

TECHNICAL
SPECIFICATIONS
FOR

**GEORGE HAGGAR
FIRE TRAINING CENTER
IMPROVEMENTS**

Upper Dublin Township, Pennsylvania

Prepared by:

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A handwritten signature in black ink, appearing to read "A. Gryga", is written over the bottom portion of the professional seal.

4/21/2023

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A. ADVERTISEMENT

George Hagggar Fire Training Center Improvements
Upper Dublin Township

Upper Dublin Township will receive sealed bids online for the George Hagggar Fire Training Center Improvements Project. Online sealed bids are to be submitted by May 22, 2023. A non-mandatory pre-bid meeting shall be held at the project site, 1245 Fort Washington Avenue, Fort Washington, PA 19034, on May 10, 2023 at 10:00 am

All documents and solicitation details are available at no cost at PennBid™ - www.PennBid.net. For assistance with using or accessing PennBid™, please call (717) 488-0035.

A certified check or bank draft, payable to the order of Upper Dublin Township, negotiable U.S. Government Bonds (at par value), or a satisfactory Bid Bond executed by the Bidder and an acceptable surety, in an amount equal to ten percent (10%) of the total bid amount, shall be submitted with each Bid. Bonds are to be issued by a surety licensed to do business in the Commonwealth of Pennsylvania. The successful Bidder will be required to furnish and pay for a satisfactory Performance and Payment Bond.

Attention is called to the fact that not less than the minimum prevailing wages set forth in the Contract Documents must be paid on this project, and that the Contractor must ensure that employees and applicants for employment are not discriminated against because of their race, color, religion, sex, or national origin.

Bidders are required to comply with the Pennsylvania Prevailing Wage Act of 1961, P.L. 987, No. 442.

Upper Dublin Township reserves the right to reject any or all Bids or to waive any informalities or irregularities in the bidding when, in the opinion of the Township, such rejections or waivers shall be to its interest or advantage.

Prior to awarding the contract, bids may be held by Upper Dublin Township for a period not to exceed sixty (60) days from the date of bid openings for the purpose of reviewing the Bids and investigating the qualifications of bidders.

Upper Dublin Township
Kurt Ferguson
Township Manager

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B. INSTRUCTIONS TO BIDDERS

1. BIDDER'S RESPONSIBILITY

Each bidder shall familiarize themselves with all the attached forms, Instructions, General Conditions, Specifications, Drawings, etc., as they will be held responsible to fully comply therewith. Each bidder must visit the site of the work and acquaint themselves with conditions affecting the work.

2. DELIVERY OF BIDS

It is the responsibility of the bidder to submit their bids electronically via PennBid™ - www.PennBid.net. No bid shall be considered if it arrives after the time set from the receipt of bids.

3. BULLETINS

Bidders shall acknowledge receipt of all bulletins, which have been issued during the period of bidding, and agree that said bulletins shall become part of this contract. The bidders shall list the numbers and issuing dates of the bulletins received and acknowledge same on the appropriate page provided in the Form of Bid section of these specifications.

4. BID

Each bid shall be accompanied by either a certified check or Surety Company's Bid Bond as specified herein under "ADVERTISEMENT", in an amount of not less than ten (10) percent of the base bid, which check or bond shall be payable to Upper Dublin Township as payee or obligee, and shall be forfeited as liquidated damages if the bidder fails to execute the agreement in conformity with the Contract Documents, and furnish Performance and Payment Bonds as specified, within then (10) days after receipt of the executed Contract Documents. Such checks or bid bonds will be returned to all except the three lowest bidders immediately after the award, and the remaining unsuccessful bidder's checks or bid bonds will be returned when the Contract Documents, executed by both parties, are delivered to the successful bidder.

5. METHOD FOR SUBMITTING BIDS

No bid will be considered unless submitted in accordance with the bid form for the project. Each portion of the bid form shall be filled in correctly, where indicated, for each item for which a description of the work is given, and the bidder must state the prices for which they propose to do each part of the work contemplated.

The bidder shall sign the bid form correctly. If the bid is made by an individual, in addition to their signature, their complete post office address must be given. If made by a corporation, the person signing the bid form should be the President or Vice President and the Secretary or Treasurer of the corporation; otherwise, the signing individual's certificate or authority to execute such papers should accompany the bid form.

If bidder has been incorporated in some state other than Pennsylvania, bidder shall state whether the corporation is registered to do business in Pennsylvania. If bidder operates under an assumed or fictitious name, they shall state whether such name has been registered in Pennsylvania.

No contract will be awarded to a bidder who is a foreign corporation or operating under a fictitious or assumed name unless they have complied or agreed to comply with the proper registration as required by the laws of the Commonwealth of Pennsylvania.

6. PROOF OF BIDDER'S RESPONSIBILITY

On request, bidder shall file an experience questionnaire and financial statement with the Township. The questionnaire and statement shall be certified to be true and correct by an affidavit sworn to or affirmed before a notary public, or other officer empowered to administer oaths or affirmations.

Upon request, bidder shall prove that they have liquid assets available for the project upon which they are bidding in an amount equal to fifteen percent (15%) of the first \$100,000.00 of the amount of the bid plus ten percent (10%) of the next \$900,000.00 plus five percent (5%) of the remainder of the bid.

None of the following will be considered a liquid asset:

- a. Capital Stock of the Contractor.
- b. Accounts receivable against which the assignments have been made.
- c. Equity in real estate.
- d. Life Insurance.
- e. Reserve representing pre-payment of taxes or other expenses.
- f. Deposits held in security for other contracts.
- g. Capital of proposed sub-contractors.

In addition to the financial qualifications, the bidder may be required to prove to the satisfaction of the Township that they have successfully completed a contract for similar work in an amount of no less than seventy-five percent (75%) of the amount of the proposed contract.

The foregoing will guide the Township in determining the responsibility of the bidder, but additional information may be requested by the Township whenever in its judgment such information is necessary to determine the responsibility of the bidder.

In the event the bidder fails, refuses or neglects to submit any required information within the reasonable time stated in any request therefore or fails to qualify as a responsible bidder, their bid guaranty shall be forfeited to the Township, not as a penalty, but as liquidated damages.

7. CHANGES WHILE BIDDING

During the bidding period, bidders may be furnished addenda or bulletins for additions to or alterations of the plans or specifications, if any, which shall be included in the work covered by the bid and become a part of the contract documents.

If any prospective bidder on the proposed contract is in doubt as to the true meaning of any part of the plans, specifications or other proposed contract documents, they may submit to the Landscape Architect a written request for an interpretation thereof. The bidder submitting the request will be responsible for its prompt delivery. Any interpretation of the proposed documents will be made only by an addendum duly issued and a copy of such addendum will be mailed or delivered to each prospective

bidder who has received a set of bid documents. The Landscape Architect and/or Township will not be responsible for any other explanations or interpretations of the proposed documents.

8. BID OPENING PROCEDURE

The Township will receive sealed bids on projects until the time stated in the "Advertisement." The Township reserves the right to reject any or all bids, or parts thereof, as it may deem best for the interest of the Township.

9. COLLUSIVE BIDS

The bid of any bidder or bidders who engage in collusive bidding shall be rejected. Any bidder who submits more than one bid in such manner as to make it appear that the bids submitted are on a competitive basis from different parties shall be considered a collusive bidder. The Township may reject the bid of any collusive bidder upon bid opening. However, nothing in this section shall prevent a bidder from superseding a bid by a subsequent bid delivered prior to bid opening which expressly revokes the previous bid.

10. WITHDRAWAL OF BIDS

No bidder may withdraw their bid unless the request is made in writing and is received by the Township prior to the time set for bid opening. After bid opening, no bidder may withdraw their bid within the time period indicated within the Advertisement for Bid. Requests for withdrawal of bids after bid opening due to clerical error shall be made in accordance with Commonwealth of Pennsylvania Act No. 4 (S.B. 793).

11. AWARD OF CONTRACT

The Township shall have the right to reject any or all bids or any parts thereof or items therein. The Township Solicitor shall have the right to waive technicalities for the best interests of the Township

The contract will be awarded to the lowest responsible bidder within 60 days of the bid opening, or all bids will be considered rejected. Thirty (30) day extensions of time may be made by the mutual written consent of the Township and the lowest responsible bidder.

If the lowest responsible bidder withdraws their bid or refuses to execute a contract, the Township shall have the right to award the contract to the next lowest responsible bidder or to reject all bids and re-bid contract.

12. EXECUTION OF CONTRACT

The individual, firm or corporation to whom or to which the contract has been awarded, within ten (10) days after receipt of said documents, shall sign and return to the Township the contract documents and substitute for the certified check, or bid bond, which accompanied the bid, a performance bond or bonds in the penal sum at least equal to the amount of such contract, for the faithful performance of the contract, and also an additional payment bond for labor and materials, in the penal sum at least equal to the amount of such contract, to cover the prompt payment in full for all materials furnished and labor supplied or performed, executed by a surety company or companies qualified to do business in the

Commonwealth of Pennsylvania, and a maintenance bond in the amount stipulated herein under "Special Conditions." The performance bond, payment bond and maintenance bond shall be on a form approved by the Township Solicitor.

On contracts in excess of \$50,000 the contract shall be executed by the Township and the successful bidder within 30 days of the date the contract is awarded unless the time shall be extended by the mutual written consent of the Township and the successful bidder.

No bids or awards shall be considered binding upon the Township unless and until the contract documents are properly executed by both parties.

13. FAILURE TO EXECUTE CONTRACT

If the lowest responsible bidder to whom the contract is awarded fails to submit bonds or execute the contract within the time specified, the amount of the bid guaranty shall be paid to the Township as liquidated damages. In such case the Township, at their discretion, may award the contract to the next lowest responsible bidder, or reject all bids and re-bid the project.

14. SUBLETTING OR ASSIGNING CONTRACT

The Contractor shall not sublet, sell, transfer, assign or otherwise dispose of the contract or any portion thereof, if their right, title or interest therein, without the written consent of the Township.

15. REJECTION OF BIDS

The right is reserved by the Township at its discretion to reject any or all bids or parts thereof. Bids may be rejected if they show any omission, alterations of form, addition or deductions not called for, conditional or uninvited alternate bids, or irregularities of any kind. However, the Township reserves the right to waive any defects or irregularities on bids.

16. SUBSURFACE INFORMATION

If a prospective bidder desires to make borings or soundings or to dig test pits at or near the site of the work they shall do so at their own expense. Before making any excavations, borings or sounding or digging test pits the bidder shall check the records for any municipal, public utility, or privately owned structures that may be disturbed and notify the Township(s) of such structures forty-eight (48) hours in advance of starting work. Bidders must obtain Township(s) permission before making any borings and shall close bore holes and test pits as directed by the Township.

C. BID FORM

PROJECT: George Hagggar Fire Training Center Improvements
Upper Dublin Township, Montgomery County, Pennsylvania

TO: Upper Dublin Township
1245 fort Washington avenue,
Fort Washington, PA 19034

The undersigned being familiar with the existing conditions on the project site affecting the cost of the work, and with the Contract Documents, which includes Invitation for Bids, Instruction to Bidders, the form of Bid, the form of Bid Bond, Form of Agreement, form of Non-Collusion Affidavit, Addenda (if any), General Conditions, Special Conditions, Technical Specifications, Drawings, and Form of Surety Bond, or Bonds, as prepared by CMC Engineering and on file at CMC Engineering (262 Bethlehem Pike, Suite 200, Colmar, PA 18915) hereby propose to furnish all supervision, technical personnel, labor, materials, machinery, tools, equipment and services including utility, and transportation services and to perform and complete all work required for the Improvements to George Hagggar Fire Training Center, located in Upper Dublin Township, Pennsylvania all in accordance with the above listed Contract Documents, at the price herein stated, and agrees that each item bid shall be complete in itself, and that the Township may increase or diminish the amount of work hereunder, or omit an item, without invalidating the unit price bid for it, or any other item on the following terms, to wit:

Base Bid: _____ (written in dollars and cents)

Alternate Bid #1: _____ (written in dollars and cents)
(Remove existing and install new fire hydrant)

(CONTRACTORS NAME)

(DATE)

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George Hagggar Fire Training Center Improvements
Bid Form 04/21/2023

ITEM		QTY/ UNIT	UNIT PRICE	TOTAL PRICE
Base Bid				
1	Erosion and sediment control (Filter log, matting & tree protection)	1 LS	\$	\$
2	Signage (no heavy vehicle sign)	1 LS	\$	\$
3	Demolition and removal	1 LS	\$	\$
4	Excavation and trenching	1 LS	\$	\$
5	Rough grading, hauling, and dumping	1,025 TON	\$	\$
6	Fine grading and seeding	0.04 AC	\$	\$
7	Topsoil furnished and placed	1 CY	\$	\$
8	Bedding sand	15 CY	\$	\$
9	Sand and gravel backfill	33 CY	\$	\$
10	Surface stone	305 TON	\$	\$
11	Chain link fence 4' high	120 LF	\$	\$
12	Chain link gate	1 LS	\$	\$
13	Underground water tank	3 EA	\$	\$
14	All piping and appurtenances	1 LS	\$	\$
15	Quazite boxes (Incl., termination of ex. Elec. In boxes)	2 EA	\$	\$
16	Fire Hydrant	2 EA	\$	\$
Total Base Bid:				\$

D. FORM OF GUARANTY

Accompanying this Bid is a _____ in the amount of
_____ Dollars \$ _____ as bid security.

ADDENDA

The bidder acknowledges receipt of the enumerated Addenda which have been issued during the bidding period and agrees that all said Addenda shall become part of the contract. The bidder shall list below the numbers and issuing dates of the Addenda.

<u>Addendum No.</u>	<u>Issuing Date</u>
_____	_____
_____	_____
_____	_____
_____	_____

The undersigned hereby certifies that this Bid is genuine, and not sham or collusive, or submitted in the interest or on behalf of any person, firm or corporation not herein named, and has not induced any other persons to refrain from bidding and has not in any way sought by collusion to secure for themselves an advantage over any other bidder.

Firm Name: _____

Address: _____

Phone: _____

Official

By: _____

Title: _____

E. GENERAL CONDITIONS

1. DEFINITIONS

The TOWNSHIP is the party referred to in the Advertisement as Upper Dublin Township. and is the party of the first part of the contract contained herein.

The CONTRACTOR is the individual, group, partnership, or corporation undertaking to do the work herein specified (including their or their heirs, legal representatives, successors or assigns) and is the party of second part of the contract contained herein.

The LANDSCAPE ARCHITECT, the person, firm or corporation who represents the TOWNSHIP on the Contract contained herein.

The CONTRACT DOCUMENTS consist of the Advertisement, Instructions to Bidders, Form of Bid, General and Special Conditions, Construction Specifications, Form of Agreement, Form of Bonds, List of Contract Drawings, Standard Details, and the plans.

A SUB-CONTRACTOR is an individual, group, partnership, or corporation, having a direct contract with the Contractor to furnish a special service, labor, or material towards the completion of the Contract.

An INSPECTOR is an authorized representative of the Landscape Architects and/or Township, assigned to inspect the work performed and the materials supplied by the Contractor to ensure compliance with the Contract Documents.

The term WORK, used herein, includes all labor and/or materials, equipment, and any other facilities necessary for the Contractor to complete the contract.

The term APPROVED, used herein, shall mean as approved by the Landscape Architect.

The term SUBSTANTIAL COMPLETION used herein shall be held to mean construction that is sufficiently completed in accordance with the Contract Documents and certified by the Landscape Architect and the TOWNSHIP, as modified by change orders agreed to by the parties, so that the project can be used, occupied or operated for its intended use. In no event shall a project be certified as substantially complete until at least 90% of the work on the project is completed.

The term NOTICE shall be deemed to have been duly served if written and delivered in person to the individual, or to a member of the firm, or to an officer of the Corporation for whom it is intended, or if delivered at or sent by registered mail to the last business address known to them who gives notice.

2. SUB-CONTRACTS

The contractor shall not assign or transfer any of its rights, duties, benefits, obligations, liabilities, or responsibilities of this Contract without the written consent of the Township.

3. MUTUAL RESPONSIBILITY OF CONTRACTORS

If, through acts or neglect on the part of the Contractor any subcontractor shall suffer losses or damages in completing the work, the Contractor shall settle with such subcontractor by agreement or arbitration, if such subcontractor will so settle. If such subcontractor shall assert any claim against the Township or Landscape Architect on account of any damage alleged to have been so sustained, the Township will notify the Contractor who shall defend at their own expense any suit based upon such claim and, if any judgment or claims against the Township or Landscape Architect shall be allowed, the Contractor shall pay or satisfy such judgment or claim and pay all costs and expenses in connection therewith, including attorney's fees and expert witness fees. Upper Dublin Township and Landscape Architect shall be held harmless by the Contractor from and against any claims that it has with its subcontractors.

4. FITTING AND COORDINATION OF WORK

The Contractor shall be responsible for the proper fitting of all work and for the coordination of the operations of all trades, subcontractors, or material men engaged in work under this contract. They shall be prepared to guarantee to each of their subcontractors the locations and measurements which they may require for the fitting of their work to all surrounding work.

5. SUPERINTENDENCE BY CONTRACTOR

The Contractor shall keep a competent superintendent, acceptable to the Landscape Architect, on the site from the commencement of work under this contract until the completion thereof, which superintendent shall be constantly in touch with work and in all interlocking contracts affected thereby. The superintendent shall see that the instructions of the Landscape Architect are carried out and that all directions given such superintendent by the Township or by the Landscape Architect shall be as binding as if given to the Contractor.

6. PERMITS, LICENSES AND TAXES

The Contractor shall give all notice required by and comply with all applicable laws, ordinances, and codes of the Township. All construction work and/or utility installations shall comply with all applicable laws, ordinances, and codes of the Township. Before installing any work, the Contractor shall examine the Drawing and Detail Specifications for compliance with applicable laws, ordinances and codes and shall immediately report any discrepancy to the Landscape Architect and the Township.

Should the Contractor fail to observe the foregoing provisions and proceed with the construction and/or install any utility varying from any applicable law, ordinance or code, the Contractor shall remove such work without cost to the Township.

The Contractor shall, at their own expense, secure and pay to the Codes Department of the Township the fees, or charges for all permits required by the Township for the work.

Permits for the opening and/or occupation of Township / Township roads shall be obtained by the Contractor. State Highway permits shall be obtained by the Township. However, all inspection fees and/or any other charges shall be borne by the Contractor, whether same is billed directly to them or to the Township. Should any such bill be left unpaid by the Contractor, the Township shall be empowered to pay such bills and the cost thereof deducted from any moneys due or to become due under the Contract.

Whenever the proposed construction requires a sales, consumers use, or other similar tax, the Contractor shall pay for same.

7. PROVISIONS REQUIRED BY LAW

Each and every provision of law and clause required by law to be inserted in this Contract shall be deemed to be inserted herein and the Contract shall be read and enforced as though it were included herein; and, if through mistake or otherwise, any such provision is not inserted or is not correctly inserted, then upon the application of either party the Contract shall forthwith be physically amended to make such insertion.

8. PROTECTION OF WORK AND PROPERTY

The Contractor shall provide adequate protection against injury or loss arising in connection with this Contract for all their work and the property of the Township. They shall make good any such damage, injury, or loss, except such as may be due directly to errors in the drawings or specifications or caused by agents or employees of the Township. They shall adequately protect adjacent property as provided by law and the specifications and drawings. They shall provide facilities for protection required by public authority or local conditions as passageways, guard fences, lights, etc.

The Contractor shall preserve and protect all trees, shrubs, and grass on or adjacent to the site which do not reasonably interfere with the construction as may be determined by the Landscape Architect. The Contractor shall be responsible for all unauthorized cutting or damaging of trees and shrubs, including damage due to careless operation of equipment, stockpiling of materials, or tracking of grass areas by equipment. The Contractor shall remove only those trees designated by the Landscape Architect to be removed.

9. TEMPORARY PROVISION FOR PUBLIC TRAVEL

The Contractor shall perform their work in such a manner as to interfere as little as possible with the use of intersecting roads or adjoining property. No excavation shall be left open or other obstruction allowed to remain longer than is absolutely necessary; Contractor shall provide all safeguards and temporary passageways that may be necessary for the convenience and protection of all persons using said property either day or night.

10. SHOP DRAWINGS

The Contractor shall check and verify all field measurements, and shall submit three copies, checked, and approved by them, of all shop or setting drawings and schedules required for the work of the various trades. The Landscape Architect shall check and approve, with reasonable promptness, schedules, and drawings only for conformance with the design concept of the Project and compliance with the information given in the Contract Documents. The Contractor shall make any corrections required by the Landscape Architect, file with them two copies and furnish such other copies as may be needed. The Landscape Architect's approval of such drawings or schedules shall not relieve the Contractor from responsibility for deviations from Drawings or Specifications, unless they have in writing called the Landscape Architect's attention to such deviations at the time of submission, and secured its written approval, nor shall it relieve them from responsibility for errors in shop drawings or schedules.

11. TERMINATION, DELAYS, and LIQUIDATED DAMAGES

If the Contractor refuses or fails to prosecute the work with such diligence as will ensure its completion within the time specified in these Contract Documents, or as modified as provided in these Contract Documents, the Township by written notice to the Contractor, may terminate the Contractor's right to proceed with the work. Upon such termination, the Township may take over the work and prosecute the same to completion by contract or otherwise, and the Contractor and their sureties shall be liable to the Township for additional cost incurred by the Township as liquidated damages for any delay in the completion of the work as provided below. If the Contractor's right to proceed is so terminated, the Township may take possession of and utilize in completing the work the materials, tools, equipment and plant as may be on the site of the work and necessary therefore.

If the work has not been completed within the time stipulated, including any extensions of time for excusable delays as herein provided, the Contractor shall pay to the Township Liquidated Damages for each calendar day of delay, as set forth in the Form of Agreement, and the Contractor and their sureties shall be liable to the Township for the amount thereof.

The right of the Contractor to proceed shall not be terminated nor shall the Contractor be charged with Liquidated Damages for any delays in the completion of the work due:

To any acts of the Government including controls or restriction upon or requisitioning of materials, equipment, tools, or labor by reason of war, national defense, or any other national emergency; and

To causes not reasonably foreseeable by the parties to this Contract at the time of the execution of the Contract which are beyond the control and without the fault of negligence of the Contractor, including, but not restricted to, acts of God, fires, floods, epidemics, quarantine, restrictions, strikes, freight embargoes, and weather of unusual severity such as hurricanes, tornadoes, cyclones and other extreme weather conditions; and

Provided, however, that the contractor promptly notifies the Landscape Architect and Township within ten (10) days in writing of the cause of the delay. Upon receipt of such notification, the Township shall ascertain the facts and the cause and extent to delay. If, upon the basis of the facts and the terms of this Contract the Township determines the delay is excusable, the Township shall extend the time of completing the work for a period of time commensurate with the period of excusable delay.

Should the completion of the work be delayed beyond the time herein specified for completion for any reason other than the act of neglect of the Township, or an approved extension of time, the Contractor shall pay the Township the actual engineering expenses incurred by the Township as a result of such delay and the Township may deduct such engineering costs from any payments due or to become due the Contractor.

12. INCONSISTENT SPECIFICATIONS AND DRAWINGS

Anything mentioned in the Detail Specifications and not shown on the Drawings or shown on the Drawings and not mentioned in the Detail Specifications, shall be of like effect as if shown on or mentioned in both. In case of difference between Drawings and Detail Specifications, the better quality or greater quantity of work or materials and the more stringent requirements shall be included in the bid, and unless otherwise ordered in writing by the Landscape Architect, shall be performed or furnished.

13. USE OF PREMISES

The Contractor shall confine their equipment, storage of materials and construction operations to the Contract limits as shown on the Drawings and as prescribed by Township code or permits, or as may be directed by the Township, and shall not unreasonably encumber the site or public rights of way with their materials and construction equipment.

The Contractor shall comply with all reasonable instructions of the Township, and the laws, ordinances, and codes of the Township regarding signs, advertising, traffic, fires, explosives, danger signals, and barricades.

14. POSSESSION PRIOR TO COMPLETION

The Township shall have the right to take possession or use any completed or partially completed part of the work, but such possession or use shall not be deemed an acceptance of any work not completed in accordance with the Contract.

15. CHANGES IN THE WORK

The Township may make changes in the scope of work required to be performed by the Contractor under the Contract or make additions thereto, or omit work therefrom, without invalidating the Contract, and without relieving or releasing the Contractor from any of their obligations under the Contract or any guarantee given by them pursuant to the Contract provisions, and without affecting the validity of the guaranty bonds, and without relieving or releasing the surety or sureties of said bonds. All such work shall be executed under the terms of the original Contract unless it is expressly provided otherwise.

Except for the purpose of affording protection against endangering life or property, the Contractor shall make no changes in the materials used or in the specified manner of constructing and/or installing the improvements or supply additional labor, services, or materials beyond that actually required by the Contract, unless in conformity with a written change order from the Township authorizing the Contractor to proceed with the change. No claim for an adjustment of the contract price will be valid unless so ordered by the Township.

Where applicable, when unit prices are contained in the Bid, the Township may order the Contractor to proceed with desired changes in the work. The value of such changes are to be determined by the measured quantities involved and the applicable unit prices specified in the Contract. The Township shall, before ordering the Contractor to proceed with desired changes, requires an itemized bid from them covering the additional work involved in the change, following which the procedure shall be as follows:

If the itemized bid is acceptable, the Township will prepare the change order in accordance therewith for acceptance by the Contractor and;

If the itemized bid is not acceptable, and prompt agreement between the two parties cannot be reached, the Township may order the Contractor to proceed with the work on a COST OF WORK basis.

Payment under COST OF WORK will be for the actual and necessary direct cost of the work in accordance with the orders of the Landscape Architect, and in addition thereto the percentage of such cost hereafter stated. "Actual and necessary direct cost" shall be deemed to include the following:

(1) The actual expenditure for labor for the time actually engaged in the work, including the distributed cost of foreman in direct charge of such labor and insurance, taxes and other payments applicable to such labor.

(2) The actual expenditure for materials used up or incorporated in the work.

(3) A reasonable hourly, weekly or monthly rental, as applicable, as determined by the Landscape Architect, for use of motor trucks and special equipment such as power-operated shovels, cranes, drills, paving breakers, etc. (but not including small hand tools), at a rate not to exceed the current local rate charged for the type of equipment used, for the time that such equipment is required for the work, for the COST OF WORK exclusively. The rental price shall be for equipment provided for the work and shall include transportation to and from the work, fuel, power, lubricants, operating tools, repairs, depreciation, replacements, and the sharpening of drills and other tools required to keep them in the best working condition.

To the actual and necessary direct cost of the work done under COST OF WORK as noted above, fifteen (15) percent will be added to the expenditure for labor as set forth in sub-paragraph (1) above and then (10) percent will be added to the expenditure for materials. No additions will be allowed to the rental of trucks, and special equipment. These percentages, and the rental price for equipment furnished, shall be deemed to cover the cost of heat, light, use and upkeep of small hand tools, administration, a landscape architect, a superintendent, all loss, damage, risk, and expenses incidental to the work and profit. The Contractor shall have no claim in excess of the above, such payments being in full compensation for the performance of such work and the furnishing of such materials and for all expense in connection therewith and incidental thereto.

Should the Contractor sublet any portion of the work to be executed under COST OF WORK payment, that portion of the work will be computed as the actual and necessary direct cost, as defined in paragraph 1. above, exclusive of any profit to the subcontractor, plus five (5) percent of the total paid to the sub-contractor.

The Contractor shall submit daily a statement in duplicate of work done on a COST OF WORK basis within twenty-four hours of the time the work is done, and representatives of the Landscape Architect and the Contractor shall make daily comparison of the time and rates of labor, material used, etc., as given therein. After correction, if necessary, this comparison shall be signed by each and filed with the Landscape Architect and the Contractor. The Contractor shall submit to the Landscape Architect monthly, prior to each current estimate, four copies of any itemized statement of the amount and value of labor and materials furnished, accompanied by the original receipted bills for commodities purchased or for work performed under a subcontract, and by an affidavit certifying the correctness of the said statement. The Landscape Architect shall have access to any books, vouchers, records, and memoranda showing the labor employed and the materials actually used on the specific operation and the actual net cost thereof.

16. CLAIMS FOR EXTRA COST

If the Contractor claims that any instructions by Drawing or otherwise involve extra cost or extension of time, they shall immediately after the receipt of such instructions, and in any event before proceeding to execute the work, submit their claim thereto in writing to the Township, stating clearly and in detail the basis of their claim. No such claim will be considered unless so made.

Any discrepancies which may be discovered between actual conditions and those presented by the Drawings and maps shall at once be reported to the Landscape Architect and the Township, and work shall not proceed except at the Contractor's risk until written instructions have been received by them from the Township.

If, on the basis of the available evidence, the Township determines that an adjustment of the Contract Price and/or time to complete is justifiable, the procedure shall then be as provided herein.

17. DISPUTES

All disputes arising under this Contract or its interpretation, whether involving law or fact or both, or extra work, and all claims for alleged breach of contract, shall be presented by the Contractor to the Landscape Architect and Township within (10) days of commencement of the dispute for decision by the Township. All papers pertaining to claims shall be filed in quadruplicate. Such notice need not detail the amount of the claim but shall state the facts surrounding the claim in sufficient detail to identify the claim, together with its character and scope. In the meantime, the Contractor shall proceed with the work as directed. Any claim not presented within the time limit specified within this paragraph shall be deemed to have been waived, except that if the claim is of a continuing character and notice of the claim is not given within ten (10) days of its commencement, the claim will be considered only for a period commencing ten (10) days prior to the receipt of the claim by the Landscape Architect and the Township of notice thereof.

The Contractor shall submit in detail their claim and their proof thereof. Each decision by Upper Dublin Township will be in writing and will be mailed to the Contractor by registered mail, return receipt requested.

If the Contractor does not agree with any decision of the Township, they shall in no case allow the dispute to delay the work but shall notify the Township promptly that they are proceeding with the work under protest and they may then accept the matter in question from the final release.

18. MATERIALS AND WORKMANSHIP

Unless otherwise specifically provided for in the Detail Specifications, all workmanship, equipment, materials and articles incorporated in the work shall be new and the best grade of the respective kinds for their purpose. Where equipment, materials, articles or workmanship are referred to in the Detail Specifications as "Equal To" any particular standard, the Landscape Architect shall decide the question of equality.

The Contractor shall furnish to the Landscape Architect for approval the manufacturers' detailed specifications for any equipment which they contemplate installing, together with full information as to type, performance characteristics, and any other pertinent information concerning all other materials or articles which they propose to incorporate in the work.

Materials or articles installed or used without prior approval from the Landscape Architect shall be at the risk of subsequent rejection.

Materials specified by reference to the number or symbol of a specific standard, such as A.S.T.M. Specification, a Federal Specification or other similar standard, shall comply with requirements for the latest revision thereof and any amendment or supplement thereto in effect on the date of the Invitation for Bids, except as limited to type, class, or grade, or modified in such reference. The standards referred to, except as modified in the Detail Specifications, shall have full force and effect as though printed therein.

The Township may require the Contractor to dismiss from the work such employee or employees as the Township or the Landscape Architect may deem incompetent or careless or insubordinate.

19. SAMPLES, CERTIFICATES, AND TESTS

The Contractor shall submit all materials or equipment samples, certificates, affidavits, etc., as called for in the contract documents or required by the Landscape Architect promptly after award of the Contract and acceptance of the Contractor's bonds. No such material or equipment shall be manufactured or delivered to the site, except at the Contractor's own risk, until the required samples or certificates have been approved in writing by the Landscape Architect. Any delay in the work caused by late or improper submission of samples or certificates for approval shall not be considered just cause for an extension of the contract time.

Each sample submitted by the Contractor shall carry a label giving the name of the Contractor, the project for which it is intended, and the name of the producer. The accompanying certificates or letter from the Contractor shall state that the sample complies with contract requirements, shall give the name and brand of the product, its place of origin, the name and address of the producer and all specifications or other detailed information which will assist the Landscape Architect in passing upon the acceptability

of the sample promptly. It shall also include the statement that all materials or equipment furnished for use in the project will comply with the samples and/or certified statements.

Approval of any materials shall be general only and shall not constitute a waiver of the Township's right to demand full compliance with Contract requirements. After actual deliveries, the Landscape Architect will have such check tests made as they deem necessary in each instance and may reject materials and equipment and accessories for cause. If materials, equipment, or accessories which fail to meet check tests have been incorporated in the work, the Landscape Architect will have the right to cause their removal and replacement by proper materials or to demand and secure such reparation by the Contractor as is equitable.

20. CHANGES IN EQUIPMENT/MATERIALS

In these specifications and on accompanying drawings, certain pieces of equipment and/or materials which are deemed most suitable for service anticipated may be identified. This is not done to eliminate other equipment and material equally as good and efficient. Contractors shall prepare their bid on particular material and equipment specified. Should Contractor desire to use some other make of machinery, equipment, or material, they shall submit with their bid a written request for such change and shall state the advantage to Township in savings or additional costs involved by substitution. Determination as to whether or not such change will be permitted rests solely with the Landscape Architect.

If the requested change resulted in added engineering costs, the Contractor and Township will be notified of the magnitude of same by the Landscape Architect, and the change will only be processed upon agreement by the Contractor to pay for the added engineering costs. If the Contractor refuses to pay said added engineering costs, the Contractor must supply the equipment and/or materials specified.

21. PATENTS

The Contractor shall hold and save the Township, its officers, and employees, harmless from liability of any nature or kind including costs and expenses, for, or on account of, any patented or unpatented invention, process, article, or appliance manufactured or used in the performance of the Contract including its use by the Township unless otherwise specifically stipulated in the Detail Specifications.

22. WARRANTY OF TITLE

No material, supplies, or equipment for the work shall be purchased subject to any chattel mortgage or under a conditional sale or other agreement by which an interest therein or in any part thereof is retained by the seller or supplier. The Contractor shall warrant good title to all materials, supplies, and equipment installed or incorporated in the work and upon completion of all work, shall deliver the same, together with all improvements and appurtenances, to the Township free from any claim, liens, or charges. Neither the Contractor nor any person, firm or corporation furnishing any material or labor for any work covered by this Contract shall have any right to a lien upon any improvement or appurtenance thereon. Nothing contained in this paragraph, however, shall defeat or impair the right of persons furnishing materials or labor to recover under any bond given by the Contractor for their protection or any rights under any law permitting such persons to look to funds due the Contractor in the hands of the Township. The provisions of this paragraph shall be inserted in all sub-contracts and material contracts and notice of

its provisions shall be given to all persons furnishing materials for the work when no formal contract is entered into for such material.

23. THE TOWNSHIP'S RIGHT TO DO WORK

If the Contractor should neglect to prosecute the work properly or fail to perform any provision of the Contract, the Township, after three days' written notice to the Contractor may, without prejudice to any other remedy it may have, make good such deficiencies and may deduct the cost thereof from the payment then or thereafter due the Contractor or have the necessary funds released from their Bonding Company, provided, however, that the Landscape Architects shall approve both such action and the amount charged to the Contractor.

24. THE TOWNSHIP'S RIGHT TO TERMINATE CONTRACT

If the Contractor should be adjudged bankrupt, or if they should make a general assignment for the benefit of their creditors, or if a receiver should be appointed on account of their insolvency, or if they should persistently or repeatedly refuse or should fail, except in cases for which extension of time is provided, to supply enough properly skilled workmen or proper materials, or if they should fail to make prompt payment to subcontractors or for material or labor, or persistently disregard laws, ordinances, codes or the instructions of the Landscape Architect, or otherwise be guilty of a material violation of any provision of the Contract, then the Township may, upon the certification of the Landscape Architect that sufficient cause exists to justify such action, without prejudice to any other right or remedy and after providing the Contractor and their surety seven (7) days written notice, terminate the employment of the Contractor and take possession of the premises and of all materials, tools and appliances thereon and finish the work by whatever method the Township may deem expedient. In such case the Contractor shall not be entitled to receive any further payment until the work is finished. If the unpaid balance of the Contract shall exceed the expense of finishing the work including compensation for additional managerial and administrative services, such excess shall be paid to the Contractor. If such expense shall exceed such unpaid balance, the Contractor or its surety shall pay the difference to the Township. The expense incurred by the Township as herein provided, and the damage incurred as a result of the Contractor's default, shall be certified by the Landscape Architect.

25. DAMAGES

Should either party to the Contract suffer damages because of any wrongful act or neglect of the other party or of anyone by them, claim shall be made in writing to the party liable within a reasonable time of the first observance of such damage and not later than the final payment, except as expressly stipulated otherwise in the case of faulty work or materials and shall be adjusted by agreement or arbitration.

26. LANDSCAPE ARCHITECT STATUS

The Landscape Architect shall be the Township's representative during the construction period. The Landscape Architect will make periodic visits to the site to familiarize themselves generally with the progress and quality of the work and to determine in general if the work is proceeding in accordance with the Contract Documents. They will not be required to make exhaustive or continuous on-site inspections to check the quality or quantity of the work and they will not be responsible for the Contractor's failure to carry out the construction work in accordance with the Contract Documents. During such visits and on

the basis of their observations while at the site, they will keep the Township informed of the progress of the work, will endeavor to guard the Township against defects and deficiencies in the work of Contractor, and they may reject work as failing to conform to the Contract Documents. They shall have authority to act on behalf of the Township only to the extent expressly provided in the Contract Documents or otherwise in writing, which shall be shown to the Contractor. They shall have authority to reject the work whenever such rejection may be necessary in their reasonable opinion to ensure the proper execution of the Contract.

The Landscape Architect shall be, in the first instance, the interpreter of the terms and conditions of the Contract and the judge of its performance. They shall side neither with the Township nor with the Contractor but shall use their powers under the Contract to enforce its faithful performance by both parties.

In case of termination of the employment of the Landscape Architect, the Township shall appoint a capable and reputable landscape architect or professional engineer for which the Contractor has no reasonable objection, whose status under the Contract shall be that of the former Landscape Architect. Any dispute in connection with such appointment shall be subject to arbitration.

27. NO ESTOPPEL OR WAIVER OF LEGAL RIGHTS

The Township or the Landscape Architects shall not be precluded or stopped by any measurement, estimate or certificate made or given by either of them, or by any agent or employee of the Township, under any provision or revision of the Contract, either before or after the completion and acceptance of the work and payment thereof pursuant to the measurements, from finding that an estimate or certificate is untrue or incorrectly made in any particular, or that the work or materials or any part thereof do not conform in fact to the Contract. The Township shall have the right to reject the whole or any part of the aforesaid work or materials should that said measurements, estimate, certificate and payment in accordance therewith, and demand and recover from the Contractor and their surety such damages as they may sustain by reason of their failure to comply with the terms of the Contract. Neither the acceptance by the Landscape Architect or any agent or employee of the Township, nor any certificate by the Landscape Architect for payment of money, nor any payment for or acceptance of the whole or any part of the work by the Township or the Landscape Architect, nor any extension of time, nor any possession taken by the Township or their employees, shall operate as a waiver of any portion of the Contract or of any power herein reserved by the Township, or any right to damages herein provided, nor shall any waiver of any breach of contract be held to be a waiver of any other or subsequent breach.

28. SAFETY AND HEALTH REGULATIONS (OSHA)

The Contractor shall comply with the Department of Labor Safety and Health Regulations for construction promulgated under the Occupational Safety and Health Act of 1970 (PL-91596) and under Section 107 of the Contract Work Hours and Safety Standards Act (PL-91-54). All work must be in compliance with State and Federal Occupational Health and Safety Regulations.

29. ARBITRATION

All claims, disputes and other matters in question arising out of, or relating to, this Contract or the breach thereof shall be decided by mutual agreement to arbitration in accordance with the Construction Arbitration Rules of the American Arbitration Association. This agreement to arbitrate shall be

specifically enforceable under the applicable arbitration law. The award rendered by the arbitrators shall be final, and judgment may be entered in the Court of Common Pleas of Montgomery County, except that in any dispute between the Contractor and the Township over the payment of retainage and final payment on the Contract in excess of \$50,000, either party shall have the right of appeal from any decision and award as provided by law.

Notice of the request for arbitration shall be filed in writing with the other party to the Contract and with the American Arbitration Association, and a copy shall be filed with the Landscape Architect. The request for arbitration shall be made within a reasonable time after the claim, dispute or other matters in question has arisen, and in no event shall it be made after institution of legal or equitable proceedings based on such claims, dispute or other matter in question would be barred by the applicable statute of limitations.

The Contractor will carry on the Work and maintain the progress schedule during any arbitration proceedings, unless otherwise agreed by them and the Township in writing.

30. INDEMNIFICATION

The Contractor will indemnify and hold harmless the Township and the Landscape Architect and their agents and employees from and against all claims, damages, losses and expenses, including attorney's fees and expert witness fees, arising out of or resulting from the performance of the Work, provided that any such claim, damage, loss or expense (a) is attributed to bodily injury, sickness, disease or death, or to injury to or destruction of tangible property (other than the work itself) including the loss of use resulting therefrom and (b) is caused in whole or in part by any negligent act or omission of the Contractor, any Subcontractor, anyone directly or indirectly employed by any of them or anyone for whose acts any of them may be liable, regardless of whether or not it is caused in part by a party indemnified hereunder.

In any and all claims against the Township or the Landscape Architect or any of their agents or employees by any employee of the Contractor, and Subcontractor, anyone directly or indirectly employed by any of them or anyone for whose agents any of them may be liable, the indemnification obligation shall not be limited in any way by any limitation on the amount or type of damages, compensation of benefits payable by or for the Contractor or any Subcontractor under workmen's compensation acts, disability benefit acts or other employee benefit acts.

The obligations of the Contractor shall not extend to the liability of the Landscape Architect, their agents or employees arising out of (a) the preparation or approval of maps, drawings, opinions, reports, surveys, Change Orders, designs or specifications or (b) the giving of or the failure to give directions or instructions by the Landscape Architect, their agents or employees provided such giving or failure to give is the primary cause of injury or damage.

31. SUB-SURFACE INFORMATION

Data concerning sub-surface materials or conditions based upon probes, soundings, test pits or test borings is not available in report form. On-site soil excavations occurred in June of 2021, revealing the following:

- All soils are comprised of rock fill varying in size from 1" to 34" +
- Bedrock was discovered at a depth of 4 feet, northwest of the existing tanks

- Bedrock was discovered at a depth of 7 feet, southeast of the existing tanks.
- It shall be the contractor's responsibility to verify sub-surface conditions, prior to submitting a bid.

F. SPECIAL CONDITIONS

1. CONTRACT SECURITY

Each Contractor shall furnish a surety bond in an amount equal to 100 percent of the Contract for faithful PERFORMANCE; a separate surety bond in an amount equal to 100 percent of the contract for the PAYMENT of Labor and Materials; and a separate MAINTENANCE bond in an amount equal to 10% of the total contract price up to \$200,000; plus 10% above \$200,000. The PERFORMANCE AND PAYMENT bonds are to continue in effect for a period of one (1) year after final payment. The MAINTENANCE bond is to continue in effect for a period of two (2) years after the date of completion, approval and acceptance of the entire work by the Township. Work shall not commence under this Contract until each of the above bonds have been obtained. All bonds must be executed by a corporate surety licensed to do business in the Commonwealth of Pennsylvania, satisfactory to the Township. Each set of bonds executed must include a Power of Attorney, the latest statement of assets and liabilities, and an authorized signature from that company. Should any surety or surety bond become unsatisfactory to the Township, the Contractor must promptly furnish such additional security as may be required from time to time to protect the interests of the Township. Only bonds from companies licensed to do business in the Commonwealth of Pennsylvania will be accepted and the bond shall so state same.

2. CONTRACTOR'S INSURANCE

a. GENERAL INSURANCE REQUIREMENTS

All insurers and sureties underwriting Contractor's or Subcontractor's insurance and bonds must be licensed in the Commonwealth of Pennsylvania and have a minimum rating of "A", "VII" in the latest edition of Best's Insurance Reports, unless otherwise approved by Upper Dublin Township. (Such insurers and sureties shall also meet such additional requirements and qualifications as may be provided in the Supplementary Conditions.)

The Contractor shall not start work under this Contract until Contractor has obtained, at its own expense, all of the insurance called for hereunder and such insurance has been approved by the Township; nor shall Contractor allow any Subcontractors to start work on any subcontract until all insurance required of the Subcontractor has been so obtained and approved by the Contractor. Approval of insurance required of Contractor and Subcontractors by the Township will be granted only after submission to Upper Dublin Township of original, signed certificates of insurance or, alternately, at the Township's request, certified copies of the required insurance policies. Approval of insurance required shall not be unreasonably withheld.

Contractor shall require all Subcontractors to maintain during the term of the Contract commercial general liability insurance, business auto liability insurance and workers compensation and employers' liability insurance in the same manner as specified for Contractor. The contractor shall furnish Subcontractor's certificates of insurance to the Township immediately upon request.

All insurance policies required hereunder shall be endorsed to provide that the policy is not subject to cancellation, non-renewal, material change or reduction in coverage until 60 days prior written notice has been given to Upper Dublin Township.

Each insurance policy required by this contract, except for the workers' compensation policy, shall contain the following clause:

“Upper Dublin Township, its employees, agents, officials and volunteers, are hereby added as additional insureds as respects the operations and activities of this contract.”

“Any insurance maintained by Upper Dublin Township shall apply in excess of the insurance required by this Contract.”

No acceptance and/or approval of any insurance by Upper Dublin Township shall be construed as relieving or excusing Contractor, or the surety, or its bonds, from any liability or obligation imposed upon either or both of them by the provisions of the Contract.

b. CONTRACTOR’S INSURANCE

Contractor shall secure and maintain, at its own expense, during the Contract term the following insurance:

Commercial general liability insurance which insures against claims for bodily injury, property damage, personal injury and advertising injury arising out of or in connection with any operations or work under the contract documents whether such operations be by Contractor, its employees or Subcontractors or their employees. The policy shall provide minimum limits of liability as follows:

- \$1,000,000 combined single limit – each occurrence
- \$2,000,000 combined single limit – general aggregate
- \$2,000,000 combined single limit – products/completed operations aggregate

Any general aggregate limit shall apply per project and per location.

This insurance shall name Upper Dublin Township, its elected and appointed officials, servants, agents, and employees as additional insureds. This insurance shall also name CMC Engineering and its employees as additional insureds. The commercial general liability policy shall afford coverage for the explosion, collapse and underground hazards, contractual liability and liability arising from independent contractors. Products and completed operations insurance shall be maintained for two years after completion of the Project.

Business auto liability insurance, which insures against bodily injury and property damage claims arising out of the maintenance, use or operation of any “auto”. The minimum limit shall be a combined single limit of \$1,000,000 per accident. This policy shall include the Motor Carrier Act endorsement if applicable.

Workers compensation insurance and employers' liability insurance which satisfies Contractor's workers compensation obligation to its employees in the states in which they operate on Upper Dublin Township's behalf. Employer's liability insurance must be secured with minimum limits of \$100,000 each accident for bodily injury by accident, \$100,000 each employee for bodily injury by disease and a \$500,000 policy limit for bodily injury by disease. Coverage for Pennsylvania benefits must be specifically referenced on certificates and certified policies provided to Upper Dublin Township. Contractor will secure an agreement from their workers compensation insurer to waive any right of subrogation against Upper Dublin Township, its elected and appointed officials, servants, agents and employees.

Umbrella excess liability insurance written to apply excess of commercial general liability insurance, business auto liability insurance and employer's liability insurance. The policy should provide minimum limits as follows:

- \$1,000,000 each occurrence
- \$1,000,000 aggregate other than products/completed operations and auto liability
- \$1,000,000 products/completed operations aggregate

If any liability insurance purchased by Contractor has been issued on a "claims made" basis, Contractor must comply with the following additional conditions. The limits of liability and the extensions to be included remain the same.

Contractor must either:

- A. Agree to provide certificate of insurance to Upper Dublin Township evidencing the above coverages for a period of two years after final payment for the contract. Such certificates shall evidence a retroactive date no later than the beginning of Contractor's or Subcontractor's work under this Contract; or
- B. Purchase an extended (minimum two years) reporting period endorsement for the policy or policies in force during the term of this contract and evidence the purchase of this extended reporting period endorsement itself. Such endorsement shall evidence a retroactive date no later than the beginning of Contractor's or Subcontractor's work under this Contract.

3. INDEMNIFICATION

To the extent permitted by law, Contractor covenants to defend, hold harmless and indemnify Upper Dublin Township, its elected and appointed official servants, agents and employees, from and against any and all claims, loss, damage, injury, cost including court costs and attorney's fees, charge, liability or exposure, however caused, resulting from or arising out of or in any way connected with Contractor's performance of the Contract terms or its obligations under the Contract.

Nothing herein contained shall be construed as limiting in any way the extent to which Contractor may be held responsible for payments of damages to persons or property resulting from Contractor's or its Subcontractor(s)' performance of the work covered under the Agreement.

4. LOCATION OF UTILITIES

George Hagggar Fire Training Center
Upper Dublin Township, PA

ISSUED FOR BID
4/21/2023
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The Contractor will be held responsible for locating, in advance of the structures to be built under this Agreement, all underground structures, such as water and gas mains; water and gas services; storm sewers and telephone and electric conduits, etc., which may be encountered during construction. They shall either dig test holes to determine the position of the underground structures, or they shall arrange with the owner of such underground structures to assign a representative to make the locations. The Contractor shall pay the cost of digging test holes and likewise they shall pay the cost of the services of the representative of the owner of such utilities for locating the said utilities; and the cost of determining the locations shall be included in the Contractor's unit or lump sum prices bid. The locations of utility service lines, as shown on the plans, are for the guidance of the Contractor and, since the information is as furnished by the respective utilities, the Landscape Architect is not responsible for the accuracy of the information in this respect. The Contractor shall not be entitled to any claim for damage or extra compensation because of any delay caused by their failure to arrange for the location of utilities in advance of their work.

5. INSPECTION OF WORK

The Township and/or Landscape Architect may appoint such persons as they deem necessary to inspect, at any time, materials and equipment furnished and work done, under this Agreement. The Landscape Architect shall be notified of the time and place of all work performed in sufficient time to allow arrangements for the assignment of inspectors. Neither the inspection nor surveillance of the work, nor the presence or absence of an inspector shall relieve the Contractor of any of their obligations under the Agreement or of making their work conform to the drawings and/or specifications. The Contractor shall arrange with all applicable Commonwealth, County and/or Township departments having jurisdiction for inspection and shall pay all costs incident thereto.

The Township's inspectors shall be authorized to inspect all work done and materials furnished. Such inspection may extend to all or any part of the work and to the preparation or manufacture of the materials to be used. Inspectors will be present at the work site to report to the Landscape Architect as to the progress of the work and the manner in which it is being performed; to report whenever it appears that the materials furnished and work performed by the Contractor fail to fulfill the requirements of the Agreement; and, to call to the attention of the Contractor any such failure or other default, provided that no inspection or any failure to inspect, at any time or place, shall relieve the Contractor from any obligation to perform all work strictly in accordance with the requirements of the Agreement. In case of any dispute arising between the Contractor and any inspector as to materials furnished or the manner of performing the work, the inspector shall have the authority to reject materials or suspend the work until the question at issue can be referred to and decided by the Landscape Architect. The inspectors shall not be authorized to revoke, alter, enlarge, relax, or release any requirements of the Agreement, nor to approve or accept any portion of work, nor to issue instructions contrary to the drawings and specifications. Inspectors shall in no case act as foreman or perform other duties for the Contractor, nor interfere with the management of the work by the Contractor. Any instructions which the inspectors may give the Contractor shall in no way be construed as releasing the Contractor from fulfilling the terms and conditions of the Agreement.

When the Contractor has fully completed all work provided for under their Agreement and so notified the Landscape Architect in writing, they will make a final inspection of the completed work and if, in their judgment, the Contractor has fully completed the work and it is in accordance with all terms, provisions and stipulations of the drawings, specifications and Agreement, they will issue a Certificate of

Completion to the Township showing the entire amount of work performed and the compensation earned by Contractor, including any approved extra work and the compensation therefore.

6. USE OF EXPLOSIVES

The Contractor shall use the utmost care when using dynamite or similar explosives, particularly during freezing weather, and for the protection of life and property, whenever the use of explosives is necessary to the prosecution of the work and whenever directed, the number and size of the charges shall be reduced. Use of explosives shall be at the discretion of the Township and their representatives. In thawing dynamite or similar explosives, instructions given by the manufacturer shall be strictly followed. The Landscape Architect shall be empowered to regulate the character and strength of the explosives used, the manner of their use and storage, and the method of placing the shots. Only such amounts of explosives, as determined by the Landscape Architect, shall be kept in any one place. All explosives shall be stored in a secure manner and all such places shall be marked clearly "DANGEROUS EXPLOSIVES" and shall be kept under lock and key to be only in the hands of a trustworthy person, licensed to handle explosives, at all times.

No larger quantity of explosives shall be kept on the line of work than will be actually required for twelve (12) hours of work next ensuing, and such supplies shall be divided into as small lots as practicable. The amount of explosives kept in any one place shall be determined by the Landscape Architect. Caps and exploders shall not be kept in the same place with dynamite and other explosives. The Contractor MUST familiarize themselves with all laws and ordinances pertaining to the storage and use of explosives.

The contractor shall verify with the Township whether or not the use of explosives is permitted for use within the limits of disturbance.

7. NIGHT, WEEKEND AND HOLIDAY WORK

When required by the nature of the Agreement and/or upon specific permission of the Landscape Architect, the Contractor shall perform all necessary work at night and/or weekends and holidays. The contractor shall verify with the Township to ensure all night/weekend work is acceptable.

8. PAYMENT TO CONTRACTOR

PARTIAL PAYMENT:

The total value of work completed to date shall be based on the estimated quantities of work completed and on the unit prices and lump sum prices contained in the Bid. Payment for materials delivered and stored but not yet used will be made only if specifically provided for herein under the "SPECIAL CONDITIONS." The Contractor shall prepare their requisition for partial payment as of the day of the month mutually agreed upon and submit same in quadruplicate to the Landscape Architect for their approval.

For contracts \$50,000 or less the amount due, the Contractor shall be determined by the total value of work completed to date less than ten percent (10%) of the total amount to be retained until final payment.

For contracts in excess of \$50,000 the amount due the Contractor shall be determined by the total value of work complete to date less ten percent (10%) of the total amount to be retained until ninety percent (90%) of the work has been completed and five percent (5%) until final payment. Provided, however, that in the event a dispute arises between the Township and any prime Contractor, which dispute is based upon increased costs claimed by one prime Contractor occasioned by delays or other actions of another prime contractor, additional retainage in the sum of one and one-half times the amount of any possible liability may be withheld until such time as a final resolution is agreed to by all parties directly or indirectly involved, unless the Contractor causing the additional claim furnishes a bond satisfactory to the Township to indemnify such Township against the claim. However, all such moneys retained by the Township may be withheld from the Contractor until substantial completion of the Agreement.

Within 20 days of the receipt of a retainage payment by the Contractor, the Contractor shall pay all subcontractors with whom they have contracted their earned share of the payment the Contractor received.

Monthly or partial payment made by the Township to the Contractor are moneys advanced for the purpose of assisting the Contractor to expedite the work of construction. All material and completed work covered by such monthly or partial payments shall remain the property of the Contractor and they shall be responsible for the care and protection of all materials and work upon which payments have been made. Such payments shall not constitute a waiver of the right of the Township to require the fulfillment of all terms of the Agreement and the delivery of all improvements embraced in this Agreement to the complete satisfaction of the Township.

Final Payment:

After final inspection and acceptance by the Township of all work under the Agreement, the Contractor shall prepare their requisition for final payment which shall be based upon the carefully measured or computed quantity of each item of work at the applicable unit prices and lump sum prices stipulated in the Bid. The total amount of the final payment due the Contractor under this Agreement shall be the amount computed as described less all previous payments. Final payment to the Contractor shall be made subject to their furnishing the Township with the "CONTRACTOR'S RELEASE" and "STATEMENT OF SURETY" as included herein.

The Township, before paying the final estimate, may at their option require the Contractor to furnish individual releases of receipts from all subcontractors having performed any work and all persons having supplied materials, equipment (installed on the project, and services to the Contractor, if the Township deems the same necessary in order to protect its interest. The Township, however, may if it deems such action advisable, make payment in part or in full to the Contractor without requiring the furnishing of such releases or receipts and any payments so made shall in no way relieve the obligations of any surety or securities furnished under this Agreement. The foregoing provisions shall be construed solely for the benefit of the Township and will not require the Township to determine or adjust any claim or disputes between the Contractor and their subcontractors or material dealers, or to withhold any moneys for their protection, unless the Township elects to do so. The failure or refusal of the Township to withhold any moneys from the Contractor shall in no way impair the obligations of any surety or securities under any bond or bonds furnished under this Agreement.

On contracts in excess of \$50,000 the Contractor shall be paid in full, except as provided in paragraph 9, within 30 days following the date of full completion, less only 1 and 1/2 times such amount

as is required to complete any then remaining, uncompleted, minor items, which amount shall be certified by the Landscape Architect and upon receipt by the Township of any maintenance bonds which may be required, in accordance with the Agreement documents, to insure proper workmanship for a designated period of time. The Certificate given by the Landscape Architect shall list in detail each and every uncompleted item and a reasonable cost of completion. Final payment of any amount so withheld for the completion of the minor items shall be paid forthwith upon completion of the items in the certificate of the Landscape Architect.

On contracts in excess of \$50,000 the final payment due the Contractor from the Township after substantial completion of the Agreement shall bear interest at a rate of 6% per annum after the date that such payment shall become due and payable to the Contractor.

9. CORRECTION OF WORK AFTER FINAL PAYMENT

Neither the final payment nor any provisions in the Agreement shall relieve the Contractor of the responsibility for faulty materials or workmanship; and they shall remedy any defects due thereto and pay any damage resulting therefrom which shall appear within a period of **Two (2)** Years from the date for completion and acceptance by the Township.

10. GENERAL GUARANTY

Neither the final certificate of payment nor any provision in the Agreement, nor partial or entire use of the improvements contemplated in this Agreement by the Township or the public, shall constitute an acceptance of work not done in accordance with the Agreement, nor relieve the Contractor of liability in respect to any express warranties or responsibility for faulty materials or workmanship. The Contractor shall promptly remedy any defects in the work and pay for any damage to the other work resulting therefrom which shall appear within a period of **Two (2)** Years from the date for final inspection and acceptance of the work. The Township will give notice of defective materials and work with reasonable promptness.

11. SANITARY FACILITIES

The Contractor shall furnish, install and maintain ample sanitary facilities for the workmen. As the needs arise, a sufficient number of enclosed temporary toilets shall be conveniently placed as required by the sanitary codes of the Commonwealth, the County and the Township.

12. WATER

All water for construction purposes will be provided and paid for by the Contractor. Supply connections shall be installed by the Contractor as approved by the Landscape Architect. Under water main extension projects only, all water for testing and flushing will be paid for by the Township.

13. ELECTRICITY

All electricity required for construction purposes will be provided and paid for by the Contractor. Temporary extensions shall be furnished by the Contractor as approved by the Landscape Architect.

14. LINES, GRADES AND CONSTRUCTION SURVEYING

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The Contractor shall be responsible for the stake-out for the construction of the project. The Contractor shall provide at their expense all surveying required to layout the construction work from the horizontal and vertical reference points established by the Landscape Architect.

On jobs where the Contractor intends to use a laser they shall either: provide offset stakes at a minimum of 100' intervals and use them to spot check their grades or provide a level, rod and level operator to spot check their grades.

15. CONTRACT STANDARDS ACT

The following stipulations are hereby included in each contract subject to the Contract Work Hours Standards Act:

(a) Overtime Requirements

No Contractor or subcontractor contracting for any part of the contract work shall require or permit any laborer or mechanic, including watchmen and guards, to be employed on such work in excess of eight (8) hours in any calendar day or in excess of forty (40) hours in any work week unless such laborer or mechanic receives compensation at a rate of not less than one and one half times their basic rate of pay for all hours worked in excess of eight (8) hours in any calendar day or in excess of forty (40) hours in such work week, whichever is the greater number of overtime hours.

(b) Violations: Liability for Unpaid Wages: Liquidated Damages

In the event of any violation of the clause set forth in paragraph (a), the Contractor and any subcontractor responsible therefore shall be liable to any affected employee for their unpaid wages. In addition, such Contractor or subcontractor shall be liable to the United States for liquidated damages. Such liquidated damages shall be computed, with respect to each individual laborer or mechanic employed in violation of clause (a), in the sum of \$10 for each calendar day on which such employee was required or permitted to work in excess of eight hours or in excess of forty hours in a work week without payment of the overtime wages required by clause (a).

(c) Withholding for Unpaid Wages and Liquidated Damages

The Township may withhold from any moneys payable on account of work performed by the Contractor or subcontractor the full amount of wages required by the contract and such sums as may administratively be determined to be necessary to satisfy any liabilities of such Contractor or subcontractor for liquidated damages as provided in clause (b).

(d) Insertion of Clauses and Subcontracts

The Contractor agrees to insert the foregoing clauses (a), (b), (c), and this clause (d) in all subcontracts.

16. RATES OF WAGES

The Contractor and any subcontractor shall fully comply with the applicable Wage Rate Decisions of the United States Department of Labor and/or the Commonwealth of Pennsylvania Department of Labor and Industry.

The following (Checked) Wage Rates will apply to this job:

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- X U.S. Department of Labor
- X Pennsylvania Department of Labor (Web site listed below)

The Contractor shall be in good standing with all applicable agencies administrating the Wage Rate Decisions listed above.

17. STEEL PRODUCTS PROCUREMENT ACT

If any steel products are required in the performance of this Agreement or any subcontracts hereunder, only steel products, as defined in the Commonwealth of Pennsylvania Act No. 1978-3 (S.B.No. 1068), shall be used or supplied.

18. ACT 287

The Contractor's attention is directed to the provisions of Act 287, as amended by Act 172, enacted by the General Assembly of the Commonwealth of Pennsylvania, which specifies the Contractor's responsibilities during excavation and demolition operations in areas of underground utilities. Copies of the list of utilities to be notified are available at the offices of the County in which the work is being performed.

19. PREVAILING WAGES:

See following Pages.

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

Project Name:	GEORGE HAGGAR FIRE TRAINING CENTER
Awarding Agency:	Upper Dublin Township
Contract Award Date:	6/13/2023
Serial Number:	23-03784
Project Classification:	Building
Determination Date:	4/18/2023
Assigned Field Office:	Philadelphia
Field Office Phone Number:	(215)560-1858
Toll Free Phone Number:	
Project County:	Montgomery County

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

Project: 23-03784 - Building	Effective Date	Expiration Date	Hourly Rate	Fringe Benefits	Total
Asbestos & Insulation Workers	5/1/2021		\$54.35	\$39.95	\$94.30
Boilermaker (Commercial, Institutional, and Minor Repair Work)	1/1/2019		\$29.26	\$18.48	\$47.74
Boilermakers	1/1/2021		\$49.32	\$34.90	\$84.22
Boilermakers	1/1/2022		\$50.17	\$35.30	\$85.47
Boilermakers	1/1/2023		\$51.27	\$35.30	\$86.57
Bricklayer	5/1/2021		\$45.45	\$30.61	\$76.06
Bricklayer	5/1/2022		\$46.45	\$31.06	\$77.51
Carpenter - Chief of Party (Surveying & Layout)	5/1/2021		\$47.47	\$28.71	\$76.18
Carpenter - Instrument Person (Surveying & Layout)	5/1/2021		\$41.28	\$28.71	\$69.99
Carpenter - Rodman (Surveying & Layout)	5/1/2021		\$20.64	\$20.31	\$40.95
Carpenters	5/1/2021		\$41.28	\$28.71	\$69.99
Carpenters	5/1/2022		\$42.53	\$28.71	\$71.24
Cement Finishers & Plasterers	5/1/2022		\$38.57	\$32.39	\$70.96
Cement Masons	5/1/2021		\$40.70	\$33.46	\$74.16
Cement Masons	5/1/2022		\$42.05	\$33.46	\$75.51
Cement Masons	5/1/2023		\$44.20	\$32.96	\$77.16
Dockbuilder, Pile Drivers	5/1/2022		\$45.73	\$37.99	\$83.72
Dockbuilder, Pile Drivers	10/31/2022		\$47.23	\$37.99	\$85.22
Dockbuilder, Pile Drivers	5/1/2023		\$50.48	\$37.99	\$88.47
Dockbuilder, Pile Drivers	5/1/2024		\$52.98	\$37.99	\$90.97
Dockbuilder, Pile Drivers	5/1/2025		\$55.23	\$37.99	\$93.22
Dockbuilder, Pile Drivers	5/1/2026		\$56.98	\$37.99	\$94.97
Dockbuilder/ Pile driver diver	5/1/2022		\$57.16	\$37.99	\$95.15
Dockbuilder/ Pile driver diver	10/31/2022		\$58.66	\$37.99	\$96.65
Dockbuilder/ Pile driver diver	5/1/2023		\$63.10	\$37.99	\$101.09
Dockbuilder/ Pile driver diver	5/1/2024		\$66.25	\$37.99	\$104.24
Dockbuilder/ Pile driver diver	5/1/2025		\$69.04	\$37.99	\$107.03
Dockbuilder/ Pile driver diver	5/1/2026		\$71.23	\$37.99	\$109.22
Dockbuilder/pile driver tender	5/1/2022		\$45.73	\$37.99	\$83.72
Dockbuilder/pile driver tender	10/31/2022		\$47.23	\$37.99	\$85.22
Dockbuilder/pile driver tender	5/1/2023		\$50.48	\$37.99	\$88.47
Dockbuilder/pile driver tender	5/1/2024		\$52.98	\$37.99	\$90.97
Dockbuilder/pile driver tender	5/1/2025		\$55.23	\$37.99	\$93.22
Dockbuilder/pile driver tender	5/1/2026		\$56.98	\$37.99	\$94.97
Drywall Finisher	5/1/2022		\$38.93	\$29.96	\$68.89
Electricians	8/2/2020		\$61.93	\$40.31	\$102.24
Electricians	5/2/2022		\$65.76	\$43.48	\$109.24
Elevator Constructor	1/1/2021		\$61.43	\$36.36	\$97.79
Elevator Constructor	1/1/2023		\$66.21	\$43.64	\$109.85
Floor Coverer	5/1/2022		\$48.00	\$29.21	\$77.21
Floor Coverer	5/1/2023		\$50.12	\$29.21	\$79.33
Floor Coverer	5/1/2024		\$52.19	\$29.21	\$81.40
Floor Layer	5/1/2018		\$43.11	\$28.09	\$71.20
Glazier	5/1/2021		\$45.67	\$34.38	\$80.05

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

Project: 23-03784 - Building	Effective Date	Expiration Date	Hourly Rate	Fringe Benefits	Total
Glazier	5/1/2022		\$46.09	\$35.61	\$81.70
Interior Finish	5/1/2019		\$30.20	\$25.80	\$56.00
Iron Workers (Bridge, Structural Steel, Ornamental, Precast, Reinforcing)	7/1/2021		\$47.70	\$39.51	\$87.21
Iron Workers (Riggers)	7/1/2017		\$39.83	\$27.92	\$67.75
Ironworker (Rodman)	7/1/2020		\$44.82	\$31.60	\$76.42
Laborers (Class 01 - General)	5/1/2020		\$32.05	\$25.25	\$57.30
Laborers (Class 01 - See notes)	5/1/2019		\$31.65	\$26.62	\$58.27
Laborers (Class 01 - See notes)	5/1/2022		\$33.35	\$25.65	\$59.00
Laborers (Class 02 - see notes)	5/1/2020		\$35.15	\$26.15	\$61.30
Laborers (Class 02 - see notes)	5/1/2022		\$36.70	\$27.00	\$63.70
Laborers (Class 03 - See notes)	5/1/2020		\$32.47	\$25.43	\$57.90
Laborers (Class 03 - See notes)	5/1/2022		\$33.77	\$25.83	\$59.60
Laborers (Class 04 - See notes)	5/1/2020		\$32.47	\$25.43	\$57.90
Laborers (Class 04 - See notes)	5/1/2022		\$33.77	\$25.83	\$59.60
Laborers (Class 05 - See notes)	5/1/2020		\$32.05	\$25.25	\$57.30
Laborers (Class 05 - See notes)	5/1/2022		\$33.35	\$25.65	\$59.00
Landscape Laborer	5/1/2020		\$26.55	\$23.13	\$49.68
Marble Finisher	5/1/2022		\$38.27	\$29.15	\$67.42
Marble Mason	5/1/2022		\$45.90	\$31.20	\$77.10
Mason Tender, Cement	5/1/2019		\$30.52	\$25.98	\$56.50
Millwright	6/8/2020		\$46.80	\$33.19	\$79.99
Millwright	5/1/2021		\$48.60	\$33.19	\$81.79
Millwright	5/1/2022		\$49.83	\$34.53	\$84.36
Operators (Building, Class 01 - See Notes)	5/1/2021		\$49.50	\$31.51	\$81.01
Operators (Building, Class 01 - See Notes)	5/1/2022		\$51.04	\$31.97	\$83.01
Operators (Building, Class 01 - See Notes)	5/1/2023		\$52.20	\$32.81	\$85.01
Operators (Building, Class 01A - See Notes)	5/1/2021		\$52.51	\$32.39	\$84.90
Operators (Building, Class 01A - See Notes)	5/1/2022		\$54.05	\$32.85	\$86.90
Operators (Building, Class 01A - See Notes)	5/1/2023		\$55.20	\$33.70	\$88.90
Operators (Building, Class 02 - See Notes)	5/1/2021		\$49.25	\$31.44	\$80.69
Operators (Building, Class 02 - See Notes)	5/1/2022		\$50.79	\$31.90	\$82.69
Operators (Building, Class 02 - See Notes)	5/1/2023		\$51.95	\$32.74	\$84.69
Operators (Building, Class 02A - See Notes)	5/1/2021		\$52.26	\$32.32	\$84.58
Operators (Building, Class 02A - See Notes)	5/1/2022		\$53.81	\$32.77	\$86.58
Operators (Building, Class 02A - See Notes)	5/1/2023		\$54.97	\$33.61	\$88.58
Operators (Building, Class 03 - See Notes)	5/1/2021		\$45.16	\$30.24	\$75.40
Operators (Building, Class 03 - See Notes)	5/1/2022		\$46.71	\$30.69	\$77.40
Operators (Building, Class 03 - See Notes)	5/1/2023		\$47.87	\$31.53	\$79.40
Operators (Building, Class 04 - See Notes)	5/1/2021		\$44.87	\$30.14	\$75.01
Operators (Building, Class 04 - See Notes)	5/1/2022		\$46.41	\$30.60	\$77.01
Operators (Building, Class 04 - See Notes)	5/1/2023		\$47.57	\$31.44	\$79.01
Operators (Building, Class 05 - See Notes)	5/1/2021		\$43.14	\$29.64	\$72.78
Operators (Building, Class 05 - See Notes)	5/1/2022		\$44.69	\$30.09	\$74.78
Operators (Building, Class 05 - See Notes)	5/1/2023		\$45.85	\$30.93	\$76.78

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

Project: 23-03784 - Building	Effective Date	Expiration Date	Hourly Rate	Fringe Benefits	Total
Operators (Building, Class 06 - See Notes)	5/1/2021		\$42.16	\$29.34	\$71.50
Operators (Building, Class 06 - See Notes)	5/1/2022		\$43.70	\$29.80	\$73.50
Operators (Building, Class 06 - See Notes)	5/1/2023		\$44.85	\$30.65	\$75.50
Operators (Building, Class 07A- See Notes)	5/1/2021		\$60.00	\$36.21	\$96.21
Operators (Building, Class 07A- See Notes)	5/1/2022		\$61.86	\$36.75	\$98.61
Operators (Building, Class 07A- See Notes)	5/1/2023		\$63.33	\$37.68	\$101.01
Operators (Building, Class 07B- See Notes)	5/1/2021		\$59.72	\$36.11	\$95.83
Operators (Building, Class 07B- See Notes)	5/1/2022		\$61.57	\$36.66	\$98.23
Operators (Building, Class 07B- See Notes)	5/1/2023		\$63.04	\$37.59	\$100.63
Painters Class 1 (see notes)	5/1/2021		\$41.24	\$30.29	\$71.53
Painters Class 1 (see notes)	2/1/2022		\$41.77	\$31.61	\$73.38
Painters Class 4 (see notes)	5/1/2021		\$41.62	\$30.29	\$71.91
Painters Class 4 (see notes)	5/1/2022		\$41.77	\$31.61	\$73.38
Plasterers	5/1/2021		\$38.37	\$31.84	\$70.21
plumber	5/1/2021		\$59.83	\$36.16	\$95.99
plumber	5/1/2022		\$62.73	\$36.61	\$99.34
Pointers, Caulkers, Cleaners	5/1/2021		\$46.75	\$29.50	\$76.25
Pointers, Caulkers, Cleaners	5/1/2022		\$47.64	\$30.06	\$77.70
Roofers (Composition)	5/1/2021		\$40.33	\$33.12	\$73.45
Roofers (Composition)	5/1/2022		\$41.48	\$33.87	\$75.35
Roofers (Shingle)	5/1/2021		\$30.50	\$21.55	\$52.05
Roofers (Slate & Tile)	5/1/2021		\$33.50	\$21.55	\$55.05
Sheet Metal Workers	5/1/2021		\$53.84	\$45.94	\$99.78
Sheet Metal Workers	5/1/2022		\$55.75	\$47.28	\$103.03
Sign Makers and Hangars	7/17/2021		\$29.49	\$23.90	\$53.39
Sign Makers and Hangars	7/15/2022		\$30.54	\$24.35	\$54.89
Sprinklerfitters	5/1/2021		\$60.83	\$30.34	\$91.17
Sprinklerfitters	5/1/2022		\$62.79	\$31.43	\$94.22
Sprinklerfitters	1/1/2023		\$62.23	\$31.99	\$94.22
Steamfitters	5/1/2021		\$60.47	\$40.89	\$101.36
Steamfitters	5/1/2022		\$64.57	\$40.59	\$105.16
Stone Masons	5/1/2021		\$44.90	\$30.75	\$75.65
Stone Masons	5/1/2022		\$45.90	\$31.20	\$77.10
Terrazzo Finisher	5/1/2022		\$42.44	\$27.71	\$70.15
Terrazzo Grinder	5/1/2022		\$42.71	\$27.71	\$70.42
Terrazzo Mechanics	5/1/2021		\$48.01	\$28.81	\$76.82
Terrazzo Mechanics	5/1/2022		\$48.81	\$29.46	\$78.27
Tile Finisher	5/1/2022		\$38.27	\$29.15	\$67.42
Tile Setter	5/1/2022		\$48.81	\$29.46	\$78.27
Truckdriver class 1(see notes)	5/1/2021		\$36.48	\$17.96	\$54.44
Truckdriver class 1(see notes)	5/1/2022		\$35.60	\$20.74	\$56.34
Truckdriver class 2 (see notes)	5/1/2021		\$36.58	\$17.96	\$54.54
Truckdriver class 2 (see notes)	5/1/2022		\$35.70	\$20.74	\$56.44
Truckdriver class 3 (see notes)	5/1/2021		\$36.83	\$17.96	\$54.79

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

Project: 23-03784 - Building	Effective Date	Expiration Date	Hourly Rate	Fringe Benefits	Total
Truckdriver class 3 (see notes)	5/1/2022		\$35.95	\$20.74	\$56.69
Window Film / Tint Installer	6/1/2019		\$24.52	\$12.08	\$36.60

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

Project: 23-03784 - Heavy/Highway	Effective Date	Expiration Date	Hourly Rate	Fringe Benefits	Total
Carpenter - Chief of Party (Surveying & Layout)	5/1/2021		\$59.93	\$27.69	\$87.62
Carpenter - Chief of Party (Surveying & Layout)	5/1/2022		\$60.71	\$29.06	\$89.77
Carpenter - Chief of Party (Surveying & Layout)	5/1/2023		\$63.24	\$29.06	\$92.30
Carpenter - Chief of Party (Surveying & Layout)	5/1/2024		\$65.19	\$29.06	\$94.25
Carpenter - Chief of Party (Surveying & Layout)	5/1/2025		\$67.15	\$29.06	\$96.21
Carpenter - Chief of Party (Surveying & Layout)	5/1/2026		\$69.10	\$29.06	\$98.16
Carpenter - Instrument Person (Surveying & Layout)	5/1/2021		\$52.11	\$27.69	\$79.80
Carpenter - Instrument Person (Surveying & Layout)	5/1/2022		\$52.79	\$29.06	\$81.85
Carpenter - Instrument Person (Surveying & Layout)	5/1/2023		\$54.99	\$29.06	\$84.05
Carpenter - Instrument Person (Surveying & Layout)	5/1/2024		\$56.69	\$29.06	\$85.75
Carpenter - Instrument Person (Surveying & Layout)	5/1/2025		\$58.39	\$29.06	\$87.45
Carpenter - Instrument Person (Surveying & Layout)	5/1/2026		\$60.09	\$29.06	\$89.15
Carpenter - Rodman (Surveying & Layout)	5/1/2021		\$41.69	\$21.34	\$63.03
Carpenter - Rodman (Surveying & Layout)	5/1/2022		\$42.23	\$22.41	\$64.64
Carpenter - Rodman (Surveying & Layout)	5/1/2023		\$43.99	\$22.41	\$66.40
Carpenter - Rodman (Surveying & Layout)	5/1/2024		\$45.35	\$22.41	\$67.76
Carpenter - Rodman (Surveying & Layout)	5/1/2025		\$46.71	\$22.41	\$69.12
Carpenter - Rodman (Surveying & Layout)	5/1/2026		\$48.07	\$22.41	\$70.48
Carpenter	5/1/2021		\$51.76	\$28.04	\$79.80
Carpenter	5/1/2022		\$52.79	\$29.06	\$81.85
Carpenter	5/1/2023		\$54.99	\$29.06	\$84.05
Carpenter	5/1/2024		\$56.69	\$29.06	\$85.75
Carpenter	5/1/2025		\$58.49	\$29.06	\$87.55
Carpenter	5/1/2026		\$60.19	\$29.06	\$89.25
Cement Masons	5/1/2021		\$39.65	\$33.41	\$73.06
Cement Masons	5/1/2022		\$41.15	\$33.41	\$74.56
Cement Masons	5/1/2023		\$43.20	\$32.91	\$76.11
Dockbuilder, Pile Drivers	5/1/2022		\$45.73	\$37.99	\$83.72
Dockbuilder, Pile Drivers	11/1/2022		\$47.23	\$37.99	\$85.22
Dockbuilder, Pile Drivers	5/1/2023		\$50.48	\$37.99	\$88.47
Dockbuilder, Pile Drivers	5/1/2024		\$52.98	\$37.99	\$90.97
Dockbuilder, Pile Drivers	5/1/2025		\$55.23	\$37.99	\$93.22
Dockbuilder, Pile Drivers	5/1/2026		\$56.98	\$37.99	\$94.97
DockBuilder/ Divers (Building Heavy & Highway)	5/1/2020		\$52.44	\$37.27	\$89.71
Dockbuilder/ Pile driver diver	5/1/2022		\$57.16	\$37.99	\$95.15
Dockbuilder/ Pile driver diver	11/1/2022		\$59.04	\$37.99	\$97.03
Dockbuilder/ Pile driver diver	5/1/2023		\$63.10	\$37.99	\$101.09
Dockbuilder/ Pile driver diver	5/1/2024		\$66.25	\$37.99	\$104.24
Dockbuilder/ Pile driver diver	5/1/2025		\$69.04	\$37.99	\$107.03
Dockbuilder/ Pile driver diver	5/1/2026		\$71.23	\$37.99	\$109.22
Dockbuilder/pile driver tender	5/1/2022		\$45.73	\$37.99	\$83.72
Dockbuilder/pile driver tender	11/1/2022		\$47.23	\$37.99	\$85.22
Dockbuilder/pile driver tender	5/1/2023		\$50.48	\$37.99	\$88.47
Dockbuilder/pile driver tender	5/1/2024		\$52.98	\$37.99	\$90.97

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Dockbuilder/pile driver tender	5/1/2025		\$55.23	\$37.99	\$93.22
Dockbuilder/pile driver tender	5/1/2026		\$56.98	\$37.99	\$94.97
DockBuilder/Pile Drivers/ Diver Tender	5/1/2020		\$43.70	\$37.27	\$80.97
Electric Lineman	5/31/2021		\$57.93	\$30.22	\$88.15
Electric Lineman	5/30/2022		\$59.17	\$31.48	\$90.65
Electric Lineman	5/29/2023		\$60.48	\$32.77	\$93.25
Electric Lineman	6/3/2024		\$62.07	\$33.96	\$96.03
Iron Workers (Bridge, Structural Steel, Ornamental, Precast, Reinforcing)	7/1/2021		\$47.70	\$39.51	\$87.21
Iron Workers	1/1/2020		\$49.80	\$34.41	\$84.21
Ironworker (Rodman)	7/1/2020		\$44.82	\$31.60	\$76.42
Laborers (Class 01 - See notes)	5/1/2021		\$36.20	\$25.65	\$61.85
Laborers (Class 01 - See notes)	5/1/2022		\$36.30	\$27.20	\$63.50
Laborers (Class 02 - See notes)	5/1/2021		\$36.40	\$25.65	\$62.05
Laborers (Class 02 - See notes)	5/1/2022		\$36.50	\$27.20	\$63.70
Laborers (Class 03 - See notes)	5/1/2021		\$36.40	\$25.65	\$62.05
Laborers (Class 03 - See notes)	5/1/2022		\$36.50	\$27.20	\$63.70
Laborers (Class 04 - See notes)	5/1/2021		\$31.00	\$25.65	\$56.65
Laborers (Class 04 - See notes)	5/1/2022		\$31.10	\$27.20	\$58.30
Laborers (Class 05 - See notes)	5/1/2021		\$37.05	\$25.65	\$62.70
Laborers (Class 05 - See notes)	5/1/2022		\$37.15	\$27.20	\$64.35
Laborers (Class 06 - See notes)	5/1/2021		\$37.10	\$25.65	\$62.75
Laborers (Class 06 - See notes)	5/1/2022		\$37.20	\$27.20	\$64.40
Laborers (Class 07 - See notes)	5/1/2021		\$36.95	\$25.65	\$62.60
Laborers (Class 07 - See notes)	5/1/2022		\$37.05	\$27.20	\$64.25
Laborers (Class 08 - See notes)	5/1/2021		\$36.70	\$25.65	\$62.35
Laborers (Class 08 - See notes)	5/1/2022		\$36.80	\$27.20	\$64.00
Laborers (Class 09 - See notes)	5/1/2021		\$36.55	\$25.65	\$62.20
Laborers (Class 09 - See notes)	5/1/2022		\$36.65	\$27.20	\$63.85
Laborers (Class 10- See notes)	5/1/2021		\$36.70	\$25.65	\$62.35
Laborers (Class 10- See notes)	5/1/2022		\$36.80	\$27.20	\$64.00
Laborers (Class 11 -See Notes)	5/1/2021		\$36.50	\$25.65	\$62.15
Laborers (Class 11 -See Notes)	5/1/2022		\$36.70	\$27.20	\$63.90
Laborers (Class 12 -See Notes)	5/1/2021		\$37.40	\$25.65	\$63.05
Laborers (Class 12 -See Notes)	5/1/2022		\$38.40	\$27.20	\$65.60
Laborers (Class 13 -See Notes)	5/1/2021		\$40.33	\$25.65	\$65.98
Laborers (Class 13 -See Notes)	5/1/2022		\$40.43	\$27.20	\$67.63
Laborers (Class 14 -See Notes)	5/1/2021		\$36.45	\$25.65	\$62.10
Laborers (Class 14 -See Notes)	5/1/2022		\$36.55	\$27.20	\$63.75
Laborers Utility (PGW ONLY) (Flagperson)	5/1/2017		\$23.52	\$17.58	\$41.10
Laborers Utility (PGW ONLY) (Flagperson)	5/1/2022		\$30.17	\$19.18	\$49.35
Laborers Utility (PGW ONLY)	5/1/2017		\$30.55	\$17.58	\$48.13
Laborers Utility (PGW ONLY)	5/1/2022		\$37.20	\$19.18	\$56.38
Landscape Laborer	5/1/2020		\$26.13	\$22.95	\$49.08
Landscape Laborer	5/1/2022		\$27.73	\$23.65	\$51.38

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Operators Class 01 - See Notes (Building, Heavy, Highway)	5/1/2021		\$49.50	\$31.51	\$81.01
Operators Class 01 - See Notes (Building, Heavy, Highway)	5/1/2022		\$51.04	\$31.97	\$83.01
Operators Class 01 - See Notes (Building, Heavy, Highway)	5/1/2023		\$52.20	\$32.81	\$85.01
Operators Class 01 - See Notes (Building, Heavy, Highway)	5/1/2024		\$53.36	\$33.65	\$87.01
Operators Class 01 - See Notes (Building, Heavy, Highway)	5/1/2025		\$54.52	\$34.49	\$89.01
Operators Class 01 - See Notes (Building, Heavy, Highway)	5/1/2026		\$55.67	\$35.34	\$91.01
Operators Class 01a - See Notes (Building, Heavy, Highway)	5/1/2021		\$52.51	\$32.39	\$84.90
Operators Class 01a - See Notes (Building, Heavy, Highway)	5/1/2022		\$54.05	\$32.85	\$86.90
Operators Class 01a - See Notes (Building, Heavy, Highway)	5/1/2023		\$55.20	\$33.70	\$88.90
Operators Class 01a - See Notes (Building, Heavy, Highway)	5/1/2024		\$56.37	\$34.53	\$90.90
Operators Class 01a - See Notes (Building, Heavy, Highway)	5/1/2025		\$57.52	\$35.38	\$92.90
Operators Class 01a - See Notes (Building, Heavy, Highway)	5/1/2026		\$58.68	\$36.22	\$94.90
Operators Class 02 - See Notes (Building, Heavy, Highway)	5/1/2021		\$49.25	\$31.44	\$80.69
Operators Class 02 - See Notes (Building, Heavy, Highway)	5/1/2022		\$50.79	\$31.90	\$82.69
Operators Class 02 - See Notes (Building, Heavy, Highway)	5/1/2023		\$51.95	\$32.74	\$84.69
Operators Class 02 - See Notes (Building, Heavy, Highway)	5/1/2024		\$53.11	\$33.58	\$86.69
Operators Class 02 - See Notes (Building, Heavy, Highway)	5/1/2025		\$54.27	\$34.42	\$88.69
Operators Class 02 - See Notes (Building, Heavy, Highway)	5/1/2026		\$55.43	\$35.26	\$90.69
Operators Class 02a - See Notes (Building, Heavy, Highway)	5/1/2021		\$52.27	\$32.31	\$84.58
Operators Class 02a - See Notes (Building, Heavy, Highway)	5/1/2022		\$53.81	\$32.77	\$86.58
Operators Class 02a - See Notes (Building, Heavy, Highway)	5/1/2023		\$54.97	\$33.61	\$88.58
Operators Class 02a - See Notes (Building, Heavy, Highway)	5/1/2024		\$56.13	\$34.45	\$90.58
Operators Class 02a - See Notes (Building, Heavy, Highway)	5/1/2025		\$57.29	\$35.29	\$92.58
Operators Class 02a - See Notes (Building, Heavy, Highway)	5/1/2026		\$58.44	\$36.14	\$94.58
Operators Class 03 - See Notes (Building, Heavy, Highway)	5/1/2021		\$45.16	\$30.24	\$75.40
Operators Class 03 - See Notes (Building, Heavy, Highway)	5/1/2022		\$46.71	\$30.69	\$77.40
Operators Class 03 - See Notes (Building, Heavy, Highway)	5/1/2023		\$47.87	\$31.53	\$79.40

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Operators Class 03 - See Notes (Building, Heavy, Highway)	5/1/2024		\$49.03	\$32.37	\$81.40
Operators Class 03 - See Notes (Building, Heavy, Highway)	5/1/2025		\$50.18	\$33.22	\$83.40
Operators Class 03 - See Notes (Building, Heavy, Highway)	5/1/2026		\$51.34	\$34.06	\$85.40
Operators Class 04 - See Notes (Building, Heavy, Highway)	5/1/2021		\$44.86	\$30.15	\$75.01
Operators Class 04 - See Notes (Building, Heavy, Highway)	5/1/2022		\$46.41	\$30.60	\$77.01
Operators Class 04 - See Notes (Building, Heavy, Highway)	5/1/2023		\$47.57	\$31.44	\$79.01
Operators Class 04 - See Notes (Building, Heavy, Highway)	5/1/2024		\$48.73	\$32.28	\$81.01
Operators Class 04 - See Notes (Building, Heavy, Highway)	5/1/2025		\$49.88	\$33.13	\$83.01
Operators Class 04 - See Notes (Building, Heavy, Highway)	5/1/2026		\$51.04	\$33.97	\$85.01
Operators Class 05 - See Notes (Building, Heavy, Highway)	5/1/2021		\$43.14	\$29.64	\$72.78
Operators Class 05 - See Notes (Building, Heavy, Highway)	5/1/2022		\$44.69	\$30.09	\$74.78
Operators Class 05 - See Notes (Building, Heavy, Highway)	5/1/2023		\$45.85	\$30.93	\$76.78
Operators Class 05 - See Notes (Building, Heavy, Highway)	5/1/2024		\$47.00	\$31.78	\$78.78
Operators Class 05 - See Notes (Building, Heavy, Highway)	5/1/2025		\$48.16	\$32.62	\$80.78
Operators Class 05 - See Notes (Building, Heavy, Highway)	5/1/2026		\$49.32	\$33.46	\$82.78
Operators Class 06 - See Notes (Building, Heavy, Highway)	5/1/2021		\$42.16	\$29.34	\$71.50
Operators Class 06 - See Notes (Building, Heavy, Highway)	5/1/2022		\$43.70	\$29.80	\$73.50
Operators Class 06 - See Notes (Building, Heavy, Highway)	5/1/2023		\$44.85	\$30.65	\$75.50
Operators Class 06 - See Notes (Building, Heavy, Highway)	5/1/2024		\$46.02	\$31.48	\$77.50
Operators Class 06 - See Notes (Building, Heavy, Highway)	5/1/2025		\$47.17	\$32.33	\$79.50
Operators Class 06 - See Notes (Building, Heavy, Highway)	5/1/2026		\$48.34	\$33.16	\$81.50
Operators Class 07 (A) - See Notes (Building, Heavy, Highway)	5/1/2021		\$60.00	\$36.21	\$96.21
Operators Class 07 (A) - See Notes (Building, Heavy, Highway)	5/1/2022		\$61.86	\$36.75	\$98.61
Operators Class 07 (A) - See Notes (Building, Heavy, Highway)	5/1/2023		\$63.33	\$37.68	\$101.01
Operators Class 07 (A) - See Notes (Building, Heavy, Highway)	5/1/2024		\$64.80	\$38.61	\$103.41
Operators Class 07 (A) - See Notes (Building, Heavy, Highway)	5/1/2025		\$66.26	\$39.55	\$105.81
Operators Class 07 (A) - See Notes (Building, Heavy, Highway)	5/1/2026		\$67.73	\$40.48	\$108.21

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Project: 23-03784 - Heavy/Highway	Effective Date	Expiration Date	Hourly Rate	Fringe Benefits	Total
Operators Class 07 (B) - See Notes (Building, Heavy, Highway)	5/1/2021		\$59.72	\$36.11	\$95.83
Operators Class 07 (B) - See Notes (Building, Heavy, Highway)	5/1/2022		\$61.57	\$36.66	\$98.23
Operators Class 07 (B) - See Notes (Building, Heavy, Highway)	5/1/2023		\$63.04	\$37.59	\$100.63
Operators Class 07 (B) - See Notes (Building, Heavy, Highway)	5/1/2024		\$64.50	\$38.53	\$103.03
Operators Class 07 (B) - See Notes (Building, Heavy, Highway)	5/1/2025		\$65.97	\$39.46	\$105.43
Operators Class 07 (B) - See Notes (Building, Heavy, Highway)	5/1/2026		\$67.44	\$40.39	\$107.83
Painters Class 2 (see notes)	2/1/2021		\$47.56	\$29.35	\$76.91
Painters Class 2 (see notes)	2/1/2022		\$48.62	\$30.29	\$78.91
Painters Class 2 (see notes)	2/1/2023		\$48.82	\$32.09	\$80.91
Painters Class 3 (see notes)	2/1/2021		\$58.52	\$29.39	\$87.91
Painters Class 3 (see notes)	2/1/2022		\$59.58	\$30.33	\$89.91
Painters Class 3 (see notes)	2/1/2023		\$59.78	\$32.13	\$91.91
Steamfitters (Heavy and Highway - Gas Distribution)	5/1/2022		\$61.34	\$40.28	\$101.62
Truckdriver class 1(see notes)	5/1/2021		\$36.33	\$17.96	\$54.29
Truckdriver class 1(see notes)	5/1/2022		\$35.45	\$20.74	\$56.19
Truckdriver class 2 (see notes)	5/1/2021		\$36.43	\$17.96	\$54.39
Truckdriver class 2 (see notes)	5/1/2022		\$35.55	\$20.74	\$56.29
Truckdriver class 3 (see notes)	5/1/2021		\$36.68	\$17.96	\$54.64
Truckdriver class 3 (see notes)	5/1/2022		\$35.80	\$20.74	\$56.54

20. NONDISCRIMINATION AND EQUAL OPPORTUNITY

Nondiscrimination and equal opportunity are the policy of the Commonwealth in all its decisions, programs, and activities. The purpose is to achieve the aims of the United States and Pennsylvania Constitutions. Executive Order 1972-1, the Pennsylvania Human Relations Act, Act of October 27, 1955, P.L. 744, as amended, (43 P.L. Section 951, et. seq.), and 43 P.L. Section 153, by assuring that all persons are accorded equal employment opportunity without regard to race, color, religious creed, handicap, ancestry, national origin, age, or sex.

This policy applies to the Contracting Agencies of this Commonwealth (Department of Community Affairs, Bureau of Recreation and Conservation), and to applicants who perform under Commonwealth contracts (municipalities and their contractors).

Every Commonwealth contract shall contain a nondiscrimination clause barring discrimination in employment, because of race, color, religious creed, handicap, ancestry, national origin, age, or sex.

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

1. Contractor shall not discriminate against any employee, applicant for employment, independent contractor, or any other person because of race, color, religious creed, ancestry, national origin, age or sex. Contractor shall take affirmative action to ensure that applicants are employed, and that employees or agents are treated during employment, without regard to their race, color, religious creed, handicap, ancestry, national origin, age or sex. Such affirmative action shall include, but is not limited to employment, upgrading, demotion or transfer, recruitment or recruitment advertising; layoff or termination; rates of pay or other forms of compensation; and selection for training. The contractor shall post in conspicuous places available to employees, agents, applicants for employment and other people, a notice to be provided by the contracting agency setting forth the provisions of this nondiscrimination clause.
2. Contractor shall, in advertisements or requests for employment placed by it or on its behalf, state that all qualified applicants will receive consideration for employment without regard to race, color, religious creed, handicap, ancestry, national origin, age, or sex.
3. Contractor shall send each labor union or workers' representative with which it has a collective bargaining agreement or other contract or understanding, a notice advising said labor union or workers' representative of its commitment to this nondiscrimination clause. Similar notice shall be sent to every other source of recruitment regularly utilized by Contractor.
4. It shall be no defense to a finding of noncompliance with this nondiscrimination clause that Contractor had delegated some of its employment practices to any union, training program, or other source of recruitment which prevents it from meeting its obligations. However, if the evidence indicated that the Contractor was not on notice of the third-party discrimination or made a good faith effort to correct it, such a factor shall be considered in mitigation in determining appropriate sanctions.
5. Where the practices of a union or any training program or other source of recruitment will result in the exclusion of minority group persons, so that Contractor will be unable to meet its obligations under this nondiscrimination clause, Contractor shall then employ and fill vacancies through other nondiscriminatory employment procedures.

6. Contractor shall comply with all state and federal laws prohibiting discrimination in hiring or employment opportunities. In the event of Contractor's noncompliance with the nondiscrimination clause of this Agreement, or with any such laws, this Agreement may be terminated or suspended, in whole or in part, the Contractor may be declared temporarily ineligible for further Commonwealth contracts, and other sanctions may be imposed, and remedies invoked.

7. Contractor shall furnish all necessary employment documents and records to, and permit access to its books, records, and accounts by the contracting agency for purposes of investigation to ascertain compliance with the provisions of this clause. If Contractor does not possess documents or records reflecting the necessary information requested, it shall furnish such information on reporting forms supplied by the Township.

8. Contractor shall actively recruit minority and women subcontractors or subcontractors with substantial minority representation among their employees.

9. Contractor shall include the provisions of this nondiscrimination clause in every subcontract, so that such provisions will be binding upon each Subcontractor.

10. Contractor obligations under this clause are limited to the Contractor's facilities within Pennsylvania or, where the contract is for purchase of goods manufactured outside of Pennsylvania, the facilities at which such goods are actually produced.

NOTE: Applicants shall follow these regulations in all contractual agreements where the Commonwealth RIRA funds are used. Consultants for development projects shall include the nondiscrimination provisions within the body of the project construction specification, as well as in all agreements with construction contractors.

21. TRAFFIC CONTROL AND SAFETY MEASURES

The Contractor must comply with applicable PennDOT and/or Township requirements regarding minimizing traffic interruption and interference of commercial activity within the work project area. Contractor must provide and position sufficient flagmen to move traffic expeditiously and safely through the affected area. Contractor must furnish, erect, and maintain such signs and barricades as may be required to safeguard life and property for this work project.

G. CONSTRUCTION SPECIFICATIONS

DIVISION I - GENERAL REQUIREMENTS

SECTION 01010 - SUMMARY OF WORK

1.1 WORK COVERED BY CONTRACT DOCUMENTS

The work for the George Hagggar Fire Training Center Improvements project includes but is not necessarily limited to:

- A. Erosion control measures
- B. Demolish and dispose of the existing wall, existing water storage tanks, pipe connections, concrete pad (including sub-base), and existing underground water pipe as noted on the demolition plan.
- C. Excavate for underground water tanks and water PVC pipes trenches as shown on the demolition plan.
- D. Dispose all the demolition materials including extra excavated soil, concrete pilings and wood (generated from the removal of the wall) offsite.
- E. Install new fire hydrant, plumbing, valve box, water levolor kit and wiring.
- F. Install underground water tanks (3), pipes, fittings, connections, and incidentals and backfill area.
- G. Finish site grading.
- H. Install a 4' height chain link fence and a gate.
- I. Install 6" depth 3/4" to 1" clean stone over all areas that have been graded around the new underground tanks and areas of existing surface stone.
- J. Fine grade and lawn seeding of all disturbed areas impacted by construction that are not to be stoned.

1.2 BID DOCUMENTS

The bid documents consist of the following:

- A. Technical specifications contained herein and drawings titled "George Hagggar Fire Training Center Improvements".

Sheet No.	Drawing Name	Date	Revised
	Cover Sheet		
EX-1	Existing Conditions Plan	9/02/2020	
DE-1	Demolition Plan	4/21/2023	
S-1	Context Map	4/21/2023	
S-2	Site Improvement & Utility Plan	4/21/2023	
S-3	Grading & Erosion Control Plan	4/21/2023	
S-4	Erosion Control Notes	4/21/2023	
D-1	Details	4/21/2023	
D-2	Details	4/21/2023	
D-3	Details	4/21/2023	

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1.3 PROJECT REQUIREMENTS

Contractors shall provide and maintain barriers, lights, warning flags, and any other items to protect their work and to prevent accidents to vehicles and pedestrians.

On site job meetings shall be scheduled regularly as approved by the Landscape Architect and Upper Dublin Township. The Contractor and appropriate subcontractors shall attend scheduled meetings as requested by Upper Dublin Township or Landscape Architect.

Call 1-800-242-1776 for underground utility line locations before starting any demolition or excavation. Contractor shall verify all utilities in the field prior to start of any work.

1.4 ADMINISTRATION OF WORK

Minimum administration and supervisory requirements necessary for coordination of work on the project include but are not necessarily limited to the following:

- Coordination and meetings.
- Surveys.
- Special Reports.
- Cleaning and protection.

These coordination requirements must be participated in by each prime contractor, where applicable, even though certain items of work may be assigned to a specific prime contractor, and even though the Contractor for General Work may be assigned certain general work for overall coordination purposes.

1.5 COORDINATION AND MEETINGS

The prime Contractor shall be responsible for the coordination of their work and the work of all other contractors and subcontractors. The prime Contractor shall be responsible for documenting the scheduling of all Contractors and subcontractors and keeping all Contractors and subcontractors abreast of changes in scheduling which will impede their work.

The prime Contractor shall be responsible for attending construction meetings as required by the Landscape Architect. Attendance shall include the prime Contractor and any subcontractors as requested by the Upper Dublin Township. Minutes of meetings conducted by Upper Dublin Township or Landscape Architect shall be the responsibility of Upper Dublin Township.

1.6 SURVEY

Contractor shall work from lines and levels established by the property survey, establish, and maintain benchmarks and other dependable markers. Contractor shall establish benchmarks and markers to set lines and levels as needed to properly locate each element of the project. Contractor shall calculate and measure required dimensions as shown within recognized tolerances. Drawings shall not be scaled to

determine dimensions. Contractor shall advise subcontractors performing work of marked lines and levels provided for their use. If discrepancies or inconsistencies exist, the Contractor shall notify the Landscape Architect prior to continuation of work.

1.7 SPECIAL REPORTS

General: Contractor shall submit special reports directly to the Township within one day of an occurrence. Contractor also shall submit a copy of the report to the Landscape Architect and any other entity that is affected by the occurrence.

Reporting Accidents: Contractor shall record and document data and actions and prepare and submit to the Landscape Architect reports of significant accidents at the site and anywhere else work is in progress. For this purpose, a significant accident is defined to include events where personal injury is sustained, or property loss of substance is sustained, or where the event posed a significant threat of loss or personal injury.

Reporting Unusual Events: When an event of an unusual nature and significant nature occurs at the site, Contractor shall prepare and submit a special report to the Landscape Architect. The special report shall list the chain of events, persons participating, and response by the Contractor's personnel, an evaluation of the results or effects and similar pertinent information. Contractor shall advise the Township and Landscape Architect in advance when such events are known or predictable.

1.8 CLEANING AND PROTECTION

General:

A. During handling and installation of work at the project site, Contractor shall clean and protect work in progress. Contractor shall apply protective covering on installed work where it is required to prevent damage or deterioration at time of substantial completion.

B. Contractor also shall clean and perform maintenance on installed work as frequently as necessary through the remainder of the construction period.

Limiting Exposures of Work: to the extent possible through reasonable control and protection methods, Contractor shall supervise performance of the work in such a manner and by such means which will ensure that none of the work, whether completed or in progress, will be subjected to harmful, dangerous, damaging or otherwise deleterious exposure during the construction period.

1.9 SCHEDULE FOR COMPLETION OF WORK

A. The work included in this Agreement shall be commenced at the time stipulated by Upper Dublin Township in the notice to proceed to the contractor. Construction shall be fully completed within 30 consecutive calendar days thereafter.

B. In the event that weather conditions prevent the completion of this contract in the time specified, a change order will be made extending the time for completion. The Contractor shall not be given additional compensation because of such extension of time of completion.

C. Prior to start of work, within 2 weeks of the award of contract, the Contractor shall prepare a Schedule of Work to be performed. This schedule will detail the phases, work items and coordination of subcontractor's work, etc., included in the Agreement and be submitted for approval of Upper Dublin Township. The schedules shall be specified and detailed so that critical target dates, completion of work items, and final inspections may be set.

1.10 REASONABLE SUBSTITUTIONS

Substitutions in name or manufacturer of items or equipment specified will be considered as long as the substitute item is equal to, or better than, the item specified and, if approved, it shall be the responsibility of the Contractor to make a complete notation of the change on their set of Plans and Specifications; and, any changes as to depth or location, regardless of their magnitude and whether such changes were authorized or not, shall be carefully noted on the Plans and Specifications, and shall be furnished to the Landscape Architect.

1.11 SUBMITTALS

The Contractor shall supply those submittals on the following checklist of submissions, prior to the construction of respective items, for approval by the Landscape Architect. The list may not be all-inclusive, and it is the Contractor's responsibility to ensure its thoroughness.

- A. Bonds
- B. Schedule of Work
- C. Sample Invoice (AIA format)
- D. Shop Drawings and/or Catalog Cuts
 - Fencing
 - Underground Water Tanks
 - Piping and appurtenances
- E. Fire hydrant

1.12 MEASUREMENT AND PAYMENT

A. Measurement

All measurements for payment will be based on completed work performed in strict accordance with the specifications, and with the contract bidding and payment item schedules. All work completed under the Agreement shall be measured by the Landscape Architect according to the units identified within the Bid Form

B. Payment

Each unit price stated in the bid form shall constitute full compensation for each completed item of the work as specified. This is the price and payment for furnishing all labor, services, material, tools, and equipment required to acceptably complete each of the work items.

C. Authorized Work

Items for payment with their corresponding units of measurement are described within the Bid Form. Any work performed and not categorized within the specifications is not authorized for payment without written advance approval or request by Upper Dublin Township, which shall be classified as extra work. Any extra work done by the Contractor without written approval will be at their own risk and payment will not be guaranteed.

D. Method of Payment

The prime Contractor, within two weeks of award of the Agreement, shall submit a sample invoice to the Landscape Architect for review and approval. The request for payment shall be in an AIA format or similar format. The prime contractor shall submit invoices a maximum of once per month, and as work progresses. Invoices shall be submitted, in triplicate, to the Landscape Architect, for approval prior to submission to Upper Dublin Township for payment. The Contractor shall include only that work which has been completed for payment. Work which is included but has not been completed will be denied and the Contractor shall resubmit a revised pay request.

DIVISION 1-SITWORK
SECTION 01568 - EROSION & SEDIMENT CONTROL

1.1 SCOPE OF WORK

- A. The Contractor shall supply all labor, tools, equipment, materials, and services necessary to install the erosion and sedimentation control devices shown in the drawings and/or as described in this specification, to perform their continued repair and maintenance during construction, and remove all devices and make necessary repairs upon completion of work. A copy of the approved erosion and sedimentation control plan shall be on site and available at all times.

1.2 MATERIALS

- A. All materials necessary for controlling sediment and erosion on-site are identified on the detail drawings.

1.3 EXECUTION

- A. All erosion and sedimentation control devices shall be installed as identified on the detail drawings.
- B. The Contractor shall be responsible for the restoration and re-seeding of any disturbance to the site as identified within the construction drawings.
- C. Vehicles and trucks may access the site only from Twining Road and the existing 12-foot-wide stone driveway.

1.4 MAINTENANCE AND REPAIRS

- A. The Contractor shall be responsible for the restoration and re-seeding of any disturbance of the site, beyond the limits of grading shown on the plans, as identified on the construction drawings.
- B. Sediment and erosion control practices will not function properly throughout their designed life span if they are not maintained. Periodic inspection shall be made, and repairs shall be undertaken, at the intervals identified on the detailed drawings.

1.5 DEVICE REMOVALS

- A. The Contractor shall remove all sediment and erosion control devices when no longer necessary for use, or after the completion of construction, as identified on the detail drawings and directed by the Township's Representative.

1.6 MEASUREMENT

- A. Measurement will be for the successful completion of all erosion control measures including incidentals.

1.7 PAYMENT

- A. Payment for the successful installation of erosion control measures will be made as a lump sum payment for the work in place.

DIVISION 2-SITWORK
SECTION 02072-DEMOLITION AND REMOVAL

2.1 SCOPE OF WORK

- A. The Contractor shall provide all equipment, labor, tools, materials, etc. necessary to perform all demolition and removal as outlined in this section.
- B. The Contractor is responsible to maintain a clean working environment during demolition and all other phases of construction. The Contractor shall remove all identified materials, debris and equipment from the site. The Contractor shall take any and all measures necessary to protect the general public from construction debris, material and machinery.
- C. During the demolition phase, and all other phases of construction, the Contractor shall maintain barriers, lights, warning flags, and any other items to protect their work and to prevent accidents to vehicles and workers. Under no circumstances shall an excavated area remain open without the proper precautions mentioned above. The safety and welfare of park users shall be protected by the Contractor at all times during construction and at the completion of each day's work.

2.2 EXECUTION

The following work is scheduled to be performed as part of this section:

- A. Demolition and disposal of existing water storage tanks, pipe connections (within the immediate surrounds of the existing water tanks), concrete pad (including sub-base), and existing underground water pipe, as noted on the demolition plan.
- B. Demolish the existing retaining wall, as depicted on the Demolition Plan. The entire wall, including any support columns, foundations or tie-backs shall be removed. The concrete pilings (used to construct the wall) may be broken/buried within the fill pile that is depicted on the Grading Plan. A minimum of 36" of fill soil shall cover any concrete piles/fragments. Any wood poles/material shall not be permitted for burial within the fill piles and shall be disposed of off-site. Wood support columns may be cut flush below grade so long as the remnants will not interfere with establishing finish grade.
- C. Demolish and remove (2) existing light fixtures (luminaries, poles and foundations), (2) utility poles (Incl. overhead aerial wires), sign (incl. metal support poles and foundations), miscellaneous debris (cinder blocks, wood poles, pallets, etc.) and apparatus that is attached to the poles or adjacent to any materials slated for removal.
- D. Vegetation that is growing on or adjacent to the utility poles and ant trees/shrubs that are located within the limits of disturbance, identified on the Erosion Control Plan.
- E. All materials removed shall be disposed of off the property in a place accepting such materials.

2.3 MEASUREMENT

- A. Measurement of the complete demolition and removal of items noted on the plan and within these specific areas including all incidentals shall be measured as a lump sum.

2.4 PAYMENT

- A. Payment for the successful demolition and removal of all items noted on the plan and within these specifications shall be made as a lump sum payment upon successful completion.

DIVISION 2-SITework
SECTION 02200 – ROUGH GRADING, TRENCHING AND EXCAVATION

PART 1 - GENERAL

1.1 SCOPE OF WORK

The Contractor is responsible to provide all equipment, tools, labor and materials necessary to perform earth moving operations as they affect site work, and as outlined below:

- A. Excavation and Trenching
- B. Rough Grading
- C. Filling and Backfilling
- D. Compaction
- E. Finish Grading
- F. Removing extra excavated soil material from the site.

1.2 RELATED SECTIONS

- A. Soil Erosion and Sediment Control
- B. Seeding

1.3 SUBMITTALS

- A. Sample shall be supplied from off-site locations of all granular backfill and fill materials

1.4 PROTECTION

- A. Protect all existing features to remain. The Contractor will be responsible to repair or replace damage to existing items to remain including, but not limited to asphalt paving, underground utilities, vegetation, signage, etc.

1.5 PREPARATION

- A. Identify required lines, levels, contours and datum. Stake and flag existing underground and above ground utilities.
- B. Notify Township and respective utility companies of intent to remove, relocate or shut off utilities when working within the area, including during excavation. At no time shall the power to the adjacent cellular tower be shut off or disrupted during construction.
- C. The Contractor will employ a surveyor registered in the Commonwealth of PA to lay out the work and establish all lines and grades. Final approval must be supplied by Upper Dublin Township before any grading/excavation occurs.

1.6 SUBSURFACE CONDITIONS

- A. It is the responsibility of the Contractor to verify the existing site and subsurface conditions prior to proceeding and while progressing with the work.

- B. Classification of Excavation: If rock as herein defined is encountered within the limits of excavation, the contract price will be adjusted upon an agreed unit price per cubic yard. Rock excavation will consist of the removal and disposal of boulders one cubic yard or more in volume; solid rock; materials that cannot be removed without systematic drilling and blasting such as rock material in ledges or aggregate conglomerate deposits that are so firmly cemented as to possess the characteristics of solid rock; and concrete or masonry structures exceeding one cubic yard in volume, except sidewalks and paving.
- C. Hard and compact materials such as cemented-gravel, glacial till, and relatively soft or disintegrated rock that can be removed without continuous and systematic drilling and blasting will not be considered as rock excavation. Rock excavation will not be considered such because of intermittent drilling and blasting that is performed merely to increase production. Excavation of the material claimed as rock will not be performed until the material has been cross-sectioned and classified by the Landscape Architect.

PART 2 - PRODUCTS

2.1 SOIL MATERIALS

- A. Subsoil: Excavated or borrow material, free of lumps larger than six inches, rocks larger than two inches, and debris. Debris shall consist of any material that is not naturally occurring and is incapable of being compacted to the requirements of this section.

2.2 FILL MATERIALS

- A. Granular Fill: Suitable material excavated from off-site may be utilized for filling, backfilling, and grading (located outside the water tank area). Suitable materials will be a well-graded granular material and have the following properties:
 - 1. Free from organic matter.
 - 2. Plasticity index will be less than 10, when tested in accordance with ASTM D4318.
 - 3. Contain less than 15% by weight, particles larger than two (2) inches.
 - 4. Contain less than 30% by weight, particles passing the No. 200 sieve.
- B. Borrow: Off-site borrow material for granular fill will be a clean granular soil, free of clay, friable material, micaceous material, organic material and debris, conforming to AASHTO classification A-1, A-2-4 or A-3.
- C. Crushed Stone (N/A): Compacted granular fill beneath asphalt paving, will conform to PennDOT publication 408, 2A modified stone.
- D. Select Backfill: Select granular backfill material for backfill to trenches and footings, will conform to PennDOT Section 703, Type 2RC, unless otherwise noted.
- E. Pipe/water tank bedding: Natural sand, free of silt, clay, loam, friable material, organic material and debris, conforming to PennDOT Section 703, Type B No. 2 sand with 100 percent passing the half-inch sieve and not more than 5 percent passing the no. 100 sieve, unless otherwise noted.
- F. Sand/Granular backfill for the sides and top of the water tank areas shall be a 50/50 mix of the bedding sand (identified above) and 1B pea gravel.

PART 3 - EXECUTION

3.1 CLEARING

- A. Ensure that all erosion and sediment control devices and tree protection are installed and functioning if required, as per the drawings.
- B. Remove debris, rock and extracted plant life from site within limits of grading. Debris and rocks shall be disposed of at a facility accepting such material. Plant life (lawn) can be combined with excavated soil and used as earthen fill to create berms, within an area identified on the improvement plan.

3.2 ROUGH GRADING

- A. Excavate all soil from areas to be affected, and within the limits of grading.
- B. Tolerance of Subgrade: Plus or minus two (2) inches.

3.3 EXCAVATION

- A. Excavate soil required to accommodate site fill, utility lines and construction operations.
- B. Remove lumped subsoil, boulders, rock and buried debris. Use mechanical method for rock removal. Blasting is not permitted.
- C. Use of excavated material for fill (outside of the water tank areas) is permitted. Excavated fill, not used to establish grade within the site shall be hauled to a proper offsite location.
- D. To minimize disturbance of the surrounding site, all vehicular and machinery access during the construction will occur along the proposed path routes.

3.4 SUBGRADE PREPARATION AND PROTECTION

- A. Excavate existing subgrade to proposed subgrade elevations as indicated, to accommodate proposed granular fill.
- B. Remove and replace unsuitable soils in accordance with paragraph "Filling and Backfilling."
- C. Subgrade areas which become unsuitable due to increase or decrease in moisture content will be dried or wetted, as necessary, and re-compacted prior to continuation of Work.
- D. Transition area: Cut and at-grade section adjacent to the fill areas, will be scarified to a depth of six (6) inches and will be compacted to a degree equal to that of the adjacent fill material.

3.5 FILLING AND BACKFILLING

- A. Filling and backfill will not begin until construction below finish grade has been approved and the excavation cleared of trash and debris.
- B. Fill and backfill areas to contours and elevations indicated with unfrozen materials that have been approved for use by the Upper Dublin Township representative.
- C. Systematically fill and backfill to allow maximum time for natural settlement. Do not backfill over porous, wet, frozen, or spongy subgrade surfaces.
- D. Each layer of fill will be disked sufficiently to break down oversized clods, to secure a relatively uniform moisture content and density, and to facilitate proper compaction.

- E. Granular Fill and Backfill: Place and compact materials in continuous layers not exceeding eight (8) inches loose thickness when compacted with heavy roller, and not exceeding six (6) inches loose thickness when compacted with hand-operated tampers.
- F. Employ a placement method that does not disturb or damage protective cover, utilities in trenches and water tanks.
- G. Maintain optimum moisture content of fill and backfill materials to attain required compaction density.
- H. Use hand-operated equipment for compacting backfill adjacent to the water tanks. It is recommended that the tanks be filled to capacity with water during backfilling and compaction stages of construction.
- I. Tolerance of top surface of fill or backfill: Plus one inch or minus two inches from required subgrade elevations.

3.6 COMPACTION REQUIREMENTS

- A. Compaction testing will be performed in accordance with ANSI/ASTM D698 by an independent testing firm procured by the Contractor and subject to approval by the Township.
- B. If tests indicate Work does not meet specified requirements, remove Work, replace and retest at no cost to the Township.
- C. Compact each layer of fill and backfill to not less than the following percentages of maximum laboratory density:
 - 1. Trench Bedding and Backfill: 95%

3.7 TRENCHING

- A. Excavate subsoil for utility piping
- B. Cut trenches sufficiently wide to enable installation of utilities and allow inspection.
- C. Shoring will be furnished and installed, if necessary to protect workmen, banks, structures and utilities. Shoring will be removed, as excavations are backfilled, in a manner to prevent cave-ins.
- D. Hand trim excavation. Remove loose matter. Utilities will bear on bedding materials, as specified, at all points along their entire length.
- E. Remove lumped subsoil, boulders and rock. Over excavate a minimum of 6 inches and backfill with granular material where rock is encountered at utility subgrade.
- F. Correct unauthorized excavation at no cost to Township. Correct areas over-excavated in accordance with paragraph "Filling and Backfilling," using granular backfill or as directed by the Upper Dublin Township Representative.
- G. Support pipes during placement and compaction of bedding fill.
- H. Backfill trenches to contours and elevations with unfrozen materials. Systematically backfill to allow maximum time for natural settlement. Do not backfill over porous, wet, frozen or spongy subgrade surfaces.
- I. Methods and compaction of backfill will conform to previously specified requirements and limits.
- J. Use hand-operated compaction equipment until cover over utility is a minimum of one foot thick or as shown in the drawings.

3.8 FINISH GRADING

- A. Prior to paving, topsoiling, or other construction, grade and compact previously graded and backfilled areas that have been disturbed by construction operations.
- B. Grade vegetated areas to within four inches of proposed finished grade to allow for 4" minimum of topsoil placement.

4.1 MEASUREMENT

- A. The measurement of the completion of all rough grading and excavation shall be per cubic yard.

4.2 PAYMENT

- A. The payment of the successful completion of all rough grading and excavation shall be per cubic yard including all incidentals and services.

DIVISION 2 - SITEWORK
SECTION 02204 - TOPSOIL FURNISHED AND PLACED, SOIL SUPPLEMENTS

2.1 SCOPE OF WORK

This work is the furnishing and placing of topsoil in all areas to be hydro seeded for this project, and the incorporation of amendments into this topsoil.

2.2 MATERIALS

- A. Stored Topsoil: In areas of the project where excavation for all improvements is located and where the topsoil meets the requirements for furnished topsoil set forth below, the Contractor may strip this topsoil and store it for later use. It is anticipated that existing topsoil will meet the needs of the entire project. If additional topsoil is needed it shall adhere to the specifications listed below.
- B. Furnished Topsoil: Sections 801.2 and containing not less than 2.0% nor more than 10.0% organic matter, as determined in accordance with AASHTO-T194.
Provide topsoil meeting the following grading analysis:

<u>Sieve</u>	<u>Minimum Percent Passing</u>
2"	100
No. 4	75
No. 10	60

Sand, silt, and clay materials passing the No. 10 Sieve, as defined by PTM No. 103, and within the following ranges:

	<u>Minimum Percent</u>	<u>Maximum Percent</u>
Sand	5	70
Silt	10	70
Clay	5	36

- Obtain topsoil from a reputable source and where the soil quality has proven ability to grow crops. No excessive sandy or clayey soils are acceptable. Submit a sample of topsoil to the Landscape Architect for approval. In order to receive payment for this item, the Contractor must submit delivery tickets indicating the date, project name, supplier and destination to the Upper Dublin Township Representative. Soil testing will be required by the Upper Dublin Township Representative on all topsoil supplied to the Site. A location of all obtained topsoil shall be submitted with the soil sample. Soil testing shall be completed as specified within Section 02200 – Rough Grading and Excavation.
- C. Lime: Lime shall be ground limestone containing not less than 85% of total carbonates and shall be ground to such fineness that 90% will pass through a No. 20 mesh sieve and 50% will pass through a no. 100 mesh sieve. Coarser material will be acceptable, providing the rates of application are increased to provide not less than the minimum basis of the two sieve

requirements above. Dolomitic lime or a high magnesium lime shall contain at least 10% of magnesium oxide.

- D. Fertilizer: Commercial fertilizer shall conform to the requirements of the Pennsylvania Soil Conditioner and Plant Growth Substance Law Act of December 1, 1977, P.L. 258, No. 86 (3PS 68.2), as amended. Use dry formulations of 10-20-20 analysis for all seeded or sodded areas.

2.3 EXECUTION

A. Preparation of Areas to be Top soiled

1. Areas to be top soiled include all limits of the project except paved areas, wooded areas and areas where lawns are already established. Lawn areas damaged by construction practices will be included in areas to receive topsoil and hydro seeding.
2. Grade out areas where humps, hillocks, and steep slopes occur. Using acceptable methods, loosen solid earth to depth of 2 inches before placing topsoil. Remove stones, weeds and other foreign material 2 inches or larger in any dimension. Remove and satisfactorily dispose of unsuitable and surplus materials in a place accepting such materials.

B. Placing and Spreading Topsoil

1. Place topsoil on the prepared areas and, unless otherwise indicated, spread and compact to a 4" uniform depth, $\pm 1/2$ inch. Where topsoil placement exceeds a 4" depth, the soil shall be filled and compacted in 4" lifts. Compact with a roller, one weighing not over 120 pounds per foot width of roller or by other acceptable methods, as directed. Remove over depth topsoil, unless otherwise agreed upon in writing. Do not place topsoil in a wet or frozen condition. The finish grade of rolled topsoil shall conform to proposed elevations shown on plans.

C. Application of Lime and Fertilizer

1. Lime shall be applied separately and prior to the application of any fertilizer or seed and only on seedbeds as prepared above. Apply lime at a rate of 800 lbs/ 1000 SY to topsoil in areas to be seeded. Blend lime and fertilizer into top 2 inches minimally by raking, disking or harrowing, or other acceptable method, evenly and uniformly.
2. Apply 10-20-20 analysis Commercial Fertilizer (dry) at a rate of 192 lbs per 1000 SY. Fertilizer shall be applied uniformly just prior to seeding operations and, after which, the seedbed shall again be properly graded and dressed to a smooth finish.

3.1 MEASUREMENT

- A. Measurement for the complete successful installation of topsoil furnished and placed shall be incidental to the installation of fine grading and seeding.

3.2 PAYMENT

- A. Payment of the topsoil furnished and placed shall be per cubic yard of topsoil including all incidentals and services.

DIVISION 2 - SITEWORK
SECTION 02485 - FINE GRADING AND SEEDING

2.1 SCOPE OF WORK

- A. Provide necessary labor, materials, tools, and services to hydroseed all disturbed areas with the specified grass seed mixture, as indicated on the plans, after construction. The Contractor is responsible for disturbed areas created by his construction practices as well as the construction practices associated with other contractors. The Contractor is responsible for grading and compacting of previously graded or backfilled areas that have been disturbed by construction operations.

2.2 MATERIALS

- A. All materials necessary to complete this work shall adhere to the specifications of PennDOT Publication 408, Section 804 unless otherwise indicated.
- B. Grass Seed - grass seed shall be fresh, seed of the latest crop. Seed shall be delivered to the site in the original container, unopened, and shall bear the guaranteed analysis of the vendor. Grass seed shall be mixed in the following proportions and shall conform to the following percentages of purity and germination:

Grass Seed:

Mixture	% by Weight	% Purity	% Germination
Kentucky Blue Grass	40%	98%	85%
Penn Lawn Red Fescue	30%	98%	85%
Turf-Type Tall Fescue	30%	98%	90%

Seed at six (6) pounds per 1000 square feet.

- C. Mulch shall be green-dyed and air-dried wood cellulose fibers containing no growth or germination inhibiting substances, in packages not exceeding 100 lbs gross, with net weight shown on the package, and meeting the following requirements:
 - 0-17% Moisture content
 - 98-100% Ovendried organic matter
 - 0-1.5% Ash content
 - 1000% Water holding capacity
- D. Topsoil: shall consist of friable loam, reasonably free of subsoils, clay lumps, brush roots, other objectionable vegetation, stones, litter or similar objects larger than two (2) inches in any dimension. Topsoil shall meet the following grading analysis: a minimum of sixty (60) percent passing through a No. 10 sieve, a minimum one hundred (100) percent passing through a two (2) inch sieve. Excavated topsoil from the site shall be utilized for the bed preparation of the seeded and sodded as long as the above conditions are met. Three inches of approved topsoil shall be applied to areas requiring seeding and sodding.
- E. Water - water shall not be available on the project site for use by the Contractor or subcontractor for seeding and planting operations. Water shall be clean, potable and free from any substances injurious to plant growth.

- F. Limestone: Ground limestone shall have a minimum of 85% total carbonates and a minimum of 50% total calcium oxides. At least 90% of it shall be able to pass a No. 20 sieve and at least 50% to pass a no. 100 sieve.
- G. Fertilizer: high nitrogen fertilizer applied at rates as recommended by the grass seed supplier. A low nitrogen fertilizer with a 5-10-10 ratio shall be used for the wildflower seeding.

2.3 EXECUTION

- A. Schedule of Work: This work shall be undertaken only after all other items are complete and during March 1 through June 1 or October 1 through November 15. Work under this section shall consist of the furnishing of all labor and materials necessary for application of all seeding and mulch. Permanent seeding shall be performed within the specified period of time, and as soon as possible following the application of fertilizer.
- B. Examination of Conditions: Examine areas and conditions and report any defects detrimental to this work to the Landscape Architect. Do not proceed until such defects are corrected, as start of work shall be considered an acceptance of conditions.
- C. Seeding Bed Preparation:
 - 1. All disturbed areas are to have exposed topsoil raked to establish proper grades and in preparation of the seed bed. Supply additional soil as necessary and according to the specifications above, or cover unacceptable soil as determined by the Upper Dublin Township Representative.
 - 2. After preparation, areas shall be seeded evenly at the rates indicated above.
 - 3. All seed shall be fresh, clean and of the latest crop. No seed shall be utilized that has a mix date older than nine (9) months.
- D. Application of Lime and Fertilizer: Lime (Lawn areas only) shall be applied separately and prior to the application of any fertilizer or seed and only on seed beds as prepared above. Apply lime at a rate of 800 lbs/ 1000 SY to topsoil in areas to be seeded with the lawn seed mix only. Do not apply lime within areas that are to be seeded with wildflowers. Blend lime and fertilizer into top 2 inches minimally by raking, disking or harrowing, or other acceptable method, evenly and uniformly.
- E. Fertilizer: Apply 10-20-20 analysis Commercial Fertilizer (dry) at a rate of 192 lbs per 1000 SY. Fertilizer shall be applied uniformly just prior to seeding operations and, after which, the seedbed shall again be properly graded and dressed to a smooth finish.
- F. The maintenance of the lawn seeded areas shall be limited to two mowings and one weeding to ensure successful germination of the seed sown prior to acceptance by the Township's representative. The Contractor shall be responsible to reseed any areas which fail to germinate or germinate sparsely as determined by the Township's representative. Reseeding shall be as instructed by the Township's representative. See Furnishing and Placing Topsoil / Soil Supplements Section for preparation of soil bed.
- G. Maintenance of seeded areas shall commence immediately after each portion of lawn is completed and shall continue until Provisional Acceptance or for not more than a sixty (60) day period following the completion of seeding operations, whichever period is the lesser.
- H. Notwithstanding the above, the Contractor shall be responsible for the mowings from the time the grass attains three (3) inches in height. Grass shall be cut to a height of two (2) inches and never less. All lawns shall receive at least two mowings before acceptance. Any areas requiring re-seeding shall also be subject to two cuttings. In no event shall grass height be permitted above three and one-half (3 1/2) inches.

- I. In the event the seeding operations are completed too late in the Spring for adequate germination and grass growth, then maintenance shall continue into the Fall until Provisional Acceptance or not later than June of the following year.
- J. Contractor shall repair damaged areas due to circumstances which are beyond Contractor's control, after submitting request for change order and obtaining approval for same.

2.4 INSPECTION AND ACCEPTANCE

- A. Landscape Architect shall inspect seeded areas upon written request by the Contractor. Inspection and acceptance of these areas may be requested and granted in part, provided the area coincides with the use area of the facility, substantial in size and reasonably regular in configuration.
- B. No seeded areas will be accepted unless, and until, all obligations of the contract are carried out with regard to spreading of topsoil, soil supplements, and seeding, mulching, maintenance and provided that the lawn/wildflower areas shall evidence a healthy and uniform stand of grass/wildflowers regardless of the time period so required.
- C. Upon acceptance of the work of seeding the Contractor shall be relieved of further responsibility for care or maintenance of the accepted lawns and meadows.

2.5 GUARANTEE

- A. The Contractor shall guarantee all seeded areas for a period of **Eighteen (18) month's** after acceptance of all work as determined by the Landscape Architect. It will be the contractor's responsibility to maintain the seeding areas over the guarantee period, if it is determined that poor germination occurred the contractor will be responsible to replace said area.

3.1 MEASUREMENT

- A. Measurement of the fine grading and seeding shall be for each acre successfully and completely supplied and installed.
- B. Payment for the fine grading and seeding shall be for each acre successfully and completely supplied and installed.

DIVISION 2 - SITEWORK

SECTION 02512 – STONE PAVING (SURFACE STONE)

2.1 SCOPE OF WORK

The Contractor shall provide all necessary materials, labor, equipment and services necessary to install the stone paving in areas noted on the site plan.

2.2 MATERIALS

- ¾” crushed limestone
- Filter fabric shall be a woven geotextile material with a Grab Tensile Strength of 600 pounds; Grab Elongation: 15%; Trapezoid Tear: 75 lbs.

2.3 EXECUTION

A. Preparation of Subgrade: All existing material shall be free of any material that would be detrimental to the installation of the stone paving. The subgrade shall be compacted in accordance with Section 108.05(c) PennDOT specifications.

B. Filter Fabric: After subgrade preparation is at a smooth, uniform and compacted surface, and just prior to laying of the stone, the Contractor shall install the filter fabric for all areas that are to receive the stone surface paving. The fabric shall overlap 2-3' when placing adjacent rolls.

C. Stone surface paving: The Contractor shall install the crushed limestone over all areas to be stoned. The stone shall be spread evenly and compacted by mechanical means (plate vibrator or mechanical rollers), excluding the area located directly over the sub-surface tanks. The area, located over the sub-surface tanks, shall be compacted only using a plate vibrator. The contractor shall take caution when compacting over the tanks as any damage to the tanks shall be their responsibility to correct to the Township's satisfaction.

A quantity of stone sufficient to meet required surface and depth dimensions when compacted shall be provided.

3.1 MEASUREMENT

- A. Measurement of the complete installation of the stone parking including all incidentals to the installation, such as the filter fabric.

3.2 PAYMENT

- A. Payment for the complete installation of the stone paving shall be made by each ton successfully installed, including all incidentals.

DIVISION 2 - SITEWORK
SECTION 02520 - SIGNS

1.1 SCOPE OF WORK

The Contractor shall supply and install the permanent park sign according to the specifications herein and located and installed according to the drawings. The Contractor shall obtain final design sketches of all signage material from the sign manufacturer for approval by the Township's Representative.

1.2 MATERIALS

- A. No Heavy Vehicle Sign (See diagram included with this specification)
 - 1. One - 12" square sign manufactured from 0.63" engineering grade aluminum
 - 2. Standard, weather resistant painted coating with white background, red letters and ¼" red outline surrounding the perimeter of the sign.
 - 3. Drilled Holes: 4 holes, one per corner, offset ½" from the sign corners
 - 4. Shape: square with ¼" rounded corners.
 - 5. Font: Aerial
 - 6. Font size: 1.5" minimum

- B. Sign attachment: 11 gauge wire galvanized ties

1.3 EXECUTION

- A. The Contractor shall supply and install the completed construction sign to the entry gate of the fence fabric using the 11-gauge wire ties at each of the 4 corners. Sign shop drawings shall be submitted to the Landscape Architect for approval.

2.1 MEASUREMENT

- A. Measurement shall be for each sign successfully and completely supplied and installed.

2.2 PAYMENT

- A. Payment shall be a lump sum amount for the successful and complete supply and installation of all signage.

**NO HEAVY
VEHICLES
OR EQUIPMENT
ALLOWED
BEYOND THIS
POINT**

DIVISION 2 - SITEWORK
SECTION 02810 – CHAIN LINK FENCE

1.1 SCOPE OF WORK

Provide necessary labor, tools, equipment, materials, and services to furnish and install the galvanized chain link fencing and accessories.

1.2 SUBMITTALS

- A. Shop drawings: Layout of fences and gates with dimensions, details, and finishes of components, accessories, and post foundations.
- B. Product data: Manufacturer's catalog cuts indicating material compliance and specified options.
- C. Samples: Samples of materials (e.g., fabric, wires, and accessories).

1.3 MATERIALS

- A. Products from qualified manufacturers having a minimum of five years' experience manufacturing thermally fused chain link fencing will be acceptable by the Township's Representative as equal if they meet the following specifications for design, size gauge of metal parts and fabrication.

CHAIN LINK FENCE FABRIC

- A. Chain link fabric shall be supplied with knuckles on both ends.
- B. Mesh for 11-1/2 gauge measures 2-1/4". The 11, 9, and 6 gauge galvanized mesh measures 2". Mesh size is the measured distance between two parallel sides. 11ga, 2" wide openings shall be supplied.
- C. Mesh height shall be 3 feet
- D. Mesh shall be galvanized before weaving with a 1.2 oz. coating meeting ASTM A 392-96 Class I

STEEL FENCE FRAMING

- E. Posts shall be supplied 2-1/2' longer than the height of fence being installed, The 4' high fence shall be supplied with 6-1/2' long posts.to allow for the proper installation of the fencing.
- F. Posts shall be 2" O.D. Schedule 40 galv. Aluminum with a 0.145 minimum thickness and a minimum yield strength of 50,000 psi. with a bending moment of 9,107 lbs./in.
- G. Rails shall be 1-5/8" O.D. Schedule 40 galv. Aluminum with a 0.140 minimum thickness and a minimum yield strength of 50,000 psi. with a bending moment of 9,107 lbs./in.
- H. Code certifications: AASHTO M181-93, ASTM Specifications A 569 & F-1043-95 and Chain Link Fence Manufacturers Institute Product Manual.
- I. Protective coating per ASTM F 1043, external coating Type B, zinc with organic overcoat, 0.9 oz/ft² minimum zinc coating with chromate conversion coating and verifiable polymer film. Internal coating Type B, minimum 0.9 oz/ft² zinc or Type D, zinc pigmented, 81% nominal

oating, minimum 3 mils thick. The coating shall be applied after the forming of the steel posts.

ACCESSORIES

- A. Post caps: Formed steel, cast malleable iron, or aluminum alloy weathertight closure cap for tubular posts. Provide one cap for each post
- B. Brace Bands – Formed steel brace bands shall be used to attach rail end cups and tension wire to terminal posts during installation. Brace Bands shall be supplied flat (not beveled).
- C. Top rail and brace rail ends: Formed steel for connection of rail and brace to terminal posts.
- D. Wire ties: 9 gauge galvanized steel wire for attachment of fabric to line posts; 11 gauge for rails and braces. Hog ring ties of 12-1/2 gauge for attachment of fabric to tension wire.
- E. Brace and tension (stretcher bar) bands: Pressed steel.
- F. Tension (stretcher) bars: One-piece lengths equal to 2 inches less than full height of fabric with a minimum cross-section of 3/16" x 3/4". Provide tension (stretcher) bars where chain link fabric meets terminal posts or change in the direction of the fence.
- G. Nuts and bolts are galvanized.

1.5 SETTING MATERIALS

- A. Concrete: Minimum 28-day compressive strength of 3,500 psi

1.6 EXAMINATION

- A. Verify areas to receive fencing are completed to final grades and elevations.
- B. Ensure property lines and legal boundaries of work are clearly established.

2.1 CHAIN LINK FENCE FRAMING INSTALLATION

- A. Install chain link fence in accordance with ASTM F 567 and manufacturer's instructions.
- B. Locate terminal post at each fence termination and change in horizontal or vertical direction of 30° or more.
- C. Space line posts uniformly at 8' on center.
- D. Concrete set terminal and gate posts: Drill holes in firm, undisturbed or compacted soil. Hole dimensions shall be as per the detail drawings. Excavate deeper as required for adequate support in soft and loose soils, and for posts with heavy lateral loads. Set post bottom 30" below surface when in firm, undisturbed soil. Place concrete around posts in a continuous pour. Trowel finish around post. Slope to direct water away from posts. In areas where an obstruction or large rock may be unearthed, preventing the installation of the terminal gate posts, the Landscape Architect shall be notified to provide an alternate solution.
- E. Drive Anchor line posts: With protective cap, drive post 30" into ground. Slightly below ground level install drive anchor shoe fitting. Install 2 diagonal drive anchors and tighten in the shoe. If posts cannot be driven to proper depth due to obstruction, the contractor shall remove obstruction and dispose of properly.
- F. Check each post for vertical and top alignment and maintain in position during placement and finishing operations.

- G. Bracing: Install horizontal pipe brace at mid-height on each side of terminal posts. Firmly attach with fittings. Install diagonal truss rods at these points. Adjust truss rod, ensuring posts remain plumb.
- H. Top & bottom rails: Install rails. Connect joints with sleeves for rigid connections for expansion/contraction.

2.02 CHAIN LINK FABRIC INSTALLATION

- A. Fabric: Install fabric on exterior side and attach so that fabric remains in tension after pulling force is released. Leave approximately 0.5” between finish grade and bottom selvage. Attach fabric with wire ties to line posts at 14” on center and to rails, braces, and tension wire at 24” on center.
- B. Tension (stretcher) bars: Pull fabric taut; thread tension bar through fabric and attach to terminal posts with bands or clips spaced maximum of 15” on center.

2.03 ACCESSORIES

- A. Tie wires: 11 gauge wire ties shall be twisted for all rails and then bent tightly against the rail so that the bend is parallel with the rail. All twisted ties shall not pose a hazard to pedestrians or clothing. The wire ties shall be installed on the rails so that they do not deform the fabric, capture more than one wire strand of the fabric nor mar the surface of the fabric. 9 gauge wire ties shall be bent around the posts and loop bent onto the fabric. Loops shall be closed upon the fabric with causing damage to the mesh. The Contractor shall be responsible to replace any damaged fabric in entirety.
- B. Fasteners: Install nuts on side of fence opposite fabric side for added security.

3.01 CLEANING

- A. Clean up debris and unused material and remove from the site.

3.02 MEASUREMENT

- A. Measurement of the chain link fence and gates shall be for the complete and successfully supply and installation of all materials.

3.02 PAYMENT

- A. Payment of the chain link fence and gates shall be per linear foot of fence installed, including all incidentals and services.

DIVISION 3 - CONCRETE

SECTION 03300 - CONCRETE FOOTINGS

3.1 SCOPE OF WORK

Provide necessary labor, materials, tools, equipment, and services to furnish and install all concrete footings as indicated on the drawings.

3.2 QUALITY ASSURANCE

Comply with the applicable requirements of the following codes and standards, except as otherwise shown or specified:

- A. Form 408 Specifications, Commonwealth of Pennsylvania Department of Transportation (PennDOT).

3.3 TEST AND REPORTS

- A. Arrange and pay for test(s) of each day's pour. Make one test of each 50 cubic yards or fraction thereof. Tests shall be performed by a testing laboratory approved by the Upper Dublin Township Representative or inspector. A test for compressive strength shall consist of three 6 inch by 12 inch cylinders made, cured and tested in accordance with ASTM C39. Perform one cylinder in seven days and two cylinders at 28 days. Perform slump test in accordance with ASTM C143. Furnish test reports to the Upper Dublin Township Representative.
- B. Any concrete which does not satisfactorily meet the tests shall be removed and replaced when directed by the Upper Dublin Township Representative or Inspector.

3.4 MATERIALS

- A. Concrete shall have a minimum compressive strength of 3500 psi at an age of 28 days. Concrete materials, proportioning, consistency, and strength shall be in accordance with Section 704.1 (g) 2 of PennDot Publication 408. Concrete shall be obtained from a local, PennDOT approved central mixing plant.
- B. All reinforcing bars shall conform to ASTM A615 Grade 60, where applicable.
- C. #4 Rebar

3.2 EXECUTION

- A. Concrete Footings shall be constructed as follows: Construction footings for site furnishings shall conform to PennDOT specifications for concrete footings or according to manufacturer's specifications, manufacturer's specifications taking precedence. Footings shall conform to the dimensions as shown on the drawings or as supplied by the manufacturer. Each footing shall be constructed in one pour, and contain a collar to prevent moisture from entering core.
- B. Curing: Concrete shall be cured and protected as specified in Section 1001.3 (p), PennDOT Specifications. No curing except membrane curing will be permitted.
- C. Backfilling: After the concrete has attained the required strength, the spaces around the footings shall be backfilled with approved material in layers of not more than 4 inches in depth, which shall be thoroughly compacted to the required elevation and cross section. The top six inches of

backfill shall be lightly tamped with stockpiled topsoil. It shall be the Contractor's responsibility to protect poured concrete surfaces so that no damage as a result of accidents or vandalism occurs. Should the concrete surface be damaged, the Contractor shall remove and replace sections as directed by the Landscape Architect, and at the Contractor's expense.

4.1 MEASUREMENT

- A. Measurement of concrete footings shall be for the complete and successful supply and installation of each footing.

4.2 PAYMENT

- A. Payment for each concrete footing completely installed shall be incidental to the item it is being installed with.

DIVISION 15 - MECHANICAL
SECTION 15008 - PIPING AND APPURTENANCES

PART 1. GENERAL

1.1 Scope

1. Description of Work. Provide all labor, materials, and equipment necessary to furnish and install piping, fittings, valves, electronic water levolor and appurtenances as shown on the Drawings and/or as specified herein.
2. Piping Items Included (But Not Limited To)
 1. Piping
 2. Valve box
 3. Electronic water levolor kit
 4. Mechanical Valve
 5. Fittings and related appurtenances
 6. Miscellaneous Items

1.2 Submittals

1. Operating instructions, manuals and shop drawings shall be submitted to Township.
2. Submit to the Township for its review, fully detailed shop drawings and/or legible catalog of all items included within this Section.
3. All tests on materials referred to within this Section shall be made by a recognized and accepted testing laboratory at the Contractor's expense. Tests shall be made in accordance with ASTM or Federal Specification requirements, and certified copies of all test reports shall be submitted to the Township.
4. Submit valve cuts indicating materials used with corresponding ASTM designations.
5. Submit leakage test results for all valves larger than 10 inches in diameter and typical test results for valves 4 inches to 10 inches in diameter.

1.3 Guarantee and Warranty

1. The equipment shall be unconditionally guaranteed by the contractor to meet or exceed the design criteria offered by the manufacturer.

PART 2. PRODUCTS

2.1 Pipes, Valve box, water levolor kit, mechanical valve, and their Appurtenances

1. PVC pipe manufactured in accordance with ASTM D1785, ASTM D2241, ASTM D2672, or AWWA C900 as follows:
 - o Pipes larger than (4) inch diameter: minimum DR-18 • Pipes less than (2) inch diameter: SDR-21 and /or Schedule 40 PVC
 - o 6" schedule 40 PVC water pipe (length per as shown on plan and detail drawings)
 - o 2" schedule 40 PVC water pipe (length per as shown on plan and detail

- drawings)
 - 30° PVC Elbow Connection for exiting pipe – (1) 2”
 - 45° PVC Elbow Connection – (4) 6” and (6) 2”
 - 45° WYE PVC Connection – (2) 6” and (3) 2”
 - 90° WYE PVC Connection – (1) 2”
 - Hayward BFAS Series PVC Bulkhead fitting with socket x threaded ends (with gasket) - 6 for 6” and 3 for 2”
- 2. Mechanical Valves, General
 - All models of valves supplied shall have at least 5 years’ service in Pennsylvania and be supplied by Pennsylvania based representatives.
- 3. Electronic water levolor kit, manufactured by Jandy Levolor®,
 - Model No: LEV110CK/2G
 - QTY: 1
 - Water levolor kid includes control unit, sensor wire/sensor, electronic valve, and mounting hardware.
- 4. Valve box, manufactured by NDS™
 - Model No: 113BC
 - QTY: 1
 - Valve box kit includes lid and brass nut

PART 3. EXECUTION

3.1 Underground Pipe Installation

A. General

1. All pipes, fittings and appurtenances shall be carefully inspected in the field before lowering into the trench. All pieces found to be defective shall be rejected. Such rejected pipe shall be clearly tagged in such a manner as not to deface or damage it, and the pipe shall then be removed from the job site by the Contractor at his own expense.
2. Any conflicts during the installation of piping shall be brought to the attention of the Township. No improvising or field changes will be permitted without the approval of the Engineer/ Landscape Architect.
3. Handling of Pipe and Fittings.
4. All pipe and fittings shall be carefully handled by equipment of sufficient capacity and proper design to avoid damage to the pipe and fittings. Under no circumstances shall materials be dropped or dumped into the trench. No defective pipe or fittings shall be laid or placed in the system. Any piece discovered to be defective after having been laid shall be removed and replaced by a sound and satisfactory piece at the expense of the Contractor.
5. Each pipe and fitting shall be thoroughly cleaned before it is placed, and it shall be kept clean and dry. Every precaution shall be taken to prevent foreign material from entering the pipe while it is being placed in the line. The entrance of earth into pipe will not be permitted, and the Engineer/ Landscape Architect may require the placing of a heavy canvas bag of suitable size over each end of the pipe before it is lowered into the trench.

- During laying operations, no debris, tools, clothing, or other materials shall be placed in the pipe.
6. Pipe and fittings shall be laid accurately to the lines and grades indicated on the Drawings. Care shall be taken to ensure alignment both horizontally and vertically, and to give buried pipe a firm bearing along its entire length. Pipes shall not be laid in water nor shall water be allowed to flow through them. The Contractor shall take all necessary precautions to prevent floatation of the pipe in the trench.
 7. At all times when pipe laying is not actually in progress, the open ends of pipe shall be closed with watertight plugs or by other approved means.
 8. Pipe fittings and locations of inflow and outflow pipes for the tanks shall be as shown on plan and detail drawings and per manufacturer's specification.

B. Setting electronic water levolor kit, mechanical valve, and valve box

1. Electronic water levolor kit, mechanical valve, and valve box shall be installed where shown on the plan and detail drawings and per manufacturer's specification.

PART 4. TESTING

4.1 Cleaning of Lines

1. On completion of construction, and before any specified disinfection, thoroughly flush and clean the internal surfaces of all pipelines in such a way as to remove all oil, grit and other deleterious matter. Clean all piping systems by flushing with water or blowing with air with all valves wide open prior to testing.

4.2 Testing

1. Provide all necessary equipment and perform all the work required to field test all piping systems, valves and water levolor including all remedial and retesting work. All pipe testing shall be performed by the Contractor at his expense in the presence of the Township as outlined below.
2. Prior to initial operation, perform leak tests on all piping systems. Before testing any pipeline ensure that it is anchored adequately and that all thrusts are transmitted to solid anchorage. Stop all open ends with properly jointed plugs. Isolate any equipment which may be damaged by the test pressure.
3. Water Mains shall be tested for leakage at a pressure of 50 lbs. above normal working pressure for a minimum of 2 hours, unless otherwise directed by the engineer/ Landscape Architect.
4. Allowable leakage for water mains outside buildings shall conform to limits indicated in applicable table in AWWA Std. C600-87.
5. The Contractor shall provide the Township with a certification of all pipe tests. Once the certification has been approved, the water lines shall be permanently capped for future use.
6. The contractor is responsible to test the entire proposed water system including piping, fittings, underground tank connections, water levolor, electronic and mechanical valves, valve box, etc. and shall request the Township Landscape Architect for

approval.

PART 5: MEASUREMENT AND PAYMENT

5.1 MEASUREMENT

- A. Measurement shall be for the successful completion of supply and installation of all the piping and appurtenances as specified in this section including incidental material and services.

5.2 PAYMENT

- A. Payment shall be a lump sum amount for the successful completion of supply and installation of all the piping and appurtenances, including incidental material and services.

SECTION 16510 - ELECTRICAL

PART 1 - GENERAL

1.1 SCOPE OF WORK

A. Provide a complete installation of the specified Quazite boxes along with the termination of the existing electrical within the proposed boxes.

1.2 RELATED SECTIONS

A. The following specifications include the Electrical work to be performed or installed in the Electrical Contract, and in other Division 16 specifications. Work not specifically covered by these specifications or indicated on the drawings, but necessary for a complete Electrical termination, is to be provided.

1.3 DEFINITIONS

A. The term "provide" will mean a complete and operating installation, including all equipment, wiring, and incidentals.

B. The term "furnish" will mean to obtain and supply to the job site. The term install will mean to fix in position and connect for use.

1.4 SUBMITTALS

A. The Contractor will submit to the Township's Representative, prior to the start of any electrical work, shop drawings indicating proposed quazite boxes and electrical termination methods required to complete the work for approval by the Township's Representative.

1.5 RULES AND REGULATIONS

A. Materials, workmanship and complete installation will conform to the National Electrical Code, State and City, and all applicable regulations.

1.6 PERMITS, INSPECTIONS AND COORDINATION

A. The Electrical Contractor will obtain any necessary permits prior to beginning his work. At completion of job the Electrical Contractor will furnish to the Township an inspection certificate from a qualified electrical inspector as directed by the Township. It is the Contractor's responsibility to contact the Township regarding selection of an inspector.

1.7 WORKMANSHIP AND GUARANTEE

A. All work will be installed by labor thoroughly skilled in the class or work under this contract. All materials, equipment and workmanship will be guaranteed for a period of one year beginning on date that final payment is approved.

1.8 APPROVALS AND SUBSTITUTION

A. All materials will be standard acceptable grades commonly used throughout the electrical construction industry, will bear the "UL" label, and will be used in accordance with the National Electrical Code. Manufacturer's names are used to designate performance and quality and characteristics. Substitutions will be approved by the Township's Representative.

1.9 COORDINATION

A. The Electrical Contractor is to coordinate his work accordingly with the other trades and other electrical work to insure complete coordination.

PART 2 - PRODUCTS

2.1 QUAZITE BOXES

A. Electrical quazite boxes shall be supplied, as detailed on the Improvement Plans.
Quantity: 2

PART 3 - EXECUTION

3.1 EXCAVATION AND BACKFILL

A. Provide all excavation and backfill for the installation of the specified Quazite boxes. All disturbed paving and surfaces, if necessary, will be repaired to match original condition. Underground work will be installed on a bottom of undisturbed soil, free from stones and soft spots. Soft spots will be excavated and filled with concrete. Hollows will be filled with concrete. Openings will be properly protected during erection and completion, and adequate provisions will be provided for safeguarding life and property.

B. Backfill will be made in 8" layers with clean earth free from undesirable materials. Each layer will be tamped before any other material is filled over it. Excavated material not required for backfilling will be removed from the site or deposited where directed. Backfilled areas will be raked smooth to achieve final grades and seeded according to specifications for seeding, Section 02950, where necessary.

3.2 WIRING METHODS

A. All wiring methods will adhere strictly to the National Electrical Code and be completed as per the electrical specification contained herein.

3.3 CUTTING AND PATCHING

A. All cutting, patching, etc. is to be performed by the Electrical Contractor adhering strictly to the National Electrical Code.

PART 4 – MEASUREMENT AND PAYMENT

3.1 MEASUREMENT

A. Measurement for the Quazite boxes shall be for the complete and successful supply and installation of each box and the termination of each electrical line.

3.2 PAYMENT

B. Payment for the Quazite boxes shall be for the complete and successful supply and installation of each box including the termination of each electrical line.

DIVISION 21 – FIRE SUPPRESSION

SECTION 21110 – FIRE HYDRANT

3.1 SCOPE OF WORK

Provide necessary labor, materials, tools, equipment, and services to furnish and install fire hydrant as indicated on the drawings.

3.2 QUALITY ASSURANCE

Comply with the applicable requirements of the manufacturer's standards.

3.3 MATERIALS

- A. Kennedy Valves 5 1/4" Guardian K8-D fire hydrant including fittings and connections, (or Equal)

3.5 EXECUTION

1. When hydrant(s) are received from the manufacturer, they should be handled carefully to avoid breakage and damage to flanges. Keep hydrant(s) closed until they are installed. Protect stored hydrants from the elements, if possible.
2. Before installation of hydrant(s) clean piping and elbow of any foreign matter.
3. Install hydrant(s) away from the curb/street line a sufficient distance to avoid damage from or to overhanging vehicles. A set-back of 2 ft. from the curb/street line to the point on the hydrant nearest the curb is recommended. The pumper outlet nozzle should face the street/asphalt paving. Make sure that the outlet nozzles are high enough above the ground line for hose attachment and that there are no obstructions to prevent operation. In setting up a hydrant, the elbow should be placed on a flat stone or other solid foundation. It is good practice to brace the side of the base opposite the inlet to oppose the stress due to pressure tending to force the hydrant off the end of the lateral. Hydrant(s) must be firmly supported underground all around the standpipe, especially where there is no concrete sidewalk to help support them. This is particularly important since the proper working of the Safety Breakable Section in severe impact depends upon unyielding support of the underground standpipe.
4. The bottom and lower part of the hydrant should be surrounded with broken stone or coarse gravel so that water released from the standpipe by the drain valves may escape quickly. The stone-filled area should contain a volume of water at least twice that held by the hydrant barrel.
5. Both drainage stone and earth fill above the stone should be tamped to give firm support to the hydrant barrel.
6. The installation of an auxiliary or secondary gate valve in the lateral between the hydrant(s) and the main is required. The valve permits inspection and repair of the hydrants. Check the hydrant and auxiliary valve for perpendicular setting.

7. After the hydrant(s) are installed and the line as well as the hydrant(s) have been hydrostatically tested, the hydrant(s) should be flushed and then checked for proper drainage.
8. The nozzle cap should be removed, then the hydrant(s) opened fully. This will flush out any dirt or sediment which may have accumulated during installation. After the hydrant is flushed, close it, replace the nozzle cap, then open the hydrant(s) again and inspect all joints for leaks: Close the hydrant(s) again, remove a hose cap and/or steamer cap to test your hose thread for proper fit.
9. Before replacing the hose cap and/or steamer cap, check the inside of the hydrant(s) for drainage. This can be accomplished by placing the palm of the hand firmly over the nozzle outlet. Drainage rate should be sufficiently rapid to create suction.

3.4 MEASUREMENT

- A. Measurement of fire hydrants shall be for the complete and successful supply and installation of each hydrant.

3.7 PAYMENT

- A. Payment for each fire hydrant completely installed shall be for each hydrant that is being installed.

DIVISION 22 – WATER STORAGE TANKS

SECTION 22120 –SUB-SURFACE WATER TANKS

3.1 SCOPE OF WORK

Provide necessary labor, materials, tools, equipment, and services to furnish and install underground water tanks as indicated on the drawings.

3.2 QUALITY ASSURANCE

Comply with the applicable requirements of the manufacturer's standards which complies with FDA standards 21 CFR 177.1520 (1) 3.1 and 3.2.

3.5 MATERIALS

- A. 2500-gallon Norwesco underground water tank and extension fittings (or Equal)
- B. Material for backfilling, surrounding, and covering the tanks is a sand and gravel mixture–see backfilling specification.
- C. Coarse sand – see backfilling specification.

3.5 EXECUTION

1. EXCAVATION

- a. Excavates to a depth that will provide a minimum of 12" of cover over the top of the tanks.
- b. Allow 18" on both sides, and both ends of the tanks.
- c. Bed the tanks in well-compacted sand – 12" depth.

2. CONNECTIONS TO TANKS

- a. Install fittings in any location required for holding tanks use.
- b. Install venting per the plumbing details. Tanks must be vented.
- c. For water-tight seal, lid should be sealed with silicone or urethane caulking. re-use stainless steel screws supplied with lid to re-attach lid to tanks.

3. MANHOLE EXTENSION

- a. Install manhole extension before you backfill.
- b. Norwesco (or equal manufacturer) manhole extensions are supplied with gaskets and screws. re-use the stainless-steel screws to attach the lid at the top of the manhole extension.

4. BACKFILLING EXTERIOR

- a. Backfill with 12" layers and compact each layer. always compact ends first.
- b. Each of the interior support cones must be filled and compacted in 6" layers; the bottom half of the cones are tapered and must have the soil compacted to provide structural support.
- c. Maximum backfill over the top of the tanks is 12".

3.6 MEASUREMENT

- A. Measurement of underground water tanks shall be for the complete and successful supply and installation of each Tank.

3.8 PAYMENT

- A. Payment for each underground water tank completely installed shall be for each tank that is being installed.

(TO BE COMPLETED AFTER AWARD)

H. FORM OF AGREEMENT

THIS AGREEMENT made this _____ day of _____
in the year Two Thousand and _____ by and between _____
_____, herein after called the Contractor, and
_____, herein after called the Township,

WITNESSETH, that the Contractor and the Township for the considerations named, agreed as follows:

ARTICLE I - Scope of Work: The Contractor shall furnish all of the materials and perform all of the work shown on the drawings and described in the Specifications entitled:

GEORGE HAGGAR FIRE TRAINING CENTER IMPROVEMENTS PROJECT

Prepared by CMC Engineering, 262 Bethlehem Pike, Suite 200, Colmar, PA 18915, acting as and in these Contract Documents, entitled the Landscape Architect, and shall do everything required by the Agreement and the Contract Documents.

ARTICLE II - The Contract Documents consist of the following:

- A. Advertisement
- B. Instruction to Bidders
- C. Form of Bid
- D. Form of Guaranty
- E. General Conditions
- F. Special Conditions
- G. Construction Specifications
- H. Form of Agreement
 - Contractor's Release
 - Statement of Surety Company
- I. Contract Bonds
 - Performance Bond - 100% of Contract Amount
 - Labor and Materialmen's Bond - 100% of Contract Amount
 - Maintenance Bond - 10% of Contract Amount
- J. List of Contract Drawings

This agreement form, together with these documents and drawings form the Contract and they are as fully a part of the Contract as if hereto attached or herein represented.

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George Hagggar Fire Training Center
Upper Dublin Township, PA

ISSUED FOR BID
4/21/2023
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ARTICLE III - Time of Completion

The work to be performed under this Contract shall be commenced on a date to be specified in a written order by the Township or Landscape Architect and shall be fully completed within **60 consecutive calendar days**.

ARTICLE IV - The Contract Sum:

The Township shall pay the Contractor for the performance of the Contract, subject to additions and deductions provided therein, in current funds, the unit and/or lump sum prices, bid by Contractor, as indicated on attached certified TABULATION OF BIDS.

ARTICLE V - Failure to Complete Work on Time:

For each day so certified, the Contractor shall credit the Township the sum of \$500.00 dollars for each and every calendar day that the Contractor is in default in completing the work within the time specified. This sum is agreed upon as liquidated damages that the Township shall suffer by reason of such default.

ARTICLE VI - Payment to Contractor

The Township shall make payments on account to the Contract as provided herein under the GENERAL AND/OR SPECIAL CONDITIONS.

ARTICLE VII - Acceptance and Final Payment as Release:

The acceptance by the CONTRACTOR of final payment shall be and shall operate as a release to the TOWNSHIP of all claims and all liability to the CONTRACTOR other than claims in stated amounts as may be specially excepted by the CONTRACTOR for all things done or furnished in connection with this WORK and for every act and neglect of the TOWNSHIP and others relating to or arising out of this WORK. Any payment, however, final or otherwise, shall not release the CONTRACTOR or his sureties from any obligations under the CONTRACT DOCUMENTS or the Performance BONDS, Payment BONDS, and Maintenance BONDS.

Final payment to the Contractor shall be made subject to his furnishing the Township properly executed "CONTRACTOR'S RELEASE" and "STATEMENT OF SURETY" forms included in this section.

If, after the work has been substantially completed, full completion is materially delayed through no fault of the Contractor, and the Landscape Architect so certifies, the Township shall, upon certificate of the Landscape Architect, and without terminating the Agreement, make payment for the balance due for that portion of the work fully completed and accepted. Such payment shall be made under the terms and conditions governing final payment, except that it shall not constitute a waiver of claims.

This Agreement shall be binding upon all parties hereto and their respective heirs, executors, administrators, successors, and assigns.

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IN WITNESS WHERE OF, the parties hereto have executed, or caused to be executed by their duly authorized officials, this Agreement in (*Triplicate) each of which shall be deemed an original on the date first above written.

*Number of Copies

TOWNSHIP: _____
BY: _____
NAME: _____
(Please type or print)
TITLE: _____

(SEAL) _____
ATTEST: _____
NAME: _____
(Please type or print)
TITLE: _____

CONTRACTOR: _____
BY: _____
NAME: _____
(Please type or print)
TITLE: _____
ADDRESS _____

(SEAL) _____
ATTEST: _____
NAME: _____
(Please type or print)
TITLE: _____

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George Haggar Fire Training Center
Upper Dublin Township, PA

ISSUED FOR BID
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(TO BE COMPLETED AFTER CONSTRUCTION)

I. CONTRACTOR'S RELEASE

KNOW ALL MEN BY THESE PRESENTS THAT:

_____ (Contractor)
of _____ County and State of _____
does hereby acknowledge that they have received this day of and from the

_____ (Township)
the sum of ONE Dollar (\$1.00) and other valuable consideration in full satisfaction and payment
of all sums of money owing payable and belonging to

_____ (Contractor)
by any means whatsoever, for on account of a certain agreement hereinafter called the
Agreement between the said _____ (Township)

and _____ (Contractor)

NOW THEREFORE, the said _____ (Contractor)

(for myself, my heirs, executors and administrators) (for itself, its successors and assigns) do by
these presents remise, release, quit-claim and forever discharge the said

_____ (Township)
its successors and assigns, of and from all claims and demands arising from or in connection with the said
AGREEMENT
dated _____ and of and from all, and all manner of cause and action, suits,
debts, dues, duties, sum and sums of money, accounts, reckonings, bonds, bills, specialties, covenants,
contracts, agreements, promises, variances, damages, judgments, extents executions, claims and demand,
whatsoever, in law or equity, or otherwise which against the said

_____ (Township)
Its successors and assigns, ever had, now have, or which (I, my heirs, executors, or administrators) (it, its
successors and assigns) hereafter can, shall or may have, for upon or by reason of any matter, cause or thing
whatsoever, from the beginning of the work to the date of these presents.

IN WITNESS WHEREOF _____ (Contractor)
has caused these presents to be duly executed the _____ day of 20 _____

(TO BE COMPLETED AFTER CONSTRUCTION)

STATEMENT OF SURETY COMPANY

IN ACCORDANCE with the provisions of the AGREEMENT dated _____
_____ between the _____

(Township)

and _____
(Contractor)

the _____
(Surety)

, SURETY on the Material and Labor Payment BOND of _____

(Contractor)

after a careful examination of the books and records of said CONTRACTOR or after receipt of an affidavit from CONTRACTOR, which examination of affidavit satisfies SURETY that all claims for labor and materials have been satisfactorily settled, hereby approved of the final payment to the said CONTRACTOR and by these presents witnesseth that payment to the CONTRACTOR of the final estimates shall not relieve SURETY of any of its obligations to

(Township)

as set forth in the said SURETY COMPANY'S BOND. IN WITNESS WHEREOF, said surety has hereunto set its hand and seal this _____ day of _____ 20 .

ATTEST:
(SEAL)

BY: _____
(President)

Note: This statement, if executed by any person other than the President or Vice President of the Company, must be accompanied by a certificate of even date showing authority conferred upon the person so signing to execute such instruments on behalf of the Company represented.

(TO BE COMPLETED AFTER AWARD)

J. CONTRACT BOND*

KNOW ALL MEN BY THESE PRESENTS, That, we, the undersigned, _____, as Principal, and _____, a corporation organized and existing under the law as of the as of the State of _____, surety, are held and firmly bound unto the _____ (herein after Township)

as hereinafter set forth, in the full and just several sums of: _____

(a) _____ Dollars (\$ _____)

(One hundred percent (100%) of the amount of the contract)

for faithful PERFORMANCE of the Agreement as designated hereinafter, in Paragraph "A";

(b) _____ Dollars (\$ _____)

(One hundred percent (100%) of the amount of the contract)

for payment of LABOR AND MATERIALS as designated hereinafter, in Paragraph "B"; and

(c) _____ Dollars (\$ _____)

(Ten percent (10%) of the amount of the contract)

for MAINTENANCE as designated hereinafter, in Paragraph "C"; and lawful money of the United States of America, to be paid to the said Township, or its agents, to which payment well and truly to be made and done, we bind ourselves, our heirs, executors, administrators and successors, jointly and severally, firmly by these presents.

Sealed with our respective seals and dates this _____ day of _____ 20 _____.

WHEREAS, the above bounden Principal has entered into an Agreement with the said Township, dated

the _____ day of _____ 20 _____.

for _____

upon certain terms and conditions in said Agreement more particularly mentioned; and;

*Only bonds from companies licensed to do business in the Commonwealth of Pennsylvania will be accepted and the bond shall so state same.

WHEREAS, it is one of the conditions of the award of the Township that these presents be executed. NOW THEREFORE, the joint and several conditions of this obligation are such:

A. That is the above bounden principal as Contractor shall well and faithfully do and perform the things agreed by them to be done and performed according to the terms of said Agreement and all relating documents thereto and made a part of said contract, including the plans and specifications therein referred to and made part thereof, and such alterations as may be made in said plans and specifications as therein provided, and which are hereby made part of this bond the same as though they were set forth herein, and shall indemnify and save harmless the said Township and all of its officers, agents and employees from any expenses incurred through the failure of said Contractor to complete the work as specified and for any damages growing out of the manner of performance of said Agreement by said Contractor or his subcontractors, or his or their agents or servants, including patent, trademark and copyright infringements, then this part of this obligation shall be void; otherwise it shall be and remain in full force and effect, as though it was provided for and in compliance with the Act No. 385 of the 1967 Session of the Legislature.

B. That if the above bounden Principal shall and will promptly pay or cause to be paid all sums of money which may be due any person, partnership, association or corporation for all materials furnished and labor supplied or performed in the prosecution of the work, whether or not the said material or labor entered into and become component parts of the work or improvement contemplated, and also including public utility services, and reasonable rentals of equipment, but only for periods when the equipment rented is actually used at the site, then this part of this obligation shall be void; otherwise, it shall be and remain in full force and effect, as though it were provided for and in compliance with the Act No. 385 of the 1967 Session of the Pennsylvania Legislature.

C. That if the above bounden Principal shall remedy without cost to the said Township any defects which may develop during a period of two (2) year from the date of completion and acceptance of the work performed under said contract, provided such defects, in the judgment of the Township or its successor having jurisdiction in the premises, are caused by defective or inferior materials or workmanship, then this part of this obligation shall be void; otherwise it shall be and remain in full force and effect. It is further agreed that any alterations which may be made in the terms of the Agreement or in the work to be done or materials to be furnished or labor to be supplied or performed under it or the giving by the Township of an extension of time for performance of the Agreement or any other forbearance on the part of either the Township or the Principal to the other shall not in any way release the Principal and the Surety or Sureties, or either or any of them, their heirs, executors, administrators, successors or assigns, from their liability hereunder, notice to the Surety or Sureties of any such alterations, extension or forbearance being hereby waived.

The Principal and Surety hereby jointly and severally agree with the obligee herein that every person, co-person, co-partner, association or corporation who, whether as subcontractor or otherwise has furnished material or supplied or performed labor in prosecution of the work as above provided and who has not been paid therefor, within 90 days after the day on which any such claimant performed that last of such labor or furnished the last of the materials for which they claim payment may sue in assumpsit on this bond in his own name and prosecute the same to final judgment; provided, however, that the Township shall not be liable for the payment of any costs or expense of any such suit.

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George Haggart Fire Training Center
Upper Dublin Township, PA

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Recovery by any person, co-partnership, association or corporation who, whether as subcontractor otherwise, has furnished material or supplied or performed labor in prosecution of the work as above provided and has not been paid therefore, within 90 days after the day on which any such claimant performed the last of such labor or furnished the last of the materials for which they claim payment may sue in assumpsit on this bond in his own name and prosecute the same to final judgment for such sum or sums as may be justly due them, them or it and have execution on the judgment provided, however, that the Township shall not be liable for the payment of any costs or expenses of any such suit.

The right of a claimant who is a subcontractor of a subcontractor of the Prime Contractor who has no contractual relationship express or implied, with the Prime Contractor may bring an action on this bond, as herein provided, only if they have given written notice in accordance with Act 385 of the 1967 Session of the Pennsylvania Legislature to the Prime Contractor within 90 days from the date on which the claimant performed the last of the labor or furnished the last of the materials for which they claim payment stating with substantial accuracy the amount claimed and the name of the person for whom the work was performed or to whom the material was furnished.

Recovery by any person, co-partnership, association or corporation hereunder shall be subject to the provisions of the Act No. 385 of the 1967 Session of the Pennsylvania Legislature to the same extent as if said provisions were fully incorporated in the bond.

It is further agreed that in accordance with Section 6 Act No. 385 of 1967 Session of the Pennsylvania Legislature, that the Township shall supply a certified copy of his Bond and the Agreement set forth above, to any person filing an affidavit that they have a claim hereunder, is a defendant on a claim hereunder, or is the surety, upon payment of a certification fee to the Township. Any action commenced on or arising from this Bond shall not be a bar to any subsequent actions that may arise as a result of the Agreement set forth above, or otherwise.

IN WITNESS WHEREOF, the said Prime Contractor and Surety have duly executed this bond under seal the day and year first above written.

Witness:

BY _____
(Prime Contractor - Individual)

BY _____
(Attorney-in-Fact)

BY _____
(Prime Contractor-Partnership)

Witness:

(SEAL)

(SEAL)

(SEAL)

(SURETY)

Attest:

By _____
(Attorney-in-fact)

By _____
(Corporation - Secretary)

By _____
(President)

(CORPORATE SEAL)

Attest:

By _____ (Surety)
(Attorney-in-fact)