)	672	gal	$/gal	3.59	Cost	$ 2,414
15. Facility Electric	Generated	58,210	kWh				
	Total Purchased	390,000	kWh	Total Electric Cost			$ 28,957
	Billing Demand	797	KW	$/kWh			$ 0.074
	Load Factor	0.67	hr				

16. Sewage	Total Quantity Sewage ☐ If No Meter, check here 2,791 mgal	Cost of Sewage Plant Operation (Including wages & benefits)		$ 0
		Sewage Charges Paid to Municipal Authority		$ 0
		$/mgal 0	Total Sewage Cost	$ 0

17. Comments	18. Water ☐ If No Meter, check here	Total Used	$/mgal		
#16 sewage paid quarterly.		4,311 mgal	1.97	Total	$ 8,475
				Grand Total	$ 195,922
	Signature				
	Kolyn Kahley		Date	5/8/14	
	Approved				
			Date		

Revised 2/19/07

MONTHLY UTILITIES USAGE REPORT

Facility	Selinsgrove Center	Date (Month and Year of Report)	Mar-14
Total Facility Square Feet	987,572	Total Vacant Square Feet *(DPW only)*	253,653
Total Facility Occupied Square Feet *(DPW only)*	707,652	Total Leased Square Feet *(DPW only)*	26,267
Residents:	263	Staff:	869

BOILER PLANT DATA & COSTS

1. Boiler Operating Pressure	185 psig	4. Makeup %	24.64%
2. Average Feedwater Temp.	220 ^{0}F	5. Peak Steam	21,500
3. Makeup Water Used (lbs) ☐ If no meter, check here	2,830,596 lb	6. Degree Days	992 HDD 0 CDD

Type of Coal ☑ Anthracite ☐ Bituminous	Coal	Gas (or Purchased Steam)	Oil	Total
7. Steam Produced (or Purchased)	11,489,641 lb	0 lb	lb	11,489,641
8. Fuel Consumed	815 ton	0 mcf	gal	
9. Evaporation (col.7 ÷ col. 8)	7.05 lb/lb	#DIV/0! lb/mcuft	No Oil lb/gal	
10. Unit Fuel Cost	97.39 $/ton	#DIV/0! $/mcuft	$/gal	
11. Fuel (or Steam) Cost	79,373 $	512 $	No Oil $	$
12. Fuel (or Steam) Cost per mlb Steam	6.91 $/mlb	#DIV/0! $/mlb	No Oil $/mlb	$ 79,885

13. Parts Used	$	2,318
Miscellaneous Supplies	$	4,235
Service Contracts ☐ If yearly, check here	$	85
Repair Contracts ☐ If yearly, check here	$	0
Wages & Salaries (Including Benefits)	$	67,919
Sub Total	$	154,442

OTHER DATA

14. Miscellaneous Fuels	Natural Gas (mcuft)		mcuft	$/mcuft	0	Cost	$
	Propane (mcuft) [gal x 0.0894=mcuft]		mcuft	$/mcuft	0	Cost	$
	Total Gas mcuft	0		Total Gas Cost			$ 0
	Oil (gal)	747	gal	$/gal	3.26	Cost	$ 2,433
15. Facility Electric	Generated	56,990	kWh				
	Total Purchased	362,680	kWh	Total Electric Cost			$ 29,593
	Billing Demand	768	KW	$/kWh			$ 0.082
	Load Factor	0.65	hr				

16. Sewage	Total Quantity Sewage ☐ If No Meter, check here 2,466 mgal	Cost of Sewage Plant Operation (Including wages & benefits)		$ 0
		Sewage Charges Paid to Municipal Authority		$ 61,821
		$/mgal 25.07	Total Sewage Cost	$ 61,821

17. Comments	18. Water ☐ If No Meter, check here	Total Used	$/mgal		
#16 sewage paid quarterly.		4,571 mgal	1.78	Total	$ 8,139
				Grand Total	$ 256,428
	Signature				
	Kolyn Kahley		Date	5/8/14	
	Approved				
			Date		

Revised 2/19/07

MONTHLY UTILITIES USAGE REPORT

Facility	Selinsgrove Center	Date (Month and Year of Report)	Apr-14
Total Facility Square Feet	987,572	Total Vacant Square Feet *(DPW only)*	253,653
Total Facility Occupied Square Feet *(DPW only)*	707,652	Total Leased Square Feet *(DPW only)*	26,267
Residents: 262		Staff: 863	

BOILER PLANT DATA & COSTS

1. Boiler Operating Pressure	185 psig	4. Makeup %	24.47%
2. Average Feedwater Temp.	220 ^{0}F	5. Peak Steam	14,500
3. Makeup Water Used (lbs) ☐ If no meter, check here	1,774,752 lb	6. Degree Days	480 HDD 3 CDD

Type of Coal ☑ Anthracite ☐ Bituminous	Coal	Gas (or Purchased Steam)	Oil	Total
7. Steam Produced (or Purchased)	7,252,223 lb	0 lb	lb	7,252,223
8. Fuel Consumed	507 ton	0 mcf	gal	
9. Evaporation (col.7 ÷ col. 8)	7.15 lb/lb	0 lb/mcuft	No Oil lb/gal	
10. Unit Fuel Cost	96.49 $/ton	1,428.21 $/mcuft	$/gal	
11. Fuel (or Steam) Cost	48,920 $	614 $	No Oil $	$
12. Fuel (or Steam) Cost per mlb Steam	6.75 $/mlb	#DIV/0! $/mlb	No Oil $/mlb	$ 49,535

13. Parts Used	$	3,788
Miscellaneous Supplies	$	3,415
Service Contracts ☐ If yearly, check here	$	68
Repair Contracts ☐ If yearly, check here	$	0
Wages & Salaries (Including Benefits)	$	64,483
Sub Total	$	121,288

OTHER DATA

14. Miscellaneous Fuels	Natural Gas (mcuft)		mcuft	$/mcuft	0	Cost	$
	Propane (mcuft) [gal x 0.0894=mcuft]		mcuft	$/mcuft	0	Cost	$
	Total Gas mcuft	0		Total Gas Cost			$ 0
	Oil (gal)	0	gal	$/gal	0	Cost	$ 0
15. Facility Electric	Generated	8,560	kWh				
	Total Purchased	479,760	kWh	Total Electric Cost			$ 38,317
	Billing Demand	890	KW	$/kWh			$ 0.080
	Load Factor	0.74	hr				

16. Sewage	Total Quantity Sewage ☐ If No Meter, check here 2,947 mgal	Cost of Sewage Plant Operation (Including wages & benefits)		$ 0
		Sewage Charges Paid to Municipal Authority		$ 0
		$/mgal 0	Total Sewage Cost	$ 0

17. Comments	18. Water ☐ If No Meter, check here	Total Used	$/mgal	
#16 sewage paid quarterly.		3,839 mgal	1.37 Total	$ 5,248
			Grand Total	$ 164,853

Signature

Kolyn Kahley Date 7/31/14

Approved

Date

Revised 2/19/07

MONTHLY UTILITIES USAGE REPORT

Facility	Selinsgrove Center	Date (Month and Year of Report)	May-14
Total Facility Square Feet	987,572	Total Vacant Square Feet *(DPW only)*	253,653
Total Facility Occupied Square Feet *(DPW only)*	707,652	Total Leased Square Feet *(DPW only)*	26,267
Residents:	261	Staff:	859

BOILER PLANT DATA & COSTS

1. Boiler Operating Pressure	185 psig	4. Makeup %	24.65%
2. Average Feedwater Temp.	220 ^{0}F	5. Peak Steam	10,500
3. Makeup Water Used (lbs) ☐ If no meter, check here	1,256,838 lb	6. Degree Days	129 HDD 55 CDD

Type of Coal ☑ Anthracite ☐ Bituminous	Coal	Gas (or Purchased Steam)	Oil	Total
7. Steam Produced (or Purchased)	903,426 lb	4,194,932 lb	lb	5,098,358
8. Fuel Consumed	63 ton	4,618 mcf	gal	
9. Evaporation (col.7 ÷ col. 8)	7.17 lb/lb	908 lb/mcuft	No Oil lb/gal	
10. Unit Fuel Cost	96.49 $/ton	6.46 $/mcuft	$/gal	
11. Fuel (or Steam) Cost	6,079 $	29,831 $	No Oil $	$
12. Fuel (or Steam) Cost per mlb Steam	6.73 $/mlb	7.11 $/mlb	No Oil $/mlb	$ 35,910

13. Parts Used		$ 24,987
Miscellaneous Supplies		$ 266
Service Contracts	☐ If yearly, check here	$ 51
Repair Contracts	☐ If yearly, check here	$ 0
Wages & Salaries (Including Benefits)		$ 99,700
	Sub Total	$ 160,914

OTHER DATA

14. Miscellaneous Fuels	Natural Gas (mcuft)		mcuft	$/mcuft	0	Cost	$
	Propane (mcuft) [gal x 0.0894=mcuft]		mcuft	$/mcuft	0	Cost	$
	Total Gas mcuft	0		Total Gas Cost			$ 0
	Oil (gal)	250	gal	$/gal	3.20	Cost	$ 799
15. Facility Electric	Generated	0	kWh				
	Total Purchased	444,880	kWh	Total Electric Cost			$ 35,893
	Billing Demand	965	KW	$/kWh			$ 0.081
	Load Factor	0.63	hr				

16. Sewage	Total Quantity Sewage ☐ If No Meter, check here 3,559 mgal	Cost of Sewage Plant Operation (Including wages & benefits)		$ 0
		Sewage Charges Paid to Municipal Authority		$ 0
		$/mgal 0	Total Sewage Cost	$ 0

17. Comments	18. Water ☐ If No Meter, check here	Total Used	$/mgal	
#16 sewage paid quarterly.		3,735 mgal	2.73 Total	$ 10,189
			Grand Total	$ 207,795

Signature			
Kolyn Kahley		Date	8/5/14
Approved			
		Date	

Revised 2/19/07

MONTHLY UTILITIES USAGE REPORT

Facility	Selinsgrove Center	Date (Month and Year of Report)	Jun-14
Total Facility Square Feet	987,572	Total Vacant Square Feet *(DPW only)*	253,653
Total Facility Occupied Square Feet *(DPW only)*	707,652	Total Leased Square Feet *(DPW only)*	26,267
Residents:	257	Staff:	848

BOILER PLANT DATA & COSTS

1. Boiler Operating Pressure	90 psig	4. Makeup %	24.66%
2. Average Feedwater Temp.	220 ^{0}F	5. Peak Steam	7,000
3. Makeup Water Used (lbs) ☐ If no meter, check here	1,002,468 lb	6. Degree Days	3 HDD 217 CDD

Type of Coal ☑ Anthracite ☐ Bituminous	Coal	Gas (or Purchased Steam)	Oil	Total
7. Steam Produced (or Purchased)	0 lb	4,065,188 lb	lb	4,065,188
8. Fuel Consumed	0 ton	4,543 mcf	gal	
9. Evaporation (col.7 ÷ col. 8)	#DIV/0! lb/lb	895 lb/mcuft	No Oil lb/gal	
10. Unit Fuel Cost	0.00 $/ton	6.48 $/mcuft	$/gal	
11. Fuel (or Steam) Cost	0 $	29,449 $	No Oil $	$
12. Fuel (or Steam) Cost per mlb Steam	#DIV/0! $/mlb	7.24 $/mlb	No Oil $/mlb	$ 29,449

13. Parts Used		$ 10,620
Miscellaneous Supplies		$ 1,426
Service Contracts	☐ If yearly, check here	$ 0
Repair Contracts	☐ If yearly, check here	$ 0
Wages & Salaries (Including Benefits)		$ 63,456
	Sub Total	$ 104,951

OTHER DATA

14. Miscellaneous Fuels	Natural Gas (mcuft)		mcuft	$/mcuft	0	Cost	$
	Propane (mcuft) [gal x 0.0894=mcuft]		mcuft	$/mcuft	0	Cost	$
	Total Gas mcuft	0		Total Gas Cost			$ 0
	Oil (gal)	0	gal	$/gal	0	Cost	$ 0
15. Facility Electric	Generated	0	kWh				
	Total Purchased	504,080	kWh	Total Electric Cost			$ 40,370
	Billing Demand	1,097	KW	$/kWh			$ 0.080
	Load Factor	0.63	hr				

16. Sewage	Total Quantity Sewage ☐ If No Meter, check here 2,292 mgal	Cost of Sewage Plant Operation (Including wages & benefits)		$ 0
		Sewage Charges Paid to Municipal Authority		$ 61,821
		$/mgal 26.97	Total Sewage Cost	$ 61,821

17. Comments	18. Water ☐ If No Meter, check here	Total Used	$/mgal	
#16 sewage paid quarterly.		3,502 mgal	3.02 Total	$ 10,584
			Grand Total	$ 217,726
	Signature			
	Kolyn Kahley		Date	8/5/14
	Approved			
			Date	

Revised 2/19/07

MONTHLY UTILITIES USAGE REPORT

Facility	Selinsgrove Center	Date (Month and Year of Report)	Jul-14
Total Facility Square Feet	987,572	Total Vacant Square Feet *(DPW only)*	253,653
Total Facility Occupied Square Feet *(DPW only)*	707,652	Total Leased Square Feet *(DPW only)*	26,267
Residents:	255	Staff:	843

BOILER PLANT DATA & COSTS

1. Boiler Operating Pressure	90 psig	4. Makeup %	22.79%
2. Average Feedwater Temp.	220 ^{0}F	5. Peak Steam	6,500
3. Makeup Water Used (lbs) ☐ If no meter, check here	922,404 lb	6. Degree Days	0 HDD 283 CDD

	Coal	Gas (or Purchased Steam)	Oil	Total
Type of Coal ☑ Anthracite ☐ Bituminous				
7. Steam Produced (or Purchased)	0 lb	4,047,079 lb	lb	4,047,079
8. Fuel Consumed	0 ton	4,562 mcf	gal	
9. Evaporation (col.7 ÷ col. 8)	#DIV/0! lb/lb	887 lb/mcuft	No Oil lb/gal	
10. Unit Fuel Cost	0.00 $/ton	6.22 $/mcuft	$/gal	
11. Fuel (or Steam) Cost	0 $	28,370 $	No Oil $	$
12. Fuel (or Steam) Cost per mlb Steam	#DIV/0! $/mlb	7.01 $/mlb	No Oil $/mlb	$ 28,370

13. Parts Used	$ 327
Miscellaneous Supplies	$ 4,755
Service Contracts ☐ If yearly, check here	$ 0
Repair Contracts ☐ If yearly, check here	$ 0
Wages & Salaries (Including Benefits)	$ 62,666
Sub Total	$ 96,118

OTHER DATA

14. Miscellaneous Fuels	Natural Gas (mcuft)		mcuft	$/mcuft	0	Cost	$
	Propane (mcuft) [gal x 0.0894=mcuft]		mcuft	$/mcuft	0	Cost	$
	Total Gas mcuft	0		Total Gas Cost			$ 0
	Oil (gal)	0	gal	$/gal	0	Cost	$ 0
15. Facility Electric	Generated	0	kWh				
	Total Purchased	613,880	kWh	Total Electric Cost			$ 48,996
	Billing Demand	1,248	KW	$/kWh			$ 0.080
	Load Factor	0.67	hr				

16. Sewage	Total Quantity Sewage ☐ If No Meter, check here 2,184 mgal	Cost of Sewage Plant Operation (Including wages & benefits)		$ 0
		Sewage Charges Paid to Municipal Authority		$ 0
		$/mgal 0	Total Sewage Cost	$ 0

17. Comments

#16 sewage paid quarterly.

18. Water ☐ If No Meter, check here	Total Used 3,396 mgal	$/mgal 2.16	Total $ 7,341
		Grand Total	$ 152,455

Signature

Kolyn Kahley — Date 11/25/14

Approved — Date

Revised 2/19/07

MONTHLY UTILITIES USAGE REPORT

Facility	Selinsgrove Center	Date (Month and Year of Report)	Aug-14
Total Facility Square Feet	987,572	Total Vacant Square Feet *(DPW only)*	253,653
Total Facility Occupied Square Feet *(DPW only)*	707,652	Total Leased Square Feet *(DPW only)*	26,267
Residents:	255	Staff:	833

BOILER PLANT DATA & COSTS

1. Boiler Operating Pressure	90 psig	4. Makeup %	21.77%
2. Average Feedwater Temp.	220 ^{0}F	5. Peak Steam	8,000
3. Makeup Water Used (lbs) ☐ If no meter, check here	858,186 lb	6. Degree Days	3 HDD 164 CDD

Type of Coal ☑ Anthracite ☐ Bituminous	Coal	Gas (or Purchased Steam)	Oil	Total
7. Steam Produced (or Purchased)	0 lb	3,942,510 lb	lb	3,942,510
8. Fuel Consumed	0 ton	4,444 mcf	gal	
9. Evaporation (col.7 ÷ col. 8)	#DIV/0! lb/lb	887 lb/mcuft	No Oil lb/gal	
10. Unit Fuel Cost	0.00 $/ton	5.87 $/mcuft	$/gal	
11. Fuel (or Steam) Cost	0 $	26,099 $	No Oil $	$
12. Fuel (or Steam) Cost per mlb Steam	#DIV/0! $/mlb	6.62 $/mlb	No Oil $/mlb	$ 26,099

13. Parts Used	$	4,655
Miscellaneous Supplies	$	856
Service Contracts ☐ If yearly, check here	$	0
Repair Contracts ☐ If yearly, check here	$	0
Wages & Salaries (Including Benefits)	$	60,605
Sub Total	$	92,215

OTHER DATA

14. Miscellaneous Fuels	Natural Gas (mcuft)		mcuft	$/mcuft	0	Cost	$
	Propane (mcuft) [gal x 0.0894=mcuft]		mcuft	$/mcuft	0	Cost	$
	Total Gas mcuft	0		Total Gas Cost			$ 0
	Oil (gal)	0	gal	$/gal	0	Cost	$ 0
15. Facility Electric	Generated	0	kWh				
	Total Purchased	518,400	kWh	Total Electric Cost			$ 41,747
	Billing Demand	1,152	KW	$/kWh			$ 0.081
	Load Factor	0.62	hr				

16. Sewage	Total Quantity Sewage ☐ If No Meter, check here 2,107 mgal	Cost of Sewage Plant Operation (Including wages & benefits)		$ 0
		Sewage Charges Paid to Municipal Authority		$ 0
		$/mgal 0	Total Sewage Cost	$ 0

17. Comments

#16 sewage paid quarterly.

18. Water ☐ If No Meter, check here	Total Used 3,688 mgal	$/mgal 2.05	Total	$ 7,577
			Grand Total	$ 141,539

Signature

Kolyn Kahley — Date 11/25/14

Approved — Date

Revised 2/19/07

MONTHLY UTILITIES USAGE REPORT

Facility	Selinsgrove Center	Date (Month and Year of Report)	Sep-14
Total Facility Square Feet	987,572	Total Vacant Square Feet *(DPW only)*	253,653
Total Facility Occupied Square Feet *(DPW only)*	707,652	Total Leased Square Feet *(DPW only)*	26,267
Residents: 254		Staff: 833	

BOILER PLANT DATA & COSTS

1. Boiler Operating Pressure	90 psig	4. Makeup %	19.33%
2. Average Feedwater Temp.	220 ^{0}F	5. Peak Steam	9,500
3. Makeup Water Used (lbs) ☐ If no meter, check here	793,134 lb	6. Degree Days	80 HDD 84 CDD

Type of Coal ☑ Anthracite ☐ Bituminous	Coal	Gas (or Purchased Steam)	Oil	Total
7. Steam Produced (or Purchased)	0 lb	4,103,776 lb	lb	4,103,776
8. Fuel Consumed	0 ton	4,629 mcf	gal	
9. Evaporation (col.7 ÷ col. 8)	#DIV/0! lb/lb	887 lb/mcuft	No Oil lb/gal	
10. Unit Fuel Cost	0.00 $/ton	5.90 $/mcuft	$/gal	
11. Fuel (or Steam) Cost	0 $	27,330 $	No Oil $	$
12. Fuel (or Steam) Cost per mlb Steam	#DIV/0! $/mlb	6.66 $/mlb	No Oil $/mlb	$ 27,330

13. Parts Used		$ 279
Miscellaneous Supplies		$ 2,843
Service Contracts	☐ If yearly, check here	$ 0
Repair Contracts	☐ If yearly, check here	$ 0
Wages & Salaries (Including Benefits)		$ 65,480
	Sub Total	$ 95,932

OTHER DATA

14. Miscellaneous Fuels	Natural Gas (mcuft)		mcuft	$/mcuft	0	Cost	$
	Propane (mcuft) [gal x 0.0894=mcuft]		mcuft	$/mcuft	0	Cost	$
	Total Gas mcuft	0		Total Gas Cost			$ 0
	Oil (gal)	0	gal	$/gal	0	Cost	$ 0
15. Facility Electric	Generated	0	kWh				
	Total Purchased	518,800	kWh	Total Electric Cost			$ 48,227
	Billing Demand	1,115	KW	$/kWh			$ 0.093
	Load Factor	0.64	hr				

16. Sewage	Total Quantity Sewage ☐ If No Meter, check here 2,184 mgal	Cost of Sewage Plant Operation (Including wages & benefits)		$ 0
		Sewage Charges Paid to Municipal Authority		$ 61,821
		$/mgal 28.31	Total Sewage Cost	$ 61,821

17. Comments	18. Water ☐ If No Meter, check here	Total Used	$/mgal	
#16 sewage paid quarterly.		3,230 mgal	2.41 Total	$ 7,786
			Grand Total	$ 213,766
	Signature			
	Kolyn Kahley		Date	11/25/14
	Approved			
			Date	

Revised 2/19/07

MONTHLY UTILITIES USAGE REPORT

Facility	Selinsgrove Center	Date (Month and Year of Report)	Oct-14
Total Facility Square Feet	987,572	Total Vacant Square Feet *(DPW only)*	253,653
Total Facility Occupied Square Feet *(DPW only)*	707,652	Total Leased Square Feet *(DPW only)*	26,267
Residents:	252	Staff:	850

BOILER PLANT DATA & COSTS

1. Boiler Operating Pressure	175 psig	4. Makeup %	17.84%
2. Average Feedwater Temp.	220 ^{0}F	5. Peak Steam	12,500
3. Makeup Water Used (lbs) ☐ If no meter, check here	1,015,812 lb	6. Degree Days	303 HDD 5 CDD

	Coal	Gas (or Purchased Steam)	Oil	Total
Type of Coal ☑ Anthracite ☐ Bituminous				
7. Steam Produced (or Purchased)	2,197,774 lb	3,495,754 lb	lb	5,693,528
8. Fuel Consumed	158 ton	3,753 mcf	gal	
9. Evaporation (col.7 ÷ col. 8)	6.95 lb/lb	931 lb/mcuft	No Oil lb/gal	
10. Unit Fuel Cost	95.00 $/ton	5.17 $/mcuft	$/gal	
11. Fuel (or Steam) Cost	15,010 $	19,391 $	No Oil $	$
12. Fuel (or Steam) Cost per mlb Steam	6.83 $/mlb	5.55 $/mlb	No Oil $/mlb	$ 34,401

13. Parts Used	$	136
Miscellaneous Supplies	$	644
Service Contracts ☐ If yearly, check here	$	0
Repair Contracts ☐ If yearly, check here	$	7,450
Wages & Salaries (Including Benefits)	$	101,091
Sub Total	$	143,722

OTHER DATA

14. Miscellaneous Fuels	Natural Gas (mcuft)		mcuft	$/mcuft	0	Cost	$
	Propane (mcuft) [gal x 0.0894=mcuft]		mcuft	$/mcuft	0	Cost	$
	Total Gas mcuft	0		Total Gas Cost			$ 0
	Oil (gal)		gal	$/gal	0	Cost	$
15. Facility Electric	Generated	0	kWh				
	Total Purchased	477,320	kWh	Total Electric Cost			$ 41,285
	Billing Demand	812	KW	$/kWh			$ 0.086
	Load Factor	0.81	hr				

16. Sewage	Total Quantity Sewage ☐ If No Meter, check here 2,057 mgal	Cost of Sewage Plant Operation (Including wages & benefits)		$ 0
		Sewage Charges Paid to Municipal Authority		$ 0
		$/mgal 0	Total Sewage Cost	$ 0

17. Comments	18. Water ☐ If No Meter, check here	Total Used	$/mgal	
#16 sewage paid quarterly.		3,587 mgal	2.70 Total	$ 9,668
			Grand Total	$ 194,675

Signature

Kolyn Kahley Date 3/10/15

Approved

Date

Revised 2/19/07

MONTHLY UTILITIES USAGE REPORT

Facility	Selinsgrove Center	Date (Month and Year of Report)	Nov-14
Total Facility Square Feet	987,572	Total Vacant Square Feet *(DPW only)*	253,653
Total Facility Occupied Square Feet *(DPW only)*	707,652	Total Leased Square Feet *(DPW only)*	26,267
Residents:	252	Staff:	848

BOILER PLANT DATA & COSTS

1. Boiler Operating Pressure	175 psig	4. Makeup %	13.56%
2. Average Feedwater Temp.	220 ^{0}F	5. Peak Steam	19,000
3. Makeup Water Used (lbs) ☐ If no meter, check here	1,193,454 lb	6. Degree Days	787 HDD 0 CDD

Type of Coal ☑ Anthracite ☐ Bituminous	Coal	Gas (or Purchased Steam)	Oil	Total
7. Steam Produced (or Purchased)	8,801,516 lb	lb	lb	8,801,516
8. Fuel Consumed	551 ton	44 mcf	gal	
9. Evaporation (col.7 ÷ col. 8)	7.99 lb/lb	0 lb/mcuft	No Oil lb/gal	
10. Unit Fuel Cost	95.00 $/ton	17.18 $/mcuft	$/gal	
11. Fuel (or Steam) Cost	52,345 $	756 $	No Oil $	$
12. Fuel (or Steam) Cost per mlb Steam	5.95 $/mlb	No Gas or Steam $/mlb	No Oil $/mlb	$ 53,101

13. Parts Used	$	2,141
Miscellaneous Supplies	$	95
Service Contracts ☐ If yearly, check here	$	4,058
Repair Contracts ☐ If yearly, check here	$	0
Wages & Salaries (Including Benefits)	$	62,661
Sub Total	$	122,056

OTHER DATA

14. Miscellaneous Fuels	Natural Gas (mcuft)		mcuft	$/mcuft	0	Cost	$
	Propane (mcuft) [gal x 0.0894=mcuft]		mcuft	$/mcuft	0	Cost	$
	Total Gas mcuft	0		Total Gas Cost			$ 0
	Oil (gal)	418	gal	$/gal	2.73	Cost	$ 1,142
15. Facility Electric	Generated	0	kWh				
	Total Purchased	452,320	kWh	Total Electric Cost			$ 43,002
	Billing Demand	874	KW	$/kWh			$ 0.095
	Load Factor	0.71	hr				

16. Sewage	Total Quantity Sewage ☐ If No Meter, check here 1,674 mgal	Cost of Sewage Plant Operation (Including wages & benefits)		$ 0
		Sewage Charges Paid to Municipal Authority		$ 0
		$/mgal 0	Total Sewage Cost	$ 0

17. Comments

#16 sewage paid quarterly.

18. Water ☐ If No Meter, check here	Total Used 3,932 mgal	$/mgal 1.96	Total	$ 7,693
			Grand Total	$ 173,893

Signature

Kolyn Kahley Date 3/10/15

Approved

Date

Revised 2/19/07

MONTHLY UTILITIES USAGE REPORT

Facility	Selinsgrove Center	Date (Month and Year of Report)	Dec-14
Total Facility Square Feet	987,572	Total Vacant Square Feet *(DPW only)*	253,653
Total Facility Occupied Square Feet *(DPW only)*	707,652	Total Leased Square Feet *(DPW only)*	26,267
Residents:	251	Staff:	838

BOILER PLANT DATA & COSTS

1. Boiler Operating Pressure	175 psig	4. Makeup %	15.45%
2. Average Feedwater Temp.	220 ^{0}F	5. Peak Steam	19,000
3. Makeup Water Used (lbs) ☐ If no meter, check here	1,617,126 lb	6. Degree Days	930 HDD 0 CDD

Type of Coal ☑ Anthracite ☐ Bituminous	Coal	Gas (or Purchased Steam)	Oil	Total
7. Steam Produced (or Purchased)	10,463,641 lb	lb	lb	10,463,641
8. Fuel Consumed	726 ton	0 mcf	gal	
9. Evaporation (col.7 ÷ col. 8)	7.21 lb/lb	#DIV/0! lb/mcuft	No Oil lb/gal	
10. Unit Fuel Cost	95.00 $/ton	#DIV/0! $/mcuft	$/gal	
11. Fuel (or Steam) Cost	68,970 $	530 $	No Oil $	$
12. Fuel (or Steam) Cost per mlb Steam	6.59 $/mlb	No Gas or Steam $/mlb	No Oil $/mlb	$ 69,500

13. Parts Used		$ 2,802
Miscellaneous Supplies		$ 3,227
Service Contracts	☐ If yearly, check here	$ 85
Repair Contracts	☐ If yearly, check here	$ 0
Wages & Salaries (Including Benefits)		$ 61,726
	Sub Total	$ 137,340

OTHER DATA

14. Miscellaneous Fuels	Natural Gas (mcuft)		mcuft	$/mcuft	0	Cost	$
	Propane (mcuft) [gal x 0.0894=mcuft]		mcuft	$/mcuft	0	Cost	$
	Total Gas mcuft	0		Total Gas Cost			$ 0
	Oil (gal)	573	gal	$/gal	2.19	Cost	$ 1,254
15. Facility Electric	Generated	0	kWh				
	Total Purchased	482,640	kWh	Total Electric Cost			$ 45,370
	Billing Demand	904	KW	$/kWh			$ 0.094
	Load Factor	0.73	hr				

16. Sewage	Total Quantity Sewage ☐ If No Meter, check here	2,584 mgal	Cost of Sewage Plant Operation (Including wages & benefits)		$ 0
			Sewage Charges Paid to Municipal Authority		$ 61,821
			$/mgal 23.92	Total Sewage Cost	$ 61,821

17. Comments	18. Water ☐ If No Meter, check here	Total Used	$/mgal	
#16 sewage paid quarterly.		4,082 mgal	1.88 Total	$ 7,674
			Grand Total	$ 253,459

Signature			
Kolyn Kahley		Date	3/12/15
Approved			
		Date	

Revised 2/19/07