

PENNSYLVANIA GAME COMMISSION

**SCOTIA RANGE COMPLEX RENOVATION PROJECT,
PHASE 1
SGL #176**

North Central Region
Halfmoon Township
Centre County

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PROJECT SPECIFICATIONS

The Contractor shall comply with the *Contract Terms and Conditions* provided with the Bid Documents including but not limited to the following:

INSURANCE REQUIREMENTS – In accordance with the *Contract Terms and Conditions*, the Contractor is required to have in place during the term of the Contract and any renewals or extensions thereof, the following types of insurance, issued by companies acceptable to the Commonwealth and authorized to conduct such business under the laws of the Commonwealth of Pennsylvania:

- A. **Worker's Compensation Insurance** for all of the Contractor's employees and those of any subcontractor, engaged in Work at the site of the project as required by law.
- B. **Public Liability and Property Damage Insurance** to protect the Commonwealth, the Contractor, and any and all subcontractors from claims for damages for personal injury (including bodily injury), sickness or disease, accidental death and damage to property including the loss of use resulting from any property damage, which may arise from the activities performed under the Contract or the failure to perform under the Contract, whether such performance or non-performance be by the Contractor, by any subcontractor, or by anyone directly or indirectly employed by either. **The minimum amounts of coverage shall be \$250,000 per person and \$1,000,000 per occurrence for bodily injury, including death, and \$250,000 per person and \$1,000,000 per occurrence for property damage.** Such policies shall be occurrence rather than claims-made policies and shall not contain any endorsements or any other form designated to limit and restrict any action by the Commonwealth, as an additional insured, against the insurance coverage in regard to Work performed for the Commonwealth.

Prior to commencement of the Work under the Contract and at each insurance renewal date during the term of the Contract, the Contractor shall provide the Commonwealth with current certificates of insurance. **These certificates or policies shall name the Commonwealth AND Pennsylvania Game Commission as additional insured and shall contain a provision that the coverage's afforded under the policies will not be cancelled or changed until at least thirty (30) days written notice has been given to the Commonwealth.**

COMPLIANCE WITH LAW – The Contractor shall comply with all applicable federal and state laws and regulations and local ordinances in the performance of the Contract.

WORKMANSHIP - All Work shall be performed in a Workmanlike manner and all materials and labor shall be in strict and entire conformity with the Drawings and Specifications.

INSPECTION AND CHANGES - All Work is subject to inspection and acceptance by the Pennsylvania Game Commission. Any Work rejected as defective or unsuitable shall be

removed and replaced with suitable Work and materials at the sole cost of the Contractor to the complete satisfaction of the Game Commission.

Changes shall be in accordance with the *Contract Terms and Conditions*.

TEMPORARY SERVICES AND JOB CONDITIONS - The Contractor shall be responsible for providing any and all temporary facilities necessary to execute and protect the Work. The Contractor shall accept all conditions as found upon examination of the site and shall coordinate, plan, and execute the Work accordingly. The Contractor shall cooperate in the arrangements of the Work as necessary to least affect the administration or operations of existing buildings, facilities, and infrastructure. The Contractor shall keep the Work site clean at all times.

PREVAILING WAGE – Prevailing minimum wages apply to this project. See *Contract Terms and Conditions* and attached Prevailing Wage Determination.

The Contractor and each Subcontractor shall file a statement each week and a final statement at the conclusion of the Work on the contract with the contracting agency, under oath, and in form satisfactory to the Secretary, certifying that workmen have been paid wages in strict conformity with the provisions of the contract as prescribed by this section or if wages remain unpaid to set forth the amount of wages due and owing to each workman respectively. The PA Labor and Industry “Weekly Payroll Certification for Public Works Projects” form shall be used. The initial and final Payroll Certifications shall be notarized.

PAYMENT TERMS - A schedule of values is provided with the bid. Payment will be made on a monthly basis upon satisfactory completion of items listed on the Schedule of Values and in accordance with the *Contract Terms and Conditions*.

All payments due to the Contractor shall be processed after all Work has been inspected and approved by an agent of the Pennsylvania Game Commission. Payment will not be made for Work that is not progressing satisfactorily or for unsuitable or defective Work.

Payments may be withheld for failure to provide required documentation for the project including but not limited to required submittals / shop drawings and weekly submission of Certified Payrolls.

INVOICING – All Project invoices shall be submitted directly to:

Foster Schaffer, Engineering Consultant
Pennsylvania Game Commission
2001 Elmerton Avenue
Harrisburg, PA 17110
Office: 717-787-4250, ext. 73322
Email: c-fschaffe@pa.gov

All invoices must be submitted in black and white with no color and shaded areas. Invoices must include the Purchase Order Number, Contractor’s SAP Vendor Number, and the Contractor’s

name and address as listed on the Purchase Order. Payment items on invoices shall match the items on the Purchase Order. Failure to submit invoices that meet these requirements will result in a delay of payment.

Please Note: Vendors are reminded to **NOT** include employer identification numbers, Social Security Numbers, bank account information, or other personally identifiable information on their invoices. That information is uniquely tied to your SAP Vendor Number and, for security purposes, should not be explicitly stated on an invoice.

CONTRACT TERM - The Contract shall commence upon delivery of Purchase Order to Contractor (estimated to be November 6, 2023) and shall terminate on **May 31, 2024**. Contract time is of the essence of the Project. All Work must be completed and accepted by this date. Extensions of time due to supply chain problems will be considered.

EXCISE TAXES, PENNSYLVANIA SALES TAX - The Commonwealth is exempt from all Excise Taxes. See *Contract Terms and Conditions*.

OFFSET PROVISION - The Contractor agrees that the Commonwealth may set off the amount of any state liability or other debt of the Contractor or its subsidiaries that is owed to the Commonwealth and not being contested on appeal against any payments due the Contractor under this or any other contract with the Commonwealth.

PERFORMANCE SECURITY / CONTRACT BONDS – Within 10 days after award of the purchase order, the Bidder to whom the Contract is awarded, shall provide **Contract Performance Security** and a **Payment Bond** in a form acceptable to the Commonwealth for the amounts listed below and in accordance with the *Contract Terms and Conditions*.

A **Performance Bond** at one hundred percent (100%) of the contract amount, conditioned upon the faithful performance of the contract in accordance with the plans, specifications and conditions of the contract.

A **Payment Bond** in an amount equal to one hundred percent (100%) of the contract amount.

Performance and Payment Bonds shall be executed by a surety company authorized to do business in the Commonwealth and listed on the current U.S. Dept. of Treasury, Bureau of Fiscal Service, Department Circular 570 (<https://fiscal.treasury.gov/surety-bonds/list-certified-companies.html>). Bonds shall include a current Power of Attorney dated the same as the date of the bond. Bonds shall be made payable to the Commonwealth.

GUARANTY / WARRANTY – See *Contract Terms and Conditions* – all items are warranted for a period of one year following delivery by the Contractor and acceptance by the Commonwealth.

HOLD HARMLESS PROVISION - See *Contract Terms and Conditions* - The Contractor shall hold the Commonwealth harmless from and indemnify the Commonwealth against any and

all third party claims, demands and actions based upon or arising out of any activities performed by the Contractor and its employees and agents under this Contract, provided the Commonwealth gives Contractor prompt notice of any such claim of which it learns.

ADDITIONAL PROVISIONS -

Contractor shall comply with the conditions listed below in accordance with the *Contract Terms and Conditions*:

1. **Steel Products Procurement Act**
2. **Prohibition Against the Use of Certain Steel and Aluminum Products (Trade Practices Act)**
3. **Reciprocal Limitations Act** - The form GSPUR89 (*Reciprocal Limitations Act Requirements*) is attached. The Contractor shall complete the applicable portions of pages 3 and 4 of the form and submit the completed pages within two days after the bid opening.
4. **Worker Protection and Investment Certification Form** - The form is attached. The Contractor shall complete the certification on the bottom of the form and submit it within two days after the bid opening.

**BUREAU OF LABOR LAW COMPLIANCE
PREVAILING WAGES PROJECT RATES**

Project Name:	Scotia Range Complex Renovation Project, Phase 1
Awarding Agency:	PA Game Commission
Contract Award Date:	10/18/2023
Serial Number:	23-07690
Project Classification:	Building/Heavy/Highway
Determination Date:	9/14/2023
Assigned Field Office:	Altoona
Field Office Phone Number:	(814)940-6224
Toll Free Phone Number:	
Project County:	Centre County

**BUREAU OF LABOR LAW COMPLIANCE
PREVAILING WAGES PROJECT RATES**

Project: 23-07690 - Building	Effective Date	Expiration Date	Hourly Rate	Fringe Benefits	Total
Asbestos & Insulation Workers	6/27/2022		\$38.80	\$30.01	\$68.81
Asbestos & Insulation Workers	6/26/2023		\$41.70	\$29.11	\$70.81
Asbestos & Insulation Workers	7/1/2024		\$38.80	\$34.06	\$72.86
Boilermakers	1/1/2023		\$51.27	\$35.30	\$86.57
Bricklayer	12/1/2022		\$34.14	\$22.38	\$56.52
Bricklayers, Stone Masons, Pointers, Caulkers, Cleaners	4/30/2023		\$38.43	\$18.53	\$56.96
Bricklayers, Stone Masons, Pointers, Caulkers, Cleaners	4/28/2024		\$40.28	\$18.53	\$58.81
Bricklayers, Stone Masons, Pointers, Caulkers, Cleaners	5/4/2025		\$42.13	\$18.53	\$60.66
Carpenters - Piledriver/Welder	1/1/2023		\$40.63	\$21.22	\$61.85
Carpenters - Piledriver/Welder	1/1/2024		\$42.13	\$21.97	\$64.10
Carpenters - Piledriver/Welder	1/1/2025		\$43.38	\$22.72	\$66.10
Carpenters - Piledriver/Welder	1/1/2026		\$44.63	\$23.47	\$68.10
Carpenters, Drywall Hangers, Framers, Instrument Men, Lathers, Soft Floor Layers	6/1/2022		\$32.05	\$17.87	\$49.92
Carpenters, Drywall Hangers, Framers, Instrument Men, Lathers, Soft Floor Layers	6/1/2023		\$33.01	\$18.41	\$51.42
Carpenters, Drywall Hangers, Framers, Instrument Men, Lathers, Soft Floor Layers	6/1/2024		\$33.97	\$18.95	\$52.92
Cement Finishers & Plasterers	4/30/2023		\$28.23	\$22.27	\$50.50
Cement Finishers & Plasterers	4/28/2024		\$30.23	\$22.27	\$52.50
Cement Finishers & Plasterers	5/4/2025		\$32.23	\$22.27	\$54.50
Cement Finishers & Plasterers	5/3/2026		\$34.23	\$22.27	\$56.50
Cement Masons	1/1/2023		\$30.24	\$19.20	\$49.44
Drywall Finisher	6/1/2022		\$32.00	\$21.89	\$53.89
Drywall Finisher	6/1/2023		\$32.39	\$23.75	\$56.14
Drywall Finisher	6/1/2024		\$34.01	\$24.88	\$58.89
Electricians & Telecommunications Installation Technician	12/26/2022		\$48.31	\$29.29	\$77.60
Elevator Constructor	1/1/2023		\$53.93	\$38.34	\$92.27
Glazier	9/1/2021		\$24.55	\$23.05	\$47.60
Glazier	9/1/2022		\$24.90	\$24.45	\$49.35
Iron Workers	6/1/2022		\$31.79	\$32.31	\$64.10
Iron Workers	6/1/2023		\$32.29	\$32.85	\$65.14
Laborers (Class 01 - See notes)	1/1/2023		\$25.31	\$17.29	\$42.60
Laborers (Class 01 - See notes)	1/1/2024		\$26.31	\$17.79	\$44.10
Laborers (Class 02 - See notes)	1/1/2023		\$28.06	\$17.29	\$45.35
Laborers (Class 02 - See notes)	1/1/2024		\$29.56	\$17.79	\$47.35
Laborers (Class 03 - See notes)	1/1/2023		\$27.66	\$17.29	\$44.95
Laborers (Class 03 - See notes)	1/1/2024		\$28.66	\$17.79	\$46.45
Laborers (Class 04 - See notes)	1/1/2023		\$24.31	\$17.29	\$41.60
Laborers (Class 04 - See notes)	1/1/2024		\$25.31	\$17.79	\$43.10
Landscape Laborer (Skilled)	1/1/2020		\$21.64	\$16.98	\$38.62
Landscape Laborer (Skilled)	1/1/2023		\$23.79	\$18.28	\$42.07
Landscape Laborer (Skilled)	1/1/2024		\$24.79	\$18.53	\$43.32

**BUREAU OF LABOR LAW COMPLIANCE
PREVAILING WAGES PROJECT RATES**

Project: 23-07690 - Building	Effective Date	Expiration Date	Hourly Rate	Fringe Benefits	Total
Landscape Laborer (Skilled)	1/1/2025		\$25.79	\$18.78	\$44.57
Landscape Laborer (Skilled)	1/1/2026		\$26.79	\$19.03	\$45.82
Landscape Laborer (Tractor Operator)	1/1/2020		\$21.94	\$16.98	\$38.92
Landscape Laborer (Tractor Operator)	1/1/2023		\$24.09	\$18.28	\$42.37
Landscape Laborer (Tractor Operator)	1/1/2024		\$25.09	\$18.53	\$43.62
Landscape Laborer (Tractor Operator)	1/1/2025		\$26.09	\$18.78	\$44.87
Landscape Laborer (Tractor Operator)	1/1/2026		\$27.09	\$19.03	\$46.12
Landscape Laborer	1/1/2020		\$21.22	\$16.98	\$38.20
Landscape Laborer	1/1/2023		\$23.37	\$18.28	\$41.65
Landscape Laborer	1/1/2024		\$24.37	\$18.53	\$42.90
Landscape Laborer	1/1/2025		\$25.37	\$18.78	\$44.15
Landscape Laborer	1/1/2026		\$26.37	\$19.03	\$45.40
Marble Mason	5/1/2023		\$34.80	\$17.74	\$52.54
Marble Mason	5/1/2024		\$36.75	\$17.74	\$54.49
Marble Mason	5/1/2025		\$38.70	\$17.74	\$56.44
Millwright	6/1/2020		\$41.68	\$20.32	\$62.00
Operators (Class 01 - see notes)	7/1/2022		\$34.17	\$20.62	\$54.79
Operators (Class 01 - see notes)	7/1/2023		\$35.87	\$20.92	\$56.79
Operators (Class 01 - see notes)	7/1/2024		\$36.87	\$21.42	\$58.29
Operators (Class 02 -see notes)	7/1/2022		\$29.55	\$20.62	\$50.17
Operators (Class 02 -see notes)	7/1/2023		\$31.25	\$20.92	\$52.17
Operators (Class 02 -see notes)	7/1/2024		\$32.87	\$21.42	\$54.29
Operators (Class 03 - See notes)	7/1/2022		\$27.00	\$20.62	\$47.62
Operators (Class 03 - See notes)	7/1/2023		\$28.70	\$20.92	\$49.62
Operators (Class 03 - See notes)	7/1/2024		\$29.70	\$21.42	\$51.12
Operators (Class 04 - Chief of Party (Surveying and Layout))	7/1/2022		\$26.60	\$20.62	\$47.22
Operators (Class 04 - Chief of Party (Surveying and Layout))	7/1/2023		\$28.30	\$20.92	\$49.22
Operators (Class 04 - Chief of Party (Surveying and Layout))	7/1/2024		\$29.30	\$21.42	\$50.72
Operators (Class 04 - Instrument Person (Surveying & Layout))	7/1/2022		\$25.60	\$20.62	\$46.22
Operators (Class 04 - Instrument Person (Surveying & Layout))	7/1/2023		\$27.30	\$20.92	\$48.22
Operators (Class 04 - Instrument Person (Surveying & Layout))	7/1/2024		\$28.30	\$21.42	\$49.72
Operators (Class 04 - Rodman/Chainman (Surveying and Layout))	7/1/2022		\$25.15	\$20.62	\$45.77
Operators (Class 04 - Rodman/Chainman (Surveying and Layout))	7/1/2023		\$26.85	\$20.92	\$47.77
Operators (Class 04 - Rodman/Chainman (Surveying and Layout))	7/1/2024		\$27.85	\$21.42	\$49.27
Painters Class 6 (see notes)	6/1/2022		\$29.50	\$22.82	\$52.32
Painters Class 6 (see notes)	6/1/2023		\$30.56	\$24.01	\$54.57
Painters Class 6 (see notes)	6/1/2024		\$32.14	\$24.93	\$57.07
Painters Class 6 (see notes)	6/1/2025		\$34.16	\$25.81	\$59.97

**BUREAU OF LABOR LAW COMPLIANCE
PREVAILING WAGES PROJECT RATES**

Project: 23-07690 - Building	Effective Date	Expiration Date	Hourly Rate	Fringe Benefits	Total
Pile Driver Divers (Building, Heavy, Highway)	1/1/2023		\$58.70	\$21.22	\$79.92
Pile Driver Divers (Building, Heavy, Highway)	1/1/2024		\$60.95	\$21.97	\$82.92
Pile Driver Divers (Building, Heavy, Highway)	1/1/2025		\$62.82	\$22.72	\$85.54
Pile Driver Divers (Building, Heavy, Highway)	1/1/2026		\$64.70	\$23.47	\$88.17
Piledrivers	1/1/2023		\$39.13	\$21.22	\$60.35
Piledrivers	1/1/2024		\$40.63	\$21.97	\$62.60
Piledrivers	1/1/2025		\$41.88	\$22.72	\$64.60
Piledrivers	1/1/2026		\$43.13	\$23.47	\$66.60
Plasterers	6/1/2022		\$29.95	\$13.61	\$43.56
Plasterers	6/1/2023		\$32.14	\$20.54	\$52.68
Plumber/Pipefitter	5/1/2023		\$41.36	\$29.72	\$71.08
Roofers (Composition)	5/1/2023		\$42.63	\$34.62	\$77.25
Roofers (Shingle)	5/1/2020		\$29.50	\$21.25	\$50.75
Roofers (Slate & Tile)	5/1/2020		\$32.50	\$21.25	\$53.75
Sheet Metal Workers	6/1/2022		\$40.22	\$41.01	\$81.23
Sheet Metal Workers	6/1/2023		\$41.41	\$42.32	\$83.73
Sign Makers and Hangars	7/15/2022		\$30.54	\$24.35	\$54.89
Sign Makers and Hangars	7/15/2023		\$31.76	\$24.63	\$56.39
Sprinklerfitters	4/1/2023		\$44.33	\$28.04	\$72.37
Terrazzo Finisher	5/1/2023		\$35.79	\$19.25	\$55.04
Terrazzo Finisher	5/1/2024		\$37.16	\$19.26	\$56.42
Terrazzo Grinder	5/1/2023		\$36.54	\$19.25	\$55.79
Terrazzo Grinder	5/1/2024		\$37.92	\$19.26	\$57.18
Terrazzo Mechanics	5/1/2023		\$36.51	\$21.00	\$57.51
Terrazzo Mechanics	5/1/2024		\$37.94	\$21.01	\$58.95
Terrazzo Setter	5/1/2019		\$31.81	\$19.67	\$51.48
Tile & Marble Finisher	5/1/2023		\$32.91	\$15.49	\$48.40
Tile & Marble Finisher	5/1/2024		\$34.86	\$15.49	\$50.35
Tile & Marble Finisher	5/1/2025		\$36.81	\$15.49	\$52.30
Tile Setter	5/1/2023		\$34.80	\$17.74	\$52.54
Tile Setter	5/1/2024		\$36.75	\$17.74	\$54.49
Tile Setter	5/1/2025		\$38.70	\$17.74	\$56.44
Truckdriver class 1(see notes)	1/1/2023		\$33.18	\$22.21	\$55.39
Truckdriver class 1(see notes)	1/1/2024		\$34.93	\$22.71	\$57.64
Truckdriver class 1(see notes)	1/1/2025		\$36.43	\$23.21	\$59.64
Truckdriver class 1(see notes)	1/1/2026		\$37.93	\$23.71	\$61.64
Truckdriver class 2 (see notes)	1/1/2023		\$33.64	\$22.52	\$56.16
Truckdriver class 2 (see notes)	1/1/2024		\$35.39	\$23.02	\$58.41
Truckdriver class 2 (see notes)	1/1/2025		\$36.89	\$23.52	\$60.41
Truckdriver class 2 (see notes)	1/1/2026		\$38.39	\$24.02	\$62.41
Truckdriver class 3 (see notes)	1/1/2016		\$28.23	\$16.98	\$45.21
Window Film / Tint Installer	10/1/2019		\$25.00	\$2.63	\$27.63

**BUREAU OF LABOR LAW COMPLIANCE
PREVAILING WAGES PROJECT RATES**

Project: 23-07690 - Heavy/Highway	Effective Date	Expiration Date	Hourly Rate	Fringe Benefits	Total
Carpenter	1/1/2023		\$38.35	\$20.59	\$58.94
Carpenter	1/1/2024		\$39.85	\$21.34	\$61.19
Carpenter	1/1/2025		\$41.10	\$22.09	\$63.19
Carpenter	1/1/2026		\$42.35	\$22.84	\$65.19
Carpenter Welder	1/1/2023		\$39.85	\$20.59	\$60.44
Carpenter Welder	1/1/2024		\$41.35	\$21.34	\$62.69
Carpenter Welder	1/1/2025		\$42.60	\$22.09	\$64.69
Carpenter Welder	1/1/2026		\$43.85	\$22.84	\$66.69
Carpenters - Piledriver/Welder	1/1/2023		\$40.63	\$21.22	\$61.85
Carpenters - Piledriver/Welder	1/1/2024		\$42.13	\$21.97	\$64.10
Carpenters - Piledriver/Welder	1/1/2025		\$43.38	\$22.72	\$66.10
Carpenters - Piledriver/Welder	1/1/2026		\$44.63	\$23.47	\$68.10
Cement Finishers	1/1/2023		\$34.14	\$25.05	\$59.19
Cement Finishers	1/1/2024		\$35.14	\$26.30	\$61.44
Cement Finishers	1/1/2025		\$35.94	\$27.50	\$63.44
Cement Masons	1/1/2020		\$32.84	\$21.10	\$53.94
Electric Lineman	5/30/2022		\$51.42	\$28.85	\$80.27
Electric Lineman	5/29/2023		\$52.56	\$29.99	\$82.55
Electric Lineman	6/3/2024		\$53.97	\$31.05	\$85.02
Iron Workers (Bridge, Structural Steel, Ornamental, Precast, Reinforcing)	6/1/2022		\$31.79	\$32.31	\$64.10
Iron Workers (Bridge, Structural Steel, Ornamental, Precast, Reinforcing)	6/1/2023		\$32.29	\$32.85	\$65.14
Laborers (Class 01 - See notes)	1/1/2023		\$29.85	\$25.50	\$55.35
Laborers (Class 01 - See notes)	1/1/2024		\$32.10	\$25.50	\$57.60
Laborers (Class 01 - See notes)	1/1/2025		\$33.60	\$26.00	\$59.60
Laborers (Class 01 - See notes)	1/1/2026		\$34.60	\$27.00	\$61.60
Laborers (Class 02 - See notes)	1/1/2023		\$30.01	\$25.50	\$55.51
Laborers (Class 02 - See notes)	1/1/2024		\$32.26	\$25.50	\$57.76
Laborers (Class 02 - See notes)	1/1/2025		\$33.76	\$26.00	\$59.76
Laborers (Class 02 - See notes)	1/1/2026		\$34.76	\$27.00	\$61.76
Laborers (Class 03 - See notes)	1/1/2023		\$30.50	\$25.50	\$56.00
Laborers (Class 03 - See notes)	1/1/2024		\$32.75	\$25.50	\$58.25
Laborers (Class 03 - See notes)	1/1/2025		\$34.25	\$26.00	\$60.25
Laborers (Class 03 - See notes)	1/1/2026		\$35.25	\$27.00	\$62.25
Laborers (Class 04 - See notes)	1/1/2023		\$30.95	\$25.50	\$56.45
Laborers (Class 04 - See notes)	1/1/2024		\$33.20	\$25.50	\$58.70
Laborers (Class 04 - See notes)	1/1/2025		\$34.70	\$26.00	\$60.70
Laborers (Class 04 - See notes)	1/1/2026		\$35.70	\$27.00	\$62.70
Laborers (Class 05 - See notes)	1/1/2023		\$31.36	\$25.50	\$56.86
Laborers (Class 05 - See notes)	1/1/2024		\$33.61	\$25.50	\$59.11
Laborers (Class 05 - See notes)	1/1/2025		\$35.11	\$26.00	\$61.11
Laborers (Class 05 - See notes)	1/1/2026		\$36.11	\$27.00	\$63.11
Laborers (Class 06 - See notes)	1/1/2023		\$28.20	\$25.50	\$53.70
Laborers (Class 06 - See notes)	1/1/2024		\$30.45	\$25.50	\$55.95

**BUREAU OF LABOR LAW COMPLIANCE
PREVAILING WAGES PROJECT RATES**

Project: 23-07690 - Heavy/Highway	Effective Date	Expiration Date	Hourly Rate	Fringe Benefits	Total
Laborers (Class 06 - See notes)	1/1/2025		\$31.95	\$26.00	\$57.95
Laborers (Class 06 - See notes)	1/1/2026		\$32.95	\$27.00	\$59.95
Laborers (Class 07 - See notes)	1/1/2023		\$30.85	\$25.50	\$56.35
Laborers (Class 07 - See notes)	1/1/2024		\$33.10	\$25.50	\$58.60
Laborers (Class 07 - See notes)	1/1/2025		\$34.60	\$26.00	\$60.60
Laborers (Class 07 - See notes)	1/1/2026		\$35.60	\$27.00	\$62.60
Laborers (Class 08 - See notes)	1/1/2023		\$32.35	\$25.50	\$57.85
Laborers (Class 08 - See notes)	1/1/2024		\$34.60	\$25.50	\$60.10
Laborers (Class 08 - See notes)	1/1/2025		\$36.10	\$26.00	\$62.10
Laborers (Class 08 - See notes)	1/1/2026		\$37.10	\$27.00	\$64.10
Millwright	6/1/2020		\$41.68	\$20.32	\$62.00
Millwright	6/1/2023		\$45.50	\$23.72	\$69.22
Millwright	6/1/2024		\$47.59	\$23.72	\$71.31
Millwright	6/1/2025		\$49.72	\$23.72	\$73.44
Operators (Class 01 - see notes)	1/1/2023		\$36.79	\$23.58	\$60.37
Operators (Class 01 - see notes)	1/1/2024		\$38.59	\$24.03	\$62.62
Operators (Class 01 - see notes)	1/1/2025		\$40.39	\$24.23	\$64.62
Operators (Class 02 -see notes)	1/1/2023		\$36.53	\$23.58	\$60.11
Operators (Class 02 -see notes)	1/1/2024		\$38.33	\$24.03	\$62.36
Operators (Class 02 -see notes)	1/1/2025		\$40.13	\$24.23	\$64.36
Operators (Class 03 - See notes)	1/1/2023		\$32.88	\$23.58	\$56.46
Operators (Class 03 - See notes)	1/1/2024		\$34.68	\$24.03	\$58.71
Operators (Class 03 - See notes)	1/1/2025		\$36.48	\$24.23	\$60.71
Operators (Class 04 - See notes)	1/1/2023		\$32.42	\$23.58	\$56.00
Operators (Class 04 - See notes)	1/1/2024		\$34.22	\$24.03	\$58.25
Operators (Class 04 - See notes)	1/1/2025		\$36.02	\$24.23	\$60.25
Operators (Class 05 - See notes)	1/1/2023		\$32.17	\$23.58	\$55.75
Operators (Class 05 - See notes)	1/1/2024		\$33.97	\$24.03	\$58.00
Operators (Class 05 - See notes)	1/1/2025		\$35.77	\$24.23	\$60.00
Operators Class 1-A	1/1/2023		\$39.79	\$23.58	\$63.37
Operators Class 1-A	1/1/2024		\$41.59	\$24.03	\$65.62
Operators Class 1-A	1/1/2025		\$43.39	\$24.23	\$67.62
Operators Class 1-B	1/1/2023		\$38.79	\$23.58	\$62.37
Operators Class 1-B	1/1/2024		\$40.59	\$24.03	\$64.62
Operators Class 1-B	1/1/2025		\$42.39	\$24.23	\$66.62
Painters Class 1 (see notes)	6/1/2022		\$34.45	\$22.82	\$57.27
Painters Class 2 (see notes)	6/1/2019		\$35.25	\$20.06	\$55.31
Painters Class 2 (see notes)	6/1/2023		\$36.01	\$24.01	\$60.02
Painters Class 2 (see notes)	6/1/2024		\$38.09	\$24.93	\$63.02
Painters Class 2 (see notes)	6/1/2025		\$40.36	\$25.81	\$66.17
Painters Class 3 (see notes)	6/1/2022		\$36.77	\$22.82	\$59.59
Painters Class 3 (see notes)	6/1/2023		\$38.33	\$24.01	\$62.34
Painters Class 3 (see notes)	6/1/2024		\$40.66	\$24.93	\$65.59
Painters Class 3 (see notes)	6/1/2025		\$43.69	\$25.81	\$69.50

**BUREAU OF LABOR LAW COMPLIANCE
PREVAILING WAGES PROJECT RATES**

Project: 23-07690 - Heavy/Highway	Effective Date	Expiration Date	Hourly Rate	Fringe Benefits	Total
Painters Class 4 (see notes)	6/1/2019		\$28.20	\$20.06	\$48.26
Painters Class 5 (see notes)	6/1/2019		\$22.91	\$20.06	\$42.97
Pile Driver Divers (Building, Heavy, Highway)	1/1/2023		\$58.70	\$21.22	\$79.92
Pile Driver Divers (Building, Heavy, Highway)	1/1/2024		\$60.95	\$21.97	\$82.92
Pile Driver Divers (Building, Heavy, Highway)	1/1/2025		\$62.82	\$22.72	\$85.54
Pile Driver Divers (Building, Heavy, Highway)	1/1/2026		\$64.70	\$23.47	\$88.17
Piledrivers	1/1/2023		\$39.13	\$21.22	\$60.35
Piledrivers	1/1/2024		\$40.63	\$21.97	\$62.60
Piledrivers	1/1/2025		\$41.88	\$22.72	\$64.60
Piledrivers	1/1/2026		\$43.13	\$23.47	\$66.60
Steamfitters (Heavy and Highway - Gas Distribution)	5/1/2022		\$48.43	\$40.28	\$88.71
Truckdriver class 1(see notes)	1/1/2023		\$33.18	\$22.21	\$55.39
Truckdriver class 1(see notes)	1/1/2024		\$34.93	\$22.71	\$57.64
Truckdriver class 1(see notes)	1/1/2025		\$36.43	\$23.21	\$59.64
Truckdriver class 1(see notes)	1/1/2026		\$37.93	\$23.71	\$61.64
Truckdriver class 2 (see notes)	1/1/2023		\$33.64	\$22.52	\$56.16
Truckdriver class 2 (see notes)	1/1/2024		\$35.39	\$23.02	\$58.41
Truckdriver class 2 (see notes)	1/1/2025		\$36.89	\$23.52	\$60.41
Truckdriver class 2 (see notes)	1/1/2026		\$38.39	\$24.02	\$62.41
Truckdriver class 3 (see notes)	1/1/2019		\$29.59	\$19.82	\$49.41

RECIPROCAL LIMITATIONS ACT REQUIREMENTS

Please Complete Applicable Portion of Pages 3 & 4 and Return with Bid.

NOTE: These Requirements Do Not Apply To Bids Under \$10,000.00

I. REQUIREMENTS

- A. The Reciprocal Limitations Act requires the Commonwealth to give preference to those bidders offering supplies produced, manufactured, mined or grown in Pennsylvania as against those bidders offering supplies produced, manufactured, mined or grown in any state that gives or requires a preference to supplies produced, manufactured, mined or grown in that state. The amount of the preference shall be equal to the amount of the preference applied by the other state for that particular supply.

The following is a list of states which have been found by the Department of General Services to have applied a preference for in-state supplies and the amount of the preference:

STATE	PREFERENCE
1. Alaska	7% (applies only to timber, lumber, and manufactured lumber products originating in the state)
2. Arizona	5% (construction materials produced or manufactured in the state only)
3. Hawaii	10%
4. Illinois	10% for coal only
5. Iowa	5% for coal only
6. Louisiana	4% meat and meat products 4% catfish 10% milk & dairy products 10% steel rolled in Louisiana
7. Montana	7% all other products 5% for residents * 3% for non-residents* *offering in-state goods, supplies, equipment and materials
8. New Mexico	5%
9. New York	3% for purchase of food only
10. Oklahoma	5%
11. Virginia	4% for coal only
12. Washington	5% (fuels mined or produced in the state only)
13. Wyoming	5%

- B. The Reciprocal Limitations Act requires the Commonwealth to give preference to those bidders offering printing performed in Pennsylvania as against those bidders offering printing performed in any state that gives or requires a preference to printing performed in that state. The amount of the preference shall be equal to the amount of the preference applied by the other state for that particular category of printing.

The following is a list of states which have been found by the Department of General Services to have applied a preference for in-state printing and the amount of the preference:

STATE	PREFERENCE
1. Hawaii	15%
2. Idaho	10%
3. Louisiana	3%
4. Montana	8%
5. New Mexico	5%
6. Wyoming	10%

- C. The Reciprocal Limitations Act, also requires the Commonwealth to give resident bidders a preference against a nonresident bidder from any state that gives or requires a preference to bidders from that state or exclude bidders from states that exclude nonresident bidders. The amount of the preference shall be equal to the amount of the preference applied by the state of the nonresident bidder. The following is a list of the states which have been found by the Department of General Services to have applied a preference for in-state bidders and the amount of the preference:

STATE	PREFERENCE
1. Alaska	5% (supplies only)
2. Arizona	5% (construction materials from Arizona resident dealers only)
3. California	5% (for supply contracts only in excess of \$100,000.00)
4. Connecticut	10% (for supplies only)
5. Montana	3%
6. New Mexico	5% (for supplies only)
7. South Carolina	2% (under \$2,500,000.00) 1% (over \$2,500,000.00)
This preference does not apply to construction contracts nor where the price of a single unit exceeds \$10,000.	
8. West Virginia	2.5% (for the construction, repair or improvement of any buildings)
9. Wyoming	5%

STATE	PROHIBITION
1. New Jersey	For supply procurements or construction projects restricted to Department of General Services Certified Small Businesses, New Jersey bidders shall be excluded from award even if they themselves are Department of General Services Certified Small Businesses.

- D. The Reciprocal Limitations Act also requires the Commonwealth not to specify, use or purchase supplies which are produced, manufactured, mined or grown in any state that prohibits the specification for, use, or purchase of such items in or on its public buildings or other works, when such items are not produced, manufactured, mined or grown in such state. The following is a list of the states which have been found by the Department of General Services to have prohibited the use of out-of-state supplies:

STATE	PROHIBITION
1. Alabama	Only for printing and binding involving "messages of the Governor to the Legislature", all bills, documents and reports ordered by and for the use of the Legislature or either house thereof while in session; all blanks, circulars, notices and forms used in the office of or ordered by the Governor, or by any state official, board, commission, bureau or department, or by the clerks of the supreme court . . . /and other appellate courts/; and all blanks and forms ordered by and for the use of the Senate and Clerk or the House of Representatives, and binding the original records and opinions of the Supreme Court . . . /and other appellate courts/
2. Georgia	Forest products only
3. Indiana	Coal
4. Michigan	Printing
5. New Mexico	Construction
6. Ohio	Only for House and Senate bills, general and local laws, and joint resolutions; the journals and bulletins of the Senate and house of Representatives and reports, communications, and other documents which form part of the journals; reports, communications, and other documents ordered by the General Assembly, or either House, or by the executive department or elective state officers; blanks, circulars, and other work for the use of the executive departments, and elective state officers; and opinions of the Attorney General.
7. Rhode Island	Only for food for state institutions.

*If the bid discloses that the bidder is offering to supply one of the above-listed products that is manufactured, mined, or grown in the listed state, it shall be rejected. Contractors are prohibited from supplying these items from these states.

II. CALCULATION OF PREFERENCE

In calculating the preference, the amount of a bid submitted by a Pennsylvania bidder shall be reduced by the percentage preference which would be given to a nonresident bidder by its state of residency (as found by the Department of General Services in Paragraph C above). Similarly, the amount of a bid offering Pennsylvania goods, supplies, equipment or materials shall be reduced by the percentage preference which would be given to another bidder by the state where the goods, supplies, equipment or materials are produced, manufactured, mined or grown (as found by the Department of General Services in Paragraphs A and B above).

THIS FORM MUST BE COMPLETED AND RETURNED WITH THE BID

III. STATE OF MANUFACTURE

All bidders must complete the following chart by listing the name of the manufacturer and the state (or foreign country) of manufacture for each item. If the item is domestically produced, the bidder must indicate the state in the United States where the item will be manufactured. **This chart must be completed and submitted with the bid or no later than two (2) business days after notification from the Issuing Office to furnish the information. Failure to complete this chart and provide the required information prior to the expiration of the second business day after notification shall result in the rejection of the bid.**

ITEM NUMBER	NAME OF MANUFACTURER	STATE (OR FOREIGN COUNTRY) OF MANUFACTURE

IV. BIDDER'S RESIDENCY

A. In determining whether the bidder is a nonresident bidder from a state that gives or requires a preference to bidders from that state, the address given on the first page of this invitation to bid shall be used by the Commonwealth. If that address is incorrect, or if no address is given, the correct address should be provided in the space below:

Correct Address: _____

B. In order to claim the preference provided under Section I.B., Pennsylvania resident bidders must complete the following or have such information on file with the Issuing Office:

1. Address of bidder's bona fide establishment in Pennsylvania at which it was transacting business on the date when bids for this contract/requisition were first solicited: _____

2. a. If the bidder is a corporation:

(1) The corporation is or is not incorporated under the laws of the Commonwealth of Pennsylvania.

(a) If the bidder is incorporated under the laws of the Commonwealth of Pennsylvania, provide date of incorporation: _____

(b) If the bidder is not incorporated under the laws of the Commonwealth of Pennsylvania, it must have a certificate of authority to do business in the Commonwealth of Pennsylvania from the Pennsylvania Department of State as required by the Pennsylvania Business Corporation Law (15 P.S. §2001). Provide date of issuance of certificate of authority: _____

(2) The corporation is or is not conducting business in Pennsylvania under an assumed or fictitious name. If the bidder is conducting business under an assumed or fictitious name, it must register the fictitious name with the Secretary of the Commonwealth and the office of the prothonotary of the county wherein the registered office of such corporation is located as required by the Fictitious Corporate Name Act, as amended 15 P.S. §51 et seq. Corporate bidders conducting business under an assumed or fictitious name must provide date of registry of the assumed or fictitious name: _____

b. If the bidder is a partnership:

(1) The partnership is or is not conducting business in Pennsylvania under an assumed or fictitious name. If the bidder is conducting business under an assumed or fictitious name, it must file with the Secretary of the Commonwealth and the office of the prothonotary the county wherein the principal place of business is located as required by the Fictitious Name Act of May 24, 1945, P.L. 967, as amended 54 P.S. §28.1. Partnerships conducting business under an assumed or fictitious name must provide the date of filing of the assumed or fictitious name with the Secretary of the Commonwealth: _____

(2) The partnership is or is not a limited partnership formed under the laws of any jurisdiction other than the Commonwealth of Pennsylvania. If the bidder is an Out-of-state limited partnership, it must register with the Pennsylvania Department of State as required by the Act of July 10, 1981, P.L. 237, as amended, 59 Pa. C.S.A. §503. Out-of-state limited partnerships must provide the date of registry with the Pennsylvania Department of State: _____

c. If the bidder is an individual:

He or she is or is not conducting business under an assumed or fictitious name. If the bidder is conducting business under an assumed or fictitious name, he or she must file with the Secretary of the Commonwealth and the office of the prothonotary in the county wherein the principal place of business is located as required by the Fictitious Name Act of May 24, 1945, P.L. 967, as amended, 54 P.S. §28.1. Individuals conducting business under an assumed or fictitious name must provide the date of filing of the assumed or fictitious name with the Secretary of the Commonwealth: _____



WORKER PROTECTION AND INVESTMENT CERTIFICATION FORM

A. Pursuant to Executive Order 2021-06, *Worker Protection and Investment*. (October 21, 2021), the Commonwealth is responsible for ensuring that every worker in Pennsylvania has a safe and healthy work environment and the protections afforded them through labor laws. To that end, contractors and grantees of the Commonwealth must certify that they are in compliance with Pennsylvania’s Unemployment Compensation Law, Workers’ Compensation Law, and all applicable Pennsylvania state labor and workforce safety laws including, but not limited to:

1. Construction Workplace Misclassification Act
2. Employment of Minors Child Labor Act
3. Minimum Wage Act
4. Prevailing Wage Act
5. Equal Pay Law
6. Employer to Pay Employment Medical Examination Fee Act
7. Seasonal Farm Labor Act
8. Wage Payment and Collection Law
9. Industrial Homework Law
10. Construction Industry Employee Verification Act
11. Act 102: Prohibition on Excessive Overtime in Healthcare
12. Apprenticeship and Training Act
13. Inspection of Employment Records Law

B. Pennsylvania law establishes penalties for providing false certifications, including contract termination; and three-year ineligibility to bid on contracts under 62 Pa. C.S. § 531 (Debarment or suspension).

CERTIFICATION

I, the official named below, certify I am duly authorized to execute this certification on behalf of the contractor/grantee identified below, and certify that the contractor/grantee identified below is compliant with applicable Pennsylvania state labor and workplace safety laws, including, but not limited to, those listed in Paragraph A, above. I understand that I must report any change in the contractor/grantee’s compliance status to the Purchasing Agency immediately. I further confirm and understand that this Certification is subject to the provisions and penalties of 18 Pa. C.S. § 4904 (Unsworn falsification to authorities).

<i>Signature</i>	<i>Date</i>
<i>Name (Printed)</i>	
<i>Title of Certifying Official (Printed)</i>	
<i>Contractor/Grantee Name (Printed)</i>	

TECHNICAL SPECIFICATIONS

The following stipulations, specifications and description of work are defined and described as Technical Specifications and it is understood and agreed that everything herein contained is hereby made part of the contract. Wherever any feature of the work is not fully set forth in these Technical Specifications, it must be understood that the same shall be governed by the rules of the best prevailing practice for that class of work, as determined by the Game Commission's Representative.

These Technical Specifications and any drawings, maps and/or plans forming a part thereof, will cover the furnishing of all labor, technical assistance, equipment, tools and materials necessary to perform the design and construction work, as required under this contract.

- Section 1 – Summary of Work
- Section 2 – Erosion and Sedimentation Control
- Section 3 – Demolition of Existing Structures
- Section 4 – Excavation
- Section 5 – Compacted Backfill
- Section 6 – Aggregate
- Section 7 - Concrete
- Section 8 – Shooting Station Shelters
- Section 9 – Archery Target Stations
- Section 10 – Bow Holders
- Section 11 – Steel Target Lines
- Section 12 – Set Shotgun Target Stations
- Section 13 – Install Shooting Tables
- Section 14 – Handicapped Parking Signs
- Section 15 – Concrete Block Wall
- Section 16 – Chain Link Fence
- Section 17 – Guard Posts
- Section 18 – Mulch
- Section 19 – Metal Screen
- Section 20 - Seeding

DRAWINGS

The following drawings are included:

- 1 of 9 - Location Map, Site Photo and Notes
- 2 of 9 - Archery Range Plan and Details
- 3 of 9 - Archery Target Station Details
- 4 of 9 - Shotgun Pattern Range and Details
- 5 of 9 - 50YD / 25YD Rifle Range Plan
- 6 of 9 – 50YD / 25YD Rifle Range Sections
- 7 of 9 – 10YD / 20YD Pistol Range Plan and Sections
- 8 of 9 – Shooting Station Shelter and Parking Area Details
- 9 of 9 – Target Line Details and Fence Plan

TECHNICAL SPECIFICATION SECTION 1 - SUMMARY OF WORK

1.1 – SCOPE OF PROJECT

The intent of this project is to renovate an existing shooting range complex. The complex has four ranges scheduled to be renovated for this project. The shooting range complex is located on State Game Lands #176, Halfmoon Township, Centre County. The project consists of demolishing existing structures, constructing earth embankments, constructing covered shooting station shelters, installing steel target lines, removing / installing chain link fence and placement of AASHTO #10 aggregate for stone paths, target lines and backstop facing.

1.2 – WORK AREA

The shooting range complex is on State Game Lands #176 which is about 6 miles west of downtown State College south of US Route 322. The site is owned by the Pennsylvania Game Commission (PGC).

1.3 – WORK HOURS

The work hours at the project site are during regular PGC business hours which are Monday through Friday, 7:45AM to 4:00PM. Work during different hours must have prior written approval by the PGC. Requests for different working hours must be submitted in writing three days in advance.

1.4 – ACCESS TO WORK AREA

Access to the work area is directly from a stone access road which connects to paved public road. The Contractor must keep the access road open to travel and repair any ruts or other damage caused by construction equipment.

1.5 – PROJECT LAYOUT

The Contractor is responsible for horizontal and vertical layout and control according to the dimensions shown on the Drawings. All stakes, targets, grade markers, etc. used to establish locations and lines are the responsibility of the Contractor.

1.6 – PERMITS, LAWS AND REGULATIONS

The PGC has acquired a building permit from the PA Department of Labor & Industry (L&I) for construction of this project. The permit and inspection log are attached to this section of the specifications. The Contractor shall contact the L&I Inspector to keep him informed on progress so that the required inspections can take place. Local building code officials have no jurisdiction over this project.

The Contractor shall comply with all laws, ordinances, rules, orders and regulations relating to the performance of the work, the protection of adjacent property, the maintaining of surface passageways, guard fences, and/or other protective facilities.

All applicable Federal and State laws and regulations, municipal ordinances and rules and regulations of all authorities, having jurisdiction over construction of the project shall apply to the contract throughout, and they shall be deemed to be included in the contract as a part, thereof, the same as though herein written out in full.

All regulations of the Occupational Safety and Health Act are in effect on this contract. It will be the Contractor's responsibility to make himself aware of all appropriate County, State and Federal regulations that apply to this contract.

Any violations incurred from improper execution of the above provisions shall be paid for by the Contractor. Loss of time on the project from such violations will not be tolerated.

1.7 – SCHEDULE

The Contract is to be completed by May 31, 2024. If the work is delayed by weather or other conditions beyond the contractor's control, the PGC will consider extending the completion date.

COMMONWEALTH OF PENNSYLVANIA

DEPARTMENT OF LABOR AND INDUSTRY

Bureau of Occupational and Industrial Safety



UNIFORM CONSTRUCTION CODE

BUILDING PERMIT

The plans and specifications for the building or structure named below have been reviewed by the Department of Labor and Industry and found to be in compliance with the Pennsylvania Construction Code Law (1999, November 10, P.L. 491, No. 45).

Permit Number	202300909
Permit Holder	PA GAME COMMISSION ENGINEERING DIVISION
Address	2001 ELMERTON AVENUE HARRISBURG PA 17110
Building/Structure Name	GAME COMMISSION SGL 176 - NEW SHOOTING RANGE COMPLEX
Building Address	1396 SCOTIA RANGE RD PORT MATILDA 16870
Political Subdivision:	HALFMOON TOWNSHIP
County:	CENTRE
Approved use and occupancy classification(s)	A3
Approved construction type	VB
Plan code	STRUCTURE

This permit authorizes construction of the above named building or structure in accordance with the Pennsylvania Construction Code Act, its regulations and all plans and specifications approved by the Department. A copy of this permit shall be retained at the work site until the completion of all construction.

File Number	549265
Date Issued	9/1/2023

A handwritten signature in black ink, appearing to read "Joseph C. Martin".

Joseph C. Martin
Building Code Official

A highway access occupancy permit is required under S420 of the State highway Law (36 P.S. 670-420) before driveway access to a commonwealth highway is permitted.

Uniform Construction Code (UCC)
INSPECTION LOG

THIS LOG MUST BE RETAINED AT THE CONSTRUCTION OR DEMOLITION SITE UNTIL THE COMPLETION OF ALL WORK AND MUST BE MADE AVAILABLE TO ALL DEPARTMENT CODE OFFICIALS, UPON REQUEST. All Inspections preceded by a "Y" must be performed in accordance with the approved construction documents and section 403.45 of the UCC before a "Certificate of Compliance or a Certificate of Occupancy and Use" will be issued. This document's only use is to inform the permit holder of required inspections and is to enable L&I staff to record the completion of these inspections during the course of the construction process. It is not intended to document the fulfillment of all required UCC obligations or establish the right to legally occupy the building or structure named below.

Drawing Index Number: 202300909 **File Number:** 549265
Building/Structure Name: GAME COMMISSION
Address: 1396 SCOTIA RANGE RD
PORT MATILDA PA 16870

Requests for inspections must be made in conformance with the Inspection Procedures Statement and should be directed to the inspector named below.

Inspector: James Young (814)441-3475 jayoung@pa.gov

If unavailable, contact Central Office: 717-787-1291 jecole@pa.gov

REQUIRED	INSPECTION	INSPECTOR (PRINT)	INSPECTOR (SIGNATURE)	DATE ACCEPTED
Y	Footing Environment			
Y	Foundation			
Y	Concrete Under Slab/Floor			
	Underground Plumbing			
	Underground Mechanical			
	Underground Electrical			
	Plumbing Rough-in			
	Mechanical Rough-in			
	Electrical Rough-in			
D	Framing			
	Insulation			
	Fire Protection			
Y	Accessibility Final			
	Energy Final			
	Mechanical Final			
	Electrical Final			
	Plumbing Final			
	Building Final			
	Demolition Final			
	Alterations Final			
	Sign Final			
Y	Structure Final			

**TECHNICAL SPECIFICATION SECTION 2 - EROSION AND
SEDIMENTATION CONTROL**

2.1 -SCOPE

This work is implementing the erosion and sedimentation control measures during project construction. Compliance with Chapter 102 of the Department of Environmental Protection's regulations is also required.

2.2 - PROCEDURE

Implement the measures listed below to alleviate excessive erosion and sedimentation caused by construction methods or equipment.

Failure to implement soil erosion and sediment pollution control measures may result in a cease and desist order, causing shutdown of the work. No extension of time, nor additional compensation will be granted if such a shutdown should occur as a result of act or neglect of the Contractor.

Immediately upon completion of any segment of the project, seed that segment in accordance with Technical Specification Section 20. The Contractor may, with the approval of the Game Commission, perform temporary seeding operations in order to maintain finished graded areas until the optimum time for performing permanent seeding.

2.3 - MEASUREMENT AND PAYMENT

None, costs are incidental to the other work performed.

TECHNICAL SPECIFICATION SECTION 3 – DEMOLITION OF EXISTING STRUCTURES

3.1 – SCOPE

The work included in this section consists of demolition, removal and disposal of the existing structures at the range complex. The structures include a precast concrete block target station and wood posts at the archery range, the shooting station shelter and concrete slab at the rifle range and steel target holders at the rifle and pistol ranges.

3.2 – PROCEDURE

A – General – The Contractor shall inspect the structures to formulate a plan to demolish the structures in a safe manner. All components of the structures except the shooting tables are to be removed from the site. Blasting or burning for demolition is not permitted and burning demolished building components or litter on-site is not permitted.

B – Demolition – Furnish all labor, equipment and materials necessary to demolish the structures completely and remove the components from the site. The structures can be simply knocked down and removed or disassembled piece by piece. All structure components except the shooting tables are considered property of the Contractor and can be salvaged and sold by the Contractor to offset the costs of the project.

C – Disposal – All demolished building materials are to be removed from the site. The Contractor is encouraged to salvage and recycle any of the building materials. Building materials that cannot be salvaged or recycled shall be disposed of at an approved landfill or incinerator. The Contractor shall adhere to all DEP solid waste disposal regulations. The Contractor shall supply copies of all landfill receipts for the demolished material to verify that proper disposal procedures were followed. Receipts for materials salvaged by the Contractor are not required.

3.3 – MEASUREMENT AND PAYMENT

Lump Sum.

TECHNICAL SPECIFICATION SECTION NO. 4 - EXCAVATION

4.1- SCOPE

This work is removal, hauling, and disposal of all materials encountered for construction of the new structures and features at the shooting range complex as indicated on the Drawings, or designated by the Game Commission.

Stripping operations are only to remove the sod and top layer of organic soil for construction of the new range features.

4.2 - PROCEDURE

A. General - Follow all guidelines set forth in the Construction Industry Standards, OSHA 2207, of the Occupational Safety and Health Administration, U.S. Department of Labor. Protect the work, adjacent roadways, and property.

The Contractor is required to contact the PA One Call System at 1-800-242-1776 prior to earthmoving operations at the site.

The Contractor is responsible for laying out the new range features and setting grade and line from the dimensions shown on the Drawings. Do not over-excavate because unauthorized excavation and replacement of materials in the over-excavated areas will not be measured and paid for. Replace over-excavated work with concrete, gravel, earth or other materials designated by, and at no additional cost to the Game Commission.

B. Stripping - Remove all materials to the limits shown on the Drawings or as necessary to construct the new range features. Do not strip sod and soil beyond the limits necessary for construction of the range features.

C. Augering – Use suitable equipment to auger holes for support posts for the shooting station shelters. Auger and remove earth material to the required depths. Have the inspector check the depth of augered holes before proceeding with construction of the shooting station shelters and target stations.

D. Disposal – Suitable soil material can be used for backfill of range features and to construct the sideberm embankment at the rifle range. The Contractor is responsible for repairing any damage to the existing range area caused by trucks and other equipment used to transport and spoil the excavated material.

4.3 - MEASUREMENT AND PAYMENT

Lump Sum.

TECHNICAL SPECIFICATION SECTION NO. 5 – COMPACTED BACKFILL

5.1 - SCOPE

This work is backfilling the support posts at the shooting station shelters with materials obtained from the required excavation. Constructing the sideberm and backstop embankments is also included in this section.

5.2 - MATERIALS

Secure some materials from the required excavation on the project site. Materials shall be free from trash, roots, brush, frozen and other objectionable materials. The material can contain stones provided that the stones are smaller than 3-inches. Obtain additional material from an off-site borrow source for construction of the sideberm embankment. The vast majority of material shall be trucked to the site from an off-site borrow source.

5.3 - PROCEDURE

Place backstop material in the dry. For backfill of structure foundations, place material in layers not exceeding four (4) inches in depth and compact each layer with vibratory compactors. Acceptable compaction will be determined on the basis of non-movement of the material under the compaction equipment. If the density and/or moisture content of the backfill is not satisfactory, replace and/or recompact the materials to the satisfaction of, and at no additional cost to the Game Commission.

For construction of the sideberm and backstop embankments, place material in layers not exceeding eight (8) inches in depth, and compacted with a roller or tracked equipment. Do not drop backfill materials, but scatter and bring up evenly. Add water or dry the backfill materials as necessary to attain as close to the optimum moisture content as possible during compaction. No free water shall drain off and adversely affect the underlying or adjacent materials. Acceptable compaction will be determined on the basis of non-movement of the material under the compaction equipment. If the density and/or moisture content of the backfill is not satisfactory, replace and/or recompact the materials to the satisfaction of, and at no additional cost to the Game Commission.

Stones having dimensions greater than three inches must be removed from the top one-foot layer on the faces of the sideberm and backstop embankments exposed to the shooting areas.

Shape the embankments so that the lines and grades conform to the dimensions and guidelines of the cross sections on the drawings. Smooth the surface for placement of seed.

5.4 - MEASUREMENT AND PAYMENT

Cubic yards measured by the three-dimensional volume method.

TECHNICAL SPECIFICATION SECTION NO.6 - AGGREGATE

6.1 - SCOPE

This work is placing stone on the target line areas and backstop slopes, construction of paths, placing stone for the subbase of the shooting station slabs, concrete sidewalks and shotgun pattern station slabs, and surfacing along the front edges of the shooting station floor slabs as shown on the Drawings.

6.2 - MATERIALS

Stone for the paths, backstop slopes and target line areas shall be AASHTO #10 as specified in Section 703.2 of PennDOT Pub. 408.

Stone for the subbase of the concrete shooting station slabs, concrete sidewalks and shotgun target station slabs shall be #2A coarse aggregate as specified in Section 703.2 of PennDOT Pub. 408. #2A coarse aggregate shall also be used as a backfill along the edges of the concrete slabs at the new shooting station shelters.

Obtain the stone from a source listed in PennDOT Bulletin 14.

6.3 - PROCEDURE

Place stone in the dry. Place the stone in one layer and compact with a roller to the required minimum thickness of 4-inches for the target line areas and paths and 2-feet for the backstop slopes. Compaction of the stone shall be considered satisfactory on the basis of non-movement of the materials under compaction equipment.

Grade the area for the shooting station slabs, concrete sidewalks and shotgun target station slabs for placement of #2A coarse aggregate. Place a minimum of 4-inch layer of stone under the concrete slab area for the shooting station slabs, concrete sidewalks and shotgun target station slabs. Rake and compact as necessary to provide an even surface for formwork and concrete placement.

Place #2A coarse aggregate along the edges of the new and existing concrete slabs at the new shooting station shelters. Rake the stone around the support posts and extend the stone 2-feet out from the posts. Smooth the surface and make the finished depth of the stone in these areas 4-inches.

6.4 - MEASUREMENT AND PAYMENT

Cubic yards for each type of stone (#2A coarse aggregate and AASHTO #10), measured by the average end area method or by three-dimensional volume method, as applicable.

TECHNICAL SPECIFICATION SECTION NO. 7 – CONCRETE

7.1 - SCOPE

This work is construction of the shooting station shelter slabs, shotgun pattern station slabs and sidewalks at the shooting range complex. Foundations of the shooting station shelter posts and backfilling of steel target uprights is also included in this Section.

7.2 - MATERIALS

A – Concrete - Concrete shall be composed of Portland cement, water, fine and coarse aggregates and approved admixtures, all well mixed and brought to the proper consistency.

1. Concrete shall be PennDOT Class A and shall develop a minimum compressive strength of 3,300 psi in twenty-eight (28) days.
2. Concrete shall be obtained from a batch plant currently approved by the Pennsylvania Department of Transportation (PennDOT).
3. Ready-mixed concrete shall be mixed and delivered in accordance with ASTM Designation C94.

Polypropylene fibers shall be included in the concrete mix. Cement shall be Type IA or IIA conforming to ASTM C 150. All materials shall be obtained from sources listed in PennDOT Bulletin 14 or PennDOT Bulletin 15.

B – Preformed Expansion Joint Filler – Preformed expansion joint filler shall be ½-inch thick gray sponge rubber conforming to AASHTO M153, Type 1. Joint filler shall be solid sponge rubber; no reprocessed material will be accepted. Joint filler made of numerous pieces of sponge rubber which adhere to each other will not be accepted.

C - Joint Seal Material - The joint seal material shall conform to the requirements of ASTM C290 such as Sikaflex-2c or Sikadur 51 as manufactured by the Sika Corporation, Lyndhurst, New Jersey or an approved equal. The material shall be stored as recommended by the manufacturer.

D - Curing Compound - The curing compound shall be clear or translucent containing a red fugitive dye conforming to the requirements of AASHTO M148, Type 1-D, and must not affect water in any respect to injure fish life or impair or be detrimental to water for human consumption. The curing compound shall be stored as recommended by the manufacturer.

7.3 – PROCEDURE

A – Preparation of Concrete Foundation Areas – Place and compact a 4-inch layer of #2A coarse aggregate to provide a stable, even surface for placement of concrete for the slabs and sidewalks. Moisten the surface of the aggregate before placing concrete.

B – Expansion and Contraction Joints - Place preformed expansion joint filler in every third joint and at intersections in the sidewalk as shown on the Drawings. Joints shall be every eight feet for the shooting station shelter slabs and every five feet for the sidewalks to the target stations. The joints in the shooting station shelter slabs should match the support post spacing. The joint material shall be clean and free of dust, grit, mud, oil or grease, and shall be held firmly in place to avoid displacement during concreting.

C – Formwork - Forms shall conform to the shapes, lines, grades, and dimensions of the concrete as called for on the Drawing. They shall be sufficiently tight to prevent leakage of mortar and shall be properly braced or tied together to maintain the desired position and shape during and after placing concrete. Forms shall be removed in such a manner as to assure the complete safety of the structure.

D - Depositing - Concrete shall be deposited in the presence of a representative of the Game Commission.

In all cases, concrete shall be deposited as nearly as practicable in its final position and not allowed to flow in a manner to permit or cause segregation and loss of slump. Once concreting is started, the operation shall be carried on continuously until the placing of the panel or section is completed.

All conveying equipment shall be of such size and design as to insure a practically continuous flow of concrete at the forms. Free falls of more than four (4) feet are not permitted.

Any concrete that has been contaminated by foreign matter or which has become so stiff that proper placing can not be assured, shall be wasted.

If unfavorable weather conditions exist, the Game Commission may order the work stopped, either before concreting has started or after it is in progress, until a suitable formwork or covering is set up on the site to protect fresh concrete from rain, hail, snow, or other unfavorable conditions.

E- Finishing Concrete - All unformed surfaces shall be finished in accordance with the following requirements by a skilled concrete finisher:

Immediately after placement of concrete is completed, the surface shall be leveled and screeded sufficiently to produce an even, uniform texture.

Floating shall be done by hand or power-driven equipment. Floating shall not start until some stiffening has taken place in the surface concrete and the moisture film or "shine" has disappeared. The floating should work the concrete no more than necessary to produce a surface that is uniform in texture and free of screed marks. Any necessary cutting or filling of surface to prevent irregularities should be done during the floating operations. Joints and edges shall be finished with edging tools at this time.

After floating is completed, apply a light broom finish to the top surface of unformed concrete. Light surface pitting and light trowel marks are not objectionable.

F – Curing Concrete - After finishing operations are completed, the concrete shall be membrane cured. Curing compound shall be applied in two (2) coats, each coat covering 300 square feet of concrete surface per gallon. A pressure tank type spraying equipment shall be used, which shall provide continuous agitation of the compound during coating operations. Do not use ordinary orchard-type hand sprays. In order to insure thorough and complete coverage of the concrete surfaces, the first coat shall be applied by moving the spray gun back and forth in one direction, and the second coat immediately thereafter by moving the spray gun at right angles to the direction of the first coat.

The first coat shall be applied immediately after finishing operations are completed. The second coat shall be applied immediately after the first coat has set.

G – Protection of Concrete - All concrete shall be protected against injury until final inspection and acceptance by the Game Commission.

During the construction period, the concrete shall be protected from damaging mechanical disturbances, such as load stresses, heavy shock, and excessive vibration. All finished concrete surfaces shall be protected from damage by construction equipment, materials or methods, by application of curing procedures, and by rain or running water.

Until final inspection and acceptance by the Game Commission, the Contractor shall repair, or remove and replace any damaged concrete at no additional cost to the Game Commission.

H – Sealing Expansion Joints - Use a caulking gun to place a ½-inch bead of joint seal material over the preformed joint filler material in the expansion joints. Use masking tape on each side of the joint to prevent the joint seal material from leaking over the slab.

7.4 - MEASUREMENT AND PAYMENT

For concrete, measurement will be in cubic yards, measured by the average end area method or by the three-dimensional volume method, as applicable.

Payment will be made at the unit price per cubic yard bid for "Concrete"; which price shall include the furnishing of cement, fine and coarse aggregates; admixtures, forms, all

labor and equipment for mixing, placing, curing, finishing, repairing and forming; and all labor, materials, and appurtenances necessary to do and complete the work.

No separate measurement or payment for polypropylene fibers in the concrete mix.

TECHNICAL SPECIFICATION SECTION NO. 8 – SHOOTING STATION SHELTERS

8.1 - SCOPE

This work is construction of the shooting station shelters at the shooting range.

8.2 - MATERIALS

A. Dimension Lumber – The roof purlins and fascia should be regular dimension lumber. The lumber should conform to the following requirements.

1. Grading Agency – Southern Pine Inspection Bureau, Inc. (SPIB)
2. Nominal sizes – as indicated on the Drawings, S4S.
3. Moisture content – S-dry or MC19
4. Structural Grade – No. 2

B. Treated Lumber – Truss seats and support posts are pressure treated. Other characteristics for the truss seats are the same as dimension lumber. The support posts can be pressure treated dimensional posts or glue laminated columns manufactured from #1 Southern Yellow Pine.

The pressure treatment is ACQ (waterborne preservative), 0.4 pcf retention in conformance with the American Wood Preservers Association (AWPA). Use category UC3b for exterior construction not in contact with the ground (truss seats). Use category UC4a for items in contact with the ground (supports posts).

C – Rebar – Steel bars for post foundations shall be grade 60, #6 bar (14-inches long), deformed and shall conform with all the provisions of one of the standards listed below.

- 1 ASTM Designation A615 "Standard Specification for Deformed and Plain Steel Bars for concrete Reinforcement,"
- 2 ASTM Designation A616 "Standard Specification for Rail-Steel Deformed and Plain Bars for Concrete Reinforcement," or
- 3 ASTM Designation A617 "Standard Specification for Axle-Steel Deformed and Plain Bars for Concrete Reinforcement."

D – Roof Trusses – The trusses shall be fabricated from dimensional lumber and have a 4V:12H pitch and 1-foot overhangs. The span is 10-feet and the spacing of the trusses is on 4-foot centers. The roof trusses must have a roof load rating of 42.5 psf ground snow load (snow load factor of 0.7) and a wind load rating of 25 psf. Submit design calculations and drawings for the roof trusses for review and approval. The design drawings and calculations for the roof trusses must be sealed and certified by a licensed professional engineer (valid Pennsylvania license). The truss design shall conform to the

applicable provisions of the “National Design Specification for Stress-Grade Lumber and Its Fastenings” (National Forest Products Association) and “Design Specifications for Light Metal Plate Connected Wood Trusses” (TPI).

E – Metal Roof Panels – The roof panels (and gable end panels) shall be fabricated from galvanized steel sheet with a minimum coating of 0.90 oz/SF. The roof panels shall be minimum 26-gauge steel sheet stock capable of supporting the design roof loading. The panels shall be full length from ridge to eave. The ridge and eaves shall be fitted with continuous gaskets. The finish color of the panels is white. Trim pieces shall be metal sheet stock with the same finish characteristics as the panels and fabricated into ridge cap, corners and drip edges.

F – Soffits and Fascia – The fascia and soffits shall be white vinyl. The soffits shall be fully perforated. All trim pieces for the soffits and fascia shall be white vinyl.

G – Fasteners – All fasteners shall be corrosion resistant galvanized steel or chromium steel and recommended by the manufacturer to be used with ACQ pressure treated lumber. Refer to the listing below for an application guide for fasteners.

- 1) For lumber framing – Steel carriage bolts (nuts and washers) or #10 wood screws.
- 2) For metal roofing – Screw fasteners, cadmium plated self-tapping, hex head with washer and soft neoprene sealing ring finished to match the metal roof color.
- 3) For soffit and fascia – Prefinished white aluminum nails.
- 4) For insulation board – Nails with large plastic ring washers.
- 5) Roof Truss Ties – Simpson Strong Tie H1Z Hurricane Tie (Z-Max) with galvanized 8d nails.

8.3 – PROCEDURE

A – Shelter Fabrication – Construct the shooting station shelters according to the dimensions and layout shown on the Drawings. Excavate holes for the support posts and place rebar through the bottom of the posts as shown on the Drawings. Place a 6-inch thick concrete base in the bottom of the augered holes. Let the concrete cure for a minimum of 12-hours before setting posts. Place the support posts on the cured concrete bases. Backfill with concrete to a depth of 12-inches to hold the support posts plumb and secure. Install truss seats on the posts. Provide extra temporary bracing as required to keep the structures plumb. Install the roof trusses on the truss seats and use hurricane ties on each truss seat (4 ties per truss). Install purlins and fascia boards on the roof trusses. Provide an install extra dimension lumber to form the overhangs on the gable ends of the structures. Install the insulation board to the underside of the purlins between the trusses. Install the vinyl fascia and soffits on the roof overhangs.

B – Concrete Slab – Construct forms around the support posts for the concrete slab floor of the structures. Refer to Section 8 of these Technical Specifications for forming, placing, finishing and curing of the concrete floor slabs of the shooting station shelters.

8.4 - MEASUREMENT AND PAYMENT

Measurement and payment for shooting station shelters will be made for each unit successfully constructed according to the size.

Refer to Section 7.4 for measurement and payment of the concrete floor slabs in the shelters.

TECHNICAL SPECIFICATION SECTION NO. 9 – ARCHERY TARGET STATIONS

9.1 - SCOPE

This work is fabrication and installation of the target stations at the new archery range.

9.2 - MATERIALS

A – Pressure Treated Wood – Wood for the target stations shall be Structural Grade No. 2, pressure treated ACQ (waterborne preservative) with a 0.4 pcf retention in conformance with the American Wood Preservers Association (AWPA) Standard UC3b.

B – Fasteners – Polymer plated suitable for use in pressure treated wood. #10 x 3-inch star drive flat head wood deck screws.

C – Lag Bolts – ¾” x 14-inch galvanized carriage bolts with galvanized nut and washer.

D – Hinges – 6-inch galvanized steel strap hinge with brass hinge pin (Stanley Part #17-1170 or approved equal).

E – Hasps – 6-inch zinc plated latch post safety hasp (Everbuilt Part #16076 or approved equal).

F – Metal Roof Panels – The roof panels shall be fabricated from galvanized steel sheet with a minimum coating of 0.90 oz/SF. The roof panels shall be minimum 26-gauge. The panels shall be full length. The finish color of the panels is white.

9.3 – PROCEDURE

Fabricate the target stations using the pressure treated lumber cut to size as shown on the Drawings. Secure the wood pieces with the specified fasteners (carriage bolts and deck screws). Install the hinges on the inside faces of the rear door boards. Make sure that the doors swing freely. Attach the hasps to the outside face of the target wall board.

Excavate holes for the wood posts on the spacing as shown on the drawings. Place the posts in the holes and hold the posts plumb and level during backfilling operations. Tamp the backfill in place in layers not exceeding six inches. Use a string to keep the posts in line.

Fabricate the roof frame and install on top of the target stations. Install the metal roof panels on the roof frames with suitable fasteners.

Backfill around the target stations with an 8-inch thick layer of #2A coarse aggregate. The top of the stone should be even with the sidewalk and ground. Rake the top surface of the stone so that it is flat and even.

NOTE – The PGC will supply and install the targets and locks on the installed target stations.

9.4 - MEASUREMENT AND PAYMENT

Each for the target stations.

TECHNICAL SPECIFICATION SECTION NO. 10 – BOW HOLDERS

10.1 - SCOPE

This work is salvage and installation of the existing bow holders at the archery range.

10.2 - MATERIALS

Bow Holders – The bow holders are “Black Wall Bowtree” from Rinehart Targets, 1809 Beloit Avenue, Janesville, WI 53546. The bow holders are installed on existing wood posts at the archery range.

10.3 – PROCEDURE

Remove the bow holders from the wood posts at the archery range. Salvage the bow holders and mounting hardware so they can be reinstalled. Remove and dispose of the wood posts. Backfill the holes from post removal.

Mount the bow holders on the face of the support posts on the new shooting station shelters. Use the salvaged hardware to secure the bow holders. Mount the bow holders four feet above the surface of the concrete floor slab.

10.4 - MEASUREMENT AND PAYMENT

Each.

TECHNICAL SPECIFICATION SECTION 11 – STEEL TARGET LINES

11.1 -SCOPE

This work is installing new steel target lines at the rifle and pistol ranges. The target lines consist of two sections; target uprights and horizontal assemblies. A horizontal assembly consists of two end plates, a support spacer, a back plate and pressure treated wood.

11.2 – MATERIALS

A – Concrete – PennDOT Class A concrete.

B – Formwork – 12-inch diameter cardboard tube (Sono Tube).

C – Target Uprights and Horizontal Assemblies – The uprights and horizontal assemblies shall be fabricated from ASTM A36 steel plate (3/8-inch thick).

D. Treated Lumber – The 2"x 4" sections shall be pressure treated lumber. The pressure treatment is ACQ (waterborne preservative), 0.4 pcf retention in conformance with the American Wood Preservers Association (AWPA). Use category UC3b for exterior construction not in contact with the ground.

E. Hardware – The lag bolts to connect the end plates to the target uprights shall be ½" x 2" Grade 2 galvanized steel, hex head with galvanized nut and washer. The lag screws to secure the lumber to the horizontal assemblies shall be ¼" x 2" Grade 2 galvanized steel, self tapping, coarse thread and hex head.

11.3 - PROCEDURE

Grade the areas at the rifle and pistol range target lines. Mark the locations of the target uprights before placement of the AASHTO #10 stone. Drill or auger the soil at the locations to the depth shown on the drawings and install the forms. Secure the formwork to prevent shifting during concrete placement operations.

Fabricate the target uprights and horizontal assemblies according to the dimensions shown on the drawings. Use a laser cutter or water jet cutter to cut the steel pieces needed to fabricate the target uprights and horizontal assemblies. Weld the back plate to the support spacer plate with a 1/8-inch fillet weld. Weld the end plates to the support spacer plate with a 3/8-inch fillet weld on both sides of the support spacer plate. Place the completed target uprights in the center of the forms. Connect the horizontal assemblies to the target uprights with the lag bolts. Secure the pressure treated lumber sections to the horizontal assemblies with the lag screws. Check the alignment and spacing of the target uprights to ensure that they are in a straight alignment on 8-foot centers. Shift as necessary to meet the required dimensions. Holes must be re-augered

if there are less than 4-inches of concrete outside the target uprights. Secure the target uprights so they will not shift during concrete placement operations.

Place concrete in the forms and rod as necessary to consolidate the concrete in the forms. Screed the concrete level with the top of the forms.

After the concrete has hardened, place AASHTO #10 for the target line area so that it is even and level with the top of the concrete in the target upright holders.

11.4 - MEASUREMENT AND PAYMENT

Each for the “Target Uprights” and “Target Horizontal Assemblies”. No separate measurement or payment for hardware or excavation and backfill around the target upright holders. Concrete used for the upright holders will be measured and paid for at the unit price bid.

TECHNICAL SPECIFICATION SECTION NO. 12 – SET SHOTGUN TARGET STATIONS

12.1 - SCOPE

This work is setting the shotgun target stations on concrete slabs and filling the bases with sand.

12.2 - MATERIALS

A – Shotgun Target Stations – The PA Game Commission (PGC) will deliver the fabricated steel target stations to the range. Each target station is fabricated from 3/8-inch plate steel and weighs about 1,800-pounds.

B – Sand – Type A cement concrete sand conforming to Section 703.1 of PennDOT Pub. 408.

12.3 – PROCEDURE

Construct the concrete slabs according to Section 7.3 of these Technical Specifications. Allow the concrete to cure and harden before setting the shotgun target stations.

The PGC will deliver the shotgun target stations to the work site. Have adequate equipment at the site to move and place the shotgun target stations.

Fill the bottom 9-inches of the shotgun target stations with sand. Smooth and level the sand in the bottom of the shotgun target stations.

12.4 - MEASUREMENT AND PAYMENT

Each for setting the target stations.

Cubic Feet for Sand.

TECHNICAL SPECIFICATION SECTION NO. 13 – INSTALL SHOOTING TABLES

13.1 - SCOPE

This work is installing shooting tables on the existing and new concrete slabs at the range complex. Five tables are to be installed at the archery range, four at the shotgun pattern range, five at the 50YD rifle range and eight at the 25YD rifle range.

13.2 - MATERIALS

A – Shooting Tables – The PA Game Commission (PGC) will deliver the fabricated shooting tables to the range. Each shooting table has a painted steel frame and pressure treated plywood top and seat. Refer to the photo of the shooting tables attached to this Section of the Technical Specifications.

B – Fastening System – Hilti HIT-RE 100 adhesive anchoring system or other epoxy system meeting the requirements of ASTM C881-14, Type I, II, IV and V Grade 3, Class A, B and C. The bolts shall be Hilti HAS-R 304 stainless steel (1/4” diameter and 3” long) with AISI Type 304 stainless steel nuts conforming to ASTM F594 and AISI Type 304 stainless steel washers conforming to ASTM A240 and ANSI B18.22.1 Type A Plain.

Each shooting table has three base plates with four bolt holes in each plate. Use twelve fasteners to secure the new shooting tables to the existing concrete slabs.

13.3 – PROCEDURE

The PGC will deliver the shooting tables to the work site. The shooting tables can be lifted and maneuvered into place by hand with two workers.

Drill holes in the top of the concrete slabs for the base plates of the shooting tables. Set the anchor bolts in the holes and secure with the epoxy anchor system. Conform to the manufacturer’s instructions for the epoxy anchoring system.

Allow the epoxy to cure before attaching the shooting tables. Set the shooting tables on the anchor bolts and secure with the nuts and washers.

13.4 - MEASUREMENT AND PAYMENT

Each for installing the shooting tables. No separate measurement or payment for the fastening system.

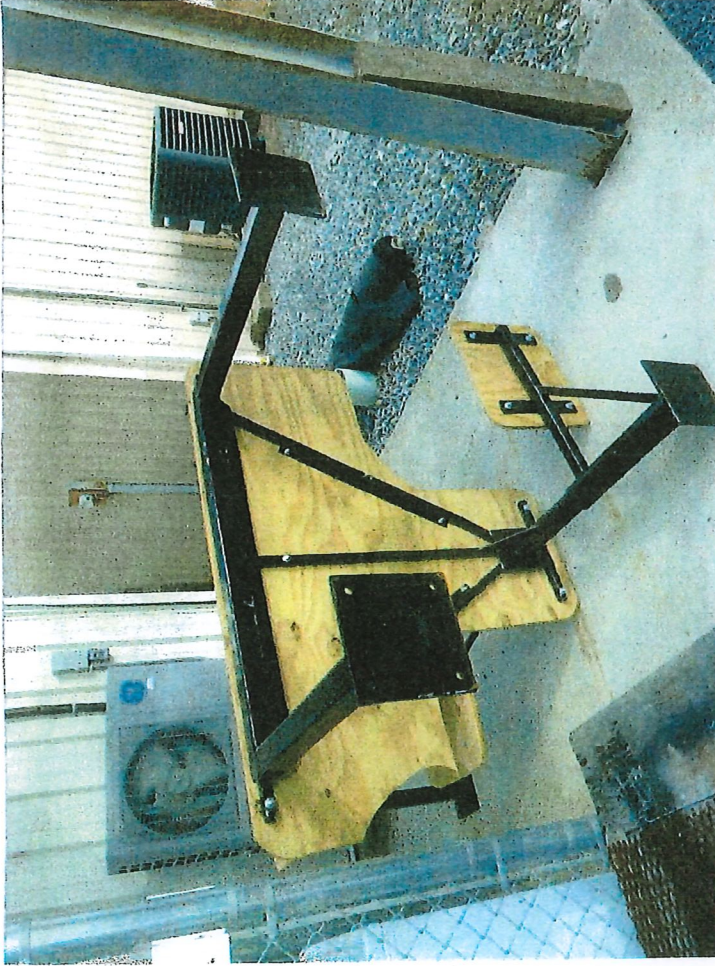


PHOTO – SHOOTING TABLE

Note: The PGC will supply the shooting tables (22). The Contractor will install the shooting tables on the concrete floor slabs in the new shooting station shelters at the range complex.

TECHNICAL SPECIFICATION SECTION 14 – HANDICAPPED PARKING SIGNS

14.1 -SCOPE

This work is furnishing and installing signs on square steel posts to delineate the handicapped parking spots.

14.2 – MATERIALS

A – Steel Posts and Anchor Sleeves - The steel posts and anchor sleeves shall conform to the requirements of Section 1103.08(b) of PennDOT Pub. 408. The posts and sleeves shall be galvanized steel.

B – Signs - The signs shall conform to the dimensions and configurations for R7-8 signs as listed in the Manual on Uniform Traffic Control Devices (MUTCD), 2003 Edition from the Federal Highway Administration. A drawing for this sign is shown on Drawing 6 of 9. The sign shall be on 0.080 aluminum sheet.

14.3 - PROCEDURE

The signs (R7-8) are to be placed at the handicapped parking areas as shown on the Drawings. Drive the anchor sleeves into the ground. Insert the square steel posts into the anchor sleeves. The bottom of the signs are to be 5-feet above the surface of the stone in the handicapped parking areas. Secure the signs to the top of the posts with corrosion resistant hardware as recommended by the sign manufacturer.

14.4 - MEASUREMENT AND PAYMENT

Each.



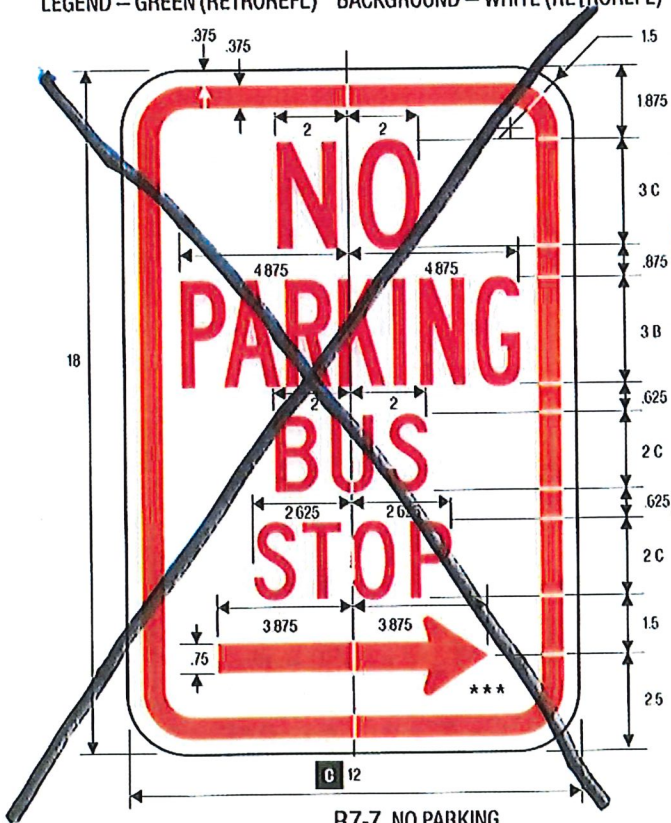
R7-5 NO PARKING

LEGEND - GREEN (RETROREFL) BACKGROUND - WHITE (RETROREFL)



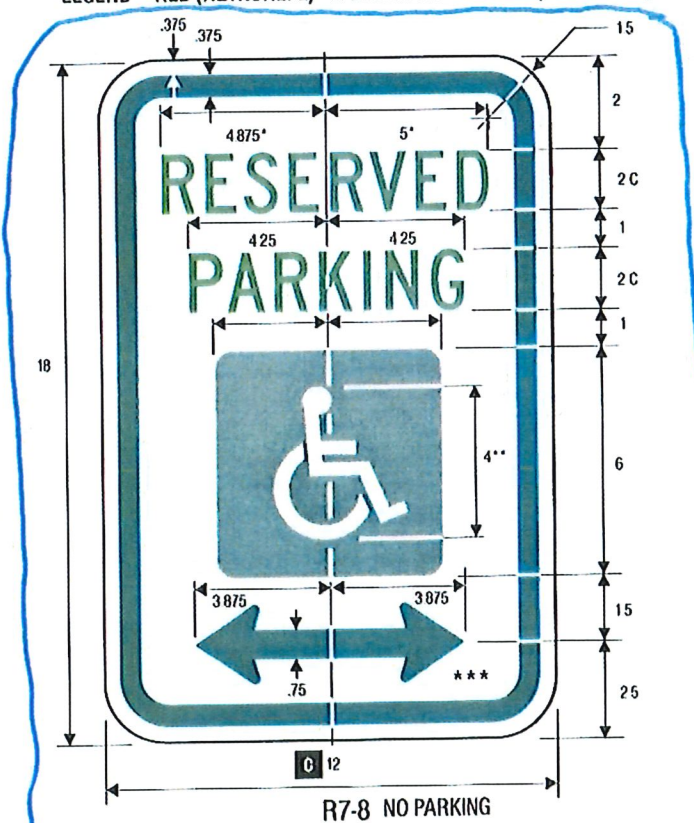
R7-6 NO PARKING

LEGEND - RED (RETROREFL) BACKGROUND - WHITE (RETROREFL)



R7-7 NO PARKING

LEGEND - RED (RETROREFL) BACKGROUND - WHITE (RETROREFL)



R7-8 NO PARKING

LEGEND - GREEN (RETROREFL), WHITE SYMBOL ON BLUE (RETROREFL) BACKGROUND - WHITE (RETROREFL)

*Reduce spacing 50%.
 **See page 6-31.
 ***See page 6-2 for arrow design.

TECHNICAL SPECIFICATION SECTION 15 – CONCRETE BLOCK WALL

15.1 -SCOPE

This work is constructing a precast concrete block retaining wall at the end of the sideberm embankment separating the 50YD and 25YD rifle ranges.

15.2– MATERIALS

Precast Concrete Blocks – The precast concrete blocks shall be plain blocks with end and top grooves and keyways. The blocks should also be equipped with steel lifting rings or rebar. Plain finish blocks are required – no patterns. The blocks shall be two different sizes; 2' x 2' x 6' and 2' x 2' x 3'. The blocks are to salvaged from the demolition of the existing sand pit target at the archery range.

15.3 - PROCEDURE

Salvage the precast concrete blocks from the demolition of the sand pit target at the archery range. Transport the blocks from the archery range to the 50YD / 25YD rifle range. Deliver the remaining blocks to the parking area adjacent to the range service building at the site.

Lay out the limits of the stone paths and sideberm embankment according to the dimensions shown on the drawings. Prepare the subgrade for placement of the bottom course of blocks. Use #2A coarse aggregate if necessary in the base to provide an even surface for the blocks to sit on. The subgrade shall be sloped to provide the batter on the front face of the wall.

Place the first course of blocks. Make sure that the blocks fit together snugly. Prepare the base for the next layer of blocks. Continue with placement of the blocks and to form the barrier wall at the end of the embankment.

Backfill around the blocks to the lines and grades of the sideberm embankment. Compact the embankment material with jumping jacks or other hand equipment so that the blocks are not displaced.

15.4 - MEASUREMENT AND PAYMENT

Each for the blocks, according to size. No separate measurement or payment for moving the extra blocks to the range service building.

TECHNICAL SPECIFICATION SECTION 16 – CHAIN LINK FENCE

16.1 -SCOPE

This work is removing a portion of the existing chain link fence around the northeast side of the range and installing a new section of chain link fence. The removed length of fencing should be salvaged and reinstalled at the new location.

16.2 – MATERIALS

A - General – The length of fence to be removed, salvaged and reinstalled is 380 linear feet including the gate across the access road. The installation of new fence measures 655 linear feet including the 380 linear feet of reinstalled fence and gate. The 275 linear feet of new fence shall have components that match the existing fence in style, quality and installation. If those components are not available; use the following material specifications for new fence installation.

B - Fence - Fabric, posts and hardware shall meet the following requirements:

- 1. - Fabric** - Fabric shall be galvanized steel wire fabric, conforming to the requirements of AASHTO M 181 with the following modifications: The steel wire shall be at least 9 gage. The size of the mesh shall be 2 inches. The fabric shall be knuckled at both selvages. All cut ends shall be galvanized at the factory, during the weaving process.
- 2. - Fasteners** – For attaching the fabric to line posts, use 6 gage aluminum wire or 9 gage galvanized preformed clips. For attaching the fabric to bottom wire, use 10 gage galvanized steel wire or aluminum hog rings of comparable size.
- 3. - Posts** - Posts will be referred to as "terminal" or "line". Terminal posts include corner, angle, pull, and end posts. Line posts are also known as "intermediate" posts. Pipes for posts shall be of galvanized steel conforming with the requirements of either ASTM F 1083(Schedule 40) or ASTM F 1043(such as Allied SS 40 or equivalent) except that the weight of zinc coating shall not be less than 2 ounces per square foot.

The nominal sizes of terminal and line posts shall not be less than 2-1/2 inches and 2 inches respectively. For fence heights of 5 feet or more, the nominal
- 4. - Top Rail** - Top rail shall not be less than 1-1/4 inch nominal size galvanized steel pipe conforming with the requirements of ASTM F 1083, Schedule 40, except that the weight of zinc coating shall not be less than 2 ounces per square foot.
- 5. - Bottom Wire** - Bottom wire shall be galvanized coil spring tension wire. The galvanized core wire shall not be less than 7 gage in size.

6. - Braces - When required, braces shall not be less than 1-1/4 inch nominal size galvanized steel pipe conforming with the requirements of ASTM F 1083, Schedule 40, except that the weight of zinc coating shall not be less than 2 ounces per square foot.

7. - Truss Rods - When required, truss rods shall not be less than (3/8) inch diameter steel rods conforming with the requirements of ASTM F 626, except that the weight of the zinc coating shall not be less than 2 ounces per square foot. Truss rods shall be provided with suitable turnbuckles.

8. - Fittings - All fittings shall conform with the requirements of ASTM F 626. Terminal post caps shall be fitted with stainless steel recessed allen wrench head set screws for anchoring the cap to the post.

9. - Hardware - All hardware (bolts, nuts, washers, etc.) shall be of commercial quality or better, and shall be galvanized in accordance with the requirements of AASHTO M 232.

B - Concrete Footings - Concrete footings for posts set in earth shall be PennDOT Class A concrete, conforming with the applicable requirements of Section 7.2A of these Technical Specifications. Polypropylene fibers are not required.

In lieu of Class A concrete mentioned above, concrete made from dry, packaged, combined materials conforming to ASTM C 387 may be used. 28 days compressive strength of the concrete shall not be less than 3,300 psi. Store the materials in accordance with the manufacturer's recommendations.

16.3 - PROCEDURE

A - Placing Fence Posts - Identify post locations; posts shall be spaced on 10-foot centers. Auger 36-inch-deep footing holes (9-inch-diameter for line posts and 15-inch-diameter for terminal, gate, and change-of-direction posts). Set posts, centered and plumb, on the bottom of the holes. Place and tamp earth backfill for line posts. Set terminal, gate and change of direction posts in concrete. Crown the finished surface of the concrete to shed water.

B - General - Install fence posts in proper horizontal alignment with the top of the posts in proper vertical alignment. Posts shall be equally spaced not more than 10 feet apart.

Install corner posts at changes in direction.

Install pull posts at changes in grade of 10 percent or more. Also, install pull posts at intervals not exceeding 500 feet and at closer equal spacings on curves, as recommended by the manufacturer so that the strain of the fence shall not bend the line posts. Space pull posts evenly between corner, gate and/or end posts.

Insert top rails through the base of the line post caps, with expansion couplings joining the rails to form a continuous brace for each stretch of fence between terminal posts. Outside sleeve type expansion couplings shall be at least 6 inches long and shall be installed at spacings recommended by the manufacturer. Securely fasten the top rails to the terminal and gate posts by rail ends and brace bands. Install bottom wire and attach fabric to bottom wire.

Install braces at terminal and corner posts, midway between the top rail and the bottom wire, extending from the terminal or corner post to the adjacent line posts. Place the truss rods with turnbuckles between the brace end on the line post and the bottom wire end on the terminal post.

Securely fasten the fabric to all posts, top rail, and bottom wire at intervals of not more than 14 inches. Fasten fabric to the outside or most commonly seen side of the posts. Place fabric parallel to the base surface. The nominal distance between the base surface and the fabric shall be 2 inches and shall not exceed 3 inches. In case of irregular ground surfaces, grade the area at no additional cost.

Install gate in accordance with the recommendations of the manufacturer across the access road as shown on the Drawings.

At no additional, repair or replace all damaged fence components.

16.4 - MEASUREMENT AND PAYMENT

Linear Feet for "Remove Chain Link Fence" and "Install Chain Link Fence".

No separate measurement or payment will be made for excavation, concrete footings, galvanizing, and all other materials and work, and the costs of such shall be considered incidental to this work.

TECHNICAL SPECIFICATION SECTION 17 – GUARD POSTS

17.1 -SCOPE

This work is furnishing and installing wooden guard posts between the shooting station shelters and the parking areas.

17.2– MATERIALS

A - Guard Posts - The guard posts shall have nominal dimensions of 8”x 8” and conform to the following characteristics.

- 1) Southern Yellow Pine – Dimension Lumber
- 2) Structural Grade No. 2
- 3) Pressure Treated, ACQ (waterborne preservative), 0.40 pcf retention in conformance with American Wood Preservers Association Standards UC4A.

17.3 - PROCEDURE

Drill or auger the soil at the locations to the depth shown on the Drawings on 6-foot centers. Set the posts plumb in the holes and backfill around the posts with the excavated material. Firmly tamp the backfill in 6-inch lifts around the posts. Place mulch around the guard posts after backfilling operations are complete.

17.4 - MEASUREMENT AND PAYMENT

Each.

TECHNICAL SPECIFICATION SECTION 18 – MULCH

18.1 -SCOPE

This work is installing mulch in the median area between the shooting station shelters and parking areas.

18.2 – MATERIALS

Mulch consists of ground up hardwoods and colored black through a dyeing process. The dye must be an environmentally safe water-based product. The mulch must be at least double shredded so that it has an even fine consistency.

18.3 - PROCEDURE

Install the guard posts in the median areas after completion of the shooting station shelters. Grade the median areas so that the base surface is relatively flat and even. Place mulch so that is around 6-inches thick and even with the top edge of the concrete slabs.

18.4 - MEASUREMENT AND PAYMENT

Cubic yards measured by the average end area method.

TECHNICAL SPECIFICATION SECTION NO. 19 – METAL SCREEN

19.1 - SCOPE

This work is providing and installing metal screen on the bottom chord of the roof trusses in the shooting station shelters as shown on the drawings. The screen closes off the entire bottom side of the roof trusses between the gables and eaves.

19.2 – MATERIALS

A. Metal Screen – The screen shall be galvanized steel mesh. The wire is 28-gauge and the mesh size is 1/8-inch.

B. Fasteners – Galvanized steel staples.

19.3 - PROCEDURE

Attach the metal screen to the bottom of the bottom chord of the roof trusses with staples. Secure the screen so that there are no sags. Overlap the screen 2-inches at seams.

19.4 - MEASUREMENT AND PAYMENT

Square Feet.

TECHNICAL SPECIFICATION SECTION 20 - SEEDING

20.1 - SCOPE

This work is securing a satisfactory stand of grass at the range complex or where directed by the PGC, and includes preparation of the seed bed, furnishing and placing lime and fertilizer, furnishing and sowing of seed, mulching, and maintaining and tending the seeded areas.

20.2 - MATERIALS

Use Formula B grass seed mix on flat areas to be mowed in the future. Use Formula W grass seed mix on the sideberm and backstop slopes. Use Formula E for temporary seeding to control erosion during construction. All seed mixes shall conform to Section 804.2(b) of PennDOT Pub. 408.

20.3 - PROCEDURE

Follow the applicable procedures listed in Section 804.3 of PennDOT Pub.408.

20.4 - MAINTENANCE

At no additional cost to the PGC, maintain the seeded areas until all work under the Contract has been completed and accepted by the PGC. Maintenance shall include refilling rain-washed gullies, reseeding, reapplying fertilizer, lime and mulch, and removal of large and noxious weeds, as directed by the PGC.

20.5 - MEASUREMENT AND PAYMENT

Lump Sum.