

COMMONWEALTH OF PENNSYLVANIA DEPARTMENT OF GENERAL SERVICES HARRISBURG

Thank you for responding to the Commonwealth of Pennsylvania's Solicitation for Proposal #10001393 to lease to the Commonwealth 5,723 usable square feet of office space in Montgomery County, Norristown, Pennsylvania, and downtown areas. The space will be occupied by the Department of Labor and Industry

Enclosed you will find Solicitation For Proposal #10001393 (SFP) which includes six appendices, including the Department of General Services sample lease.

This SFP contains information that will guide you in preparing a proposal submission on the enclosed forms. **To be considered, all proposals must be submitted on the enclosed forms.** Proposals must be received in the office of the Bureau of Real Estate, Room 600, North Office Building, Harrisburg, Pennsylvania 17125 by 3:00 P.M., February 6, 2012. **PROPOSALS WILL NOT BE ACCEPTED AFTER THIS TIME.**

Two copies of your proposal must be submitted in a sealed envelope. THE ENVELOPE MUST BE MARKED WITH SFP#10001393, AGENCY'S NAME, REAL ESTATE REPRESENTATIVE'S NAME, SQUARE FOOTAGE, AND DUE DATE. THIS INFORMATION MUST ALSO BE SHOWN ON THE OUTSIDE OF ANY COURIER OR MAILING ENVELOPE. Do not submit a proposal for another SFP in the same envelope with your proposal for this particular SFP. Please be advised that this is a Proposal Solicitation Process. The Commonwealth of Pennsylvania reserves the right to reject any or all offers, waive any defect or negotiate for better terms.

This solicitation reflects material changes which have been made to the Commonwealth lease solicitation process. Payment of prevailing wages is now a requirement of the Commonwealth's leasing program when a proposer offers to construct a new facility or substantially rehabilitate an existing facility. Specific information on the payment of prevailing wages requirement can be found on Page 6 of the SFP. There are also new requirements concerning the Right to Know Law. Specific information on the disclosure of proposal contents can be found on page 14 of the SFP.

This solicitation also reflects material changes which have been made to the Commonwealth's lease solicitation process to encourage participation by small disadvantaged businesses in Commonwealth leasing. Completion of a Small Disadvantaged Business Commitment Form is now a requirement of the solicitation even if a proposer makes no commitment to utilize small disadvantaged businesses. Specific information on commitments made by proposers to participation by small disadvantaged businesses, and the impact of those commitments on the

Commonwealth's selection of a proposal to provide leased space, can be found on Page 7 of the SFP.

You should address the availability of private and/or public parking in your proposal.

Please be sure to carefully read the whole document. If you have any questions concerning the attached information, please contact Jennings Ward directly at (717) 787-0952.

600 North Office Building, Harrisburg, PA 17125 Telephone: 717-705-6355 FAX No: 717-772-0526

SOLICITATION FOR PROPOSAL (SFP) # 10001393

Department of Labor and Industry

Date of Issue:

December 28, 2011

Issuing Office:

Department of General Services Bureau of Real Estate Room 600 North Office Building Harrisburg, Pennsylvania 17125 (717) 705-6355

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GENERAL INFORMATION FOR THE PROPOSER

PURPOSE:

The purpose of this Solicitation for Proposals (SFP) is to obtain proposals to provide 5,723 net usable square feet of office space, to house approximately 12 Commonwealth employees. The space must be located within the following boundaries: the incorporated boundaries of the Borough of Norristown, Montgomery County, Pennsylvania. See Attached map, Appendix E. Proposals which offer space outside of these boundaries cannot be considered for award of the lease.

Proposers should prepare and submit proposals to be considered by the Commonwealth of Pennsylvania (Commonwealth) for a ten-year lease (with options for two five-year renewal terms) to be occupied by the Unemployment Compensation Board of Review.

ISSUING OFFICE:

The Department of General Services (DGS), Bureau of Real Estate, issues this SFP for the Commonwealth of Pennsylvania. The point of contact is:

Jennings Ward
Department of General Services
Bureau of Real Estate
Room 600 North Office Building
Harrisburg, PA 17125
(717) 787-0952

Only the DGS Bureau of Real Estate is authorized to negotiate the terms and conditions of a proposed lease agreement. No understanding shall be binding upon the Commonwealth until all of the following occur: (1) the parties' understanding has been reduced to a formal written lease agreement; (2) the lease agreement has received all necessary Commonwealth approvals, including, but not limited to the approval of the Board of Commissioners of Public Buildings and Grounds; (3) the lease agreement has been signed by the Secretary of the Department of General Services, and (4) the fully executed lease agreement has been delivered by DGS to the selected proposer.

SCOPE:

This SFP contains instructions governing the proposals to be submitted and the material to be included therein; a description of the services to be provided; requirements that must be met to be eligible for consideration; and other requirements to be met by each interested party.

RESPONSE DATE:

To be considered, proposals must arrive at the issuing office, on or before the date and time specified in the cover letter. Proposals must be returned in the envelope provided with the proposal packet. **ALL LATE PROPOSALS SHALL BE REJECTED.**

NOTICE TO PROPOSERS OF PREVAILING WAGE REQUIREMENTS

To the extent that a proposer offers to construct a new facility, to substantially rehabilitate an existing facility, or to substantially alter an existing facility in accordance with Commonwealth agency specifications/drawings, and the construction/substantial rehabilitation/substantial alterations will have a total estimated cost that exceeds \$25,000, the following prevailing wage requirements shall be included in the lease. "Substantial rehabilitation" is the conversion or adaptation of an existing facility into a safe, structurally sound building, by gutting and extensive re-construction, to make the building suitable for use by the Commonwealth agency. As a guideline, if the building foundations, building shell (outer walls, interior support walls or roof) or major building systems (HVAC, plumbing, electrical) are substantially altered or replaced, it is substantial rehabilitation. "Substantial alterations" are those alterations to an existing facility by the lessor in accordance with Commonwealth agency specifications/plans/drawings where final plans, drawings and specifications must be reviewed and approved by the Commonwealth agency. These terms do not include cosmetic improvements, routine maintenance, minor non-structural alterations and upgrades.

The lease shall require the lessor and lessor's contractor(s) to pay no less than the wage rates as issued by the Secretary of the Pennsylvania Department of Labor and Industry for each craft or classification of all workers needed to perform the contract(s) for the construction/substantial rehabilitation/substantial alterations of the facility. The construction/substantial rehabilitation/substantial alterations required by the lease will be subject to the provisions, conditions, duties, requirements, remedies and penalties of the Pennsylvania Prevailing Wage Act, 43 P.S. § 165-1 *et seq.* The prevailing minimum wage predetermination, as issued by the Secretary of Labor and Industry, shall be attached to the lease and made a part of the lease. No workers may be employed in the construction/substantial rehabilitation/substantial alterations, except in accordance with the classifications in the prevailing minimum wage predetermination of the Secretary of Labor and Industry. If additional or different classifications are necessary, the lessor shall request the Department of General Services to petition the Secretary of Labor and Industry for rates for additional or different classifications.

The rent requested by proposers offering to construct a new facility or to substantially rehabilitate an existing facility or to make substantial alterations must take into consideration the requirement of the lessor and lessor's contractor(s) to pay no less than the prevailing wage rates issued by the Secretary of Labor and Industry.

In order to view the current prevailing wages for each craft or classification of workers needed to perform the contract(s) for the construction/substantial rehabilitation/substantial alterations of the leased facility for the locality where the facility

will be constructed/substantially rehabilitated go to http://www.dli.state.pa.us/landi/li_apps/requestPW.asp and request the prevailing wages. These are the applicable wage rates **provided** a lease is negotiated and fully executed within 120 days of the Proposal Response Date. In the event the lease is not fully executed within this 120 day period, it will be necessary to request and obtain new,

current prevailing minimum wage rates from the Secretary of Labor and Industry that the lessor or lessor's contractors must pay to those employees involved in the construction/improvement/alteration of the leased facility.

Proposals must include a statement indicating whether or not the rent is based upon the requirement to pay prevailing wages.

If, after receipt of proposals, the DGS determines that the lessor and lessor's contractor(s) should pay the prevailing minimum wage rates when the lessor's proposal did not include consideration of this requirement, DGS may give the proposer the opportunity to revise its offered rental amounts to include allowance for payment of prevailing wages. When such a determination is made, the lease shall require, or be amended to require, the lessor and lessor's contractor(s) to pay the prevailing minimum wage rates as issued by the Secretary of the Pennsylvania Department of Labor and Industry. If this occurs, the lessor and DGS shall negotiate either an increase in the rental rate or the amount of a one-time payment to cover the increase in cost as a result of including this requirement. The lease will be subject to the provisions, conditions, duties, requirements, remedies and penalties of the Pennsylvania Prevailing Wage Act, 43 P.S. § 165-1 et seq.

NOTICE TO PROPOSERS OF COMMITMENT TO SMALL DISADVANTAGED BUSINESSES:

Small Disadvantaged Business Participation

The Commonwealth encourages participation in Commonwealth leases by small disadvantaged businesses either directly as lessors, or through lessor contracts for services (such as design, construction, cleaning, repair, maintenance, snow removal or landscaping) or supplies related to the lease.

Small Disadvantaged Businesses

"Small Disadvantaged 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: 1) Department of General Services Bureau of Minority and Women Business Opportunities (BMWBO)-certified minority businesses enterprises (MBEs) and women business enterprises (WBEs) that qualify as small businesses; and 2) Small Disadvantaged Businesses, as determined under the rules and regulations established by the United States Small Business Administration; and 3) United States Small Business Administration certified 8(a) Small Disadvantaged Business Concerns.

"Small businesses" are businesses in the United States that are independently owned, are not dominant in their field of operation, employ no more than 100 persons, and earn less than \$20 million in gross annual revenues (\$25 million in gross annual revenues for those businesses in the information technology sales or service business).

Factor in Proposal Selection

Participation by Small Disadvantaged Businesses may be an important factor in the Commonwealth's selection of a proposal to provide leased space to the Commonwealth. The amount of consideration given by the Commonwealth for the Disadvantaged Business participation offered by a proposer will be based upon the following in order of priority:

Priority Rank 1	A proposal submitted by a
Priority Karik I	
	proposer that is a Small
	Disadvantaged Business.
Priority Rank 2	A proposal submitted by a joint
	venture with a Small
	Disadvantaged Business as a joint
	venture partner.
Priority Rank 3	A proposal submitted by a
	proposer with contracting
	commitments to Small
	Disadvantaged Businesses.
	Proposers are encouraged to
	attain the aspirational goal of 20%
	participation by Small
	Disadvantaged Businesses.
No Ranking	A proposal submitted by a
	proposer that is not a Small
A proposer that falls into this	Disadvantaged Business and that
category MUST provide a written	is not in a joint venture with a
explanation as to why it has not	Small Disadvantaged Business
made a specific percentage	and that makes no specific
commitment to Small	percentage commitment to Small
Disadvantaged Businesses.	Disadvantaged Businesses.

Each proposal will be rated for its approach to enhancing the utilization of Small Disadvantaged Businesses. Each approach will be evaluated, with Priority Rank 1 receiving the greatest priority for this factor, and the succeeding options receiving consideration in accordance with the above-listed priority ranking. For lessor contract commitments, the percentage commitment will be based upon the amount of the rent that the proposer commits to pay to Small Disadvantaged Businesses for services and/or supplies. The amount must be stated as a specific percentage of the total rent to be paid by the Commonwealth over the term of the lease, including any lump sum payments.

Disadvantaged Business Qualification

- 1. To receive credit for being a Small Disadvantaged Business or entering into a joint venture agreement with a Small Disadvantaged Business, a proposer will be required to provide proof of Small Disadvantaged Business qualification, as follows:
 - a) A proposer qualified as a result of MBE/WBE certification from BMWBO must provide a photocopy of its BMWBO certificate.
 - b) A proposer qualified as a result of certification from the U.S. Small Business Administration as an 8(a) disadvantaged business must submit proof of Small Business Administration Certification. The owners of such business must also submit proof of United States citizenship.
 - c) A proposer qualified as a "Small Disadvantaged Business" under the rules and regulations of the United States Small Business Administration must provide self-certification and the following:
 - (i) The proposer's attestation that the proposer has 100 or fewer employees.
 - (ii) Proof that the proposer's gross annual revenues are less than \$20,000,000 (\$25,000,000 for those businesses in the information technology sales or service business). This can be accomplished by including a recent tax or audited financial statement.
 - (iii) Proof of the United States citizenship of the owners of such business.
 - d) In the case of a joint venture agreement, the proposer must provide a copy of the agreement, together with the documentation necessary to establish the joint venture partner as a Small Disadvantaged Business, as follows:
 - (i) If the joint venture partner qualified as a result of MBE/WBE certification from BMWBO, the proposer must provide a photocopy of the joint venture partner's BMWBO certificate.
 - ii) If the joint venture partner qualified as a result of certification from the U.S. Small Business Administration as an 8(a) disadvantaged business, the proposer must submit proof of the joint venture partner's Small Business Administration Certification. The proposer must also submit proof of the United States citizenship of the owners of the joint venture partner.
 - (iii) If the joint venture partner qualified as a "Small Disadvantaged Business" under the rules and regulations of the United States Small Business Administration, the proposer must provide the joint venture partner's self-certification and the following:

- (A) The joint venture partner's attestation that the joint venture partner has 100 or fewer employees.
- (B) Proof that the joint venture partner's gross annual revenues are less than \$20,000,000 (\$25,000,000 for those businesses in the information technology sales or service business). This can be accomplished by including a recent tax or audited financial statement.
- (C) Proof of the United States citizenship of the owners of such joint venture partner.
- 2. To receive credit for contracting with a Small Disadvantaged Business (including construction/purchasing supplies and/or services through a purchase agreement), a proposer will be required to provide the following information prior to award of the lease:
 - The name and telephone number of the person within the proposer's organization that DGS may contact regarding the proposer's Small Disadvantaged Business commitments
 - b) The company name, address, and telephone number of the prime contact person for each **specific** Small Disadvantaged Business included in the proposal. The proposer must specify each Small Disadvantaged Business to which it is making commitments. The proposer will not receive credit by stating it will find a Small Disadvantaged Business after the lease is awarded or by listing several companies and stating it will select one later.
 - c) The specific work, goods, or services each Small Disadvantaged Business will perform or provide.
 - d) The location where each Small Disadvantaged Business will perform these services.
 - e) The timeframe for each Small Disadvantaged Business to provide or deliver the goods or services.
 - f) The amount of capital, if any, each Small Disadvantaged Business will be expected to provide.
 - g) The form and amount of compensation each Small Disadvantaged Business will receive.
 - h) The percent of the total rent that will be paid to each Small Disadvantaged Business.
 - i) A signed contract or letter of intent must be included in the Disadvantaged Business portion of the proposal.

- j) If the contractor is a Small Disadvantaged Business qualifying as a result of certification from MBWBO, the proposer must provide a photocopy of the contractor's BMWBO MBE/WBE certificate.
- k) If the contractor is a Small Disadvantaged Business qualifying as a result of 8(a) certification from the U.S. Small Business Administration, the proposer must submit proof of such contractor's Small Business Administration Certification, and proof of the United States citizenship of the owners of such contracting business.
- I) If the contractor is a Small Disadvantaged Business qualifying as a "Small Disadvantaged Business" under the rules and regulations of the United States Small Business Administration, the proposer must provide the contractor's self-certification and the following:
 - (i) The contractor's attestation that the contractor has 100 or fewer employees.
 - (ii) Proof from the contractor that the contractor's gross annual revenues are less than \$20,000,000 (\$25,000,000 for those businesses in the information technology sales or service business). This can be accomplished via a recent tax or audited financial statement.
 - (iii) Proof of the United States citizenship of the owners of such contracting business.

Lease Obligation

The selected lessor's Small Disadvantaged Business commitment will be included as a contractual obligation in the lease.

Commitments to Small Disadvantaged Businesses made at the time of proposal submittal or during lease negotiations must be maintained throughout the term of the lease. This requirement also applies to any subsequent lessor who takes the lease by assignment. Any proposed change must be submitted to BMWBO, which will, along with the Commonwealth leasing agency, determine whether a proposed substitution should be approved.

Small Disadvantaged Business that contract with the lessor, and Small Disadvantaged Businesses in a joint venture, must perform at least 50 percent of the contract or Small Disadvantaged Business portion of the joint venture.

To the extent that a contract or subcontract is to be performed by a Small Disadvantaged Business, the Small Disadvantaged Business cannot enter into subcontract arrangements for more than 40 percent of the total estimated dollar amount of the contract.

The lessor shall complete the Lessor's Quarterly Utilization Report (or similar type document containing the same information) and submit it to the leasing officer of the

agency occupying the leased premises and BMWBO within 10 workdays after the end of each quarter the lease is in force. If there was no activity, the form must also be completed, stating "No activity in this quarter." This information will be used to determine the actual dollar amount paid to Small Disadvantaged Businesses as lessors or contractors with lessors, and Small Disadvantaged Businesses involved in joint ventures. Also, it is a record of fulfillment of the commitment the lessor made and for which it received consideration for selection.

NOTE: EQUAL EMPLOYMENT OPPORTUNITY AND CONTRACT COMPLIANCE STATEMENTS REFERRING TO COMPANY EQUAL EMPLOYMENT OPPORTUNITY POLICIES OR PAST CONTRACT COMPLIANCE PRACTICES DO NOT CONSTITUTE PROOF OF SMALL DISADVANTAGED BUSINESS STATUS OR ENTITLE A PROPOSER TO RECEIVE CREDIT FOR SMALL DISADVANTAGED BUSINESS UTILIZATION.

Questions regarding the Disadvantaged Business Program can be directed to:

Department of General Services
Bureau of Minority & Women Business Opportunities
Room 611, North Office Building
Harrisburg, PA 17125
qs-bmwbo@state.pa.us

Phone: (717) 787-6708 FAX: (717) 772-0021

Small Disadvantaged Business Program information and a database of BMWBO-certified minority-and women-owned businesses can be accessed at www.dgs.state.pa.us, Keyword: BMWBO. The federal vendor database can be accessed at www.ccr.gov by clicking on Dynamic Small Business Search (certified companies are so indicated). Please also see Appendix F to this SFP.

Small Disadvantaged Business Commitment Form

The Small Disadvantaged Business Commitment Form, which is attached to this document, must be completed by the proposer and submitted with its proposal.

SUBMISSION OF PROPOSALS:

To be considered, interested parties must submit a complete response to this SFP, using the format provided in the "Proposal Requirement" section of this document. An interested party will make no other distribution of the proposal. An official who is authorized to bind the interested party to its provisions must sign the proposal. For this SFP, the conditions of the proposal must remain valid for at least sixty (60) days from the date specified in the cover letter. **Moreover, the conditions of the selected proposal will become contractual obligations if a contract is entered into with the Commonwealth.**

A complete proposal package is necessary for evaluation of your proposal. Failure to include any of the required information or forms will delay evaluation of your

proposal and may, at the Commonwealth's sole discretion, result in the rejection of your proposal.

The Commonwealth now allows alternate responses for one solicitation. In order to be considered as a complying submission, a proposal must initially adhere strictly to the solicitation specifications in all material regards. However, in addition to this component, a proposer may, at the proposer's discretion, submit one or more alternate proposals that vary from the specifications. In particular, the proposer may, by way of example, propose alternate finishes or spatial layouts that allow the proposer to submit a more competitive price proposal. The proposal must clearly label the primary proposal, and all alternates, and a clear breakdown of the price differentials should be delineated. DGS will consider and evaluate the primary and all alternate proposals at its sole discretion.

TYPE OF AGREEMENT:

The selected party will be expected to enter into a lease agreement, a draft of which is attached as APPENDIX A of this SFP. The terms and conditions of this SFP and the selected party's proposal will be incorporated into the lease by reference.

REJECTION OF PROPOSALS:

The Commonwealth reserves the right to reject any and/or all proposals received as a result of this request, or to negotiate separately with competing contractors. If, in the opinion of the Commonwealth, contract negotiations with the selected party cannot be concluded within 60 days following the selected party's receipt of a draft lease agreement, the Commonwealth may at its sole discretion, immediately discontinue negotiations with the selected party and commence negotiations with any other interested party.

INCURRING COSTS:

The Commonwealth is not liable for any costs incurred by interested parties related to the preparation of their proposals for this SFP.

ECONOMY OF PREPARATION:

Proposals should be prepared simply and economically, providing a straightforward, concise description of the interested party's ability to meet the requirements of the SFP.

ORAL PRESENTATION:

An interested party that submits a proposal may be required to make an oral presentation of its development plan to DGS.

AMENDMENT TO THE SFP:

If it becomes necessary to revise any part of this SFP, an amendment will be issued to all interested parties who received the original SFP. For any interested party who downloads the SFP from the DGS website, it will be that party's responsibility to check the website for amendments to the SFP prior to the submission of its proposal.

SELECTED PARTY RESPONSIBILITIES:

The selected party will be required to assume responsibility for all services offered in the proposal whether or not the selected party actually performs them. Further, the Commonwealth will consider the selected party to be the sole point of contact with regard to contractual matters.

DISCLOSURE OF PROPOSAL CONTENTS:

- 1. 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 SFP. 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 subsection c.(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.
- 2. Commonwealth Use. 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 a lease. 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.
- 3. Public Disclosure. Public records requests for proposals are governed by and shall be handled in the following manner:

After the award of a lease pursuant to this SFP, 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., commencing January 1, 2009. 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 from disclosure under 65 P.S. § 67.708(b)(11).

NEWS RELEASES:

News releases pertaining to this project will be made in coordination with the Issuing Office, and subject to Commonwealth approval.

FACILITY ACCESS:

Consistent with safety and operational factors, the selected proposer will provide the Commonwealth unlimited access to the leased premises during the construction period.

PENNSYLVANIA STATE SALES AND USE TAX:

The proposed facility is subject to all applicable Pennsylvania Sales and Use Tax legislation. There is no special tax exemption for this project.

ORDER OF PRECEDENCE:

If any discrepancies in interpretation arise, the terms of the Lease Agreement are the first point of reference, the Solicitation for Proposal and all attachments are the second, and the Proposal is the third.

PROPOSAL REQUIREMENTS

INTRODUCTION

This section contains instructions governing the proposals to be submitted and the material to be included in the proposal. **The proposal shall be submitted in the format delineated below.**

It is the obligation of the proposer to become fully cognizant of all factors relevant to the site including, but not limited to, existing and surrounding zoning and zoning requirements, physical characteristics and conditions of the site and improvements, asbestos and environmental hazards, adequacy of public facilities, utility services, legal restrictions, and all other information relating to legal requirements, land-use planning, or design requirements and restraints.

REQUIRED DOCUMENTS

The following required documents **must** be completed accurately and submitted as part of your proposal **(APPENDIX B)**:

1. GSRE -19 Proposal to Lease Space to the Commonwealth

 As indicated on GSRE – 19, certain required services should be included as part of your proposal. The required services are, but are not limited, to the following:

- 1. All Utilities
- Janitorial Services and Supplies (please check the janitorial schedule included in the Agency Specifications attached to this SFP. Do not use the janitorial schedule (Exhibit B) contained in the sample lease.)
- 3. Trash Removal
- 4. Snow and Ice Removal
- 5. Sewer and Water
- 6. Lawn and Shrub Care
- 7. Acquisition of the Site
- 8. Permitting
- 9. All Professional Fees
- 10. Financing
- 11. Building Construction
- 12. Real Estate Taxes
- 13. Insurance
- 2. GSRE 6 Lessor Identity Disclosure
- 3. GSRE 47 Agency Agreement/Limited Agent Authority
- 4. GSRE 42M Contractor Responsibility Certification
- 5. GSRE 54 Notice Bureau of Real Estate is Sole Agent for Commonwealth
- 6. GSRE 63 Acknowledgment/Usable Area Definition
- 7. Small Disadvantaged Business Commitment Form

In addition to the required standard forms, a graphic schedule and narrative on the schedule through the design and construction phases of the project is required. This schedule will be used to complete **SECTION 14** of the draft lease agreement **(APPENDIX A)**, and will include how the proposer plans to meet its proposed final completion date of July 1, 2012. The schedule for the development of the site should include but are not limited to:

Test Fit
Site Control
Code and Building Permit Approvals
Construction
Utility Disconnect/Reconnect

ADDITIONAL INFORMATION

In order to assist with the evaluation of your proposal, the following should be included with your proposal package:

- 1. Drawings Site Plan(s), Floor Plans, Elevations and Building Sections.
- 2. Photographs Please mark photographs for easy reference.
- 3. Any documentation the proposer determines to be necessary to explain the proposal.

APPENDIX A

COMMONWEALTH OF PENNSYLVANIA SAMPLE LEASE AGREEMENT

To obtain a copy of the Sample Lease Agreement, please click the link below to visit the Bureau of Real Estate, Leasing and Administration, Forms Page:

View the Sample Lease Agreement with Prevailing Wage (GSRE-1PW)

 $\frac{http://www.portal.state.pa.us/portal/server.pt?open=512\&objI}{D=1346\&\&SortOrder=100\&level=2\&parentid=1231\&css=L2}\\ \underline{\&mode=2\&cached=true}$

(If you are unable to download the Sample Lease Agreement or require assistance navigating the DGS Homepage, please call 717-787-4394)

APPENDIX B COMMONWEALTH OF PENNSYLVANIA REQUIRED DOCUMENTS

COMMONWEALTH OF PENNSYLVANIA DEPARTMENT OF GENERAL SERVICES GSRE-19 (Rev. 3-01)

PROPOSAL TO LEASE SPACE TO THE COMMONWEALTH OF PENNSYLVANIA

IN RESPONSE TO REQUEST BY DEPARTMENT OF GENERAL SERVICES PLEASE PRINT OR TYPE ALL INFORMATION

PROPOSAL NO						
FOR	IN		IN		DATE	
(AGENCY)	(1	MUNICIPALITY)	<u> </u>	(COUNTY)		
THIS PROPOSAL IS FOR:	RENEWAL OF LEASE	NEW CONSTRUCTION	NEW LOCATION	RENOVATIO	NS LEASE AMENDMENT	EMERGENCY INTERIM LEASE
BUILDING ADDRESS:						
	(STREET)	(SUITE/F	ROOM NO.)	(CITY)	(STATE)	(ZIP)
LESSOR:		DESCRIPTION OF	BUILDING: No	o. of Floors	; Type of Constru	ıction
Age of Bldg	; Usable Sq. Ft. Entir	e Bldg	;Usable Sq.	Ft. Each Floor	; Heating S	iystem
Fuel; Type of A						
Building originally Constructed for use as.	Precent		Windo	NA/C	Floor	
Are all utilities metered separate for tenants us	Acc	cessibility to Phys	ically Challenge sabilities Act)	ed Yes No;	Lot Size	Building
Public Parking Metered	Yes No; Num	nber ; T	Public ransportation	□Yes □No;	low far from building	: Zonina
General Condition of Bldg.			•		-	
-						
Water	res No; # to the Commonwealth of the description in accordance we have a secondance where it is	Pennsylvania space in with plans and specific Yea	paces n the above describinations provided by ars Renewal Opi 1" Option Te Base Rent \$	ped building and agree y the Department of G tions/No. of Options rm Annual Sq. Ft. Rate	; Location of Parking	he bldg, and to pyling agency under the
	Total \$, ,		erms will continue to be calc	
					eceding option term, if any.	diated in the same
	Annual Rent \$					
Total Sq. Ft CONSTRUCTION COSTS - Comperating EXPENSES - Comp	ilete worksheet on page 2.	2. (See paragraph 7 of (See paragraph 4 of 9	- Sample Lease) Sample Lease)			Month/Days.
Proposer: Full name(s) and addresses of	owner(s) or corporate offi	icers	Person to ca	II or write for respons	ibility and coordination:	
· · · · · · · · · · · · · · · · · · ·			Telephone: A	Area Code; N	umber	
By signing below, authorization	on is granted to obtain a c	redit report both indi	/idually and/or bus	iness or corporation.		
Attest: X			x			
(Signature must i	appear above for Proposal to	be valid)	^	(Signature must appear	above for Proposal to be valid	<u>n</u>

Proposer certifies that the above information is true to the best of its knowledge. The Proposer further certifies that real estate taxes for its properties are paid in full to the respective municipality in which the property is situated.

Construction Costs Worksheet (Itemized explanation breakdown of complete costs for new construction or renovations. See paragraph 7 of Sample Lease.)

Site	\$
Permitting	\$
Professional Fees	\$
Financing	\$
Building Construction	\$
Other: (Explain)	
	\$
	\$
	\$
	\$
TOTAL:	\$
Operating Expense Worksheet (See Paragraph 4 of Sample Lease.)	-
Real Estate Taxes	\$
Utilities	\$
Water	\$
Sewer	\$
Trash Collection	\$
Insurance	\$
Janitorial	\$
TOTAL:	\$

LESSOR IDENTITY DISCLOSURE

The following information must be filled out accurately and accompany your proposal.

	Date
NAME OF LESSOR:	
LESSOR FEDERAL I.D.#: ——	
Please indicate the legal status of your company a	and complete the appropriate section(s);
Corporation (Complete Section A) ——— PA	RTNERSHIP (Complete Section B) SOLE PROPRIETOR (Complete Section C Limited Liability Partnership
	L.C.): List all officers of the corporation below and percent of ttach additional sheets if needed. If a L.L.C. check box \Box and list nanager managed L.L.C.
NAME:	NAME:
TITLE: PRESIDENT	TITLE: VICE PRESIDENT
ADDRESS:	ADDRESS:
PERCENTAGE OF STOCK:	PERCENTAGE OF STOCK:
SIGNATURE:	SIGNATURE:
NAME:	NAME:
TITLE: SECRETARY	TITLE: TREASURER
ADDRESS:	ADDRESS:
PERCENTAGE OF STOCK:	PERCENTAGE OF STOCK:
SIGNATURE:	SIGNATURE:
DATE:	(CORPORATION SEAL)
_	ship (L.L.P.): List all general, limited or special partners. Indicate ng partner is a corporation, please complete Section A. If a L.L.P.
NAME:	NAME:
TITLE:(GENERAL, LIMITED, SPECIAL)	TITLE:(GENERAL, LIMITED, SPECIAL)
ADDRESS:	ADDRESS:
NAME:	NAME:
TITLE:(GENERAL, LIMITED, SPECIAL)	TITLE:(GENERAL, LIMITED, SPECIAL)
ADDRESS:	ADDRESS:
designation other than that of the individu	proprietorship or co-owner doing business under any name or all owning the sole proprietorship or co-ownership.
BUSINESS NAME:	
SIGNATURE OF PROPRIETOR:	
ADDRESS:	

AGENCY AGREEMENT/LIMITED AGENT AUTHORITY

(If an agent is involved in this Proposal, please complete the following.)				
Solicitation No.				
Proposed Lessor				
Lessor Address				
Agent				
Agent Address				
1. Does power of agent terminate on execution of lease?	Yes No			
2. Is agent authorized to sign lease agreement for proposed les	ssor? Yes No			
3. Is agent to collect rent if lease is executed?	Yes No			
4. Is agency to be binding during entire lease term? (Note: If agency is terminated, notice must be forward to Bureau of Real Estate immediately.)	Yes No			
5. If applicable, professional license number of agency:				
Further statement to clarify agent's authority				
5/10				
	SIGNATURE OF AGENT			
	TYPE NAME OF AGENT			
WITNESS DATE	SIGNATURE OF PROPOSED LESSOR			
	TYPE NAME OF PROPOSED LESSOR			
WITNESS DATE	SIGNATURE OF PROPOSED LESSOR			
	TYPE NAME OF PROPOSED LESSOR			

CONTRACTOR RESPONSIBILITY CERTIFICATION: PROPOSERS' REPRESENTATION AND AUTHORIZATION

- A. Each proposer by submitting a proposal represents that:
 - The proposer has read and understands that terms and conditions of the solicitation documents, and the proposal is made in accordance therewith.
 - 2. The proposer understands and acknowledges that all information provided by, and representations made by, the proposer in the proposal are material and important and will be relied upon by the Department of General Services in awarding the lease. Any misstatement shall be treated as fraudulent concealment from the Department of the true facts relating to the submission of this proposal. A misrepresentation shall be punishable under Section 4904 of Title 18 P.C.S.A. Further, if it is later determined that the proposer knowingly rendered an erroneous certification, the Department may find the proposer in default, terminate the lease and may debar/suspend the proposer.
 - 3. The amount of this proposal has been arrived at independently and without consultation, communication or agreement with any other proposer or potential proposer.
 - 4. Neither the amount of this proposal nor the approximate amount of this proposal have been disclosed to any other firm or person which is a proposer or potential proposer, and it will not be disclosed before the opening.
 - 5. Proposer certifies that it is not currently under suspension or debarment by the Commonwealth, any other state, or the federal government, and if the proposer cannot so certify, then it agrees to submit along with the proposal a written explanation of why such certification cannot be made. If proposer enters into subcontracts or employs under this lease any subcontractors/individuals who are currently suspended or debarred by the Commonwealth or the federal government, or who become suspended or debarred by the Commonwealth or federal government during the term of this lease or any extensions or renewals thereof, the Commonwealth shall have the right to require the proposer to terminate such subcontracts or employment. The proposer agrees to reimburse the Commonwealth for the reasonable costs of investigation incurred by the Office of Inspector General for investigations of the proposer's compliance with terms of this or any other agreement between the proposer and the Commonwealth which result in the suspension or debarment of the proposers. 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 proposer shall not be responsible for investigative costs for investigations which do not result in the proposer's suspension or debarment.
 - 6. The proposer has no outstanding, delinquent liabilities to the Commonwealth including but not limited to any taxes and unemployment compensation payments except as disclosed by the proposer in its proposal. The proposer agrees that the Commonwealth may set off the amount of any state tax liability or other debt of the proposer or its subsidiaries that is owed to the Commonwealth and not being contested on appeal against any payments due the proposer under this or any other lease with the Commonwealth.
 - 7. The Contractor may obtain the current list of suspended and debarred proposers by contacting the:

Department of General Services Office of Chief Counsel 603 North Office Building Harrisburg, PA 17125 Telephone: (717) 783-6472 Fax: (717) 787-9138

B. Each proposer by submitting its proposal authorizes all Commonwealth agencies to release to the Department of General Services information related to liabilities to the Commonwealth, including but not limited to any taxes or unemployment compensation payments except as disclosed by the proposer in its proposal. Be certain to include the names and social security numbers of all Principals (partnerships, individuals, corporations). Also include the Federal I.D. Number of the Partnership or Corporation. If the Sole Proprietor has a Federal I.D. Number, also include on the Lessor Identity Disclosure Form.

The proposer has read, understands and certifies that it is abiding by the provisions in the Contractor Responsibility Certification. The proposer further certifies that the information provided on the Lessor Identity Disclosure Form is true to the best of its knowledge. It further certifies that it is a responsible contractor in accordance with Management Directive 215.9 Amended.

It is further understood that if the proposer has any outstanding liabilities to the Commonwealth, including but not limited to taxes or unemployment compensation, it will resolve the outstanding liabilities within ten (10) business days from notification of such liability.

(SIGNATURE)	(DATE)
(SIGNATURE)	(DATÉ)
(SIGNATURE)	(DATE)

NOTICE

Bureau of Real Estate is Sole Agent for Commonwealth.

Proposal submitters for all Commonwealth leases are hereby notified that the Bureau of Real Estate, Department of General Services, and only the Bureau, through the authority granted by the Act of April 9, 1929, P.L. 177, as amended, is authorized and empowered to rent proper and adequate offices, rooms or accommodations for any Department, Board or Commission of the Commonwealth.

Further, only the Department of General Services' Bureau of Real Estate is authorized to negotiate the terms and conditions of a proposed lease agreement. Any negotiations between proposal submitters and the Bureau of Real Estate must be reduced to a written agreement and are subject to approval by other Commonwealth officials. Therefore, said negotiations with the Bureau of Real Estate cannot be interpreted as binding upon the Commonwealth until a formal lease agreement has been fully processed. A formal lease agreement is fully processed when it has received all necessary signatures and approvals, such as the approval of the Board of Commissioners of Public Grounds and Buildings and the signature of the Secretary of General Services, and has been delivered to the lessor.

Proposal submitters are further advised that the Commonwealth has no responsibility for any costs the proposal submitter may encounter, including but not limited to cost and expenses in acquiring the leased space, preparing it for occupancy or preparing the proposal. Nor will the Commonwealth be bound by any of the prospective lease's terms and conditions, until the lease is fully approved and executed by the Commonwealth and delivered to the lessor.

Please sign below to acknowledge that you have read and understood the above.

	SIGNATURE			
·-·			- · - · · · · · · · · · · · · · · · · ·	
	DATE			

ACKNOWLEDGMENT USABLE AREA DEFINITION

Usable space (area) is the only method of measurement of the area for which the Commonwealth of Pennsylvania will pay a square foot rate. It is determined as follows:

The measurement shall consist of all the occupiable area of a building, floor or office suite leased by the Commonwealth.

Building Area (Sole tenancy by the Commonwealth)

The building area shall be computed by measuring the inside finished surface of all permanent and major walls excluding stairwells, elevator and escalator shafts, mechanical and building equipment rooms, public restrooms and any area used by the lessor.

Floor or Suite Area (Multi-tenanted building)

The floor or office suite area shall be computed by measuring the inside finished surface of the office side of corridors and other inside finished surface of the office side of corridors and other permanent walls, to the inside wall or partitions that separate the office from adjoining now-leased, usable areas, and to the finished surface of the dominant portion of the permanent outer building walls excluding stairwells, elevator and escalator shafts, mechanical and building equipment rooms, common lobbies, hallways and corridors, and public restrooms that serve the entire building.

In all measurements, make no deductions for columns and projections enclosing the structural elements of the building.

The usable area of a floor shall be equal to the sum of all usable areas on that floor.

Unless otherwise noted, all references in this solicitation to square feet shall mean usable square feet.

NOTE: Any space normally excluded from above definition, (i.e. mechanical, restrooms, equipment rooms, etc.) specifically required by the agency to carry out its program requirement, may be included in the usable definition provided the space is included in agency space allocation.

 SIGNATURE	9
 DATE	

Department of General Services Bureau of Real Estate Small Disadvantaged Business Commitment Form

One copy of this form must be completed, signed, and submitted by each proposer with each proposal.

Pro	poser Name
Soli	poser Name citation for Proposals (SFP) No
Loc Squ	ration (city/county):are Footage:
	Proposer Classification ase check all applicable boxes:
Α.	Proposer is a:
	☐ i. DGS certified Minority Business Enterprise (MBE) - DGS Cert. No
	□ ii. DGS certified Women Business Enterprise (WBE) – DGS Cert. No
	□ iii. DGS certified Minority/Women Business Enterprise (M/WBE) – DGS Cert. No.
	☐ iv. Small Disadvantaged Business, pursuant to the rules and regulations established by the United States Small Business Administration (must provide self-certification and all requested information)
	$\hfill \Box$ v. United States Small Business Administration certified 8(a) Small Disadvantage Business Concern
В.]	Proposer is a:
	☐ Joint venture with a "Small Disadvantaged Business" (as defined in the Solicitation for Proposals)
	Name of Small Disadvantaged Business Joint Venture Partner ("SDB-JVP"):
	Classification of SDB-JVP ((i), (ii), (iii), (iv) or (v), as described above at Section I(A)):
	DGS Certification No. for SDB-JVP: Joint Venture Agreement Executed? Yes No Percentage of Small Disadvantaged Business involvement/commitment in venture %

II. Small Disadvantaged Business Contracting and Subcontracting Commitment Goals

A.	Construction Services (includes, but is not limited to, design, excavation, surveying, construction, construction management, trade work, demolition, insurance, and supply of materials and goods used in the construction, renovation or repair of the leased premises)			
	1.	Construction service type (specify):		
	2.	Construction service type (specify): Estimated total dollar amount of the cost of construction services for the leased premises		
		\$		
	3.	S % (as a percentage of the estimated total dollar amount of the cost of construction services for the leased premises)		
	4	cost of construction services for the leased premises)		
	4.	Estimated dollar value of small disadvantaged business contracts and subcontracts		
	5.	\$Name(s) of small disadvantaged business contractors/subcontractors and DGS certification number(s) (if known)		
В.	and ice ren	rm Services (includes, but is not limited to, janitorial services, interior facility maintenance, landscaping, snow noval, office design, accounting work, property management, and insurance).		
	1. 2.	Lease term service type (specify)		
	3.	Estimated cost of lease term services \$ Commitment goal % (as a percentage of the estimated total dollar amount of the		
	٦.	lease term services)		
	4.	Estimated dollar value of small disadvantaged business contracts and subcontracts \$		
	5.	Name(s) of small disadvantaged business contractors/subcontractors and DGS certification number(s) (if known)		
	6.	Length of contract (initial)		
C.	settlement	mmitments (other services not previously identified, including, but not limited to, broker services, title work, services, due diligence services, professional services including surveying, insurance, accounting and legal not other work related to the proposer's acquisition of the leased premises		
	1.	Service type (specify)		
	2.	Service type (specify) Estimated dollar value of small disadvantaged business contracts and subcontracts \$		
	3.	Name(s) of small disadvantaged business contractors/subcontractors and DGS certification number(s) (if known)		
	4.	Length of contract (initial)		
D.		commitments are made, or if the commitments are less than the identified participation goal set in the solicitation, please provide an explanation for the failure to meet this goal:		

III. Proposer Certification

I have reviewed the Small Disadvantaged Business information in the Solicitation for Proposals and I understand that:

- The Governor's Executive Order Number 2004-6 sets forth the responsibility of the Department of General Services to develop and implement policy initiatives to substantially increase contracting and subcontracting opportunities for minorities and women-owned businesses in Commonwealth contracts.
- I am expected to make good and reasonable efforts to meet the participation goal identified in the Solicitation for Proposals.
- I am required to solicit small disadvantaged businesses for all contracting/subcontracting opportunities.
- The level of commitments to small disadvantaged businesses may be an important factor in selecting a lessor to provide the leased space.

The information on this form is true and correct to the best of my knowledge. If an agent for the proposer, I certify that I am authorized to represent the above name proposer in connection with this certification.

Signature	
Name (print or type)	
Title	

NOTE: INFORMATION CONTAINED HEREIN WILL BECOME PART OF THE LEASE DOCUMENT IF PROPOSER'S PROPOSAL IS ACCEPTED.

APPENDIX C SOLICITATION INFORMATION DEPARTMENT OF LABOR AND INDUSTRY NORRISTOWN, PA

1. **Landlord:** Please confirm name of signing entity.

2. **Lease Term:** The Department of General Services, Department of Labor and

Industry ("Tenant") will consider a ten (10) year lease.

3. **Lease Commencement:** Tenant requires that the Lease Term commence upon substantial

completion of the tenant improvement work and receipt of a Certificate of Occupancy and the completion of Tenant's "Acceptance of Leased Premises Report." The Lease

Commencement is anticipated to be on or around June 1, 2012;

however, Tenant will entertain an earlier occupancy.

4. **Size and Location:** Tenant requires approximately 5,723 usable square feet (USF) as

defined by The Department of General Services in

Appendix B "Acknowledgement of Usable Area Definition" (the "Premises"). Please identify the location in your Building where the leased space is proposed and if the space proposed is not contiguously on one floor, please identify alternative locations in your Building, including the respective floor, location on floor and

load or add-on factor.

5. **Agencies and Sizes** The Department of Labor and Industry program office occupying

the space will be the Unemployment Compensation Board of

Review.

6. **Expansion Rights:** Tenant requests a method to expand its Premises in the

Building (i.e. option to expand, right of first refusal, right of first offer). The Base Rent for the expansion space will be the same

as the initial Lease Term. The Lease Term shall be coterminous with the initial Lease Term and the Tenant

Improvement Allowance shall be consistent with negotiated leases but pro rated based upon the remaining months in the Lease Term. All other terms and conditions will be the same as those contained in the Lease for the Premises. This requirement is not included in Tenant's program requirements. Landlord should indicate in its proposal the ability to provide this space at the

stated time.

7. **Base Rent/Operating** Please provide the annual gross rental on a full service basis

Please provide the annual gross rental on a full service basis (inclusive of all Base Rent, Operating Expenses and Real Estate Taxes). Please provide a detailed break down of the Operating Expenses and Real Estate Taxes for the Base Year of Operation (first 12months of occupancy), or a 95% Gross up of Operating Expenses, assuming a fully assessed property, whichever is greater. Additionally for existing buildings, please provide the past three (3) years of detailed actual Operating Expenses and Real Estate Taxes. Further, Landlord should note the attached **Exhibit A** listing Tenant's list of operating expense exclusions. Tenant requests that Landlord agree to cap Operating Expense increases at no more than 5% per year.

8. Security Deposit/Prepaid Rent

No Security Deposit. No pre-paid rent.

9. Renewal Options:

Tenant requires two (2), five (5) year. A third option may be considered.

10. Subletting/Assignment:

Confirm Landlord's willingness to grant the right to sublease or assign all or part of the Premises, with Renewal Options, upon Landlord's consent. Tenant will retain any excess consideration and there will be no recapture rights, rent minimums, or subtenant restrictions. Landlord consent shall not be unreasonably withheld, delayed or conditioned. Landlord consent shall not be required if the sublease or assignment is to any subsidiary, affiliate or entity doing business with Tenant. Note this provision does not affect Tenant's ability to assign and place any Commonwealth agency into the space.

11. Life Safety:

If an existing building, please confirm the Building and Premises are fully sprinklered with smoke detection and fire alarms as required by code for improved space. If lessor proposes new construction or a substantially rehabilitated building, please confirm that these systems will exist. The Premises and Building must be fully code compliant.

12. Access:

Confirm that Tenant shall have access 24 hours per day, 7 days per week to the Building and parking facilities (if any) via a card key system. In addition, please confirm if any physically staffed guard/security stations will be located in the main lobby and describe the same. Please describe if dedicated lobby and/or elevator access is available to tenant and any agreement that may restrict Tenant's ability to access the proposed leased space.

13. **Parking/Transportation:**

Please describe any Parking that is available to the Tenant or its Invitees. Please describe proximity of Premises to public transportation and accessibility of Premises to Commonwealth employees and public.

14. Base Building Work:

At Commonwealth's option complete Base Building specifications including project description, structural, roof, exterior wall, interior finish, elevator, fire protection system, plumbing, HVAC and electrical specifications may be requested. If requested, Landlord should include the work mentioned and any work not previously listed. State clearly what is considered Base Building work performed by landlord, at landlord's expense versus Tenant Improvement work. To do this, landlord shall show plans and/or provide narrative detailing landlord's work to complete in order for Tenant's improvements to occur and work that Tenant is being charged as part of its rent. Landlord should note if Historical Tax Credits will apply to building and if work within Tenant's space is affected by these tax credits.

15. **Tenant's Work and Allowance**

This is a turn-key lease with landlord providing, at Tenant's option, the following allowances:

Tenant Allowance: Please provide a ten (\$10 psf) per square foot per usable square feet of space leased allowance for renovation and/or refurbishment in the first renewal option period. The allowance will be utilized by the Tenant within one year of exercising the options. Tenant will offset any unused portion of the TI Allowance from Base Rent.

16. Architectural & Mechanical

Landlord, if Tenant requests, will perform, at Landlord's expense, one (1) test fit to demonstrate the efficiency and work flow of Tenant's program office in the space. Please confirm that the Tenant will be able to perform test fit on proposed Premises at Landlord's sole cost.

Landlord will not charge Tenant any fees paid by Landlord for plan reviews, supervision or construction management. Tenant, at Tenant's expense, shall have the right to retain a construction manager to oversee Tenant's work. Please describe what allowance is available, as an allowance to Tenant for this work.

17. Signage:

Tenant requests the Landlord, at Landlord's sole cost and expense provide Building, directory, elevator, monument and lobby signage. Landlord shall provide, at Landlord's sole cost and expense "No Smoking" as required by the Clean Air Act.

18. **Non-Disturbance Agreements:**

Tenant may require that each ground Landlord, mortgage holder or lien holder execute a commercially reasonable non-disturbance agreement(s). Said non-disturbance agreement(s) shall be in recordable form and may be recorded at Tenant's election and expense.

19. **Hours of Operation:**

Please state standard Building hours and the costs associated with after hours HVAC (see section 31) and electric changes, if any.

20. **Use:**

Governmental Functions, General Office and any other legally permitted use.

21. **ADA Compliance:**

Landlord represents and warrants that the Building is in ADA compliance and that the Landlord, at its sole cost and expense, will be responsible for ADA compliance of all Building common areas and the Premises except as compliance may be modified by Tenant's work.

22. Code and Zoning Compliance:

Landlord represents and warrants that the Building complies with all current code requirements including but not limited to electrical, plumbing, and fire/life safety, except as compliance may be modified by Tenant's work. Landlord, at landlord's expense, shall be responsible for all changes required by code.

23. Environmental/Asbestos:

Landlord represents and warrants that the Building is or will be in compliance and/or meets criteria set in Exhibit C "Asbestos" of the proposed lease document

24. Real Estate Broker Representation:

There is no real estate broker representative that commonwealth interest in this proposed transaction.

25. Landlord & Lender Description:

Please provide a description of the property's current ownership structure and financing sources.

26. **Major Tenants:**

Please list and identify principals of all major tenants in the building and their applicable expand rights if any.

27. **Technology Infrastructure:**

Please describe the property's existing or planned infrastructure relative to fiber, high-speed data transmission, internet connection, power redundancy and all other telecommunication support planned for the property. Please indicate building demarcation point. The building should have access to high speed data transmission and internet connectivity.

28. Prior Access:

Tenant, its agents, contractors, architects, consultants, etc. shall be permitted access to the Premises, including access to and use of the loading docks, elevators, construction hoists, electrical service, etc. to allow Tenant to plan and commence its required work. There shall be no charge for the use of said facilities.

29. Alterations:

Tenant may perform or cause to be performed any alterations in the Premises without Landlord's consent if such work does not materially affect the Building structure, mechanical, HVAC or electrical system. In no event will Tenant be responsible to Landlord for any fees for supervision and/or coordination of said alterations.

30. Landlord Compliance with Laws:

Landlord shall keep and maintain the Building and the Premises in compliance with all applicable governmental rules, laws, statutes and regulations and in accordance with all applicable environmental, insurance and ADA requirements. Tenant shall not be responsible to pay any portion of said costs or expenses.

31. Heating, Ventilation and Air Conditioning:

Confirm that Landlord shall provide heating, ventilation and air conditioning (HVAC) during normal business hours. Landlord is required to maintain the existing HVAC system in top working condition and provide timely preventative maintenance and parts replacement per standard HVAC performance requirements in lease. In the event that Tenant desires after-hours HVAC, Landlord shall furnish it at cost equal to Landlord's actual cost. Please state after-hours HVAC costs, if any, and the procedures for accessing after hours HVAC.

32. Cleaning & Maintenance Services:

Landlord shall contract for cleaning services Monday through Friday in and about the Premises in accordance with first-class buildings located in the nearest metropolitan area (See Tenant's Janitorial Specifications attached to lease). A mutually acceptable janitorial schedule shall be made an attachment to the Lease. Tenant shall have the ability to contract for its own janitorial services should Landlord provided services prove unsatisfactory to Tenant. A deduction from the Operating Expenses equal to Landlord's cost of said janitorial services shall apply.

33. Consent:

In any instance where Landlord's consent is required, it shall not

be unreasonably withheld, delayed or conditioned.

34. Amenities:

Please address all existing or planned amenities of the Building or project. Also include any and all amenities available for exclusive use by tenant.

35. **Non-Smoking Building:**

Please confirm that the building is a non-smoking building.

36. Contingency:

This request for proposal is subject to Landlord and Tenant executing a lease agreement, Tenant's legal review, senior management approval, approval by the Board of Commissioners of Public Grounds and Buildings and delivery of a fully executed lease to Landlord.

37. Lease Agreement:

Tenant shall have the right to use a Commonwealth of Pennsylvania approved Lease Agreement. A copy of a SAMPLE Lease Agreement is included in this bid package. Landlord reserves the right to negotiate lease provisions to insure timely delivery of the Premises. Certain standard lease language addresses constitutional and statutory requirements of the Commonwealth, including but not limited to language concerning appropriations of funds cannot be altered.

38. Ground Lease:

Confirm there is no ground lease or provide details if there is one.

39. MBE/WBE/DBE Participation

In addition to completing the required form with submission, please provide a narrative stating how you plan to fulfill this requirement. If available, please state the names of the firms to use for the project. Note the vendor must be a state certified firm. If the firm is not certified, certification should occur prior to proceeding with vendor's work. Small Disadvantaged Business Program information and a database of BMWBO-certified minority- and women-owned businesses can be accessed at www.dgs.state.pa.us, Keyword: BMWBO. The federal vendor database can be accessed at www.ccr.gov by clicking on Dynamic Small Business Search (certified companies are also indicated)

40. Energy Conservation Measures/Green Tech.:

Consideration will give given to Landlord employing materials and strategies to institute energy conservation and green technology throughout the building including but not limited to water conservation through use of low flow china, use of energy efficient lighting and lamps computerized management systems for control of HVAC and lights, use of recyclable materials in building fixtures and throughout construction, etc. Landlord will evaluate efficient use of building envelop weatherization and insulation. Landlord will provide a written narrative with proposals indicating the energy conservation measures and green technology planned during construction and operation of the facility.

41. Rooftop Equipment:

Tenant, at its cost and expense, shall have the non-exclusive right to install, maintain, and from time to time replace a satellite dish,

Exhibit A (Operating Expense Exclusions)

The following items shall be excluded from Direct Operating Expenses:

- (A) Expenses for capital improvements made to the Building other than capital improvements intended to reduce the energy consumption or Direct Operating Expenses of the Building;
- (B) Expenses for repair, replacements and general maintenance paid by proceeds of insurance or by Tenant or third parties, and alterations attributable solely to tenant of the Building;
- (C) Interest and any increase in the rate of interest payable by the Landlord with respect to any debts secured by a deed to secure debt or mortgage on the Building or the Property;
- (D) Amortization, debt service, or other payments on loans to Landlord;
- (E) Depreciation of the Building;
- (F) Leasing commissions or expenses;
- (G) Legal expenses for disputes with tenants; legal and auditing fees, other than those legal and auditing fees necessarily incurred in connection with the maintenance and operation of the Building; and legal or accounting fees incurred in connection with any debt or equity financing of the Building or in connection with any reports, returns, or other financial or tax reporting or accounting performed for the benefit of investors, partners or affiliates of Landlord;
- (H) Income, excess profits or franchise taxes or other such taxes imposed on or measured by the income of Landlord from the operation of the Building or any inheritance, estate, succession, transfer, gift or intangible taxes that are or may be imposed on Landlord;
- (I) The cost incurred in performing work or furnishing services for individual tenants which work or services are in excess of work and services provided to Tenant under the Lease, such as, without limitation, the costs associated with the building condenser water system and the shared services telecommunication switch:
- (J) Expenses for repair or replacement paid by proceeds of insurance or of condemnation awards;
- (K) Expenses incurred in leasing or procuring new tenants including (advertising expenses and expenses for the preparation of leases or renovation of space for new tenants);
- (L) The amount of rent payable under and pursuant to any ground lease pertaining to the Property;
- (M) Costs incurred which are subject to reimbursement by other tenants of the Building or third parties;
- (N) Wages and costs associated with home office, off-site employees of Landlord other than the reasonable cost of professional services provided by such employees which would otherwise be provided by outside professionals;
- (O) Any unreasonable advertising and promotional expenses, any unreasonable allocations of costs and expenses of the Property to the Building, and any costs of removing asbestos or hazardous substances;
- (P) Costs of special services rendered to individual tenants (including Tenant) for which a special charge is made:

- (Q) Repairs, alterations, additions, improvements, or replacements made to rectify or correct any defect in the original design, materials or workmanship of the Property or common areas;
- (R) Damage and repairs necessitated by the gross negligence or willful misconduct of Landlord, or its employees, contractors or agents;
- (S) Landlord's general overhead expenses not related to the property;
- (T) Costs (including permit, license and inspection fees) incurred in renovating or otherwise improving, decorating or painting or altering space for individual tenants or other occupants or of vacant space in the Property;
- (U) Costs incurred due to violation by Landlord or any other tenant of the Building of the terms and conditions of a lease:
- (V) Expenses incurred for the repair, maintenance and operation of any parking garage, included but not limited to salaries and benefits of any attendants or person;
- (W) Expenses for the replacement of any item covered under warranty;
- (X) Property management fee's for the building in excess of 3% of the base rents of the building (exclusive of capital expenditures, tenant reimbursements and ancillary income from other tenants);
- (Y) Salaries of (i) employees above the grade of building superintendent or building manager and (ii) employees whose time is not spent directly and solely in the operation of the Property;
- (Z) Reserves;
- (AA) Any other expense which, under generally accepted accounting principles applicable to real estate operations, would not be considered a reasonable maintenance and operating expense.

APPENDIX "D" BUILDING SPECIFICATIONS COMMONWEALTH OF PENNSYLVANIA DEPARTMENT OF LABOR AND INDUSTRY

DATE November 30, 2011

Unemployment Compensation Board of Review

Norristown, Montgomery County, PA

LESSOR:			

AGREEMENT

1. USABLE SQUARE FEET

Lessor agrees to provide office space consisting of <u>5,723</u> total net usable square feet. Office space must be located out of or higher than the 100 year flood plain. There are twelve (12) employee(s). A minimum of one passenger elevator is required in a multi-story building or any building situated above ground level; and it must be capable of handling some freight. Downtown building sites that are considered "brownfield sites", i.e., properly rehabilitated, remediated and approved industrial sites, will be given preference in site selection.

2. <u>BUILDING SUPPORT SPACE</u>

Refer to Commonwealth's Usable Square Foot definition in proposal package.

3. PROVISIONS

Lessor must furnish all labor, superintendence, material, tools and equipment and perform all work necessary to complete all construction to the satisfaction of the Commonwealth of Pennsylvania. Lessor must complete all general construction work shown on drawings and in the specifications, but not expressly mentioned in the specifications, and all work specified and not shown on the drawings but obviously necessary to complete construction, as it is not the intent to delineate or describe every detail and feature of the work. Facility to be designed, constructed, maintained and operated in a manner which maximizes energy efficiency.

Asbestos or construction materials containing asbestos is prohibited. Friable materials containing asbestos exposed during renovations or alterations must be removed in accordance with OSHA and EPA recommendations. Lessor agrees to comply with provisions of Exhibit C, Asbestos, of the Commonwealth lease document, if lessor successfully secures an executed lease agreement with the Commonwealth.

4. CONSTRUCTION CODES

Lessor must comply with the adopted PA UCC Building Code; American-Standards publication ANSI Bulletin A117.1 - 2003, "Accessible and Usable Buildings and Facilities"; PA State Act 235, American Society for Testing and Materials publications and tests; all federal building and material specifications; and the latest State and local construction codes and ordinances, applying whichever is more stringent.

5. RECYCLING ORDINANCES AND REGULATION

The lessor shall establish and maintain a separation and collection procedure for the removal of recyclable materials from the leased premises. The lessor shall collect, at a minimum, office paper, corrugated boxes, aluminum, plastic, and glass, and lessor shall comply with Act 101 of 1988 and any existing local codes and ordinances relating to the separation and disposal of recyclable materials.

The lessor must provide suitable containers, dumpsters, etc., for collecting and storing recyclable materials. The lessor shall empty all recycling receptacles and remove recyclables to a designated area as often as necessary taking into consideration the volume of the recyclables and health concerns. The lessor, at his sole expense, will assume all the costs involved in collecting, storing and removing recyclables.

The Commonwealth may identify those recyclable materials, generated from agency operations at the leased premises, which it desires to sell as serviceable property. At its discretion, the Commonwealth retains the right to dispose of such materials itself. When and if the Commonwealth exercises this discretion, the lessor shall thereafter not be responsible for those materials selected by the Commonwealth for disposal by the Commonwealth.

6. APPROVALS

Before any building is erected, adapted, remodeled or altered, detailed architectural plans and elevations for all new construction, all remodeling or alteration work, and line drawings to scale for all other portions of the buildings showing means of egress, shall be submitted to and approved by the enforcing municipality or the Department of Labor & Industry for compliance with the PA Uniform Construction Code (UCC). A UCC Certificate of Occupancy issued by the enforcing municipality or the Department is required prior to occupancy. Any variations from these specifications MUST have the approval of the Department of Labor & Industry, Property Division. The lessor must be able to substantiate that he has obtained said approval. Lessor is required to hire an architect unless waived by the Department of Labor & Industry.

7. BRAND NAMES

The citation of brand names and model numbers throughout this document is intended only to define the standard of the article being described and is not intended to be proprietary. The Department of Labor and Industry will consider any manufacturer's products so long as they are equal in quality to the brands cited, at its sole discretion.

(REV 10-09)

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SECTION A. EXTERIOR

1. FOUNDATIONS

All foundations must be constructed of sufficient size and strength and placed on load-bearingsoil of sufficient compactness to carry the weight of the building components and all equipment.

The concrete for the foundations shall be reinforced where necessary and be homogenous and when hardened, shall have the required strength, resistance to deterioration, durability, resistance to abrasion, water-tightness, appearance and other required properties.

2. EXTERIOR WALLS

All exposed exterior walls must be of masonry or wood frame construction with brick, stone or metal facing material and be approved by the lessee.

3. ROOF CONSTRUCTION

Workmanship and material shall meet all codes and industry recommendations of the manufacturer of the roofing materials.

4. CONCRETE WALKS AND CURBS

Installation and construction of concrete walks and curbs shall conform to the current requirements of the Pennsylvania Department of Transportation, including the installation of stone fill under the sidewalk. All sidewalks shall be reinforced as architecturally designed. Sidewalks shall be constructed in separate slabs, and these slabs shall be separated by one-fourth (1/4") inch thick transverse control joints at 6' intervals.

5. ENTRANCES AND APPROACHES

Approaches to entrances and exits must be concrete construction and reinforced as architecturally designed. Where ramps are deemed necessary from the entrance or exit to the sidewalk or street level, the maximum grade permissible is 8%. Handrails must be provided along the ramps.

6. PARKING AREA

Paved parking area must be provided for as many cars as specified in the Solicitation for Proposal (SFP) and/or lease. Materials and workmanship shall conform to latest applicable requirements of Pennsylvania Department of Transportation specifications. The paved parking area must be striped and numbered to provide the number of stalls specified, and in multi-use parking lots, Labor & Industry spaces must be separately identified, if requested. Cars must have free ingress or egress to parking stalls. Furnish and install in locations as required, precast concrete bumping blocks. Metal stanchions with chain and lock should be provided at entrances and exits. Exit and entrance signs will be provided and appropriately located. Handicapped parking spaces are to be designated and the number of spaces will be determined by Lessee to comply with applicable codes and ANSI. An "Employees Only" sign will be provided. A minimum of one (1) parking stalls meeting ADA requirements must be provided onsite.

SECTION B. ENTRANCES AND EXITS

1. ENTRANCE DOORS AND FRAMES

Entrance doors to lessee's space must be provided, must swing outward, must be a minimum of 36" wide, be constructed of metal and glass to conform with the higher standard of Chapter 33 of the Pennsylvania Building Regulations Code and/or Federal/OSHA standards, and must be equipped with kick plates, push-pull plates and automatic door closing devices. Framework for doors must be constructed of metal. One (1) exterior cigarette urn to be provided, if requested by lessee.

2. DOOR HARDWARE

All entrance and exit door hardware must be of suitable type and ample size and weight to perform the service required. Hardware to be heavy-duty mortise entrance lock 6 pin, keyway C or E, with lever handle (Schlage D Series, Athens or equal), and surface mounted overhead ADA compliant closer with concealed fasteners (no through bolting). The hardware must be of one design and finish. All entrance and exit doors must be keyed alike. Install a delayed action door closer at the handicap entrance. All door operations and hardware must meet ADA Standards.

3. <u>EXIT DOORS AND FRAMES</u>

Exit door(s) from lessee's space must be minimum 36" wide and equipped with panic bars, kick plates, and automatic door closing devices. Framework for doors must be constructed of metal.

4. VESTIBULE DOORS AND FRAMES

In buildings where the Department of Labor and Industry is the sole tenant, interior vestibule doors must be provided in all public and staff entrances and vestibule doors must match exterior doors and be equipped with kick plates, push-pull plates, and automatic door closing devices.

5. EXIT FOYER / CANOPY

In buildings where the Department of Labor and Industry is the sole tenant and/or occupies first floor space, Lessor agrees to provide exterior exit foyers if requested by lessee. Large canopy or foyer of permanent type construction must be installed at each entrance and exit, in accordance with the general decor of the building, if requested by lessee.

SECTION C. INTERIOR

1. COLUMNS

Columns shall be finished with materials to correspond with interior décor complete with two duplex electrical outlets. All exterior, demising and core walls and columns shall have gypsum board installed and finished. Columns shall be wrapped in gypsum board in accordance with a design plan to be provided by lessee and shall include spray fireproofing as required by building codes.

2. VESTIBULES AND EXITS

In buildings where the Department of Labor and Industry is the sole tenant, inside walls of vestibules and exits must be constructed of scuff- resistant material, 4'6" in height. Weather mats must be furnished by lessor and installed in entrances and exits.

3. WINDOWS

All exterior walls must be equipped with modern window units where specified. Window locations and size must be acceptable to lessee, and must provide a maximum of natural light. All windows must be Thermopane type or other acceptable energy-conserving brands. All windows must be of certification quality for deflection, air and water infiltration.

4. <u>WINDOW COVERINGS</u>

All windows and window areas must be equipped with polished aluminum or vinyl venetian blinds and plastic tapes; color specified and approved by lessee. Curtains will be substituted for blinds if requested by lessee.

5. WALL FURRING

All interior brick, cinder, tile or concrete block walls to be furred out with metal or wood, from the floor to ceiling height and insulated. The furring must be of suitable type and size to support the weight of the interior finishing materials.

6. <u>INTERIOR PARTITIONS</u>

All interior partitions must be erected in accordance with the floor plan. The landlord shall review the typical floor plan and/or the space allocation to determine the offices requiring interior partitions. The location of private offices and auxiliary space requiring partitions to be constructed by the lessor will be determined by lessee in the final design phase of the project. Interior partitions shall be constructed as follows:

- a. Non-Rated/Non-Insulated Partition to underside of ceiling grid One layer 5/8" gypsum wallboard to each side of 3-5/8" 25 gauge steel studs 16" on center. Tape and spackle. 2" felt strip between top track and ceiling system with contiguous plastic zip bead.
- b. Non-Rated/Insulated Partition extend from floor to 6" above ceiling grid One layer 5/8" gypsum wallboard to each side of 3-5/8" 25 gauge steel studs 16" on center. Tape and spackle. 3-1/2" sound attenuation blanket in wall cavity and above ceiling (extend 26" in both directions). 2" felt strip between top track and ceiling system with continuous plastic zip bead. Rooms requiring this treatment include hearing rooms, mediation rooms, attorney conference rooms, private offices, testing rooms, conference rooms, and/or areas where meetings occur.

Note drywall at all columns and exterior perimeter walls are to be finished at the sole cost of the lessor and is not included in lessee's fit out.

7. WALL FINISH

Lessor to prepare walls, as required, receiving new finishes as follows:

- a. Paint Interior walls must be finished with one coat of primer and two coats of a durable latex paint suitable for the work and traffic areas, Benj. Moore/MAB/Duron/F&H or equal. Semi-gloss latex paint to be applied in employee room, restrooms, and on all trim. Note no surface will be painted using a flat latex paint unless approved by the lessee. Lessor to provide touch up painting after lessee move in.
- **b.** <u>Wallcovering</u> Pre-finished vinyl-clad gypsum board or plain gypsum board with vinyl wall covering applied to it is required in all mediation rooms, conference rooms, attorney conference rooms, hearing rooms, training rooms, and testing rooms, unless waived by lessee.

All wall finishes and colors must be approved by lessee. If requested by lessee, lessor will install a chair rail of approximately 3" width at an appropriate wall height in high-traffic rooms such as hearing rooms, attorney conference rooms, mediation rooms, and waiting room.

8. <u>DOORS AND HARDWARE</u>

- a. Interior Doors Solid core construction, 3'x7'x1-3/4", paint grade; 1-3/4" building standard painted hollow metal knock down frames; heavy duty all purpose commercial grade interior hardware to match building standards, interchangeable cylinder type with ADA compliant lever handle (Schlage D Series, Athens or equal); full mortise heavy duty butt hinges; neoprene silencer; wall/floor stops. Lessor agrees to furnish and install visibility windows in interior doors as required by Lessee. The usual locations would be in the hearing rooms, library, conference rooms, training rooms, interview rooms, mediation rooms and/or attorney conference rooms. Interior doors will be keyed, unless specifically declined by lessee.
- **b.** <u>Closers</u> Surface mounted overhead ADA compliant closer with concealed fasteners (no through bolting). Provide hold open feature at non-rated doors.
- **c.** <u>Closet Doors Hardware (if required)</u> Dummy lever trim and heavy-duty roller catches for double doors at coat and supply closets.
- **d.** Fire Rated Provide fire rated door and frame assemblies at suite entrance and exit doors.

9. CEILINGS

All ceilings shall be acoustical tile suspended by an intermediate duty suspension grid system unless the exposed interior shell and structural system comprise an acceptable interior environment that does not need a suspended ceiling system for acceptable aesthetic, acoustic and lighting requirements. Any exposed mechanical and electrical elements are acceptable if in accordance with codes and if treated in an aesthetic manner and approved by lessee. Acoustical tile and grid system for ceilings shall be selected to reduce energy costs and provide sustainable design. All ceilings shall be at least 9 feet in height above finish flooring, unless a lower dimension is approved by lessee. Acoustical products shall have a Class-A fire resistance per ASTM E 1264 and a flame spread of 0-25 per ASTM E 84 and must have a minimum of 50% post consumer recycled content. Ceiling tiles shall have a 89% minimum light reflectance with a minimum NRC of .70 in compliance with ASTM C 423 and a CAC minimum of 35 in compliance with ASTM E 1414, such as the Ultima Hi-LR series as manufactured by Armstrong World Industries, Inc. or lessee approved equal. Ceiling(s) in the telecommunication/data room(s) must be provided with acoustical tile on a suspension grid system.

10. FLOORS AND FLOOR COVERING

a. Floors

For newly constructed buildings, 4" of coarse aggregate is to be spread throughout proposed floor area. Polyethylene waterproofing material, or equivalent, shall be used as a vapor barrier between aggregate and concrete. Floor areas to consist of a minimum of 4" thickness of concrete. All flooring must be leveled prior to installation of tile. Floor should be properly insulated against heat if over boiler or other highly heated areas. Where no heat is in a basement, appropriate insulation should be installed to minimize cold or dampness coming through the floor. If floor is otherwise constructed or existing floor is used, floor must be leveled and properly insulated prior to installation of tile. Floor loads in designated areas must be capable of supporting a high-density filing system, if required by the lessee. **NOT REQUIRED FOR THIS SITE**

b. Floor Covering

Tile: Vinyl composition tile or equal shall be provided in entry, stock, employee, utility and janitor rooms and other areas designated by Lessee. Tile shall be 12" x 12" - 1/8" gauge. SS-T 312B (1) Type IV, Composition 1 - ASTM E 84 Flame Spread - 75 or less. Load limit 50 PSL. Cove base shall be 4" high vinyl or rubber. Ceramic tile may be requested by lessee at entrances. Colors and patterns must be approved by lessee.

Carpeting: A commercial grade carpet shall be provided in waiting areas, work areas, private offices, conference and testing rooms and other areas designated by lessee. Carpet material shall be 100% nylon meeting FHA minimum standards for "Heavy Traffic Areas". Carpet material shall be Lee's "Attributes" carpet squares or lessee-approved substitute with a minimum 10 year guarantee, 26 oz. with a 1/10 level loop, 3/16 inch pile height, 11.33 stitches per inch, static resistant, 4 ply, solution dyed and a Dennier of 3300. Carpet backing material shall be jute/poly composition and shall be glued down. Colors and patterns must be approved by lessee.

All worn, frayed, or torn carpeting will be replaced by the lessor, as necessary, throughout the term of the lease. All carpet that has reached the end of its useful life or is more than ten years old, must be replaced by the lessor unless waived in full or in part by the lessee. At any time during the term of the lease carpet is replaced or repaired, the moving of the lessee's furniture and equipment, excluding computers and related equipment, shall be the responsibility of the lessor.

SECTION D. HEATING, AIR CONDITIONING AND VENTILATION

1. HEATING

Heating system(s) shall provide and maintain an inside automatically controlled temperature under all conditions of 74 degrees Fahrenheit dry bulb +/-2 degrees Fahrenheit in winter.

2. <u>AIR CONDITIONING</u>

Air conditioning system(s) shall provide and maintain an inside automatically controlled temperature under all conditions of 75 degrees Fahrenheit dry bulb +/- 2 degrees Fahrenheit in summer.

3. **RELATIVE HUMIDITY**

Relative humidity shall be maintained at 40-60% where practical.

4. <u>FALL AND SPRING CHANGEOVER - Intermediate Seasons</u>

Adjustments shall be made as necessary to effect optimal temperature in the occupied space. Temperatures below 68 degrees F dry bulb or above 77 degrees F will be considered in violation of lease conditions.

5. <u>VENTILATION</u>

Mechanical ventilation shall be provided on a year-round basis. Ventilation air introduced into occupied spaces shall be free of outside contaminants and tempered according to the season; i.e., heated in winter and cooled and dehumidified in summer. Air-conditioning systems may be used for winter-time ventilation provided the outside air component is heated before delivery into the occupied space.

- **a.** For systems introducing 100% outside air, ventilation shall provide a minimum of 20 cfm per occupant or 0.25 cfm per square foot of floor area, whichever is greater.
- **b.** For air recirculation systems, fresh outside air shall be introduced into the systems at a rate of 20 cfm per occupant. Where design occupancy is unknown, it shall assumed to be 10 persons per 1000 square feet of floor space.
- **c.** In special cases where air recirculation systems are equipped with air cleaning devices designed to remove odorous and gaseous contaminants, the fresh outside air component may be reduced to 5 cfm per occupant.

6. EXHAUST SYSTEMS

Exhaust systems shall be provided for ventilation of toilet rooms, lunch areas, main work area, conference, hearing and testing rooms. Systems shall comply with state and local regulations.

7. STANDARDS

All heating, ventilation, and air conditioning systems shall be designed in accordance with the current ASHRAE standards, where practical. ASHRAE 90-75 shall be the standard for new buildings. Variation from this requirement must be with the approval of the Department of General Services and the Department of Labor and Industry.

8. SERVICE AND MAINTENANCE

HVAC systems shall be designed, maintained, and operated in a manner which maximizes energy efficiency. All equipment and systems shall be in operating order 24 hours per day and shall be serviced and maintained by the lessor. A program of preventive maintenance must be in place for all ventilation equipment, including changing filters, checking baffles, ductwork, damper positions, and system balance. Actual air flow supplied to occupied areas must be measured and any necessary maintenance or repairs, done to comply with the original design specification and the ASHRAE Guidelines, shall be provided by lessor throughout the term of the lease. Multiple zoning with tamper-proof controls and thermostats are preferred.

9. <u>TESTING AND INSPECTION</u>

HVAC system shall be tested and inspected by lessor prior to occupancy to determine if environmental conditions as stated per lease agreement are met, and if adequate ventilation is provided for each area in accordance with ASHRAE Handbook, 1984 Systems Volume, Chapter 37, "Testing, Adjusting, And Balancing", and NEBB 'Procedural Standards for Testing, Adjusting and Balancing of Environmental Systems'.

Upon completion of testing and inspection, a certified report, signed by a registered engineer, who is certified by the National Environmental Balancing Bureau (NEBB), shall be submitted to the Department of Labor and Industry, Property Division, Room 101, Labor and Industry Building, 651 Boas Street, Harrisburg, Pennsylvania 17121.

The report shall be valid proof that the systems have been tested, adjusted, and balanced in accordance with the referenced standards, and be a true representation of how the systems are operating.

Lessor shall be responsible throughout the term of the lease to provide, at the request of the Department of Labor and Industry, testing of the environmental conditions within the office, to include submission of a detailed report, including recommendations for HVAC system renovations if required to provide adequate ventilation and environmental conditions as stated per lease agreement, and signed by a registered engineer. However, if the report indicates that the HVAC system is in compliance with the terms of the lease, the Department of Labor and Industry will reimburse the lessor for any testing and report costs incurred as a result of the request by the Department.

SECTION E. <u>ELECTRICAL</u>

1. INSTALLATION

The electrical installation must be a completely approved wired system to all electrically operated equipment. The installation shall conform to the requirements of the latest edition of the National Electrical Code, the National Board of Fire Underwriters, the Department of Labor and Industry and other governmental or local authorities having jurisdiction.

2. <u>LIGHTING</u>

Except where otherwise provided in this specification, lighting shall be designed in accordance with the American Standard Practice of the Illuminating Engineering Society of North America, ANSI/IESNA #RP-1-04 or later revision.

Office areas shall provide ambient lighting at the levels stated below under minimum lighting levels with combined indirect and direct pendent mounted luminaries unless otherwise designated by lessee. The lighting system shall also consist of a split ambient and task lighting system with the use of high-efficiency lamps and parabolic and prismatic fluorescent lighting fixtures for auxiliary spaces as designated by the lessee. All fluorescent lighting fixtures shall be energy-efficient, dual electronic ballast type capable of split switching and suited to the application. Instant start ballasts shall be used where the fixtures are turned on and left on all day. Rapid start ballasts shall be used in auxiliary spaces where the fixtures will be turned on and off by occupancy or motion controls, where desired by lessee.

Standard fluorescent fixtures with prismatic lenses may be used in some room locations, as desired and if approved by lessee. Split switching of the 2' x 4' fluorescent lighting fixtures shall

be standard where utilized in conference rooms, and special use areas. Conference rooms and other special rooms shall include recessed-can type dimmable incandescent fixtures utilizing tungsten halogen lamps.

In general, the lighting schemes should avoid high contrast, scalloped patterns, or other visually distracting results. Lighting control technologies shall be installed to effectively combine the use of daylight and fluorescent lighting with daylight sensors and dimmable fluorescent ballasts in open office areas and lobbies. Occupancy sensors shall be installed to reduce energy consumption by switching off fixtures in unoccupied areas. Coordinate all spaces for occupancy sensor control with the lessee.

Ambient lighting shall consume no more than 0.9 watts/square foot with a measured minimum ambient lighting level of 30 foot-candles at the work surface. T-8 or T-5 fluorescent lamps shall be provided with a color rendering index (CRI) of 85 and a color temperature of 3500°K, similar to Osram Sylvania Inc., Phillips Lighting, E or approved equal.

Lessor shall provide, install, and replace all light bulbs, lamps, ballasts and starters required throughout the term and all available option periods during the lease. All replacement lamps shall meet the above specification.

Minimum Lighting Levels

Work Surfaces (including task lighting) - 50 ft-candles
Work Area Ambient Lighting - 30 ft-candles
Telecommunications Room(s)/Closet(s) - 50 ft candles

(to be controlled by occupancy

sensor)

Special Purpose Area(s) - 75 ft candles

(to be controlled by occupancy

sensor)

Hallways/Corridors - 25 ft candles

Conference/Meeting Rooms

Fluorescent Lighting - 30 – 70 ft-candles

(using dimmable Fluorescent ballasts or split switching)

Incandescent Lighting - 10 – 30 ft-candles

(using split switching, or dimmable

incandescent lighting)

Office Automation and Document - 30 ft-candles

Processing Center

Restrooms - 40 ft-candles

(to be controlled by occupancy

sensor)

Parking Lot Areas - 1 ft-candle

(parking lot and exterior lighting shall be controlled by a programmable timer with an integrated photocell control

device)

Exit Lighting - LED type fixtures consuming no more

than 2 watts per fixture

3. TELE-POWER POLES

(In Lieu of under floor duct system when applicable and approved by lessee) Lessor to provide sufficient amount of power poles as required to accommodate furniture plan.

Furnish and install, where required, dual-channel tele-power poles to carry power circuits in one side and low potential communications circuits for telephone, intercom and CRT equipment in the other, fed directly from overhead raceway or other wiring system.

4. INTERIOR CONDUIT AND WALL OUTLETS AS REQUIRED FOR ELECTRIC, DATA & TELEPHONE

All interior conduit shall be rigid steel and/or electrical metallic tubing and shall conform to the latest Federal specifications. They shall be of ample size to properly accommodate conductors passing through or contained therein. At all locations shown on drawings, an outlet box of proper type and minimum size to satisfy intended requirements shall be provided. Boxes shall be rigidly secured in position, set true and square.

If lessee selects modular furniture for use in the leased premises, lessor agrees to assist and coordinate with lessee's modular furniture vendor(s) the installation of same and coordinate any required electrical, data and voice installation.

5. <u>DATA AND TELECOMMUNICATIONS</u>

See enclosed "VOICE, DATA, AND POWER INFRASTRUCTURE SPECIFICATIONS" for complete IT specifications.

Lessor to provide and install all cable and connectors necessary to support computer and voice related equipment as designated by lessee, with strict adherence to the enclosed "Labor and Industry Voice, Data and Power Infrastructure Specifications". Lessor should assume approximately thirty (30) CAT -5e voice drops, thirty (30) CAT 6 data drops, and two (2) 50-pair riser cable from the main building demarc to the L&I LAN room wallfield will be required. This number may change slightly based on individual building configuration, but is believed to be a good general estimate.

Listed below is the Department of Labor & Industry, Office of Information Technology (OIT) cabling requirements, which includes the number of voice and data cables and specific cabling work required for the office. This information is provided to assist you in understanding the scope of work required. Note a final "Cabling Statement of Work" will be provided after a final furniture plan is approved, which will detail the exact location for all voice, data, and electrical outlets. The lessor will be responsible to perform the work contained therein.

Fiber optic cabling may be required when distance issues plays a factor, for example, in buildings where the demarc is located greater than 300 feet from the LAN room or when offices are located on various floors in the building, and fiber cabling between LAN rooms is required for connectivity.

6. <u>CABLING REQUIREMENTS</u>

The following gives detailed instructions on voice, data, electrical, and LAN Room installation. Once L&I has a final furniture plan in place, a Final Statement of Work will be submitted with the floor layout showing exact voice/data and electrical locations for the office as well as a detailed layout of the LAN room.

All permits, applications, ordinances, licenses, etc., of the respective city, county, state, and federal governments are the sole responsibility of the vendor. Failure to comply with any necessary documentation is at the vendor's own risk. The Commonwealth of Pennsylvania, Department of Labor & Industry is not responsible to provide, furnish, account, or be held responsible for, any and all documentation in regards to working permits and licenses.

The following is a time-sequenced listing of steps that need to be completed in order to successfully complete this project.

A. Remove Unused Voice, Data and Coax cable

Before cabling the office space, vendor must remove all un-terminated existing voice, riser and data cables from their ending points (drops and cables terminated within the proposed office area) all the way back to their origination points or MDF. Unused voice and data cabling is defined as cabling that is un-terminated and abandoned.

B. LAN-Telco Room Construction

- 1. Build the LAN Telco Room to the dimensions shown on the floor plan. The room must be at least 7'x 9' in size.
- 2. The LAN-Telco room door must be equipped with a lockable key-set.
- 3. The floor should be either:
 - a. Sealed concrete or
 - o. Non-static vinyl floor tile
- 4. There should be a dropped ceiling in the LAN room.
- 5. There should be eight prismatic fluorescent ceiling lights (2' X 4') installed having (4) 40-watt tubes each.
- 6. A light switch should be located on the wall right inside the LAN-Telco room door to control the overhead lighting.
- 7. The room MUST be equipped with year-round cooling or air circulation to maintain a temperature in the room at or near 72F to 76F.
- 8. The cooling capacity required in the LAN-Telco room will be 10,000 BTUs. No heat is required in this room.
- 9. Install unpainted fire retardant 3/4" plywood (good on one side) on one wall of the new LAN-Telco room to create an area (8' height X 8' wide) to be used as a Telco wall-field. Typically behind the newly installed LAN rack.

C. Install LAN Telco Room Equipment and Wiring

- 1. Refer to the enclosed drawing that shows the configuration and location of the LAN rack (Diagram #1).
- Parts list for a Chatsworth, (Black), 7 foot, LAN rack that must be ordered by the cabling contractor to build the desired LAN rack configuration is as follows:
 a. Chatsworth LAN Rack (19"W X 84" H) P/N 46353-703 Qty = 1

b.	Single-Sided Shelf, Vented (19")	P/N 40117-719 Qty = 1
C.	Floor Mounting Kit: Concrete Floor	P/N 40604-001 Qty = 1
	OR Wood Floor P/N 40	0607-001 Qty =1
d.	Rack-Mount Ground Bar	P/N 10610-019 Qty = 1
e.	Ground Bus Bar Kit, Wall Mounted	P/N 10622-010 Qty = 1
f.	Base Dust Cover	P/N 41050-719 Qty = 1
g.	Mounting Screws	P/N 40605-005 Qty = 1
h.	Single-Sided, Wide, Vertical Wire Mgt.	P/N 11374-703 Qty = 1
i.	Horizontal Wire Mgt Panels, 2.8" X 6"	P/N 11564-719 Qty = 2

- 3. L&I will provide the UPS (battery back-up unit), power strip and network switches and router that go in the LAN racks.
- 4. The cabling contractor is to install a ground bus bar at the top of both of the LAN racks on the backside of the rack frame rails.

D. <u>Electrical Requirements</u>

- 1. Refer to the enclosed Power Management specifications for details regarding power requirements for equipment for each workstation. In general, a maximum of (4) PC's will be on each 20 amp dedicated circuit and each printer and copier will also be on their own dedicated circuit. Dedicated circuits will be marked on the floor plan. There will also be convenience outlets in each cube or office, and throughout the office space. These may or may not be marked on the floor plan and will be separate from the PC circuits. All dedicated circuits must be orange in color.
- 2. Install (2) 120-volt, 20-amp (NEMA 5-20R), wall mounted duplex electrical outlets at each location as shown on the LAN room floor plan (Diagram #1).
- 3. Install (1) 120-volt, 30-amp dedicated, electrical outlet (NEMA L5-30R) with an isolated ground at the base of the LAN rack. The electrical circuits must be enclosed in a metal flex (MC) covered cable or EMT conduit to the base of the rack where the electrical outlet box is to be located. Outlets should be orange in color (Diagrams #1 & 2).
- 4. Install (1) 120-volt, 20-amp, dedicated, quad electrical outlet (NEMA 5-20R) with an isolated ground at the base of the LAN rack. Outlet should be orange in color (Diagram #1).
- 5. Install (1) 120-volt, 20-amp, dedicated, quad electrical outlet (NEMA 5-20R) with an isolated ground where the plywood Telco backboard was installed in the LAN-Telco room. Outlet should be orange in color (Diagram #1 & 2).
- 6. Install (1) # 6, stranded, copper wire having a green insulated covering between building ground or the electrical panel ground and connect it to the ground bus bar that is to be installed at the top of the L&I supplied server cabinet on the back side of the frame rails.

E. Install Data Cabling

- 1. Refer to the enclosed CAT-6 LAN Cabling specifications document for detailed data cabling requirements. All cables must be run in such a way that they will not exceed the 295 foot maximum length and must pass a wirescope test.
- 2. To view the equipment layout in the LAN room, please refer to the attached scaled LAN-Telco room drawing (Diagram #1).
- 3. The cabling contractor is responsible for the installation of the required ladder rack above the LAN rack to properly transition the LAN cabling from the ceiling or adjacent wall to the top of the LAN rack.
- 4. Install (1) new 48-port CAT-6, 568-B patch panel in the newly installed LAN rack in the LAN-telco room. Wire management must be installed above and below each patch panel.
- 5. Install (1) new data drop in the LAN-Telco room as shown on the scaled floor plan for this room (Diagram #1).
- 6. Install (30) CAT-6 data cables, blue in color between the LAN rack patch panels and the workstation faceplates as indicated on the office floor plan. The RJ-45 data jacks will be orange in color. Under no circumstance should a faceplate or jack be located behind a cubicle or other immovable object.
- 7. All Data cabling must be installed, tested, labeled and warranted in accordance with the specifications stated in the L&I CAT-6 LAN Cabling specification document that is attached.

- 8. All data drops must be terminated in vendor supplied tombstones or through a whip into modular furniture with a biscuit block. At no time should a bare cable be unprotected, accessible or visible. In addition, per industry standards, a metal barrier must separate all data cables if an electrical source is in close proximity. As an example, data cabling must not be in the same channel as cubicle electrical cabling unless they are completely separated by a metallic separator or ferrous Greenfield.
- 9. Data drops must be numbered in accordance with the specifications stated in the L&I cabling specifications document.

F. Install Voice Cabling

- 1. Refer to the enclosed Enhanced CAT-5 Voice Cabling System Specifications document for detailed voice cabling requirements. All cables must be run in such a way that they will not exceed the 295 foot maximum length and must pass a wirescope test.
- 2. Install (2) new Enhanced CAT-5 compliant 50-pair riser cable from the newly constructed telco wall field to the main demarc area of the building. Terminate each end of the new riser cables in Enhanced CAT-5 compliant 110 or 66 blocks.
- 3. Install (3) enhanced Category-5 voice cables from the building demarc area directly to the new L&I LAN-Telco room. The cable ends at the building demarc wall-field must be terminated on an Enhanced CAT-5 compliant 66 or 110 block while the other end of the cables will be terminated on three position biscuit block installed on the LAN rack as shown on the attached LAN-Telco room drawing.
- 4. Install (1) wall-mounted phone back plate and voice drop for a wall phone inside the LAN-Telco room door. Reference the scaled floor plan for the LAN-Telco room that shows the location of the wall-phone (Diagram #1).
- 5. Install (30) Enhanced CAT-5 compliant voice cabling from the LAN-Telco room wall-field to all workstations and office locations marked on the office floor plan that requires voice connectivity.
- 6. All voice station cables must be terminated with Enhanced CAT-5 compliant RJ-45 jacks using 568-B wiring layout at the workstation faceplate.
- 7. All voice cables must be terminated on Enhanced CAT-5 compliant 110 or 66 blocks in the LAN\Telco Room on the plywood wall field.
- 8. The Enhanced CAT-5 voice cables must be white in color.
- 9. The contractor may use non-plenum Enhanced CAT-5 voice cable as long as the ceiling is not used for a return air plenum system for the HVAC.
- 10. All voice drops must be terminated in vendor supplied tombstones or through a whip into modular furniture with a biscuit block. At no time should a bare cable be unprotected, accessible or visible. In addition, per industry standards, a metal barrier must separate all data cables if an electrical source is in close proximity. As an example, voice cabling must not be in the same channel as cubicle electrical cabling unless they are completely separated by a metallic separator or ferrous Greenfield.
- 11. All 4-pairs of the voice cable must be terminated at both ends.
- 12. All voice and riser cables must be tested and certified to Enhanced CAT-5 standards.

G. <u>Deliverables to Labor and Industry</u>

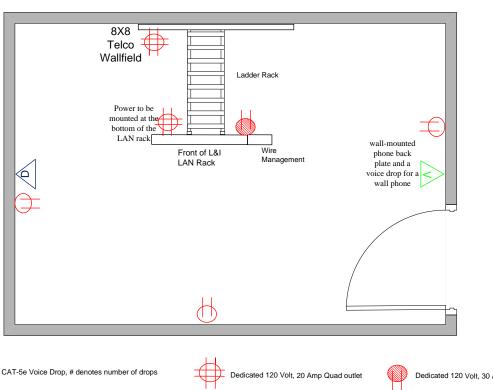
The following must be delivered to L&I upon acceptance of the premises. All of the CAD drawings, both hard and soft copy, referenced below can be on the same drawing and print.

 <u>Data Cabling:</u> Cable test results must be provided to L&I in hard and soft copy as specified in the cabling specifications document. A CAD drawing in hard copy (D Size) and soft copy (CAD-14 Format) must be provided to Labor and Industry showing

- the drop locations and drop number for each data cable. Provide CAT-6 data cable warranty certification to L&I within 45 working days after project is completed.
- 2. Voice Cabling: Cable test results in hard and soft copy are required for each workstation voice cable and 4-pair groups in the riser cable. CAD drawing in hard copy (D Size) and soft copy (CAD-14 Format) must be provided to Labor and Industry showing the drop locations and drop number for each voice cable and also the riser cable pairs. Provide voice cabling warranty certification to L&I within 45 working days after project is completed.

Diagram # 1

L&I LAN Room





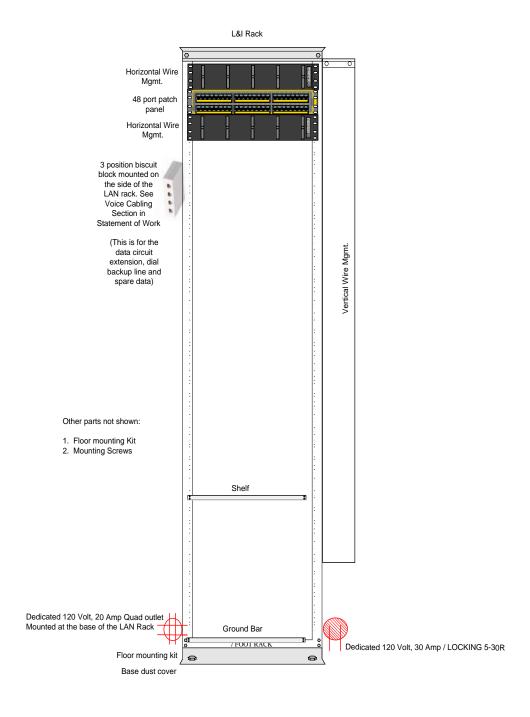




CAT-6 Data Drop, # denotes number of drops

Dedicated 120 Volt, 20 Amp Duplex outlet

LAN Rack



SECTION F. PLUMBING

1. <u>INSTALLATION</u>

The plumbing installation must be completely approved cold and hot water piping system with valved connections and a complete sanitary drainage system to all rest rooms, janitor's closet, employees' room, equipment or utility room, and to all water consuming equipment.

2. ELECTRIC WATER COOLERS

Electric water coolers, Cordley and Hayes, Halsey Taylor, Westinghouse, or approved equal, with cup dispensers, must be installed with cold water piping and sanitary drains. A minimum of two (2) are required, and one (1) per floor will be required in multi-floor locations. If more than one bureau is involved in this lease, then a minimum of two (2) per bureau are required.

3. WATER HYDRANTS

Anti-freeze type exterior water hydrants (key-type) must be installed with cold water piping to exterior locations where they are readily accessible for use at all outside areas of the building.

4. TOILET FACILITIES

- a. Non-Public: Ladies' room and men's room must be constructed in compliance with state and local sanitation requirements. A non-public or employee-only restroom, must be provided on each floor that L&I occupies, unless one is not requested by lessee. Joint use restrooms shared with other tenants is permissible but must be secured from public use. Ceramic tile floor or lessee-approved substitute and ceramic tile or lessee-approved substitute on walls (to the ceiling) must be installed in these rooms. Any substitutions must be approved by the Property Division, prior to construction. Fixtures that must be provided and installed are: metal toilet compartments with doors; metal urinal screens; metal vestibule compartments; all fittings, hardware and fastenings; roll toilet tissue dispensers one for each toilet; paper towel dispensers C fold or multi-fold - one for each toilet room; toilet seat covers with dispenser; soap dispensers, self-contained type - one at each lavatory fixture; sanitary napkin dispenser and waste receptacle - one in each ladies' toilet room; waste receptacle - one in each toilet room; stainless steel-edged mirror over each individual lavatory fixture in each toilet room; stainless steel shelf above each individual lavatory fixture. Vanities to accommodate sinks are required. Exhaust fans must be provided and installed in ladies' and men's toilet rooms.
- b. Public: A public unisex toilet for ladies and men must be provided, if noted on the space allocation form. A single water closet and lavatory is adequate. This room must be constructed in compliance with state and local sanitation requirements. Ceramic tile floor or lessee-approved substitute and ceramic tile or lessee-approved substitute on walls (to ceiling) must be installed in this room. Any substitutions must be approved by the Property Division, prior to construction. Other fixtures that must be provided and installed are: all fittings, hardware and fastenings; roll toilet tissue dispensers; paper towel dispenser, C fold or multi-fold; soap dispenser, self-contained type; waste receptacle; stainless steel edged mirror over the lavatory fixture; stainless steel shelf above the lavatory fixture. Exhaust fan must be provided and installed. Entrance doors will be lockable.

5. <u>EMPLOYEES' (LUNCH) ROOM</u>

Provide and install in room designated as "employees' room": base cabinets with upper wall-hung cabinets; Formica counter top; and 1 microwave oven; 1 full size refrigerator with icemaker installed; deep bowl sink with faucet; a counter top to provide area for a microwave oven along with adjacent two duplex receptacles. Lessor will maintain all appliances and replace them as required during the term and any renewal option periods of the lease. The microwave circuit must be a separate dedicated one. Install commercial grade exhaust fan with switch on separate circuit vented to the outside. Also provide and install soap tray, paper towel and paper cup dispensers and waste receptacle. Kitchen sets consisting of one (1) table(s) and four (6) chairs per table must be provided by the lessor. If the space is situated on separate floors, an employee room can be requested for each floor, and/or for each program office.

SECTION G. CARPENTRY AND MILLWORK

1. STORAGE CABINETS

Conference and Training Rooms equipped with built-in wall storage closets with adjustable shelving, doors and locks as required. Lock on doors must be keyed alike.

2. <u>BULLETIN BOARDS</u>

Install one each 4' x 8' cork bulletin board in employee's room and clerical work areas. Install one 3' x 4' self-sealing cork back bulletin board constructed of aluminum frame and glass, with lock, near main entrance. Boards must have frames to match general decor of interior. One set required for each bureau.

3. CLOTHES CLOSETS and COAT ROOM

Closets and Coat Room with sliding or folding louver doors must be provided with hanger bar and racks for hats and clothes. Air vent shall be installed in ceiling, or louver doors provided for ventilation purposes. One in waiting room and a minimum of one in work area.

4. **JANITOR'S CLOSET**

Janitor's closet must be equipped with a Mop Receptor. Open adjustable shelving must be installed adjacent to the receptor. One section of wall will have a pegboard installed. Lessor to provide a variety box of pegboard hardware. This requirement applies regardless of whether the lessor provides janitorial services or not.

5. OPEN SHELVING/STOCK ROOM

An open-shelving system shall be provided and professionally installed in the stock room as stipulated. The shelving units shall be a five shelf high unit, approximately 87" in height with a depth of either 18" or 24" and appropriate width as designated by lessee. The Design of the shelving units, if metal, shall have the preclipping feature for simplifying erection. All clips for all posts and shelves to be the same and shall be independently adjustable without interference from any other clip. Nuts and bolts to be included with the system. The shelving units shall be provided with end and back sway braces and shall not obstruct the full adjustability of the shelves. Base strips to be provided to close the space between the bottom of the shelf and the floor. Foot plates to be provided to protect the flooring. The color to be designated by lessee. The Shelving System shall be as manufactured by Penco Company, Oaks,

Pennsylvania, or lessee approved equal. A metal rod shelving system, such as Closetmaid, etc., or a constructed wood/particleboard shelving system will be permitted if approved by lessee. Horizontal counters or work surface areas, minimum of 12' to 24' long, will also be provided. A separate stockroom is to be provided for each bureau's office suite.

6. <u>FINISH HARDWARE</u>

Sufficient hardware to cover all necessary requirements of the building shall be provided. It shall be of suitable type and ample size and weight to perform the service required. The hardware must be one design and finish.

SECTION H. MISCELLANEOUS

1. <u>BUILDING IDENTIFICATION</u>

In a solely occupied facility, exterior building signage is required. Letters will be in stainless steel, cast aluminum or plastic. The type and size of the letters will conform with the architecture of the building and be approved by lessee.

The following official designation, in decal or painted lettering, must be placed on the front entrance:

<Street Number>
Commonwealth of Pennsylvania
Department of Labor and Industry
Unemployment Compensation Board of Review

2. <u>INTERIOR ROOM DOORS</u>

Interior room doors must be lettered or have name plates attached as required by the lessee. Lessee will provide a "door-lettering" schedule for the interior doors.

3. FLOOR DIRECTORY

Provisions must be made for Department of Labor and Industry's program function names to be included in floor directory when head-quartered in larger buildings.

4. PAINTING

Any interior painting (primer and finish coats) must be completed prior to occupancy. Color must meet lessee's specifications. All paints used must be washable semigloss or satin. Premises must be repainted every five (5) years of the lease or as otherwise indicated in the "Maintenance" section of the lease. Moving of the lessee's furniture and equipment to access painting locations shall be the responsibility of the lessor.

5. FIRE PREVENTION

A.B.C. Dry Chemical extinguishers to comply with state and local codes must be provided and maintained by the lessor. Lessor must arrange recharging of extinguishers as required. The lessor is required to have fire suppression system serviced and tested annually and furnish proof of same to lessee upon request.

Lessor will install a fire alarm system in the building that meets requirements of the National Fire Protection Association (NFPA) and the adopted PA UCC Building Code, providing pull stations and audio alarms throughout the building. This system is required even if not mandated by local codes, ordinances or laws.

6. TRASH CAN CABINET – IN LIEU OF DUMPSTER

Furnish an enameled steel trash can cabinet for storage of 32-gallon cans as required by the office. Unit has steel floor and top that opens full length with support arm to hold it open.

7. SECURITY AND LOCKING SYSTEM

The building(s) shall be secured with an automated perimeter-type security system that incorporates intrusion alarm capabilities through all perimeter doors and windows and allows for motion detection in all areas. Further, access into each L&I program area shall be through designated doors utilizing a proximity card-reading sensor system, electronic keypad system, or such other locking system as specified and approved by lessee. All activity of so designed systems shall be programmable through a central controller, extended keyboard and printer. If a computer and software is required to operate the system, the lessor is responsible to provide this equipment. The system shall be capable of identifying and controlling use through unique card codes. All activating and de-activating of cards will be at the sole cost of the lessor. The system shall include 24-hour monitoring by a manned central station capable of alerting appropriate individuals or organizations based upon the time and type of alarm. All monitoring fees of any of these systems are the sole responsibility of the lessor. Prior to installation, all equipment must be approved by the agency and any applicable federal, state or municipal jurisdictions regulating such installations.

The Commonwealth may request and receive a new locking system and/or associated hardware after a break-in or a series of thefts or other similar, unusual occurrences.

8. <u>SNOW AND ICE REMOVAL</u>

Lessor is responsible for snow and ice removal of sidewalks and parking areas within four hours after cessation of snowing, sleet or icing weather, where applicable. It is the lessor's responsibility to correct all unsafe conditions relating to freezing and thawing.

9. RADON GAS EXPOSURE

The site shall be evaluated prior to occupancy for radiation levels and Radon/Radon progeny concentrations. If Radon/Radon progeny levels exceed EPA Recommended Standards, plans for corrective action in accordance with the HVAC specifications will be required. If at any time during occupancy the Radon/Radon Progeny levels exceed the EPA recommendations in effect at that time, the lessor shall take necessary corrective action upon notification in writing by the lessee. Such action must be started within two months of the notification by lessee.

10. EMERGENCY GENERATOR NOT REQUIRED FOR THIS OFFICE

An emergency backup generator, powered by an on-site source of fuel (gas or fuel oil) shall be provided. The following items must be kept operational by the emergency generator when commercial electric power fails: 1) 50% of the building ceiling lighting; 2) all workstations and servers; 3) the UPS system in the LAN/tech room; 4) the air conditioning unit supplying the LAN/tech room and LAN closet; and 5) heating for the building during the winter months.

11. FINAL CLEAN-UP

The lessor shall restore the area in such a manner that it is acceptable to the lessee. This shall include the following special cleaning:

- **a.** Remove all labels, excess putty, grease, paint and other foreign substance and leave the work in perfect condition.
- **b.** Clean and polish all finished hardware.
- **c.** Remove all spots, mortar crumbs, soil and paint from all tile work.
- d. Clean and polish all tile, terrazzo, and other finished floors.
- e. Clean property of all debris and dirt.
- f. Remove all dust and dirt from walls, doors and cabinet work, and restore all scratches or scuff marks to the original finish.
- g. All carpeting must be vacuumed and shampooed before occupancy.

Labor and Industry

Voice, Data and Power Infrastructure Specifications

Date: April 24, 2009 **Version:** 1.0

Information contained within this package address the requirements that the Commonwealth of Pennsylvania, Department of Labor and Industry has determined to be the minimum requirements for Voice and Data Infrastructure and Power Distribution within a Labor and Industry building or office space.

The building owner or contractor must adhere to all specifications and requirements contained in the following documents that address infrastructure requirements:

Voice cabling: L&I Enhanced CAT-5 Voice Cabling System Specifications

Data Cabling: L&I Category-6 Cabling Specifications LAN-Telco Room: L&I LAN-Telco Room Specifications

LAN Rack Info: L&I LAN Rack Configuration Specifications

Fiber Optic Cabling: L&I Fiber Optic Cable Specifications

Power: L&I Power Management Information and Guidelines For Network

Devices

In addition, Labor and Industry Office of Information Technology staff will perform the following tasks for all new building or office space construction, renovations or reconfiguration:

- 1. Construct a LAN-Telco Room design and floor plan for all new or renovated office space to satisfy the needs for the office.
- 2. Specify the LAN rack and Telco Wall-Field layout and hardware requirements.
- 3. Specify the requirements to physically construct the LAN-Telco room to include:
 - a. Lighting and lighting controls
 - b. Walls and flooring
 - c. Construction of Telco Wall-Fields
 - d. Identify cooling requirements
 - e. Identify electrical requirements for the room
 - f. Identify the location and size of the LAN-Telco room within the office or building space.

- g. Identify voice and data connectivity requirements for the room.
- 4. Engineer the voice cabling system layout and requirements for offices and workstations.
- 5. Engineer the data cabling system layout and requirements for offices and workstations.
- 6. Identify specific electrical requirements for laser printers, copiers and specialized equipment.
- 7. Identify any fiber optic cable infrastructure requirements to satisfy internal network design infrastructure requirements.
- 8. Identify the location where the LAN-Telco room(s) will be located within the office or building and the size of the room to accommodate the required voice data infrastructure installation requirements and server cabinet(s) installation.

The building owner and or his contractor(s), architect(s) and construction consultant(s) shall understand that Labor and Industry Office of Information Technology will provide the building owner or construction consultant a detailed statement of work for each item above based upon the design. The statement of work will describe exactly what services must be performed or what cabling or electrical infrastructure must be installed by the building owner's contractor(s) to meet the stated design requirements. The building owner will be financially responsible for payment to the contractors for the services required to achieve the design requirements.

Power and Infrastructure requirements identified in items 1-8 above must be satisfied by the building owner for any new office construction or the renovation of an office space in preparation for a new or amended lease.

All voice, data and fiber optic cabling installed by the building owner's cabling contractor and paid for by the building owner must be maintained by the building owner and his contractor in accordance with Labor and Industry specifications for the duration of the lease. Labor and Industry will have no financial liability for the maintenance or service of those systems during the lease period.

Labor and Industry Enhanced CAT-5 Voice Cabling System Specifications

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The following voice cable specifications are to be followed for the installation of voice riser and voice station cabling at all new or renovated Labor and Industry Offices.

7.1 Backbone or Riser Cable Specifications

- 1. Install (X) 25-pair, Enhanced Category-5, plenum rated riser cable(s) from the building Main Telco demarcation wall-field to the Telco wire closet or wall-field located in the office space or floor where the Labor and Industry Office voice station cables will originate. The number of 25-pair, Enhanced Category-5 riser cable(s) will be dependent upon the number of phone lines required in the office. (1-12 phones = 25 pair, 13-24 phones = 50 pair, 25 45 phones = 100 pair)
- 2. Terminate the riser cable pairs at both ends using 110-style connecting blocks that are Enhanced Category-5 compliant.
- 3. Test the cable pairs to 100 Mhz using a WireScope, Fluke, OmniScanner, or HP 350 tester. Provide test results in 8.5" X 11.0" hard copy and in soft copy from the tester to the Labor and Industry Project Manager, (Dave Walters) at the completion of the office renovation or construction process.
- 4. Provide a CAD drawing in CAD 14-format soft copy and (1) D-Size hard copy showing the location of the main Telco wall-field, cable path to the office demarcation point (wall-field) and the cable numbering scheme on the 110 blocks.
- 5. Provide a minimum 15-year manufacturer's performance warranty on the installed voice riser cabling system.

NOTE: In some cases the LAN room may also serve as the MDF (Main Distribution Facility) or main Demarc for the Labor and Industry office. If this is the case, the Telco cable from the street should terminate on the wall-field in the LAN room. In this case, a riser cable is not required.

7.2 Station Cable Specifications

1. Install (X) Enhanced Category-5, 4-pair, plenum rated cable at each location where a phone, fax or modem connection is required as shown on the floor plan for the office. All voice cables must be white in color. The station cables will originate at the designated wall-field in the office or at the Telco wire closet for the floor of the building. Cable runs from the Telco wire closet wall-field to the phone jack may not exceed 265 feet in length.

Labor and Industry Enhanced CAT-5 Voice Cabling System Specifications

- 2. All (4) cable pairs must be terminated at the Telco wall-field on the 110 blocks and at the workstation RJ-45, Enhanced Category-5 compliant jack.
- 3. All RJ-45 jacks must be wired to the 568-B wiring configuration.
- 4. When surface mounted boxes are required at the workstation, they must be mechanically fastened to the furniture base using screws.
- 5. Cables must be suspended in the ceiling using appropriately sized J-hooks spaced no more than (5) feet apart.
- 6. Cables are not to be tied to ceiling grid wires, all-thread rod or laid on structural steel, water pipes, HVAC ducts or conduits.
- 7. Cubicles must not cover access to voice drops. All outlets must be accessible for testing and patch cable replacement. The preferable method for cable routing will be down a power pole, floor duct via whip or through the wall to a biscuit block mounted on the base of the cubicle or modular wall.
- 8. Per industry standards, a metal barrier must separate all voice cables if an electrical source is in close proximity. As an example, voice cabling must not be in the same channel as cubicle electrical cabling unless they are completely separated by a metallic separator.
- 9. Test the cable pairs to 100 Mhz using a WireScope, Fluke, OmniScanner, or HP 350 equivalent tester. Provide the test results in 8.5 X 11.0 hard copy and in soft copy from the cable tester to the Labor and Industry Project Manager (Dave Walters) at the completion of the project.
- 10. Provide an as-built CAD drawing in CAD-14 format soft copy and (1) D-size hard copy showing the location of the Telco wire closet for the floor where the station cables originate. Show the drop location on the drawing for each voice jack and include the number of the voice jack on the CAD.
- 11. Provide a minimum 15-year manufacturer's performance warranty on the installed voice cabling system.

7.3 **Preferred Manufacturers Cabling System Components**

a.	Belden	d.	Avaya
b.	Tyco	e.	Berk-Tek
c.	Siemon	e.	CommScope

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8.1 System Overview

Information contained within this section will identify the specific requirements for the Category 6 horizontal workstation cable and installation process. The specifications include guidelines and specific information required by the cabling contractor to propose, install, test and certify an ANSI/TIA/EIA-568-B.2 compliant Category 6 cabling system in L&I facilities.

Hardware included as a part of the Category 6 horizontal cabling infrastructure will be all those components (data jack, cable, patch panel) required to construct Category 6 cable connections between the end-user workstation data jack and a 48 port, Category 6 patch panel port in the LAN cabinet or rack.

It is necessary to clarify that specifications within this section refer to ANSI/TIA/EIA-568-B.2 standards, which pertain to a Category 6 cabling systems infrastructure. Those standards, for the purpose of the proposed system, are to be considered by the cabling contractor as minimum requirements for products, cable, testing and installation practices proposed, installed or used by the cabling vendor for the L&I Cabling System.

All items identified in the following sections must be considered mandatory requirements, which must be met, in the cabling contractor's proposed solution for any L&I Enterprise Category 6 Cabling Systems.

8.2 L&I Cabling System Cabling Contractor's Responsibilities

1. Identify types and quantities of all Category 6 cabling system components and parts necessary to create the proposed Category 6 horizontal cabling system. All components must be in full compliance with the ANSI/TIA/EIA-568-B.2

- guidelines as a minimum requirement. All Category 6 cable must conform to ISO/IEC 11801 (Second Edition) standards.
- 2. Provide all labor and project management skills required to install, test, label, document, certify and process a manufacturer's 25 year performance warranty for the proposed Category 6 horizontal cabling system in full compliance with all ANSI/TIA/EIA-568-B.2 guidelines as a minimum requirement.
- 3. Provide all miscellaneous hardware, EMT conduit, brackets, J-hooks, hangers, cable ties and parts necessary to install the wiring contractor's proposed cabling system for L&I.
- 4. If any cable runs are longer than 295 feet from the patch panel, a secondary wire closet must be established that interconnects with the primary closet so that all cable lengths are within the 295 feet length requirement.
- 5. If a gigabit Ethernet connection or the interconnection of two wire-closets (regardless of the distance between the closets) is required, a fiber solution will need to be integrated into the cabling system design and installed by the cabling contractor. Typically, a six-strand, multi-mode fiber optic cable terminated in a fiber optic patch panel will need to be installed. Refer to L&I's Fiber Optic Cable Specification document for detailed instructions, specifications and standards.
- 6. Provide as-built, E-size CAD drawings in hard copy and soft copy on CD-ROM that identify all installed Category 6 cables in the horizontal configuration from each patch panel to each end-user workstation data jack at the completion of the project.
- 7. Provide manufacturer trained and certified technicians capable of installing, documenting, testing and certification of the proposed Category 6 horizontal cabling system in full compliance with the wiring system component manufacturer's 25-year performance warranty requirements.
- 8. The cabling contractor must provide a full time project manager or supervisor to monitor the progress of Category 6 cabling system project implementation for projects consisting of 25 or more LAN drops.
- 9. The cabling contractor must ensure that all staff assigned to the project meet the minimum skill levels and staffing complement as required by the cabling system component manufacturer's guidelines for installation and warranty certification.
- 10. As a part of the cabling contractor's proposal response, resumes of all personnel who will be assigned to the project by individual name and personalized resume must be included in the proposal. Changes to project staffing complement after

contract award must be requested in writing to the L&I Office of Information Technology Project Manager prior to implementation of any personnel changes.

- 11. The cabling contractor must provide a valid proof of certification and training for each technician who will be utilized to install the specific manufacturer's components used to create the proposed Category 6 cabling system.
- 12. All technicians used by the cabling contractor to install Category 6 Cabling system products must have a minimum of 3 consecutive years of full time experience installing, terminating and testing Category 5, Category 5E, or Category 6 cabling systems products.
- 13. If necessary, a site survey will be conducted at the site where the cabling system is to be installed. The cabling contractor will be required to attend the site survey if one is required. After the site survey has been conducted, Labor and Industry, Office of Information Technology staff will prepare a detailed statement of work that addresses the specific services that must be provided by the cabling contractor. After the site survey has been completed, Labor and Industry will provide the following documentations to the cabling contractor:
 - a. Statement of work
 - b. Marked floor plan showing the LAN drop locations
 - c. LAN-Telco room scaled floor plan
 - d. LAN rack layout and parts list of LAN rack components

or

- e. LAN cabinet layout if a cabinet is being used
- 14. For cable installation projects being directly funded by Labor and Industry, the cabling contractor has seven (7) days to return a cost proposal and mail to:

Dave Walters
Department of Labor and Industry
Office of Information Technology
Room 124
651 Boas Street
Harrisburg, Pennsylvania 17121

- a) After the proposal is evaluated by Labor and Industry and approved by the L&I Project Manager, notification will given to the cabling contractor to begin the work. From the notification date, the cabling contractor has thirty (30) days to complete the job.
- b) All of the above requested information and documentation must be delivered to the L&I OIT Project Manager, Dave Walters, at the L&I Building, 651 Boas Street, Room 124, Harrisburg, PA, 17121

8.3 Horizontal, Category 6 Media Specifications, (Workstation faceplate to patch panel port)

- 1. Plenum rated Category 6 cable must be used for all patch panel to workstation data jack connections. (Exceptions to this requirement must be stated in writing to the cabling contractor by Dave Walters of Labor and Industry).
- 2. Cable will be 4 pair, 24 AWG, solid copper conductor, UTP, NEC Article 800 Type CMP rated, UL listed and certified to Category 6 and ISO/IEC 11801 (Second Edition) standards.
- 3. Jacket color: Blue
- 4. The following manufacturer's products are acceptable for Category 6 cable. The L&I OIT Project Manager, Dave Walters, must approve all exceptions to these manufacturers. For approval, contact Dave Walters at (717) 783-4375.

a. Belden d. Berk-Tek

b. Tyco e. CommScope

c. Avaya f. Siemon

5. The number of Category 6 cables to be terminated at a specific location will be indicated on a master floor plan. A pre-marked floor plan will be provided to the cabling contractor with the final statement of work by Dave Walters of Labor and Industry.

8.4 Workstation Outlet Requirements

- 1. Specific requirements for all workstation data jacks:
 - a. 8 position jack
 - b. RJ-45 non keyed
 - c. Unshielded
 - d. Jacks must be wired to the 568-B configuration
 - e. Category 6 rated
 - f. Jack color must be orange

2. The following workstation outlet/jack hardware manufacturers are acceptable. The L&I OIT Project Manager, Dave Walters, must approve all exceptions to these manufacturers. For approval, contact Dave Walters at (717) 783-4375.

a. TYCO e. Leviton

b. Krone f. Hubbel

c. Avaya g. Panduit

d. Ortronics h. Siemon

8.5 LAN Patch Panel and Workstation Jack Requirements:

- 1. All four pairs of each end user workstation cable will terminate at the patch panel.
- 2. Patch panels will be configured as 48 port panels having Insulation Displacement Contact (IDC) type connections on the backplane.
- 3. Patch panels will be wired to a 568-B configuration.
- 4. Patch panels will be eight wire, modular, RJ-45 non-keyed, Category-6 compliant, unshielded, 48 ports.
- 5. The following manufacturer's products are acceptable for workstation outlet/jack hardware. The L&I Infrastructure Project Manager, Dave Walters, must approve all exceptions to these manufacturers. For approval, contact Dave Walters at (717) 783-4375.

a. TYCO e. Hubbel

b. Krone f. Panduit

c. Ortronics g. Leviton

d. Avaya h. Siemon

8.6 Miscellaneous End User Workstation Outlet Hardware Requirements

1. Due to the variety of locations where end-user workstation outlets will be required, it will be the responsibility of the cabling contractor to provide the

necessary hardware, boxes, wire molding and faceplates required to achieve a professional and quality installation.

- 2. Whenever possible, end-user workstation outlets must be flush mounted or mounted in modular furniture bases using the appropriate wiring manufacturer's adapters (bezel and ring) for a particular modular furniture type.
- 3. All Category 6 cabling routed on the exterior surface of office walls must be concealed using the appropriate color of covered raceway or wire molding. All surface mounted raceways will be mounted to the wall using mechanical fasteners. Double-faced tape is not acceptable. If walls or ceilings contain asbestos, exceptions to the use of mechanical fasteners will be granted.
- 4. Whenever surface mounted outlets are required, the outlet box and covered raceway components must all be supplied by the same product manufacturer and the colors of each component must match. Surface mounted boxes must be mechanically fastened to the wall or modular furniture. Double-faced tape is not acceptable. If walls or ceilings contain asbestos, exceptions to the use of mechanical fasteners will be granted.
- 5. In those cases where the outlets are surface mounted on fishable walls, a high quality steel ring must be installed and mechanically attached to the wall or drywall material. The workstation outlet faceplate will then be attached to the steel ring. Faceplates may not be screwed directly into the drywall material without using a steel ring.
- 6. The number of cables terminated on a given faceplate will be indicated on the master copy of the L&I floor plan provided to the cabling contractor with the final statement of work.
- 7. The following manufacturer's products are acceptable for surface wire raceways and surface mounted boxes. The L&I OIT Project Manager, Dave Walters, must approve all exceptions to these manufacturers. For approval, contact Dave Walters at (717) 783-4375.

TYCO Hubbel a. e. b. Ortronics f. Leviton Panduit Avaya c. g. Wiremold Siemon d. h.

8.7 Category 6 Cable and Workstation Outlet Labeling

- 1. Each workstation outlet will be labeled using a type written label that conforms to the space allocated on the data jack faceplate. A Brady label maker or equivalent must be used to create the labels. Handwritten labels are not acceptable.
- 2. Each workstation outlet will be labeled using the numbering scheme detailed in Item 8.9 "Category 6 Cable Labeling". The workstation outlet number will be the same as the cable number assigned to the Category 6 cable for a given location.
- 3. The wiring vendor will provide a soft copy (CD ROM) and hard copy (8.5" X 11") paper in a binder listing which cable numbers are terminated on which ports of the Category 6, 48 port modular patch panel. The copies must be delivered to the L&I OIT Infrastructure Project Manager, Dave Walters, at the L&I Building, 651 Boas Street, Room 124, Harrisburg, PA, 17121.

8.8 Category 6 Cable Installation Guidelines

- 1. Ladder racks may be required in high volume cable pathways. All ladder racks will be constructed of tubular metal or box type construction. No stamped sheet metal ladder racks will be acceptable. Where ladder racks are needed, they must be securely fastened to walls or equipment racks using the appropriate bracing or hardware attachments specifically made for that purpose.
- 2. Cable hangers (J hooks) should be spaced from 4' to 5'apart to properly support the cable volume in a given ceiling area.
- 3. When J-hooks are required, the hooks must be properly sized to support the required volume of cables allowing for 30% future growth.
- 4. J-hooks must be firmly attached to the backboards, walls, ceiling beam, steel beams or other structures using the appropriate screws, beam clamps and fixtures. When screws are used, the screws must penetrate at least 0.5 inch into the backboard, wall, stud, beam or structure to prevent pulling out.
- 5. J-hooks must be installed at frequent intervals so that Category 6 cables do not sag more than 12" below a centerline measured from the bottom of two adjacent J-hooks.
- 6. Suspended ceiling grids and suspension wires may not be used to secure cables routed in dropped ceiling areas. Cables must not be attached to electrical conduits at any time.
- 7. All Category 6 cabling must be free from tension at both ends, as well as over the entire length of each cable run.
- 8. Splices of any type are not allowed in any Category 6 cable run.

- 9. It is imperative that all Category 6 cable bends, or radii, conform to ANSI/TIA/EIA-568-B.2 standards as a minimum requirement or the manufacture's specifications that will provide the performance warranty on the system.
- 10. The maximum cable pull force exerted by the contractor when installing the Category 6 cable must be less than 25 pounds.
- 11. Per industry standards, a metal barrier must separate all data cables if an electrical source is in close proximity. As an example, data cabling must not be in the same channel as cubicle electrical cabling unless they are completely separated by a metallic separator.
- 12. All Category 6 cabling must be installed to comply with the minimum separations from <480 volt power sources as listed below:

CONDITION	<2KVA	2-5KA	>5KVA
Unshielded power lines or electrical equipment in proximity to open or Nonmetal pathways	5 inches	12 inches	24 inches
Unshielded power lines or electrical equipment in proximity to a Grounded metal pathway	2.5 inches	6 inches	12 inches
Power lines enclosed in a grounded metal conduit in proximity to a grounded metal pathway	N/A	3 inches	6 inches

- 13. In all cases, Category 6 cables must be routed as far as possible away from electrical cables, fluorescent lighting fixtures and other electrical devices that have high KVA requirements.
- 14. Category 6 cabling must be protected from contact with sharp metal objects, vibrating equipment, motors, and fluorescent lighting fixtures.
- 15. Whenever Category 6 cables must be run in the ceilings of a basement (not dropped ceilings) or any area that is exposed, the cables must be enclosed in EMT conduit for security reasons. Once the cable is inside the ceiling, it does not need to be in conduit. When the cables enter office areas, they must be inside the walls or covered with surface mounted wire molding.
- 16. Access holes through walls and floor must be sleeved. Sleeves must have rolled or rounded edges to protect the Category 6 cables passing through the sleeves.

- 17. All ceiling, wall or floor penetrations must be fire stopped with the appropriate materials in accordance with local fire codes. It is the responsibility of the cabling contractor to firestop all conduit openings, sleeves and firewall penetrations after the cabling has been tested by the contractor's technicians.
- 18. The cabling contractor must strictly adhere to all applicable regulations for grounding and bonding as defined by local building codes for electrical materials and construction methods.
- 19. Cubicles must not cover access to data drops. All outlets must be accessible for testing and patch cable replacement. The preferable method for cable routing will be down a power pole, floor duct via whip or through the wall to a biscuit block mounted on the base of the cubicle or modular wall.
- 20. All cables will be neatly organized and dressed, free of knots and interlacing. The cables will be secured to equipment racks, J hooks, and ladder racks using cable ties or other appropriate fastening devices. Plastic tape is not acceptable. Cables must not be distorted or pinched when using cable ties at any point in the cable path.

8.9 Category 6 Cable Labeling

- 1. All cables installed by the cabling contractor will be labeled using a preprinted typewritten label with characters that are a minimum of one-eight inch in height. Labels will be permanently affixed to each cable and sealed against environmental conditions. Each individual cable will be clearly labeled at the patch panel and workstation faceplate termination points. A Brady cable labeling system or equivalent must be used to create the labels.
- 2. Cables will be numbered sequentially on the patch panel(s) in the LAN Room.
 - a. Patch panel # 1 (001 through 048)
 b. Patch panel # 2 (049 through 096)
 c. Patch panel # 3 (097 through 144)
- 3. If there are multiple LAN rooms or floors at a site, a prefix number will be assigned to each LAN room. That prefix will be noted on each workstation faceplate number. Example: The site has two LAN rooms. The drop being labeled is on the 2nd floor and it is the 34th drop on the patch panel. The label will reflect (2-034)
- 4. Exceptions or anomalies to the above rules need to be addressed by the L&I OIT Project Manager, Dave Walters.

8.10 Documentation Requirements

- 1. An E-size, CAD drawing must be provided for all cable runs at the completion of the project in hard copy and soft copy on CD ROM in CAD-14 format for each LAN room showing cable runs and termination's. The cable numbers must be printed on the diagram at the point where each cable is terminated.
- 2. Category 6 cable test results must be provided for each cable installed, terminated, tested and certified on 8.5" X 11" paper. This information shall be delivered in a three-ring binder at the time the certification has been completed by the cabling contractor. The information must also be provided in electronic format (CD ROM) as well, identifying the type of database, word processing software or format provided.
- 3. All of the above requested documentation must be delivered to the L&I OIT Project Manager, Dave Walters, at the L&I Building, 651 Boas Street, Room 124, Harrisburg, PA, 17121.

8.11 Category 6 Cable Testing Requirements

- 1. The type of testing required for all Category 6 cables will be "Link testing". The maximum length of a Basic Link shall be 90 meters (295 feet) or less, plus 4 meters for the test equipment patch cords for a total of 94 meters (300 feet).
- 2. Cable testers used by cabling contractors to test Category 6 cabling must be capable of performing the following tests up to 250 MHz:
 - a. NEXT Pair-to-Pair
 - b. NEXT Power Sum
 - c. ACR Pair-to-Pair
 - d. ACR Power Sum
 - e. ELFEXT Pair-to-Pair
 - f. ELFEXT Power Sum
 - g. Length
 - h. Skew
 - i. Attenuation
- 3. The above tests shall be evaluated for pass or fail results and documented as such on the final test document.
- 4. The following list denotes the minimum testing requirements specified by ANSI/TIA/EIA/-568B.2-1.

Category 6 Permanent Link Limits in dB per ANSI/TIA/EIA-568B.2-1								
Frequency	Insertion Loss	NEXT	NEXT	ELFEXT	ELFEXT	ACR	ACR	Return
Mhz	per 100m	pair-to-pair	power sum	pair-to-pair	power sum	pair-to-pair	power sum	Loss
1	1.9	65.0	62.0	64.2	61.2	63.1	60.1	19.1
4	3.5	64.1	61.8	52.1	49.1	60.6	58.3	21.0
8	5.0	59.4	57.0	46.1	43.1	54.4	52.0	21.0
10	5.5	57.8	55.5	44.2	41.2	52.3	50.0	21.0
16	7.0	54.6	52.2	40.1	37.1	47.6	45.2	20.0
20	7.9	53.1	50.7	38.2	35.2	45.2	42.8	19.5
25	8.9	51.5	49.1	36.2	33.2	42.6	40.2	19.0
31.25	10.0	50.0	47.5	34.3	31.3	40.0	37.5	18.5
62.5	14.4	45.1	42.7	28.3	25.3	30.7	28.3	16.0
100	18.6	41.8	39.3	24.2	21.2	23.2	20.7	14.0
200	27.4	36.9	34.3	18.2	15.2	9.5	6.9	11.0
250	31.1	35.3	32.7	16.2	13.2	4.2	1.6	10.0

5. Link Testing General Requirements

- a. The link shall consist of a single and continuous length of Category 6 cable, connected to an outlet at the work area, and a patch panel port in the LAN room.
- b. All tests shall be conducted using original test equipment patch cords or replacements authorized by the equipment manufacturer that built the tester.
- c. Test equipment patch cords shall not exceed individual lengths of 2 meters nor a combined length of 4 meters.
- d. The equipment cords shall be connected to the installed link at the workstation outlet and the patch panel in the LAN room without the use of adapters, unless specified by the test equipment manufacturer.
- e. The test equipment shall be configured to evaluate pass/fail results based on the most current TIA/EIA/-568B.2-1for Category- 6 cabling.

8.12 Test Result Documentation

1. Category 6 cable test result records must be submitted in hard copy format on 8-1/2" X 11" standard paper delivered in a three ring binder as well as in electronic format on CD ROM. The test equipment used to perform the cable testing must be identified on the report. Please provide manufacturers name and model of the unit used to perform the tests and record the results. At the beginning of the report, please provide the Category 6 cable manufacturer's specifications for the brand and type of Category 6 cable used for the cabling system configuration.

Labor and Industry Category-6 Cabling Specifications

2. All of the above test results must be delivered to the L&I OIT Project Manager, Dave Walters, at the L&I Building, 651 Boas Street, Room 124, Harrisburg, PA, 17121

8.13 Category 6 Certification and Warranty Requirements

- 1. The Category 6 cabling system proposed and installed by the network design and installation contractor must carry a 25- year manufacturer's performance warranty.
- 2. The Category 6 cabling system must be designed by or reviewed by a technician who has successfully completed an authorized manufacturer's Category 6 cabling system design course. The technician must hold a current and valid certificate that authorizes the individual to perform system design work using the specific manufacturer system components.
- 3. The Category 6 cabling system must be installed under the direct supervision of a technician who has successfully completed the authorized manufacturer's installation course for Category 6 cabling systems.
- 4. At least 50% of the installers who will install the Category 6 cabling system at the L&I site must have successfully completed the authorized manufacturer's installation courses and hold a current and valid certification to perform Category 6 cable installation using the specific product manufacturer's components.
- 5. The network design and installation contractor must install the Category 6 cabling system using only cable, connectors, and connecting hardware listed in the manufacturers Warranted Parts Number List or parts specifically approved by the manufacturers in writing on a case by case basis.
- 6. The Category 6 cabling system must be tested in accordance with a test plan prescribed by the authorized system component manufacturers and by a technician who has successfully completed the authorized manufacturers testing courses for Category 6 cabling systems.
- 7. The network design and installation contractor must prepare all required cabling system documentation and test results necessary to apply for the Category 6 cabling system manufacturers 15-year performance warranty within 30 days after the completion of installation and testing of the system.
- 8. The L&I OIT Project Manager must receive the Category 6 cabling system manufacturer's 15 year performance warranty certificate within a 60 day period starting the day after the completion of system testing by the network design and installation technician. The warranty certificate must be delivered to the L&I OIT Project Manager, Dave Walters, at the L&I Building, 651 Boas Street, Room 124, Harrisburg, PA, 17121

Labor and Industry Category-6 Cabling Specifications

8.14 Category 6 Cabling System Solution Mandatory Deliverables

The cabling vendor must provide the following information as part of their project completion:

- 1. Identify the actual test equipment that will be used to test and certify the Category 6 cabling system including the make and model of the test equipment.
- 2. At the completion of the project, the cabling vendor must provide an as-built E-size CAD drawing that represents the Category 6 cabling system as it was installed. The drawing must show actual cable paths, conduit runs, junction boxes, pull boxes and structural penetrations. The faceplate jack numbers must be noted on the CAD for each cable drop. The cabling contractor must provide (1) "E" sized CAD drawing in hard copy and a soft copy in CAD 14 format on CD ROM. The drawing must be made available to the Labor and Industry OIT Project Manager immediately after the cabling system installation is completed.
- 3. The cabling contractor must provide cable test results for every cable drop installed in hard and soft copy format to the L&I OIT Project Manager at the completion of the project.
- 4. The cabling contractor must provide the L&I OIT Project Manager with a 15-year manufacturer's performance warranty for the cabling system they installed. The Labor and Industry OIT Project Manager must receive the warranty certificate within 60 working days of the completion of the cabling system installation.
- All of the above requested information must be delivered to the L&I OIT Project Manager, Dave Walters, at the following address:
 Department of Labor and Industry, Office of Information Technology Room 124, 651 Boas Street, Harrisburg, Pennsylvania 17121

Labor and Industry LAN-Telco Room Specifications

Date: April 24, 2009 **Version**: 1.0

Information contained in this document identifies the specifications and requirements for creating a LAN-Telco room environment as the origination point for all data and voice infrastructure cable connections at Labor and Industry offices.

- 1. Space requirements for a LAN-Telco room are a minimum of 9' by 10' and may be larger depending upon the site network equipment configuration. Final LAN-Telco room dimensions will be provided to the building owner prior to construction. The proposed dimensions may not be altered without evaluation and approval by Labor and Industry, Office of Information Technology.
- 2. In multi-floor buildings or large single story buildings, multiple LAN (computer) rooms may be required.
- 3. The LAN-Telco room must have a door equipped with a key lock that remains locked at all times. This lock must be keyed differently than any other lock in the office.
- 4. The LAN-Telco room must have year-round ventilation or air conditioning capable of dissipating a **minimum** of 5000 BTUs/hr of heat load minimum to maintain a temperature of 72 degrees in the LAN-TELCO room at all times year-round. This specification will vary on a site-by-site basis depending upon the network equipment required at the site. Labor and Industry, Office of Information Technology will provide the building owner with cooling requirements in the LAN-Telco room prior to lease signing.
- 5. The floor in the LAN-Telco room must be sealed concrete or be covered with anti-static floor tile.
- 6. One wall of the LAN-Telco room must be covered with ¾" plywood, goodone-side from floor to ceiling to create a Telco Wall-field. The plywood does not need to be painted. The wall in the LAN-Telco room to be covered with plywood will be identified by Labor and Industry OIT staff when they create the scaled floor plan for the LAN-Telco room.
- 7. There must be a light switch on the wall immediately inside the door to control the overhead fluorescent room lighting.
- 8. The room must have 160 Watts of fluorescent lighting installed in the dropped ceiling.
- 9. There must be a wall-mounted voice jack installed on the wall immediately inside the LAN-Telco room door for an analog wall-phone connection. The CAT-5E cable must be terminated on a CAT-5E compliant 110-block or 66-

Labor and Industry LAN-Telco Room Specifications

block at the Telco wall-field along with the other voice cables serving the offices and workstations.

- 10. Electrical requirements for the LAN-Telco room will be determined on a siteby-site basis by Labor and Industry OIT staff once a final office floor plan is developed for the LAN-Telco room. This information will be provided to the building owner prior to construction.
- 11. The LAN-Telco room **<u>must not</u>** be co-located with any of the following items:
 - a. Water Heater
 - b. Water Tank
 - c. Furnace or heating system
 - d. Electrical transformer or power panels
 - e. Filing cabinets or storage shelves that would require usage by L&I staff to provide unrestricted access to the LAN-Telco room.
 - f. Water pipes or sewage pipes routed overhead or anywhere else in the room.
- 12. The LAN-Telco room <u>must not</u> be located under bathrooms in close proximity on the floors above.
- 13. Ground wires must be installed by the building owner's electrician between the building ground or earth ground and the LAN rack and Telco wall-field. Specifications for the ground wires will be included in the statement of work provided by OIT when site planning is completed.
- 14. The final decision where the LAN-Telco room will be physically located at the Labor and Industry site will be made by the Labor and Industry OIT technician during the site planning phase while working with the building architect.
- 15. Alterations or changes to any of the above requirements or specifications are to be evaluated and approved in writing by the Labor and Industry, Office of Information Technology project manager and network architect during the building planning process.
- 16. Requests for deviations from the listed specifications must be submitted to the Labor and Industry, Office of Information Technology Infrastructure project manager for review. Approval or disapprovals to any request will be responded to the requestor in writing by the Labor and Industry project manager or network architect.

Labor and Industry LAN Rack Specifications

LAN Rack Components and Part Numbers – (1) Rack

Chatsworth, (Black), 7 foot, LAN Rack Configuration

Revised: April 24, 2009

1.	Chatsworth LAN Rack (19"W X 84" H)	P/N 46353-703	Qty = 1
2.	Single-Sided Shelf, Vented (19")	P/N 40117-719	Qty = 1
3.	Floor Mounting Kit: Concrete Floor	P/N 40604-001 or	Qty = 1
	Wood Floor	P/N 40607-001	Qty = 1
4.	Rack-Mount Ground Bar	P/N 10610-019	Qty = 1
5.	Ground Bus Bar Kit, Wall Mounted	P/N 10622-010	Qty = 1
6.	Base Dust Cover	P/N 41050-719	Qty = 1
7.	Mounting Screws	P/N 40605-005	Qty = 1
8.	Single-Sided, Wide, Vertical Wire Mgt.	P/N 11374-703	Qty = 3
9.	Horizontal Wire Mgt Panels, 2.8" X 6"	P/N 11564-719	Qty = 2

If there are any questions about this configuration or how they are to be assembled at the site, please contact Dave Walters at 717-783-4375.

NOTE: The wire closet where the racks will be installed must be a <u>minimum</u> size of 9' X 10' with a locked door and year-round air conditioning in the room. Final LAN-Telco Room size will be determined by OIT Network Architect based upon equipment requirements on a site-by-site basis. Procurement and installation of the LAN racks is the responsibility of the building owner.

1. Backbone Fiber Optic Cable System Requirements

Information contained within this document identifies the specific requirements for multi-mode fiber optic backbone cable and installation processes for Labor and Industry buildings and offices. The specifications include guidelines and specific information required by the cabling contractor to bid and install fiber optic cable in a Labor and Industry facility or office.

Hardware to be included as a part of the fiber optic cabling infrastructure will be all those component parts required to install, terminate and test 62.5/125 multi-mode fiber optic cable. The fiber optic cable will be terminated on a fiber patch panel that will be located in the LAN-Telco room rack, LAN cabinet or server cabinet at each end of the cable.

2. Cabling Contractor's Responsibilities:

- a. Identify and bid the type and quantity of fiber optic cabling and component parts required to construct the fiber optic cabling system requested by Labor and Industry Bureau of Infrastructure and Operations in the statement of work prepared for a specific site or project. All components must be in full compliance with the ANSI/TIA/EIA 568A guidelines as a minimum requirement. Labor and Industry requests that all fiber strands be terminated at both ends using ST style fiber optic cable connectors.
- b. Provide all labor required to properly install, test, document and certify the fiber optic backbone cabling system in full compliance with all ANSI/TIA/EIA 568A guidelines as a minimum requirement.
- c. Provide all miscellaneous hardware, brackets, inter-duct, hangers, cable ties and parts required to install the fiber optic cabling at the designated Labor and Industry facility or office.
- d. Provide Labor and Industry Bureau of Infrastructure and Operations project manager with an as-built, E-size CAD drawing and soft copy in CAD-14 format for all fiber optic cable runs within the designated Labor and Industry facility or office.
- e. Specify, install, document, test, certify, and warrant the proposed fiber optic cabling system with a minimum 15-year manufacturer's performance warranty.
- f. Provide manufacturer trained and certified staff capable of installing, documenting, testing and certification of the proposed fiber optic cabling in full compliance with the component manufacture's performance warranty requirements.

g. The cabling contractor must ensure that all staff assigned to the project meet the minimum skill levels and staffing complement as required by the cabling system component manufacture's guidelines for installation and warranty certification.

3. Fiber Optic Cable Specifications:

- a. Multi-mode, Indoor:
 - 1. Type, UL, NEC/CSA Listed, Tight Buffered: OFNP/FT6 62.5/125 um
 - 2. Number of Strands: Varies by Project
 - 3. Maximum Attenuation (dB/km) 3.5/1.5 (850/1300nm)
 - 4. Minimum Bandwidth (Mhz km) 200/500 mHz/km @ 850/1300nm
 - 5. Guaranteed Gigabit Ethernet Distance: 275/550m @ 850/1300nm
- b. Preferred Fiber Optic Cable and Component Manufacturers:
 - 1. AMP/Tyco
 - 2. Siecor
 - 3. Avaya
 - 4. Corning
 - 5. Krone
 - 6. CommScope
 - 7. Berk-Tek
 - 8. Belden
 - 9. Siemon
- c. The number of fiber strands to be installed between two wire closets or LAN cabinet locations will be determined on a site-by-site basis by Labor and Industry Bureau of Infrastructure and Operations based upon the network design requirements for the site or office. The information will be provided to the building owner or cabling contractor in a detailed statement of work prepared by Labor and Industry.
- d. The cabling contractor is responsible for providing EMT conduit (if required), inter duct (if required), fittings, hangers and miscellaneous components necessary to properly route the fiber optic cable between the designated termination end points identified by Labor and Industry in the statement of work.

- e. The cabling contractor will provide one 19 inch, rack mounted patch panel at each end of each fiber optic cable. The patch panels must be able to accommodate ST style fiber connectors. The size of the patch panel (# of Ports) will be determined by the network design requirements of the site. The number of fiber terminations required will be specified in the detailed statement of work prepared by Labor and Industry Bureau of Infrastructure and Operations for a specific site or project.
- f. Each fiber optic cable strand will be terminated using LC style connectors.
- g. The fiber cable must be enclosed from end-to-end in either plenum rated 1" interduct or 1" EMT conduit.
- h. The fiber cable itself must be plenum rated.

4. Panel Termination Specifications

- a. Patch Panel:
 - 1. Minimum (12) port, actual size specified in the Statement of Work
 - 2. ST connectors
 - 3. 19 inch rack mountable
 - 4. Preferred patch panel manufacturers:
 - a. AMP/Tyco
 - b. Siecor
 - c. Corning
 - d. Avaya
 - e. Krone
 - f. CommScope
 - g. Berk-Tek
 - h. Belden
 - i. Siemon
 - b. Fiber Optic Cable Connectors:

- 1. ST style connectors for multi-mode fiber
- 2. Ferrule Material: Ceramic
- 3. Bonding Process: Hot Melt, UV, Epoxy or Crimp style.
- 4. Preferred ST style connector and termination hardware manufacturers:
 - a. AMP/Tyco
 - b. Siecor
 - c. Corning
 - d. Avaya
 - e. Krone
 - f. CommScope
 - g. Berk-Tek
 - h. Belden
 - i. Siemon

5. Fiber Optic Cable Labeling

- a. All fiber optic cables installed by the wiring contractor will be labeled using a preprinted typewritten label using characters that are a minimum of one-eighth inch in height. Labels will be permanently affixed to the fiber optic cable strands and sealed against environmental conditions. Each separate cable strand will be clearly labeled at the LAN cabinet termination point. It is preferred that a Brady cable labeling system or P-Touch labeler be used to create the labels.
- b. Each fiber optic cable strand will be differentiated using a six (6) digit-numbering scheme. The first two (2) digits will be the number of the far-end LAN cabinet in which the cable terminates. The last four (4) digits will be used to sequentially identify each fiber optic strand that terminates within a given LAN cabinet. The two groups of numbers will be separated using a (-). The letter (F) will be the first digit of a fiber optic strand number identification that means (fiber). Example: 01-F002 that represents LAN cabinet number (01) and fiber optic cable number (F002).

6. Documentation Requirements

- a. Detailed diagrams (as-builds) must be provided to the Labor and Industry Bureau of Infrastructure and Operations project manager in E size hard copy and soft copy CAD-14 format on a CD-ROM at the completion of the cable installation. The cable numbers must be printed on the CAD at the point where the cable is terminated.
- b. Fiber optic cable test results must be provided to the Labor and Industry Bureau of Infrastructure and Operations project manager on 8.5" X 11" paper at the completion of the installation process.

7. Fiber Optic Cable Testing Requirements

- a. It is of the utmost importance that all fiber optic cable testing and certification be performed in accordance with the guidelines set forth in the ANSI/EIA/TIA-568-A manual in the section related to fiber optic backbone cable application and usage as a minimum requirement.
- b. When preparing for field-testing, the following guidelines must be followed to ensure efficient and accurate test results:
 - 1. Ensure that the test jumpers (end-to-end attenuation) or test fiber box (OTDR) are of the same fiber core size and connector type as the cabling system. 62.5 micron core test jumpers should be used for testing 62.5 micron multi-mode cable.
 - 2. Ensure that optical sources are stabilized and have center wavelengths within + or 2 nano meters of the 850/1300 nano meter multi-mode wavelengths and 1310/1550 nano meter single-mode wavelengths.
 - 3. Ensure that the power meter is calibrated at each of the nominal test wavelengths and traceable to the National Institute of Standards and Technology (NIST) calibration standard.
 - 4. Ensure that the power meter and the light source are set to the same wavelength.
 - 5. Ensure that all system connectors, adapters, and jumpers are properly cleaned prior to measurement.

8. End-to-End Attenuation Testing Mandatory Requirements

a. The multi-mode fiber test setup and performance must be conducted in accordance with ANSI/EIA/TIA-526-14 Standard, Method B. OTDR testing for measuring attenuation over the length of the fiber cable will not be acceptable.

Attenuation testing must be accomplished using a high quality fiber optic cable tester that consists of an optical light source and optical power meter.

b. All 62.5/125 micron multi-mode fiber optic cable strands must be tested at both 850 nm and 1300 nm in one direction only. Acceptable loss will be less than 3.75 dB/km at 850 nm, 1.5 dB/km at 1300 nm. The loss values take into consideration the optical cable loss, two connector pairs, and no splices per TIA/EIA-568-A.

9. Fiber Optic Cable Length Verification Mandatory Requirements

a. Fiber optic cable length must be determined for each fiber cable installed. The cable length shall be verified either by OTDR testing or by physical cable length markings printed on the fiber cable outer covering.

10. Test Result Documentation Mandatory Requirements

a. Optical fiber attenuation and physical length records must be submitted in hard copy format on 8-1/2" X 11" standard paper. The test equipment used to perform the fiber optic cable testing must be identified on the report. Please provide the manufacturers name and model of the unit used to perform the cable tests and record the results.

11. Fiber Optic Cable Certification and Warranty Requirements

- a. The fiber optic cabling system installed by the wiring contractor must carry at a minimum, a 15-year component manufacturer's performance warranty.
- b. The cabling system must be designed by or reviewed by a technician who has successfully completed an authorized manufacturer's fiber optic cabling system design course. The technician must hold a current and valid certificate that authorizes the technician to perform system design work using the specific manufacturer's system components.
- c. The fiber optic cabling system must be installed under the direct supervision of a technician who has successfully completed the authorized manufacturer's installation courses for fiber optic cabling systems. The technician must hold a current and valid certificate that authorizes the technician to perform fiber optic cabling system installation project management.
- d. The fiber optic cabling contractor must install the fiber optic cabling system using only cable, connectors and connecting hardware listed in the manufacturers Warranted Parts Number List or parts specifically approved by the manufacturer in writing on a case-by-case basis.

- e. The fiber optic cabling system must be tested in accordance with a test plan prescribed by the authorized system component manufacturer and by a technician who has successfully completed the authorized manufacturers testing courses for fiber optic cabling systems. The technician must hold a current and valid certification issued by the manufacturer to perform fiber optic cabling system testing.
- f. The cabling contractor must prepare all required cabling system documentation and test results necessary to apply for the fiber optic cabling system manufacturers 15-year performance warranty within 30 days after the completion of installation and testing of the system.
- g. The Labor and Industry Bureau of Infrastructure and Operations project manager must receive the fiber cabling system manufacturers 15-year performance warranty certificate within a 60-day period starting the day after the completion of system testing by the cabling contractor.

Date: April 24, 2009

Section 4.0 Personal Computer, Laser Printer & LAN Equipment Power Management Information and Specifications

Purpose:

The purpose of this document is to provide building architects and electrical contractors preparing office space for Labor and Industry with a thorough understanding of the electrical requirements and specifications that have been established by the Labor and Industry, Bureau of Infrastructure and Technology for personal computers, laser printers and local area network (LAN) equipment. Information contained in this document should be used as a general guideline when planning for the installation of network computers, laser printers, copiers, printers, LAN hardware and office furniture configurations.

Introduction:

In order to properly support the power requirements for personal computers, laser printers, and LAN equipment configurations in today's hi-tech office environments, it is essential to implement power management principles and installation planning disciplines. The evolution and introduction of computer technology to the office environment has created the need for advanced environmental installation planning practices to be employed by building architects, electrical contractors and enterprise managers. The previous environments that utilized typewriters or fixed function display terminals were not as sensitive to voltage spikes and unclean power as today's personal computer and LAN environments. The new office environments require that building architects and electrical contractors design power distribution systems in the office space that are set up according to the equipment load levels of the devices that will be installed on the office desk-tops. It is the L&I's responsibility to ensure that adequate surge suppression devices and UPS units are installed to clean up the power and protect critical network devices. In certain cases, such as a large UC service center, a large UPS or other electrical conditioning equipment will be required as part of the building renovation.

PC Power Consumption:

In comparison, a typical typewriter would use about 1.0 amp of power, as would a fixed function end-user display terminal. Today, a typical desktop PC consumes approximately 1.5-3.0 amps of power per PC depending upon the type of PC configuration, monitor type/size and other peripherals installed on the PC system.

Printers, Dot Matrix & Laser:

As a comparison, a dot matrix, serial attached PC printer would require approximately 1.0 amp of power in contrast to an average speed desktop PC attached laser printer that requires the following amperage demands:

Heating Cycle: 4.0 - 6.5 amps

Idling: .3 - 1.2 amps Printing: 6.2 - 8.5 amps

Laser printers are the defacto standard for PC printed output in today's office environment. As a general rule, the more pages per minute (PPM) produced by a laser printer, the more amperage it will use. The high amperage consumption is only a part of the problem. The amperage draw is not a steady-state load as indicated above by the (3) stages of operation for a laser printer. The printer will vacillate between heat and non-heat cycles every 10 to 15 seconds depending upon the specific make/model of laser printer. The transition from heat to non-heat cycles creates spikes on the branch circuit that supplies power to the printer. The power spikes created by laser printers can be detrimental to other PCs and equipment that are plugged into the same electrical circuit, (on the same circuit breaker). It should be noted; the power source (branch circuit) for laser printers should be dedicated to the laser printer and not used by other LAN or network equipment.

Individual Surge Protectors (L&I Supplied):

To protect LAN equipment from electrical spikes, under-voltage, over-voltage, or lightning strikes, it is a requirement that high quality surge suppression devices (surge protectors) be installed on all Labor and Industry network PCs and laser printers. A surge protector is designed to provide power filtering for the attached device and to protect the equipment from electrical spikes and lightning (depending upon the manufacturer of the surge protector). A surge suppresser will not resolve under or over-voltage problems caused by circuit overloading. In most cases, the surge protector will disconnect the circuit from the equipment it is protecting to avoid damage caused by the under or over-voltage conditions.

Good quality surge protectors are a must for every PC and laser printer. If the PC has a modem connection to the phone line, the surge protector must also have an outlet for the phone circuit so that electrical pulses or lightning from the outside phone line cannot damage the PC circuitry. A good quality surge protector must have a UL 1449 rating of 330 volts, 20,000 amps, MOV logic, and a response of less than 1 nano second. It should be noted that most surge suppresser manufacturers do not make any claim to provide protection to the attached equipment in the event of a lighting strike to the power source. Likewise, most surge suppressers are not warranted to protect the equipment or the surge suppresser if the power source is struck by lighting. However, there are several reputable manufacturers of surge suppressers on the market that do warrant their equipment against lighting strikes. As a general rule, a high quality surge suppresser will range in price from \$36.00 to \$55.00 with extensive discounts applied to get to these prices.

UPS (Un-interruptible Power Source):

To protect critical LAN servers, network hubs and routers, it is essential that UPS (Uninterruptable Power Source) (UPS) units be installed strategically to protect those devices. A UPS provides backup power to the devices that are attached to the UPS. When commercial

building power fails, the UPS circuitry continues to feed unaltered, clean and reliable power to the attached devices. The UPS provides a significantly higher level of power protection for all attached devices. Not only does it provide backup power, it also acts as a surge suppresser and power noise filter to clean up unwanted spikes from the commercial power source entering the UPS. The UPS will also have a communication link to the server that will provide a controlled shutdown of the server in the event of an extended power outage. Prior to the UPS batteries going completely dead, which would cause the UPS to shut down, the UPS will signal the server to stop processing, shut down all systems and go into an orderly power off to avoid a server crash which could potentially damage circuitry or corrupt data bases on the server.

Modular Furniture Power & Programmable Power Base Systems:

In today's typical office environments, modular furniture is very popular to provide workstation space for employees. There are many different manufacturers of modular furniture with a wide variety of design and capabilities. Virtually all workstation modular furniture vendors provide power outlets for the workstations through some type of power base modular electrical distribution system that is mounted in the base of the furniture panels. Power is sent to the power base from power poles entering the ceiling, wall receptacles or from under the floor. The modular furniture power connection to the building power panel and circuit breaker is accomplished using a power cord from the modular furniture, which is frequently called a WHIP.

Power distribution through the modular furniture power base is accomplished by interconnecting power strips in the power base using jumper cables. The number of power strips connected to a single power pole and WHIP must be determined using a variety of items as input to determine circuit loading in the power base. Most modular power base systems are designed to be attached to a 15-amp circuit breaker at the power panel. In accordance with NEC (National Electrical Codes), a 15 amp circuit should not be loaded with a continuous current draw of greater than 80% of the breaker rating (12 amps). The same would also be true for wall outlets or floor outlets. If the breaker capacity were 20 amps, the allowable continuous load would be 16 amps. These maximums are very important to remember when deciding how to program the modular furniture power base to achieve the desired distribution based upon the anticipated workstation electrical load requirements.

There are some types of modular furniture systems used by the Commonwealth of Pennsylvania, Department of Labor and Industry in large quantities that do not have any provisions in the modular furniture base to deal with power distribution or voice/data cabling distribution and fixtures. One of the furniture manufacturers that falls in this category is Haskel. Contractors doing electrical or data/voice cabling work for Labor and Industry sites must thoroughly understand the modular furniture installation inventory and operational environment they are dealing with when planning their work and pricing schedules for a specific site. Failure on behalf of the cabling or electrical contractor to not have this information available or to not be knowledgeable of this environment could prove to be very costly to the contractor when powering or cabling this type of furniture.

Power Distribution and Planning Requirements:

Typically, detailed power distribution and planning activities do not take place in most PC network equipment based offices due to a lack of knowledge on behalf of the end-user's, network installers, furniture installers and the electricians. Unfortunately, circuit-overloading problems must first be encountered before the power planning process is initiated and then only because of an immediate problem.

Power management is an ongoing process since workstation equipment loads change as technology is changed and moved within the office. Therefore, it is essential that very accurate documentation be established and kept in place to document how the modular furniture power base systems or electrical circuit distribution to non-power based systems are installed and configured as well as how wall and floor circuits are wired in the office. Failure to have this type of information readily available will prove to be a problem when circuit breakers trip due to changes in equipment configurations.

Electrical Circuit Harmonics Caused by PCs and Laser Printers:

PC, laser printers and microprocessor based power supplies create a phenomenon on the electrical supply source neutral line called electrical harmonics. When large numbers of PCs and laser printers are installed within and enterprise on the same power panel, the effect of electrical harmonics can be significant. The effect of electrical harmonics is that amperage flow on the neutral wire of the power source becomes excessive and may cause the neutral wire to overheat and fail. This is true where multiple supply circuits in the office environment share a common neutral circuit. This problem can be prevalent when the modular furniture power base system utilizes a 5-wire electrical distribution system. The five-wire system is configured as follows:

1.	15 Amp Breaker, Phase # 1	120 Volts
2.	15 Amp Breaker, Phase # 2	120 Volts
3.	15 Amp Breaker, Phase # 3	120 Volts
4.	Power Panel Neutral	Neutral 1
5.	Power Panel Common Ground	Ground

In the above diagram, each of the three phases can share the common neutral. Electrical harmonics caused by the PCs and laser printers that may be attached to each of the individual phases may cause the neutral wire to encounter amperage flow, which is excessive due to the effect of the electrical harmonics. To solve this problem, some modular furniture systems are now being manufactured using an eight/ten wire power base system. The eight/ten wire system

allows for a dedicated neutral for each of the three phases all the way back to the power panel if properly connected. The following diagram shows how the eight-wire system is constructed.

1.	15 Amp Breaker, Phase # 1	120 Volts
2.	Power Panel Neutral	Neutral 1
3.	15 AMP Breaker, Phase # 2	120 Volts
4.	Power Panel Neutral	Neutral 2
5.	15 Amp Breaker, Phase # 3	120 Volts
6.	Power Panel Neutral	Neutral 3
7.	Green Wire Common Ground	Ground
8.	Green/Yellow, Isolated Ground	Ground

In the above configuration, there are three neutral wires from the workstation power base going back to the power panel common neutral hub. In addition, there is a common ground and an isolated ground. It is recommended that all electrical outlets used for PCs and laser printers be **dedicated outlets using isolated ground receptacles if possible.** Some modular furniture configurations may not be able to support this type of configuration for power. If it is a five-wire system, isolated grounds are generally not available in the power base configuration. In this case, it is recommended that one or two of the three power phases going through the power base be set aside specifically for powering PCs and laser printers within the modular furniture. The third phase would be used for lights, radios, clocks and miscellaneous equipment excluding coffee pots, electric heaters and cup warmers which should not be utilized in modular furniture based power supply systems due to their high demand for amperage.

Another way to solve the harmonic problem when you must use a shared neutral is to provide a neutral wire that is oversized or larger than the individual service wires. This solution will provide the capability to carry the increased current flow at the distribution cable level in the power path. It is also imperative to try and balance the current flow levels as much as possible on each of the phases if you must use a shared neutral environment and can utilize an oversized neutral wire.

Section 4.1 Power Configuration Guidelines

The following list identifies guidelines to be used by the electrical contractor and modular furniture installers when setting up power to the modular workstation configurations, offices and conference rooms:

- 1. Maximum allowable number of desktop PCs with monitors per 120-volt electrical branch circuit (Assuming the worst case of 3.0 amps current draw per PC):
 - a. 15 amp circuit = 3

- b. 20 amp circuit = 4
- 2. Maximum allowable number of laser printers per 120-volt electrical branch circuit (Assuming 8.0 amps peak load per laser printer):
 - a. 15 amp circuit = 1
 - b. 20 amp circuit = 2
- 3. Maximum allowable number of Network Servers, (Windows NT type, tower units) per 120-volt electrical branch circuit, (assuming 5 amps per server or less with the monitor):
 - a. 15 amp circuit = 2
 - b. 20 amp circuit = 3
- 4. Power allocation within offices, conference rooms and other locations constructed using conventional walls and non-modular furniture construction.
 - a. All power outlets for PCs should be dedicated circuits with isolated grounds.
 - b. Miscellaneous other equipment, lights etc., in the offices should be powered by outlets configured in accordance with local electrical codes.
 - c. Laser printers should be powered in accordance with the guidelines in item number 4.1.2. (a and b) above.
 - d. Power outlets for laser printers should be 120 volt, 20 amp, dedicated circuits, with isolated ground, orange in color.
- 5. General Power Guidelines:
 - a. All PCs, and laser printers should be protected using a good quality surge protector (L&I supplied) such as an APC or Panamax brand. Include modem line protection on the UPS if the PC is connected to the outside phone line.
 - b. All servers should be powered by an UPS capable of maintaining operational status for a minimum time period of 15 minutes under optimum server load.
 - c. All network electronics racks containing hubs, routers and modems should be protected with a UPS capable of maintaining operation of the LAN electronic components for a minimum period of 15 minutes.

Section 4.2 Specific Power Requirements

- A. Power Requirements within a typical Labor and Industry office environment:
 - 1. Permanent Offices
 - a. Each office should have (1) dedicated 120-volt circuit, duplex receptacle with an isolated ground to be used exclusively for powering the user's PC.
 - b. Each office that has a laser printer should have (1) 120-volt, dedicated circuit, duplex receptacle, with an isolated ground. This circuit must not be connected to any other outlet in the office.
 - c. Each office should have at least (2) 120-volt outlets to be used for miscellaneous electrical equipment within the office.
 - d. The number of receptacles per circuit should conform to the guidelines outlined in Section 4.1 above for either 15 amp or 20 amp circuits whichever is applicable to the location where the circuit is being installed and the device types that are being connected to the receptacles.
 - 2. Modular Furniture, Cubicles, (Eight Wire Power Base System)
 - a. Each cubicle should have (1) dedicated, 120-volt circuit, duplex receptacle with an isolated ground to be used exclusively for powering the user's PC.
 - b. Each cubicle that has a laser printer should have (1) dedicated, 120-volt circuit, duplex receptacle with an isolated ground that does not share the same circuit phase as any PC dedicated receptacle.
 - c. Each cubicle should have at least (1) 120-volt receptacle to be used for miscellaneous electrical equipment within the cubicle. This receptacle should not share the same power phase as the PCs or laser printers.
 - d. The number of receptacles per circuit should conform to the guidelines outlined in Section 4.1 above for either 15 amp or 20 amp circuits whichever is applicable to the location and circuit being installed.
 - 3. Modular Furniture, Cubicles, (Five Wire Power Base System)
 - a. Each cubicle should have (1) 120 volt, dedicate circuit, duplex, grounded receptacle installed that is isolated within the power base system of the furniture to be used exclusively for powering PCs.

- b. Each cubicle that has a laser printer should have (1) 120 volt, dedicated circuit, duplex, grounded receptacle to be used exclusively for powering laser printer.
- c. Each cubicle must have (1) 120 volt, duplex, grounded receptacle installed that is isolated within the power base system of the furniture to be used exclusively for powering miscellaneous electrical equipment within the cubicle system.
- d. The number of receptacles per circuit should conform to the guidelines outlined in Section 4.1 above for either 15 amp or 20 amp circuits whichever is applicable to the location and circuit being installed.
- 4. Modular Furniture, Cubicles, (No Power Base System)
 - a. Each cubicle should have (1) 120 volt, grounded, duplex, receptacle installed with an isolated ground, configured in accordance with circuit loading as described in section 4.1. (1,2) above. This receptacle is to be used exclusively for powering PCs.
 - b. Each cubicle that has a laser printer should have (1) 120 volt, dedicated circuit, isolated ground, duplex receptacle installed to power the laser printer.
 - c. Each cubicle must have (1) 120 volt, duplex, grounded receptacle installed to be used exclusively for powering miscellaneous electrical equipment within the cubicle.

5. Conference Rooms

- a. Conference rooms should have a 120-volt, duplex receptacle with an isolated ground for each data jack installed within the room. These receptacles will be used to provide power to PCs. Circuit loading should conform to the specifications identified in section 4.1.1 and 2 above.
- b. Conference rooms should have (1) dedicated, 120-volt circuit, duplex receptacle with and isolated ground for any location that will supply power to a laser printer. This receptacle should be on it's own circuit and breaker.

6. Server Locations

a. The server's power should be distributed in accordance with the circuit loading specifications stated in Section 4.1.3 above using a dedicated, 120

volt, duplex receptacles with an isolated ground for the server. This circuit must not be shared with other PCs or laser printers. Depending upon the type and configuration of the server, multiple servers may be powered by the same circuit breaker and branch circuit.

- B. Power requirements for non-standard Labor and Industry office configurations:
 - 1. There are some bureaus and departments within Labor and Industry that have special power load requirements for the distribution of power to PCs, laser printers, and LAN equipment that do not conform to the guidelines listed above.
 - 2. Whenever special power distribution requirements are necessary, they will be clearly documented and provided to the building architect, building owner, lessor, and/or electrical contractor involved with the physical preparation of a site for Labor and Industry staff occupancy.
 - 3. In some cases, Labor and Industry will require the use of battery back-up systems and generator back-up systems to be provided for specific office environments. Labor and Industry Bureau of Infrastructure and Technology staff will work with the appropriate architect, electrical contractor and building owner to identify the unique environmental requirements for power distribution at a given site.

SPECIAL LEASE REQUIREMENTS Norristown, Montgomery County, PA Unemployment Compensation Board of Review (UCBR)

ALL ITEMS LISTED ARE TO BE PROVIDED BY LESSOR AT LESSOR'S SOLE EXPENSE

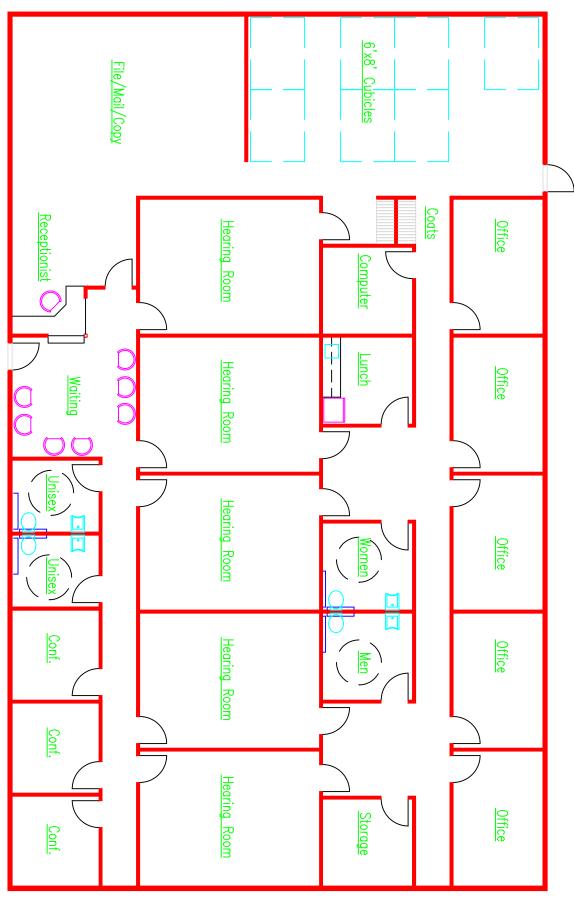
- Install vertical transom windows and/or peepholes on interior doors identified by Lessee.
- Install "panic" buttons in hearing rooms which are wired to the clerical area and/or receptionist. A wireless installation is permissible.
- Install a receptionist window of no less than 3' X 4' made of safety tempered glass, Plexiglas, wire glass or the like with appropriate cutouts for communication and passing documents.
 The public side of the window will include a ledge of 14 18" inches to allow for signing in process.
- Reception area will include door release button(s) as necessary to allow remote access to hearing room/secure hallway as appropriate and as determined by Lessee.
- Hearing Rooms must be soundproofed. Doors to hearing rooms will be solid to assist with soundproofing.
- Hearing Rooms will have two entrances—one for the public and one for staff. The public entrances will be directly off the waiting room or directly from another secure hallway.
- Doors from Hearing Rooms to staff area will have push button locking mechanism on staff side.
- Doors from Waiting Room to Hearing Rooms or Secure Hallway will require security access. If public access to Hearing Rooms is through secure hallway the hearing room doors will have key lock on the hallway side of public entrance.
- Hearing Rooms will include two-way light switches located near each door.
- Provide signage in any lobby, waiting area and hearing rooms as specified by Lessee.

SA2011-042 Date September 14, 2011 Department of Labor and Industry Bureau - Unemployement Compensation Board of Review County - Montgomery

DGS SPACE STANDARDS - M260.1

A. PERSONNEL

SPACE STANDARD	TYPICAL DIMENSION	ASSIGN	NUMBER	TOTAL	
SI ACE STANDARD	TITICAL DIVILITION		REQUIRED		
Executive I - Cabinet Secretary	25 ft x 17 ft	425	0	0	
Executive II - Deputy Secretary/Independent Board Commissioner	15 ft x 17 ft	255	0	0	
Senior Manager - Bur. Dir., Exec. Dir.(Full Height Private Office)	15 ft x 15 ft	225	0	0	
Mid Mgr/Semi -Prvt. Office -Div. Chief/Attorney Door Height Office		150	5	750	
Supervisor/Technical - Positions requiring special equip., or position	s 8 ft x 12 ft	96	0	0	
(Workstation) involving many 2-3 person meetings.	0.64 0.64	<i>C</i> 1	0	0	
Analysis/Admin./Sec Analysts, Accountant, Programmer, clerical	8 II X 8 II	64	0	0	
(Workstation) positions with admin. duties, etc. Clerical/Field/Intern - Single task clerical positions, fiscal techs, field	16 ft v Q ft	48	7	336	
(Workstation) staff, interns, etc.	OILXOIL	70	,	330	
(Workstation) start, interns, etc.	PERSONNEL TOTAL		12	1,086	
D ALIVIN LADAY ADDAG					
B. AUXILIARY AREAS					
TYPE	DETERMINANT	ASSIGN	NUMBER	TOTAL	
		EACH	REQUIRED	ASSIGNED	
Conference Room	per person meeting	17	0	0	
Reception	area required	50	1	50	
Hearing Room	area required	300	5	1,500	
Attorney Conference Room	area required	100	3	300	
Storage Room	area required	100	1	100	
Library	area required	0	0	0	
Waiting Room	area required	125	1	125	
Lunch Room	leased space only	100	1	100	
Computer Room	area required	100	1	100	
File Room	area required	300	1	300	
Public Unisex Restroom	area required	85	2	170	
Restrooms	area required	100	2	200	
Mail / Copy Room	area required	150	1	150	
Other	area required	0	0	0	
	AUXILIARY TOTAL			3,095	
C. SHARED EQUIPMENT	(not in auxiliary areas/employe work spaces)				
TYPE	TYPICAL DIMENSION	ASSIGN	NUMBER	TOTAL	
1112	(incl work space)		REQUIRED		
File Cabinet	1.5 ft x 4.5 ft	7	0	0	
Tables	5 ft x 5 ft	25	2	50	
Computer/Terminal	5 ft x 5 ft	25	0	0	
Copier	5 ft x 6 ft	30	0	0	
Storage Cabinet	3 ft x 3 ft	9	0	0	
Plan File	4 ft x 6.5 ft	26	0	0	
Bookcase	2 ft x 3 ft	6	0	0	
Coat Valet	2 ft x 2 ft	4	2	8	
Lateral File	2.5 ft x 4 ft	10	0	0	
Other		0	0	0	
	SHARED EQUIPMENT T	TOTAL		58	
D. SUB TOTAL				4,239	
E. TOTAL INCLUDING 35% ALLOWANCE		5,723			
G. GRAND TOTAL				5,723	



<u>Typical Plan - Norristown UCBR</u> Date: 11/22/2011

Scale: 3/32" = 1'-0"

Drawn by: MGR

APPENDIX D

Commonwealth of Pennsylvania Specifications and Requirements Package

NORMAL HOURS:

Services, Utilities and Maintenance will be provided daily, 7 days a week, 24 hour access and use of the premises and lease amenities as necessary.

The Commonwealth shall have access to the leased space at all times, including, but not limited to, the use of elevators, toilets, lights and operation of business machines without additional payment.

PARKING REQUIRED:

The minimum number of parking spaces must be included in your proposal. When the Local code requirement for parking to sq. ft. ratio of parking spaces available on site indicates that the Commonwealth is entitled to more spaces than the specified minimum, then those additional spaces shall at the Commonwealth option be added to the above stated minimum.

CODE AND/OR REGULATIONS CHANGES OR VIOLATIONS:

When changes occur in Local, State or Federal codes or regulations and the Lessor is required to take action or equipment services or utilities furnished and activities of other occupants are not free of Safety, Health or Fire hazards the Lessor shall promptly take action to comply with code or regulation requirements at his sole expense.

LANDSCAPE MAINTENANCE:

Landscape maintenance is to be performed during the growing season on a weekly cycle and will consist of the following:

Watering, mowing and policing area to keep it free of debris.

Pruning and fertilization are to be done on an as needed basis. In addition, dead or dying plants are to be replaced.

SECURITY:

The Lessor shall provide security comparable to the types of protection given similar enterprises to prevent illegal entry or loitering in the space leased and to prevent unauthorized entry during off-duty hours.

MORE OR LESS USABLE AREA:

The Commonwealth shall receive any useable area within the leased premises in excess of that requested free of any and all costs or charges.

In the event there is less space than that requested the Commonwealth shall pay only for the useable area provided and/or shall have the option to exercise its rights under the lease if it deems, in its sole judgment, that the amount of space being provided is insufficient to meet its needs.

ADJUSTMENT FOR VACANT SPACE:

If the Commonwealth fails to occupy any portion of the leased premises or vacates the premises in whole or in part prior to expiration of the firm term of the lease, the rental rate shall be reduced as follows:

The rate shall be reduced by that portion of the costs per square foot of operating expenses not required to maintain the space. Said reduction shall occur after the Commonwealth gives 30 days prior notice to the Lessor, and shall continue in effect until the Commonwealth occupies the premises or the lease expires or is terminated.

Exercise of this right by the Commonwealth shall not preclude it from any other options or rights it may have under the lease.

APPENDIX E

Within the incorporated boundaries of the	e Borough of Norristown,	Montgomery County,
Pennsylvania.		



Business Classification Codes:

Real Estate:

Appraisal Services 80131802 Land Leasing 80131500

Building & Grounds Service Codes:

Building Support 72101500 Roofing & Siding 72101600 Concrete Work 72101700 Carpentry 72102600 **Grounds Maintenance** 72102900 **HVAC** 72151200 Safety & Security 72151700 Windows & Doors 72512400 Floors 72512500 Cleaning & Maintenance

Administrative & Other Professional Services:

76111500

Computer Programmers 81111600 Hardware Maintenance & Support 81112300 Facilities Management 81141800 Telecommunications 81161700 Property Insurance 84131500

Finding PA State Certified Minority-Owned and Women-Owned Businesses (MBEs and WBEs)

Basic Instructions for Searching by Business Classification Codes (Limited Selection Provided on the Left):

Go to:

www.dgsweb.state.pa.us/mbewbe/VendorSearch.aspx

- Enter the Code in the Business Classification Code field
- Change items per page to ALL
- Click on Search
- Click on business listing for more information on a specific business

To Find a Business Classification Code:

- Click on "Code Look Up"
- Select Service Codes or Goods Codes
- Enter a Classification Description (i.e. HVAC)
- Click on Search
- Click on one of the codes.
- Click on Search for a listing of vendors.

To save your search results:

• Click on Search Results to Excel

To see a list of **all** certified firms (over 2000):

- Leave all fields blank
- Change items per page to ALL
- Click on Search

To save the entire database:

• Click on All Vendor Data to Excel

Please call our office for additional assistance.

This publication is provided by

Department of General Services
PA Bureau of Minority and Women Business Opportunities
401 North Street, Room 611, Harrisburg, PA 17120-0500
Email: gs-bmwbo@state.pa.us
717-783-3119 or FAX: 717-787-7052
Philadelphia 215-965-1105 • Pittsburgh 412-442-5872



NOTICE

SOLICITATION # 10001393 DEPARTMENT OF LABOR AND INDUSTRY 5,723 USABLE SQUARE FEET

DUE DATE: February 6, 2012

Revision 1: This solicitation is amended as follows: Appendix C (Agency Specifications) in the original solicitation is being replaced with the revised Appendix C attached to this Amendment.

This is the only notice you will receive pertaining to the above information. This identical notice is being sent to all those originally receiving a solicitation proposal package.

Any questions regarding the above should be directed to Jennings Ward at 717/787-0952.

BUREAU OF REAL ESTATE

600 NORTH OFFICE BULDING, HARRISBURG, PA 17125

TELEPHONE NO: (717) 787-0952

APPENDIX "C" BUILDING SPECIFICATIONS COMMONWEALTH OF PENNSYLVANIA DEPARTMENT OF LABOR AND INDUSTRY

DATE November 30, 2011

Unemployment Compensation Board of Review

Norristown, Montgomery County, PA

LESSOR:			

AGREEMENT

1. USABLE SQUARE FEET

Lessor agrees to provide office space consisting of <u>5,723</u> total net usable square feet. Office space must be located out of or higher than the 100 year flood plain. There are twelve (12) employee(s). A minimum of one passenger elevator is required in a multi-story building or any building situated above ground level; and it must be capable of handling some freight. Downtown building sites that are considered "brownfield sites", i.e., properly rehabilitated, remediated and approved industrial sites, will be given preference in site selection.

2. <u>BUILDING SUPPORT SPACE</u>

Refer to Commonwealth's Usable Square Foot definition in proposal package.

3. PROVISIONS

Lessor must furnish all labor, superintendence, material, tools and equipment and perform all work necessary to complete all construction to the satisfaction of the Commonwealth of Pennsylvania. Lessor must complete all general construction work shown on drawings and in the specifications, but not expressly mentioned in the specifications, and all work specified and not shown on the drawings but obviously necessary to complete construction, as it is not the intent to delineate or describe every detail and feature of the work. Facility to be designed, constructed, maintained and operated in a manner which maximizes energy efficiency.

Asbestos or construction materials containing asbestos is prohibited. Friable materials containing asbestos exposed during renovations or alterations must be removed in accordance with OSHA and EPA recommendations. Lessor agrees to comply with provisions of Exhibit C, Asbestos, of the Commonwealth lease document, if lessor successfully secures an executed lease agreement with the Commonwealth.

4. CONSTRUCTION CODES

Lessor must comply with the adopted PA UCC Building Code; American-Standards publication ANSI Bulletin A117.1 - 2003, "Accessible and Usable Buildings and Facilities"; PA State Act 235, American Society for Testing and Materials publications and tests; all federal building and material specifications; and the latest State and local construction codes and ordinances, applying whichever is more stringent.

5. RECYCLING ORDINANCES AND REGULATION

The lessor shall establish and maintain a separation and collection procedure for the removal of recyclable materials from the leased premises. The lessor shall collect, at a minimum, office paper, corrugated boxes, aluminum, plastic, and glass, and lessor shall comply with Act 101 of 1988 and any existing local codes and ordinances relating to the separation and disposal of recyclable materials.

The lessor must provide suitable containers, dumpsters, etc., for collecting and storing recyclable materials. The lessor shall empty all recycling receptacles and remove recyclables to a designated area as often as necessary taking into consideration the volume of the recyclables and health concerns. The lessor, at his sole expense, will assume all the costs involved in collecting, storing and removing recyclables.

The Commonwealth may identify those recyclable materials, generated from agency operations at the leased premises, which it desires to sell as serviceable property. At its discretion, the Commonwealth retains the right to dispose of such materials itself. When and if the Commonwealth exercises this discretion, the lessor shall thereafter not be responsible for those materials selected by the Commonwealth for disposal by the Commonwealth.

6. APPROVALS

Before any building is erected, adapted, remodeled or altered, detailed architectural plans and elevations for all new construction, all remodeling or alteration work, and line drawings to scale for all other portions of the buildings showing means of egress, shall be submitted to and approved by the enforcing municipality or the Department of Labor & Industry for compliance with the PA Uniform Construction Code (UCC). A UCC Certificate of Occupancy issued by the enforcing municipality or the Department is required prior to occupancy. Any variations from these specifications MUST have the approval of the Department of Labor & Industry, Property Division. The lessor must be able to substantiate that he has obtained said approval. Lessor is required to hire an architect unless waived by the Department of Labor & Industry.

7. BRAND NAMES

The citation of brand names and model numbers throughout this document is intended only to define the standard of the article being described and is not intended to be proprietary. The Department of Labor and Industry will consider any manufacturer's products so long as they are equal in quality to the brands cited, at its sole discretion.

(REV 10-09)

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SECTION A. EXTERIOR

1. FOUNDATIONS

All foundations must be constructed of sufficient size and strength and placed on load-bearingsoil of sufficient compactness to carry the weight of the building components and all equipment.

The concrete for the foundations shall be reinforced where necessary and be homogenous and when hardened, shall have the required strength, resistance to deterioration, durability, resistance to abrasion, water-tightness, appearance and other required properties.

2. EXTERIOR WALLS

All exposed exterior walls must be of masonry or wood frame construction with brick, stone or metal facing material and be approved by the lessee.

3. ROOF CONSTRUCTION

Workmanship and material shall meet all codes and industry recommendations of the manufacturer of the roofing materials.

4. CONCRETE WALKS AND CURBS

Installation and construction of concrete walks and curbs shall conform to the current requirements of the Pennsylvania Department of Transportation, including the installation of stone fill under the sidewalk. All sidewalks shall be reinforced as architecturally designed. Sidewalks shall be constructed in separate slabs, and these slabs shall be separated by one-fourth (1/4") inch thick transverse control joints at 6' intervals.

5. ENTRANCES AND APPROACHES

Approaches to entrances and exits must be concrete construction and reinforced as architecturally designed. Where ramps are deemed necessary from the entrance or exit to the sidewalk or street level, the maximum grade permissible is 8%. Handrails must be provided along the ramps.

6. PARKING AREA

Paved parking area must be provided for as many cars as specified in the Solicitation for Proposal (SFP) and/or lease. Materials and workmanship shall conform to latest applicable requirements of Pennsylvania Department of Transportation specifications. The paved parking area must be striped and numbered to provide the number of stalls specified, and in multi-use parking lots, Labor & Industry spaces must be separately identified, if requested. Cars must have free ingress or egress to parking stalls. Furnish and install in locations as required, precast concrete bumping blocks. Metal stanchions with chain and lock should be provided at entrances and exits. Exit and entrance signs will be provided and appropriately located. Handicapped parking spaces are to be designated and the number of spaces will be determined by Lessee to comply with applicable codes and ANSI. An "Employees Only" sign will be provided. A minimum of one (1) parking stalls meeting ADA requirements must be provided onsite.

SECTION B. ENTRANCES AND EXITS

1. ENTRANCE DOORS AND FRAMES

Entrance doors to lessee's space must be provided, must swing outward, must be a minimum of 36" wide, be constructed of metal and glass to conform with the higher standard of Chapter 33 of the Pennsylvania Building Regulations Code and/or Federal/OSHA standards, and must be equipped with kick plates, push-pull plates and automatic door closing devices. Framework for doors must be constructed of metal. One (1) exterior cigarette urn to be provided, if requested by lessee.

2. DOOR HARDWARE

All entrance and exit door hardware must be of suitable type and ample size and weight to perform the service required. Hardware to be heavy-duty mortise entrance lock 6 pin, keyway C or E, with lever handle (Schlage D Series, Athens or equal), and surface mounted overhead ADA compliant closer with concealed fasteners (no through bolting). The hardware must be of one design and finish. All entrance and exit doors must be keyed alike. Install a delayed action door closer at the handicap entrance. All door operations and hardware must meet ADA Standards.

3. <u>EXIT DOORS AND FRAMES</u>

Exit door(s) from lessee's space must be minimum 36" wide and equipped with panic bars, kick plates, and automatic door closing devices. Framework for doors must be constructed of metal.

4. VESTIBULE DOORS AND FRAMES

In buildings where the Department of Labor and Industry is the sole tenant, interior vestibule doors must be provided in all public and staff entrances and vestibule doors must match exterior doors and be equipped with kick plates, push-pull plates, and automatic door closing devices.

5. EXIT FOYER / CANOPY

In buildings where the Department of Labor and Industry is the sole tenant and/or occupies first floor space, Lessor agrees to provide exterior exit foyers if requested by lessee. Large canopy or foyer of permanent type construction must be installed at each entrance and exit, in accordance with the general decor of the building, if requested by lessee.

SECTION C. INTERIOR

1. COLUMNS

Columns shall be finished with materials to correspond with interior décor complete with two duplex electrical outlets. All exterior, demising and core walls and columns shall have gypsum board installed and finished. Columns shall be wrapped in gypsum board in accordance with a design plan to be provided by lessee and shall include spray fireproofing as required by building codes.

2. VESTIBULES AND EXITS

In buildings where the Department of Labor and Industry is the sole tenant, inside walls of vestibules and exits must be constructed of scuff- resistant material, 4'6" in height. Weather mats must be furnished by lessor and installed in entrances and exits.

3. WINDOWS

All exterior walls must be equipped with modern window units where specified. Window locations and size must be acceptable to lessee, and must provide a maximum of natural light. All windows must be Thermopane type or other acceptable energy-conserving brands. All windows must be of certification quality for deflection, air and water infiltration.

4. <u>WINDOW COVERINGS</u>

All windows and window areas must be equipped with polished aluminum or vinyl venetian blinds and plastic tapes; color specified and approved by lessee. Curtains will be substituted for blinds if requested by lessee.

5. WALL FURRING

All interior brick, cinder, tile or concrete block walls to be furred out with metal or wood, from the floor to ceiling height and insulated. The furring must be of suitable type and size to support the weight of the interior finishing materials.

6. <u>INTERIOR PARTITIONS</u>

All interior partitions must be erected in accordance with the floor plan. The landlord shall review the typical floor plan and/or the space allocation to determine the offices requiring interior partitions. The location of private offices and auxiliary space requiring partitions to be constructed by the lessor will be determined by lessee in the final design phase of the project. Interior partitions shall be constructed as follows:

- a. Non-Rated/Non-Insulated Partition to underside of ceiling grid One layer 5/8" gypsum wallboard to each side of 3-5/8" 25 gauge steel studs 16" on center. Tape and spackle. 2" felt strip between top track and ceiling system with contiguous plastic zip bead.
- b. Non-Rated/Insulated Partition extend from floor to 6" above ceiling grid One layer 5/8" gypsum wallboard to each side of 3-5/8" 25 gauge steel studs 16" on center. Tape and spackle. 3-1/2" sound attenuation blanket in wall cavity and above ceiling (extend 26" in both directions). 2" felt strip between top track and ceiling system with continuous plastic zip bead. Rooms requiring this treatment include hearing rooms, mediation rooms, attorney conference rooms, private offices, testing rooms, conference rooms, and/or areas where meetings occur.

Note drywall at all columns and exterior perimeter walls are to be finished at the sole cost of the lessor and is not included in lessee's fit out.

7. WALL FINISH

Lessor to prepare walls, as required, receiving new finishes as follows:

- a. Paint Interior walls must be finished with one coat of primer and two coats of a durable latex paint suitable for the work and traffic areas, Benj. Moore/MAB/Duron/F&H or equal. Semi-gloss latex paint to be applied in employee room, restrooms, and on all trim. Note no surface will be painted using a flat latex paint unless approved by the lessee. Lessor to provide touch up painting after lessee move in.
- **b.** <u>Wallcovering</u> Pre-finished vinyl-clad gypsum board or plain gypsum board with vinyl wall covering applied to it is required in all mediation rooms, conference rooms, attorney conference rooms, hearing rooms, training rooms, and testing rooms, unless waived by lessee.

All wall finishes and colors must be approved by lessee. If requested by lessee, lessor will install a chair rail of approximately 3" width at an appropriate wall height in high-traffic rooms such as hearing rooms, attorney conference rooms, mediation rooms, and waiting room.

8. <u>DOORS AND HARDWARE</u>

- a. Interior Doors Solid core construction, 3'x7'x1-3/4", paint grade; 1-3/4" building standard painted hollow metal knock down frames; heavy duty all purpose commercial grade interior hardware to match building standards, interchangeable cylinder type with ADA compliant lever handle (Schlage D Series, Athens or equal); full mortise heavy duty butt hinges; neoprene silencer; wall/floor stops. Lessor agrees to furnish and install visibility windows in interior doors as required by Lessee. The usual locations would be in the hearing rooms, library, conference rooms, training rooms, interview rooms, mediation rooms and/or attorney conference rooms. Interior doors will be keyed, unless specifically declined by lessee.
- **b.** <u>Closers</u> Surface mounted overhead ADA compliant closer with concealed fasteners (no through bolting). Provide hold open feature at non-rated doors.
- **c.** <u>Closet Doors Hardware (if required)</u> Dummy lever trim and heavy-duty roller catches for double doors at coat and supply closets.
- **d.** Fire Rated Provide fire rated door and frame assemblies at suite entrance and exit doors.

9. CEILINGS

All ceilings shall be acoustical tile suspended by an intermediate duty suspension grid system unless the exposed interior shell and structural system comprise an acceptable interior environment that does not need a suspended ceiling system for acceptable aesthetic, acoustic and lighting requirements. Any exposed mechanical and electrical elements are acceptable if in accordance with codes and if treated in an aesthetic manner and approved by lessee. Acoustical tile and grid system for ceilings shall be selected to reduce energy costs and provide sustainable design. All ceilings shall be at least 9 feet in height above finish flooring, unless a lower dimension is approved by lessee. Acoustical products shall have a Class-A fire resistance per ASTM E 1264 and a flame spread of 0-25 per ASTM E 84 and must have a minimum of 50% post consumer recycled content. Ceiling tiles shall have a 89% minimum light reflectance with a minimum NRC of .70 in compliance with ASTM C 423 and a CAC minimum of 35 in compliance with ASTM E 1414, such as the Ultima Hi-LR series as manufactured by Armstrong World Industries, Inc. or lessee approved equal. Ceiling(s) in the telecommunication/data room(s) must be provided with acoustical tile on a suspension grid system.

10. FLOORS AND FLOOR COVERING

a. Floors

For newly constructed buildings, 4" of coarse aggregate is to be spread throughout proposed floor area. Polyethylene waterproofing material, or equivalent, shall be used as a vapor barrier between aggregate and concrete. Floor areas to consist of a minimum of 4" thickness of concrete. All flooring must be leveled prior to installation of tile. Floor should be properly insulated against heat if over boiler or other highly heated areas. Where no heat is in a basement, appropriate insulation should be installed to minimize cold or dampness coming through the floor. If floor is otherwise constructed or existing floor is used, floor must be leveled and properly insulated prior to installation of tile. Floor loads in designated areas must be capable of supporting a high-density filing system, if required by the lessee. **NOT REQUIRED FOR THIS SITE**

b. Floor Covering

Tile: Vinyl composition tile or equal shall be provided in entry, stock, employee, utility and janitor rooms and other areas designated by Lessee. Tile shall be 12" x 12" - 1/8" gauge. SS-T 312B (1) Type IV, Composition 1 - ASTM E 84 Flame Spread - 75 or less. Load limit 50 PSL. Cove base shall be 4" high vinyl or rubber. Ceramic tile may be requested by lessee at entrances. Colors and patterns must be approved by lessee.

Carpeting: A commercial grade carpet shall be provided in waiting areas, work areas, private offices, conference and testing rooms and other areas designated by lessee. Carpet material shall be 100% nylon meeting FHA minimum standards for "Heavy Traffic Areas". Carpet material shall be Lee's "Attributes" carpet squares or lessee-approved substitute with a minimum 10 year guarantee, 26 oz. with a 1/10 level loop, 3/16 inch pile height, 11.33 stitches per inch, static resistant, 4 ply, solution dyed and a Dennier of 3300. Carpet backing material shall be jute/poly composition and shall be glued down. Colors and patterns must be approved by lessee.

All worn, frayed, or torn carpeting will be replaced by the lessor, as necessary, throughout the term of the lease. All carpet that has reached the end of its useful life or is more than ten years old, must be replaced by the lessor unless waived in full or in part by the lessee. At any time during the term of the lease carpet is replaced or repaired, the moving of the lessee's furniture and equipment, excluding computers and related equipment, shall be the responsibility of the lessor.

SECTION D. HEATING, AIR CONDITIONING AND VENTILATION

1. HEATING

Heating system(s) shall provide and maintain an inside automatically controlled temperature under all conditions of 74 degrees Fahrenheit dry bulb +/-2 degrees Fahrenheit in winter.

2. <u>AIR CONDITIONING</u>

Air conditioning system(s) shall provide and maintain an inside automatically controlled temperature under all conditions of 75 degrees Fahrenheit dry bulb +/- 2 degrees Fahrenheit in summer.

3. **RELATIVE HUMIDITY**

Relative humidity shall be maintained at 40-60% where practical.

4. <u>FALL AND SPRING CHANGEOVER - Intermediate Seasons</u>

Adjustments shall be made as necessary to effect optimal temperature in the occupied space. Temperatures below 68 degrees F dry bulb or above 77 degrees F will be considered in violation of lease conditions.

5. <u>VENTILATION</u>

Mechanical ventilation shall be provided on a year-round basis. Ventilation air introduced into occupied spaces shall be free of outside contaminants and tempered according to the season; i.e., heated in winter and cooled and dehumidified in summer. Air-conditioning systems may be used for winter-time ventilation provided the outside air component is heated before delivery into the occupied space.

- **a.** For systems introducing 100% outside air, ventilation shall provide a minimum of 20 cfm per occupant or 0.25 cfm per square foot of floor area, whichever is greater.
- **b.** For air recirculation systems, fresh outside air shall be introduced into the systems at a rate of 20 cfm per occupant. Where design occupancy is unknown, it shall assumed to be 10 persons per 1000 square feet of floor space.
- **c.** In special cases where air recirculation systems are equipped with air cleaning devices designed to remove odorous and gaseous contaminants, the fresh outside air component may be reduced to 5 cfm per occupant.

6. EXHAUST SYSTEMS

Exhaust systems shall be provided for ventilation of toilet rooms, lunch areas, main work area, conference, hearing and testing rooms. Systems shall comply with state and local regulations.

7. STANDARDS

All heating, ventilation, and air conditioning systems shall be designed in accordance with the current ASHRAE standards, where practical. ASHRAE 90-75 shall be the standard for new buildings. Variation from this requirement must be with the approval of the Department of General Services and the Department of Labor and Industry.

8. SERVICE AND MAINTENANCE

HVAC systems shall be designed, maintained, and operated in a manner which maximizes energy efficiency. All equipment and systems shall be in operating order 24 hours per day and shall be serviced and maintained by the lessor. A program of preventive maintenance must be in place for all ventilation equipment, including changing filters, checking baffles, ductwork, damper positions, and system balance. Actual air flow supplied to occupied areas must be measured and any necessary maintenance or repairs, done to comply with the original design specification and the ASHRAE Guidelines, shall be provided by lessor throughout the term of the lease. Multiple zoning with tamper-proof controls and thermostats are preferred.

9. <u>TESTING AND INSPECTION</u>

HVAC system shall be tested and inspected by lessor prior to occupancy to determine if environmental conditions as stated per lease agreement are met, and if adequate ventilation is provided for each area in accordance with ASHRAE Handbook, 1984 Systems Volume, Chapter 37, "Testing, Adjusting, And Balancing", and NEBB 'Procedural Standards for Testing, Adjusting and Balancing of Environmental Systems'.

Upon completion of testing and inspection, a certified report, signed by a registered engineer, who is certified by the National Environmental Balancing Bureau (NEBB), shall be submitted to the Department of Labor and Industry, Property Division, Room 101, Labor and Industry Building, 651 Boas Street, Harrisburg, Pennsylvania 17121.

The report shall be valid proof that the systems have been tested, adjusted, and balanced in accordance with the referenced standards, and be a true representation of how the systems are operating.

Lessor shall be responsible throughout the term of the lease to provide, at the request of the Department of Labor and Industry, testing of the environmental conditions within the office, to include submission of a detailed report, including recommendations for HVAC system renovations if required to provide adequate ventilation and environmental conditions as stated per lease agreement, and signed by a registered engineer. However, if the report indicates that the HVAC system is in compliance with the terms of the lease, the Department of Labor and Industry will reimburse the lessor for any testing and report costs incurred as a result of the request by the Department.

SECTION E. <u>ELECTRICAL</u>

1. INSTALLATION

The electrical installation must be a completely approved wired system to all electrically operated equipment. The installation shall conform to the requirements of the latest edition of the National Electrical Code, the National Board of Fire Underwriters, the Department of Labor and Industry and other governmental or local authorities having jurisdiction.

2. <u>LIGHTING</u>

Except where otherwise provided in this specification, lighting shall be designed in accordance with the American Standard Practice of the Illuminating Engineering Society of North America, ANSI/IESNA #RP-1-04 or later revision.

Office areas shall provide ambient lighting at the levels stated below under minimum lighting levels with combined indirect and direct pendent mounted luminaries unless otherwise designated by lessee. The lighting system shall also consist of a split ambient and task lighting system with the use of high-efficiency lamps and parabolic and prismatic fluorescent lighting fixtures for auxiliary spaces as designated by the lessee. All fluorescent lighting fixtures shall be energy-efficient, dual electronic ballast type capable of split switching and suited to the application. Instant start ballasts shall be used where the fixtures are turned on and left on all day. Rapid start ballasts shall be used in auxiliary spaces where the fixtures will be turned on and off by occupancy or motion controls, where desired by lessee.

Standard fluorescent fixtures with prismatic lenses may be used in some room locations, as desired and if approved by lessee. Split switching of the 2' x 4' fluorescent lighting fixtures shall

be standard where utilized in conference rooms, and special use areas. Conference rooms and other special rooms shall include recessed-can type dimmable incandescent fixtures utilizing tungsten halogen lamps.

In general, the lighting schemes should avoid high contrast, scalloped patterns, or other visually distracting results. Lighting control technologies shall be installed to effectively combine the use of daylight and fluorescent lighting with daylight sensors and dimmable fluorescent ballasts in open office areas and lobbies. Occupancy sensors shall be installed to reduce energy consumption by switching off fixtures in unoccupied areas. Coordinate all spaces for occupancy sensor control with the lessee.

Ambient lighting shall consume no more than 0.9 watts/square foot with a measured minimum ambient lighting level of 30 foot-candles at the work surface. T-8 or T-5 fluorescent lamps shall be provided with a color rendering index (CRI) of 85 and a color temperature of 3500°K, similar to Osram Sylvania Inc., Phillips Lighting, E or approved equal.

Lessor shall provide, install, and replace all light bulbs, lamps, ballasts and starters required throughout the term and all available option periods during the lease. All replacement lamps shall meet the above specification.

Minimum Lighting Levels

Work Surfaces (including task lighting) - 50 ft-candles
Work Area Ambient Lighting - 30 ft-candles
Telecommunications Room(s)/Closet(s) - 50 ft candles

(to be controlled by occupancy

sensor)

Special Purpose Area(s) - 75 ft candles

(to be controlled by occupancy

sensor)

Hallways/Corridors - 25 ft candles

Conference/Meeting Rooms

Fluorescent Lighting - 30 – 70 ft-candles

(using dimmable Fluorescent ballasts or split switching)

Incandescent Lighting - 10 – 30 ft-candles

(using split switching, or dimmable

incandescent lighting)

Office Automation and Document - 30 ft-candles

Processing Center

Restrooms - 40 ft-candles

(to be controlled by occupancy

sensor)

Parking Lot Areas - 1 ft-candle

(parking lot and exterior lighting shall be controlled by a programmable timer with an integrated photocell control

device)

Exit Lighting - LED type fixtures consuming no more

than 2 watts per fixture

3. TELE-POWER POLES

(In Lieu of under floor duct system when applicable and approved by lessee) Lessor to provide sufficient amount of power poles as required to accommodate furniture plan.

Furnish and install, where required, dual-channel tele-power poles to carry power circuits in one side and low potential communications circuits for telephone, intercom and CRT equipment in the other, fed directly from overhead raceway or other wiring system.

4. INTERIOR CONDUIT AND WALL OUTLETS AS REQUIRED FOR ELECTRIC, DATA & TELEPHONE

All interior conduit shall be rigid steel and/or electrical metallic tubing and shall conform to the latest Federal specifications. They shall be of ample size to properly accommodate conductors passing through or contained therein. At all locations shown on drawings, an outlet box of proper type and minimum size to satisfy intended requirements shall be provided. Boxes shall be rigidly secured in position, set true and square.

If lessee selects modular furniture for use in the leased premises, lessor agrees to assist and coordinate with lessee's modular furniture vendor(s) the installation of same and coordinate any required electrical, data and voice installation.

5. <u>DATA AND TELECOMMUNICATIONS</u>

See enclosed "VOICE, DATA, AND POWER INFRASTRUCTURE SPECIFICATIONS" for complete IT specifications.

Lessor to provide and install all cable and connectors necessary to support computer and voice related equipment as designated by lessee, with strict adherence to the enclosed "Labor and Industry Voice, Data and Power Infrastructure Specifications". Lessor should assume approximately thirty (30) CAT -5e voice drops, thirty (30) CAT 6 data drops, and two (2) 50-pair riser cable from the main building demarc to the L&I LAN room wallfield will be required. This number may change slightly based on individual building configuration, but is believed to be a good general estimate.

Listed below is the Department of Labor & Industry, Office of Information Technology (OIT) cabling requirements, which includes the number of voice and data cables and specific cabling work required for the office. This information is provided to assist you in understanding the scope of work required. Note a final "Cabling Statement of Work" will be provided after a final furniture plan is approved, which will detail the exact location for all voice, data, and electrical outlets. The lessor will be responsible to perform the work contained therein.

Fiber optic cabling may be required when distance issues plays a factor, for example, in buildings where the demarc is located greater than 300 feet from the LAN room or when offices are located on various floors in the building, and fiber cabling between LAN rooms is required for connectivity.

6. <u>CABLING REQUIREMENTS</u>

The following gives detailed instructions on voice, data, electrical, and LAN Room installation. Once L&I has a final furniture plan in place, a Final Statement of Work will be submitted with the floor layout showing exact voice/data and electrical locations for the office as well as a detailed layout of the LAN room.

All permits, applications, ordinances, licenses, etc., of the respective city, county, state, and federal governments are the sole responsibility of the vendor. Failure to comply with any necessary documentation is at the vendor's own risk. The Commonwealth of Pennsylvania, Department of Labor & Industry is not responsible to provide, furnish, account, or be held responsible for, any and all documentation in regards to working permits and licenses.

The following is a time-sequenced listing of steps that need to be completed in order to successfully complete this project.

A. Remove Unused Voice, Data and Coax cable

Before cabling the office space, vendor must remove all un-terminated existing voice, riser and data cables from their ending points (drops and cables terminated within the proposed office area) all the way back to their origination points or MDF. Unused voice and data cabling is defined as cabling that is un-terminated and abandoned.

B. LAN-Telco Room Construction

- 1. Build the LAN Telco Room to the dimensions shown on the floor plan. The room must be at least 7'x 9' in size.
- 2. The LAN-Telco room door must be equipped with a lockable key-set.
- 3. The floor should be either:
 - a. Sealed concrete or
 - o. Non-static vinyl floor tile
- 4. There should be a dropped ceiling in the LAN room.
- 5. There should be eight prismatic fluorescent ceiling lights (2' X 4') installed having (4) 40-watt tubes each.
- 6. A light switch should be located on the wall right inside the LAN-Telco room door to control the overhead lighting.
- 7. The room MUST be equipped with year-round cooling or air circulation to maintain a temperature in the room at or near 72F to 76F.
- 8. The cooling capacity required in the LAN-Telco room will be 10,000 BTUs. No heat is required in this room.
- 9. Install unpainted fire retardant 3/4" plywood (good on one side) on one wall of the new LAN-Telco room to create an area (8' height X 8' wide) to be used as a Telco wall-field. Typically behind the newly installed LAN rack.

C. Install LAN Telco Room Equipment and Wiring

- 1. Refer to the enclosed drawing that shows the configuration and location of the LAN rack (Diagram #1).
- Parts list for a Chatsworth, (Black), 7 foot, LAN rack that must be ordered by the cabling contractor to build the desired LAN rack configuration is as follows:
 a. Chatsworth LAN Rack (19"W X 84" H) P/N 46353-703 Qty = 1

b.	Single-Sided Shelf, Vented (19")	P/N 40117-719 Qty = 1
C.	Floor Mounting Kit: Concrete Floor	P/N 40604-001 Qty = 1
	OR Wood Floor P/N 40	0607-001 Qty =1
d.	Rack-Mount Ground Bar	P/N 10610-019 Qty = 1
e.	Ground Bus Bar Kit, Wall Mounted	P/N 10622-010 Qty = 1
f.	Base Dust Cover	P/N 41050-719 Qty = 1
g.	Mounting Screws	P/N 40605-005 Qty = 1
h.	Single-Sided, Wide, Vertical Wire Mgt.	P/N 11374-703 Qty = 1
i.	Horizontal Wire Mgt Panels, 2.8" X 6"	P/N 11564-719 Qty = 2

- 3. L&I will provide the UPS (battery back-up unit), power strip and network switches and router that go in the LAN racks.
- 4. The cabling contractor is to install a ground bus bar at the top of both of the LAN racks on the backside of the rack frame rails.

D. <u>Electrical Requirements</u>

- 1. Refer to the enclosed Power Management specifications for details regarding power requirements for equipment for each workstation. In general, a maximum of (4) PC's will be on each 20 amp dedicated circuit and each printer and copier will also be on their own dedicated circuit. Dedicated circuits will be marked on the floor plan. There will also be convenience outlets in each cube or office, and throughout the office space. These may or may not be marked on the floor plan and will be separate from the PC circuits. All dedicated circuits must be orange in color.
- 2. Install (2) 120-volt, 20-amp (NEMA 5-20R), wall mounted duplex electrical outlets at each location as shown on the LAN room floor plan (Diagram #1).
- 3. Install (1) 120-volt, 30-amp dedicated, electrical outlet (NEMA L5-30R) with an isolated ground at the base of the LAN rack. The electrical circuits must be enclosed in a metal flex (MC) covered cable or EMT conduit to the base of the rack where the electrical outlet box is to be located. Outlets should be orange in color (Diagrams #1 & 2).
- 4. Install (1) 120-volt, 20-amp, dedicated, quad electrical outlet (NEMA 5-20R) with an isolated ground at the base of the LAN rack. Outlet should be orange in color (Diagram #1).
- 5. Install (1) 120-volt, 20-amp, dedicated, quad electrical outlet (NEMA 5-20R) with an isolated ground where the plywood Telco backboard was installed in the LAN-Telco room. Outlet should be orange in color (Diagram #1 & 2).
- 6. Install (1) # 6, stranded, copper wire having a green insulated covering between building ground or the electrical panel ground and connect it to the ground bus bar that is to be installed at the top of the L&I supplied server cabinet on the back side of the frame rails.

E. Install Data Cabling

- 1. Refer to the enclosed CAT-6 LAN Cabling specifications document for detailed data cabling requirements. All cables must be run in such a way that they will not exceed the 295 foot maximum length and must pass a wirescope test.
- 2. To view the equipment layout in the LAN room, please refer to the attached scaled LAN-Telco room drawing (Diagram #1).
- 3. The cabling contractor is responsible for the installation of the required ladder rack above the LAN rack to properly transition the LAN cabling from the ceiling or adjacent wall to the top of the LAN rack.
- 4. Install (1) new 48-port CAT-6, 568-B patch panel in the newly installed LAN rack in the LAN-telco room. Wire management must be installed above and below each patch panel.
- 5. Install (1) new data drop in the LAN-Telco room as shown on the scaled floor plan for this room (Diagram #1).
- 6. Install (30) CAT-6 data cables, blue in color between the LAN rack patch panels and the workstation faceplates as indicated on the office floor plan. The RJ-45 data jacks will be orange in color. Under no circumstance should a faceplate or jack be located behind a cubicle or other immovable object.
- 7. All Data cabling must be installed, tested, labeled and warranted in accordance with the specifications stated in the L&I CAT-6 LAN Cabling specification document that is attached.

- 8. All data drops must be terminated in vendor supplied tombstones or through a whip into modular furniture with a biscuit block. At no time should a bare cable be unprotected, accessible or visible. In addition, per industry standards, a metal barrier must separate all data cables if an electrical source is in close proximity. As an example, data cabling must not be in the same channel as cubicle electrical cabling unless they are completely separated by a metallic separator or ferrous Greenfield.
- 9. Data drops must be numbered in accordance with the specifications stated in the L&I cabling specifications document.

F. Install Voice Cabling

- 1. Refer to the enclosed Enhanced CAT-5 Voice Cabling System Specifications document for detailed voice cabling requirements. All cables must be run in such a way that they will not exceed the 295 foot maximum length and must pass a wirescope test.
- 2. Install (2) new Enhanced CAT-5 compliant 50-pair riser cable from the newly constructed telco wall field to the main demarc area of the building. Terminate each end of the new riser cables in Enhanced CAT-5 compliant 110 or 66 blocks.
- 3. Install (3) enhanced Category-5 voice cables from the building demarc area directly to the new L&I LAN-Telco room. The cable ends at the building demarc wall-field must be terminated on an Enhanced CAT-5 compliant 66 or 110 block while the other end of the cables will be terminated on three position biscuit block installed on the LAN rack as shown on the attached LAN-Telco room drawing.
- 4. Install (1) wall-mounted phone back plate and voice drop for a wall phone inside the LAN-Telco room door. Reference the scaled floor plan for the LAN-Telco room that shows the location of the wall-phone (Diagram #1).
- 5. Install (30) Enhanced CAT-5 compliant voice cabling from the LAN-Telco room wall-field to all workstations and office locations marked on the office floor plan that requires voice connectivity.
- 6. All voice station cables must be terminated with Enhanced CAT-5 compliant RJ-45 jacks using 568-B wiring layout at the workstation faceplate.
- 7. All voice cables must be terminated on Enhanced CAT-5 compliant 110 or 66 blocks in the LAN\Telco Room on the plywood wall field.
- 8. The Enhanced CAT-5 voice cables must be white in color.
- 9. The contractor may use non-plenum Enhanced CAT-5 voice cable as long as the ceiling is not used for a return air plenum system for the HVAC.
- 10. All voice drops must be terminated in vendor supplied tombstones or through a whip into modular furniture with a biscuit block. At no time should a bare cable be unprotected, accessible or visible. In addition, per industry standards, a metal barrier must separate all data cables if an electrical source is in close proximity. As an example, voice cabling must not be in the same channel as cubicle electrical cabling unless they are completely separated by a metallic separator or ferrous Greenfield.
- 11. All 4-pairs of the voice cable must be terminated at both ends.
- 12. All voice and riser cables must be tested and certified to Enhanced CAT-5 standards.

G. <u>Deliverables to Labor and Industry</u>

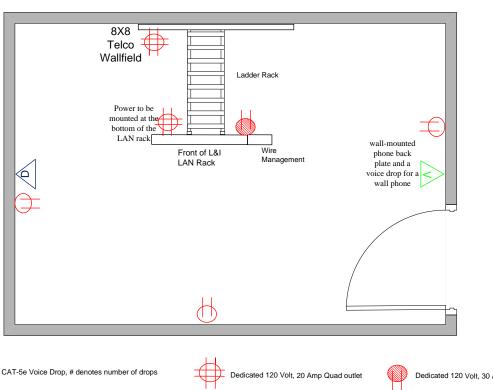
The following must be delivered to L&I upon acceptance of the premises. All of the CAD drawings, both hard and soft copy, referenced below can be on the same drawing and print.

 <u>Data Cabling:</u> Cable test results must be provided to L&I in hard and soft copy as specified in the cabling specifications document. A CAD drawing in hard copy (D Size) and soft copy (CAD-14 Format) must be provided to Labor and Industry showing

- the drop locations and drop number for each data cable. Provide CAT-6 data cable warranty certification to L&I within 45 working days after project is completed.
- 2. Voice Cabling: Cable test results in hard and soft copy are required for each workstation voice cable and 4-pair groups in the riser cable. CAD drawing in hard copy (D Size) and soft copy (CAD-14 Format) must be provided to Labor and Industry showing the drop locations and drop number for each voice cable and also the riser cable pairs. Provide voice cabling warranty certification to L&I within 45 working days after project is completed.

Diagram # 1

L&I LAN Room





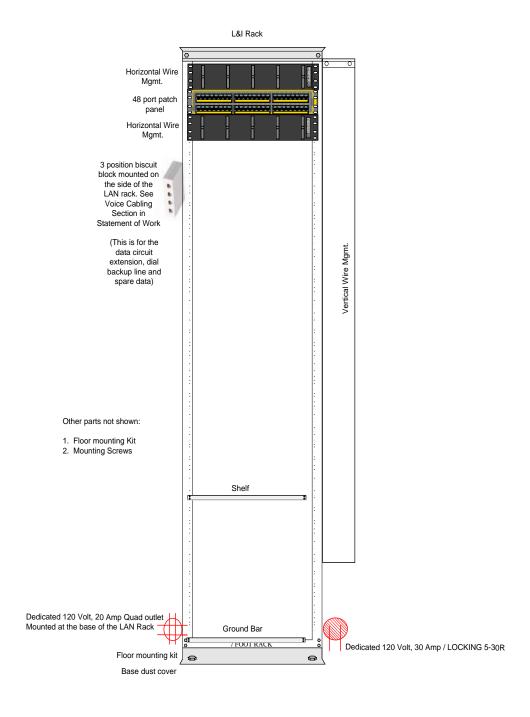




CAT-6 Data Drop, # denotes number of drops

Dedicated 120 Volt, 20 Amp Duplex outlet

LAN Rack



SECTION F. PLUMBING

1. <u>INSTALLATION</u>

The plumbing installation must be completely approved cold and hot water piping system with valved connections and a complete sanitary drainage system to all rest rooms, janitor's closet, employees' room, equipment or utility room, and to all water consuming equipment.

2. ELECTRIC WATER COOLERS

Electric water coolers, Cordley and Hayes, Halsey Taylor, Westinghouse, or approved equal, with cup dispensers, must be installed with cold water piping and sanitary drains. A minimum of two (2) are required, and one (1) per floor will be required in multi-floor locations. If more than one bureau is involved in this lease, then a minimum of two (2) per bureau are required.

3. WATER HYDRANTS

Anti-freeze type exterior water hydrants (key-type) must be installed with cold water piping to exterior locations where they are readily accessible for use at all outside areas of the building.

4. TOILET FACILITIES

- a. Non-Public: Ladies' room and men's room must be constructed in compliance with state and local sanitation requirements. A non-public or employee-only restroom, must be provided on each floor that L&I occupies, unless one is not requested by lessee. Joint use restrooms shared with other tenants is permissible but must be secured from public use. Ceramic tile floor or lessee-approved substitute and ceramic tile or lessee-approved substitute on walls (to the ceiling) must be installed in these rooms. Any substitutions must be approved by the Property Division, prior to construction. Fixtures that must be provided and installed are: metal toilet compartments with doors; metal urinal screens; metal vestibule compartments; all fittings, hardware and fastenings; roll toilet tissue dispensers one for each toilet; paper towel dispensers C fold or multi-fold - one for each toilet room; toilet seat covers with dispenser; soap dispensers, self-contained type - one at each lavatory fixture; sanitary napkin dispenser and waste receptacle - one in each ladies' toilet room; waste receptacle - one in each toilet room; stainless steel-edged mirror over each individual lavatory fixture in each toilet room; stainless steel shelf above each individual lavatory fixture. Vanities to accommodate sinks are required. Exhaust fans must be provided and installed in ladies' and men's toilet rooms.
- b. Public: A public unisex toilet for ladies and men must be provided, if noted on the space allocation form. A single water closet and lavatory is adequate. This room must be constructed in compliance with state and local sanitation requirements. Ceramic tile floor or lessee-approved substitute and ceramic tile or lessee-approved substitute on walls (to ceiling) must be installed in this room. Any substitutions must be approved by the Property Division, prior to construction. Other fixtures that must be provided and installed are: all fittings, hardware and fastenings; roll toilet tissue dispensers; paper towel dispenser, C fold or multi-fold; soap dispenser, self-contained type; waste receptacle; stainless steel edged mirror over the lavatory fixture; stainless steel shelf above the lavatory fixture. Exhaust fan must be provided and installed. Entrance doors will be lockable.

5. <u>EMPLOYEES' (LUNCH) ROOM</u>

Provide and install in room designated as "employees' room": base cabinets with upper wall-hung cabinets; Formica counter top; and 1 microwave oven; 1 full size refrigerator with icemaker installed; deep bowl sink with faucet; a counter top to provide area for a microwave oven along with adjacent two duplex receptacles. Lessor will maintain all appliances and replace them as required during the term and any renewal option periods of the lease. The microwave circuit must be a separate dedicated one. Install commercial grade exhaust fan with switch on separate circuit vented to the outside. Also provide and install soap tray, paper towel and paper cup dispensers and waste receptacle. Kitchen sets consisting of one (1) table(s) and four (6) chairs per table must be provided by the lessor. If the space is situated on separate floors, an employee room can be requested for each floor, and/or for each program office.

SECTION G. CARPENTRY AND MILLWORK

1. STORAGE CABINETS

Conference and Training Rooms equipped with built-in wall storage closets with adjustable shelving, doors and locks as required. Lock on doors must be keyed alike.

2. <u>BULLETIN BOARDS</u>

Install one each 4' x 8' cork bulletin board in employee's room and clerical work areas. Install one 3' x 4' self-sealing cork back bulletin board constructed of aluminum frame and glass, with lock, near main entrance. Boards must have frames to match general decor of interior. One set required for each bureau.

3. CLOTHES CLOSETS and COAT ROOM

Closets and Coat Room with sliding or folding louver doors must be provided with hanger bar and racks for hats and clothes. Air vent shall be installed in ceiling, or louver doors provided for ventilation purposes. One in waiting room and a minimum of one in work area.

4. **JANITOR'S CLOSET**

Janitor's closet must be equipped with a Mop Receptor. Open adjustable shelving must be installed adjacent to the receptor. One section of wall will have a pegboard installed. Lessor to provide a variety box of pegboard hardware. This requirement applies regardless of whether the lessor provides janitorial services or not.

5. OPEN SHELVING/STOCK ROOM

An open-shelving system shall be provided and professionally installed in the stock room as stipulated. The shelving units shall be a five shelf high unit, approximately 87" in height with a depth of either 18" or 24" and appropriate width as designated by lessee. The Design of the shelving units, if metal, shall have the preclipping feature for simplifying erection. All clips for all posts and shelves to be the same and shall be independently adjustable without interference from any other clip. Nuts and bolts to be included with the system. The shelving units shall be provided with end and back sway braces and shall not obstruct the full adjustability of the shelves. Base strips to be provided to close the space between the bottom of the shelf and the floor. Foot plates to be provided to protect the flooring. The color to be designated by lessee. The Shelving System shall be as manufactured by Penco Company, Oaks,

Pennsylvania, or lessee approved equal. A metal rod shelving system, such as Closetmaid, etc., or a constructed wood/particleboard shelving system will be permitted if approved by lessee. Horizontal counters or work surface areas, minimum of 12' to 24' long, will also be provided. A separate stockroom is to be provided for each bureau's office suite.

6. <u>FINISH HARDWARE</u>

Sufficient hardware to cover all necessary requirements of the building shall be provided. It shall be of suitable type and ample size and weight to perform the service required. The hardware must be one design and finish.

SECTION H. MISCELLANEOUS

1. <u>BUILDING IDENTIFICATION</u>

In a solely occupied facility, exterior building signage is required. Letters will be in stainless steel, cast aluminum or plastic. The type and size of the letters will conform with the architecture of the building and be approved by lessee.

The following official designation, in decal or painted lettering, must be placed on the front entrance:

<Street Number>
Commonwealth of Pennsylvania
Department of Labor and Industry
Unemployment Compensation Board of Review

2. <u>INTERIOR ROOM DOORS</u>

Interior room doors must be lettered or have name plates attached as required by the lessee. Lessee will provide a "door-lettering" schedule for the interior doors.

3. FLOOR DIRECTORY

Provisions must be made for Department of Labor and Industry's program function names to be included in floor directory when head-quartered in larger buildings.

4. PAINTING

Any interior painting (primer and finish coats) must be completed prior to occupancy. Color must meet lessee's specifications. All paints used must be washable semigloss or satin. Premises must be repainted every five (5) years of the lease or as otherwise indicated in the "Maintenance" section of the lease. Moving of the lessee's furniture and equipment to access painting locations shall be the responsibility of the lessor.

5. FIRE PREVENTION

A.B.C. Dry Chemical extinguishers to comply with state and local codes must be provided and maintained by the lessor. Lessor must arrange recharging of extinguishers as required. The lessor is required to have fire suppression system serviced and tested annually and furnish proof of same to lessee upon request.

Lessor will install a fire alarm system in the building that meets requirements of the National Fire Protection Association (NFPA) and the adopted PA UCC Building Code, providing pull stations and audio alarms throughout the building. This system is required even if not mandated by local codes, ordinances or laws.

6. TRASH CAN CABINET – IN LIEU OF DUMPSTER

Furnish an enameled steel trash can cabinet for storage of 32-gallon cans as required by the office. Unit has steel floor and top that opens full length with support arm to hold it open.

7. SECURITY AND LOCKING SYSTEM

The building(s) shall be secured with an automated perimeter-type security system that incorporates intrusion alarm capabilities through all perimeter doors and windows and allows for motion detection in all areas. Further, access into each L&I program area shall be through designated doors utilizing a proximity card-reading sensor system, electronic keypad system, or such other locking system as specified and approved by lessee. All activity of so designed systems shall be programmable through a central controller, extended keyboard and printer. If a computer and software is required to operate the system, the lessor is responsible to provide this equipment. The system shall be capable of identifying and controlling use through unique card codes. All activating and de-activating of cards will be at the sole cost of the lessor. The system shall include 24-hour monitoring by a manned central station capable of alerting appropriate individuals or organizations based upon the time and type of alarm. All monitoring fees of any of these systems are the sole responsibility of the lessor. Prior to installation, all equipment must be approved by the agency and any applicable federal, state or municipal jurisdictions regulating such installations.

The Commonwealth may request and receive a new locking system and/or associated hardware after a break-in or a series of thefts or other similar, unusual occurrences.

8. <u>SNOW AND ICE REMOVAL</u>

Lessor is responsible for snow and ice removal of sidewalks and parking areas within four hours after cessation of snowing, sleet or icing weather, where applicable. It is the lessor's responsibility to correct all unsafe conditions relating to freezing and thawing.

9. RADON GAS EXPOSURE

The site shall be evaluated prior to occupancy for radiation levels and Radon/Radon progeny concentrations. If Radon/Radon progeny levels exceed EPA Recommended Standards, plans for corrective action in accordance with the HVAC specifications will be required. If at any time during occupancy the Radon/Radon Progeny levels exceed the EPA recommendations in effect at that time, the lessor shall take necessary corrective action upon notification in writing by the lessee. Such action must be started within two months of the notification by lessee.

10. EMERGENCY GENERATOR NOT REQUIRED FOR THIS OFFICE

An emergency backup generator, powered by an on-site source of fuel (gas or fuel oil) shall be provided. The following items must be kept operational by the emergency generator when commercial electric power fails: 1) 50% of the building ceiling lighting; 2) all workstations and servers; 3) the UPS system in the LAN/tech room; 4) the air conditioning unit supplying the LAN/tech room and LAN closet; and 5) heating for the building during the winter months.

11. FINAL CLEAN-UP

The lessor shall restore the area in such a manner that it is acceptable to the lessee. This shall include the following special cleaning:

- **a.** Remove all labels, excess putty, grease, paint and other foreign substance and leave the work in perfect condition.
- **b.** Clean and polish all finished hardware.
- **c.** Remove all spots, mortar crumbs, soil and paint from all tile work.
- d. Clean and polish all tile, terrazzo, and other finished floors.
- e. Clean property of all debris and dirt.
- f. Remove all dust and dirt from walls, doors and cabinet work, and restore all scratches or scuff marks to the original finish.
- g. All carpeting must be vacuumed and shampooed before occupancy.

Labor and Industry

Voice, Data and Power Infrastructure Specifications

Date: April 24, 2009 **Version:** 1.0

Information contained within this package address the requirements that the Commonwealth of Pennsylvania, Department of Labor and Industry has determined to be the minimum requirements for Voice and Data Infrastructure and Power Distribution within a Labor and Industry building or office space.

The building owner or contractor must adhere to all specifications and requirements contained in the following documents that address infrastructure requirements:

Voice cabling: L&I Enhanced CAT-5 Voice Cabling System Specifications

Data Cabling: L&I Category-6 Cabling Specifications LAN-Telco Room: L&I LAN-Telco Room Specifications

LAN Rack Info: L&I LAN Rack Configuration Specifications

Fiber Optic Cabling: L&I Fiber Optic Cable Specifications

Power: L&I Power Management Information and Guidelines For Network

Devices

In addition, Labor and Industry Office of Information Technology staff will perform the following tasks for all new building or office space construction, renovations or reconfiguration:

- 1. Construct a LAN-Telco Room design and floor plan for all new or renovated office space to satisfy the needs for the office.
- 2. Specify the LAN rack and Telco Wall-Field layout and hardware requirements.
- 3. Specify the requirements to physically construct the LAN-Telco room to include:
 - a. Lighting and lighting controls
 - b. Walls and flooring
 - c. Construction of Telco Wall-Fields
 - d. Identify cooling requirements
 - e. Identify electrical requirements for the room
 - f. Identify the location and size of the LAN-Telco room within the office or building space.

- g. Identify voice and data connectivity requirements for the room.
- 4. Engineer the voice cabling system layout and requirements for offices and workstations.
- 5. Engineer the data cabling system layout and requirements for offices and workstations.
- 6. Identify specific electrical requirements for laser printers, copiers and specialized equipment.
- 7. Identify any fiber optic cable infrastructure requirements to satisfy internal network design infrastructure requirements.
- 8. Identify the location where the LAN-Telco room(s) will be located within the office or building and the size of the room to accommodate the required voice data infrastructure installation requirements and server cabinet(s) installation.

The building owner and or his contractor(s), architect(s) and construction consultant(s) shall understand that Labor and Industry Office of Information Technology will provide the building owner or construction consultant a detailed statement of work for each item above based upon the design. The statement of work will describe exactly what services must be performed or what cabling or electrical infrastructure must be installed by the building owner's contractor(s) to meet the stated design requirements. The building owner will be financially responsible for payment to the contractors for the services required to achieve the design requirements.

Power and Infrastructure requirements identified in items 1-8 above must be satisfied by the building owner for any new office construction or the renovation of an office space in preparation for a new or amended lease.

All voice, data and fiber optic cabling installed by the building owner's cabling contractor and paid for by the building owner must be maintained by the building owner and his contractor in accordance with Labor and Industry specifications for the duration of the lease. Labor and Industry will have no financial liability for the maintenance or service of those systems during the lease period.

Labor and Industry Enhanced CAT-5 Voice Cabling System Specifications

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The following voice cable specifications are to be followed for the installation of voice riser and voice station cabling at all new or renovated Labor and Industry Offices.

7.1 Backbone or Riser Cable Specifications

- 1. Install (X) 25-pair, Enhanced Category-5, plenum rated riser cable(s) from the building Main Telco demarcation wall-field to the Telco wire closet or wall-field located in the office space or floor where the Labor and Industry Office voice station cables will originate. The number of 25-pair, Enhanced Category-5 riser cable(s) will be dependent upon the number of phone lines required in the office. (1-12 phones = 25 pair, 13-24 phones = 50 pair, 25 45 phones = 100 pair)
- 2. Terminate the riser cable pairs at both ends using 110-style connecting blocks that are Enhanced Category-5 compliant.
- 3. Test the cable pairs to 100 Mhz using a WireScope, Fluke, OmniScanner, or HP 350 tester. Provide test results in 8.5" X 11.0" hard copy and in soft copy from the tester to the Labor and Industry Project Manager, (Dave Walters) at the completion of the office renovation or construction process.
- 4. Provide a CAD drawing in CAD 14-format soft copy and (1) D-Size hard copy showing the location of the main Telco wall-field, cable path to the office demarcation point (wall-field) and the cable numbering scheme on the 110 blocks.
- 5. Provide a minimum 15-year manufacturer's performance warranty on the installed voice riser cabling system.

NOTE: In some cases the LAN room may also serve as the MDF (Main Distribution Facility) or main Demarc for the Labor and Industry office. If this is the case, the Telco cable from the street should terminate on the wall-field in the LAN room. In this case, a riser cable is not required.

7.2 Station Cable Specifications

1. Install (X) Enhanced Category-5, 4-pair, plenum rated cable at each location where a phone, fax or modem connection is required as shown on the floor plan for the office. All voice cables must be white in color. The station cables will originate at the designated wall-field in the office or at the Telco wire closet for the floor of the building. Cable runs from the Telco wire closet wall-field to the phone jack may not exceed 265 feet in length.

Labor and Industry Enhanced CAT-5 Voice Cabling System Specifications

- 2. All (4) cable pairs must be terminated at the Telco wall-field on the 110 blocks and at the workstation RJ-45, Enhanced Category-5 compliant jack.
- 3. All RJ-45 jacks must be wired to the 568-B wiring configuration.
- 4. When surface mounted boxes are required at the workstation, they must be mechanically fastened to the furniture base using screws.
- 5. Cables must be suspended in the ceiling using appropriately sized J-hooks spaced no more than (5) feet apart.
- 6. Cables are not to be tied to ceiling grid wires, all-thread rod or laid on structural steel, water pipes, HVAC ducts or conduits.
- 7. Cubicles must not cover access to voice drops. All outlets must be accessible for testing and patch cable replacement. The preferable method for cable routing will be down a power pole, floor duct via whip or through the wall to a biscuit block mounted on the base of the cubicle or modular wall.
- 8. Per industry standards, a metal barrier must separate all voice cables if an electrical source is in close proximity. As an example, voice cabling must not be in the same channel as cubicle electrical cabling unless they are completely separated by a metallic separator.
- 9. Test the cable pairs to 100 Mhz using a WireScope, Fluke, OmniScanner, or HP 350 equivalent tester. Provide the test results in 8.5 X 11.0 hard copy and in soft copy from the cable tester to the Labor and Industry Project Manager (Dave Walters) at the completion of the project.
- 10. Provide an as-built CAD drawing in CAD-14 format soft copy and (1) D-size hard copy showing the location of the Telco wire closet for the floor where the station cables originate. Show the drop location on the drawing for each voice jack and include the number of the voice jack on the CAD.
- 11. Provide a minimum 15-year manufacturer's performance warranty on the installed voice cabling system.

7.3 **Preferred Manufacturers Cabling System Components**

a.	Belden	d.	Avaya
b.	Tyco	e.	Berk-Tek
c.	Siemon	e.	CommScope

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8.1 System Overview

Information contained within this section will identify the specific requirements for the Category 6 horizontal workstation cable and installation process. The specifications include guidelines and specific information required by the cabling contractor to propose, install, test and certify an ANSI/TIA/EIA-568-B.2 compliant Category 6 cabling system in L&I facilities.

Hardware included as a part of the Category 6 horizontal cabling infrastructure will be all those components (data jack, cable, patch panel) required to construct Category 6 cable connections between the end-user workstation data jack and a 48 port, Category 6 patch panel port in the LAN cabinet or rack.

It is necessary to clarify that specifications within this section refer to ANSI/TIA/EIA-568-B.2 standards, which pertain to a Category 6 cabling systems infrastructure. Those standards, for the purpose of the proposed system, are to be considered by the cabling contractor as minimum requirements for products, cable, testing and installation practices proposed, installed or used by the cabling vendor for the L&I Cabling System.

All items identified in the following sections must be considered mandatory requirements, which must be met, in the cabling contractor's proposed solution for any L&I Enterprise Category 6 Cabling Systems.

8.2 L&I Cabling System Cabling Contractor's Responsibilities

1. Identify types and quantities of all Category 6 cabling system components and parts necessary to create the proposed Category 6 horizontal cabling system. All components must be in full compliance with the ANSI/TIA/EIA-568-B.2

- guidelines as a minimum requirement. All Category 6 cable must conform to ISO/IEC 11801 (Second Edition) standards.
- 2. Provide all labor and project management skills required to install, test, label, document, certify and process a manufacturer's 25 year performance warranty for the proposed Category 6 horizontal cabling system in full compliance with all ANSI/TIA/EIA-568-B.2 guidelines as a minimum requirement.
- 3. Provide all miscellaneous hardware, EMT conduit, brackets, J-hooks, hangers, cable ties and parts necessary to install the wiring contractor's proposed cabling system for L&I.
- 4. If any cable runs are longer than 295 feet from the patch panel, a secondary wire closet must be established that interconnects with the primary closet so that all cable lengths are within the 295 feet length requirement.
- 5. If a gigabit Ethernet connection or the interconnection of two wire-closets (regardless of the distance between the closets) is required, a fiber solution will need to be integrated into the cabling system design and installed by the cabling contractor. Typically, a six-strand, multi-mode fiber optic cable terminated in a fiber optic patch panel will need to be installed. Refer to L&I's Fiber Optic Cable Specification document for detailed instructions, specifications and standards.
- 6. Provide as-built, E-size CAD drawings in hard copy and soft copy on CD-ROM that identify all installed Category 6 cables in the horizontal configuration from each patch panel to each end-user workstation data jack at the completion of the project.
- 7. Provide manufacturer trained and certified technicians capable of installing, documenting, testing and certification of the proposed Category 6 horizontal cabling system in full compliance with the wiring system component manufacturer's 25-year performance warranty requirements.
- 8. The cabling contractor must provide a full time project manager or supervisor to monitor the progress of Category 6 cabling system project implementation for projects consisting of 25 or more LAN drops.
- 9. The cabling contractor must ensure that all staff assigned to the project meet the minimum skill levels and staffing complement as required by the cabling system component manufacturer's guidelines for installation and warranty certification.
- 10. As a part of the cabling contractor's proposal response, resumes of all personnel who will be assigned to the project by individual name and personalized resume must be included in the proposal. Changes to project staffing complement after

contract award must be requested in writing to the L&I Office of Information Technology Project Manager prior to implementation of any personnel changes.

- 11. The cabling contractor must provide a valid proof of certification and training for each technician who will be utilized to install the specific manufacturer's components used to create the proposed Category 6 cabling system.
- 12. All technicians used by the cabling contractor to install Category 6 Cabling system products must have a minimum of 3 consecutive years of full time experience installing, terminating and testing Category 5, Category 5E, or Category 6 cabling systems products.
- 13. If necessary, a site survey will be conducted at the site where the cabling system is to be installed. The cabling contractor will be required to attend the site survey if one is required. After the site survey has been conducted, Labor and Industry, Office of Information Technology staff will prepare a detailed statement of work that addresses the specific services that must be provided by the cabling contractor. After the site survey has been completed, Labor and Industry will provide the following documentations to the cabling contractor:
 - a. Statement of work
 - b. Marked floor plan showing the LAN drop locations
 - c. LAN-Telco room scaled floor plan
 - d. LAN rack layout and parts list of LAN rack components

or

- e. LAN cabinet layout if a cabinet is being used
- 14. For cable installation projects being directly funded by Labor and Industry, the cabling contractor has seven (7) days to return a cost proposal and mail to:

Dave Walters
Department of Labor and Industry
Office of Information Technology
Room 124
651 Boas Street
Harrisburg, Pennsylvania 17121

- a) After the proposal is evaluated by Labor and Industry and approved by the L&I Project Manager, notification will given to the cabling contractor to begin the work. From the notification date, the cabling contractor has thirty (30) days to complete the job.
- b) All of the above requested information and documentation must be delivered to the L&I OIT Project Manager, Dave Walters, at the L&I Building, 651 Boas Street, Room 124, Harrisburg, PA, 17121

8.3 Horizontal, Category 6 Media Specifications, (Workstation faceplate to patch panel port)

- 1. Plenum rated Category 6 cable must be used for all patch panel to workstation data jack connections. (Exceptions to this requirement must be stated in writing to the cabling contractor by Dave Walters of Labor and Industry).
- 2. Cable will be 4 pair, 24 AWG, solid copper conductor, UTP, NEC Article 800 Type CMP rated, UL listed and certified to Category 6 and ISO/IEC 11801 (Second Edition) standards.
- 3. Jacket color: Blue
- 4. The following manufacturer's products are acceptable for Category 6 cable. The L&I OIT Project Manager, Dave Walters, must approve all exceptions to these manufacturers. For approval, contact Dave Walters at (717) 783-4375.

a. Belden d. Berk-Tek

b. Tyco e. CommScope

c. Avaya f. Siemon

5. The number of Category 6 cables to be terminated at a specific location will be indicated on a master floor plan. A pre-marked floor plan will be provided to the cabling contractor with the final statement of work by Dave Walters of Labor and Industry.

8.4 Workstation Outlet Requirements

- 1. Specific requirements for all workstation data jacks:
 - a. 8 position jack
 - b. RJ-45 non keyed
 - c. Unshielded
 - d. Jacks must be wired to the 568-B configuration
 - e. Category 6 rated
 - f. Jack color must be orange

2. The following workstation outlet/jack hardware manufacturers are acceptable. The L&I OIT Project Manager, Dave Walters, must approve all exceptions to these manufacturers. For approval, contact Dave Walters at (717) 783-4375.

a. TYCO e. Leviton

b. Krone f. Hubbel

c. Avaya g. Panduit

d. Ortronics h. Siemon

8.5 LAN Patch Panel and Workstation Jack Requirements:

- 1. All four pairs of each end user workstation cable will terminate at the patch panel.
- 2. Patch panels will be configured as 48 port panels having Insulation Displacement Contact (IDC) type connections on the backplane.
- 3. Patch panels will be wired to a 568-B configuration.
- 4. Patch panels will be eight wire, modular, RJ-45 non-keyed, Category-6 compliant, unshielded, 48 ports.
- 5. The following manufacturer's products are acceptable for workstation outlet/jack hardware. The L&I Infrastructure Project Manager, Dave Walters, must approve all exceptions to these manufacturers. For approval, contact Dave Walters at (717) 783-4375.

a. TYCO e. Hubbel

b. Krone f. Panduit

c. Ortronics g. Leviton

d. Avaya h. Siemon

8.6 Miscellaneous End User Workstation Outlet Hardware Requirements

1. Due to the variety of locations where end-user workstation outlets will be required, it will be the responsibility of the cabling contractor to provide the

necessary hardware, boxes, wire molding and faceplates required to achieve a professional and quality installation.

- 2. Whenever possible, end-user workstation outlets must be flush mounted or mounted in modular furniture bases using the appropriate wiring manufacturer's adapters (bezel and ring) for a particular modular furniture type.
- 3. All Category 6 cabling routed on the exterior surface of office walls must be concealed using the appropriate color of covered raceway or wire molding. All surface mounted raceways will be mounted to the wall using mechanical fasteners. Double-faced tape is not acceptable. If walls or ceilings contain asbestos, exceptions to the use of mechanical fasteners will be granted.
- 4. Whenever surface mounted outlets are required, the outlet box and covered raceway components must all be supplied by the same product manufacturer and the colors of each component must match. Surface mounted boxes must be mechanically fastened to the wall or modular furniture. Double-faced tape is not acceptable. If walls or ceilings contain asbestos, exceptions to the use of mechanical fasteners will be granted.
- 5. In those cases where the outlets are surface mounted on fishable walls, a high quality steel ring must be installed and mechanically attached to the wall or drywall material. The workstation outlet faceplate will then be attached to the steel ring. Faceplates may not be screwed directly into the drywall material without using a steel ring.
- 6. The number of cables terminated on a given faceplate will be indicated on the master copy of the L&I floor plan provided to the cabling contractor with the final statement of work.
- 7. The following manufacturer's products are acceptable for surface wire raceways and surface mounted boxes. The L&I OIT Project Manager, Dave Walters, must approve all exceptions to these manufacturers. For approval, contact Dave Walters at (717) 783-4375.

TYCO Hubbel a. e. b. Ortronics f. Leviton Panduit Avaya c. g. Wiremold Siemon d. h.

8.7 Category 6 Cable and Workstation Outlet Labeling

- 1. Each workstation outlet will be labeled using a type written label that conforms to the space allocated on the data jack faceplate. A Brady label maker or equivalent must be used to create the labels. Handwritten labels are not acceptable.
- 2. Each workstation outlet will be labeled using the numbering scheme detailed in Item 8.9 "Category 6 Cable Labeling". The workstation outlet number will be the same as the cable number assigned to the Category 6 cable for a given location.
- 3. The wiring vendor will provide a soft copy (CD ROM) and hard copy (8.5" X 11") paper in a binder listing which cable numbers are terminated on which ports of the Category 6, 48 port modular patch panel. The copies must be delivered to the L&I OIT Infrastructure Project Manager, Dave Walters, at the L&I Building, 651 Boas Street, Room 124, Harrisburg, PA, 17121.

8.8 Category 6 Cable Installation Guidelines

- 1. Ladder racks may be required in high volume cable pathways. All ladder racks will be constructed of tubular metal or box type construction. No stamped sheet metal ladder racks will be acceptable. Where ladder racks are needed, they must be securely fastened to walls or equipment racks using the appropriate bracing or hardware attachments specifically made for that purpose.
- 2. Cable hangers (J hooks) should be spaced from 4' to 5'apart to properly support the cable volume in a given ceiling area.
- 3. When J-hooks are required, the hooks must be properly sized to support the required volume of cables allowing for 30% future growth.
- 4. J-hooks must be firmly attached to the backboards, walls, ceiling beam, steel beams or other structures using the appropriate screws, beam clamps and fixtures. When screws are used, the screws must penetrate at least 0.5 inch into the backboard, wall, stud, beam or structure to prevent pulling out.
- 5. J-hooks must be installed at frequent intervals so that Category 6 cables do not sag more than 12" below a centerline measured from the bottom of two adjacent J-hooks.
- 6. Suspended ceiling grids and suspension wires may not be used to secure cables routed in dropped ceiling areas. Cables must not be attached to electrical conduits at any time.
- 7. All Category 6 cabling must be free from tension at both ends, as well as over the entire length of each cable run.
- 8. Splices of any type are not allowed in any Category 6 cable run.

- 9. It is imperative that all Category 6 cable bends, or radii, conform to ANSI/TIA/EIA-568-B.2 standards as a minimum requirement or the manufacture's specifications that will provide the performance warranty on the system.
- 10. The maximum cable pull force exerted by the contractor when installing the Category 6 cable must be less than 25 pounds.
- 11. Per industry standards, a metal barrier must separate all data cables if an electrical source is in close proximity. As an example, data cabling must not be in the same channel as cubicle electrical cabling unless they are completely separated by a metallic separator.
- 12. All Category 6 cabling must be installed to comply with the minimum separations from <480 volt power sources as listed below:

CONDITION	<2KVA	2-5KA	>5KVA
Unshielded power lines or electrical equipment in proximity to open or Nonmetal pathways	5 inches	12 inches	24 inches
Unshielded power lines or electrical equipment in proximity to a Grounded metal pathway	2.5 inches	6 inches	12 inches
Power lines enclosed in a grounded metal conduit in proximity to a grounded metal pathway	N/A	3 inches	6 inches

- 13. In all cases, Category 6 cables must be routed as far as possible away from electrical cables, fluorescent lighting fixtures and other electrical devices that have high KVA requirements.
- 14. Category 6 cabling must be protected from contact with sharp metal objects, vibrating equipment, motors, and fluorescent lighting fixtures.
- 15. Whenever Category 6 cables must be run in the ceilings of a basement (not dropped ceilings) or any area that is exposed, the cables must be enclosed in EMT conduit for security reasons. Once the cable is inside the ceiling, it does not need to be in conduit. When the cables enter office areas, they must be inside the walls or covered with surface mounted wire molding.
- 16. Access holes through walls and floor must be sleeved. Sleeves must have rolled or rounded edges to protect the Category 6 cables passing through the sleeves.

- 17. All ceiling, wall or floor penetrations must be fire stopped with the appropriate materials in accordance with local fire codes. It is the responsibility of the cabling contractor to firestop all conduit openings, sleeves and firewall penetrations after the cabling has been tested by the contractor's technicians.
- 18. The cabling contractor must strictly adhere to all applicable regulations for grounding and bonding as defined by local building codes for electrical materials and construction methods.
- 19. Cubicles must not cover access to data drops. All outlets must be accessible for testing and patch cable replacement. The preferable method for cable routing will be down a power pole, floor duct via whip or through the wall to a biscuit block mounted on the base of the cubicle or modular wall.
- 20. All cables will be neatly organized and dressed, free of knots and interlacing. The cables will be secured to equipment racks, J hooks, and ladder racks using cable ties or other appropriate fastening devices. Plastic tape is not acceptable. Cables must not be distorted or pinched when using cable ties at any point in the cable path.

8.9 Category 6 Cable Labeling

- 1. All cables installed by the cabling contractor will be labeled using a preprinted typewritten label with characters that are a minimum of one-eight inch in height. Labels will be permanently affixed to each cable and sealed against environmental conditions. Each individual cable will be clearly labeled at the patch panel and workstation faceplate termination points. A Brady cable labeling system or equivalent must be used to create the labels.
- 2. Cables will be numbered sequentially on the patch panel(s) in the LAN Room.
 - a. Patch panel # 1 (001 through 048)
 b. Patch panel # 2 (049 through 096)
 c. Patch panel # 3 (097 through 144)
- 3. If there are multiple LAN rooms or floors at a site, a prefix number will be assigned to each LAN room. That prefix will be noted on each workstation faceplate number. Example: The site has two LAN rooms. The drop being labeled is on the 2nd floor and it is the 34th drop on the patch panel. The label will reflect (2-034)
- 4. Exceptions or anomalies to the above rules need to be addressed by the L&I OIT Project Manager, Dave Walters.

8.10 Documentation Requirements

- 1. An E-size, CAD drawing must be provided for all cable runs at the completion of the project in hard copy and soft copy on CD ROM in CAD-14 format for each LAN room showing cable runs and termination's. The cable numbers must be printed on the diagram at the point where each cable is terminated.
- 2. Category 6 cable test results must be provided for each cable installed, terminated, tested and certified on 8.5" X 11" paper. This information shall be delivered in a three-ring binder at the time the certification has been completed by the cabling contractor. The information must also be provided in electronic format (CD ROM) as well, identifying the type of database, word processing software or format provided.
- 3. All of the above requested documentation must be delivered to the L&I OIT Project Manager, Dave Walters, at the L&I Building, 651 Boas Street, Room 124, Harrisburg, PA, 17121.

8.11 Category 6 Cable Testing Requirements

- 1. The type of testing required for all Category 6 cables will be "Link testing". The maximum length of a Basic Link shall be 90 meters (295 feet) or less, plus 4 meters for the test equipment patch cords for a total of 94 meters (300 feet).
- 2. Cable testers used by cabling contractors to test Category 6 cabling must be capable of performing the following tests up to 250 MHz:
 - a. NEXT Pair-to-Pair
 - b. NEXT Power Sum
 - c. ACR Pair-to-Pair
 - d. ACR Power Sum
 - e. ELFEXT Pair-to-Pair
 - f. ELFEXT Power Sum
 - g. Length
 - h. Skew
 - i. Attenuation
- 3. The above tests shall be evaluated for pass or fail results and documented as such on the final test document.
- 4. The following list denotes the minimum testing requirements specified by ANSI/TIA/EIA/-568B.2-1.

Category 6 Permanent Link Limits in dB per ANSI/TIA/EIA-568B.2-1								
Frequency	Insertion Loss	NEXT	NEXT	ELFEXT	ELFEXT	ACR	ACR	Return
Mhz	per 100m	pair-to-pair	power sum	pair-to-pair	power sum	pair-to-pair	power sum	Loss
1	1.9	65.0	62.0	64.2	61.2	63.1	60.1	19.1
4	3.5	64.1	61.8	52.1	49.1	60.6	58.3	21.0
8	5.0	59.4	57.0	46.1	43.1	54.4	52.0	21.0
10	5.5	57.8	55.5	44.2	41.2	52.3	50.0	21.0
16	7.0	54.6	52.2	40.1	37.1	47.6	45.2	20.0
20	7.9	53.1	50.7	38.2	35.2	45.2	42.8	19.5
25	8.9	51.5	49.1	36.2	33.2	42.6	40.2	19.0
31.25	10.0	50.0	47.5	34.3	31.3	40.0	37.5	18.5
62.5	14.4	45.1	42.7	28.3	25.3	30.7	28.3	16.0
100	18.6	41.8	39.3	24.2	21.2	23.2	20.7	14.0
200	27.4	36.9	34.3	18.2	15.2	9.5	6.9	11.0
250	31.1	35.3	32.7	16.2	13.2	4.2	1.6	10.0

5. Link Testing General Requirements

- a. The link shall consist of a single and continuous length of Category 6 cable, connected to an outlet at the work area, and a patch panel port in the LAN room.
- b. All tests shall be conducted using original test equipment patch cords or replacements authorized by the equipment manufacturer that built the tester.
- c. Test equipment patch cords shall not exceed individual lengths of 2 meters nor a combined length of 4 meters.
- d. The equipment cords shall be connected to the installed link at the workstation outlet and the patch panel in the LAN room without the use of adapters, unless specified by the test equipment manufacturer.
- e. The test equipment shall be configured to evaluate pass/fail results based on the most current TIA/EIA/-568B.2-1for Category- 6 cabling.

8.12 Test Result Documentation

1. Category 6 cable test result records must be submitted in hard copy format on 8-1/2" X 11" standard paper delivered in a three ring binder as well as in electronic format on CD ROM. The test equipment used to perform the cable testing must be identified on the report. Please provide manufacturers name and model of the unit used to perform the tests and record the results. At the beginning of the report, please provide the Category 6 cable manufacturer's specifications for the brand and type of Category 6 cable used for the cabling system configuration.

2. All of the above test results must be delivered to the L&I OIT Project Manager, Dave Walters, at the L&I Building, 651 Boas Street, Room 124, Harrisburg, PA, 17121

8.13 Category 6 Certification and Warranty Requirements

- 1. The Category 6 cabling system proposed and installed by the network design and installation contractor must carry a 25- year manufacturer's performance warranty.
- 2. The Category 6 cabling system must be designed by or reviewed by a technician who has successfully completed an authorized manufacturer's Category 6 cabling system design course. The technician must hold a current and valid certificate that authorizes the individual to perform system design work using the specific manufacturer system components.
- 3. The Category 6 cabling system must be installed under the direct supervision of a technician who has successfully completed the authorized manufacturer's installation course for Category 6 cabling systems.
- 4. At least 50% of the installers who will install the Category 6 cabling system at the L&I site must have successfully completed the authorized manufacturer's installation courses and hold a current and valid certification to perform Category 6 cable installation using the specific product manufacturer's components.
- 5. The network design and installation contractor must install the Category 6 cabling system using only cable, connectors, and connecting hardware listed in the manufacturers Warranted Parts Number List or parts specifically approved by the manufacturers in writing on a case by case basis.
- 6. The Category 6 cabling system must be tested in accordance with a test plan prescribed by the authorized system component manufacturers and by a technician who has successfully completed the authorized manufacturers testing courses for Category 6 cabling systems.
- 7. The network design and installation contractor must prepare all required cabling system documentation and test results necessary to apply for the Category 6 cabling system manufacturers 15-year performance warranty within 30 days after the completion of installation and testing of the system.
- 8. The L&I OIT Project Manager must receive the Category 6 cabling system manufacturer's 15 year performance warranty certificate within a 60 day period starting the day after the completion of system testing by the network design and installation technician. The warranty certificate must be delivered to the L&I OIT Project Manager, Dave Walters, at the L&I Building, 651 Boas Street, Room 124, Harrisburg, PA, 17121

8.14 Category 6 Cabling System Solution Mandatory Deliverables

The cabling vendor must provide the following information as part of their project completion:

- 1. Identify the actual test equipment that will be used to test and certify the Category 6 cabling system including the make and model of the test equipment.
- 2. At the completion of the project, the cabling vendor must provide an as-built E-size CAD drawing that represents the Category 6 cabling system as it was installed. The drawing must show actual cable paths, conduit runs, junction boxes, pull boxes and structural penetrations. The faceplate jack numbers must be noted on the CAD for each cable drop. The cabling contractor must provide (1) "E" sized CAD drawing in hard copy and a soft copy in CAD 14 format on CD ROM. The drawing must be made available to the Labor and Industry OIT Project Manager immediately after the cabling system installation is completed.
- 3. The cabling contractor must provide cable test results for every cable drop installed in hard and soft copy format to the L&I OIT Project Manager at the completion of the project.
- 4. The cabling contractor must provide the L&I OIT Project Manager with a 15-year manufacturer's performance warranty for the cabling system they installed. The Labor and Industry OIT Project Manager must receive the warranty certificate within 60 working days of the completion of the cabling system installation.
- All of the above requested information must be delivered to the L&I OIT Project Manager, Dave Walters, at the following address:
 Department of Labor and Industry, Office of Information Technology Room 124, 651 Boas Street, Harrisburg, Pennsylvania 17121

Labor and Industry LAN-Telco Room Specifications

Date: April 24, 2009 **Version**: 1.0

Information contained in this document identifies the specifications and requirements for creating a LAN-Telco room environment as the origination point for all data and voice infrastructure cable connections at Labor and Industry offices.

- 1. Space requirements for a LAN-Telco room are a minimum of 9' by 10' and may be larger depending upon the site network equipment configuration. Final LAN-Telco room dimensions will be provided to the building owner prior to construction. The proposed dimensions may not be altered without evaluation and approval by Labor and Industry, Office of Information Technology.
- 2. In multi-floor buildings or large single story buildings, multiple LAN (computer) rooms may be required.
- 3. The LAN-Telco room must have a door equipped with a key lock that remains locked at all times. This lock must be keyed differently than any other lock in the office.
- 4. The LAN-Telco room must have year-round ventilation or air conditioning capable of dissipating a **minimum** of 5000 BTUs/hr of heat load minimum to maintain a temperature of 72 degrees in the LAN-TELCO room at all times year-round. This specification will vary on a site-by-site basis depending upon the network equipment required at the site. Labor and Industry, Office of Information Technology will provide the building owner with cooling requirements in the LAN-Telco room prior to lease signing.
- 5. The floor in the LAN-Telco room must be sealed concrete or be covered with anti-static floor tile.
- 6. One wall of the LAN-Telco room must be covered with ¾" plywood, goodone-side from floor to ceiling to create a Telco Wall-field. The plywood does not need to be painted. The wall in the LAN-Telco room to be covered with plywood will be identified by Labor and Industry OIT staff when they create the scaled floor plan for the LAN-Telco room.
- 7. There must be a light switch on the wall immediately inside the door to control the overhead fluorescent room lighting.
- 8. The room must have 160 Watts of fluorescent lighting installed in the dropped ceiling.
- 9. There must be a wall-mounted voice jack installed on the wall immediately inside the LAN-Telco room door for an analog wall-phone connection. The CAT-5E cable must be terminated on a CAT-5E compliant 110-block or 66-

Labor and Industry LAN-Telco Room Specifications

block at the Telco wall-field along with the other voice cables serving the offices and workstations.

- 10. Electrical requirements for the LAN-Telco room will be determined on a siteby-site basis by Labor and Industry OIT staff once a final office floor plan is developed for the LAN-Telco room. This information will be provided to the building owner prior to construction.
- 11. The LAN-Telco room **<u>must not</u>** be co-located with any of the following items:
 - a. Water Heater
 - b. Water Tank
 - c. Furnace or heating system
 - d. Electrical transformer or power panels
 - e. Filing cabinets or storage shelves that would require usage by L&I staff to provide unrestricted access to the LAN-Telco room.
 - f. Water pipes or sewage pipes routed overhead or anywhere else in the room.
- 12. The LAN-Telco room **must not** be located under bathrooms in close proximity on the floors above.
- 13. Ground wires must be installed by the building owner's electrician between the building ground or earth ground and the LAN rack and Telco wall-field. Specifications for the ground wires will be included in the statement of work provided by OIT when site planning is completed.
- 14. The final decision where the LAN-Telco room will be physically located at the Labor and Industry site will be made by the Labor and Industry OIT technician during the site planning phase while working with the building architect.
- 15. Alterations or changes to any of the above requirements or specifications are to be evaluated and approved in writing by the Labor and Industry, Office of Information Technology project manager and network architect during the building planning process.
- 16. Requests for deviations from the listed specifications must be submitted to the Labor and Industry, Office of Information Technology Infrastructure project manager for review. Approval or disapprovals to any request will be responded to the requestor in writing by the Labor and Industry project manager or network architect.

Labor and Industry LAN Rack Specifications

LAN Rack Components and Part Numbers – (1) Rack

Chatsworth, (Black), 7 foot, LAN Rack Configuration

Revised: April 24, 2009

1.	Chatsworth LAN Rack (19"W X 84" H)	P/N 46353-703	Qty = 1
2.	Single-Sided Shelf, Vented (19")	P/N 40117-719	Qty = 1
3.	Floor Mounting Kit: Concrete Floor	P/N 40604-001 or	Qty = 1
	Wood Floor	P/N 40607-001	Qty = 1
4.	Rack-Mount Ground Bar	P/N 10610-019	Qty = 1
5.	Ground Bus Bar Kit, Wall Mounted	P/N 10622-010	Qty = 1
6.	Base Dust Cover	P/N 41050-719	Qty = 1
7.	Mounting Screws	P/N 40605-005	Qty = 1
8.	Single-Sided, Wide, Vertical Wire Mgt.	P/N 11374-703	Qty = 3
9.	Horizontal Wire Mgt Panels, 2.8" X 6"	P/N 11564-719	Qty = 2

If there are any questions about this configuration or how they are to be assembled at the site, please contact Dave Walters at 717-783-4375.

NOTE: The wire closet where the racks will be installed must be a <u>minimum</u> size of 9' X 10' with a locked door and year-round air conditioning in the room. Final LAN-Telco Room size will be determined by OIT Network Architect based upon equipment requirements on a site-by-site basis. Procurement and installation of the LAN racks is the responsibility of the building owner.

L&I Fiber Optic Cable Specifications

1. Backbone Fiber Optic Cable System Requirements

Information contained within this document identifies the specific requirements for multi-mode fiber optic backbone cable and installation processes for Labor and Industry buildings and offices. The specifications include guidelines and specific information required by the cabling contractor to bid and install fiber optic cable in a Labor and Industry facility or office.

Hardware to be included as a part of the fiber optic cabling infrastructure will be all those component parts required to install, terminate and test 62.5/125 multi-mode fiber optic cable. The fiber optic cable will be terminated on a fiber patch panel that will be located in the LAN-Telco room rack, LAN cabinet or server cabinet at each end of the cable.

2. Cabling Contractor's Responsibilities:

- a. Identify and bid the type and quantity of fiber optic cabling and component parts required to construct the fiber optic cabling system requested by Labor and Industry Bureau of Infrastructure and Operations in the statement of work prepared for a specific site or project. All components must be in full compliance with the ANSI/TIA/EIA 568A guidelines as a minimum requirement. Labor and Industry requests that all fiber strands be terminated at both ends using ST style fiber optic cable connectors.
- b. Provide all labor required to properly install, test, document and certify the fiber optic backbone cabling system in full compliance with all ANSI/TIA/EIA 568A guidelines as a minimum requirement.
- c. Provide all miscellaneous hardware, brackets, inter-duct, hangers, cable ties and parts required to install the fiber optic cabling at the designated Labor and Industry facility or office.
- d. Provide Labor and Industry Bureau of Infrastructure and Operations project manager with an as-built, E-size CAD drawing and soft copy in CAD-14 format for all fiber optic cable runs within the designated Labor and Industry facility or office.
- e. Specify, install, document, test, certify, and warrant the proposed fiber optic cabling system with a minimum 15-year manufacturer's performance warranty.
- f. Provide manufacturer trained and certified staff capable of installing, documenting, testing and certification of the proposed fiber optic cabling in full compliance with the component manufacture's performance warranty requirements.

g. The cabling contractor must ensure that all staff assigned to the project meet the minimum skill levels and staffing complement as required by the cabling system component manufacture's guidelines for installation and warranty certification.

3. Fiber Optic Cable Specifications:

- a. Multi-mode, Indoor:
 - 1. Type, UL, NEC/CSA Listed, Tight Buffered: OFNP/FT6 62.5/125 um
 - 2. Number of Strands: Varies by Project
 - 3. Maximum Attenuation (dB/km) 3.5/1.5 (850/1300nm)
 - 4. Minimum Bandwidth (Mhz km) 200/500 mHz/km @ 850/1300nm
 - 5. Guaranteed Gigabit Ethernet Distance: 275/550m @ 850/1300nm
- b. Preferred Fiber Optic Cable and Component Manufacturers:
 - 1. AMP/Tyco
 - 2. Siecor
 - 3. Avaya
 - 4. Corning
 - 5. Krone
 - 6. CommScope
 - 7. Berk-Tek
 - 8. Belden
 - 9. Siemon
- c. The number of fiber strands to be installed between two wire closets or LAN cabinet locations will be determined on a site-by-site basis by Labor and Industry Bureau of Infrastructure and Operations based upon the network design requirements for the site or office. The information will be provided to the building owner or cabling contractor in a detailed statement of work prepared by Labor and Industry.
- d. The cabling contractor is responsible for providing EMT conduit (if required), inter duct (if required), fittings, hangers and miscellaneous components necessary to properly route the fiber optic cable between the designated termination end points identified by Labor and Industry in the statement of work.

- e. The cabling contractor will provide one 19 inch, rack mounted patch panel at each end of each fiber optic cable. The patch panels must be able to accommodate ST style fiber connectors. The size of the patch panel (# of Ports) will be determined by the network design requirements of the site. The number of fiber terminations required will be specified in the detailed statement of work prepared by Labor and Industry Bureau of Infrastructure and Operations for a specific site or project.
- f. Each fiber optic cable strand will be terminated using LC style connectors.
- g. The fiber cable must be enclosed from end-to-end in either plenum rated 1" interduct or 1" EMT conduit.
- h. The fiber cable itself must be plenum rated.

4. Panel Termination Specifications

- a. Patch Panel:
 - 1. Minimum (12) port, actual size specified in the Statement of Work
 - 2. ST connectors
 - 3. 19 inch rack mountable
 - 4. Preferred patch panel manufacturers:
 - a. AMP/Tyco
 - b. Siecor
 - c. Corning
 - d. Avaya
 - e. Krone
 - f. CommScope
 - g. Berk-Tek
 - h. Belden
 - i. Siemon
 - b. Fiber Optic Cable Connectors:

- 1. ST style connectors for multi-mode fiber
- 2. Ferrule Material: Ceramic
- 3. Bonding Process: Hot Melt, UV, Epoxy or Crimp style.
- 4. Preferred ST style connector and termination hardware manufacturers:
 - a. AMP/Tyco
 - b. Siecor
 - c. Corning
 - d. Avaya
 - e. Krone
 - f. CommScope
 - g. Berk-Tek
 - h. Belden
 - i. Siemon

5. Fiber Optic Cable Labeling

- a. All fiber optic cables installed by the wiring contractor will be labeled using a preprinted typewritten label using characters that are a minimum of one-eighth inch in height. Labels will be permanently affixed to the fiber optic cable strands and sealed against environmental conditions. Each separate cable strand will be clearly labeled at the LAN cabinet termination point. It is preferred that a Brady cable labeling system or P-Touch labeler be used to create the labels.
- b. Each fiber optic cable strand will be differentiated using a six (6) digit-numbering scheme. The first two (2) digits will be the number of the far-end LAN cabinet in which the cable terminates. The last four (4) digits will be used to sequentially identify each fiber optic strand that terminates within a given LAN cabinet. The two groups of numbers will be separated using a (-). The letter (F) will be the first digit of a fiber optic strand number identification that means (fiber). Example: 01-F002 that represents LAN cabinet number (01) and fiber optic cable number (F002).

6. Documentation Requirements

- a. Detailed diagrams (as-builds) must be provided to the Labor and Industry Bureau of Infrastructure and Operations project manager in E size hard copy and soft copy CAD-14 format on a CD-ROM at the completion of the cable installation. The cable numbers must be printed on the CAD at the point where the cable is terminated.
- b. Fiber optic cable test results must be provided to the Labor and Industry Bureau of Infrastructure and Operations project manager on 8.5" X 11" paper at the completion of the installation process.

7. Fiber Optic Cable Testing Requirements

- a. It is of the utmost importance that all fiber optic cable testing and certification be performed in accordance with the guidelines set forth in the ANSI/EIA/TIA-568-A manual in the section related to fiber optic backbone cable application and usage as a minimum requirement.
- b. When preparing for field-testing, the following guidelines must be followed to ensure efficient and accurate test results:
 - 1. Ensure that the test jumpers (end-to-end attenuation) or test fiber box (OTDR) are of the same fiber core size and connector type as the cabling system. 62.5 micron core test jumpers should be used for testing 62.5 micron multi-mode cable.
 - 2. Ensure that optical sources are stabilized and have center wavelengths within + or 2 nano meters of the 850/1300 nano meter multi-mode wavelengths and 1310/1550 nano meter single-mode wavelengths.
 - 3. Ensure that the power meter is calibrated at each of the nominal test wavelengths and traceable to the National Institute of Standards and Technology (NIST) calibration standard.
 - 4. Ensure that the power meter and the light source are set to the same wavelength.
 - 5. Ensure that all system connectors, adapters, and jumpers are properly cleaned prior to measurement.

8. End-to-End Attenuation Testing Mandatory Requirements

a. The multi-mode fiber test setup and performance must be conducted in accordance with ANSI/EIA/TIA-526-14 Standard, Method B. OTDR testing for measuring attenuation over the length of the fiber cable will not be acceptable.

Attenuation testing must be accomplished using a high quality fiber optic cable tester that consists of an optical light source and optical power meter.

b. All 62.5/125 micron multi-mode fiber optic cable strands must be tested at both 850 nm and 1300 nm in one direction only. Acceptable loss will be less than 3.75 dB/km at 850 nm, 1.5 dB/km at 1300 nm. The loss values take into consideration the optical cable loss, two connector pairs, and no splices per TIA/EIA-568-A.

9. Fiber Optic Cable Length Verification Mandatory Requirements

a. Fiber optic cable length must be determined for each fiber cable installed. The cable length shall be verified either by OTDR testing or by physical cable length markings printed on the fiber cable outer covering.

10. Test Result Documentation Mandatory Requirements

a. Optical fiber attenuation and physical length records must be submitted in hard copy format on 8-1/2" X 11" standard paper. The test equipment used to perform the fiber optic cable testing must be identified on the report. Please provide the manufacturers name and model of the unit used to perform the cable tests and record the results.

11. Fiber Optic Cable Certification and Warranty Requirements

- a. The fiber optic cabling system installed by the wiring contractor must carry at a minimum, a 15-year component manufacturer's performance warranty.
- b. The cabling system must be designed by or reviewed by a technician who has successfully completed an authorized manufacturer's fiber optic cabling system design course. The technician must hold a current and valid certificate that authorizes the technician to perform system design work using the specific manufacturer's system components.
- c. The fiber optic cabling system must be installed under the direct supervision of a technician who has successfully completed the authorized manufacturer's installation courses for fiber optic cabling systems. The technician must hold a current and valid certificate that authorizes the technician to perform fiber optic cabling system installation project management.
- d. The fiber optic cabling contractor must install the fiber optic cabling system using only cable, connectors and connecting hardware listed in the manufacturers Warranted Parts Number List or parts specifically approved by the manufacturer in writing on a case-by-case basis.

- e. The fiber optic cabling system must be tested in accordance with a test plan prescribed by the authorized system component manufacturer and by a technician who has successfully completed the authorized manufacturers testing courses for fiber optic cabling systems. The technician must hold a current and valid certification issued by the manufacturer to perform fiber optic cabling system testing.
- f. The cabling contractor must prepare all required cabling system documentation and test results necessary to apply for the fiber optic cabling system manufacturers 15-year performance warranty within 30 days after the completion of installation and testing of the system.
- g. The Labor and Industry Bureau of Infrastructure and Operations project manager must receive the fiber cabling system manufacturers 15-year performance warranty certificate within a 60-day period starting the day after the completion of system testing by the cabling contractor.

Date: April 24, 2009

Section 4.0 Personal Computer, Laser Printer & LAN Equipment Power Management Information and Specifications

Purpose:

The purpose of this document is to provide building architects and electrical contractors preparing office space for Labor and Industry with a thorough understanding of the electrical requirements and specifications that have been established by the Labor and Industry, Bureau of Infrastructure and Technology for personal computers, laser printers and local area network (LAN) equipment. Information contained in this document should be used as a general guideline when planning for the installation of network computers, laser printers, copiers, printers, LAN hardware and office furniture configurations.

Introduction:

In order to properly support the power requirements for personal computers, laser printers, and LAN equipment configurations in today's hi-tech office environments, it is essential to implement power management principles and installation planning disciplines. The evolution and introduction of computer technology to the office environment has created the need for advanced environmental installation planning practices to be employed by building architects, electrical contractors and enterprise managers. The previous environments that utilized typewriters or fixed function display terminals were not as sensitive to voltage spikes and unclean power as today's personal computer and LAN environments. The new office environments require that building architects and electrical contractors design power distribution systems in the office space that are set up according to the equipment load levels of the devices that will be installed on the office desk-tops. It is the L&I's responsibility to ensure that adequate surge suppression devices and UPS units are installed to clean up the power and protect critical network devices. In certain cases, such as a large UC service center, a large UPS or other electrical conditioning equipment will be required as part of the building renovation.

PC Power Consumption:

In comparison, a typical typewriter would use about 1.0 amp of power, as would a fixed function end-user display terminal. Today, a typical desktop PC consumes approximately 1.5-3.0 amps of power per PC depending upon the type of PC configuration, monitor type/size and other peripherals installed on the PC system.

Printers, Dot Matrix & Laser:

As a comparison, a dot matrix, serial attached PC printer would require approximately 1.0 amp of power in contrast to an average speed desktop PC attached laser printer that requires the following amperage demands:

Heating Cycle: 4.0 - 6.5 amps

Idling: .3 - 1.2 amps Printing: 6.2 - 8.5 amps

Laser printers are the defacto standard for PC printed output in today's office environment. As a general rule, the more pages per minute (PPM) produced by a laser printer, the more amperage it will use. The high amperage consumption is only a part of the problem. The amperage draw is not a steady-state load as indicated above by the (3) stages of operation for a laser printer. The printer will vacillate between heat and non-heat cycles every 10 to 15 seconds depending upon the specific make/model of laser printer. The transition from heat to non-heat cycles creates spikes on the branch circuit that supplies power to the printer. The power spikes created by laser printers can be detrimental to other PCs and equipment that are plugged into the same electrical circuit, (on the same circuit breaker). It should be noted; the power source (branch circuit) for laser printers should be dedicated to the laser printer and not used by other LAN or network equipment.

Individual Surge Protectors (L&I Supplied):

To protect LAN equipment from electrical spikes, under-voltage, over-voltage, or lightning strikes, it is a requirement that high quality surge suppression devices (surge protectors) be installed on all Labor and Industry network PCs and laser printers. A surge protector is designed to provide power filtering for the attached device and to protect the equipment from electrical spikes and lightning (depending upon the manufacturer of the surge protector). A surge suppresser will not resolve under or over-voltage problems caused by circuit overloading. In most cases, the surge protector will disconnect the circuit from the equipment it is protecting to avoid damage caused by the under or over-voltage conditions.

Good quality surge protectors are a must for every PC and laser printer. If the PC has a modem connection to the phone line, the surge protector must also have an outlet for the phone circuit so that electrical pulses or lightning from the outside phone line cannot damage the PC circuitry. A good quality surge protector must have a UL 1449 rating of 330 volts, 20,000 amps, MOV logic, and a response of less than 1 nano second. It should be noted that most surge suppresser manufacturers do not make any claim to provide protection to the attached equipment in the event of a lighting strike to the power source. Likewise, most surge suppressers are not warranted to protect the equipment or the surge suppresser if the power source is struck by lighting. However, there are several reputable manufacturers of surge suppressers on the market that do warrant their equipment against lighting strikes. As a general rule, a high quality surge suppresser will range in price from \$36.00 to \$55.00 with extensive discounts applied to get to these prices.

UPS (Un-interruptible Power Source):

To protect critical LAN servers, network hubs and routers, it is essential that UPS (Uninterruptable Power Source) (UPS) units be installed strategically to protect those devices. A UPS provides backup power to the devices that are attached to the UPS. When commercial

building power fails, the UPS circuitry continues to feed unaltered, clean and reliable power to the attached devices. The UPS provides a significantly higher level of power protection for all attached devices. Not only does it provide backup power, it also acts as a surge suppresser and power noise filter to clean up unwanted spikes from the commercial power source entering the UPS. The UPS will also have a communication link to the server that will provide a controlled shutdown of the server in the event of an extended power outage. Prior to the UPS batteries going completely dead, which would cause the UPS to shut down, the UPS will signal the server to stop processing, shut down all systems and go into an orderly power off to avoid a server crash which could potentially damage circuitry or corrupt data bases on the server.

Modular Furniture Power & Programmable Power Base Systems:

In today's typical office environments, modular furniture is very popular to provide workstation space for employees. There are many different manufacturers of modular furniture with a wide variety of design and capabilities. Virtually all workstation modular furniture vendors provide power outlets for the workstations through some type of power base modular electrical distribution system that is mounted in the base of the furniture panels. Power is sent to the power base from power poles entering the ceiling, wall receptacles or from under the floor. The modular furniture power connection to the building power panel and circuit breaker is accomplished using a power cord from the modular furniture, which is frequently called a WHIP.

Power distribution through the modular furniture power base is accomplished by interconnecting power strips in the power base using jumper cables. The number of power strips connected to a single power pole and WHIP must be determined using a variety of items as input to determine circuit loading in the power base. Most modular power base systems are designed to be attached to a 15-amp circuit breaker at the power panel. In accordance with NEC (National Electrical Codes), a 15 amp circuit should not be loaded with a continuous current draw of greater than 80% of the breaker rating (12 amps). The same would also be true for wall outlets or floor outlets. If the breaker capacity were 20 amps, the allowable continuous load would be 16 amps. These maximums are very important to remember when deciding how to program the modular furniture power base to achieve the desired distribution based upon the anticipated workstation electrical load requirements.

There are some types of modular furniture systems used by the Commonwealth of Pennsylvania, Department of Labor and Industry in large quantities that do not have any provisions in the modular furniture base to deal with power distribution or voice/data cabling distribution and fixtures. One of the furniture manufacturers that falls in this category is Haskel. Contractors doing electrical or data/voice cabling work for Labor and Industry sites must thoroughly understand the modular furniture installation inventory and operational environment they are dealing with when planning their work and pricing schedules for a specific site. Failure on behalf of the cabling or electrical contractor to not have this information available or to not be knowledgeable of this environment could prove to be very costly to the contractor when powering or cabling this type of furniture.

Power Distribution and Planning Requirements:

Typically, detailed power distribution and planning activities do not take place in most PC network equipment based offices due to a lack of knowledge on behalf of the end-user's, network installers, furniture installers and the electricians. Unfortunately, circuit-overloading problems must first be encountered before the power planning process is initiated and then only because of an immediate problem.

Power management is an ongoing process since workstation equipment loads change as technology is changed and moved within the office. Therefore, it is essential that very accurate documentation be established and kept in place to document how the modular furniture power base systems or electrical circuit distribution to non-power based systems are installed and configured as well as how wall and floor circuits are wired in the office. Failure to have this type of information readily available will prove to be a problem when circuit breakers trip due to changes in equipment configurations.

Electrical Circuit Harmonics Caused by PCs and Laser Printers:

PC, laser printers and microprocessor based power supplies create a phenomenon on the electrical supply source neutral line called electrical harmonics. When large numbers of PCs and laser printers are installed within and enterprise on the same power panel, the effect of electrical harmonics can be significant. The effect of electrical harmonics is that amperage flow on the neutral wire of the power source becomes excessive and may cause the neutral wire to overheat and fail. This is true where multiple supply circuits in the office environment share a common neutral circuit. This problem can be prevalent when the modular furniture power base system utilizes a 5-wire electrical distribution system. The five-wire system is configured as follows:

1.	15 Amp Breaker, Phase # 1	120 Volts
2.	15 Amp Breaker, Phase # 2	120 Volts
3.	15 Amp Breaker, Phase # 3	120 Volts
4.	Power Panel Neutral	Neutral 1
5.	Power Panel Common Ground	Ground

In the above diagram, each of the three phases can share the common neutral. Electrical harmonics caused by the PCs and laser printers that may be attached to each of the individual phases may cause the neutral wire to encounter amperage flow, which is excessive due to the effect of the electrical harmonics. To solve this problem, some modular furniture systems are now being manufactured using an eight/ten wire power base system. The eight/ten wire system

allows for a dedicated neutral for each of the three phases all the way back to the power panel if properly connected. The following diagram shows how the eight-wire system is constructed.

1.	15 Amp Breaker, Phase # 1	120 Volts
2.	Power Panel Neutral	Neutral 1
3.	15 AMP Breaker, Phase # 2	120 Volts
4.	Power Panel Neutral	Neutral 2
5.	15 Amp Breaker, Phase # 3	120 Volts
6.	Power Panel Neutral	Neutral 3
7.	Green Wire Common Ground	Ground
8.	Green/Yellow, Isolated Ground	Ground

In the above configuration, there are three neutral wires from the workstation power base going back to the power panel common neutral hub. In addition, there is a common ground and an isolated ground. It is recommended that all electrical outlets used for PCs and laser printers be **dedicated outlets using isolated ground receptacles if possible.** Some modular furniture configurations may not be able to support this type of configuration for power. If it is a five-wire system, isolated grounds are generally not available in the power base configuration. In this case, it is recommended that one or two of the three power phases going through the power base be set aside specifically for powering PCs and laser printers within the modular furniture. The third phase would be used for lights, radios, clocks and miscellaneous equipment excluding coffee pots, electric heaters and cup warmers which should not be utilized in modular furniture based power supply systems due to their high demand for amperage.

Another way to solve the harmonic problem when you must use a shared neutral is to provide a neutral wire that is oversized or larger than the individual service wires. This solution will provide the capability to carry the increased current flow at the distribution cable level in the power path. It is also imperative to try and balance the current flow levels as much as possible on each of the phases if you must use a shared neutral environment and can utilize an oversized neutral wire.

Section 4.1 Power Configuration Guidelines

The following list identifies guidelines to be used by the electrical contractor and modular furniture installers when setting up power to the modular workstation configurations, offices and conference rooms:

- 1. Maximum allowable number of desktop PCs with monitors per 120-volt electrical branch circuit (Assuming the worst case of 3.0 amps current draw per PC):
 - a. 15 amp circuit = 3

- b. 20 amp circuit = 4
- 2. Maximum allowable number of laser printers per 120-volt electrical branch circuit (Assuming 8.0 amps peak load per laser printer):
 - a. 15 amp circuit = 1
 - b. 20 amp circuit = 2
- 3. Maximum allowable number of Network Servers, (Windows NT type, tower units) per 120-volt electrical branch circuit, (assuming 5 amps per server or less with the monitor):
 - a. 15 amp circuit = 2
 - b. 20 amp circuit = 3
- 4. Power allocation within offices, conference rooms and other locations constructed using conventional walls and non-modular furniture construction.
 - a. All power outlets for PCs should be dedicated circuits with isolated grounds.
 - b. Miscellaneous other equipment, lights etc., in the offices should be powered by outlets configured in accordance with local electrical codes.
 - c. Laser printers should be powered in accordance with the guidelines in item number 4.1.2. (a and b) above.
 - d. Power outlets for laser printers should be 120 volt, 20 amp, dedicated circuits, with isolated ground, orange in color.
- 5. General Power Guidelines:
 - a. All PCs, and laser printers should be protected using a good quality surge protector (L&I supplied) such as an APC or Panamax brand. Include modem line protection on the UPS if the PC is connected to the outside phone line.
 - b. All servers should be powered by an UPS capable of maintaining operational status for a minimum time period of 15 minutes under optimum server load.
 - c. All network electronics racks containing hubs, routers and modems should be protected with a UPS capable of maintaining operation of the LAN electronic components for a minimum period of 15 minutes.

Section 4.2 Specific Power Requirements

- A. Power Requirements within a typical Labor and Industry office environment:
 - 1. Permanent Offices
 - a. Each office should have (1) dedicated 120-volt circuit, duplex receptacle with an isolated ground to be used exclusively for powering the user's PC.
 - b. Each office that has a laser printer should have (1) 120-volt, dedicated circuit, duplex receptacle, with an isolated ground. This circuit must not be connected to any other outlet in the office.
 - c. Each office should have at least (2) 120-volt outlets to be used for miscellaneous electrical equipment within the office.
 - d. The number of receptacles per circuit should conform to the guidelines outlined in Section 4.1 above for either 15 amp or 20 amp circuits whichever is applicable to the location where the circuit is being installed and the device types that are being connected to the receptacles.
 - 2. Modular Furniture, Cubicles, (Eight Wire Power Base System)
 - a. Each cubicle should have (1) dedicated, 120-volt circuit, duplex receptacle with an isolated ground to be used exclusively for powering the user's PC.
 - b. Each cubicle that has a laser printer should have (1) dedicated, 120-volt circuit, duplex receptacle with an isolated ground that does not share the same circuit phase as any PC dedicated receptacle.
 - c. Each cubicle should have at least (1) 120-volt receptacle to be used for miscellaneous electrical equipment within the cubicle. This receptacle should not share the same power phase as the PCs or laser printers.
 - d. The number of receptacles per circuit should conform to the guidelines outlined in Section 4.1 above for either 15 amp or 20 amp circuits whichever is applicable to the location and circuit being installed.
 - 3. Modular Furniture, Cubicles, (Five Wire Power Base System)
 - a. Each cubicle should have (1) 120 volt, dedicate circuit, duplex, grounded receptacle installed that is isolated within the power base system of the furniture to be used exclusively for powering PCs.

- b. Each cubicle that has a laser printer should have (1) 120 volt, dedicated circuit, duplex, grounded receptacle to be used exclusively for powering laser printer.
- c. Each cubicle must have (1) 120 volt, duplex, grounded receptacle installed that is isolated within the power base system of the furniture to be used exclusively for powering miscellaneous electrical equipment within the cubicle system.
- d. The number of receptacles per circuit should conform to the guidelines outlined in Section 4.1 above for either 15 amp or 20 amp circuits whichever is applicable to the location and circuit being installed.
- 4. Modular Furniture, Cubicles, (No Power Base System)
 - a. Each cubicle should have (1) 120 volt, grounded, duplex, receptacle installed with an isolated ground, configured in accordance with circuit loading as described in section 4.1. (1,2) above. This receptacle is to be used exclusively for powering PCs.
 - b. Each cubicle that has a laser printer should have (1) 120 volt, dedicated circuit, isolated ground, duplex receptacle installed to power the laser printer.
 - c. Each cubicle must have (1) 120 volt, duplex, grounded receptacle installed to be used exclusively for powering miscellaneous electrical equipment within the cubicle.

5. Conference Rooms

- a. Conference rooms should have a 120-volt, duplex receptacle with an isolated ground for each data jack installed within the room. These receptacles will be used to provide power to PCs. Circuit loading should conform to the specifications identified in section 4.1.1 and 2 above.
- b. Conference rooms should have (1) dedicated, 120-volt circuit, duplex receptacle with and isolated ground for any location that will supply power to a laser printer. This receptacle should be on it's own circuit and breaker.

6. Server Locations

a. The server's power should be distributed in accordance with the circuit loading specifications stated in Section 4.1.3 above using a dedicated, 120

volt, duplex receptacles with an isolated ground for the server. This circuit must not be shared with other PCs or laser printers. Depending upon the type and configuration of the server, multiple servers may be powered by the same circuit breaker and branch circuit.

- B. Power requirements for non-standard Labor and Industry office configurations:
 - 1. There are some bureaus and departments within Labor and Industry that have special power load requirements for the distribution of power to PCs, laser printers, and LAN equipment that do not conform to the guidelines listed above.
 - 2. Whenever special power distribution requirements are necessary, they will be clearly documented and provided to the building architect, building owner, lessor, and/or electrical contractor involved with the physical preparation of a site for Labor and Industry staff occupancy.
 - 3. In some cases, Labor and Industry will require the use of battery back-up systems and generator back-up systems to be provided for specific office environments. Labor and Industry Bureau of Infrastructure and Technology staff will work with the appropriate architect, electrical contractor and building owner to identify the unique environmental requirements for power distribution at a given site.

SPECIAL LEASE REQUIREMENTS Norristown, Montgomery County, PA Unemployment Compensation Board of Review (UCBR)

ALL ITEMS LISTED ARE TO BE PROVIDED BY LESSOR AT LESSOR'S SOLE EXPENSE

- Install vertical transom windows and/or peepholes on interior doors identified by Lessee.
- Install "panic" buttons in hearing rooms which are wired to the clerical area and/or receptionist. A wireless installation is permissible.
- Install a receptionist window of no less than 3' X 4' made of safety tempered glass, Plexiglas, wire glass or the like with appropriate cutouts for communication and passing documents.
 The public side of the window will include a ledge of 14 18" inches to allow for signing in process.
- Reception area will include door release button(s) as necessary to allow remote access to hearing room/secure hallway as appropriate and as determined by Lessee.
- Hearing Rooms must be soundproofed. Doors to hearing rooms will be solid to assist with soundproofing.
- Hearing Rooms will have two entrances—one for the public and one for staff. The public
 entrances will be directly off the waiting room or directly from another secure hallway.
- Doors from Hearing Rooms to staff area will have push button locking mechanism on staff side.
- Doors from Waiting Room to Hearing Rooms or Secure Hallway will require security access. If public access to Hearing Rooms is through secure hallway the hearing room doors will have key lock on the hallway side of public entrance.
- Hearing Rooms will include two-way light switches located near each door.
- Provide signage in any lobby, waiting area and hearing rooms as specified by Lessee.
- Location must be within two blocks of public transportation.

SA2011-042 Date September 14, 2011 Department of Labor and Industry Bureau - Unemployement Compensation Board of Review County - Montgomery

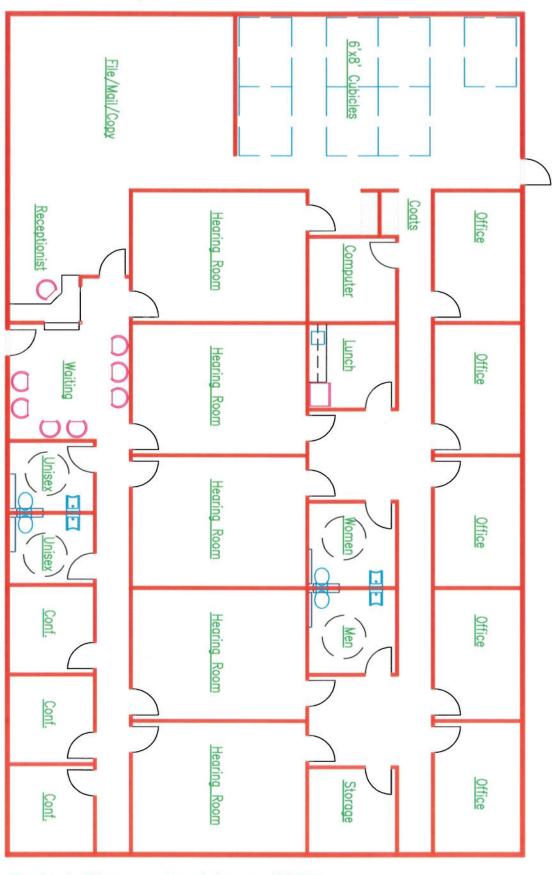
5,723

DGS SPACE STANDARDS - M260.1

A. PERSONNEL

G. GRAND TOTAL

SPACE STANDARD	TYPICAL DIMENSION	ASSIGN	NUMBER TOTAL	1			
STATE STATES	THERE DIVIENSION	EACH	REQUIRED ASSIGNED				
Executive I - Cabinet Secretary	25 ft x 17 ft	425		0			
Executive II - Deputy Secretary/Independent Board Commissioner	15 ft x 17 ft	255	0	0			
Senior Manager - Bur. Dir., Exec. Dir.(Full Height Private Office)		225		0			
Mid Mgr/Semi -Prvt. Office -Div. Chief/AttorneyDoor Height Office	«10 ft x15 ft	150	5 750	0			
Supervisor/Technical - Positions requiring special equip., or position	s 8 ft x 12 ft	96	0	0			
(Workstation) involving many 2-3 person meetings.							
Analysis/Admin./Sec Analysts, Accountant, Programmer, clerical	8 ft x 8 ft	64	0	0			
(Workstation) positions with admin. duties, etc.							
Clerical/Field/Intern - Single task clerical positions, fiscal techs, field	16 ft x 8 ft	48	7 330	6			
(Workstation) staff, interns, etc.				27			
	PERSONNEL TOTAL		12 1,086	6			
B. AUXILIARY AREAS							
D. MOMBIAKT AKEAS							
TYPE	DETERMINANT	ASSIGN	NUMBER TOTAL	L			
		EACH	REQUIRED ASSIGNED)			
Conference Room	per person meeting	17	^	0			
Reception	area required	50	1 50	0			
Hearing Room	area required	300	5 1,500	0			
Attorney Conference Room	area required	100	3 300	0			
Storage Room	area required	100	1 100	0			
Library	area required	0	0	0			
Waiting Room	area required	125	1 12:	5			
Lunch Room	leased space only	100	1 100	0			
Computer Room	area required	100	1 100				
File Room	area required	300	1 300				
Public Unisex Restroom	area required	85	2 170 2 200 1 150	0			
Restrooms	area required	100	2 200				
Mail / Copy Room	area required	150		0			
Other	area required	0	10 0 10	0			
	AUXILIARY TOTAL		3,095	5			
C. SHARED EQUIPMENT	C. SHARED EQUIPMENT (not in auxiliary areas/employe work spaces)						
ТҮРЕ	TVDICAL DIMENSION	ACCION	NIUMBER TOTAL				
TIFE	TYPICAL DIMENSION	ASSIGN	NUMBER TOTAL				
File Cabinet	(incl work space) 1.5 ft x 4.5 ft		REQUIRED ASSIGNED	_			
Tables	5 ft x 5 ft	7 25		0			
Computer/Terminal	5 ft x 5 ft	25					
Copier	5 ft x 6 ft	30	323	0			
Storage Cabinet	3 ft x 3 ft	9		0			
Plan File	4 ft x 6.5 ft	26	127	0			
Bookcase	2 ft x 3 ft	6		0			
Coat Valet	2 ft x 2 ft	4	1 <u>2</u> 7	8			
Lateral File	2.5 ft x 4 ft	10	2	0			
Other	2.5 It X 4 It	0		0			
	SHARED EQUIPMENT T		58	-			
			4,239				
D. SUB TOTAL							
E. TOTAL INCLUDING 35% ALLOWANCE FOR ACCESS & CIRCULATION 5,72							



Typical Plan - Norristown UCBR

Scale: 3/32" = 1'-0"

Date: 11/22/2011

Drawn by: MGR

SOLICITATION INFORMATION DEPARTMENT OF LABOR AND INDUSTRY NORRISTOWN, PA

Landlord:

Please confirm name of signing entity.

Lease Term:

The Department of General Services, Department of Labor and Industry ("Tenant") will consider a ten (10) year lease.

3. Lease Commencement:

Tenant requires that the Lease Term commence upon substantial completion of the tenant improvement work and receipt of a Certificate of Occupancy and the completion of Tenant's "Acceptance of Leased Premises Report." The Lease Commencement is anticipated to be on or around July 1, 2012;

however, Tenant will entertain an earlier occupancy.

4. Size and Location:

Tenant requires approximately 5,723 usable square feet (USF) as defined by The Department of General Services in Appendix B "Acknowledgement of Usable Area Definition" (the "Premises"). Please identify the location in your Building where the leased space is proposed and if the space proposed is not contiguously on one floor, please identify alternative locations in your Building, including the respective floor, location on floor and load or add-on factor.

5. Agencies and Sizes

The Department of Labor and Industry program office occupying the space will be the Unemployment Compensation Board of Review.

6. Expansion Rights:

Tenant requests a method to expand its Premises in the Building (i.e. option to expand, right of first refusal, right of first offer). The Base Rent for the expansion space will be the same as the initial Lease Term. The Lease Term shall be coterminous with the initial Lease Term and the Tenant Improvement Allowance shall be consistent with negotiated leases but pro rated based upon the remaining months in the Lease Term. All other terms and conditions will be the same as those contained in the Lease for the Premises. This requirement is not included in Tenant's program requirements. Landlord should indicate in its proposal the ability to provide this space at the stated time.

7. Base Rent/Operating

Please provide the annual gross rental on a full service basis (inclusive of all Base Rent, Operating Expenses and Real Estate Taxes). Please provide a detailed break down of the Operating Expenses and Real Estate Taxes for the Base Year of Operation (first 12months of occupancy), or a 95% Gross up of Operating Expenses, assuming a fully assessed property, whichever is greater. Additionally for existing buildings, please provide the past three (3) years of detailed actual Operating Expenses and Real Estate Taxes. Further, Landlord should note the attached Exhibit A listing Tenant's list of operating expense exclusions. Tenant requests that Landlord agree to cap Operating Expense increases at no more than 5% per year.

8. Security Deposit/Prepaid Rent

No Security Deposit. No pre-paid rent.

9. Renewal Options:

Tenant requires two (2), five (5) year. A third option may be considered.

10. Subletting/Assignment:

Confirm Landlord's willingness to grant the right to sublease or assign all or part of the Premises, with Renewal Options, upon Landlord's consent. Tenant will retain any excess consideration and there will be no recapture rights, rent minimums, or subtenant restrictions. Landlord consent shall not be unreasonably withheld, delayed or conditioned. Landlord consent shall not be required if the sublease or assignment is to any subsidiary, affiliate or entity doing business with Tenant. Note this provision does not affect Tenant's ability to assign and place any Commonwealth agency into the space.

11. Life Safety:

If an existing building, please confirm the Building and Premises are fully sprinklered with smoke detection and fire alarms as required by code for improved space. If lessor proposes new construction or a substantially rehabilitated building, please confirm that these systems will exist. The Premises and Building must be fully code compliant.

12. Access:

Confirm that Tenant shall have access 24 hours per day, 7 days per week to the Building and parking facilities (if any) via a card key system. In addition, please confirm if any physically staffed guard/security stations will be located in the main lobby and describe the same. Please describe if dedicated lobby and/or elevator access is available to tenant and any agreement that may restrict Tenant's ability to access the proposed leased space.

13. Parking/Transportation:

Please describe any Parking that is available to the Tenant or its Invitees. Please describe proximity of Premises to public transportation and accessibility of Premises to Commonwealth employees and public.

14. Base Building Work:

At Commonwealth's option complete Base Building specifications including project description, structural, roof, exterior wall, interior finish, elevator, fire protection system, plumbing, HVAC and electrical specifications may be requested. If requested, Landlord should include the work mentioned and any work not previously listed. State clearly what is considered Base Building work performed by landlord, at landlord's expense versus Tenant Improvement work. To do this, landlord shall show plans and/or provide narrative detailing landlord's work to complete in order for Tenant's improvements to occur and work that Tenant is being charged as part of its rent. Landlord should note if Historical Tax Credits will apply to building and if work within Tenant's space is affected by these tax credits.

15. Tenant's Work and Allowance

This is a turn-key lease with landlord providing all renovations.

16. Architectural & Mechanical

Landlord, if Tenant requests, will perform, at Landlord's expense, one (1) test fit to demonstrate the efficiency and work flow of Tenant's program office in the space. Please confirm that the Tenant will be able to perform test fit on proposed Premises at Landlord's sole cost.

Landlord will not charge Tenant any fees paid by Landlord for plan reviews, supervision or construction management. Tenant, at Tenant's expense, shall have the right to retain a construction manager to oversee Tenant's work. Please describe what allowance is available, as an allowance to Tenant for this work.

17. Signage:

Tenant requests the Landlord, at Landlord's sole cost and expense provide Building, directory, elevator, monument and lobby signage. Landlord shall provide, at Landlord's sole cost and expense "No Smoking" as required by the Clean Air Act.

18. Non-Disturbance Agreements:

Tenant may require that each ground Landlord, mortgage holder or lien holder execute a commercially reasonable non-disturbance agreement(s). Said non-disturbance agreement(s) shall be in recordable form and may be recorded at Tenant's election and expense.

19. Hours of Operation:

Please state standard Building hours and the costs associated with after hours HVAC (see section 31) and electric changes, if any.

20. Use:

Governmental Functions, General Office and any other legally permitted use.

21. ADA Compliance:

Landlord represents and warrants that the Building is in ADA compliance and that the Landlord, at its sole cost and expense, will be responsible for ADA compliance of all Building common areas and the Premises except as compliance may be modified by Tenant's work.

22. Code and Zoning Compliance:

Landlord represents and warrants that the Building complies with all current code requirements including but not limited to electrical, plumbing, and fire/life safety, except as compliance may be modified by Tenant's work. Landlord, at landlord's expense, shall be responsible for all changes required by code.

23. Environmental/Asbestos:

Landlord represents and warrants that the Building is or will be in compliance and/or meets criteria set in Exhibit C "Asbestos" of the proposed lease document

24. Real Estate Broker Representation:

There is no real estate broker representative that commonwealth interest in this proposed transaction.

25. Landlord & Lender Description:

Please provide a description of the property's current ownership structure and financing sources.

26. Major Tenants:

Please list and identify principals of all major tenants in the building and their applicable expand rights if any.

27. Technology Infrastructure:

Please describe the property's existing or planned infrastructure relative to fiber, high-speed data transmission, internet connection, power redundancy and all other telecommunication support planned for the property. Please indicate building demarcation point. The building should have access to high speed data transmission and internet connectivity.

28. Prior Access:

Tenant, its agents, contractors, architects, consultants, etc. shall be permitted access to the Premises, including access to and use of the loading docks, elevators, construction hoists, electrical service, etc. to allow Tenant to plan and commence its required work. There shall be no charge for the use of said facilities.

29. Alterations:

Tenant may perform or cause to be performed any alterations in the Premises without Landlord's consent if such work does not materially affect the Building structure, mechanical, HVAC or electrical system. In no event will Tenant be responsible to Landlord for any fees for supervision and/or coordination of said alterations.

30. Landlord Compliance with Laws:

Landlord shall keep and maintain the Building and the Premises in compliance with all applicable governmental rules, laws, statutes and regulations and in accordance with all applicable environmental, insurance and ADA requirements. Tenant shall not be responsible to pay any portion of said costs or expenses.

31. Heating, Ventilation and Air Conditioning:

Confirm that Landlord shall provide heating, ventilation and air conditioning (HVAC) during normal business hours. Landlord is required to maintain the existing HVAC system in top working condition and provide timely preventative maintenance and parts replacement per standard HVAC performance requirements in lease. In the event that Tenant desires after-hours HVAC, Landlord shall furnish it at cost equal to Landlord's actual cost. Please state after-hours HVAC costs, if any, and the procedures for accessing after hours HVAC.

32. Cleaning & Maintenance Services:

Landlord shall contract for cleaning services Monday through Friday in and about the Premises in accordance with first-class buildings located in the nearest metropolitan area (See Tenant's Janitorial Specifications attached to lease). A mutually acceptable janitorial schedule shall be made an attachment to the Lease. Tenant shall have the ability to contract for its own janitorial services should Landlord provided services prove unsatisfactory to Tenant. A deduction from the Operating Expenses equal to Landlord's cost of said janitorial services shall apply.

33. Consent:

In any instance where Landlord's consent is required, it shall not be unreasonably withheld, delayed or conditioned.

34. Amenities:

Please address all existing or planned amenities of the Building or project. Also include any and all amenities available for exclusive

use by tenant.

Non-Smoking Building:

Please confirm that the building is a non-smoking building.

36. Contingency:

This request for proposal is subject to Landlord and Tenant executing a lease agreement, Tenant's legal review, senior management approval, approval by the Board of Commissioners of Public Grounds and Buildings and delivery of a fully executed lease to Landlord.

37. Lease Agreement:

Tenant shall have the right to use a Commonwealth of Pennsylvania approved Lease Agreement. A copy of a SAMPLE Lease Agreement is included in this bid package. Landlord reserves the right to negotiate lease provisions to insure timely delivery of the Premises. Certain standard lease language addresses constitutional and statutory requirements of the Commonwealth, including but not limited to language concerning appropriations of funds cannot be altered.

38. Ground Lease:

Confirm there is no ground lease or provide details if there is one.

39. MBE/WBE/DBE Participation

In addition to completing the required form with submission, please provide a narrative stating how you plan to fulfill this requirement. If available, please state the names of the firms to use for the project. Note the vendor must be a state certified firm. If the firm is not certified, certification should occur prior to proceeding with vendor's work. Small Disadvantaged Business Program information and a database of BMWBO-certified minority- and women-owned businesses can be accessed at www.dgs.state.pa.us, Keyword: BMWBO. The federal vendor database can be accessed at www.ccr.gov by clicking on Dynamic Small Business Search (certified companies are also indicated)

40. Energy Conservation
Measures/Green Tech.:

Consideration will give given to Landlord employing materials and strategies to institute energy conservation and green technology throughout the building including but not limited to water conservation through use of low flow china, use of energy efficient lighting and lamps computerized management systems for control of HVAC and lights, use of recyclable materials in building fixtures and throughout construction, etc. Landlord will evaluate efficient use of building envelop weatherization and insulation. Landlord will provide a written narrative with proposals indicating the energy conservation measures and green technology planned during construction and operation of the facility.

41. Rooftop Equipment:

Tenant, at its cost and expense, shall have the non-exclusive right to install, maintain, and from time to time replace a satellite dish, electronic equipment, microwave antennae(s) or other communication devices (collectively, the "Rooftop Equipment") on a portion of the roof of the Building designated by Landlord.

42. **Offer:**

By submitting this offer, the Offerer agrees upon acceptance of this proposal by the herein specified date, to lease to the Commonwealth of Pennsylvania, the Premises described, upon the terms and conditions as specified herein, in full compliance with and acceptance of the aforementioned solicitation for offers, with attachment(s).

Exhibit A (Operating Expense Exclusions)

The following items shall be excluded from Direct Operating Expenses:

- (A) Expenses for capital improvements made to the Building other than capital improvements intended to reduce the energy consumption or Direct Operating Expenses of the Building;
- (B) Expenses for repair, replacements and general maintenance paid by proceeds of insurance or by Tenant or third parties, and alterations attributable solely to tenant of the Building;
- (C) Interest and any increase in the rate of interest payable by the Landlord with respect to any debts secured by a deed to secure debt or mortgage on the Building or the Property;
- (D) Amortization, debt service, or other payments on loans to Landlord;
- (E) Depreciation of the Building;
- (F) Leasing commissions or expenses;
- (G) Legal expenses for disputes with tenants; legal and auditing fees, other than those legal and auditing fees necessarily incurred in connection with the maintenance and operation of the Building; and legal or accounting fees incurred in connection with any debt or equity financing of the Building or in connection with any reports, returns, or other financial or tax reporting or accounting performed for the benefit of investors, partners or affiliates of Landlord;
- (H) Income, excess profits or franchise taxes or other such taxes imposed on or measured by the income of Landlord from the operation of the Building or any inheritance, estate, succession, transfer, gift or intangible taxes that are or may be imposed on Landlord;
- (I) The cost incurred in performing work or furnishing services for individual tenants which work or services are in excess of work and services provided to Tenant under the Lease, such as, without limitation, the costs associated with the building condenser water system and the shared services telecommunication switch:
- (J) Expenses for repair or replacement paid by proceeds of insurance or of condemnation awards;
- (K) Expenses incurred in leasing or procuring new tenants including (advertising expenses and expenses for the preparation of leases or renovation of space for new tenants);
- (L) The amount of rent payable under and pursuant to any ground lease pertaining to the Property;
- (M) Costs incurred which are subject to reimbursement by other tenants of the Building or third parties;
- (N) Wages and costs associated with home office, off-site employees of Landlord other than the reasonable cost of professional services provided by such employees which would otherwise be provided by outside professionals;
- (O) Any unreasonable advertising and promotional expenses, any unreasonable allocations of costs and expenses of the Property to the Building, and any costs of removing asbestos or hazardous substances;
- (P) Costs of special services rendered to individual tenants (including Tenant) for which a special charge is made;

- (Q) Repairs, alterations, additions, improvements, or replacements made to rectify or correct any defect in the original design, materials or workmanship of the Property or common areas;
- (R) Damage and repairs necessitated by the gross negligence or willful misconduct of Landlord, or its employees, contractors or agents;
- (S) Landlord's general overhead expenses not related to the property;
- (T) Costs (including permit, license and inspection fees) incurred in renovating or otherwise improving, decorating or painting or altering space for individual tenants or other occupants or of vacant space in the Property;
- (U) Costs incurred due to violation by Landlord or any other tenant of the Building of the terms and conditions of a lease;
- (V) Expenses incurred for the repair, maintenance and operation of any parking garage, included but not limited to salaries and benefits of any attendants or person;
- (W) Expenses for the replacement of any item covered under warranty;
- (X) Property management fee's for the building in excess of 3% of the base rents of the building (exclusive of capital expenditures, tenant reimbursements and ancillary income from other tenants);
- (Y) Salaries of (i) employees above the grade of building superintendent or building manager and (ii) employees whose time is not spent directly and solely in the operation of the Property;
- (Z) Reserves;
- (AA) Any other expense which, under generally accepted accounting principles applicable to real estate operations, would not be considered a reasonable maintenance and operating expense.