

PROJECT MANUAL

FOR



CHESTER UPLAND SCHOOL DISTRICT

Parking Lot and Site Upgrades

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August 25, 2026

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NOTICE OF ADVERTISEMENT

Public notice is given that sealed bids/proposals will be received online via the PennBid (<https://pennbid.bonfirehub.com>) by the Chester Upland School District by September 14, 2026 until 4:00 PM prevailing time for the following project.

Chester Upland School District – Parking Lot and Site Upgrades

- A. Chester High School: 232 West 9th Street, Chester, PA 19013.**
- B. Main Street Elementary School: 704 Main Street, Upland, PA 19015**
- C. Toby Farms Intermediate School: 201 Bridgewater Road, Chester Twp., PA 19045**
- D. Chester Upland School of the Arts: 501 West 9th Street, Chester, PA 19013**
- E. Edgmont Scholars Academy: 1350 Edgmont Avenue, Chester, PA 19013**

The scope of work includes, but is not limited to, parking lot resurfacing, ADA accessibility upgrades, concrete sidewalk, concrete curb, fencing, and stormwater management upgrades at each school.

There is a non-mandatory pre-bid meeting on Friday, August 28, 2026. Interested Proposers will meet at Chester High School, 232 W. 9th St. Chester PA 19013, at 9:00 A.M. All questions concerning this proposal should be submitted through the Pennbid Program. All questions and answers will be posted on the Pennbid.

Bidders are required to submit a surety in the form of a bond or equivalent meeting 10% of the overall bid price in compliance with the contract documents. Bid bonds will be returned to the non-awarded bidders upon the execution of the contract. The successful Bidder shall also be required to provide a Performance Bond in an amount of one hundred percent (100%) of the Contract amount within ten (10) calendar days of receipt of written notice of acceptance of the Bid.

There is no physical public bid opening for this project, bids will be revealed via the PennBid website.

The Successful Bidder Who Is Awarded The Contract, Will Be Required To Pay “PennBid” A Fee Of 1/3% of contract, \$150 min. and capped at \$6,000.00 (plus tax) Of The Contract Award Value.

All interested parties must submit questions via PennBid website (<https://pennbid.bonfirehub.com/login>) by the posted deadline. Bidders are not permitted to contact the District Engineer or staff directly.

This project is subject to applicable Pennsylvania laws and requirements, including, where applicable:

- Pennsylvania Prevailing Wage Act;
- Public Works Contractors’ Bond Law;
- Steel Products Procurement Act;
- Public Works Employment Verification Act;
- Pennsylvania Human Relations Act;
- Separations Act and Section 751 of the Pennsylvania Public School Code; and
- applicable Pennsylvania Department of Education requirements.

Bidders shall comply with all requirements identified in the bidding and contract documents. No bidder may withdraw its bid for sixty (60) days after the bid-opening date, except as otherwise permitted by law.

The Contract Documents contain all pertinent regulations. Award of the contract will be to the lowest responsible bidder. The Chester Upland School District reserves the right to reject any or all bids, waive informalities or irregularities in a bid, and award contracts in the best interests of the School District, subject to applicable law.

Receiver Nafis Nichols
Chester Upland School District
(Advertised Three Consecutive Weeks)

PROCUREMENT AND CONTRACTING **REQUIREMENTS**

SECTION 00000 - SCOPE OF WORK

PART 1 - GENERAL

1.01 SITE LOCATIONS

A. This project is located at five (5) separate locations in the City of Chester.

1. Chester High School: 232 West 9th Street, Chester, PA 19013
2. Main Street Elementary School: 704 Main Street, Upland, PA 19015
3. Toby Farms Intermediate School: 201 Bridgewater Road, Chester Twp., PA 19045
4. Chester Upland School of the Arts: 501 West 9th Street, Chester, PA 19013
5. Edgmont Scholars Academy: 1350 Edgmont Avenue, Chester, PA 19013

1.02 PROJECT DESCRIPTION AND SCOPE OF WORK

A. For work areas and plans, refer to the project plans that are appended to these specs.

B. The Chester Upland School District is proposing to rehabilitate the existing parking lots at the forementioned School Buildings. Rehabilitation includes but is not limited to: Parking lot resurfacing, ADA accessibility upgrades, concrete sidewalk and curb replacements, bollards, dumpster enclosures, and other incidental site improvements.

C. The contractor is responsible for proper disposal of all materials that are removed as part of the demolition.

Chester High School:

The work generally consists of milling and resurfacing of the existing parking area and restriping in accordance with the Contract Documents and Plans. The work shall also include, but not be limited to, removal of existing curb islands and installation of new curbed landscape islands, ADA-accessible pedestrian crossings and curb ramps, signage, concrete curb and sidewalk, dumpster enclosure improvements, and all other incidental work necessary to complete the project.

The Contractor shall be responsible for all required maintenance and protection of traffic throughout construction. No separate payment will be made for maintenance and protection of traffic, which shall be incidental to the work.

The Contractor shall coordinate and schedule all work to minimize conflicts with ongoing school operations and maintain safe and reasonable access to the school at all times. Milling, paving, concrete, dumpster enclosure, striping, and related work shall be phased as necessary to minimize disruption to normal school activities.

Prior to commencing work, the Contractor shall submit a detailed construction schedule identifying the anticipated sequence and duration of the work. The Contractor shall provide all labor, materials, equipment, supervision, means, methods, and coordination necessary to complete the project in accordance with the Contract Documents and required schedule.

The Contractor shall coordinate all work with the Owner and School representatives and make necessary adjustments to accommodate school activities, events, deliveries, and other site operations.

Main Street Elementary School:

The work generally consists of milling and resurfacing the existing parking area and restriping the parking lot in accordance with the Contract Documents and Plans. The work shall also include, but not be limited to, the installation of new concrete curb, concrete sidewalk, ADA-compliant curb ramps, dumpster enclosure improvements, and all other incidental work necessary to provide a complete project.

The Contractor shall be responsible for all required maintenance and protection of traffic, pedestrian control, temporary access, barricades, signage, and other safety measures required throughout construction. No separate payment will be made for maintenance and protection of traffic, which shall be considered incidental to the Contract Work.

The Contractor shall coordinate and schedule all work to avoid conflicts with ongoing school operations. Milling, paving, concrete work, dumpster enclosure construction, striping, and all related improvements shall be sequenced and performed in a manner that maintains safe and reasonable access to the school and minimizes disruption to students, staff, visitors, deliveries, and normal school activities.

Prior to commencement of construction, the Contractor shall submit a detailed construction schedule for review by the Owner identifying the proposed sequence, phasing, and anticipated duration of the work. The Contractor shall be solely responsible for providing all labor, materials, equipment, supervision, temporary facilities, means, methods, sequencing, and coordination necessary to complete the work in accordance with the Contract Documents and within the required project schedule.

The Contractor shall coordinate all construction activities with the Owner and school representatives and shall modify the construction sequence or daily operations, as necessary, to accommodate school activities, special events, bus and vehicular circulation, deliveries, emergency access, and other site operations. Such coordination and scheduling shall be considered incidental to the work and shall not be a basis for additional compensation.

Toby Farms Intermediate School:

The work generally consists of the milling and resurfacing of a portion of the existing parking area and restriping in accordance with the contract documents and plans. The work shall also include, but not be limited to, installation of steel bollards with sleeves, construction of a new dumpster enclosure, removal of the existing dumpster area as required to accommodate the

proposed enclosure, installation of concrete curb and concrete sidewalk, and all other incidental improvements necessary to complete the project.

The Contractor shall be responsible for all required maintenance and protection of traffic throughout construction. No separate payment will be made for maintenance and protection of traffic, which shall be considered incidental to the work.

The Contractor shall coordinate and schedule all work to avoid conflicts with ongoing school operations. Milling, paving, concrete, dumpster enclosure, striping, and related work shall be planned and performed in a manner that maintains safe and reasonable access to the school and minimizes impacts to normal school activities.

Prior to commencing work, the Contractor shall submit a detailed construction schedule identifying the anticipated sequence and duration of each major work activity. The Contractor shall be responsible for providing all labor, materials, equipment, supervision, means, methods, sequencing, and coordination necessary to complete the work in accordance with the contract documents and within the required project schedule.

The Contractor shall coordinate all construction activities with the Owner and school representatives and shall make necessary adjustments to the work schedule and construction operations to accommodate school activities, events, deliveries, and other site operations. The Contractor shall maintain the site in a safe, clean, and accessible condition throughout the duration of the project.

Chester Upland School of the Arts:

The work generally consists of the milling and resurfacing of the existing parking area and restriping in accordance with the contract documents and plans. The work shall also include, but not be limited to, the installation of steel bollards with sleeves, construction of a new dumpster enclosure, removal of the existing dumpster area as required to accommodate the proposed enclosure, installation of concrete curb and concrete sidewalk, and all other incidental improvements necessary to complete the project.

The Contractor shall be responsible for all required maintenance and protection of traffic throughout construction. No separate payment will be made for maintenance and protection of traffic, which shall be considered incidental to the work.

The Contractor shall coordinate and schedule all work to avoid conflicts with ongoing school operations. The Contractor shall plan and execute the milling, paving, concrete, dumpster enclosure, striping, and related improvements in a manner that maintains safe and reasonable access to the school and does not interfere with normal school activities.

Prior to commencing work, the Contractor shall submit a detailed construction schedule identifying the anticipated sequence and duration of the work. The Contractor shall be solely responsible for providing all labor, materials, equipment, supervision, means, methods,

sequencing, and coordination necessary to complete the work in accordance with the contract documents and within the required project schedule.

The Contractor shall coordinate all construction activities with the Owner and school representatives and shall make necessary adjustments to the work schedule and construction operations to accommodate school activities, events, deliveries, and other site operations.

Edgmont Scholars Academy:

The Contractor shall be responsible for all layout, field verification, demolition, excavation, grading, construction, restoration, and incidental work necessary to complete the proposed improvements. All disturbed areas shall be restored to equal or better condition upon completion of the work.

The Contractor shall provide all required Maintenance and Protection of Traffic (MPT) for work performed within City and PennDOT rights-of-way. Traffic and pedestrian control shall comply with applicable PennDOT requirements and shall be maintained throughout construction.

Where curb replacement requires disturbance of the adjacent roadway pavement, permanent asphalt pavement restoration along the curb line shall be required. All costs associated with sawcutting, removal, pavement restoration, materials, labor, and incidental work shall be included in the bid price for “Plain Cement Concrete Curb, Including Permanent Pavement Restorations.” No separate payment will be made for pavement restoration associated with curb installation.

All construction activities shall be coordinated with the District Engineer. The Contractor shall schedule and perform the work so as not to interfere with established school bus routes, student arrival and dismissal periods, pedestrian access to school facilities, or other school operations.

Work shall be performed only during approved hours and shall be coordinated in advance with the District Engineer to minimize disruption to students, staff, residents, and the traveling public. The Contractor shall maintain safe pedestrian access at all times and shall coordinate any temporary sidewalk closures, roadway restrictions, or detours with the District Engineer

1.03 General Requirements

- A. Construction layout of all proposed elements of construction to the specified lines and grades. All limits of work shall be marked out and approved by the Engineer prior to excavation. For this project, all limits of work will be established outside the limits of any State right-of-way. Grades shall be verified in the field during construction layout.
- B. Removal of existing features as incidental to the contract work items, including but not limited to the following: metal plates, pipes, concrete slabs, stone, bricks, and all foreign materials encountered during excavation for contract items.

1.04 Additional Requirements

- A. All Base Bid work by the Contractor must be 100% complete within the contract time limit of 175 calendar days. The contract time limit shall begin once a written Notice to Proceed order has been issued to the contractor.
- B. The cost of all related incidental work, dust control, erosion control, cleaning and restorations shall will be measured for this project.
- C. All materials, construction procedures, type and use of equipment, measurement and payment shall be in accordance with the Commonwealth of Pennsylvania Department of Transportation Specifications, Publication 408, unless otherwise noted and/or modified by these specifications.
- D. The contractor is responsible for the construction layout of this project.
- E. All contractors and other persons utilizing this specification and the information contained herein are cautioned to comply with the requirements of Pennsylvania Act 172, entitled “Excavation and Demolition Work Protection of Underground Utilities.” Each individual contractor using the project plans must verify the location and depth of all underground utilities and facilities before starting work. The contractor shall notify “PA One Call” (1-800-242-1776) at least 72 hours prior to the start of any excavation.
- F. Contractor must abide by Pennsylvania Act 287, as amended by Act 181 of 2008 (Call Before you Dig).
- G. The contractor shall establish contact with an individual from each local utility prior to commencement of excavation. The contractor shall notify the Engineer and the utility owner immediately should a conflict occur in the limits of construction. The contractor shall be responsible for coordination of all work to be performed by the utility owner with regards to the work included in this contract. Additional payment will not be made for any delays incurred or any additional work performed due to conflicts with existing utility mains or service lines.
- H. All paved asphalt or concrete areas disturbed during construction shall be restored to a condition at least equal to that which existed prior to the start of construction.
- I. All grassed areas disturbed during construction shall be top soiled, fertilized and seeded. No additional payment will be made for restoration of grassed areas, but the cost shall be included in the various items of the proposal.
- J. All fill shall be placed in six inch (6”) thick lifts and thoroughly compacted to the satisfaction of the Engineer. If borrow fill is required, it shall be subject to the approval of the Engineer.

- K. The contractor shall be responsible for the location and preservation of underground and surface utilities and structures at / or adjacent to the site of construction. It shall be at the contractor's own expense to repair or replace anything that is damaged by the contractor.
- L. All construction details not shown shall be in accordance with PennDOT standards as detailed in:
 - a. PennDOT Specifications, Pub. 408, latest revision
 - b. PennDOT Standards for Roadway Construction, Pub. 72, latest revision

These standards can be purchased at: PA Department of Transportation, Sales Store, P.O. Box 2028, Harrisburg, PA 17105-2028, (717-787-6746).

- M. The project plans, entitled "Chester Upland School District Parking Lot and Site Upgrades" are appended and hereby included with the project specifications.

PART 2 – PRODUCTS

Not Used

PART 3 – EXECUTION

Not Used

PART 4 – QUANTITY AND PAYMENT

Not Used

END OF SECTION

NOTICE TO CONTRACTORS

Sealed proposals for the CUSD Chester High School Roof Rehabilitation will be received electronically via the PennBid Program by the Chester Upland School District until September 14, 2026 until 4:00 PM prevailing time, at which time said bids will be publicly opened with the results made available via PennBid.

Plans, Specification, and bid forms may be obtained at no cost on PennBid (<https://pennbid.bonfirehub.com/login>)

Each bid must be accompanied by either a bid bond in an amount of ten (10%) of the bid amount from a surety satisfactory to the District or by certified check or letter of credit upon a solvent bank in the amount of ten (10%) of the bid amount in favor of the District. Bid Bonds shall be accompanied by Proof of Authority of the official or agent signing the bond.

Attention of bidders is called to all of the requirements contained in this bid packet, particularly to the application of the PA Prevailing Wage Requirements, various insurance requirements, various equal opportunity provisions, and the requirement of a payment bond and performance bond for 100% of the contract price.

All prospective bidders are required to present proof of an acceptable disposal method approved by the Pennsylvania Department of Environmental Resources or counterpart Agency in another State. The proof may consist of a copy of a State Solid Waste Disposal Permit to the prospective bidder or a Letter of Approval for the use of a proposed or existing disposal facility which has a permit or is under review for a permit.

The contract is subject to PA Procurement Rules which include Prevailing Wage Requirements.

Attention is called to the fact that the Contractor must ensure that employees and applicants for employment are not discriminated against because of their race because of their race, color, religion, sex, handicap, familial status, or national origin. Hearing impaired individuals may contact the District through the AT&T Relay Center at 1-800-654-5984.

No bidder may withdraw his bid within sixty (60) days after the actual date of the opening thereof. Chester Upland School District reserves the right to waive any informalities or to reject any or all bids.

NONCOLLUSION AFFIDAVIT

State of

BID Identification: CUSD – Parking Lot and Site Upgrades

CONTRACTOR _____, being first duly sworn, deposes and says that he is _____ (sole owner, a partner, president, secretary, etc.) of the party making the foregoing BID; that such BID is not made in the interest of or on behalf of any undisclosed person, partnership, company, association, organization, or corporation; that such BID is genuine and not collusive or sham; that said BIDDER has not directly or indirectly induced or solicited any other BIDDER to put in a false or sham BID, and has not directly or indirectly colluded, conspired, connived, or agreed with any BIDDER or any one else to put in a sham BID, or that any one shall refrain from bidding; that said BIDDER has not in any manner, directly or indirectly, sought by agreement, communication or conference with any one to fix the BID price of said BIDDER or of any other BIDDER, or to fix any overhead, profit, or cost element of such BID price, or of that of any other BIDDER, or to secure any advantage against the OWNER awarding the contract or anyone interested in the proposed contract; that all statements contained in such BID are true; and, further, that said BIDDER has not, directly or indirectly, submitted his BID price or any breakdown thereof, or the contents thereof, or divulged information or data relative thereto, or paid and will not pay any fee in connection therewith, to any corporation, partnership, company, association, organization, BID depository, or to any member or agent thereof, or to any other individual except to such person or persons as have a partnership or other financial interest with said BIDDER in his general business.

Signed:

Subscribed and sworn to before me this ____ day of _____,
20__.

Seal of Notary:

BID BOND

KNOW ALL MEN BY THESE PRESENTS, THAT WE,
as PRINCIPAL, and _____ as
SURETY, are held and firmly bound unto the
(hereinafter called the OWNER), in the penal sum of
DOLLARS (\$_____) lawful money of the United States, for payment of which sum well
and truly to be made, we bond ourselves, our heirs, executors, administrators, and successors,
jointly and severally, firmly by these presents.

THE CONDITION OF THE OBLIGATION IS SUCH that whereas the Principal has submitted
the accompanying Bid dated _____ for

NOW, THEREFORE, if the Principal shall not withdraw said Bid within the time specified therein
after the opening of the same, and shall within ten (10) days after the Principal is notified by the
Owner of the award of such Contract to him, enter into a written contract with the Owner, in
accordance with the Bid as accepted; and give bond with good and sufficient surety or sureties as
may be required for the faithful performance and proper fulfillment and labor supplied, if required
in said Contract; or in event of the withdrawal of said Bid within the period specified, or the failure
to enter into such Contract and give such bonds within the time specified if the Principal shall pay
the Owner the difference between the amount specified in said Bid and the amount for which the
Owner may procure the required materials or supplies, or both, if the latter amount of the former,
together with any other expenses and costs that may have been incurred by the Owner, then the
above obligation shall be void and of no effect, otherwise to remain in full force and virtue.

IN WITNESS WHEREOF, the above bonded parties have executed this instrument under their
several seals this _____ day of _____, 20____, the name and corporate seal of each
corporate party being hereto affixed and these presents duly signed by its undersigned
representative, pursuant to authority of its governing body.

WITNESSED BY:

(Individual Principal)

Business Address:

ATTEST:

Corporate Principal

Corporate Surety

By:

SEAL

(Power of Attorney for person signing for Surety Company must be attached to bond.)

INSTRUCTIONS TO BIDDERS

1. **RECEIPT AND OPENING OF BIDS:** Chester Upland School District (herein called the "Owner"), invites bidders to submit sealed bids that will be received online via the PennBid Program by the Chester Upland School District by September 14, 2026, 4:00 PM prevailing time. There is no physical bid opening for this project, bids will be revealed via the PennBid website.

A uniform fee of 0.333% (1/3 of 1 percent) of the bid amount (up to \$5,000.00) is applied only to bidders who are awarded contracts. No fees apply to bidders who submit without being awarded the contract.

The Owner may consider informal any bid not prepared and submitted in accordance with the provisions hereof and may waive any informalities or reject any and all bids. Any bid may be withdrawn prior to the above scheduled time for the opening of bids or authorized postponement thereof. Any bid received after the time and date specified shall not be considered. No bidder may withdraw a bid within thirty (30) days after the actual date of the opening thereof.

2. **PREPARATION OF BID:** Each bid must be submitted electronically via PennBid, on the prescribed form and accompanied by a Bid Bond, Certified Check, or Letter of Credit, the Non-collusion Affidavit, and Subcontractor Declaration Form. All blank spaces for bid prices must be completed, in ink or typewritten, in both words and figures, and the foregoing Certifications must be fully completed and executed when submitted. In case of discrepancies of written words and figures, the prices written in words shall govern.

All bids will be received through the PennBid Program and bidder shall adhere to requirements detailed on the Bid located on the website.

3. **MODIFICATION OF BIDS:** Any bidder may modify his/her bid within PennBid at any time prior to the due date and time listed in the invitation to bid.
4. **METHOD OF BIDDING:** The Owner invites unit price/lump sum price bids as indicated in the Bid Form.

If the lowest total responsive bid received exceeds the amount of funds available to finance the contract, the Owner may:

- a. Reject all bids;
- b. Augment the funds available in an amount sufficient to enable award to the lowest responsive bidder or bidders;

- c. Take the base bid less the alternative deductible (if any) as listed on the proposal form as to produce a net amount which is within available funds.
5. QUALIFICATIONS OF BIDDER: The Owner may make such investigations as he/she deems necessary to determine the ability of the bidder to perform the work, and the bidder shall furnish to the Owner all such information and data for this purpose as the Owner may request. The Owner reserves the right to reject any bid if the evidence submitted by, or investigation of, such bidder fails to satisfy the Owner that such bidder is properly qualified to carry out the obligations of the contract and to complete the work contemplated therein. Conditional bids will not be accepted.
6. BID SECURITY: Each bid must be accompanied by cash, certified check of the bidder, or a bid bond prepared on the form of bid bond attached hereto, duly executed by the bidder as principal and having as surety thereon a surety company approved by the Owner. Such cash, checks or bid bonds will be returned to all except the three lowest bidders within three days after the opening of bids, and the remaining cash, checks or bid bonds will be returned promptly after the Owner and the accepted bidder have executed the contract, or, if no award has been made within thirty (30) days after the date of the opening of bids, upon demand of the bidder at any time thereafter, so long as he/she has not been notified of the acceptance of his/her bid. Attorneys-in-fact who sign bid bonds or contract bonds must file with each bond a certified and effectively dated copy of their power of attorney.
7. LIQUIDATED DAMAGES FOR FAILURE TO ENTER INTO CONTRACT: The successful bidder, upon his/her failure or refusal to execute and deliver the contract and bonds required within ten (10) days after he/she has received notice of the acceptance of his/her bid, shall forfeit to the Owner, as liquidated damages for such failure or refusal, the security deposited with his/her bid.
8. CONDITIONS OF WORK: Each bidder must inform himself/herself fully to the conditions relating to the construction of the project and the employment of labor thereon. Failure to do so will not relieve a successful bidder of his/her obligation to furnish all material and labor necessary to carry out the provisions of his/her contract. Insofar as possible, the contractor in carrying out the work, must employ such methods or means as will not cause any interruption of or interference with the work of any other contractor.
9. OBLIGATION OF BIDDER: At the time of the opening of bids each bidder will be presumed to have inspected the site and to have read and to be thoroughly familiar with the plans and contract documents (including all addenda). The failure or omission of any bidder to examine any form, instrument or document shall in no way relieve any bidder from any obligation in respect of his/her bid.

10. EXAMINATION OF SITE: Each bidder shall, and is hereby directed to inspect the entire site of the proposed work and judge for himself/herself as to all the circumstances affecting the cost and progress of the work and shall assume all patent and latent risks in connection therewith.
11. SOIL CONDITIONS: NA
12. WORKING FACILITIES: The plans show, in the general manner, the existing structures and the land available for construction purposes. The bidders must satisfy themselves of the conditions and difficulties that may be encountered in the execution of the work at this site.
13. ADDENDA AND INTERPRETATIONS: No official interpretation of the meaning of the plans, specifications or other pre-bid documents will be made to any bidder orally.

Every request for such interpretation should be in writing and will be submitted via the “Clarifications” feature within PennBid, and to be given consideration, must be received at least five (5) days prior to the date fixed for the opening of bids. Any and all such interpretations and any supplemental instructions will be in the form of written addenda to the specifications which, if issued, will be distributed to all prospective bidders, not later than three (3) days prior to the date fixed for the opening of bids. Failure of any bidder to receive any such addendum or interpretation shall not relieve such bidder from any obligation under his/her bid as submitted. All addenda so issued shall become part of the contract documents.

14. WATER SUPPLY: NA
15. SIGNATURE OF BIDDERS: The firm, corporate or individual name of the bidder must be signed in ink in the space provided for the signatures on the proposed blanks. In the case of a corporation, the title of the officer signing must be stated and such officer must be thereunto duly authorized and the seal of said corporation duly affixed. In the case of a partnership, the signature of at least one of the partners must follow the firm name, using the term "member of the firm". In the case of an individual, use the terms "doing business as", or "sole owner". The bidder shall further state in his proposal the name and address of each person or corporation interested therein.
16. NOTICE OF SPECIAL CONDITIONS: Attention of the bidder is particularly called to those parts of the General Contract Conditions and other contract documents and specifications which deal with the following:
 - a. Insurance requirements
 - b. Provisions, Pennsylvania Prevailing Wage Act

- c. Requirement for a payment bond and performance bond for 100% of contract price
- d. Requirement that all subcontractors be approved by the Owner
- e. Time-for-completion and liquidated damages requirements
- f. Safety standards
- g. Contractor's responsibility to obtain permits
- h. Affirmative Action and Equal Opportunity provisions
- i. Nondiscrimination/Sexual Harassment Clause

17. ADDITIONAL OBLIGATIONS UPON CONTRACT AWARD: Upon award of the contract but prior to issuance of the notice to proceed, the contractor shall submit all of the following documents, completed as required:

- (a) Acceptance of Notice of Award
- (b) Contract
- (c) Insurance certificate(s) and/or policy(ies)
- (d) Performance & Payment bonds
- (e) Subcontractor declaration form
- (f) (If over \$10,000:) Certification of Bidder Regarding Equal Employment Opportunity
- (g) (If over \$10,000:) Certification(s) by (all) Proposed Subcontractors Regarding Equal Employment Opportunity
- (h) (Omitted)
- (k) (If over \$100,000:) Certification by Contractor and Subcontractors of Compliance with Clean Air and Water Acts
- (l) (Omitted)
- (m) (All) Subcontractor's Certification(s) Concerning Labor Standards and Prevailing Wage Requirements

GENERAL CONTRACT CONDITIONS

ARTICLE 1 - CONTRACT AND CONTRACT DOCUMENTS

- A. All applicable State laws, municipal ordinances, and the rules and regulations of all authorities having jurisdiction over construction of the project shall apply to the contract throughout, and they will be deemed to be included in the contract the same as though herein written out in full.
- B. The Plans, Specifications and Addenda, hereinafter enumerated in Paragraph 1 of the Supplemental General Conditions shall form part of this Contract and the provisions thereof shall be as binding upon the parties hereto as if they were herein fully set forth. The table of contents, titles, headings, running headlines and marginal notes contained herein and in said documents are solely to facilitate reference to various provisions of the Contract Documents and in no way affect, limit or cast light on the interpretation of the provisions to which they refer.

ARTICLE 2 - PERFORMANCE AND PAYMENT BONDS

Simultaneously with his/her delivery of the executed contract, the Contractor shall furnish a surety bond or bonds as security for faithful performance of this contract and for the payment of all persons performing labor on the project under this contract and furnishing materials in connection with this contract, as specified in the General Conditions included herein. The surety on such bond or bonds shall be a duly authorized surety company satisfactory to the Owner. The bond shall be for 100 percent of the contract price. A Payment Bond and Performance Bond are required. Attorneys-in-fact who sign bid bonds or contract bonds must file with each bond a certified and effectively dated copy of their power of attorney. Under certain conditions, and within the limits of State and local laws and regulations, the Owner may waive the requirement that the Payment and Performance Bond be underwritten by a surety company and may authorize in lieu thereof, a personal bond backed by a letter of credit from a local lending institution for the full value of the Contract.

ARTICLE 3 - WAGE RATES

In the event that the rate of wages paid for any trade or occupant in the locality where such work is being performed are under current collective agreements or understandings between bona fide organizations of labor and employer, then the wages to be paid shall be not less than such agreed wage rates, nor less than the minimum rates compiled by the Commonwealth of Pennsylvania. A copy of these prevailing rates of wages has been included in these specifications.

Every Contractor and Subcontractor who is subject to this contract shall, as soon as he/she begins performance under his/her contract with the Owner, supply the Owner a schedule of the dates on which he/she is required to pay wages to employees. After construction begins he/she shall also deliver to the prevailing wage coordinator a weekly, a certified copy of his/her payroll which shall exhibit for each employee paid any wages, name, current address, identification number, number of hours worked each day of the pay period and the total for each week, hourly rate of pay, job classification, fringe payments, and deductions from wages. The certification of each payroll shall be executed by the Contractor, Subcontractor, or duly appointed agent thereof and shall recite that the payroll is correct and complete and that the wage rate shown is not less than those required by the contract.

ARTICLE 4 - OMITTED

ARTICLE 5 - INSURANCE

- A. The contractor shall not commence work under this contract until he/she has obtained all the insurance required hereunder and such insurance has been approved by the Owner, nor shall the Contractor allow any Subcontractor to commence work on his/her subcontract until similar insurance required of the Subcontractor has been so obtained and approved. Approval of the insurance by the Owner shall not relieve or decrease the liability of the Contractor hereunder. The Contractor shall file with the Owner all Certificate(s) of Insurance as are necessary to document the insurance coverage required hereunder, subject to the approval of the Owner and receipt of any additional forms/documentation requested, prior to final execution of Agreement Contract and issuance of the Notice to Proceed.

- C. Worker's Compensation.

All contractors and subcontractors shall acquire and maintain, during the term of the contract, Worker's Compensation insurance in full compliance with the laws of the State of Pennsylvania. The contractor shall at all times indemnify and save harmless the Owner from all claims for worker's compensation which may be made by any of the employees of any subcontractor to whom the Contract may have let the performance of any part of the work embraced in this contract, and the Contractor will appear for and defend the Owner against any and all such claims.

- D. Contractor's Liability Insurance.

- (i) The Contractor shall acquire and maintain during the term of the Contract Bodily Injury and Property Damage Liability Insurance under a standard Comprehensive General/Automobile Liability Policy which shall provide and include coverage on all Contractor's

Operations, Contractor's Protective (Sublet) Liability, Contractual Liability, Completed Operations Liability, Owned Automobiles and Non-owned and Hired Automobiles.

- (ii) Property Damage Liability Insurance shall be provided on any demolition, blasting, excavating, shoring or similar operation on an "if any" basis.
- (iii) Bodily Injury Liability limits shall be for an amount of no less the Five Hundred Thousand (\$500,000) Dollars for injuries, including wrongful death to any one person and subject to the same limit for each person, in amount of not less than One Million (\$1,000,000) Dollars on the account of any one occurrence.
- (iv) Property Damage Liability Insurance shall be in an amount of not less than Five Hundred Thousand (\$500,000) Dollars per occurrence. General Liability shall be extended to provide "Broad Form Property Damage Liability," and in an amount of not less the One Million (\$1,000,000) dollars aggregate for damage on account of all occurrences.
 - (v) Any combination of underlying Comprehensive General/Automobile Liability coverage with Umbrella/Excess Liability coverage which provides no less than One Million (\$1,000,000) Dollars Single Limit Bodily Injury & Property Damage Liability Insurance for the Contractor will also be acceptable.
- (vi) The owner may adjust the liability limits to coincide with local government procurement policies and practice within the limits of state and local law.

E. Builder's Risk Insurance.

Each Contractor shall maintain insurance to protect himself and the Owner, jointly, from loss incurred by fire, lightning, extended coverage hazards, vandalism, theft, explosion and malicious mischief in the full amount of the Contract and such insurance shall cover all labor and materials connected with the work, including materials delivered to the site but not yet installed.

F. Installation Floater Insurance.

When a Contractor is involved solely in the installation of materials and not in the construction of a building, an Installation Floater is required in lieu of a Builder's Risk Policy with the same general conditions applying as set forth in paragraph E.

G. The Policies as listed above shall all contain the following special provisions:

- (i) "The Company agrees that thirty (30) days prior to cancellation or reduction of the insurance afforded by this policy with respect to the Contract involved, written notice will be mailed to the Chester Upland School District."
- (ii) The maintaining of such insurance as outlined herein shall in no way constitute a waiver of legal liability for damage to any adjoining buildings or their contents or the work and property of others on the site beyond the limits of insurance thus maintained. The Contractor shall hold the Owner free and harmless from any injury and damage resulting from the negligent or faulty performance of the Contract by the Contractor or by his/or her Subcontractors.

H. Additional Insured: Chester Upland School District and MG Engineering Associates, LLC

ARTICLE 6 - PENNSYLVANIA STEEL PRODUCTS PROCUREMENT ACT (NO. 1978-3)

If any steel products are to be used or supplied in the performance of the contract, only steel products produced in the United States shall be used or supplied in the performance of the contract or any subcontracts thereunder. This provision shall not apply in any case where the head of the public agency, in writing, determines that the type of steel products necessary to the performance of the contract are not produced in the United States in sufficient quantities to meet the requirements of the contract.

- (iii) Each Contractor shall hold the Owner harmless from all payments for patents, either as royalty or otherwise, in the use of materials, methods, appliances, etc., that he may be in any way involved in or connected with any part of his work or the work of his Subcontractors.
- (iv) Prior to commencement of any work under Contract, the Contractor shall furnish one (1) copy of Declaration of Insurance as evidence of coverage.

ARTICLE 7 - SAFETY

- A. The Contractor will be responsible for initiating, maintaining, and supervising all safety precautions and programs in connection with the Work. He/She will take all necessary precautions for the safety of, and will provide the necessary protection to prevent damage, injury, or loss to all employees on the work and other persons who may be affected thereby, all the work and all materials or equipment to be incorporated therein, whether in storage on or off the site, and other property at the site or adjacent thereto, including trees, shrubs, lawns, walks, pavements, roadways, structures, and utilities not designated for removal, relocation, or replacement in the course of construction.
- B. The Contractor will erect and maintain, as required by the conditions and progress of the Work, all necessary safeguards for safety protection. He/She will notify owners of adjacent utilities when prosecution of the work may affect them.
- C. The Contractor shall comply with the safety standards provisions of applicable laws, building and construction codes and the manual of Accident Prevention in Construction published by the Associated General Contractors of America, the requirements of the Occupational Safety and Health Act of 1970 (Public Law 91-596), and the requirements of Title 29 of the Code of Federal Regulations, Section 1518 as published in the "Federal Register" Volume 36, No. 75, Saturday, April 17, 1971.
- D. The Contractor shall maintain at his/her office or other well known place at the job site, all articles necessary for giving first aid to the injured, and shall make standing arrangements for the immediate removal to a hospital or a doctor's care of persons (including employees) who may be injured at the job site. In no case shall employees be permitted to work at a job site before the employer has made a standing arrangement for removal of injured persons to a hospital or a doctor's care.
- E. Lights, signs and barricades shall be used to maintain traffic and safety for vehicular and pedestrian traffic during the course of this contract in accordance with the specifications.

ARTICLE 8 - PERMITS

The Contractor is responsible for obtaining and paying for all necessary permits and Licenses from the proper authorities. The Contractor shall give all notices and comply with all laws, ordinances, rules, and regulations bearing on the conduct of the work as drawn and specified. If the Contractor observes that the Contract Documents are at variance therewith, he/she shall promptly notify the Owner in writing.

ARTICLE 9 - SUPERVISION

- A. The Contractor will supervise and direct the work. He/She will be solely responsible for the means, methods, techniques, sequences, and procedures of construction. The Contractor will employ and maintain on the work a qualified supervisor or superintendent who shall have been designated in writing by the Contractor as the Contractor's representative at the site. The Supervisor shall have full authority to act on behalf of the Contractor and communications given to the supervisor shall be as binding as if given to the Contractor. The supervisor shall be present and on the site at all times as required to perform adequate supervision and coordination of the work.
- B. The Owner and its representatives will at all times have access to the work. In addition, authorized representatives and agents of any participating federal or County agency shall be permitted to inspect all work, materials, payrolls, records of personnel, invoices of materials, and other relevant data and records. The Contractor will provide proper facilities for such access and observation of the work and also for any inspection or testing thereof.
- C. The Contractor shall submit a proposed program of operation, showing clearly how he/she proposed to conduct the work as to bring about the completion of his/her work within the time limit specified. This program shall outline the proposed sequence of operations, the rates of progress and the dates when his/her work will be sufficiently advanced to permit the installation of the work under other contracts, and the estimated progress payments due under the Contract. The work under this contract shall be so scheduled that as structures are completed, they can be placed into useful operation with a minimum of delay. The program shall be subject to the approval of the Owner.
- D. All construction as proposed along all City, Township, County, State and Federal roads including storage and stockpiling of materials, is to be conducted within the limits of the public right-of-way. Bracing, sheeting and shoring shall be used to keep all construction work within the construction limits unless work agreements are secured from the adjacent property Owners. It is the Contractor's responsibility to secure these work agreements, if deemed necessary. Copies of the work agreements shall be delivered to the Engineer and the Owner prior to any work beginning on the effected property.

ARTICLE 10 - CLAIMS AGAINST CONTRACTOR

The Contractor shall indemnify and save the Owner or the owner's agents harmless from all claims growing out of the lawful demands of Subcontractor's laborers, workmen,

mechanics, material men, and furnishers of machinery and parts thereof, equipment, tools, and all supplies, incurred in the furtherance of the performance of the work. The Contractor shall, at the Owner's request, furnish satisfactory evidence that all obligations of the nature designated above have been paid, discharged or waived. If the Contractor fails to do so the Owner may, after having notified the Contractor, either pay unpaid bills or withhold from the Contractor's unpaid compensation a sum of money deemed reasonably sufficient to pay any and all such lawful claims until satisfactory evidence is fully finished that all liabilities have been fully discharged whereupon payment to the Contractor shall be resumed, in accordance with the terms of the Contract Documents, but in no event shall the provisions of this sentence be construed to impose any obligations upon the Owner to either the Contractor, his Surety, or any third party. In paying any unpaid bills of the Contractor, any payment so made by the Owner shall be considered as a payment made under the Contract Documents by the owner to the Contractor and the Owner shall not be liable to the Contractor for any such payments in good faith.

ARTICLE 11 - SUBCONTRACTING

- A. Neither the Contractor nor the owner shall sell, transfer, assign, or otherwise dispose of the Contract or any portion thereof, or of his right, title, or interest therein, or his obligations thereunder.
- B. The Contractor shall not sublet, sell, transfer or assign any portion of the contract without consent of the Owner or his/her designated agent. No subcontract, or transfer of contract, shall in any way release the Contractor of his/her liability under the contract and bonds.
- C. The Contractor shall not award work to Subcontractor(s) not identified on the Subcontractors Declaration Form as submitted with bid, without
 - i) Prior approval of the Owner
 - ii) Submission of all certifications as required in the INSTRUCTIONS TO BIDDERS. The Contractor shall be fully responsible to the Owner for the acts and omissions of the subcontractor(s), and of persons, either directly or indirectly employed by them, as he/she is for the acts and omissions of persons directly employed by him/her.

ARTICLE 12 - CHANGE OF WORK

- A. The Owner reserves the right to make, at any time during the progress of the work, such increases or decreases in quantities and such alterations in details of work as may be deemed necessary or desirable. Such increases or decreases and alterations shall not invalidate the contract nor release the surety, and the Contractor agrees to perform the work as altered, the same as if it had been a part of the original contract.
- B. Authorized alterations in plans or quantities of work involving work not covered by unit prices in the proposal shall be paid for as stipulated in the change order authorizing such work.
- C. No changes in work covered by the approved Contract shall be made without having prior written approval of the Owner.

ARTICLE 13 - TIME

- A. The Date of beginning and the time for completion of the work are essential conditions of the Contract Documents and the work embraced shall be commenced on a date specified in the Notice to Proceed.
- B. The Contractor will proceed with the work at such rate of progress to ensure full completion within the Contract Time. It is expressly understood and agreed, by and between the Contractor and the Owner, that the Contract Time for the completion of the work described herein is a reasonable time, taking into consideration the average climatic and economic conditions and other factors prevailing in the locality of the work.
- C. The Contract Time to fully complete the project shall be consecutive calendar days following the date of commencement of work to be specified in a written "Notice to Proceed".
- D. If the Contractor shall fail to complete the work within the Contract Time, or extension of time granted by the Owner, the Contractor will pay to the Owner for liquidated damages \$500.00 for each calendar day that the Contractor shall be in default after the time stipulated in the Contract Documents.

ARTICLE 14 - COMPLETION OF WORK

- A. The Contractor shall guarantee all materials and equipment furnished and work performed for a period of one year from the date of Substantial Completion. The Contractor warrants and guarantees for a period of one year from the date of Substantial Completion of the improvement that it is free from all defects due to

faulty materials or workmanship, and the Contractor shall promptly make corrections as may be necessary by reason of such defects. The owner will give notice of observed defects with reasonable promptness. In the event that the Contractor should fail to make repairs, adjustments, or other work, which may be made necessary by such defects, the Owner may do so and charge the Contractor the cost thereby incurred. Upon 100% completion of the improvements, the contractor shall provide a Maintenance Bond in the amount of 15% of the cost of the improvements for a period of 1-year.

- B. When the work, including that performed by Subcontractors, is completed, the site shall be cleaned of all rubbish and debris caused by the construction. All sheds or other temporary structures, surplus materials, and equipment shall be removed and the project left in a neat and presentable condition.

ARTICLE 15 - TERMINATION

After ten (10) days from delivery of a Written Notice to the Contractor, the Owner may, without cause and without prejudice to any other right or remedy elects to terminate the Contract. In such case the Contractor shall be paid for all work executed and any expense sustained plus reasonable profit, unless such termination was due to the act or conduct of the Contractor.

ARTICLE 16 - PAYMENT

Payment to the Contractor shall be made by the Chester Upland School District upon receiving invoice from contractor and inspection of work completed. The Owner's representative and the project engineer shall certify on the pay request that the completed work has been approved prior to the submission of the invoice. Retainage to be held should be reflected by the engineer/architect on the contractor's original invoice. A turn-around time of 3-4 weeks is expected before said funds are forwarded to the contractor.

It is important that the progress schedule be based on achievable goals, and that the Contractor makes every effort to meet target dates. The Chester Upland School District may hold the pay request, or a portion of the pay request, in cases where the Contractor is found to be in violation of any of the terms and conditions in this contract, e.g. federal labor standards compliance, until such violations are corrected.

ARTICLE 17 - LIVE UTILITIES AND OTHER PROPERTY

The contractor shall assume all responsibility for damage attributed to him to any property upon, or passing through, the Project Area, but excluded from the work or not owned by the Local Public Agency, such as utility lines, surface improvements, or like items.

If disconnections of underground utility services are required to be made in public thoroughfares, the Contractor shall comply with all local requirements and regulations respecting the barricade of streets, the removal and restoration of pavement, and other pertinent matters.

ARTICLE 18 - LIVE UTILITIES AND OTHER PROPERTY

The contractor shall well, truly and faithfully perform its duties, all the undertakings, covenants, terms conditions and agreements of said contract.

If disconnections of underground utility services are required to be made in public thoroughfares, the Contractor shall comply with all local requirements and regulations respecting the barricade of streets, the removal and restoration of pavement, and other pertinent matters.

ARTICLE 19 - HOLD HARMLESS

The contractor shall well, truly and faithfully perform its duties, all the undertakings, covenants, terms, conditions and agreements of said contract during the original term thereof, and any extensions thereof which may be granted by the Local Public Agency, with or without notice to the Surety, and he shall satisfy all claims and demands incurred under such contract and shall fully indemnify and save harmless the Local Public Agency from all costs and damages which it may suffer by reason of failure to do so, and shall reimburse and repay the Local Public Agency all outlay and expense which the Local Public Agency may incur in making good any default.

SUPPLEMENTAL GENERAL CONDITIONS

1. ENUMERATION OF PLANS, SPECIFICATIONS AND ADDENDA

Following are the Plans, Specifications, and Addenda which form a part of this contract, as set forth in Article I of the General Contract Conditions, "Contract and Contract Documents".

Drawings:

Date per Plans

Specifications:

Date per Plans

Technical Specifications

Addenda:

Number

Date

2. STATED ALLOWANCES: Not Included

3. SPECIAL HAZARDS : Not Included

4. CONTRACTOR'S AND SUBCONTRACTOR'S PUBLIC LIABILITY, VEHICLE LIABILITY, AND PROPERTY DAMAGE INSURANCE

See Article 5 of General Contract conditions.

The Contractor shall either (1) require each of his/her subcontractors to procure and to maintain during the life of his/her subcontract, Subcontractor's Public Liability and Property Damage of the type and in the same amounts as specified in Article 5, or (2) insure the activities of his/her subcontractors in his/her own policy.

6. BUILDER'S RISK INSURANCE

The Contractor will maintain Builder's Risk Insurance (fire and extended coverage) on a 100 percent completed value basis on the insurable portions of the project for the benefit of the Owner, the Contractor, and all subcontractors, as their interests may appear.

CONTRACT

THIS AGREEMENT made this _____ day of _____, 20____, by and between _____ hereinafter called the "Contractor, and _____ hereinafter called the "Owner".

WITNESSETH, that the Contractor and the Owner for the considerations stated herein mutually agree as follows:

ARTICLE 1. Statement of Work.

The Contractor shall furnish all supervision, technical personnel, labor, materials, machinery, tools, equipment and services, including utility and transportation services, and perform and complete all work required for the construction of the Improvements embraced in the project; namely, _____, and required supplemental work for the _____ all in strict accordance with the Contract Documents including all addenda thereto, numbered _____, dated _____, and _____ dated _____, all as prepared by _____ acting and in these Contract documents preparation, referred to as the "Engineer".

ARTICLE 2. The Contract Price.

The Owner will pay the Contractor for the total quantities of work performed at the unit prices stipulated in the Bid for the respective items of work completed for the sum not to exceed _____ (Dollars) subject to additions and deductions as provided in Section ____ hereof.

ARTICLE 3. Contract.

The executed contract documents shall consist of the following:

- a. This Agreement
- b. Addenda
- c. Invitation for Bids
- d. Instructions to Bidders
- e. Signed copy of Bid
- f. General Conditions, Parts I and II
- g. Special Conditions
- h. Technical Specifications
- i. Drawings (as listed in the Schedule of Drawings)
- j. Other Contract Provisions required by Chester Upland School District

This Agreement, together with other documents enumerated in this ARTICLE 3, which said other documents are as fully a part of the Contract as if hereto attached or herein repeated, forms the Contract between the parties hereto. In the event that any provision in any component part of this Contract conflicts with any provision of any other component part, the provision of the component part first enumerated in this ARTICLE 3 shall govern, except as otherwise specifically stated.

IN WITNESS WHEREOF, the parties hereto have caused this AGREEMENT to be executed in _____ original copies on the day and year first above written.

CONTRACTOR:

OWNER:

Signature

Signature

Typed/printed name

Typed/printed name

Title

Title

Certifications:

I, _____, certify that I am the _____ of the corporation named as Contractor herein; that _____ who signed this Agreement on behalf of the Contractor, was then _____ of said corporation; that said Agreement was duly signed for and in behalf of said corporation by authority of its governing body, and is within the scope of its corporate powers.

Seal) _____ (Corporate

PERFORMANCE AND PAYMENT BOND (OR BONDS)

Following the Form of Agreement, attach the approved form of the statutory surety bond or bonds to insure the performance of the Contract and payment of labor and materials. In addition to the corporation signatures of the surety company(ies) on the bond(s), each bond should be countersigned by the surety company's attorney-in-fact, authorized to act within the state in which the Project is situated.

PAYMENT BOND

KNOW ALL MEN BY THESE PRESENTS, that we, _____ of _____, as PRINCIPAL and _____ a corporation incorporated under the laws of the State of _____ as Surety, are held and firmly bond unto the _____ in the full and just sum of _____ (\$ _____) dollars, lawful money of the United States of America, to be paid to the said _____ or its assigns, to which payment well and truly to be made, we bind ourselves, our heirs, executors, administrators, successors and assigns, jointly and severally, firmly by these presents.

WHEREAS, the above bounden Principal has entered into a contract with the above, hereinafter called Obligee, bearing even date herewith, for the improvement of:

for approximately the sum of _____ (\$ _____) dollars.

NOW, THEREFORE, the condition of this obligation is such that the above bounden PRINCIPAL shall and will promptly pay cause to be paid in full all sums of money which may be due by contractor or otherwise, to any individual, firm, partnership, association or corporation, for all material furnished or labor supplied or performed in the prosecution of the work, whether or not the said material or labor entered into and became component parts of the work and for rental of the equipment used and services rendered by public utilities in, or in connection with the prosecution of such work, then this obligation to be void, otherwise to remain in full force and effect.

THE PRINCIPAL and SURETY, hereby, jointly and severally, agree with the Obligee herein that any individual firm, partnership, association or corporation, which has performed labor or furnished material in the prosecution of the work as provided, and any public utility which has not been paid in full therefore, may sue in assumpsit on this Payment Bond, in his, their, or its own name and may prosecute the same to final judgment for such sum or sums as may be justly due him, them or it, and have execution thereon. Provided, however, that the Obligee shall not be liable for the payment of any costs of expenses of such suit.

RECOVERY by any individual, firm, partnership, association or corporation hereunder shall be subject to the provisions of the "Public Works Contractor's Bond Law of 167", Act No. 385, approved December 20, 1967, P.L. 869, which Act shall be incorporated herein and made a part hereof, as fully and completely as though its provisions were fully and at length herein recited.

It is further provided that any alteration which may be made in the terms of the contract or its work to be done or materials to be furnished or labor to be supplied or performed under it or the giving by the Obligee of any extension of time for the performance of the contract or any other forbearance on the part of either the Obligee or the Principal to the other, shall not in any way release the PRINCIPAL and the SURETY or SURETIES of any such alteration, extension or forbearance being hereby waived.

IN WITNESS WHEREOF, the said PRINCIPAL and SURETY have duly executed this Bond under seal the _____ day of _____, 20____.

WITNESS:
PLACE
SEAL
HERE

Contractor

Title:

BY _____
Title:

WITNESS:
PLACE
SEAL
HERE

Surety Company

Title:

Title:

PERFORMANCE BOND
(With Corporate Surety)

KNOW ALL MEN BY THESE PRESENTS, that we, _____(Name and Address of Contractor)

as Principal and _____
(Surety Company)

a corporation incorporated under the laws of the State of _____as Surety.
(Name of State)

are held and firmly bound unto _____ in
(Name of Contract Owner)

the full and just sum of _____ (\$ _____) dollars lawful money of the United States of America, to be paid to the above Owner or its assigns, to which payment well and truly to be made, we bind ourselves, our heirs, executors, administrators, successors and assigns, jointly and severally, firmly by these presents.

WHEREAS, the above bounden Principal has entered into a contract with the above District, bearing even date herewith, for the undertaking of certain obligations as therein set forth.

NOW, THEREFORE, the condition of this obligation is such that if the above bounden Principal, as Contractor, shall in all respects comply with and faithfully perform the terms and conditions of said Contract, including the Specifications and conditions referred to and made a part thereof, and such alterations as may be made in said specifications as therein set forth, then this Obligation shall be void, but otherwise the same shall be and remain in full force, virtue and effect.

It is further provided that any alteration which may be made in the terms of the contract or its specifications with the express approval of the District or the Principal to the other, shall not in any way release the Principal and the Surety or either of any of them, their heirs, executors, administrators, successors or assigns from their liability hereunder, notice to the Surety of any such alteration or forbearance being hereby waived.

IN WITNESS WHEREOF, the said Principal and Surety have duly executed this Bond under Seal, pursuant to due and legal action authorizing the same to be done on _____.

(Date of Bond)

Attest/Witness:

PLACE
SEAL
HERE

Contractor

Title:

BY

Title:

Attest/Witness:

PLACE
SEAL
HERE

Surety Company

Title:

Title:

NOTICE OF AWARD

To: _____

PROJECT Description: _____

The OWNER has considered the BID submitted by you on _____, 20__ (BID Date) for the above described WORK in response to its Advertisement for BIDS and Information for BIDDERS.

You are hereby notified that your BID has been accepted for items in the amount of \$____.
.

You are required by the Information for BIDDERS to execute the Agreement and furnish the required CONTRACTOR's Contract BOND, if applicable, and Certificates of Insurance within 10 calendar days from the date of this notice to you.

If you fail to execute said Agreement and to furnish said BOND within 10 days from the date of this notice, said OWNER will be entitled to consider all your rights arising out of the OWNER's acceptance of your BID as abandoned and as a forfeiture of your BID guaranty. The OWNER will be entitled to such other rights as may be granted by law.

You are required to return an acknowledged copy of this NOTICE OF AWARD to the OWNER.

Dated this ____ day of _____, 20__.

Owner
By: _____
Name: _____
Title: _____

ACCEPTANCE OF NOTICE

Receipt of the above NOTICE OF AWARD is hereby acknowledged by: _____
_____ on this ____ day of _____, 20__.

By: _____

Name and Title: _____

cc: CONTRACTOR's Surety
Surety's Agent

NOTICE TO PROCEED

To: _____ Date: _____

PROJECT Description: _____

You are hereby notified to commence WORK in accordance with the Agreement dated
, 20__, on or

after _____, 20__, and you are to complete the WORK within _____ consecutive
calendar days thereafter.

The date of completion of all WORK is therefore _____, 20__.

Owner

By: _____

Name: _____

Title: _____

ACCEPTANCE OF NOTICE

Receipt of the above NOTICE TO
PROCEED is hereby acknowledged

by _____
on this _____ day of _____, 20__.

By: _____

Name: _____

Title: _____

CONTRACT CHANGE ORDER

Contract No. _____

Date _____

Change Order No. _____

Project No. _____

To: (Contractor) _____

You are hereby requested to comply with the following changes from the contract plans and specifications:

[illegible]

The sum of \$_____ is hereby added to, deducted from, the total contract price and the total adjusted price to date thereby is \$_____.

The time provided for completion in the contract is unchanged, increased, decreased, by ____ calendar days. This document shall become an amendment to the contract and all provisions of the contract will apply hereto.

Accepted by:

Contractor

Date _____

Recommended by:

Architect/Engineer

Date _____

Approved by:

Chester Upland School District

Date _____

Note: Work performed under this change order prior to District concurrence is at owner's risk. District concurrence will be evidenced by signature of Engineer and Owner

004116 - BID FORM – UNIT PRICES

1.1 BID INFORMATION

- A. Bidder: _____.
- B. Project Name: **CUSD – Parking Lot and Site Upgrades**
- C. Project Locations:
1. Chester High School: 232 West 9th Street, Chester, PA 19013
 2. Main Street Elementary School: 704 Main Street, Upland, PA 19015
 3. Toby Farms Intermediate School: 201 Bridgewater Road, Chester Twp., PA 19045
 4. Chester Upland School of the Arts: 501 West 9th Street, Chester, PA 19013
 5. Edgmont Scholars Academy: 1350 Edgmont Avenue, Chester, PA 19013
- D. Owner: Chester Upland School District

1.2 CERTIFICATIONS AND BASE BID

Bidder agrees to perform all the work described in the specifications and shown on the plans, for the following unit prices:

Base Bid 1

<u>Item No.</u>	<u>Est. Qty.</u>	<u>Description</u>	<u>Unit Price (Each)</u>	<u>Total</u>
1	1 LS	Mobilization (Max 2.5% of the Total Amount Bid Up To \$10,000.00)	_____ Dollars & Cents (\$_____)	_____ Dollars & Cents (\$_____)
2	1 LS	Site Clearing and Earthwork	_____ Dollars & Cents (\$_____)	_____ Dollars & Cents (\$_____)
3	350 SY	Base Repair, Partial Depth, 4", Including Excavation and Compaction (If and Where Directed)	_____ Dollars & Cents (\$_____)	_____ Dollars & Cents (\$_____)
4	350 TONS	Asphalt Leveling Course, If and Where Directed	_____ Dollars & Cents (\$_____)	_____ Dollars & Cents (\$_____)

5	18,500 SY	Asphalt Milling, 1-1/2" Depth, Milled Material Retained by the Con- tractor	<u>Dollars & Cents</u> (\$_____)	<u>Dollars & Cents</u> (\$_____)
6	18,500 SY	Superpave Asphalt Mixture Design, Wearing Course, PG 64S-22, 3 to 10 Million ESALS, 9.5 MM Mix, 1-1/2" Depth, SRL-L	<u>Dollars & Cents</u> (\$_____)	<u>Dollars & Cents</u> (\$_____)
7	100 SY	Superpave Asphalt Mixture Design, Base Course, PG 64S-22, 3 to 10 Million ESALS, 25 MM Mix, 4" Depth, SRL-L	<u>Dollars & Cents</u> (\$_____)	<u>Dollars & Cents</u> (\$_____)
8	300 SY	2A Course Aggregate, 6" Thick	<u>Dollars & Cents</u> (\$_____)	<u>Dollars & Cents</u> (\$_____)
9	3,000 LF	Plain Cement Concrete Curb, Includ- ing Permanent Pavement Restora- tions	<u>Dollars & Cents</u> (\$_____)	<u>Dollars & Cents</u> (\$_____)
10	2,400 SY	Plain Cement Concrete Sidewalk	<u>Dollars & Cents</u> (\$_____)	<u>Dollars & Cents</u> (\$_____)
11	450 SY	Plain Cement Concrete Sidewalk For Curb Ramp Construction, Including Detectable Warning Surfaces	<u>Dollars & Cents</u> (\$_____)	<u>Dollars & Cents</u> (\$_____)

CUSD – Parking Lot and Site Upgrades

12	500 SY	Reinforced Concrete Pad, 8" Thick	<u>Dollars & Cents</u> (\$_____)	<u>Dollars & Cents</u> (\$_____)
13	1 LS	10' x 30' Masonry Dumpster Enclosure, Complete	<u>Dollars & Cents</u> (\$_____)	<u>Dollars & Cents</u> (\$_____)
14	1 LS	10' x 40' Masonry Dumpster Enclosure, Complete	<u>Dollars & Cents</u> (\$_____)	<u>Dollars & Cents</u> (\$_____)
15	60 EA	6" Steel Post Bollard With Yellow Sleeve	<u>Dollars & Cents</u> (\$_____)	<u>Dollars & Cents</u> (\$_____)
16	1 LS	Signage and Striping, Inclusive	<u>Dollars & Cents</u> (\$_____)	<u>Dollars & Cents</u> (\$_____)

TOTAL OF BID _____.

(Amounts are to be shown in both words and figures. In case of discrepancy, the amount shown in words will govern.)

The above unit prices shall include all labor, materials, bailing, shoring, removal, overhead, profit, insurance, etc., to cover the finished work of the several kinds called for.

Bidder understands that the Owner reserves the right to reject any or all bids and to waive any informalities in the bidding.

The bidder agrees that this bid shall be good and may not be withdrawn for a period of 30 calendar days after the scheduled closing time for receiving bids.

Upon receipt of written notice of the acceptance of this bid, bidder will execute the formal contract attached within 10 days and deliver a Surety Bond or Bonds as required by Article 2 of the General Conditions. The bid security attached in the sum of _____ (\$_____) is to become the property of the Owner in the event the contract and bond are not executed within the time above set forth, as liquidated damages for the delay and additional expense to the Owner caused thereby.

1.3 BID GUARANTEE

- A. The undersigned Bidder agrees to execute a contract for this Work in the above amount and to furnish surety as specified within **10** days after a written Notice of Award, if offered within **60** days after receipt of bids, and on failure to do so agrees to forfeit to Owner the attached cash, cashier's check, certified check, U.S. money order, or bid bond, as liquidated damages for such failure, in the following amount constituting ten percent (10%) of the Base Bid amount above:

1. _____ Dollars (\$_____).

- B. In the event Owner does not offer Notice of Award within the time limits stated above, Owner will return to the undersigned the cash, cashier's check, certified check, U.S. money order, or bid bond.

1.4 TIME OF COMPLETION

- A. The undersigned Bidder proposes and agrees hereby to commence the Work of the Contract Documents on a date specified in a written Notice to Proceed to be issued by Engineer, and shall fully complete the Work within 175 calendar days.

1.5 ACKNOWLEDGEMENT OF ADDENDA

- A. The undersigned Bidder acknowledges receipt of and use of the following Addenda in the preparation of this Bid:

1. Addendum No. 1, dated _____.
2. Addendum No. 2, dated _____.
3. Addendum No. 3, dated _____.
4. Addendum No. 4, dated _____.

1.6 BID SUPPLEMENTS

- A. The following supplements are a part of this Bid Form and are attached hereto.

- B.
1. Bid Form Supplement - Bid Bond Form (AIA Document A310-2010).

1.7 CONTRACTOR'S LICENSE

- A. The undersigned further states that it is a duly licensed contractor, for the type of work proposed, in the Commonwealth of Pennsylvania, and that all fees, permits, etc., pursuant to submitting this proposal have been paid in full.

1.8 SUBMISSION OF BID

- A. Respectfully submitted this ____ day of _____, 2026
- B. Submitted By: _____ (Name of bidding firm or corporation).
- C. Authorized Signature: _____ (Handwritten signature).
- D. Signed By: _____ (Type or print name).
- E. Title: _____ (Owner/Partner/President/Vice President).
- F. Witness By: _____ (Handwritten signature).
- G. Attest: _____ (Handwritten signature).
- H. By: _____ (Type or print name).
- I. Title: _____ (Corporate Secretary or Assistant Secretary).
- J. Street Address: _____.
- K. City, State, Zip: _____.
- L. Phone: _____.
- M. License No.: _____.
- N. Federal ID No.: _____ (Affix Corporate Seal Here).

END OF DOCUMENT 004116

SECTION 006000 - PROJECT FORMS

1.1 FORM OF AGREEMENT AND GENERAL CONDITIONS

- A. The following form of Owner/Contractor Agreement and form of the General Conditions shall be used for Project:
 - 1. The General Conditions are included in the Project Manual
 - 2. The Supplementary Conditions for Project are separately prepared and included in the Project Manual.

1.2 ADMINISTRATIVE FORMS

- A. Administrative Forms: Additional administrative forms are specified in Division 01 General Requirements.
 - B. Copies of AIA standard forms may be obtained from the American Institute of Architects; www.aiacontractdocsaiacontracts.org; (800) 942-7732.
 - C. Preconstruction Forms:
 - 1. Form of Performance Bond and Labor and Material Bond: included in Project Manual
 - 2. Form of Certificate of Insurance: AIA Document G715-2017 "Supplemental Attachment for ACORD Certificate of Insurance 25."
 - D. Information and Modification Forms:
 - 1. Form for Requests for Information (RFIs): AIA Document G716-2004 "Request for Information (RFI)."
 - 2. Form of Request for Proposal: AIA Document G709-2018 "Proposal Request."
 - 3. Change Order Form: AIA Document G701-2017 "Change Order."
 - 4. Form of Architect's Memorandum for Minor Changes in the Work: AIA Document G710-2017 "Architect's Supplemental Instructions."
 - 5. Form of Change Directive: AIA Document G714-2017 "Construction Change Directive."
 - E. Payment Forms:
 - 1. Schedule of Values Form: AIA Document G703-1992 "Continuation Sheet."
 - 2. Payment Application: AIA Document G702-1992/703-1992 "Application and Certificate for Payment and Continuation Sheet."
 - 3. Form of Contractor's Affidavit: AIA Document G706-1994 "Contractor's Affidavit of Payment of Debts and Claims."
 - 4. Form of Affidavit of Release of Liens: AIA Document G706A-1994 "Contractor's Affidavit of Payment of Release of Liens."
 - 5. Form of Consent of Surety: AIA Document G707-1994 "Consent of Surety to Final Payment."
- END OF SECTION 006000

SECTION 006000.1 – ADDITIONAL CONTRACT PROVISIONS AND FORMS

SUBCONTRACTOR DECLARATION FORM

Each prime contractor is required to submit a list of subcontractors it intends to use on the project.

Subcontractor	Business Address	Type of Work

Project Name

Prime Contractor

Signature Title Date

NONDISCRIMINATION CLAUSE

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

- 1.** In the hiring of any employee(s) for the manufacture of supplies, performance of work, or any other activity required under the grant agreement or any subgrant agreement, contract, or subcontract, the Grantee, a subgrantee, a contractor, a subcontractor, or any person acting on behalf of the Grantee shall not discriminate by reason of race, gender, creed, color, sexual orientation, gender identity or expression, or in violation of the Pennsylvania Human Relations Act (PHRA) and applicable federal laws, against any citizen of this Commonwealth who is qualified and available to perform the work to which the employment relates.
- 2.** The Grantee, any subgrantee, contractor or any subcontractor or any person on their behalf shall not in any manner discriminate by reason of race, gender, creed, color, sexual orientation, gender identity or expression, or in violation of the PHRA and applicable federal laws, against or intimidate any of its employees.
- 3.** Neither the Grantee nor any subgrantee nor any contractor nor any subcontractor nor any person on their behalf shall in any manner discriminate by reason of race, gender, creed, color, sexual orientation, gender identity or expression, or in violation of the PHRA and applicable federal laws, in the provision of services under the grant agreement, subgrant agreement, contract or subcontract.
- 4.** Neither the Grantee nor any subgrantee nor any contractor nor any subcontractor nor any person on their behalf shall in any manner discriminate against employees by reason of participation in or decision to refrain from participating in labor activities protected under the Public Employee Relations Act, Pennsylvania Labor Relations Act or National Labor Relations Act, as applicable and to the extent determined by entities charged with such Acts' enforcement, and shall comply with any provision of law establishing organizations as employees' exclusive representatives.
- 5.** The Grantee, any subgrantee, contractor or any subcontractor shall establish and maintain a written nondiscrimination and sexual harassment policy and shall inform their employees in writing of the policy. The policy must contain a provision that sexual harassment will not be tolerated and employees who practice it will be disciplined. Posting this Nondiscrimination/Sexual Harassment Clause conspicuously in easily-accessible and well-lighted places customarily frequented by employees and at or near where the grant services are performed, shall satisfy this requirement for employees with an established work site.
- 6.** The Grantee, any subgrantee, contractor or any subcontractor shall not discriminate by reason of race, gender, creed, color, sexual orientation, gender identity or expression, or in violation of the PHRA and applicable federal laws, against any subgrantee, contractor, subcontractor or supplier who is qualified to perform the work to which the grant relates.

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

8. The Grantee, any subgrantee, contractor or any subcontractor shall include the provisions of this Nondiscrimination/Sexual Harassment Clause in every subgrant agreement, contract or subcontract so that those provisions applicable to subgrantees, contractors or subcontractors will be binding upon each subgrantee, contractor or subcontractor.

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

10. The Commonwealth may cancel or terminate the grant agreement and all money due or to become due under the grant agreement may be forfeited for a violation of the terms and conditions of this Nondiscrimination/Sexual Harassment Clause. In addition, the granting agency may proceed with debarment or suspension and may place the Grantee, subgrantee, contractor, or subcontractor in the Contractor Responsibility File.

CONTRACTOR _____ Date _____

CONFLICT OF INTEREST

Interest of Local Public Officials

No member of the governing body of the locality or entity and no other officer, employee, agent or public official of such locality, who exercises any functions or responsibilities in connection with the planning and carrying out of the program, shall have any personal financial interest, direct or indirect, in this contract; and the governing body contractor shall take appropriate steps to assure compliance.

Interest of Contractor and Employees

The Contractor covenants that he presently has no interest and shall not acquire interest, direct or indirect, in the study area or any parcels therein or any other interest which would conflict in any manner or degree with the performance of his services hereunder. The Contractor further covenants that in the performance of this Contract, no person having any such interest shall be employed.

RECORDS AND AUDITS

The Contractor shall maintain accounts and records, including personnel, property and financial records, adequate to identify and account for all costs pertaining to the Contract and such other records as may be deemed necessary by the Municipality and County to assure proper accounting for all project funds. These records will be made available for audit purposes to the Municipality and County or any authorized representative, and will be retained for three years after the close out of the project by the County unless stipulated otherwise by the County.

The undersigned contractor agrees to abide by the above provisions.

By: _____
Contractor

Date

**AFFIDAVIT RE
ACCEPTING PROVISIONS OF THE WORKMEN'S COMPENSATION ACT**

State of)
)
) ss:
)

County of)

 being duly sworn according to law deposes and says that he/she/it has (they have) accepted the provisions of the Workmen's Compensation Act of 1916 of the Commonwealth of Pennsylvania, with its supplements and amendments, and has (have) insured his/her (their) liability thereunder in accordance with the terms of said Act with:

(Surety Company)

(Type or Print) Contractor

BY _____
Signature

Sworn to and subscribed before me this _____ day of _____ A.D. 20_____

My Commission Expires _____

INSERT PREVAILING WAGE
DETERMINATION

BIDDER'S QUALIFICATIONS

All questions must be answered and the date given must be clear and comprehensive. This statement must be notarized. If necessary, questions may be answered on separate attached sheets. The Bidder may submit additional information if he so desires.

1. Name of Bidder:
2. Permanent main office address:
3. When Organized:
4. If a corporation, where incorporated:
5. How many years have you been engaged in the contracting business under your present firm or trade name?
6. Contracts on hand: Schedule these showing amount of each contract and the appropriate anticipated dates of completion.
7. General character of work performed by your company:
8. Have you ever failed to complete any work awarded to you? If so, where and why.
9. Have you ever defaulted on a contract? If so, where and why.
10. List the more important projects recently completed by your company, stating the approximate cost for each and the month and year completed.
11. List your major equipment available for this contract:
12. List experience in construction work similar in importance to this project:
13. List background and experience of the principal members of your organization, including the officers:
14. List credit available: \$
15. List bank references:
16. Will you, upon request, fill out a detailed financial statement and furnish any other information which may be required by the Owner?
17. The undersigned hereby authorizes and requests any person, firm or corporation to furnish any information requested by the Owner in verification of the recitals comprising this Statement of Bidder's Qualifications.

Bidder: _____

By: _____

Title: _____

Dated this _____ day of _____, 20_____.

State of _____ \$

County of _____:

_____ being duly sworn deposes and says that he is _____ of
and that the answers to the foregoing questions and all statements therein contained are true and correct.

Subscribed and sworn to before me this _____ day of _____, 20_____.

My commission expires: _____ Notary Public

PUBLIC WORK EMPLOYMENT VERIFICATION ACT

General. In accordance with Act 127 of 2012, known as the Public Works Employment Verification Act ("the Act"), effective January 1, 2013, 43 P.S. §§167.1-167.11, use the Federal Government's E-Verify system to ensure that all employees performing work on the project, including subcontractor's employees, are authorized to work in the United States.

Verification Form. Verify the employment eligibility of each new employee hired after January 1, 2013 and submit the Commonwealth Public Works Employment Verification Form ("Form") included in the bid package attachments to the Department.

Contractor. Fax the Form, signed by authorized representative of the Contractor, possessing sufficient knowledge to make the representations and certifications in the Form to Contract Awards at 717-705-1504 within 7 days of the bid opening. Failure or refusal to provide the Form will be considered a refusal to comply with bidding requirements, will result in rejection of the bid, and will be subject to the enforcement activities, sanctions and civil penalties specified in the Act.

Subcontractor. Obtain a signed Form from every subcontractor performing work on the project, signed by authorized representative of the subcontractor, possessing sufficient knowledge to make the representations and certifications in the Form and submit it to the Representative when requesting subcontractor approval. Failure or refusal to provide the Form will be considered a refusal to comply with subcontractor approval requirements, will result in rejection of the subcontractor request, and will subject the subcontractor to the enforcement activities, sanctions and civil penalties specified in the Act.

Include information about the requirements of the Act in all the subcontracts.

The Department of General Services is the Commonwealth agency responsible for enforcement and administration of the Act. Please direct questions about the Act to:

Department of General Services Public Works
Employment Verification Compliance Office
Room 105 Tent Building
18th and Herr Streets
Harrisburg, PA 17125
Fax: 717-214-3669



COMMONWEALTH OF PENNSYLVANIA

PUBLIC WORKS EMPLOYMENT VERIFICATION FORM

Date _____

Business or Organization Name (Employer) _____

Address _____

City _____ State _____ Zip Code _____

☐ Contractor ☐ {dzõÖ2yúñl-Öú2W óÖKŠÖŧ 2yŠú

Contracting Public Body _____

Contract/Project No _____

Project Description _____

Project Location _____

As a contractor/subcontractor for the above referenced public works contract, I hereby affirm that as of the above date, our company is in compliance with the Public Works Employment Verification Act ('the Act') through utilization of the federal E-Verify Program (EVP) operated by the United States Department of Homeland Security. To the best of my/our knowledge, all employees hired post January 1, 2013 are authorized to work in the United States.

It is also agreed to that all public works contractors/subcontractors will utilize the federal EVP to verify the employment eligibility of each new hire within five (5) business days of the employee start date throughout the duration of the public works contract. Documentation confirming the use of the federal EVP upon each new hire shall be maintained in the event of an investigation or audit.

I, _____, authorized representative of the company above, attest that the information contained in this verification form is true and correct and understand that the submission of false or misleading information in connection with the above verification shall be subject to sanctions provided by law.

Authorized Representative Signature

GENERAL REQUIREMENTS

SECTION 011100 - SUMMARY

PART 1 - GENERAL

1.1 GENERAL

- A. Only major items of work are given in the Bid Form, but it is the intent of the specifications to secure a completely interconnected and functionable system, and should any workmanship or materials be required which are obviously necessary to carry out the full intent and meaning of the plans and specifications or to be reasonably inferred therefrom, the cost of such workmanship or materials shall be included in the items in the bid form.
- B. The Contractor, in the construction of the project, shall not stockpile materials or store equipment on any private property; except areas designated by the plans or as directed by the Engineer. If so required, the Engineer may direct the Contractor to have equipment removed from any project during weekend hours.
- C. All notes on plans shall be made a part of the specifications.
- D. The Contractor shall notify the Engineer at least forty-eight (48) hours in advance of any work scheduled for Saturdays.

1.2 RELATED DOCUMENTS

- A. Drawings and general provisions of the Contract, including General and Supplementary Conditions and other Division 01 Specification Sections, apply to this Section.

1.3 PROJECT INFORMATION

A. Facility Owner Information:

- 1. Owner Name: Chester Upland School District
- 2. Engineer:
 - a. Mike Galante. mgalante@mgeassoc.com
 - b. Direct all questions to Engineer.

B. Facility Information:

- 1. High School Building Location: 232 W 9th Street, Chester, PA 19013.
- 2. Chester High School: 232 West 9th Street, Chester, PA 19013.
- 3. Main Street Elementary School: 704 Main Street, Upland, PA 19015.

4. Toby Farms Intermediate School: 201 Bridgewater Road, Chester Twp., PA 19045.
5. Chester Upland School of the Arts: 501 West 9th Street, Chester, PA 19013.
6. Edgmont Scholars Academy: 1350 Edgmont Avenue, Chester, PA 19013

1.4 SUMMARY

- A. Contract work includes parking lot resurfacing, ADA accessibility upgrades, concrete sidewalk and curb replacements, and stormwater management improvements at each school.

1.5 GENERAL REQUIREMENTS OF CONTRACTS

- A. Extent of Contract: Unless the Agreement contains a more specific description of the Work of each Contract, requirements indicated on Drawings and in Specification Sections determine which contract includes a specific element of Project.

1. Unless otherwise indicated, the work described in this Section for each contract shall be complete systems and assemblies, including products, components, accessories, and installation required by the Contract Documents.
2. Cutting and Patching provided for the work

- B. Close-out Procedures: Contractor shall be responsible for:

- a. Preparation and submission of Project Record Documents (as-builts, record specifications, record shop drawings, etc.) for work completed.
- b. Preparation and submission of operation and maintenance manuals.
- c. Assembly and submission of extra materials and attic stock to Owner.
- d. Preparation and submission of warranties.

- C. Type of Contract:

1. The project will be constructed under a single-prime contract.

1.6 ACCESS TO SITE

- A. Use of Site, Limited: Contractor shall have limited use of Project site for construction operations as indicated on Drawings by the Contract limits and as indicated by requirements of this Section.

1. Use of Site: Limit use of Project site to work in areas indicated and as directed by Owner. Do not disturb portions of Project site beyond areas in which the Work is indicated, including designated lay-down areas.
2. Driveways, Walkways and Entrances: Keep driveways, facility loading areas, and entrances serving premises clear and available to Owner, Owner's employees, and

emergency vehicles at all times. Do not use these areas for parking or storage of materials.

- a. Schedule deliveries to minimize use of driveways and entrances by construction operations.
 - b. Schedule deliveries to minimize space and time requirements for storage of materials and equipment on-site.
- B. Condition of Existing Building: Maintain portions of existing building affected by construction operations in a weathertight condition throughout construction period. Repair damage caused by construction operations.

1.7 COORDINATION WITH OCCUPANTS

- A. Owner Occupancy: Owner will occupy site including existing and adjacent building(s) during entire construction period. Cooperate with Owner during construction operations to minimize conflicts and facilitate Owner usage. Perform the Work so as not to interfere with Owner's day-to-day operations. Maintain existing exits unless otherwise indicated.
1. Maintain access to existing walkways, corridors, and other adjacent occupied or used facilities. Do not close or obstruct walkways, corridors, or other occupied or used facilities without written permission from Owner and approval of authorities having jurisdiction.
 2. Notify Owner not less than 72 hours in advance of activities that will affect Owner's operations.

1.8 WORK RESTRICTIONS

- A. Work Restrictions, General: Comply with restrictions on construction operations.
1. Comply with limitations on use of public streets and with other requirements of authorities having jurisdiction.
- B. On-Site Work Hours: Limit work in the existing building to normal business working hours of 7:00 a.m. to 5:00 p.m., Monday through Friday, unless otherwise indicated.

1. Weekend Hours: As permitted by Owner..
 2. Early Morning Hours: As permitted by Owner and local ordinance..
 3. Hours for Utility or Services Shutdowns: As permitted by Owner..
- C. Existing Utility Interruptions: Do not interrupt utilities serving facilities occupied by Owner or others
- D. Noise, Vibration, and Odors: Coordinate operations that may result in high levels of noise and vibration, odors, or other disruption to Owner occupancy with Owner.
1. Notify Owner not less than two days in advance of proposed disruptive operations.
 2. Obtain Owner's written permission before proceeding with disruptive operations.
- E. Nonsmoking Building: Smoking is not permitted within the building or within 25 feet of entrances, operable windows, or outdoor-air intakes.
- F. Controlled Substances: Use of other controlled substances on the Project site is not permitted.
- G. Employee Screening: Comply with Owner's requirements for background screening of Contractor personnel working on Project site.
1. Maintain list of approved screened personnel with Owner's representative.

1.9 SPECIFICATION AND DRAWING CONVENTIONS

- A. Specification Content: The Specifications use certain conventions for the style of language and the intended meaning of certain terms, words, and phrases when used in particular situations. These conventions are as follows:
1. Imperative mood and streamlined language are generally used in the Specifications. The words "shall," "shall be," or "shall comply with," depending on the context, are implied where a colon (:) is used within a sentence or phrase.
 2. Specification requirements are to be performed by Contractor unless specifically stated otherwise.

- B. Drawing Coordination: Requirements for materials and products identified on Drawings are described in detail in the Specifications. One or more of the following are used on Drawings to identify materials and products:
 - 1. Terminology: Materials and products are identified by the typical generic terms used in the individual Specifications Sections.
 - 2. Abbreviations: Materials and products are identified by abbreviations scheduled on Drawings.

1.10 MAINTENANCE AND PROTECTION OF TRAFFIC

- A. The Contractor shall erect or place and maintain in good condition, barricades, warning signs, lights, flares, approved yellow-flashing light units, rubber traffic cones, and other warning and danger signals and devices, appropriate and adequate for the specific needs and subject to the Engineer's approval, at working sites, necessary for the protection of pedestrian traffic.
- B. The Contractor shall provide adequate means of access for fire, police and emergency vehicles throughout the length of the project. Contractor shall also provide for safe and adequate means of access to adjacent properties, both private and public.
- C. The cost of all work as specified hereinbefore and all other work required to protect public safety and maintaining traffic flow shall be included in the prices bid for the Lump Sum Price Bid.

1.11 MATERIAL STORAGE AND REMOVAL

- A. The Contractors are required to remove and dispose of materials in a lawful manner. Under no circumstance shall the contractor leave trash and debris around the perimeter of the site, and all material shall be stored in a dumpster or approved removal container. All costs shall be included in the lump sum price bid. The General Contractor is responsible for cleanliness of the site.

PART 2 - PRODUCTS (Not Used)

PART 3 - EXECUTION (Not Used)

END OF SECTION 011200

SECTION 012500 - SUBSTITUTION PROCEDURES

PART 1 - GENERAL

1.1 RELATED DOCUMENTS

- A. Drawings and general provisions of the Contract, including General and Supplementary Conditions and other Division 01 Specification Sections, apply to this Section.

1.2 SUMMARY

- A. Section includes administrative and procedural requirements for substitutions.
- B. Related Requirements:
 - 1. Section 016000 "Product Requirements" for requirements for submitting comparable product submittals for products by listed manufacturers.

1.3 DEFINITIONS

- A. Substitutions: Changes in products, materials, equipment, and methods of construction from those required by the Contract Documents.
 - 1. Substitutions for Cause: Changes proposed by Contractor that are required due to changed Project conditions, such as unavailability of product, regulatory changes, or unavailability of required warranty terms.
 - 2. Substitutions for Convenience: Changes proposed by Contractor or Owner that are not required to meet other Project requirements but may offer advantage to Contractor or Owner.

1.4 ACTION SUBMITTALS

- A. Substitution Requests: Submit documentation identifying product or fabrication or installation method to be replaced. Include Specification Section number and title and Drawing numbers and titles.
 - 1. Substitution Request Form: Use form acceptable to Engineer.
 - 2. Documentation: Show compliance with requirements for substitutions and the following, as applicable:
 - a. Statement indicating why specified product or fabrication or installation method cannot be provided, if applicable.
 - b. Coordination of information, including a list of changes or revisions needed to other parts of the Work and to construction performed by Owner and separate contractors that will be necessary to accommodate proposed substitution.
 - c. Product Data, including drawings and descriptions of products and fabrication and installation procedures.

- d. Samples, where applicable or requested.
 - e. Certificates and qualification data, where applicable or requested.
 - f. Material test reports from a qualified testing agency, indicating and interpreting test results for compliance with requirements indicated.
 - g. Cost information, including a proposal of change, if any, in the Contract Sum.
 - h. Contractor's certification that proposed substitution complies with requirements in the Contract Documents, except as indicated in substitution request, is compatible with related materials and is appropriate for applications indicated.
3. Engineer's Action: If necessary, Engineer will request additional information or documentation for evaluation within seven days of receipt of a request for substitution. Engineer will notify Contractor of acceptance or rejection of proposed substitution within 15 days of receipt of request, or seven days of receipt of additional information or documentation, whichever is later.
- a. Forms of Acceptance: Change Order, Construction Change Directive, or Engineer's Supplemental Instructions for minor changes in the Work.
 - b. Use product specified if Engineer does not issue a decision on use of a proposed substitution within time allocated.

1.5 QUALITY ASSURANCE

- A. Compatibility of Substitutions: Investigate and document compatibility of proposed substitution with related products and materials. Engage a qualified testing agency to perform compatibility tests recommended by manufacturers.

1.6 PROCEDURES

- A. Coordination: Revise or adjust affected work as necessary to integrate work of the approved substitutions.

1.7 SUBSTITUTIONS

- A. Substitutions for Cause: Submit requests for substitution immediately on discovery of need for change, but not later than 15 days prior to time required for preparation and review of related submittals.
1. Conditions: Engineer will consider Contractor's request for substitution when the following conditions are satisfied. If the following conditions are not satisfied, Engineer will return requests without action, except to record noncompliance with these requirements:
- a. Requested substitution is consistent with the Contract Documents and will produce indicated results.
 - b. Requested substitution will not adversely affect Contractor's construction schedule.
 - c. Requested substitution has received necessary approvals of authorities having jurisdiction.
 - d. Requested substitution is compatible with other portions of the Work.

- e. Requested substitution has been coordinated with other portions of the Work.
 - f. Requested substitution provides specified warranty.
 - g. If requested substitution involves more than one contractor, requested substitution has been coordinated with other portions of the Work, is uniform and consistent, is compatible with other products, and is acceptable to all contractors involved.
- B. Substitutions for Convenience: Engineer will consider requests for substitution if received within **60** days after the Notice to Proceed Requests received after that time may be considered or rejected at discretion of Engineer.
1. Conditions: Engineer will consider Contractor's request for substitution when the following conditions are satisfied. If the following conditions are not satisfied, Engineer will return requests without action, except to record noncompliance with these requirements:
- a. Requested substitution offers Owner a substantial advantage in cost, time, energy conservation, or other considerations, after deducting additional responsibilities Owner must assume. Owner's additional responsibilities may include compensation to Engineer for redesign and evaluation services, increased cost of other construction by Owner, and similar considerations.
 - b. Requested substitution does not require extensive revisions to the Contract Documents.
 - c. Requested substitution is consistent with the Contract Documents and will produce indicated results.
 - d. Substitution request is fully documented and properly submitted.
 - e. Requested substitution is compatible with other portions of the Work.
 - f. Requested substitution has been coordinated with other portions of the Work.
 - g. Requested substitution provides specified warranty.

PART 2 - PRODUCTS (Not Used)

PART 3 - EXECUTION (Not Used)

END OF SECTION 012500

SECTION 012600 - CONTRACT MODIFICATION PROCEDURES

PART 1 - GENERAL

1.1 RELATED DOCUMENTS

- A. Drawings and general provisions of the Contract, including General and Supplementary Conditions and other Division 01 Specification Sections, apply to this Section.

1.2 SUMMARY

- A. Section includes administrative and procedural requirements for handling and processing Contract modifications.
- B. Related Requirements:
 - 1. Section 012500 "Substitution Procedures" for administrative procedures for handling requests for substitutions made after the Contract award.
 - 2. Section 013100 "Project Management and Coordination" for requirements for forms for contract modifications provided as part of web-based Project management software.

1.3 MINOR CHANGES IN THE WORK

- A. Engineer will issue supplemental instructions authorizing minor changes in the Work, not involving adjustment to the Contract Sum or the Contract Time, on AIA Document G710.

1.4 PROPOSAL REQUESTS

- A. Owner-Initiated Proposal Requests: Engineer will issue a detailed description of proposed changes in the Work that may require adjustment to the Contract Sum or the Contract Time. If necessary, the description will include supplemental or revised Drawings and Specifications.
 - 1. Work Change Proposal Requests issued by Engineer are not instructions either to stop work in progress or to execute the proposed change.
 - 2. Within 10 days, when not otherwise specified after receipt of Proposal Request, submit a quotation estimating cost adjustments to the Contract Sum and the Contract Time necessary to execute the change.
 - a. Include a list of quantities of products required or eliminated and unit costs, with total amount of purchases and credits to be made. If requested, furnish survey data to substantiate quantities.
 - b. Indicate applicable taxes, delivery charges, equipment rental, and amounts of trade discounts.
 - c. Include costs of labor and supervision directly attributable to the change.
 - d. Include an updated Contractor's construction schedule that indicates the effect of the change, including, but not limited to, changes in activity duration, start and

finish times, and activity relationship. Use available total float before requesting an extension of the Contract Time.

- e. Quotation Form: Use forms acceptable to Engineer.
- B. Contractor-Initiated Proposals: If latent or changed conditions require modifications to the Contract, Contractor may initiate a claim by submitting a request for a change to Engineer.
- 1. Include a statement outlining reasons for the change and the effect of the change on the Work. Provide a complete description of the proposed change. Indicate the effect of the proposed change on the Contract Sum and the Contract Time.
 - 2. Include a list of quantities of products required or eliminated and unit costs, with total amount of purchases and credits to be made. If requested, furnish survey data to substantiate quantities.
 - 3. Indicate applicable taxes, delivery charges, equipment rental, and amounts of trade discounts.
 - 4. Include costs of labor and supervision directly attributable to the change.
 - 5. Include an updated Contractor's construction schedule that indicates the effect of the change, including, but not limited to, changes in activity duration, start and finish times, and activity relationship. Use available total float before requesting an extension of the Contract Time.
 - 6. Comply with requirements in Section 012500 "Substitution Procedures" if the proposed change requires substitution of one product or system for product or system specified.
 - 7. Proposal Request Form: Use form acceptable to Engineer

1.5 CHANGE ORDER PROCEDURES

- A. On Owner's approval of a Work Change Proposal Request, Engineer will issue a Change Order for signatures of Owner and Contractor on **AIA Document G701**

1.6 CONSTRUCTION CHANGE DIRECTIVE

- A. Construction Change Directive: **Engineer** may issue a Construction Change Directive on **AIA Document G714**. Construction Change Directive instructs Contractor to proceed with a change in the Work, for subsequent inclusion in a Change Order.
- 1. Construction Change Directive contains a complete description of change in the Work. It also designates method to be followed to determine change in the Contract Sum or the Contract Time.
- B. Documentation: Maintain detailed records on a time and material basis of work required by the Construction Change Directive.
- 1. After completion of change, submit an itemized account and supporting data necessary to substantiate cost and time adjustments to the Contract.

PART 2 - PRODUCTS (Not Used)

PART 3 - EXECUTION (Not Used)

END OF SECTION 012600

SECTION 012900 - PAYMENT PROCEDURES

PART 1 - GENERAL

1.1 RELATED DOCUMENTS

- A. Drawings and general provisions of the Contract, including General and Supplementary Conditions and other Division 01 Specification Sections, apply to this Section.

1.2 SUMMARY

- A. Section includes administrative and procedural requirements necessary to prepare and process Applications for Payment.
- B. Related Requirements:
 - 1. Section 012600 "Contract Modification Procedures" for administrative procedures for handling changes to the Contract.
 - 2. Section 013200 "Construction Progress Documentation" for administrative requirements governing the preparation and submittal of the Contractor's construction schedule.

1.3 DEFINITIONS

- A. Schedule of Values: A statement furnished by Contractor allocating portions of the Contract Sum to various portions of the Work and used as the basis for reviewing Contractor's Applications for Payment.

1.4 SCHEDULE OF VALUES

- A. Submit the schedule of values to Engineer at earliest possible date, but no later than 10 days before the date scheduled for submittal of initial Applications for Payment.
 - 1. Use Project Manual table of contents as a guide to establish line items for the schedule of values. Provide at least one line item for each Specification Section.
 - 2. Identification: Include the following Project identification on the schedule of values:
 - 3. Arrange the schedule of values in tabular form, with separate columns to indicate the following for each item listed:
 - a. Related Specification Section or division.
 - b. Description of the Work.
 - c. Name of subcontractor.
 - d. Name of manufacturer or fabricator.
 - e. Name of supplier.
 - f. Change Orders (numbers) that affect value.
 - g. Dollar value of the following, as a percentage of the Contract Sum to nearest one-hundredth percent, adjusted to total 100 percent. Round dollar amounts to whole dollars, with total equal to Contract Sum.

- 1) Labor.
- 2) Materials.
- 3) Equipment.
4. Provide a separate line item in the schedule of values for each part of the Work where Applications for Payment may include materials or equipment purchased or fabricated and stored, but not yet installed.
5. Overhead Costs, Proportional Distribution: Include total cost and proportionate share of general overhead and profit for each line item.
6. Schedule of Values Revisions: Revise the schedule of values when Change Orders or Construction Change Directives result in a change in the Contract Sum. Include at least one separate line item for each Change Order and Construction Change Directive.

1.5 APPLICATIONS FOR PAYMENT

- A. Each Application for Payment following the initial Application for Payment shall be consistent with previous applications and payments, as certified by Engineer, and paid for by Owner.
- B. Payment Application Times: The date for each progress payment is indicated in the Owner/Contractor Agreement. The period of construction work covered by each Application for Payment is the period indicated in the Agreement.
- C. Payment Application Times: Submit Application for Payment to Engineer by the 15 of the month. The period covered by each Application for Payment is one month, ending on the last day of the month.
 1. Submit draft copy of Application for Payment **seven** days prior to due date for review by Engineer.
- D. Application for Payment Forms: Use AIA Document G702 and AIA Document G703 as form for Applications for Payment.
 1. Other Application for Payment forms proposed by the Contractor may be acceptable to Engineer and Owner. Submit forms for approval with initial submittal of schedule of values.
- E. Application Preparation: Complete every entry on form. Notarize and execute by a person authorized to sign legal documents on behalf of Contractor. **Engineer** will return incomplete applications without action.
 1. Entries shall match data on the schedule of values and Contractor's construction schedule. Use updated schedules if revisions were made.
 2. Include amounts for work completed following previous Application for Payment, whether or not payment has been received. Include only amounts for work completed at time of Application for Payment.
 3. Include amounts of Change Orders and Construction Change Directives issued before last day of construction period covered by application.
 4. Indicate separate amounts for work being carried out under Owner-requested project acceleration.

- F. **Stored Materials:** Include in Application for Payment amounts applied for materials or equipment purchased or fabricated and stored, but not yet installed. Differentiate between items stored on-site and items stored off-site.
1. Provide certificate of insurance, evidence of transfer of title to Owner, and consent of surety to payment for stored materials.
 2. Provide supporting documentation that verifies amount requested, such as paid invoices. Match amount requested with amounts indicated on documentation; do not include overhead and profit on stored materials.
 3. Provide summary documentation for stored materials indicating the following:
 - a. Value of materials previously stored and remaining stored as of date of previous Applications for Payment.
 - b. Value of previously stored materials put in place after date of previous Application for Payment and on or before date of current Application for Payment.
 - c. Value of materials stored since date of previous Application for Payment and remaining stored as of date of current Application for Payment.
- G. **Transmittal:** Submit 1 signed and notarized original copies of each Application for Payment to **Engineer** electronically. One copy shall include waivers of lien and similar attachments if required.
1. Transmit each copy with a transmittal form listing attachments and recording appropriate information about application.
- H. **Initial Application for Payment:** Administrative actions and submittals that must precede or coincide with submittal of first Application for Payment include the following:
1. List of subcontractors.
 2. Schedule of values.
 3. Contractor's construction schedule (preliminary if not final).
 4. Products list (preliminary if not final).
 5. Sustainable design action plans, including preliminary project materials cost data.
 6. Schedule of unit prices.
 7. Submittal schedule (preliminary if not final).
 8. List of Contractor's staff assignments.
 9. List of Contractor's principal consultants.
 10. Copies of building permits.
 11. Copies of authorizations and licenses from authorities having jurisdiction for performance of the Work.
 12. Initial progress report.
 13. Report of preconstruction conference.
 14. Certificates of insurance and insurance policies.
 15. Performance and payment bonds.
 16. Data needed to acquire Owner's insurance.
- I. **Application for Payment at Substantial Completion:** After Engineer issues the Certificate of Substantial Completion, submit an Application for Payment showing 100 percent completion for portion of the Work claimed as substantially complete.

1. Include documentation supporting claim that the Work is substantially complete and a statement showing an accounting of changes to the Contract Sum.
 - a. Complete administrative actions, submittals, and Work preceding this application, as described in Section 017700 "Closeout Procedures."
 2. This application shall reflect Certificate(s) of Substantial Completion issued previously for Owner occupancy of designated portions of the Work.
- J. Final Payment Application: After completing Project closeout requirements, submit final Application for Payment with releases and supporting documentation not previously submitted and accepted, including, but not limited, to the following:
1. Evidence of completion of Project closeout requirements.
 2. Certification of completion of final punch list items.
 3. Insurance certificates for products and completed operations where required and proof that taxes, fees, and similar obligations were paid.
 4. Updated final statement, accounting for final changes to the Contract Sum.
 5. AIA Document G706.
 6. AIA Document G706A.
 7. AIA Document G707.
 8. Evidence that claims have been settled.
 9. Final meter readings for utilities, a measured record of stored fuel, and similar data as of date of Substantial Completion or when Owner took possession of and assumed responsibility for corresponding elements of the Work.
 10. Proof that taxes, fees, and similar obligations are paid.
 11. Waivers and releases.

PART 2 - PRODUCTS (Not Used)

PART 3 - EXECUTION (Not Used)

END OF SECTION 012900

SECTION 013100 - PROJECT MANAGEMENT AND COORDINATION

PART 1 - GENERAL

1.1 RELATED DOCUMENTS

- A. Drawings and general provisions of the Contract, including General and Supplementary Conditions and other Division 01 Specification Sections, apply to this Section.

1.2 SUMMARY

- A. Section includes administrative provisions for coordinating construction operations on Project, including, but not limited to, the following:
 - 1. General coordination procedures.
 - 2. Coordination drawings.
 - 3. RFIs.
 - 4. Digital project management procedures.
 - 5. Project meetings.
- B. Related Requirements:
 - 1. Section 011200 "Summary" for a description of the work
 - 2. Section 013200 "Construction Progress Documentation"
 - 3. Section 017300 "Execution"
 - 4. Section 017700 "Closeout Procedures" for coordinating closeout of the Contract.

1.3 DEFINITIONS

- A. BIM: Building Information Modeling.
- B. RFI: Request for Information. Request from Owner, Engineer, or Contractor seeking information required by or clarifications of the Contract Documents.

1.4 INFORMATIONAL SUBMITTALS

- A. Subcontract List: Prepare a written summary identifying individuals or firms proposed for each portion of the Work, including those who are to furnish products or equipment fabricated to a special design. Include the following information in tabular form:
 - 1. Name, address, telephone number, and email address of entity performing subcontract or supplying products.
 - 2. Number and title of related Specification Section(s) covered by subcontract.
 - 3. Drawing number and detail references, as appropriate, covered by subcontract.

- B. Key Personnel Names: Within **15** days of starting construction operations, submit a list of key personnel assignments, including superintendent and other personnel in attendance at Project site. Identify individuals and their duties and responsibilities; list addresses, cellular telephone numbers, and e-mail addresses. Provide names, addresses, and telephone numbers of individuals assigned as alternates in the absence of individuals assigned to Project.
 - 1. Post copies of list in Project meeting room, in temporary field office, in web-based Project software directory, and in prominent location in built facility. Keep list current at all times.

1.5 GENERAL COORDINATION PROCEDURES

- A. Coordination: Coordinate construction operations included in different Sections of the Specifications to ensure efficient and orderly installation of each part of the Work. Coordinate construction operations included in different Sections that depend on each other for proper installation, connection, and operation.
 - 1. Schedule construction operations in sequence required to obtain the best results, where installation of one part of the Work depends on installation of other components, before or after its own installation.
 - 2. Coordinate installation of different components to ensure maximum performance and accessibility for required maintenance, service, and repair.
 - 3. Make adequate provisions to accommodate items scheduled for later installation.
- B. Administrative Procedures: Coordinate scheduling and timing of required administrative procedures with other construction activities and scheduled activities of other contractors to avoid conflicts and to ensure orderly progress of the Work. Such administrative activities include, but are not limited to, the following:
 - 1. Preparation of Contractor's construction schedule.
 - 2. Preparation of the schedule of values.
 - 3. Installation and removal of temporary facilities and controls.
 - 4. Delivery and processing of submittals.
 - 5. Progress meetings.
 - 6. Preinstallation conferences.
 - 7. Project closeout activities.
 - 8. Startup and adjustment of systems.

1.6 REQUEST FOR INFORMATION (RFI)

- A. General: Immediately on discovery of the need for additional information, clarification, or interpretation of the Contract Documents, Contractor shall prepare and submit an RFI in the form specified.
 - 1. Engineer will return without response those RFIs submitted to Engineer by other entities controlled by Contractor.
 - 2. Coordinate and submit RFIs in a prompt manner to avoid delays in Contractor's work or work of subcontractors.

B. Content of the RFI: Include a detailed, legible description of item needing information or interpretation and the following:

1. Project name.
2. Owner name.
3. Owner's Project number.
4. Name of Engineer
5. Engineer's Project number.
6. Date.
7. Name of Contractor.
8. RFI number, numbered sequentially.
9. RFI subject.
10. Specification Section number and title and related paragraphs, as appropriate.
11. Drawing number and detail references, as appropriate.
12. Field dimensions and conditions, as appropriate.
13. Contractor's suggested resolution. If Contractor's suggested resolution impacts the Contract Time or the Contract Sum, Contractor shall state impact in the RFI.
14. Contractor's signature.
15. Attachments: Include sketches, descriptions, measurements, photos, Product Data, Shop Drawings, coordination drawings, and other information necessary to fully describe items needing interpretation.
 - a. Include dimensions, thicknesses, structural grid references, and details of affected materials, assemblies, and attachments on attached sketches.

C. RFI Forms: Software-generated form with substantially the same content as indicated above, acceptable to Engineer.

1. Attachments shall be electronic files in PDF format.

D. Engineer's Action: Engineer will review each RFI, determine action required, and respond. Allow ten days for Engineer's response for each RFI. RFIs received by Engineer after 1:00 p.m. will be considered as received the following working day.

1. The following Contractor-generated RFIs will be returned without action:
 - a. Requests for approval of submittals.
 - b. Requests for approval of substitutions.
 - c. Requests for approval of Contractor's means and methods.
 - d. Requests for coordination information already indicated in the Contract Documents.
 - e. Requests for adjustments in the Contract Time or the Contract Sum.
 - f. Requests for interpretation of Engineer's actions on submittals.
 - g. Incomplete RFIs or inaccurately prepared RFIs.
2. Engineer's action may include a request for additional information, in which case Engineer's time for response will date from time of receipt by Engineer of additional information.
3. Engineer's action on RFIs that may result in a change to the Contract Time or the Contract Sum may be eligible for Contractor to submit Change Proposal according to Section 012600 "Contract Modification Procedures."

- a. If Contractor believes the RFI response warrants change in the Contract Time or the Contract Sum, notify Engineer in writing within **5** days of receipt of the RFI response.
- E. RFI Log: Prepare, maintain, and submit a tabular log of RFIs organized by the RFI number.
 1. Project name.
 2. Name and address of Contractor.
 3. Name and address of Engineer
 4. RFI number, including RFIs that were returned without action or withdrawn.
 5. RFI description.
 6. Date the RFI was submitted.
 7. Date Engineer's response was received.
 8. Identification of related Minor Change in the Work, Construction Change Directive, and Proposal Request, as appropriate.
- F. On receipt of Engineer's action, update the RFI log and immediately distribute the RFI response to affected parties. Review response and notify Engineer within **seven** days if Contractor disagrees with response.

1.7 PROJECT MEETINGS

- A. General: **Schedule and conduct** meetings and conferences at Project site unless otherwise indicated.
 1. Attendees: Inform participants and others involved, and individuals whose presence is required, of date and time of each meeting. Notify Owner and Engineer of scheduled meeting dates and times a minimum of **seven** days prior to meeting.
 2. Agenda: Prepare the meeting agenda. Distribute the agenda to all invited attendees.
 3. Minutes: Entity responsible for conducting meeting will record significant discussions and agreements achieved. Distribute the meeting minutes to everyone concerned, including Owner, Engineer, within **three** days of the meeting.
- B. Preconstruction Conference: Schedule and conduct a preconstruction conference before starting construction, at a time convenient to Owner and Engineer, but no later than 15 days after execution of the Agreement.
 1. Agenda: Discuss items of significance that could affect progress, including the following:
 - a. Responsibilities and personnel assignments.
 - b. Tentative construction schedule.
 - c. Phasing.
 - d. Critical work sequencing and long lead items.
 - e. Designation of key personnel and their duties.
 - f. Lines of communications.
 - g. Procedures for processing field decisions and Change Orders.
 - h. Procedures for RFIs.
 - i. Procedures for testing and inspecting.
 - j. Procedures for processing Applications for Payment.
 - k. Distribution of the Contract Documents.
 - l. Submittal procedures.

- m. Project closeout requirements and sustainable design certification procedures.
 - n. Construction waste management.
 - o. Construction operations and sustainable design requirements and restrictions.
 - p. Preparation of Record Documents.
 - q. Use of the premises
 - r. Work restrictions.
 - s. Working hours.
 - t. Owner's occupancy requirements.
 - u. Responsibility for temporary facilities and controls.
 - v. Procedures for moisture and mold control.
 - w. Procedures for disruptions and shutdowns.
 - x. Construction waste management and recycling.
 - y. Parking availability.
 - z. Office, work, and storage areas.
 - aa. Equipment deliveries and priorities.
 - bb. First aid.
 - cc. Security.
 - dd. Progress cleaning.
2. Minutes: Entity responsible for conducting meeting will record and distribute meeting minutes.
- C. Preinstallation Conferences: Conduct a preinstallation conference at Project site before each construction activity when required by other Sections and when required for coordination with other construction.
- 1. Record significant conference discussions, agreements, and disagreements, including required corrective measures and actions.
 - 2. Reporting: Distribute minutes of the meeting to each party present and to other parties requiring information.
- D. Project Closeout Conference: **Schedule and conduct** a project closeout conference, at a time convenient to Owner and Engineer, but no later than **90** days prior to the scheduled date of Substantial Completion.
- 1. Conduct the conference to review requirements and responsibilities related to Project closeout.
 - 2. Attendees: Authorized representatives of Owner, Owner's Commissioning Authority, Engineer, and their consultants; Contractor and its superintendent; major subcontractors; suppliers; and other concerned parties shall attend the meeting. Participants at the meeting shall be familiar with Project and authorized to conclude matters relating to the Work.
 - 3. Agenda: Discuss items of significance that could affect or delay Project closeout, including the following:
 - a. Preparation of Record Documents.
 - b. Procedures required prior to inspection for Substantial Completion and for final inspection for acceptance.
 - c. Submittal of written warranties.
 - d. Requirements for delivery of material samples, attic stock, and spare parts.
 - e. Preparation of Contractor's punch list.

- f. Procedures for processing Applications for Payment at Substantial Completion and for final payment.
 - g. Submittal procedures.
 - h. Coordination of separate contracts.
 - i. Owner's partial occupancy requirements.
 - j. Installation of Owner's furniture, fixtures, and equipment.
 - k. Responsibility for removing temporary facilities and controls.
 - 4. Minutes: Entity conducting meeting will record and distribute meeting minutes.
- E. Progress Meetings: Conduct progress meetings at biweekly intervals.
- 1. Coordinate dates of meetings with preparation of payment requests.
 - 2. Attendees: In addition to representatives of Owner, Owner's Commissioning Authority and Engineer, each contractor, subcontractor, supplier, and other entity concerned with current progress or involved in planning, coordination, or performance of future activities shall be represented at these meetings. All participants at the meeting shall be familiar with Project and authorized to conclude matters relating to the Work.
 - 3. Agenda: Review and correct or approve minutes of previous progress meeting. Review other items of significance that could affect progress. Include topics for discussion as appropriate to status of Project.
 - a. Contractor's Construction Schedule: Review progress since the last meeting. Determine whether each activity is on time, ahead of schedule, or behind schedule, in relation to Contractor's construction schedule. Determine how construction behind schedule will be expedited; secure commitments from parties involved to do so. Discuss whether schedule revisions are required to ensure that current and subsequent activities will be completed within the Contract Time.
 - 1) Review schedule for next period.
 - b. Review present and future needs of each entity present, including the following:
 - 1) Status of submittals.
 - 2) Deliveries.
 - 3) Access.
 - 4) Site use.
 - 5) Temporary facilities and controls.
 - 6) Progress cleaning.
 - 7) Quality and work standards.
 - 8) Status of correction of deficient items.
 - 9) Field observations.
 - 10) Status of RFIs.
 - 11) Status of Proposal Requests.
 - 12) Pending changes.
 - 13) Status of Change Orders.
 - 14) Pending claims and disputes.
 - 15) Documentation of information for payment requests.
 - 4. Minutes: Entity responsible for conducting the meeting will record and distribute the meeting minutes to each party present and to parties requiring information.

- a. Schedule Updating: Revise Contractor's construction schedule after each progress meeting, where revisions to the schedule have been made or recognized. Issue revised schedule concurrently with the report of each meeting.

PART 2 - PRODUCTS (Not Used)

PART 3 - EXECUTION (Not Used)

END OF SECTION 013100

SECTION 013233 - PHOTOGRAPHIC DOCUMENTATION

PART 1 - GENERAL

1.1 RELATED DOCUMENTS

- A. Drawings and general provisions of the Contract, including General and Supplementary Conditions and other Division 01 Specification Sections, apply to this Section.

1.2 SUMMARY

- A. Section includes administrative and procedural requirements for the following:
 - 1. Preconstruction photographs.
 - 2. Concealed Work photographs.
 - 3. Periodic construction photographs.
 - 4. Final Completion construction photographs.
- B. Related Requirements:
 - 1. Section 017700 "Closeout Procedures" for submitting photographic documentation as Project Record Documents at Project closeout.

1.3 INFORMATIONAL SUBMITTALS

- A. Key Plan: Submit key plan of Project site and building with notation of vantage points marked for location and direction of each **photograph**. Indicate elevation or story of construction. Include same information as corresponding photographic documentation.
- B. Digital Photographs: Submit image files within 5 days of taking photographs.
 - 1. Submit photos **by uploading to project management site**. Include copy of key plan indicating each photograph's location and direction.
 - 2. Identification: Provide the following information with each image description **in web-based Project management site**:
 - a. Name of Project.
 - b. Name and contact information for photographer.
 - c. Name of Engineer
 - d. Name of Contractor.
 - e. Date photograph was taken.
 - f. Description of location, vantage point, and direction.
 - g. Unique sequential identifier keyed to accompanying key plan.

1.4 CONSTRUCTION PHOTOGRAPHS

- A. General: Take photographs with maximum depth of field and in focus.
 - 1. Maintain key plan with each set of construction photographs that identifies each photographic location.
- B. Preconstruction Photographs: Before commencement of the Work, take photographs of Project site and surrounding properties, including existing items to remain during construction, from different vantage points, as directed by **Engineer**.
 - 1. Flag excavation areas before taking construction photographs.
 - 2. Take 5 photographs to show existing conditions adjacent to property before starting the Work.
 - 3. Take 20 photographs of existing buildings either on or adjoining property, to accurately record physical conditions at start of construction.
 - 4. Take additional photographs as required to record settlement or cracking of adjacent structures, pavements, and improvements.
- C. Concealed Work Photographs: Before proceeding with installing work that will conceal other work, take photographs sufficient in number, with annotated descriptions, to record nature and location of concealed Work.
- D. Periodic Construction Photographs: Take **20** photographs **weekly**. Select vantage points to show status of construction and progress since last photographs were taken.
- E. Final Completion Construction Photographs: Take **50** photographs after date of Substantial Completion for submission as Project Record Documents.

PART 2 - PRODUCTS (Not Used)

PART 3 - EXECUTION (Not Used)

END OF SECTION 013233

SECTION 013300 - SUBMITTAL PROCEDURES

PART 1 - GENERAL

1.1 SUMMARY

A. Section Includes:

1. Submittal schedule requirements.
2. Administrative and procedural requirements for submittals.

B. Related Requirements:

1. Section 013100 "Project Management and Coordination"
2. Section 013200 "Construction Progress Documentation" f
3. Section 013233 "Photographic Documentation"
4. Section 014000 "Quality Requirements"
5. Section 017700 "Closeout Procedures"
6. Section 017839 "Project Record Documents"

1.2 DEFINITIONS

- A. Action Submittals: Written and graphic information and physical samples that require Engineer's responsive action. Action submittals are those submittals indicated in individual Specification Sections as "action submittals."
- B. Informational Submittals: Written and graphic information and physical samples that do not require Engineer's responsive action. Submittals may be rejected for not complying with requirements. Informational submittals are those submittals indicated in individual Specification Sections as "informational submittals."

1.3 SUBMITTAL SCHEDULE

- A. Submittal Schedule: Submit, as an action submittal, a list of submittals, arranged in chronological order by dates required by construction schedule. Include time required for review, ordering, manufacturing, fabrication, and delivery when establishing dates. Include additional time required for making corrections or revisions to submittals noted by Engineer and additional time for handling and reviewing submittals required by those corrections.
1. Coordinate submittal schedule with list of subcontracts, the schedule of values, and Contractor's construction schedule.
 - a. Submit revised submittal schedule as required to reflect changes in current status and timing for submittals.
 2. Format: Arrange the following information in a tabular format:
 - a. Scheduled date for first submittal.

- b. Specification Section number and title.
- c. Submittal Category: Action; informational.
- d. Name of subcontractor.
- e. Description of the Work covered.
- f. Scheduled date for Engineer's final release or approval.

1.4 SUBMITTAL FORMATS

A. Submittal Information: Include the following information in each submittal:

- 1. Project name.
- 2. Date.
- 3. Name of Engineer.
- 4. Unique submittal number, including revision identifier. Include Specification Section number with sequential alphanumeric identifier and alphanumeric suffix for resubmittals.
- 5. Category and type of submittal.
- 6. Submittal purpose and description.
- 7. Number and title of Specification Section, with paragraph number and generic name for each of multiple items.
- 8. Drawing number and detail references, as appropriate.
- 9. Indication of full or partial submittal.
- 10. Location(s) where product is to be installed, as appropriate.
- 11. Other necessary identification.
- 12. Remarks.
- 13. Signature of transmitter.

B. Options: Identify options requiring selection by Engineer.

C. Deviations and Additional Information: On each submittal, clearly indicate deviations from requirements in the Contract Documents, including minor variations and limitations; include relevant additional information and revisions, other than those requested by Engineer on previous submittals. Indicate by highlighting on each submittal or noting on attached separate sheet.

D. Electronic Submittals: Prepare submittals as PDF package, incorporating complete information into each PDF file. Name PDF file with submittal number.

E. Submittals Utilizing Web-Based Project Software: Prepare submittals as PDF files or other format indicated by Project management software.

1.5 SUBMITTAL PROCEDURES

A. Prepare and submit submittals required by individual Specification Sections. Types of submittals are indicated in individual Specification Sections.

- 1. Email: Prepare submittals as PDF package and transmit to Engineer by sending via email. Include PDF transmittal form. Include information in email subject line as requested by Engineer.

- a. Engineer will return annotated file. Annotate and retain one copy of file as a digital Project Record Document file.
 2. Web-Based Project Management Software: Prepare submittals in PDF form, and upload to web-based Project management software website. Enter required data in web-based software site to fully identify submittal.
- B. Coordination: Coordinate preparation and processing of submittals with performance of construction activities.
1. Coordinate each submittal with fabrication, purchasing, testing, delivery, other submittals, and related activities that require sequential activity.
 2. Submit all submittal items required for each Specification Section concurrently unless partial submittals for portions of the Work are indicated on approved submittal schedule.
 3. Submit action submittals and informational submittals required by the same Specification Section as separate packages under separate transmittals.
 4. Coordinate transmittal of submittals for related parts of the Work specified in different Sections, so processing will not be delayed because of need to review submittals concurrently for coordination.
- a. Engineer reserves the right to withhold action on a submittal requiring coordination with other submittals until related submittals are received.
- C. Processing Time: Allow time for submittal review, including time for resubmittals, as follows. Time for review shall commence on Engineer's receipt of submittal. No extension of the Contract Time will be authorized because of failure to transmit submittals enough in advance of the Work to permit processing, including resubmittals.
1. Initial Review: Allow 15 days for initial review of each submittal. Allow additional time if coordination with subsequent submittals is required. Engineer will advise Contractor when a submittal being processed must be delayed for coordination.
 2. Intermediate Review: If intermediate submittal is necessary, process it in same manner as initial submittal.
 3. Resubmittal Review: Allow 15 days for review of each resubmittal.
 4. Sequential Review: Where sequential review of submittals by Engineer's consultants, Owner, or other parties is indicated, allow 21 days for initial review of each submittal.
- D. Resubmittals: Make resubmittals in same form and number of copies as initial submittal.
1. Note date and content of previous submittal.
 2. Note date and content of revision in label or title block, and clearly indicate extent of revision.
 3. Resubmit submittals until they are marked with approval notation from Engineer's action stamp.
- E. Distribution: Furnish copies of final submittals to manufacturers, subcontractors, suppliers, fabricators, installers, authorities having jurisdiction, and others as necessary for performance of construction activities. Show distribution on transmittal forms.

- F. Use for Construction: Retain complete copies of submittals on Project site. Use only final action submittals that are marked with approval notation from Engineer's and Construction Manager's action stamp.

1.6 SUBMITTAL REQUIREMENTS

- A. Product Data: Collect information into a single submittal for each element of construction and type of product or equipment.
 - 1. If information must be specially prepared for submittal because standard published data are unsuitable for use, submit as Shop Drawings, not as Product Data.
 - 2. Mark each copy of each submittal to show which products and options are applicable.
 - 3. Include the following information, as applicable:
 - a. Manufacturer's catalog cuts.
 - b. Manufacturer's product specifications.
 - c. Standard color charts.
 - d. Statement of compliance with specified referenced standards.
 - e. Testing by recognized testing agency.
 - f. Application of testing agency labels and seals.
 - g. Notation of coordination requirements.
 - h. Availability and delivery time information.
 - 4. For equipment, include the following in addition to the above, as applicable:
 - a. Wiring diagrams that show factory-installed wiring.
 - b. Printed performance curves.
 - c. Operational range diagrams.
 - d. Clearances required to other construction, if not indicated on accompanying Shop Drawings.
 - 5. Submit Product Data before Shop Drawings, and before or concurrently with Samples.
- B. Shop Drawings: Prepare Project-specific information, drawn accurately to scale. Do not base Shop Drawings on reproductions of the Contract Documents or standard printed data.
 - 1. Preparation: Fully illustrate requirements in the Contract Documents. Include the following information, as applicable:
 - a. Identification of products.
 - b. Schedules.
 - c. Compliance with specified standards.
 - d. Notation of coordination requirements.
 - e. Notation of dimensions established by field measurement.
 - f. Relationship and attachment to adjoining construction clearly indicated.
 - g. Seal and signature of professional engineer if specified.
- C. Samples: Submit Samples for review of type, color, pattern, and texture for a check of these characteristics with other materials.

1. Transmit Samples that contain multiple, related components, such as accessories together in one submittal package.
2. Identification: Permanently attach label on unexposed side of Samples that includes the following:
 - a. Project name and submittal number.
 - b. Generic description of Sample.
 - c. Product name and name of manufacturer.
 - d. Sample source.
 - e. Number and title of applicable Specification Section.
 - f. Specification paragraph number and generic name of each item.
3. Web-Based Project Management Software: Prepare submittals in PDF form, and upload to web-based Project software website. Enter required data in web-based software site to fully identify submittal.
4. Disposition: Maintain sets of approved Samples at Project site, available for quality-control comparisons throughout the course of construction activity. Sample sets may be used to determine final acceptance of construction associated with each set.
 - a. Samples that may be incorporated into the Work are indicated in individual Specification Sections. Such Samples must be in an undamaged condition at time of use.
 - b. Samples not incorporated into the Work, or otherwise designated as Owner's property, are the property of Contractor.
5. Samples for Initial Selection: Submit manufacturer's color charts consisting of units or sections of units, showing the full range of colors, textures, and patterns available.
 - a. Number of Samples: Submit **one** full set(s) of available choices where color, pattern, texture, or similar characteristics are required to be selected from manufacturer's product line. Engineer, will return submittal with options selected.
6. Samples for Verification: Submit full-size units or Samples of size indicated, prepared from same material to be used for the Work, cured and finished in manner specified, and physically identical with material or product proposed for use, and that show full range of color and texture variations expected. Samples include, but are not limited to, the following: partial sections of manufactured or fabricated components; small cuts or containers of materials; complete units of repetitively used materials; swatches showing color, texture, and pattern; color range sets; and components used for independent testing and inspection.
 - a. Number of Samples: Submit **three** sets of Samples. Engineer will retain **two** Sample sets; remainder will be returned.
 - 1) Submit a single Sample where assembly details, workmanship, fabrication techniques, connections, operation, and other similar characteristics are to be demonstrated.
 - 2) If variation in color, pattern, texture, or other characteristic is inherent in material or product represented by a Sample, submit at least **three** sets of paired units that show approximate limits of variations.

- D. Product Schedule: As required in individual Specification Sections, prepare a written summary indicating types of products required for the Work and their intended location. Include the following information in tabular form:
1. Type of product. Include unique identifier for each product indicated in the Contract Documents or assigned by Contractor if none is indicated.
 2. Manufacturer and product name, and model number if applicable.
 3. Number and name of room or space.
 4. Location within room or space.
- E. Qualification Data: Prepare written information that demonstrates capabilities and experience of firm or person. Include lists of completed projects with project names and addresses, contact information of Engineers and owners, and other information specified.
- F. Design Data: Prepare and submit written and graphic information indicating compliance with indicated performance and design criteria in individual Specification Sections. Include list of assumptions and summary of loads. Include load diagrams if applicable. Provide name and version of software, if any, used for calculations. Number each page of submittal.
- G. Certificates:
1. Certificates and Certifications Submittals: Submit a statement that includes signature of entity responsible for preparing certification. Certificates and certifications shall be signed by an officer or other individual authorized to sign documents on behalf of that entity. Provide a notarized signature where indicated.
 2. Installer Certificates: Submit written statements on manufacturer's letterhead, certifying that Installer complies with requirements in the Contract Documents and, where required, is authorized by manufacturer for this specific Project.
 3. Manufacturer Certificates: Submit written statements on manufacturer's letterhead, certifying that manufacturer complies with requirements in the Contract Documents. Include evidence of manufacturing experience where required.
 4. Material Certificates: Submit written statements on manufacturer's letterhead, certifying that material complies with requirements in the Contract Documents.
 5. Product Certificates: Submit written statements on manufacturer's letterhead, certifying that product complies with requirements in the Contract Documents.
 6. Welding Certificates: Prepare written certification that welding procedures and personnel comply with requirements in the Contract Documents. Submit record of AWS B2.1/B2.1M on AWS forms. Include names of firms and personnel certified.
- H. Test and Research Reports:
1. Compatibility Test Reports: Submit reports written by a qualified testing agency, on testing agency's standard form, indicating and interpreting results of compatibility tests performed before installation of product. Include written recommendations for substrate preparation and primers required.
 2. Field Test Reports: Submit written reports indicating and interpreting results of field tests performed either during installation of product or after product is installed in its final location, for compliance with requirements in the Contract Documents.
 3. Material Test Reports: Submit reports written by a qualified testing agency, on testing agency's standard form, indicating and interpreting test results of material for compliance with requirements in the Contract Documents.

4. Preconstruction Test Reports: Submit reports written by a qualified testing agency, on testing agency's standard form, indicating and interpreting results of tests performed before installation of product, for compliance with performance requirements in the Contract Documents.
5. Product Test Reports: Submit written reports indicating that current product produced by manufacturer complies with requirements in the Contract Documents. Base reports on evaluation of tests performed by manufacturer and witnessed by a qualified testing agency, or on comprehensive tests performed by a qualified testing agency.
6. Research Reports: Submit written evidence, from a model code organization acceptable to authorities having jurisdiction, that product complies with building code in effect for Project. Include the following information:
 - a. Name of evaluation organization.
 - b. Date of evaluation.
 - c. Time period when report is in effect.
 - d. Product and manufacturers' names.
 - e. Description of product.
 - f. Test procedures and results.
 - g. Limitations of use.

1.7 CONTRACTOR'S REVIEW

- A. Action Submittals and Informational Submittals: Review each submittal and check for coordination with other Work of the Contract and for compliance with the Contract Documents. Note corrections and field dimensions. Mark with approval stamp before submitting to Engineer.
- B. Contractor's Approval: Indicate Contractor's approval for each submittal with a uniform approval stamp, and indication in web-based Project management software. Include name of reviewer, date of Contractor's approval, and statement certifying that submittal has been reviewed, checked, and approved for compliance with the Contract Documents.
 1. Engineer will not review submittals received from Contractor that do not have Contractor's review and approval.

1.8 ENGINEER'S REVIEW

- A. Action Submittals: Engineer will review each submittal, indicate corrections or revisions required.
 1. PDF Submittals: Engineer will indicate, via markup on each submittal, the appropriate action.
 - 1) APPROVED: The work involved may proceed, and no further submission is required.
 - 2) APPROVED AS NOTED: The work involved may proceed incorporating comments. Annotations do not authorize changes to Contract Sum.
 - 3) REVISE AND RESUBMIT: The work involved may not proceed. Submittal must be corrected and resubmitted.

- 4) REJECTED: The submittal is not in accordance with the Contract Documents, and a completely new submittal is required
2. Submittals by Web-Based Project Management Software: Engineer will indicate, on Project management software website, the appropriate action.
 - a. Actions taken by indication on Project management software website have the following meanings:
 - 1) APPROVED: The work involved may proceed, and no further submission is required.
 - 2) APPROVED AS NOTED: The work involved may proceed incorporating comments. Annotations do not authorize changes to Contract Sum.
 - 3) REVISE AND RESUBMIT: The work involved may not proceed. Submittal must be corrected and resubmitted.
 - 4) REJECTED: The submittal is not in accordance with the Contract Documents, and a completely new submittal is required
 - B. Informational Submittals: Engineer will review each submittal and will not return it, or will return it if it does not comply with requirements. Engineer will forward each submittal to appropriate party.
 - C. Partial submittals prepared for a portion of the Work will be reviewed when use of partial submittals has received prior approval from Engineer.
 - D. Incomplete submittals are unacceptable, will be considered nonresponsive, and will be returned for resubmittal without review.
 - E. Submittals not required by the Contract Documents will be returned by Engineer without action.

PART 2 - PRODUCTS (Not Used)

PART 3 - EXECUTION (Not Used)

END OF SECTION 013300

SECTION 014000 - QUALITY REQUIREMENTS

PART 1 - GENERAL

1.1 RELATED DOCUMENTS

- A. Drawings and general provisions of the Contract, including General and Supplementary Conditions and other Division 01 Specification Sections, apply to this Section.

1.2 SUMMARY

- A. Section includes administrative and procedural requirements for quality assurance and quality control.
- B. Testing and inspection services are required to verify compliance with requirements specified or indicated. These services do not relieve Contractor of responsibility for compliance with the Contract Document requirements.
 - 1. Specific quality-assurance and quality-control requirements for individual work results are specified in their respective Specification Sections. Requirements in individual Sections may also cover production of standard products.
 - 2. Specified tests, inspections, and related actions do not limit Contractor's other quality-assurance and quality-control procedures that facilitate compliance with the Contract Document requirements.
 - 3. Requirements for Contractor to provide quality-assurance and quality-control services required by Engineer, Owner, **Commissioning Authority**, or authorities having jurisdiction are not limited by provisions of this Section.

1.3 DEFINITIONS

- A. Experienced: When used with an entity or individual, "experienced," unless otherwise further described, means having successfully completed a minimum of **five** previous projects similar in nature, size, and extent to this Project; being familiar with special requirements indicated; and having complied with requirements of authorities having jurisdiction.
- B. Field Quality-Control Tests and Inspections: Tests and inspections that are performed on-site for installation of the Work and for completed Work.
- C. Installer/Applicator/Erector: Contractor or another entity engaged by Contractor as an employee, subcontractor, or sub-subcontractor, to perform a particular construction operation, including installation, erection, application, assembly, and similar operations.
 - 1. Use of trade-specific terminology in referring to a Work result does not require that certain construction activities specified apply exclusively to specific trade(s).

- D. Mockups: Physical assemblies of portions of the Work constructed to establish the standard by which the Work will be judged. Mockups are not Samples.
 - 1. Mockups are used for one or more of the following:
 - a. Verify selections made under Sample submittals.
 - b. Demonstrate aesthetic effects.
 - c. Demonstrate the qualities of products and workmanship.
 - d. Demonstrate successful installation of interfaces between components and systems.
 - e. Perform preconstruction testing to determine system performance.
 - 2. In-Place Mockups: Mockups constructed on-site in their actual final location as part of permanent construction.
- E. Preconstruction Testing: Tests and inspections performed specifically for Project before products and materials are incorporated into the Work, to verify performance or compliance with specified criteria. Unless otherwise indicated, copies of reports of tests or inspections performed for other than the Project do not meet this definition.
- F. Product Tests: Tests and inspections that are performed by a nationally recognized testing laboratory (NRTL) according to 29 CFR 1910.7, by a testing agency accredited according to NIST's National Voluntary Laboratory Accreditation Program (NVLAP), or by a testing agency qualified to conduct product testing and acceptable to authorities having jurisdiction, to establish product performance and compliance with specified requirements.
- G. Source Quality-Control Tests and Inspections: Tests and inspections that are performed at the source (e.g., plant, mill, factory, or shop).
- H. Testing Agency: An entity engaged to perform specific tests, inspections, or both. The term "testing laboratory" has the same meaning as the term "testing agency."
- I. Quality-Assurance Services: Activities, actions, and procedures performed before and during execution of the Work, to guard against defects and deficiencies and substantiate that proposed construction will comply with requirements.
- J. Quality-Control Services: Tests, inspections, procedures, and related actions during and after execution of the Work, to evaluate that actual products incorporated into the Work and completed construction comply with requirements. Contractor's quality-control services do not include contract administration activities performed by Engineer.

1.4 INFORMATIONAL SUBMITTALS

- A. Contractor's Quality-Control Plan: For quality-assurance and quality-control activities and responsibilities.
- B. Qualification Data: For Contractor's quality-control personnel.
- C. Contractor's Statement of Responsibility: When required by authorities having jurisdiction, submit copy of written statement of responsibility submitted to authorities having jurisdiction before starting work on the following systems:

1. Seismic-force-resisting system, designated seismic system, or component listed in the Statement of Special Inspections.
 2. Primary wind-force-resisting system or a wind-resisting component listed in the Statement of Special Inspections.
- D. Testing Agency Qualifications: For testing agencies specified in "Quality Assurance" Article to demonstrate their capabilities and experience. Include proof of qualifications in the form of a recent report on the inspection of the testing agency by a recognized authority.
- E. Reports: Prepare and submit certified written reports and documents as specified.
- F. Permits, Licenses, and Certificates: For Owner's record, submit copies of permits, licenses, certifications, inspection reports, releases, jurisdictional settlements, notices, receipts for fee payments, judgments, correspondence, records, and similar documents established for compliance with standards and regulations bearing on performance of the Work.

1.5 CONTRACTOR'S QUALITY-CONTROL PLAN

- A. Quality-Control Plan, General: Submit quality-control plan within **10** days of **Notice to Proceed**, and not less than five days prior to preconstruction conference. Submit in format acceptable to Engineer. Identify personnel, procedures, controls, instructions, tests, records, and forms to be used to carry out Contractor's quality-assurance and quality-control responsibilities and to coordinate Owner's quality-assurance and quality-control activities. Coordinate with Contractor's Construction Schedule.
- B. Submittal Procedure: Describe procedures for ensuring compliance with requirements through review and management of submittal process. Indicate qualifications of personnel responsible for submittal review.
- C. Continuous Inspection of Workmanship: Describe process for continuous inspection during construction to identify and correct deficiencies in workmanship in addition to testing and inspection specified. Indicate types of corrective actions to be required to bring the Work into compliance with standards of workmanship established by Contract requirements and approved mockups.
- D. Monitoring and Documentation: Maintain testing and inspection reports, including log of approved and rejected results. Include Work Engineer has indicated as nonconforming or defective. Indicate corrective actions taken to bring nonconforming Work into compliance with requirements. Comply with requirements of authorities having jurisdiction.

1.6 REPORTS AND DOCUMENTS

- A. Manufacturer's Technical Representative's Field Reports: Prepare written information documenting manufacturer's technical representative's tests and inspections specified in other Sections. Include the following:
1. Name, address, telephone number, and email address of technical representative making report.
 2. Statement on condition of substrates and their acceptability for installation of product.

3. Statement that products at Project site comply with requirements.
4. Summary of installation procedures being followed, whether they comply with requirements and, if not, what corrective action was taken.
5. Results of operational and other tests and a statement of whether observed performance complies with requirements.
6. Statement of whether conditions, products, and installation will affect warranty.
7. Other required items indicated in individual Specification Sections.

1.7 QUALITY ASSURANCE

- A. Qualifications paragraphs in this article establish the minimum qualification levels required; individual Specification Sections specify additional requirements.
- B. Manufacturer Qualifications: A firm experienced in manufacturing products or systems similar to those indicated for this Project and with a record of successful in-service performance, as well as sufficient production capacity to produce required units. As applicable, procure products from manufacturers able to meet qualification requirements, warranty requirements, and technical or factory-authorized service representative requirements.
- C. Fabricator Qualifications: A firm experienced in producing products similar to those indicated for this Project and with a record of successful in-service performance, as well as sufficient production capacity to produce required units.
- D. Installer Qualifications: A firm or individual experienced in installing, erecting, applying, or assembling work similar in material, design, and extent to that indicated for this Project, whose work has resulted in construction with a record of successful in-service performance.

1.8 QUALITY CONTROL

- A. Contractor Responsibilities: Tests and inspections not explicitly assigned to Owner are Contractor's responsibility. Perform additional quality-control activities, whether specified or not, to verify and document that the Work complies with requirements.
 1. Unless otherwise indicated, provide quality-control services specified and those required by authorities having jurisdiction. Perform quality-control services required of Contractor by authorities having jurisdiction, whether specified or not.
 2. Engage a qualified testing agency to perform quality-control services.
 3. Notify testing agencies at least **24** hours in advance of time when Work that requires testing or inspection will be performed.
 4. Where quality-control services are indicated as Contractor's responsibility, submit a certified written report, in duplicate, of each quality-control service.
 5. Testing and inspection requested by Contractor and not required by the Contract Documents are Contractor's responsibility.
 6. Submit additional copies of each written report directly to authorities having jurisdiction, when they so direct.
- B. Contractor's Associated Requirements and Services: Cooperate with agencies and representatives performing required tests, inspections, and similar quality-control services, and

provide reasonable auxiliary services as requested. Notify agency sufficiently in advance of operations to permit assignment of personnel. Provide the following:

1. Access to the Work.
 2. Incidental labor and facilities necessary to facilitate tests and inspections.
 3. Adequate quantities of representative samples of materials that require testing and inspection. Assist agency in obtaining samples.
 4. Facilities for storage and field curing of test samples.
 5. Preliminary design mix proposed for use for material mixes that require control by testing agency.
 6. Security and protection for samples and for testing and inspection equipment at Project site.
- C. Coordination: Coordinate sequence of activities to accommodate required quality-assurance and quality-control services with a minimum of delay and to avoid necessity of removing and replacing construction to accommodate testing and inspection.
1. Schedule times for tests, inspections, obtaining samples, and similar activities.

PART 2 - PRODUCTS (Not Used)

PART 3 - EXECUTION (Not Used)

END OF SECTION 014000

SECTION 015000 - TEMPORARY FACILITIES AND CONTROLS

PART 1 - GENERAL

1.1 RELATED DOCUMENTS

- A. Drawings and general provisions of the Contract, including General and Supplementary Conditions and other Division 01 Specification Sections, apply to this Section.

1.2 SUMMARY

- A. Section includes requirements for temporary utilities, support facilities, and security and protection facilities.
- B. Related Requirements:
 - 1. Section 011000 "Summary" for work restrictions and limitations on utility interruptions.

1.3 INFORMATIONAL SUBMITTALS

- A. Site Utilization Plan: Show temporary facilities, temporary utility lines and connections, staging areas, construction site entrances, vehicle circulation, and parking areas for construction personnel.
- B. Implementation and Termination Schedule: Within **15** days of date established for commencement of the Work, submit schedule indicating implementation and termination dates of each temporary utility.
- C. Project Identification and Temporary Signs: Show fabrication and installation details, including plans, elevations, details, layouts, typestyles, graphic elements, and message content.
- D. Fire-Safety Program: Show compliance with requirements of NFPA 241 and authorities having jurisdiction. Indicate Contractor personnel responsible for management of fire-prevention program.

1.4 PROJECT CONDITIONS

- A. Temporary Use of Permanent Facilities: Engage Installer of each permanent service to assume responsibility for operation, maintenance, and protection of each permanent service during its use as a construction facility before Owner's acceptance, regardless of previously assigned responsibilities.

PART 2 - PRODUCTS

2.1 EQUIPMENT

- A. Fire Extinguishers: Portable, UL rated; with class and extinguishing agent as required by locations and classes of fire exposures.

PART 3 - EXECUTION

3.1 TEMPORARY FACILITIES, GENERAL

- A. Locate facilities where they will serve Project adequately and result in minimum interference with performance of the Work. Relocate and modify facilities as required by progress of the Work.
- B. General: Install temporary service or connect to existing service.
- C. Temporary Signs: Provide other signs as indicated and as required to inform public and individuals seeking entrance to Project Area. Provide temporary, directional signs for construction personnel and visitors.
- D. Waste Disposal Facilities: Comply with requirements specified in Section 017419 "Construction Waste Management and Disposal."
- E. Waste Disposal Facilities: Provide waste-collection containers in sizes adequate to handle waste from construction operations. Comply with requirements of authorities having jurisdiction. Comply with progress cleaning requirements in Section 017300 "Execution."

3.2 FIELD OFFICE

- A. Provision of a field office is not required unless specified in the conditions of this contract. If the Contractor chooses to provide one, locate it in a place approved by the Owner Representative.

3.3 STORAGE OF MATERIALS

- A. Provide adequately ventilated, watertight storage facilities with floor above ground level for materials and equipment susceptible to weather damage.
- B. Storage of materials not susceptible to weather damage may be on blocks off the ground.
- C. Store materials in a neat and orderly manner. Place materials and equipment to permit easy access for identification, inspection and inventory.
- D. Contractor is responsible for materials and equipment stored on and off site.

3.4 SECURITY AND PROTECTION FACILITIES INSTALLATION

- A. Protection of Existing Facilities: Protect existing vegetation, equipment, structures, utilities, and other improvements at Project site and on adjacent properties, except those indicated to be removed or altered. Repair damage to existing facilities.
 - 1. Where access to adjacent properties is required in order to affect protection of existing facilities, obtain written permission from adjacent property owner to access property for that purpose.
- B. Environmental Protection: Provide protection, operate temporary facilities, and conduct construction as required to comply with environmental regulations and that minimize possible air, waterway, and subsoil contamination or pollution or other undesirable effects.
 - 1. Comply with work restrictions specified in Section 011000 "Summary."
- C. Security Enclosure and Lockup: Install temporary enclosure around partially completed areas of construction. Provide lockable entrances to prevent unauthorized entrance, vandalism, theft, and similar violations of security. Lock entrances at end of each workday.
- D. Barricades, Warning Signs, and Lights: Comply with requirements of authorities having jurisdiction for erecting structurally adequate barricades, including warning signs and lighting.
 - 1. Provide overhead decking, protective enclosure walls, handrails, barricades, warning signs, exit signs, lights, safe and well-drained walkways, and similar provisions for protection and safe passage.
 - 2. Paint and maintain appearance of walkway for duration of the Work.
- E. Protection Of Installed Products.
 - 1. Provide protection of installed products to prevent damage from subsequent operations. Remove protection facilities when no longer needed, prior to completion of Work.
 - 2. Control traffic to prevent damage to equipment, materials, and surfaces.
- F. Roads And Parking
 - 1. Prevent interference with traffic and Owner operations on existing roads.
 - 2. Designate temporary parking areas to accommodate construction personnel. When site space is not adequate, provide additional off-site parking. Locate as approved by Owner.
 - 3. Minimize use by construction traffic of existing residential streets and driveways.
 - 4. Do not allow heavy vehicles or construction equipment in existing parking areas.
- G. Environmental Controls
 - 1. Provide and maintain methods, equipment, and temporary construction as necessary for controls over environmental conditions at the construction site and adjacent areas.
 - 2. Comply with statutes, regulations, and ordinances which relate to the proposed Work for the prevention of environmental pollution and preservation of natural resources, including but not limited to the National Environmental Policy Act of 1969, PL 91-190, Executive Order 11514.
 - 3. Burning of rubbish, debris or waste materials is not permitted.

H. Pollution Control

1. Provide methods, means, and facilities required to prevent contamination of soil, water or atmosphere by discharge of noxious substances from construction operations.
2. Provide equipment and personnel to perform emergency measures required to contain any spillage, and to remove contaminated soils or liquids. Excavate and dispose of any contaminated earth off-site in accordance with laws and regulations, and replace with suitable compacted fill and topsoil.
3. Take special measures to prevent harmful substances from entering public waters. Prevent disposal of wastes, effluents, chemicals, or other such substances adjacent to streams, or in sanitary or storm sewers.
4. Provide systems for control of atmospheric pollutants. 1. Prevent toxic concentrations of chemicals.
 - a. Prevent harmful dispersal of pollutants into the environment.
5. Use equipment during construction that conforms to current Federal, State, and local laws and regulations.

I. Pest And Rodent Control

1. Provide rodent and pest control as necessary to prevent infestation of construction or storage areas.
2. Employ methods and use materials which will not adversely affect conditions at the site or on adjoining properties.

J. Noise Control

1. Provide vehicles, equipment, and construction activities that minimize noise to the greatest degree practicable. Noise levels shall conform to the latest OSHA standards and Township Ordinances and in no case will noise levels be permitted which create a nuisance in the surrounding neighborhoods.
2. Conduct construction operations during daylight hours except as approved by Owner Representative.

K. Dust Control

1. Control objectionable dust caused by operation of vehicles and equipment. Apply water or use other methods, subject to approval of the Owner Representative, which will control the amount of dust generated.

3.5 OPERATION, TERMINATION, AND REMOVAL

- A. Supervision: Enforce strict discipline in use of temporary facilities. To minimize waste and abuse, limit availability of temporary facilities to essential and intended uses.
- B. Termination and Removal: Remove each temporary facility when need for its service has ended, when it has been replaced by authorized use of a permanent facility, or no later than Substantial Completion. Complete or, if necessary, restore permanent construction that may have been delayed because of interference with temporary facility. Repair damaged Work, clean exposed surfaces, and replace construction that cannot be satisfactorily repaired.
 1. Materials and facilities that constitute temporary facilities are property of Contractor. Owner reserves right to take possession of Project identification signs.

2. At Substantial Completion, repair, renovate, and clean permanent facilities used during construction period. Comply with final cleaning requirements specified in Section 017700 "Closeout Procedures."

END OF SECTION 015000

SECTION 016000 - PRODUCT REQUIREMENTS

PART 1 - GENERAL

1.1 RELATED DOCUMENTS

- A. Drawings and general provisions of the Contract, including General and Supplementary Conditions and other Division 01 Specification Sections, apply to this Section.

1.2 SUMMARY

- A. Section includes administrative and procedural requirements for selection of products for use in Project; product delivery, storage, and handling; manufacturers' standard warranties on products; special warranties; and comparable products.
- B. Related Requirements:
 - 1. Section 011000 "Summary" for Contractor requirements related to Owner-furnished products.
 - 2. Section 012500 "Substitution Procedures" for requests for substitutions.
 - 3. Section 01770 "Closeout Procedures" for submitting warranties.

1.3 DEFINITIONS

- A. Products: Items obtained for incorporating into the Work, whether purchased for Project or taken from previously purchased stock. The term "product" includes the terms "material," "equipment," "system," and terms of similar intent.
 - 1. Named Products: Items identified by manufacturer's product name, including make or model number or other designation shown or listed in manufacturer's published product literature that is current as of date of the Contract Documents.
 - 2. New Products: Items that have not previously been incorporated into another project or facility. Salvaged items or items reused from other projects are not considered new products. Items that are manufactured or fabricated to include recycled content materials are considered new products, unless indicated otherwise.
 - 3. Comparable Product: Product by named manufacturer that is demonstrated and approved through the comparable product submittal process described in Part 2 "Comparable Products" Article, to have the indicated qualities related to type, function, dimension, in-service performance, physical properties, appearance, and other characteristics that equal or exceed those of specified product.
- B. Basis-of-Design Product Specification: A specification in which a single manufacturer's product is named and accompanied by the words "basis-of-design product," including make or model number or other designation. Published attributes and characteristics of basis-of-design product establish salient characteristics of products.

1. Evaluation of Comparable Products: In addition to the basis-of-design product description, product attributes and characteristics may be listed to establish the significant qualities related to type, function, in-service performance and physical properties, weight, dimension, durability, visual characteristics, and other special features and requirements for purposes of evaluating comparable products of additional manufacturers named in the specification.
- C. Subject to Compliance with Requirements: Where the phrase "Subject to compliance with requirements" introduces a product selection procedure in an individual Specification Section, provide products qualified under the specified product procedure. In the event that a named product or product by a named manufacturer does not meet the other requirements of the specifications, select another named product or product from another named manufacturer that does meet the requirements of the specifications; submit a comparable product request or substitution request, if applicable.
- D. Comparable Product Request Submittal: An action submittal requesting consideration of a comparable product, including the following information:
1. Identification of basis-of-design product or fabrication or installation method to be replaced, including Specification Section number and title and Drawing numbers and titles.
 2. Data indicating compliance with the requirements specified in Part 2 "Comparable Products" Article.
- E. Basis-of-Design Product Specification Submittal: An action submittal complying with requirements in Section 013300 "Submittal Procedures."
- F. Substitution: Refer to Section 012500 "Substitution Procedures" for definition and limitations on substitutions.
- 1.4 QUALITY ASSURANCE
- A. Compatibility of Options: If Contractor is given option of selecting between two or more products for use on Project, select product compatible with products previously selected, even if previously selected products were also options.
- a. Contractors are responsible for providing products and construction methods compatible with products and construction methods of other contractors.
 - b. If a dispute arises between the multiple contractors over concurrently selectable but incompatible products, Engineer will determine which products shall be used.
- B. Identification of Products: Except for required labels and operating data, do not attach or imprint manufacturer or product names or trademarks on exposed surfaces of products or equipment that will be exposed to view in occupied spaces or on the exterior.
1. Labels: Locate required product labels and stamps on a concealed surface, or, where required for observation following installation, on a visually accessible surface that is not conspicuous.

2. Equipment Nameplates: Provide a permanent nameplate on each item of service- or power-operated equipment. Locate on a visually accessible but inconspicuous surface. Include information essential for operation, including the following:
 - a. Name of product and manufacturer.
 - b. Model and serial number.
 - c. Capacity.
 - d. Speed.
 - e. Ratings.
3. See individual identification Sections in Divisions -22, and 26 for additional equipment identification requirements.

1.5 COORDINATION

- A. Modify or adjust affected work as necessary to integrate work of approved comparable products and approved substitutions.

1.6 PRODUCT DELIVERY, STORAGE, AND HANDLING

- A. Deliver, store, and handle products, using means and methods that will prevent damage, deterioration, and loss, including theft and vandalism. Comply with manufacturer's written instructions.
- B. Delivery and Handling:
 1. Schedule delivery to minimize long-term storage at Project site and to prevent overcrowding of construction spaces.
 2. Coordinate delivery with installation time to ensure minimum holding time for items that are flammable, hazardous, easily damaged, or sensitive to deterioration, theft, and other losses.
 3. Deliver products to Project site in an undamaged condition in manufacturer's original sealed container or other packaging system, complete with labels and instructions for handling, storing, unpacking, protecting, and installing.
 4. Inspect products on delivery to determine compliance with the Contract Documents and that products are undamaged and properly protected.
- C. Storage:
 1. Provide a secure location and enclosure at Project site for storage of materials and equipment.
 2. Store products to allow for inspection and measurement of quantity or counting of units.
 3. Store materials in a manner that will not endanger Project structure.
 4. Store products that are subject to damage by the elements under cover in a weathertight enclosure above ground, with ventilation adequate to prevent condensation and with adequate protection from wind.
 5. Protect foam plastic from exposure to sunlight, except to extent necessary for period of installation and concealment.

6. Comply with product manufacturer's written instructions for temperature, humidity, ventilation, and weather-protection requirements for storage.
7. Protect stored products from damage and liquids from freezing.

1.7 PRODUCT WARRANTIES

- A. Warranties specified in other Sections shall be in addition to, and run concurrent with, other warranties required by the Contract Documents. Manufacturer's disclaimers and limitations on product warranties do not relieve Contractor of obligations under requirements of the Contract Documents.
 1. Manufacturer's Warranty: Written standard warranty form furnished by individual manufacturer for a particular product and issued in the name of the Owner or endorsed by manufacturer to Owner.
 2. Special Warranty: Written warranty required by the Contract Documents to provide specific rights for Owner and issued in the name of the Owner or endorsed by manufacturer to Owner.
- B. Special Warranties: Prepare a written document that contains appropriate terms and identification, ready for execution.
 1. Manufacturer's Standard Form: Modified to include Project-specific information and properly executed.
 2. Specified Form: When specified forms are included in the Project Manual, prepare a written document, using indicated form properly executed.
 3. See other Sections for specific content requirements and particular requirements for submitting special warranties.
- C. Submittal Time: Comply with requirements in Section 017700 "Closeout Procedures."

PART 2 - PRODUCTS

2.1 PRODUCT SELECTION PROCEDURES

- A. General Product Requirements: Provide products that comply with the Contract Documents, are undamaged and, unless otherwise indicated, are new at time of installation.
 1. Provide products complete with accessories, trim, finish, fasteners, and other items needed for a complete installation and indicated use and effect.
 2. Owner reserves the right to limit selection to products with warranties meeting requirements of the Contract Documents.
 3. Where products are accompanied by the term "as selected," Engineer will make selection.
 4. Descriptive, performance, and reference standard requirements in the Specifications establish salient characteristics of products.
 5. Or Equal: For products specified by name and accompanied by the term "or equal," "or approved equal," or "or approved," comply with requirements in "Comparable Products" Article to obtain approval for use of an unnamed product.

- a. Submit additional documentation required by Engineer in order to establish equivalency of proposed products. Unless otherwise indicated, evaluation of "or equal" product status is by the Engineer, whose determination is final.

B. Product Selection Procedures:

1. Limited List of Products: Where Specifications include a list of names of both manufacturers and products, provide one of the products listed that complies with requirements. Comparable products or substitutions for Contractor's convenience will not be considered unless otherwise indicated.
 - a. Limited list of products may be indicated by the phrase "Subject to compliance with requirements, provide one of the following."
2. Limited List of Manufacturers: Where Specifications include a list of manufacturers' names, provide a product by one of the manufacturers listed that complies with requirements. Comparable products or substitutions for Contractor's convenience **will** be considered
 - a. Limited list of manufacturers is indicated by the phrase "Subject to compliance with requirements, provide products by one of the following."
3. Basis-of-Design Product: Where Specifications name a product, or refer to a product indicated on Drawings, and include a list of manufacturers, provide the specified or indicated product or a comparable product by one of the other named manufacturers. Drawings and Specifications may additionally indicate sizes, profiles, dimensions, and other characteristics that are based on the product named. Comply with requirements in "Comparable Products" Article for consideration of an unnamed product by one of the other named manufacturers.
 - a. For approval of products by unnamed manufacturers, comply with requirements in Section 012500 "Substitution Procedures" for substitutions for convenience.

C. Visual Matching Specification: Where Specifications require the phrase "match Engineer's sample," provide a product that complies with requirements and matches Engineer's sample. Engineer's decision will be final on whether a proposed product matches.

1. If no product available within specified category matches and complies with other specified requirements, comply with requirements in Section 012500 "Substitution Procedures" for proposal of product.

D. Visual Selection Specification: Where Specifications include the phrase "as selected by Engineer from manufacturer's full range" or a similar phrase, select a product that complies with requirements. Engineer will select color, gloss, pattern, density, or texture from manufacturer's product line that includes both standard and premium items.

E. Sustainable Product Selection: Where Specifications require product to meet sustainable product characteristics, select products complying with indicated requirements. Comply with requirements in Division 01 sustainability requirements Section and individual Specification Sections.

1. Select products for which sustainable design documentation submittals are available from manufacturer.

2.2 COMPARABLE PRODUCTS

- A. Conditions for Consideration of Comparable Products: Engineer will consider Contractor's request for comparable product when the following conditions are satisfied. If the following conditions are not satisfied, Engineer may return requests without action, except to record noncompliance with the following requirements:
 1. Evidence that proposed product does not require revisions to the Contract Documents, is consistent with the Contract Documents, will produce the indicated results, and is compatible with other portions of the Work.
 2. Detailed comparison of significant qualities of proposed product with those of the named basis-of-design product. Significant product qualities include attributes, such as type, function, in-service performance and physical properties, weight, dimension, durability, visual characteristics, and other specific features and requirements.
 3. Evidence that proposed product provides specified warranty.
 4. List of similar installations for completed projects, with project names and addresses and names and addresses of Engineers and owners, if requested.
 5. Samples, if requested.
- B. Engineer's Action on Comparable Products Submittal: If necessary, Engineer will request additional information or documentation for evaluation, as specified in Section 013300 "Submittal Procedures."
 1. Form of Approval of Submittal: As specified in Section 013300 "Submittal Procedures."
 2. Use product specified if Engineer does not issue a decision on use of a comparable product request within time allocated.
- C. Submittal Requirements, Two-Step Process: Approval by the Engineer of Contractor's request for use of comparable product is not intended to satisfy other submittal requirements. Comply with specified submittal requirements.

PART 3 - EXECUTION (Not Used)

END OF SECTION 016000

SECTION 017300 - EXECUTION

PART 1 - GENERAL

1.1 SUMMARY

- A. Section includes general administrative and procedural requirements governing execution of the Work, including, but not limited to, the following:
 - 1. Installation of the Work.
 - 2. Cutting and patching.
 - 3. Coordination of Owner-installed products.
 - 4. Progress cleaning.
 - 5. Starting and adjusting.
 - 6. Protection of installed construction.
 - 7. Correction of the Work.
- B. Related Requirements:
 - 1. Section 017700 "Closeout Procedures" for submitting final property survey with Project Record Documents, recording of Owner-accepted deviations from indicated lines and levels, replacing defective work, and final cleaning.

1.2 DEFINITIONS

- A. Cutting: Removal of in-place construction necessary to permit installation or performance of subsequent work.
- B. Patching: Fitting and repair work required to restore construction to original conditions after installation of subsequent work.

1.3 QUALITY ASSURANCE

- A. Professional Engineer Qualifications: Refer to Section 014000 "Quality Requirements."
- B. Cutting and Patching: Comply with requirements for and limitations on cutting and patching of construction elements.
 - 1. Operational Elements: Do not cut and patch operating elements and related components in a manner that results in reducing their capacity to perform as intended or that results in increased maintenance or decreased operational life or safety.
- C. Manufacturer's Installation Instructions: Obtain and maintain on-site manufacturer's written recommendations and instructions for installation of specified products and equipment.

PART 2 - PRODUCTS

2.1 MATERIALS

- A. Comply with requirements specified in other Sections.
 - 1. For projects requiring compliance with sustainable design and construction practices and procedures, use products for patching that comply with sustainable design requirements.
- B. In-Place Materials: Use materials for patching identical to in-place materials. For exposed surfaces, use materials that visually match in-place adjacent surfaces to the fullest extent possible.
 - 1. If identical materials are unavailable or cannot be used, use materials that, when installed, will provide a match acceptable to Engineer for the visual and functional performance of in-place materials. Use materials that are not considered hazardous.
- C. Cleaning Agents: Use cleaning materials and agents recommended by manufacturer or fabricator of the surface to be cleaned. Do not use cleaning agents that are potentially hazardous to health or property or that might damage finished surfaces.
 - 1. Use cleaning products that comply with Green Seal's GS-37, or if GS-37 is not applicable, use products that comply with the California Code of Regulations maximum allowable VOC levels.

PART 3 - EXECUTION

3.1 EXAMINATION

- A. Examination and Acceptance of Conditions: Before proceeding with each component of the Work, examine substrates, areas, and conditions, with Installer or Applicator present where indicated, for compliance with requirements for installation tolerances and other conditions affecting performance. Record observations.
 - 1. Examine roughing-in for mechanical and electrical systems to verify actual locations of connections before equipment and fixture installation.
 - 2. Examine walls, floors, and roofs for suitable conditions where products and systems are to be installed.
 - 3. Verify compatibility with and suitability of substrates, including compatibility with existing finishes or primers.
- B. Proceed with installation only after unsatisfactory conditions have been corrected. Proceeding with the Work indicates acceptance of surfaces and conditions.

3.2 PREPARATION

- A. Existing Utility Information: Furnish information to local utility that is necessary to adjust, move, or relocate existing utility structures, utility poles, lines, services, or other utility appurtenances located in or affected by construction. Coordinate with authorities having jurisdiction.
- B. Field Measurements: Take field measurements as required to fit the Work properly. Recheck measurements before installing each product. Where portions of the Work are indicated to fit to other construction, verify dimensions of other construction by field measurements before fabrication. Coordinate fabrication schedule with construction progress to avoid delaying the Work.
- C. Space Requirements: Verify space requirements and dimensions of items shown diagrammatically on Drawings.

3.3 INSTALLATION

- A. Comply with manufacturer's written instructions and recommendations for installing products in applications indicated.
- B. Install products at the time and under conditions that will ensure satisfactory results as judged by Engineer. Maintain conditions required for product performance until Substantial Completion.
- C. Conduct construction operations, so no part of the Work is subjected to damaging operations or loading in excess of that expected during normal conditions of occupancy of type expected for Project.
- D. Tools and Equipment: Select tools or equipment that minimize production of excessive noise levels.
- E. Templates: Obtain and distribute to the parties involved templates for Work specified to be factory prepared and field installed. Check Shop Drawings of other portions of the Work to confirm that adequate provisions are made for locating and installing products to comply with indicated requirements.
- F. Attachment: Provide blocking and attachment plates and anchors and fasteners of adequate size and number to securely anchor each component in place, accurately located and aligned with other portions of the Work. Where size and type of attachments are not indicated, verify size and type required for load conditions with manufacturer.
- G. Joints: Make joints of uniform width. Where joint locations in exposed Work are not indicated, arrange joints for the best visual effect, as judged by Engineer. Fit exposed connections together to form hairline joints.

3.4 CUTTING AND PATCHING

- A. General: Employ skilled workers to perform cutting and patching. Proceed with cutting and patching at the earliest feasible time, and complete without delay.
- B. Existing Warranties: Remove, replace, patch, and repair materials and surfaces cut or damaged during installation or cutting and patching operations, by methods and with materials so as not to void existing warranties.
- C. Temporary Support: Provide temporary support of Work to be cut.
- D. Protection: Protect in-place construction during cutting and patching to prevent damage. Provide protection from adverse weather conditions for portions of Project that might be exposed during cutting and patching operations.
- E. Existing Utility Services and Mechanical/Electrical Systems: Where existing services/systems are required to be removed, relocated, or abandoned, bypass such services/systems before cutting to **minimize** interruption to occupied areas.
- F. Cutting: Cut in-place construction by sawing, drilling, breaking, chipping, grinding, and similar operations, including excavation, using methods least likely to damage elements retained or adjoining construction. If possible, review proposed procedures with original Installer; comply with original Installer's written recommendations.
 - 1. In general, use hand or small power tools designed for sawing and grinding, not hammering and chopping. Cut holes and slots neatly to minimum size required, and with minimum disturbance of adjacent surfaces. Temporarily cover openings when not in use.
 - 2. Finished Surfaces: Cut or drill from the exposed or finished side into concealed surfaces.
- G. Patching: Patch construction by filling, repairing, refinishing, closing up, and similar operations following performance of other Work. Patch with durable seams that are as invisible as practicable, as judged by Engineer. Provide materials and comply with installation requirements specified in other Sections, where applicable.
 - 1. Inspection: Where feasible, test and inspect patched areas after completion to demonstrate physical integrity of installation.
 - 2. Exposed Finishes: Restore exposed finishes of patched areas and extend finish restoration into retained adjoining construction in a manner that will eliminate evidence of patching and refinishing.
 - a. Clean piping, conduit, and similar features before applying paint or other finishing materials.
 - b. Restore damaged pipe covering to its original condition.
 - 3. Exterior Building Enclosure: Patch components in a manner that restores enclosure to a weathertight condition and ensures thermal and moisture integrity of building enclosure.
- H. Cleaning: Clean areas and spaces where cutting and patching are performed. Remove paint, mortar, oils, putty, and similar materials from adjacent finished surfaces.

3.5 PROGRESS CLEANING

- A. Clean Project site and work areas daily, including common areas. Enforce requirements strictly. Dispose of materials lawfully.
 - 1. Comply with requirements in NFPA 241 for removal of combustible waste materials and debris.
 - 2. Containerize hazardous and unsanitary waste materials separately from other waste. Mark containers appropriately and dispose of legally, according to regulations.
- B. Work Areas: Clean areas where Work is in progress to the level of cleanliness necessary for proper execution of the Work.
 - 1. Remove liquid spills promptly.
 - 2. Where dust would impair proper execution of the Work, broom-clean or vacuum the entire work area, as appropriate.
- C. Installed Work: Keep installed work clean. Clean installed surfaces according to written instructions of manufacturer or fabricator of product installed, using only cleaning materials specifically recommended. If specific cleaning materials are not recommended, use cleaning materials that are not hazardous to health or property and that will not damage exposed surfaces.
- D. Concealed Spaces: Remove debris from concealed spaces before enclosing the space.
- E. Exposed Surfaces: Clean exposed surfaces and protect as necessary to ensure freedom from damage and deterioration at time of Substantial Completion.
- F. During handling and installation, clean and protect construction in progress and adjoining materials already in place. Apply protective covering where required to ensure protection from damage or deterioration at Substantial Completion.
- G. Clean and provide maintenance on completed construction as frequently as necessary through the remainder of the construction period. Adjust and lubricate operable components to ensure operability without damaging effects.
- H. Limiting Exposures: Supervise construction operations to ensure that no part of the construction, completed or in progress, is subject to harmful, dangerous, damaging, or otherwise deleterious exposure during the construction period.

3.6 CORRECTION OF THE WORK

- A. Repair or remove and replace damaged, defective, or nonconforming Work. Restore damaged substrates and finishes.
 - 1. Repairing includes replacing defective parts, refinishing damaged surfaces, touching up with matching materials, and properly adjusting operating equipment.
- B. Repair Work previously completed and subsequently damaged during construction period. Repair to like-new condition.

- C. Restore permanent facilities used during construction to their specified condition.
- D. Remove and replace damaged surfaces that are exposed to view if surfaces cannot be repaired without visible evidence of repair.
- E. Repair components that do not operate properly. Remove and replace operating components that cannot be repaired.
- F. Remove and replace chipped, scratched, and broken glass or reflective surfaces.

END OF SECTION 017300

SECTION 017700 - CLOSEOUT PROCEDURES

PART 1 - GENERAL

1.1 RELATED DOCUMENTS

- A. Drawings and general provisions of the Contract, including General and Supplementary Conditions and other Division 01 Specification Sections, apply to this Section.

1.2 SUMMARY

- A. Section includes administrative and procedural requirements for Contract closeout, including, but not limited to, the following:
 - 1. Substantial Completion procedures.
 - 2. Final completion procedures.
 - 3. Warranties.
 - 4. Final cleaning.
- B. Related Requirements:
 - 1. Section 012900 "Payment Procedures" for requirements for Applications for Payment for Substantial Completion and Final Completion.
 - 2. Section 013233 "Photographic Documentation" for submitting Final Completion construction photographic documentation.
 - 3. Section 017839 "Project Record Documents" for submitting Record Drawings, Record Specifications, and Record Product Data.

1.3 DEFINITIONS

- A. List of Incomplete Items: Contractor-prepared list of items to be completed or corrected, prepared for the Engineer's use prior to Engineer's inspection, to determine if the Work is substantially complete.

1.4 ACTION SUBMITTALS

- A. Product Data: For each type of cleaning agent.
- B. Contractor's List of Incomplete Items: Initial submittal at Substantial Completion.
- C. Certified List of Incomplete Items: Final submittal at Final Completion.

1.5 CLOSEOUT SUBMITTALS

- A. Certificates of Release: From authorities having jurisdiction.

- B. Certificate of Insurance: For continuing coverage.
- C. Field Report: For pest-control inspection.

1.6 SUBSTANTIAL COMPLETION PROCEDURES

- A. Contractor's List of Incomplete Items: Prepare and submit a list of items to be completed and corrected (Contractor's "punch list"), indicating the value of each item on the list and reasons why the Work is incomplete.
- B. Submittals Prior to Substantial Completion: Complete the following a minimum of **10** days prior to requesting inspection for determining date of Substantial Completion. List items below that are incomplete at time of request.
 - 1. Certificates of Release: Obtain and submit releases from authorities having jurisdiction, permitting Owner unrestricted use of the Work and access to services and utilities. Include occupancy permits, operating certificates, and similar releases.
 - 2. Submit closeout submittals specified in individual Sections, including specific warranties, workmanship bonds, maintenance service agreements, final certifications, and similar documents.
 - 3. Submit maintenance material submittals specified in individual Sections, including tools, spare parts, extra materials, and similar items, and deliver to location designated by **Engineer**. Label with manufacturer's name and model number.
- C. Procedures Prior to Substantial Completion: Complete the following a minimum of **10** days prior to requesting inspection for determining date of Substantial Completion. List items below that are incomplete at time of request.
 - 1. Advise Owner of pending insurance changeover requirements.
 - 2. Make final changeover of permanent locks and deliver keys to Owner. Advise Owner's personnel of changeover in security provisions.
 - 3. Complete startup and testing of systems and equipment.
 - 4. Perform preventive maintenance on equipment used prior to Substantial Completion.
 - 5. Instruct Owner's personnel in operation, adjustment, and maintenance of products, equipment, and systems. Submit demonstration and training video recordings specified in Section 017900 "Demonstration and Training."
 - 6. Advise Owner of changeover in utility services.
 - 7. Participate with Owner in conducting inspection and walkthrough with local emergency responders.
 - 8. Terminate and remove temporary facilities from Project site, along with mockups, construction tools, and similar elements.
 - 9. Complete final cleaning requirements.
 - 10. Touch up paint and otherwise repair and restore marred exposed finishes to eliminate visual defects.
- D. Inspection: Submit a written request for inspection to determine Substantial Completion a minimum of **10** days prior to date the Work will be completed and ready for final inspection and tests. On receipt of request, Engineer will either proceed with inspection or notify Contractor of unfulfilled requirements. Engineer will prepare the Certificate of Substantial Completion after inspection or will notify Contractor of items, either on Contractor's list or

additional items identified by Engineer, that must be completed or corrected before certificate will be issued.

1. Request reinspection when the Work identified in previous inspections as incomplete is completed or corrected.
2. Results of completed inspection will form the basis of requirements for Final Completion.

1.7 FINAL COMPLETION PROCEDURES

- A. Submittals Prior to Final Completion: Before requesting final inspection for determining Final Completion, complete the following:
 1. Submit a final Application for Payment in accordance with Section 012900 "Payment Procedures."
 2. Certified List of Incomplete Items: Submit certified copy of Engineer's Substantial Completion inspection list of items to be completed or corrected (punch list), endorsed and dated by Engineer. Certified copy of the list shall state that each item has been completed or otherwise resolved for acceptance.
 3. Certificate of Insurance: Submit evidence of final, continuing insurance coverage complying with insurance requirements.
 4. Submit pest-control final inspection report.
 5. Submit Final Completion photographic documentation.
- B. Inspection: Submit a written request for final inspection to determine acceptance a minimum of 10 days prior to date the Work will be completed and ready for final inspection and tests. On receipt of request, Engineer, will either proceed with inspection or notify Contractor of unfulfilled requirements. Engineer will prepare a final Certificate for Payment after inspection or will notify Contractor of construction that must be completed or corrected before certificate will be issued.
 1. Request reinspection when the Work identified in previous inspections as incomplete is completed or corrected.

1.8 LIST OF INCOMPLETE ITEMS

- A. Organization of List: Include name and identification of each space and area affected by construction operations for incomplete items and items needing correction including, if necessary, areas disturbed by Contractor that are outside the limits of construction.
 1. Organize list of spaces in sequential order, listed by room or space number.
 2. Organize items applying to each space by major element, including categories for ceilings, individual walls, floors, equipment, and building systems.
 3. Include the following information at the top of each page:
 - a. Project name.
 - b. Date.
 - c. Name of Engineer,
 - d. Name of Contractor.

- e. Page number.
- 4. Submit list of incomplete items in the following format:
 - a. MS Excel Electronic File: Engineer, will return annotated file.
 - b. Web-Based Project Software Upload: Utilize software feature for creating and updating list of incomplete items (punch list).

1.9 SUBMITTAL OF PROJECT WARRANTIES

- A. Time of Submittal: Submit written warranties on request of Engineer for designated portions of the Work where warranties are indicated to commence on dates other than date of Substantial Completion, or when delay in submittal of warranties might limit Owner's rights under warranty.
- B. Organize warranty documents into an orderly sequence based on the table of contents of Project Manual.
- C. Warranty Electronic File: Provide warranties and bonds in PDF format. Assemble complete warranty and bond submittal package into a single electronic PDF file with bookmarks enabling navigation to each item. Provide bookmarked table of contents at beginning of document.
 - 1. Submit on digital media acceptable to Engineer, by uploading to web-based project software site.
- D. Warranties in Paper Form:
 - 1. Bind warranties and bonds in heavy-duty, three-ring, vinyl-covered, loose-leaf binders, thickness as necessary to accommodate contents, and sized to receive 8-1/2-by-11-inch paper.
 - 2. Provide heavy paper dividers with plastic-covered tabs for each separate warranty. Mark tab to identify the product or installation. Provide a typed description of the product or installation, including the name of the product and the name, address, and telephone number of Installer.
 - 3. Identify each binder on the front and spine with the typed or printed title "WARRANTIES," Project name, and name of Contractor.
- E. Provide additional copies of each warranty to include in operation and maintenance manuals.

PART 2 - PRODUCTS

2.1 MATERIALS

- A. Cleaning Agents: Use cleaning materials and agents recommended by manufacturer or fabricator of the surface to be cleaned. Do not use cleaning agents that are potentially hazardous to health or property or that might damage finished surfaces.

PART 3 - EXECUTION

3.1 FINAL CLEANING

- A. General: Perform final cleaning. Conduct cleaning and waste-removal operations to comply with local laws and ordinances and Federal and local environmental and antipollution regulations.
- B. Cleaning: Employ experienced workers or professional cleaners for final cleaning. Clean each surface or unit to condition expected in an average commercial building cleaning and maintenance program. Comply with manufacturer's written instructions.
 - a. Clean Project site of rubbish, waste material, litter, and other foreign substances.
 - b. Remove tools, construction equipment, machinery, and surplus material from Project site.
 - c. Remove snow and ice to provide safe access to building.
 - d. Clean flooring, removing debris, dirt, and staining; clean according to manufacturer's recommendations.
 - e. Vacuum carpet and similar soft surfaces, removing debris and excess nap; clean according to manufacturer's recommendations if visible soil or stains remain.
 - f. Clean transparent materials, including mirrors and glass in doors and windows. Remove glazing compounds and other noticeable, vision-obscuring materials. Polish mirrors and glass, taking care not to scratch surfaces.
 - g. Remove labels that are not permanent.
 - h. Wipe surfaces of mechanical and electrical equipment, elevator equipment, and similar equipment. Remove excess lubrication, paint and mortar droppings, and other foreign substances.
 - i. Clean plumbing fixtures to a sanitary condition, free of stains, including stains resulting from water exposure.
 - j. Replace disposable air filters and clean permanent air filters. Clean exposed surfaces of diffusers, registers, and grills.
 - k. Clean ducts, blowers, and coils, if units were operated without filters during construction or that display contamination with particulate matter on inspection.
 - l. Clean luminaires, lamps, globes, and reflectors to function with full efficiency.
 - m. Clean strainers.
 - n. Leave Project clean and ready for occupancy.
- C. Construction Waste Disposal: Comply with waste-disposal requirements in Section 015000 "Temporary Facilities and Controls." Section 017419 "Construction Waste Management and Disposal."

3.2 REPAIR OF THE WORK

- A. Complete repair and restoration operations required by Section 017300 "Execution" before requesting inspection for determination of Substantial Completion.

END OF SECTION 017700

017823 - OPERATION AND MAINTENANCE DATA

PART 1 - GENERAL

1.1 RELATED DOCUMENTS

- A. Drawings and general provisions of the Contract, including General and Supplementary Conditions and other Division 01 Specification Sections, apply to this Section.

1.2 SUMMARY

- A. Section includes administrative and procedural requirements for preparing, product maintenance manuals.
- B. Related Requirements:
 - 1. Section 011200 "Multiple Contract Summary" for coordinating operation and maintenance manuals covering the Work of multiple contracts.
 - 2. Section 013300 "Submittal Procedures" for submitting copies of submittals for operation and maintenance manuals.
 - 3. Section 019113 "General Commissioning Requirements" for verification and compilation of data into operation and maintenance manuals.

1.3 DEFINITIONS

- A. System: An organized collection of parts, equipment, or subsystems united by regular interaction.
- B. Subsystem: A portion of a system with characteristics similar to a system.

1.4 CLOSEOUT SUBMITTALS

- A. Submit operation and maintenance manuals indicated. Provide content for each manual as specified in individual Specification Sections, and as reviewed and approved at the time of Section submittals. Submit reviewed manual content formatted and organized as required by this Section.
 - 1. Engineer will comment on whether content of operation and maintenance submittals is acceptable.
 - 2. Where applicable, clarify and update reviewed manual content to correspond to revisions and field conditions.
- B. Format: Submit operation and maintenance manuals in the following format:
 - 1. Submit on digital media acceptable to Engineer, by uploading to web-based project software site. Enable reviewer comments on draft submittals.

- C. Initial Manual Submittal: Submit draft copy of each manual at least **30** days before commencing demonstration and training. Engineer will comment on whether general scope and content of manual are acceptable.
- D. Final Manual Submittal: Submit each manual in final form prior to requesting inspection for Substantial Completion and at least **15** days before commencing demonstration and training. Engineer will return copy with comments.
 - 1. Correct or revise each manual to comply with Engineer's comments. Submit copies of each corrected manual within **15** days of receipt of Engineer's and prior to commencing demonstration and training.
- E. Comply with Section 017700 "Closeout Procedures" for schedule for submitting operation and maintenance documentation.

1.5 FORMAT OF OPERATION AND MAINTENANCE MANUALS

- A. Manuals, Electronic Files: Submit manuals in the form of a multiple file composite electronic PDF file for each manual type required.
 - 1. Electronic Files: Use electronic files prepared by manufacturer where available. Where scanning of paper documents is required, configure scanned file for minimum readable file size.
 - 2. File Names and Bookmarks: Bookmark individual documents based on file names. Name document files to correspond to system, subsystem, and equipment names used in manual directory and table of contents. Group documents for each system and subsystem into individual composite bookmarked files, then create composite manual, so that resulting bookmarks reflect the system, subsystem, and equipment names in a readily navigated file tree. Configure electronic manual to display bookmark panel on opening file.

1.6 PRODUCT MAINTENANCE MANUALS

- A. Product Maintenance Manual: Assemble a complete set of maintenance data indicating care and maintenance of each product, material, and finish incorporated into the Work.
- B. Source Information: List each product included in manual, identified by product name and arranged to match manual's table of contents. For each product, list name, address, and telephone number of Installer or supplier and maintenance service agent, and cross-reference Specification Section number and title in Project Manual and drawing or schedule designation or identifier where applicable.
- C. Product Information: Include the following, as applicable:
 - 1. Product name and model number.
 - 2. Manufacturer's name.
 - 3. Color, pattern, and texture.
 - 4. Material and chemical composition.
 - 5. Reordering information for specially manufactured products.

D. Maintenance Procedures: Include manufacturer's written recommendations and the following:

1. Inspection procedures.
2. Types of cleaning agents to be used and methods of cleaning.
3. List of cleaning agents and methods of cleaning detrimental to product.
4. Schedule for routine cleaning and maintenance.
5. Repair instructions.

E. Repair Materials and Sources: Include lists of materials and local sources of materials and related services.

F. Warranties and Bonds: Include copies of warranties and bonds and lists of circumstances and conditions that would affect validity of warranties or bonds.

1. Include procedures to follow and required notifications for warranty claims.

PART 2 - PRODUCTS (Not Used)

PART 3 - EXECUTION (Not Used)

END OF SECTION 017823

SECTION 017839 - PROJECT RECORD DOCUMENTS

PART 1 - GENERAL

1.1 RELATED DOCUMENTS

- A. Drawings and general provisions of the Contract, including General and Supplementary Conditions and other Division 01 Specification Sections, apply to this Section.

1.2 SUMMARY

- A. Section includes administrative and procedural requirements for Project Record Documents, including the following:
 - 1. Record Drawings.
 - 2. Record specifications.
 - 3. Record Product Data.
 - 4. Miscellaneous record submittals.
- B. Related Requirements:
 - 1. Section 017700 "Closeout Procedures" for general closeout procedures.
 - 2. Section 017823 "Operation and Maintenance Data" for operation and maintenance manual requirements.

1.3 CLOSEOUT SUBMITTALS

- A. Record Drawings: Comply with the following:
 - 1. : Submit copies of Record Drawings as follows:
 - a. Initial Submittal:
 - 1) Submit PDF electronic files of scanned record prints
 - 2) Submit Record Digital Data Files
 - 3) Engineer will indicate whether general scope of changes, additional information recorded, and quality of drafting are acceptable.
 - b. Final Submittal:
 - 1) Submit PDF electronic files of scanned Record Prints
 - 2) Print each drawing, whether or not changes and additional information were recorded.
- B. Record Specifications: Submit **annotated PDF electronic files** of Project's Specifications, including addenda and Contract modifications.
- C. Record Product Data: Submit **annotated PDF electronic files and directories** of each submittal.

1. Where record Product Data are required as part of operation and maintenance manuals, submit duplicate marked-up Product Data as a component of manual.
 - D. Miscellaneous Record Submittals: See other Specification Sections for miscellaneous record-keeping requirements and submittals in connection with various construction activities. Submit **annotated PDF electronic files and directories** of each submittal.
 - E. Reports: Submit written report **weekly** indicating items incorporated into Project Record Documents concurrent with progress of the Work, including revisions, concealed conditions, field changes, product selections, and other notations incorporated.
- 1.4 RECORD SPECIFICATIONS
- A. Preparation: Mark Specifications to indicate the actual product installation, where installation varies from that indicated in Specifications, addenda, and Contract modifications.
 1. Give particular attention to information on concealed products and installations that cannot be readily identified and recorded later.
 - B. Format: Submit record specifications as **annotated PDF electronic file**
- 1.5 RECORD PRODUCT DATA
- A. Recording: Maintain one copy of each submittal during the construction period for Project Record Document purposes. Post changes and revisions to Project Record Documents as they occur; do not wait until end of Project.
 - B. Preparation: Mark Product Data to indicate the actual product installation where installation varies substantially from that indicated in Product Data submittal.
 1. Give particular attention to information on concealed products and installations that cannot be readily identified and recorded later.
 2. Include significant changes in the product delivered to Project site and changes in
 - C. Format: Submit Record Product Data as **annotated PDF electronic file**.
 1. Include Record Product Data directory organized by Specification Section number and title, electronically linked to each item of Record Product Data.

PART 2 - PRODUCTS (Not Used)

PART 3 - EXECUTION (Not Used)

END OF SECTION 017839

Technical

Specifications

SECTION 01000
GENERAL REQUIREMENTS

PART 1 - GENERAL

1.01 General

- A. Only major items of work are given in the Bid Form, but it is the intent of the specifications to secure a completely interconnected and functioning system, and should any workmanship or materials be required which are obviously necessary to carry out the full intent and meaning of the plans and specifications, or to be reasonably inferred therefrom, the cost of such workmanship or materials shall be included in the items in the bid form.
- B. Where construction is being performed in traveled roadways or rights-of-way, the Contractor is to provide all necessary traffic controls and devices in accordance with the current Pennsylvania Department of Transportation standards.
- C. The Contractor shall notify all utility companies prior to construction of utilities, curbing, and paving.
- D. Prior to any excavation, the Contractor shall have all utilities marked and shall excavate or otherwise determine the exact location and elevations of said utilities. The Contractor shall notify the Engineer of any conflicts. The Contractor shall arrange for any necessary utility relocations or field changes and shall reschedule his operations appropriately.
- E. The Contractor, in the construction of the project, shall not stockpile materials or store equipment on any private property, except areas designated by the plans or as directed by the Engineer. If required, the Engineer may direct the Contractor to have equipment removed from any project during weekend hours.
- F. All work of refilling sunken ditches, repaving over trenches, and keeping streets and sidewalks in passable condition shall be done to the satisfaction of the Owner during the construction of the project, as well as during the maintenance period. If any remedial work is not done within three (3) days after written notice is given by the Engineer, the work may be done by the Owner and charged to the Contractor.
- G. Special care shall be taken to prevent contamination, siltation, or interference of any kind with the stream flows or ponds along the line of work. No waste matter of any kind will be allowed to discharge into the stream flows or impounded water of any ponds or other bodies of water.
- H. The Contractor is to insure that proper measures for erosion control are employed and provide for the early establishment of vegetation that will help avoid erosion problems during and after construction. It is expected that the Contractor will anticipate possible

problems and provide timely and adequate control to prevent or minimize adverse effects.

- I. The Contractor is to notify residents by door-hangers at least forty-eight (48) hours in advance of starting construction work that will directly affect their property frontage, driveway(s), and/or on-street parking.
- J. All notes on plans shall be made a part of the specifications.
- K. The Contractor shall notify the Engineer at least forty-eight (48) hours in advance of any work scheduled for Saturdays.
- L. Separate payment will not be made for construction layout. The costs for construction layout for all site work shall be included in the various items of the proposal.

1.02 Public Utilities

- A. The Contractor is required to ascertain all the facts concerning the location of utilities.
- B. The Contractor shall cooperate with the utility Owners in the adjustment of their facilities and shall notify the utility Owners not less than ten (10) days in advance of the time scheduled to perform any work that will impact or affect their facilities.
- C. The Contractor shall permit the Owners of utilities, or their agents, access to the site of the work at all times in order to relocate, construct, or protect their lines, and shall cooperate with them in performing this work.
- D. Separate payments will not be made for the coordination and cooperation of the Contractor with the utility companies, nor for the protection or replacement of utilities as specified hereinbefore, and the bidder shall include all such costs in the prices bid for the various scheduled items in the Bid Form.

1.03 Preconstruction Video

- A. The Contractor shall, at no extra cost to the Owner, take DVD video recordings of the site prior to the commencement of construction. The video recording shall accurately depict the existing preconstruction condition of all curbs, sidewalks, driveways, fences, lawns, landscaped area, mailboxes, street furniture, and all other appurtenances within or outside a 25 foot radius of the limits of the construction of the project. One (1) copy of the video recording shall be provided to the Engineer. The date of the DVD video, as well as identification as to the location which the video depicts, must be provided.

1.04 Maintenance and Protection of Traffic

- A. The Contractor shall erect, or place and maintain in good condition, barricades, warning signs, lights, flares, approved yellow-flashing light units, rubber traffic cones, and other warning and danger signals and devices appropriate and adequate for the specific project needs, and subject to the Engineer's approval. These shall be placed at working sites, closed roads, intersections, open excavations, locations of material storage, standing equipment, and other obstructions, at points where the usable vehicular or pedestrian traffic width of the road or sidewalk is reduced, at points where traffic is deflected from its normal courses or lanes, and at other places of danger to vehicular or pedestrian traffic.
- B. The Contractor shall provide sufficient watchmen and traffic directors, and shall take all other precautions, including any that may be ordered by the Engineer, which are necessary for the safety of the public and protection of the work.
- C. Road construction signs shall be placed at each end of the project along with every connecting intersection. At the start and end of each day, detour signs shall be placed if required.
- D. During the work on this project, the Contractor shall provide and/or be prepared to provide traffic protection devices in accordance with the Manual on Uniform Traffic Control Devices. The minimum numbers set forth in the Schedule shall be on hand at each separate project site prior to the commencement of any work (or phase of work) and shall be maintained on the project site throughout the period of the project (or phase). Failure to provide and maintain the minimum number of devices shall be sufficient cause for the Engineer to order cessation of work. When lack of any required safety devices presents an immediate hazard, the Engineer may order that such devices be provided by the Owner or by other Contractors, deducting the cost thereof from any monies due or becoming due to the Contractor lacking the required devices.
- E. The Contractor shall provide adequate means of access for fire, police, and emergency vehicles throughout the length of the project. The Contractor shall also provide for safe and adequate means of access to adjacent properties, both private and public.
- F. The cost of all work, as specified hereinbefore, and all other work required to protect public safety and maintain traffic flow shall be included in the prices bid for the various items in the Bid Form, unless specifically requested as a bid item in which case payment will be made as a lump sum.

1.05 Reference to the Standard Specifications

- A. Portions of the work performed under this contract shall comply with the requirements of the Commonwealth of Pennsylvania Department of Transportation Publication 408, latest edition and supplements, the Pennsylvania Department of Transportation Standard

Construction Details as applicable, and all requirements modified, as amended or supplemented, and whose specifications are made part of these specifications.

- B. The Standard Specifications are made part of these specifications by this reference as if they were set forth in full. It is the responsibility of the prospective bidder to be familiar with these Standard Specifications.

1.06 Dust Control

- A. The Contractor will be required to maintain all excavations, embankments, stockpiles, haul roads, permanent access roads, plant sites, waste areas, borrow areas, and all other work areas within or outside the project boundaries free from dust which would cause a hazard or nuisance to others. Approved temporary methods of stabilization, consisting of sprinkling, chemical treatment, light bituminous treatment, or similar methods, will be permitted to control dust. Sprinkling, to be approved, must be repeated at such intervals as to keep all parts of the disturbed area at least damp at all times, and the Contractor must have sufficient competent equipment on the job to accomplish this if sprinkling is used. Dust control shall be performed as the work proceeds and whenever a dust nuisance or hazard occurs. If any dust control is not done within twenty-four (24) hours after written notice is given by the Engineer, the work may be done by the Owner and charged to the Contractor. Costs for dust control shall be included in the prices bid for the various items in the bid form.

1.07 Mobilization

- A. This work is the assembly and set-up of the general plant required to comply with the contract and with local and State laws and regulations. General plant includes Contractor's offices, shops, plants, storage areas, and sanitary or other facilities. This work includes obtaining the required permits, insurance, bonds, and any other initial items required for the start of the work. These materials and furnishings will not be considered a part of the other completed contract items.
- B. Mobilization shall be performed in strict compliance with Section 608 of the Commonwealth of Pennsylvania Department of Transportation, Publication 408.

PART 2 – PRODUCTS

Not Used

PART 3 – EXECUTION

Not Used

PART 4 – QUANTITY AND PAYMENT

4.01 Mobilization

- A. Quantity of “Mobilization (Max 2.5% of total amount bid up to \$10,000)” will not be measured for this project.
- B. Payment for “Mobilization (Max 2.5% of total amount bid up to \$10,000)” will be made as a lump sum (LS), and shall not exceed two and one-half percent (2.5%) of the total amount bid for the project, or a maximum of five-thousand dollars (\$10,000.00). Payment for Mobilization will be recommended after a Performance Bond has been secured, all submittals have been approved, Notice to Proceed has been issued, and the physical work has commenced. Payment for Mobilization will only be made once. No additional payment will be made for remobilization.

4.02 Maintenance and Protection of Traffic

- A. Quantity of “Maintenance and Protection of Pedestrian and Vehicular Traffic” will not be measured for this project, but shall be included within the various items of the proposal.
- B. Payment for “Maintenance and Protection of Pedestrian and Vehicular Traffic” will not be made as part of this project. Contractor shall include costs within the various items of the proposal.

4.03 General Requirements

- A. Quantity of all other items covered in the General Requirements will not be measured for this project, but the work shall be performed as incidental to the proposed work.
- B. Payment for all other items covered in the General Requirements will not be made for this project, but the cost shall be included in the various items of the proposal.

END OF SECTION

SECTION 02010
CLEANING AND RESTORATIONS

PART 1 - GENERAL

1.01 Description

- A. The Contractor shall provide all equipment, labor, and materials required to clean and restore the site to at least the pre-existing condition.
- B. The Contractor shall maintain premises and public and/or private properties free from accumulations of waste, debris, and rubbish caused by work operations.
- C. At the completion of work, the Contractor shall remove waste materials, rubbish, tools, equipment, machinery, and surplus materials, clean all visually exposed surfaces, and leave project site clean and ready for occupancy.
- D. At the completion of work, the Contractor shall restore or replace, where and as directed by the Owner, any public or private property disturbed or damaged by Contractor's work operations to a condition at least equal to that existing prior to beginning work, or as otherwise specified. Materials, equipment and methods shall be approved by the Owner.

PART 2 - PRODUCTS

2.01 Materials

- A. For restorations, the Contractor shall use the following materials. All materials shall comply with the following Articles of the Commonwealth of Pennsylvania Department of Transportation Specifications, latest revision, and these specifications.
- B. Grass Restoration: See Section 802 "Topsoil Furnished and Placed", Section 804 "Seeding and Soil Supplements", and Section 809 "Sodding".
- C. Pavement Restoration: See Section 409 "Superpave Asphalt".
- D. Restoration of curbs and other concrete structures:
 - 1. Concrete:
 - a. Class AA: See Section 704 "Cement Concrete"
 - b. Design Compressive Strength: 3,500 psi at 28 days
 - c. Air-Entrainment: 6.0% +/- 1.5%
 - 2. Joint Fillers: See Section 705.4

3. Curing Compound: See Section 711.2

E. All Other Materials: As approved by the Owner or authorities having jurisdiction.

PART 3 – EXECUTION

3.01 Methods of Conducting Work - Cleaning

A. Requirements of regulatory agencies:

All excess material shall be removed from the site and disposed of by the Contractor at his expense. The cost of removal is to be included in the Base Bid for the Project. The disposal site shall be a permanently established licensed landfill.

B. Cleaning during construction:

The Contractor shall provide periodic cleaning to keep the work, site, and adjacent properties free from accumulations of waste materials, rubbish, and windblown debris resulting from construction operations. This includes dust, dirt, and mud.

The Contractor shall provide on-site containers for the collection of waste materials, debris, and rubbish, and shall maintain the containers as required. The containers shall be covered, as required, to prevent unauthorized use.

C. Dust control during construction:

The Contractor will be required to maintain all excavations, embankments, stockpiles, haul roads, permanent access roads, plant sites, waste areas, borrow areas, and all other work areas within or without the project boundaries free from dust which would cause a hazard or nuisance to others. Approved temporary methods of stabilization consisting of sprinkling, chemical treatment, light bituminous treatment, or similar methods will be permitted to control dust. Sprinkling, to be approved, must be repeated at such intervals as to keep all parts of the disturbed area at least damp at all times, and the Contractor must have sufficient competent equipment on the job to accomplish this if sprinkling is used.

Dust control shall be performed as the work proceeds and whenever a dust nuisance or hazard occurs. If any dust control is not done within twenty four (24) hours after written notice is given by the Engineer, the work may be done by the Owner and charged to the Contractor.

3.02 Methods of Construction

A. General:

All existing structures, unpaved areas, and paved areas disturbed or damaged during the work under this contract shall be restored or replaced to a condition at least equal to that existing prior to beginning work, or as otherwise specified. The methods of conducting this work shall, as a minimum, conform to the following Articles of the Commonwealth of Pennsylvania Department of Transportation Specifications.

B. Grass Restoration:

See Section 802 "Topsoil Furnished and Placed", Section 804 "Seeding and Soil Supplements", and Section 809 "Sodding".

C. Pavement Restoration:

Restoration type and thickness shall be as shown on the contract drawings or as otherwise directed.

D. Restoration of Curbs and Other Concrete Structures:

1. Curbs: See Section 630 "Plain Cement Concrete Curb".
2. Other concrete structures: Restore in accordance with applicable Articles of the Standard Specifications.

E. All Other Restorations:

Restore in accordance with applicable Articles of the Standard Specifications, or as approved by the Owner or authorities having jurisdiction.

PART 4 – QUANTITY AND PAYMENT

4.01 Cleaning and Restorations

- A. Quantity of Cleaning and Restorations will not be measured for this project, but the work shall be performed as necessary to restore all disturbed areas to at least the pre-existing condition.
- B. Payment for Cleaning and Restorations will not be made for this project, but the cost shall be included in the various items of the proposal.

END OF SECTION

SECTION 02310
SUBBASE

PART 1 – GENERAL

1.01 Description

- A. The subbase for Superpave Asphalt Areas and Flexible Pavement Surface shall be No. 2A Coarse Aggregate.
- B. Subbase for concrete sidewalks, concrete pads, and handicapped ramps shall be No. 2A Coarse Aggregate.
- B. All work shall be in conformance to Section 350 of the Pennsylvania Department of Transportation Specifications, Publication 408.

PART 2 – PRODUCTS

2.01 Material

- A. Aggregate for subbase shall comply with PennDOT Publication 408, Section 703.2, Type “A” Aggregate.

PART 3 – EXECUTION

Not Used

PART 4 – QUANTITY AND PAYMENT

4.01 Subbase (Concrete Pavement)

- A. No separate payment will be made for subbase utilized for concrete pavement.

4.02 Subbase

- A. Quantity of “2A Course Aggregate, 6” Thick” will be measured for the actual Square Yard (SY) of subbase installed.
- B. Payment for “2A Course Aggregate, 6” Thick” shall be made by the Square Yard (SY), and shall include all materials, labor and equipment necessary to install subbase in accordance with the approved plans. Contractor shall be made aware that payment for 6” subbase will only be made for asphalt trail and path construction. Other line items within the bid include the cost for 6” stone subbase as detailed on the plans and specifications.

END OF SECTION

SECTION 02392
TRAFFIC STRIPES, SYMBOLS AND SIGNS

PART 1 – GENERAL

1.01 Description

- A. This work shall consist of the striping or painting of Superpave Asphalt Wearing Course surfaces. Additionally, this work shall include supply and installation of regulatory, warning, and directional signs.

PART 2 – PRODUCTS

2.01 Materials

- A. All materials shall conform to Section 1103 (Traffic Signing and Marking) of the Pennsylvania Department of Transportation Standard Specifications.
- B. All sign materials shall conform to MUTCD Standards and PENNDOT Publication 408, latest edition.

PART 3 – EXECUTION

3.01 Method of Construction

- A. The method of construction shall conform to Section 962 (Painting Traffic Lines and Markings) of the Pennsylvania Department of Transportation Standard Specifications.
- B. The installation of signs shall be in accordance with the plans and specifications. All sign installation shall be coordinated with the Project.

PART 4 – QUANTITY AND PAYMENT

4.01 Signage and Striping, Inclusive

- A. Quantity of “Signage and Striping, Inclusive” will not be measured for this project.
- B. Payment for “Signage and Striping Inclusive” will be made as a Lump Sum (LS) and include all material, labor, concrete, breakaway posts, striping, paint, materials and equipment necessary to relocate and install new signs and install striping in accordance with the approved plans as necessary to facilitate new construction. Work shall include ADA parking stall signs as indicated on the plan documents. Contractor is required to catalogue existing striping and replace in kind where indicated.
- C. Striping shall be Epoxy Resin unless specifically identified on the plans.

END OF SECTION

SECTION 02393
MANHOLE ADJUSTMENT

PART 1 – GENERAL

1.01 Description

- A. This item shall include adjustment of existing manhole frames as necessary within the project limits to meet proposed pavement grades.

PART 2 - PRODUCTS

2.01 Materials

- A. Should adjustment of a manhole casting or other appurtenances necessitate mason reconstruction, the Contractor shall remove the casting, build the manholes up to the proper elevation with brick and mortar, and replace the casting in a full bed of mortar. The exposed exterior face of the manhole shall receive a one inch thick parge coating. Castings located within areas to be repaved shall be adjusted to an elevation five-eighths of an inch (5/8") below the proposed pavement surface. Arrangements for the adjustments of valve boxes, other utilities, manholes, and any other facility shall be made by the Contractor in advance of any paving operations. All adjustments shall be coordinated with the City Engineer and appropriate Public Utility Authorities.
- B. Manhole adjustment risers shall be in accordance with Pennsylvania Department of Transportation Publication 408.

PART 3 – EXECUTION

3.01 Methods of Construction

- A. Methods of construction shall be in conformance with Pennsylvania Department of Transportation Publication 408, Section 606.
- B. Under this contract, the Contractor shall be responsible to reset all existing water valve boxes and manhole, rims whether presently visible or not, prior to starting the project. The Contractor will locate and paint all valve boxes and manholes, visible or buried.

PART 4 – QUANTITY AND PAYMENT

4.01 Manhole Adjustments

- A. Quantity of Manhole Adjustments will not be measured for this project, but the work shall be performed as necessary to complete the Scope of Work.

- B. Payment for Manhole Adjustments will not be made for this project, but the cost to perform the related work shall be included in the various items of the proposal.
- C. Should the need arise to replace a damaged manhole casting, assuming the damage occurred prior to this project, the contractor shall be reimbursed for the material cost of the manhole casting. Installation of the new manhole casting shall be incidental to the manhole adjustment, and warrants no additional payment.

END OF SECTION

SECTION 02394
UTILITY ADJUSTMENT

PART 1 – GENERAL

1.01 Description

- A. This item shall include adjustment of existing utility covers and valve boxes as necessary within the project limits to meet proposed pavement grades.
- B. Utility adjustments shall be applicable to utility covers and valves within the limits of asphalt paving.
- C. Adjustments to utility covers and valves beyond the edge of pavement or behind concrete curb shall be performed as incidental to concrete sidewalk or grass strip restorations as applicable.
- D. All utility adjustments shall be coordinated with the City Engineer and subsequently the Public Utility Authorities.

PART 2 – PRODUCTS

2.01 Materials

- A. Materials shall be in conformance with Pennsylvania Department of Transportation Publication 408, Section 606.
- B. Utilities located within areas to be repaved shall be adjusted to an elevation five-eighths of an inch (5/8") below the proposed pavement surface. Arrangements for the adjustments of utility covers, valve boxes, manholes and any other facility shall be made by the Contractor in advance of any paving operations.

PART 3 – EXECUTION

3.01 Methods of Construction

- A. Methods of construction shall be in conformance with Pennsylvania Department of Transportation Publication 408, Section 606.
- B. The Contractor shall be responsible to reset all existing utility covers and valve boxes whether presently visible or not, prior to starting the project. The Contractor will locate and paint all valve boxes and manholes visible or buried.

PART 4 – QUANTITY AND PAYMENT

4.01 Utility Adjustments

- A. Quantity of Utility Adjustments will not be measured for this project, but the work shall be performed as necessary to complete the Scope of Work.
- B. Payment for Utility Adjustments will not be made for this project, but the cost to perform the related work shall be included in the various items of the proposal.

END OF SECTION

SECTION 02405
MILLING OF BITUMINOUS CONCRETE

PART 1 – GENERAL

1.01 Description

- A. This item shall consist of cutting an existing asphalt surface and planing and/or shaving the surface irregularities out of the existing bituminous pavement such as to produce a smooth surface and cutting the pavement down to a pre-determined grade. The finished surface shall be free from gouges, grooves, ridges, and other imperfections of surface quality.

PART 2 – PRODUCTS

Not Used

PART 3 – EXECUTION

3.01 Equipment

- A. The milling machine shall be specifically designed and built for cold milling bituminous pavement. It shall be self-propelled and have the means for milling the existing surface and blading the material into windows. It shall have the capability of loading the milled cuttings into waiting dump trucks as the operation proceeds. It shall be capable of being operated at speeds from ten (10) to forty (40) feet per minute with a positive slope and depth controls to within 1/8". The cutting width of the machine shall not be less than sixty (60) inches, unless milling around manholes and valve boxes.

3.02 Method of Construction

- A. The milling operation is to be done according to Section 491 of PennDOT Publication 408, as revised. The temperature at which the work is performed, the nature and condition of the equipment and the manner of performing the work shall be such that the pavement is not torn, gouged, broken, or otherwise injured by the milling operation. Sufficient passes or cuts shall be made so that all irregularities or high spots are eliminated, and 100% of the surface area has been milled to the desired grade or to the satisfaction of the Project Engineer.

- B. Prior to milling each location the contractor is responsible for taking inventory and documenting all traffic striping, stop bars, crosswalks, etc. All milling and sweeping work must be completed by the contractor before the paving operations start on each designated street.
- C. At the end of each day's milling operation the exposed road base shall be test rolled by a fully loaded truck. The entire road surface must meet the approval of the Engineer prior to commencement of paving operations.
- D. Milling shall commence from the centerline of the roadway and proceed toward the curbline.
- E. All milled material shall be picked up and removed from the project area immediately after milling. All milled areas shall be cleaned by vacuum or mechanical sweepers immediately after completion of the milling operation each day by the contractor and done so in a manner satisfactory to the Engineer.
- F. The asphalt concrete removed by this operation shall become the property of the contractor, *unless otherwise specified* **however the Owner may take possession of any quantity of millings as they see fit. No additional payment will be made for the transportation or stockpiling of millings requested by the Owner.**
- G. The contractor shall provide all necessary labor, materials, and equipment to load the asphalt cuttings into dump trucks supplied and operated by the contractor.
- H. Maximum depth of milling is to be in accordance with plans and details. Depth along the curb will be at the direction of the Engineer. The notches required at the intersection of the paved street and an existing street are to be milled to the depth of the overlay. The notches are to be at least 6'-0" wide. See Section 02513 for additional information.
- I. The material being removed shall be removed in a manner so that the new material that is to be placed (during resurfacing) shall have a lip to tie into.
- J. The contractor shall mill around all utility boxes and/or manholes and inlets. The contractor will be responsible for replacing those utilities that are damaged or ruined by the milling operation. Areas adjacent to all utility structures not accessible to the milling machine will be removed by other methods by the contractor at no extra charge.
- K. Milling shall be performed no more seven (7) calendar days before paving is completed. If milling takes place and paving has been completed by the seventh (7th) calendar day, the contractor will take all responsibility for repairs in the base. Any and all contract work performed while a previously milled roadway remains unpaved beyond seven (7) calendar days shall warrant no payment. Where stone base material has been exposed by milling operation, contractor shall be responsible to keep area stable preventing erosion of the road and existing stone base. If erosion of road base does occur during poor weather conditions, the contractor shall be responsible to re-establish the road base at no additional cost. The

contractor will respond within twenty four (24) hours of notice from the Owner. If repairs are not made within 24 hours as specified, the Owner reserves the right to complete the work and deduct the cost of the work from the contract.

PART 4 – QUANTITY AND PAYMENT

4.01 Asphalt Milling, Full Street and Half Street

- A. Quantity of “Asphalt Milling, 1-1/2” Depth, Milled Material to be Retained by Contractor” will be measured in square yards (SY) for the total area milled to the specified depth.
- B. Payment for “Asphalt Milling, 1-1/2” Depth, Milled Material to be Retained by Contractor” will be made per square yard (SY). Payment shall include milling equipment, labor, and the removal and proper disposal of milled material.

END OF SECTION

SECTION 02509
CONCRETE CURB RAMPS AND SIDEWALK

PART 1 – GENERAL

1.01 Description

- A. Construction of Concrete Handicapped Curb Ramps.
- B. Construction of Plain Concrete Sidewalk for ADA Curb Ramp Construction.
- C. Installation of Truncated Dome Detectable Warning Surfaces.
- D. Reinforced Concrete Pad, 8” Thick
- E. Plain Cement Concrete Sidewalk

PART 2 – PRODUCTS

2.01 Materials

- A. Concrete:
 - 1. Use PennDOT Class AA concrete in accordance with Publication 408, Section 704.
 - 2. Use air-entrained concrete conforming to ACI 318-02, Section 4.2.1.
- B. Cement aggregate and water and air-entertainment methods and materials: Section 703 and 711 of the Pennsylvania Department of Transportation Specifications, Publication 408.
- C. Joint Filler: Bituminous cellular type, conforming to Section 705.01 of Pub. 408.
- D. Truncated Dome Detectable Warning Surface: Vitrified Polymer Composite Cast-In-Place Detectable / Tactile Warning Surfaces conforming to Section 09614.

PART 3 – EXECUTION

3.01 Methods of Construction

- A. Reference standards included in this Specification section:
 - 1. Pennsylvania Department of Transportation Standard Specifications Publication 408.
 - a. Section 501: Concrete Surface Course

- b. Section 676: Sidewalks
- c. Section 711.1 and .2(a): Curing Materials for Concrete
- d. Section 705.1: Joint Fillers, Preformed.

- 2. Curb ramps and sidewalk must conform to Pennsylvania Department of Transportation Standard Specifications RC-67M as last revised.

B. Submittals:

- 1. Certificates: All deliveries of concrete shall be accompanied by delivery slips, copies of which shall be provided to the Engineer by the Contractor.

C. Environmental Requirements:

- 1. Allowable temperatures for placement of concrete shall be in strict conformance with Penn DOT specifications Pub. 408, Section 704.1(f).

D. Protection:

- 1. The Contractor shall protect concrete from pedestrian and vehicular traffic until concrete has been sufficiently cured as determined by the Engineer.
- 2. Method of protection shall be approved by the Engineer prior to beginning work under this section.
- 3. Works shall be protected as specified in Section 105.13 of Pub. 408.

E. Preparation:

- 1. Coordinate with Engineer for marking out of curb ramps and sidewalk removal limits.
- 2. Excavate subgrade and set forms so that finished structure conforms to lines and grades shown on plans, or as directed by the Engineer.
- 3. Prepare subgrade as specified in Section 210 of Pub. 408.
- 4. Verify that earthwork is completed to correct line and grade.
- 5. Verify that forms conform on line, grade and cross section shown on plan.
- 6. Check that subgrade is smooth, compacted and free of frost or excessive moisture.
- 7. Do not commence work until conditions are satisfactory and approved by the City Engineer.

- F. Performance: The method of curb ramp and sidewalk construction shall conform to PennDOT Publication 408, Section 676 "Cement Concrete Sidewalks," except as modified by the Supplemental Requirements below:
1. Construction shall be in accordance with the plans.
 2. Restorations shall be performed as specified in the section entitled "Cleaning and Restoration."

PART 4 – QUANTITY AND PAYMENT

4.01 Concrete Curb Ramps and Sidewalk, including Detectable Warning Surfaces

- A. Quantity of "Concrete Curb Ramps and Sidewalk, including Detectable Warning Surfaces" will be measured in Square Yard (SY) for the amount of ADA Curb ramp constructed for this project. Measurements for sidewalk and curb ramps will include detectable warning surface areas, sidewalk transitions, ramps, wings, and landing areas. The Contractor shall be responsible for achieving ADA compliant slopes for all handicapped ramp elements depicted in the construction details provided.
- B. Payment for "Concrete Curb Ramps and Sidewalk, including Detectable Warning Surfaces" will be made per Square Yard (SY) for the amount of ADA complaint curb ramp, and shall include all materials, labor and equipment necessary to perform construction layout, excavation, subgrade preparation, formwork, stone subbase, expansion joint material, pouring and finishing concrete, white pigmented curing compound, protection, backfill, restorations, and incidental work. Work shall include temporary and permanent asphalt patching as required. Patching around ramps that are not in an area to receive mill and overly will include a 4' cutback and transition.
- C. A CS-4401 Form is required for Each ADA Curb Ramp. The contractor is required to work with the Project Engineer to achieve compliant slopes and complete forms.

4.02 Reinforced Concrete Pad, 8" Thick

- A. Quantity of "Reinforced Concrete Pad, 8" Thick" will be measured by the Square Yard based on the SY of Reinforced Concrete Pad Constructed.
- B. Payment for "Reinforced Concrete Pad, 8" Thick" will be made by the Square Yard (SY) of reinforced concrete pad constructed which will be utilized for concrete pads and driveways as indicted on the plans, and shall include all materials, labor and equipment necessary to perform construction layout, excavation, subgrade preparation, formwork, stone subbase, expansion joint material, pouring and finishing concrete, white pigmented curing compound, reinforcements, protection, backfill, restorations, and incidental work. Work shall include asphalt patching in front of the driveway.

4.03 Plain Cement Concrete Sidewalk

- A. Quantity of “Plain Cement Concrete Sidewalk” will be measured by the Square Yard based on the SY of Reinforced Concrete Pad Constructed.
- B. Payment for “Plain Cement Concrete Sidewalk” will be made by the Square Yard (SY) of reinforced concrete pad constructed which will be utilized for concrete pads and driveways as indicated on the plans, and shall include all materials, labor and equipment necessary to perform construction layout, excavation, subgrade preparation, formwork, stone subbase, expansion joint material, pouring and finishing concrete, white pigmented curing compound, reinforcements, protection, backfill, restorations, and incidental work. Work shall include asphalt patching in front of the driveway.

END OF SECTION

SECTION 02513
SUPERPAVE ASPHALT

PART 1 – GENERAL

1.01 Description

- A. This specification includes all labor, materials and equipment necessary to pave or resurface various roadways.

PART 2 – PRODUCTS

2.01 Material

- A. The Superpave, or equal, mixture shall strictly adhere to all requirements as outlined in Section 409 of the Pennsylvania Department of Transportation Specification, Publication 408, latest revision.

PART 3 – EXECUTION

3.01 Equipment

- A. The Superpave equipment shall strictly adhere to all requirements as outlined in Section 409 of the Pennsylvania Department of Transportation Specification, Publication 408, latest revision.

3.02 Performance

- A. The Superpave Asphalt is to be supplied, installed, and / or constructed according to Section 409 of the Pennsylvania Department of Transportation Specification, Publication 408, latest revision.
- B. All materials must be placed at the proper temperature, screed smoothly, rolled promptly and properly, depressions leveled and all workmanship performed according to Section 409 of the Pennsylvania Department of Transportation Specification, Publication 408, latest revision. The Contractor must have a thermometer to measure the temperature of the material on the paving machine at all times. The Owner reserves the option of releasing the material from the plant each morning that paving is to take place.
- C. Material delivery tickets shall be provided for each load of material delivered. The Owner, Engineer or their representative will collect and verify all delivery tickets at the site. The Owner reserves the right to spot check truck weights both at the site of loading (scale house)

or at the job site (by means of spot checking weights on local private scales). The Owner alone reserves the right to have an independent lab analyze the Superpave Asphalt in accordance with Section 409 of the Pennsylvania Department of Transportation Specification, Publication 408, latest revision. If the material or the thickness is not correct the Owner reserves the right to withhold payment until the situation is corrected.

- D. The Contractor will be responsible for payment to the supplier of all Superpave Asphalt.
- E. The Contractor will notify all truckers that the material must be covered when leaving the plant and remain covered until used. Insulated trucks will be required as per Section 409 of the Pennsylvania Department of Transportation Specification, Publication 408, latest revision.
- F. ALL NECESSARY START AND STOP CUTS AND CUTS AROUND INLETS OR MANHOLES AND AT THE END OF PAVING FOR EACH LIMIT OF PAVING ARE TO BE MADE BY THE CONTRACTOR.
- G. All curbs, edges, inlets, manholes, water boxes, driveways, etc. must be sealed with PG 64-22 or equal (not tack coat) after resurfacing. All driveways and curb ramps must have screenings placed over the PG 64-22 while it is still hot.
- H. The average application of tack coat shall be 0.05 gal./sq. yd. All streets being paved will receive a tack coat (E6 or E8) no more than three (3) hours before the street is paved. The tack coat shall be applied in a splattered pattern. Dripping or pouring the tack coat evenly from a distributor truck will be cause for suspension of work until the proper equipment is brought to the job. Placement of tack coat shall not be a separate pay item and is to be included in the cost for paving.
- I. The Contractor is required to "paint" all longitudinal and transverse joints with an asphalt emulsion if those joints are deemed to have become cold. The Owner, Engineer or representative of the Owner will make this determination.
- J. The Contractor shall guarantee the resurfacing work against defective materials or workmanship for a period of TWENTY-FOUR (24) MONTHS. This guarantee shall be provided in the form of a 24 month maintenance bond, guaranteeing the materials and workmanship for a period of 24 months.
- K. Longitudinal and transverse joints shall be well bonded and sealed. If necessary to obtain this result, the joints shall be cut back to full depth of the previously laid course, painted with asphalt emulsion and heated. Before placing the mixture against other surfaces, all points of contact shall be painted with a uniform coating of asphaltic cement dissolved in Naptha.
- L. The wearing surface shall be thoroughly compacted by a tandem power driven roller weighing not less than 10 tons, as soon as the surface will bear the roller without undue displacement. Rolling shall start longitudinally at the sides and proceed towards the center

overlapping on successive passes by at least one-half the width of the roller wheel. Where areas are inaccessible for roller, a mechanical tamper will be used to thoroughly compact the wearing surface.

- M. All cutting of test holes, checking of depth and refilling and compacting shall be done by the Contractor at his expense and as directed by the Engineer. No vehicular traffic shall be permitted on the new surface course less than three hours after the surface has been finished.
- N. Extreme care shall be exercised by the Contractor to insure that a continuous grade exists along the new paving and that no pockets exist for water to collect and remain dormant. If any such pockets do occur, the Contractor at his expense shall be required to correct the problem to the satisfaction of the Engineer. All paving removed or damaged by construction operations, shall be replaced in kind and/or repaired as specified herein. All paving damaged beyond construction limits shall be replaced with new paving at the Contractor's expense. No asphaltic material shall be laid when the temperature is 40 degrees and falling or during unfavorable or threatening weather conditions. The mixture shall be spread by means of a mechanical self-propelled paver capable of spreading the mixture true to the line, grade and crown required. Extreme care shall be exercised to prevent a breakdown of the edges. Should breakdowns occur, they shall be repaired immediately.
- O. An application of asphalt tack coat shall be provided at all locations where the new paving joins with existing paving, curbing, inlets or manholes. At pavement to pavement joints, a six foot wide paving notch shall be cut to feather the new paving into the old paving. A paving notch greater than one foot will be required in areas where local streets intersect or where required by the Engineer. Tack coat shall be applied no more than three hours prior to installation of Superpave Asphalt.
- P. The Contractor will be required to maintain traffic control, which includes but is not limited to providing adequate detour or road-closed signs and flagmen in accordance with Section 01000 – 4.01 Maintenance and Protection of Traffic.
- Q. It is the responsibility of the Contractor to keep streets clean and swept prior to paving.

3.03 Pavement Preparation

- A. Where directed by the Municipal designee to fill cracks, prior to paving, all cracks one-half (1/2) inch wide or greater shall be cleaned of all loose and deleterious material. Clean with a power broom as required. Air blast cracks and joints immediately prior to sealing. Use a compressed air stream of at least 100 psi measured at the source. The cracks shall then be filled with Superpave wearing course and sealed in accordance with Section 469 of the Pennsylvania Department of Transportation's Specification, Publication 408, latest edition.
- B. Any broken or faulty road surface, holes, or depressions are to be excavated to a firm foundation, dried, tack or prime coated and leveled with approved Superpave base course material prior to additional paving. Immediately before placing the new wearing course, the

existing surface shall be thoroughly cleaned of loose or deleterious material by sweeping the surface with power and hand brooms. When the surface has been satisfactorily cleaned and dried, a uniform tack coat shall be applied.

3.04 Thin Coat (Leveling Course) Paving

- A. If and when directed by the Engineer, a thin coat of superpave wearing course is to be applied prior to final wearing course varying 0" to 2" thickness. This course is to be applied over a clean surface with tack coat. Leveling course application on the same day as the construction of the Superpave Wearing Course for the same locations will be paid at the unit price bid per TON of Superpave Asphalt Leveling Wearing Course.

3.05 Sealing

- A. Sealing of each paved road will be performed within 14 days of paving. The work is to be performed according to Section 469 of the Pennsylvania Department of Transportation Specification, Publication 408, latest revision. All driveways and curb ramps shall have screenings placed over the PG 64-22 while it is still hot.

3.06 Base Repair

- A. Partial Depth Base Repair shall be performed at areas designated by the Engineer; the Contractor shall remove the existing pavement and stone subbase to a depth of four (4) inches beneath the milled surface. After excavation, the remaining subbase of the road shall be dried, compacted and test rolled with a fully loaded dump truck, and a minimum of four (4) inches (compacted thickness) of 25 mm Superpave Base Course conforming to PennDOT Specifications Section 309 shall then be placed and rolled with a 10 ton roller to match the milled surface. At places not accessible to the full sized roller, the base course material shall be tamped thoroughly with smaller walk behind rollers to the proper density.
- B. At the direction of the engineer the pavement thickness may be varied +/- ½ inch without altering charges to the owner.

PART 4 – QUANTITY AND PAYMENT

4.01 Asphalt Leveling Course, If and Where Directed

- A. Quantity of “Asphalt Leveling Course, If and Where Directed” will be measured in Tons (TON) of material actually installed at the specified compacted thickness.
- B. Payment for “Asphalt Leveling Course, If and Where Directed” will be made per Ton (TON), and shall include surface preparation, tack coat, Superpave asphalt material, placement, compaction, joint sealing, restorations and incidental work.

4.02 Superpave Asphalt Wearing Course

- A. Quantity of “Superpave Asphalt Mixture Design, Wearing Course, PG64S-22, 3 to 10 Million ESALS, 9.5 MM Mix, 1-1/2” Depth, SRL-L” will be measured in Square Yards (SY) of material actually installed at the specified compacted thickness.
- B. Payment for “Superpave Asphalt Mixture Design, Wearing Course, PG64S-22, 3 to 10 Million ESALS, 9.5 MM Mix, 1-1/2” Depth, SRL-L” will be made per Square Yard (SY), and shall include surface preparation, tack coat, Superpave asphalt material, placement, compaction, joint sealing, restorations and incidental work.

4.03 Superpave Asphalt Base Course

- A. Quantity of “Superpave Asphalt Mixture Design, Base Course, PG64S-22, 3 to 10 Million ESALS, 25 MM Mix, 4” Depth, SRL-L” will be measured in Square Yards (SY) of material actually installed at the specified compacted thickness.
- B. Payment for “Superpave Asphalt Mixture Design, Base Course, PG64S-22, 3 to 10 Million ESALS, 25 MM Mix, 4” Depth, SRL-L” will be made per Square Yard (SY), and shall include surface preparation, tack coat, Superpave asphalt material, placement, compaction, joint sealing, restorations and incidental work.

4.04 Base Repair, Partial Depth, 4”, Including Excavation and Subbase Compaction

- A. Quantity of “Base Repair, Partial Depth, 4”, Including Excavation and Subbase Compaction” will be measured in Square Yards (SY) of actual area removed and repaired to the specified depth.
- B. Payment for “Base Repair, Partial Depth, 4”, Including Excavation and Subbase Compaction will be made per Square Yard (SY), and shall include sawcutting (if necessary), excavation to the specified depth, subgrade preparation, subgrade compaction, test rolling, superpave base course and compaction.

SECTION 02550
SAWCUTTING - BITUMINOUS AND CONCRETE SURFACES

PART 1 – GENERAL

1.01 Description

- A. When Sawcutting is specified or required for a neat construction joint, sawing equipment shall be provided adequate in number of units and power to complete the sawing to the required dimensions and at the rate necessary to prevent uncontrolled cracking. The saws shall be equipped with water-cooled diamond edge blades or abrasive wheels and alignment guides.
- B. Saw shall be of a sufficient size to perform a straight even cut with no irregularities when measured with a ten (10) foot straight edge.
- C. This section shall include the full depth sawcutting of the existing concrete or bituminous material.
- D. At least one (1) standby saw in working order shall be provided. An ample supply of saw blades shall be maintained at the work site at all times during sawing operation.

PART 2 – PRODUCTS

Not Used

PART 3 – EXECUTION

Not Used

PART 4 – QUANTITY AND PAYMENT

4.01 Sawcutting – Bituminous and Concrete Surfaces

- A. Quantity of Sawcutting - Bituminous and Concrete Surfaces will not be measured for this project, but the work shall be performed as required to provide quality, neat and even joints between existing and proposed surfaces.
- B. Payment for Sawcutting – Bituminous and Concrete Surfaces will not be made for this project, but the cost shall be included in the various items of the proposal.

END OF SECTION

- C. Asphalt Base Course shall be Superpave Asphalt Mixture Design, Base Course, PG64S-22, 3 to 10 Million ESALS, 19 MM Mix, SRL-L, or Superpave Asphalt Mixture Design, Base Course, PG64S-22, 3 to 10 Million ESALS, 25 MM Mix, SRL-L.

END OF SECTION

SECTION 09614
CAST IN PLACE DETECTABLE/TACTILE WARNING SURFACES

PART 1 – GENERAL

1.01 Description

- A. This Section specifies furnishing and installing Cast In Place Detectable/Tactile Warning Surface Tiles where indicated. Not recommended for asphalt applications.

1.02 Submittals

- A. Product Data: Submit manufacturer's literature describing products, installation procedures and routine maintenance.
- B. Samples for Verification Purposes: Submit two (2) tile samples minimum 6"x6" of the kind proposed for use.
- C. Shop drawings are required for products specified showing fabrication details, composite structural system, tile surface profile, sound on cane contact amplification feature, plans of tile placement including joints, and material to be used as well as outlining installation materials and procedure.
- D. Material Test Reports: Submit complete test reports from qualified accredited independent testing laboratory's to qualify that materials proposed for use are in compliance with requirements and meet or exceed the properties indicated on the specifications. All tests shall be conducted on a Cast In Place Detectable/Tactile Warning Surface Tile system as certified by a qualified independent testing laboratory and be current within a 24 month period.
- E. Maintenance Instructions: Submit copies of manufacturer's specified installation and maintenance practices for each type of Detectable Warning Surface Tile and accessory as required.

PART 2 – PRODUCTS

2.01 Quality Assurance

- A. Provide Cast In Place Detectable/Tactile Warning Surface Tiles and accessories as produced by a single manufacturer with a minimum of three (3) years experience in the manufacturing of Cast In Place Detectable/Tactile Warning Surface Tiles.

- B. Installer's Qualifications: Engage an experienced Installer certified in writing by Cast In Place Detectable/Tactile Warning Surface Tile manufacturer as qualified for installation, who has successfully completed installations similar in material, design, and extent to that indicated for Project.
- C. Americans with Disabilities Act (ADA): Provide Surface Applied Detectable/Tactile Warning Surface Tiles which comply with the detectable warnings on walking surfaces section of the Americans with Disabilities Act (Title III Regulations, 28 CFR Part 36 ADA STANDARDS FOR ACCESSIBLE DESIGN, Appendix A, Section 4.29.2 DETECTABLE WARNINGS ON WALKING SURFACES).
- D. Vitrified Polymer Composite (VPC) Cast In Place Detectable/Tactile Warning Surface Tiles shall be an epoxy polymer composition with an ultra violet stabilized coating employing aluminum oxide particles in the truncated domes. The tile shall incorporate an in-line pattern of truncated domes measuring nominal 0.2" height, 0.9" base diameter, and 0.45" top diameter, spaced center-to-center 2.35" as measured on a diagonal and 1.67" as measured side by side. For wheelchair safety the field area shall consist of a non-slip surface with a minimum of 40 - 90° raised points 0.045" high, per square inch; "Armor-Tile" as manufactured by Engineered Plastics Inc., Tel: 800-682-2525, or approved equal.

1. Dimensions: Cast In Place Detectable/Tactile Warning Surface Tiles shall be held within the following dimensions and tolerances:

Length and Width: 24"x48" nominal Depth: 1.375 (1-3/8") (+/-) 5% max. Face Thickness: 0.1875 (3/16") (+/-) 5% max. Warpage of Edge: 0.5% max. Embedment Flange Spacing: shall be no greater than 3.1"

2. Water Absorption of Tile when tested by ASTM D 570-98 not to exceed 0.05%.
3. Slip Resistance of Tile when tested by ASTM C 1028-96 the combined Wet and Dry Static Co-Efficients of Friction not to be less than 0.80 on top of domes and field area.
4. Compressive Strength of Tile when tested by ASTM D 695-02a not to be less than 28,000 psi.
5. Tensile Strength of Tile when tested by ASTM D 638-03 not to be less than 19,000 psi.
6. Flexural Strength of Tile when tested by ASTM D 790-03 not to be less than 25,000 psi.
7. Chemical Stain Resistance of Tile when tested by ASTM D 543-95 (re approved 2001) to withstand without discoloration or staining - 10% hydrochloric acid, urine, saturated calcium chloride, black stamp pad ink, chewing gum, red aerosol paint, 10% ammonium hydroxide, 1% soap solution, turpentine, Urea 5%, diesel fuel and motor oil.
8. Abrasive Wear of Tile when tested by BYK - Gardner Tester ASTM D 2486-00 with reciprocating linear motion of 37± cycles per minute over a 10" travel. The abrasive medium, a 40 grit Norton Metallite sand paper, to be fixed and leveled to a holder. The combined mass of the sled, weight and wood block is to be 3.2 lb. Average wear

- depth shall not exceed 0.060 after 1000 abrasion cycles when measured on the top surface of the dome representing the average of three measurement locations per sample.
9. Resistance to Wear of Unglazed Ceramic Tile by Taber Abrasion per ASTM C501-84 (re approved 2002) shall not be less than 500.
 10. Fire Resistance of Tile when tested to ASTM E 84-05 flame spread shall be less than 15.
 11. Gardner Impact to Geometry "GE" of the standard when tested by ASTM D 5420-04 to have a mean failure energy expressed as a function of specimen thickness of not less than 550 in. lbf/in. A failure is noted when a crack is visible on either surface or when any brittle splitting is observed on the bottom plaque in the specimen.
 12. Accelerated Weathering of Tile when tested by ASTM G 155-05a for 3000 hours shall exhibit the following result – $\Delta E < 4.5$, as well as no deterioration, fading or chalking of surface of tile color No 33538
 13. Accelerated Aging and Freeze Thaw Test of Tile and Adhesive System when tested to ASTM D 1037-99 shall show no evidence of cracking, delamination, warpage, checking, blistering, color change, loosening of tiles or other detrimental defects.
 14. Salt and Spray Performance of Tile when tested to ASTM B 117-03 not to show any deterioration or other defects after 200 hours of exposure.
 15. AASHTO HB-17 single wheel HS20-44 loading "Standard Specifications for Highways and Bridges". The Cast In Place Tile shall be mounted on a concrete platform with a ½" airspace at the underside of the tile top plate then subjected to the specified maximum load of 10,400 lbs., corresponding to an 8000 lb individual wheel load and a 30% impact factor. The tile shall exhibit no visible damage at the maximum load of 10,400 lbs.
 16. Embedment flange spacing shall be no greater than 3.1" center to center spacing as illustrated on the product Cast In Place drawing.

2.02 Delivery, Storage and Handling

- A. Cast In Place Detectable/Tactile Warning Surface Tiles shall be suitably packaged or crated to prevent damage in shipment or handling. Finished surfaces shall be protected by sturdy plastic wrappings to protect tile from concrete residue during installation and tile type shall be identified by part number.
- B. Cast In Place Detectable/Tactile Warning Surface Tiles shall be delivered to location at building site for storage prior to installation.

2.03 Site Conditions

- A. Environmental Conditions and Protection: Maintain minimum temperature of 40°F in spaces to receive Cast In Place Detectable/Tactile Warning Surface Tiles for at least 24 hours prior to installation, during installation, and for not less than 24 hours after installation.

- B. The use of water for work, cleaning or dust control, etc. shall be contained and controlled and shall not be allowed to come into contact with the general public. Provide barricades or screens to protect the general public.

2.04 Guarantee

- A. Cast In Place Detectable/Tactile Warning Surface Tiles shall be guaranteed in writing for a period of five (5) years from date of final completion. The guarantee includes defective work, breakage, deformation, fading and loosening of tiles.

2.05 Manufacturers

- A. The Vitrified Polymer Composite (VPC) Cast In Place Detectable/Tactile Warning Surface Tile specified is based on Armor-Tile manufactured by Engineered Plastics Inc. (800-682-2525). Existing engineered and field tested products, which have been in successful service for a period of three (3) years are subject to compliance with requirements, may be incorporated in the work and shall meet or exceed the specified test criteria and characteristics.
- B. Color: Colonial Red (Federal Color No. 20109). Color shall be homogeneous throughout the tile.

PART 3 – EXECUTION

3.01 Installation

- A. During Cast In Place Detectable/Tactile Warning Surface Tile installation procedures, ensure adequate safety guidelines are in place and that they are in accordance with the applicable industry and government standards.
- B. Prior to placement of the Cast In Place Detectable/Tactile Warning Surface Tile system, review manufacturer and contract drawings with the Contractor prior to the construction and refer any and all discrepancies to the Engineer.
- C. The specifications of the structural embedment flange system and related materials shall be in strict accordance with the contract documents and the guidelines set by their respective manufacturers. Not recommended for asphalt applications.
- D. The physical characteristics of the concrete shall be consistent with the contract specifications while maintaining a slump range of 4 - 7 to permit solid placement of the Cast In Place Detectable/Tactile Warning Surface Tile system. An overly wet mix will cause the tile to float. Under these conditions, suitable weights such as 2 concrete blocks or sandbags (25 lb) shall be placed on each tile.

- E. The concrete pouring and finishing operations require typical mason's tools, however, a 4' long level with electronic slope readout, 25 lb. weights, and a large non-marring rubber mallet are specific to the installation of the Cast In Place Detectable/Tactile Warning Surface Tile system. A vibrating mechanism such as that manufactured by Vibco can be employed, if desired. The vibrating unit should be fixed to a soft base such as wood, at least 1 foot square.
- F. The factory-installed plastic sheeting must remain in place during the entire installation process to prevent the splashing of concrete onto the finished surface of the tile.
- G. When preparing to set the tile, it is important that no concrete be removed in the area to accept the tile. It is imperative that the installation technique eliminates any air voids under the tile. Holes in the tile perimeter allow air to escape during the installation process. Concrete will flow through the large holes in each embedment flange on the underside of the tile. This will lock the tile solidly into the cured concrete.
- H. The concrete shall be poured and finished true and smooth to the required dimensions and slope prior to the tile placement. Immediately after finishing concrete, the electronic level should be used to check that the required slope is achieved. The tile shall be placed true and square to the curb edge in accordance with the contract drawings. The Cast In Place Detectable/Tactile Warning Surface Tiles shall be tamped (or vibrated) into the fresh concrete to ensure that the field level of the tile is flush to the adjacent concrete surface. The embedment process should not be accomplished by stepping on the tile as this may cause uneven setting which can result in air voids under the tile surface. The contract drawings indicate that the tile field level (base of truncated dome) is flush to adjacent surfaces to permit proper water drainage and eliminate tripping hazards between adjacent finishes.
- I. In cold weather climates it is recommended that the Cast In Place Detectable/Tactile Warning Surface Tiles be set deeper such that the top of domes are level to the adjacent concrete on the top and sides of ramp and that the base of domes to allow water drainage. This installation will reduce the possibility of damage due to snow clearing operations.
- J. Immediately after placement, the tile elevation is to be checked to adjacent concrete. The elevation and slope should be set consistent with contract drawings to permit water drainage to curb as the design dictates. Ensure that the field surface of the tile is flush with the surrounding concrete and back of curb so that no ponding is possible on the tile at the back side of curb.
- K. While concrete is workable, a 3/8" radius edging tool shall be used to create a finished edge of concrete, then a steel trowel shall be used to finish the concrete around the tile's perimeter, flush to the field level of the tile.
- L. During and after the tile installation and the concrete curing stage, it is imperative that there is no walking, leaning or external forces placed on the tile that may rock the tile causing a void between the underside of tile and concrete.

- M. Following tile placement, review installation tolerances to contract drawings and adjust tile before the concrete sets. Two suitable weights of 25 lb each may be required to be placed on each tile as necessary to ensure solid contact of the underside of tile to concrete.
- N. Following the concrete curing stage, protective plastic wrap is to be removed from the tile surface by cutting the plastic with a sharp knife, tight to the concrete/tile interface. If concrete bled under the plastic, a soft brass wire brush will clean the residue without damage to the tile surface.
- O. If desired, individual tiles can be bolted together using ¼ inch or equivalent hardware. This can help to ensure that adjacent tiles are flush to each other during the installation process. Tape or caulking can be placed on the underside of the bolted butt joint to ensure that concrete does not rise up between the tiles during installation. Any protective plastic wrap which was peeled back to facilitate bolting or cutting, should be replaced and taped to ensure that the tile surface remains free of concrete during the installation process.
- P. Tiles can be cut to custom sizes, or to make a radius, using a continuous rim diamond blade in a circular saw or mini-grinder. Use of a straightedge to guide the cut is advisable where appropriate.
- Q. Any sound-amplifying plates on the underside of the tile, which are dislodged during handling or cutting, should be replaced and secured with construction adhesive. The air gap created between these plates and the bottom of the tile is important in preserving the sound on cane audible properties of the Armor-Tile system as required in various jurisdictions.

3.02 Cleaning, Protecting and Maintenance

- A. Protect tiles against damage during construction period to comply with Tactile Tile manufacturer's specification.
- B. Protect tiles against damage from rolling loads following installation by covering with plywood or hardwood.
- C. Clean Tactile Tiles not more than four days prior to date scheduled for inspection intended to establish date of substantial completion in each area of project. Clean Tactile Tile by method specified by Tactile Tile manufacturer.
- D. Comply with manufacturers maintenance manual for cleaning and maintaining tile surface and it is recommended to perform annual inspections for safety and tile integrity.

PART 4 – QUANTITY AND PAYMENT

4.01 Cast-in-Place Detectable/Tactile Warning Surfaces

- A. Quantity of Cast-in-Place Detectable/Tactile Warning Surfaces will not be measured for this project, but warning surfaces shall be set in new concrete sidewalk at each handicapped accessible curb ramp location shown on the plan or as directed in the field.
- B. Payment for Cast-in-Place Detectable/Tactile Warning Surfaces will not be made for this project, but the costs shall be included in the unit price bid for “Concrete Curb Ramps and Sidewalk, including Detectable Warning Surfaces”

END OF SECTION

BUREAU OF LABOR LAW COMPLIANCE PREVAILING WAGES PROJECT RATES

Project Name:	Chester Upland School District - Parking Lot Upgrades
General Description:	Milling, Resurfacing, Concrete Pavement, Concrete Curb, Striping, Dumpster Enclosures Bollards and other Site Improvements
Project Locality	Chester City
Awarding Agency:	Chester Upland School District
Contract Award Date:	9/18/2026
Serial Number:	26-07839
Project Classification:	Highway
Determination Date:	8/26/2026
Assigned Field Office:	Philadelphia
Field Office Phone Number:	(215)560-1858
Toll Free Phone Number:	
Project County:	Delaware County

BUREAU OF LABOR LAW COMPLIANCE PREVAILING WAGES PROJECT RATES

Project: 26-07839 - Building	Effective Date	Expiration Date	Hourly Rate	Fringe Benefits	Total
Asbestos & Insulation Workers	5/1/2026		\$64.51	\$50.26	\$114.77
Boilermaker (Commercial, Institutional, and Minor Repair Work)	3/1/2026		\$41.34	\$19.23	\$60.57
Boilermakers	1/1/2026		\$58.00	\$36.57	\$94.57
Bricklayer	5/1/2025		\$50.00	\$32.57	\$82.57
Bricklayer	5/1/2026		\$51.15	\$34.92	\$86.07
Carpenter - Chief of Party (Surveying & Layout)	5/1/2025		\$54.59	\$29.02	\$83.61
Carpenter - Instrument Person (Surveying & Layout)	5/1/2025		\$47.47	\$29.02	\$76.49
Carpenter - Rodman (Surveying & Layout)	5/1/2025		\$23.74	\$20.62	\$44.36
Carpenters	5/1/2026		\$48.55	\$30.39	\$78.94
Carpenters	5/1/2027		\$50.46	\$30.74	\$81.20
Carpenters	5/1/2028		\$52.43	\$31.09	\$83.52
Carpenters	5/1/2029		\$54.46	\$31.44	\$85.90
Carpenters	5/1/2030		\$56.55	\$31.79	\$88.34
Cement Finishers & Plasterers	5/1/2022		\$38.57	\$32.39	\$70.96
Cement Masons	5/1/2025		\$48.70	\$32.46	\$81.16
Dockbuilder, Pile Drivers	5/1/2026		\$56.98	\$37.99	\$94.97
Dockbuilder/Pile Driver Diver	5/1/2026		\$66.54	\$41.74	\$108.28
Dockbuilder/pile driver tender	5/1/2026		\$56.98	\$37.99	\$94.97
Drywall Finisher	5/1/2025		\$40.14	\$32.35	\$72.49
Electricians	5/4/2026		\$75.05	\$48.19	\$123.24
Electricians	5/3/2027		\$78.33	\$51.16	\$129.49
Electricians	5/1/2028		\$81.99	\$54.00	\$135.99
Elevator Constructor	1/1/2025		\$71.85	\$45.77	\$117.62
Elevator Constructor	1/1/2026		\$74.86	\$46.86	\$121.72
Floor Coverer	5/1/2025		\$51.67	\$31.69	\$83.36
Floor Coverer	5/1/2026		\$52.84	\$32.86	\$85.70
Glazier	5/1/2025		\$49.96	\$38.34	\$88.30
Glazier	5/1/2026		\$51.30	\$39.37	\$90.67
Interior Finish	5/1/2023		\$34.60	\$25.80	\$60.40
Iron Workers (Bridge, Structural, Ornamental, Precast)	7/1/2024		\$53.20	\$45.01	\$98.21
Iron Workers (Riggers)	7/1/2025		\$44.77	\$36.27	\$81.04
Iron Workers (Riggers)	7/1/2026		\$48.84	\$36.52	\$85.36
Iron Workers (Rodman/Reinforcing)	7/1/2025		\$47.80	\$36.65	\$84.45
Iron Workers (Rodman/Reinforcing)	7/1/2026		\$52.39	\$36.90	\$89.29
Laborers (Class 01 - See notes)	5/1/2025		\$37.25	\$26.10	\$63.35
Laborers (Class 02 - See notes)	5/1/2025		\$41.00	\$27.70	\$68.70
Laborers (Class 03 - See notes)	5/1/2025		\$37.67	\$26.28	\$63.95
Laborers (Class 04 - See notes)	5/1/2025		\$37.67	\$26.28	\$63.95
Laborers (Class 05 - See notes)	5/1/2025		\$37.25	\$26.10	\$63.35
Landscape Laborer	5/1/2024		\$30.70	\$24.23	\$54.93
Landscape Laborer	5/1/2025		\$32.15	\$24.30	\$56.45
Marble Finisher	5/1/2025		\$41.17	\$30.75	\$71.92
Marble Finisher	5/1/2026		\$42.07	\$31.85	\$73.92
Marble Mason	5/1/2023		\$47.20	\$31.95	\$79.15

BUREAU OF LABOR LAW COMPLIANCE PREVAILING WAGES PROJECT RATES

Project: 26-07839 - Building	Effective Date	Expiration Date	Hourly Rate	Fringe Benefits	Total
Marble Setter	5/1/2026		\$51.50	\$33.80	\$85.30
Mason Tender, Cement	5/1/2023		\$35.02	\$25.98	\$61.00
Millwright	5/1/2025		\$57.39	\$35.81	\$93.20
Millwright	5/1/2026		\$60.20	\$35.81	\$96.01
Operators (Building, Class 01 - See Notes)	5/1/2025		\$54.52	\$34.49	\$89.01
Operators (Building, Class 01 - See Notes)	5/1/2026		\$55.67	\$35.34	\$91.01
Operators (Building, Class 01A - See Notes)	5/1/2025		\$57.52	\$35.38	\$92.90
Operators (Building, Class 01A - See Notes)	5/1/2026		\$58.68	\$36.22	\$94.90
Operators (Building, Class 02 - See Notes)	5/1/2025		\$54.27	\$34.42	\$88.69
Operators (Building, Class 02 - See Notes)	5/1/2026		\$55.43	\$35.26	\$90.69
Operators (Building, Class 02A - See Notes)	5/1/2025		\$57.29	\$35.29	\$92.58
Operators (Building, Class 02A - See Notes)	5/1/2026		\$58.44	\$36.14	\$94.58
Operators (Building, Class 03 - See Notes)	5/1/2025		\$50.18	\$33.22	\$83.40
Operators (Building, Class 03 - See Notes)	5/1/2026		\$51.34	\$34.06	\$85.40
Operators (Building, Class 04 - See Notes)	5/1/2025		\$49.88	\$33.13	\$83.01
Operators (Building, Class 04 - See Notes)	5/1/2026		\$51.04	\$33.97	\$85.01
Operators (Building, Class 05 - See Notes)	5/1/2025		\$48.16	\$32.62	\$80.78
Operators (Building, Class 05 - See Notes)	5/1/2026		\$49.32	\$33.46	\$82.78
Operators (Building, Class 06 - See Notes)	5/1/2025		\$47.17	\$32.33	\$79.50
Operators (Building, Class 06 - See Notes)	5/1/2026		\$48.34	\$33.16	\$81.50
Operators (Building, Class 07A- See Notes)	5/1/2025		\$66.26	\$39.55	\$105.81
Operators (Building, Class 07A- See Notes)	5/1/2026		\$67.73	\$40.48	\$108.21
Operators (Building, Class 07B- See Notes)	5/1/2025		\$65.97	\$39.46	\$105.43
Operators (Building, Class 07B- See Notes)	5/1/2026		\$67.44	\$40.39	\$107.83
Painters Class 1 (see notes)	5/1/2025		\$44.38	\$34.55	\$78.93
Painters Class 1 (see notes)	5/1/2026		\$45.71	\$35.22	\$80.93
Painters - Line Stripping	12/1/2024		\$44.12	\$27.91	\$72.03
Painters - Line Stripping	12/1/2025		\$45.12	\$29.41	\$74.53
Painters Class 4 (see notes)	5/1/2025		\$46.47	\$34.55	\$81.02
Painters Class 4 (see notes)	5/1/2026		\$48.45	\$35.22	\$83.67
Plasterers	5/1/2024		\$39.88	\$33.08	\$72.96
plumber	5/1/2025		\$70.53	\$39.46	\$109.99
plumber	5/1/2026		\$73.73	\$40.36	\$114.09
Pointers, Caulkers, Cleaners	5/1/2025		\$51.35	\$31.80	\$83.15
Pointers, Caulkers, Cleaners	5/1/2026		\$53.35	\$32.30	\$85.65
Roofers (Composition)	5/1/2024		\$44.13	\$34.77	\$78.90
Roofers (Composition)	5/1/2026		\$47.53	\$35.22	\$82.75
Roofers (Shingle)	5/1/2024		\$34.35	\$22.20	\$56.55
Roofers (Slate & Tile)	5/1/2024		\$37.35	\$22.20	\$59.55
Sheet Metal Workers	5/1/2025		\$62.62	\$52.17	\$114.79
Sheet Metal Workers	5/1/2026		\$65.06	\$54.48	\$119.54
Sign Makers and Hangars	7/15/2025		\$33.48	\$26.41	\$59.89
Sign Makers and Hangars	7/15/2026		\$36.38	\$25.01	\$61.39
Sprinklerfitters	1/1/2023		\$62.23	\$31.99	\$94.22

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

Project: 26-07839 - Building	Effective Date	Expiration Date	Hourly Rate	Fringe Benefits	Total
Sprinklerfitters	5/1/2025		\$70.37	\$34.85	\$105.22
Steamfitters	5/1/2024		\$70.32	\$43.09	\$113.41
Steamfitters	5/1/2025		\$72.52	\$44.89	\$117.41
Stone Masons	5/1/2025		\$50.00	\$32.80	\$82.80
Stone Masons	5/1/2026		\$51.50	\$33.80	\$85.30
Terrazzo Finisher	5/1/2025		\$45.61	\$29.41	\$75.02
Terrazzo Finisher	5/1/2026		\$47.78	\$29.61	\$77.39
Terrazzo Grinder	5/1/2025		\$45.88	\$29.41	\$75.29
Terrazzo Grinder	5/1/2026		\$47.78	\$29.61	\$77.39
Terrazzo Mechanics	5/1/2025		\$52.21	\$31.26	\$83.47
Terrazzo Mechanics	5/1/2026		\$53.36	\$32.61	\$85.97
Tile Finisher	5/1/2025		\$41.17	\$30.75	\$71.92
Tile Finisher	5/1/2026		\$42.07	\$31.85	\$73.92
Tile Setter	5/1/2025		\$52.21	\$31.26	\$83.47
Tile Setter	5/1/2026		\$53.36	\$32.61	\$85.97
Truckdriver class 1(see notes)	5/1/2024		\$36.79	\$22.54	\$59.33
Truckdriver class 1(see notes)	5/1/2026		\$38.57	\$23.87	\$62.44
Truckdriver class 2 (see notes)	5/1/2024		\$36.89	\$22.54	\$59.43
Truckdriver class 2 (see notes)	5/1/2026		\$38.67	\$23.87	\$62.54
Truckdriver class 3 (see notes)	5/1/2026		\$38.92	\$23.87	\$62.79
Window Film / Tint Installer	6/1/2025		\$27.42	\$15.13	\$42.55
Window Film / Tint Installer	6/1/2026		\$28.35	\$15.60	\$43.95

BUREAU OF LABOR LAW COMPLIANCE PREVAILING WAGES PROJECT RATES

Project: 26-07839 - Heavy/Highway	Effective Date	Expiration Date	Hourly Rate	Fringe Benefits	Total
Bricklayer	5/1/2025		\$50.00	\$32.57	\$82.57
Bricklayer	5/1/2026		\$51.15	\$34.92	\$86.07
Carpenter - Chief of Party (Surveying & Layout)	5/1/2025		\$65.96	\$30.09	\$96.05
Carpenter - Chief of Party (Surveying & Layout)	5/1/2026		\$67.52	\$30.44	\$97.96
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)	5/1/2025		\$45.88	\$23.19	\$69.07
Carpenter - Rodman (Surveying & Layout)	5/1/2026		\$46.97	\$23.54	\$70.51
Carpenter	5/1/2025		\$57.36	\$30.09	\$87.45
Carpenter	5/1/2026		\$58.71	\$30.44	\$89.15
Cement Masons	5/1/2023		\$43.20	\$32.91	\$76.11
Cement Masons	5/1/2025		\$46.55	\$32.66	\$79.21
Dockbuilder, Pile Drivers	5/1/2026		\$56.98	\$37.99	\$94.97
Dockbuilder/Pile Driver Diver	5/1/2026		\$61.88	\$45.47	\$107.35
Dockbuilder/pile driver tender	5/1/2026		\$56.98	\$37.99	\$94.97
Electric Lineman	6/3/2024		\$62.07	\$33.96	\$96.03
Electric Lineman	6/2/2025		\$65.10	\$34.45	\$99.55
Iron Workers (Bridge, Structural, Ornamental, Precast)	7/1/2024		\$53.20	\$45.01	\$98.21
Iron Workers (Riggers)	7/1/2023		\$42.53	\$34.14	\$76.67
Iron Workers (Rodman/Reinforcing)	7/1/2023		\$45.70	\$34.77	\$80.47
Laborers (Class 01 - See notes)	5/1/2025		\$40.20	\$27.80	\$68.00
Laborers (Class 01 - See notes)	5/1/2026		\$41.65	\$27.90	\$69.55
Laborers (Class 02 - See notes)	5/1/2025		\$40.40	\$27.80	\$68.20
Laborers (Class 02 - See notes)	5/1/2026		\$41.85	\$27.90	\$69.75
Laborers (Class 03 - See notes)	5/1/2025		\$40.40	\$27.80	\$68.20
Laborers (Class 03 - See notes)	5/1/2026		\$41.85	\$27.90	\$69.75
Laborers (Class 04 - See notes)	5/1/2025		\$35.00	\$27.80	\$62.80
Laborers (Class 04 - See notes)	5/1/2026		\$36.45	\$27.90	\$64.35
Laborers (Class 05 - See notes)	5/1/2025		\$41.05	\$27.80	\$68.85
Laborers (Class 05 - See notes)	5/1/2026		\$42.50	\$27.90	\$70.40
Laborers (Class 06 - See notes)	5/1/2025		\$41.10	\$27.80	\$68.90
Laborers (Class 06 - See notes)	5/1/2026		\$42.55	\$27.90	\$70.45
Laborers (Class 07 - See notes)	5/1/2025		\$40.95	\$27.80	\$68.75
Laborers (Class 07 - See notes)	5/1/2026		\$42.40	\$27.90	\$70.30
Laborers (Class 08 - See notes)	5/1/2025		\$40.70	\$27.80	\$68.50
Laborers (Class 08 - See notes)	5/1/2026		\$42.15	\$27.90	\$70.05
Laborers (Class 09 - See notes)	5/1/2025		\$40.55	\$27.80	\$68.35
Laborers (Class 09 - See notes)	5/1/2026		\$42.00	\$27.90	\$69.90
Laborers (Class 10- See notes)	5/1/2025		\$40.70	\$27.80	\$68.50
Laborers (Class 10- See notes)	5/1/2026		\$42.15	\$27.90	\$70.05
Laborers (Class 11 -See Notes)	5/1/2025		\$40.60	\$27.80	\$68.40
Laborers (Class 11 -See Notes)	5/1/2026		\$42.05	\$27.90	\$69.95
Laborers (Class 12 -See Notes)	5/1/2025		\$42.30	\$27.80	\$70.10
Laborers (Class 12 -See Notes)	5/1/2026		\$42.85	\$27.90	\$70.75

BUREAU OF LABOR LAW COMPLIANCE PREVAILING WAGES PROJECT RATES

Project: 26-07839 - Heavy/Highway	Effective Date	Expiration Date	Hourly Rate	Fringe Benefits	Total
Laborers (Class 13 -See Notes)	5/1/2025		\$44.33	\$27.80	\$72.13
Laborers (Class 13 -See Notes)	5/1/2026		\$45.78	\$27.90	\$73.68
Laborers (Class 14 -See Notes)	5/1/2025		\$40.90	\$27.80	\$68.70
Laborers (Class 14 -See Notes)	5/1/2026		\$41.90	\$27.90	\$69.80
Laborers Utility (PGW ONLY) (Flagperson)	5/1/2025		\$34.07	\$19.73	\$53.80
Laborers Utility (PGW ONLY) (Flagperson)	5/1/2026		\$35.52	\$19.83	\$55.35
Laborers Utility (PGW ONLY)	5/1/2025		\$41.10	\$19.73	\$60.83
Laborers Utility (PGW ONLY)	5/1/2026		\$42.55	\$19.83	\$62.38
Landscape Laborer	5/1/2024		\$30.28	\$24.05	\$54.33
Landscape Laborer	5/1/2025		\$31.73	\$24.15	\$55.88
Millwright	5/1/2025		\$57.39	\$35.81	\$93.20
Millwright	5/1/2026		\$60.20	\$35.81	\$96.01
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)	5/1/2025		\$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)	5/1/2025		\$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)	5/1/2025		\$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)	5/1/2025		\$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)	5/1/2025		\$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)	5/1/2025		\$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)	5/1/2025		\$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)	5/1/2025		\$66.26	\$39.55	\$105.81
Operators Class 07 (A) - See Notes (Building, Heavy, Highway)	5/1/2026		\$67.73	\$40.48	\$108.21
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

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

Project: 26-07839 - Heavy/Highway	Effective Date	Expiration Date	Hourly Rate	Fringe Benefits	Total
Highway)					
Painters - Line Stripping	12/1/2024		\$44.12	\$27.91	\$72.03
Painters - Line Stripping	12/1/2025		\$45.12	\$29.41	\$74.53
Painters Class 2 (see notes)	2/1/2025		\$50.85	\$33.91	\$84.76
Painters Class 2 (see notes)	2/1/2026		\$51.61	\$35.00	\$86.61
Painters Class 3 (see notes)	2/1/2025		\$61.81	\$33.95	\$95.76
Painters Class 3 (see notes)	2/1/2026		\$62.57	\$35.04	\$97.61
Pointers, Caulkers, Cleaners	5/1/2025		\$51.35	\$31.80	\$83.15
Steamfitters (Heavy and Highway - Gas Distribution)	5/1/2025		\$68.89	\$44.73	\$113.62
Truckdriver class 1(see notes)	5/1/2024		\$36.64	\$22.54	\$59.18
Truckdriver class 1(see notes)	5/1/2026		\$38.42	\$23.87	\$62.29
Truckdriver class 2 (see notes)	5/1/2024		\$36.74	\$22.54	\$59.28
Truckdriver class 2 (see notes)	5/1/2026		\$38.52	\$23.87	\$62.39
Truckdriver class 3 (see notes)	5/1/2026		\$38.77	\$23.87	\$62.64