

WESTMORELAND COUNTY HOUSING AUTHORITY

**CONTRACT DOCUMENTS
&
TECHNICAL SPECIFICATIONS
BID**

**2025 HEMPFIELD TOWERS SITE REHABILITATION
CONTRACT – PA 28-8-02-2025.1 GC-SITE**

Located At
2500 S. GRANDE BLVD, GREENSBURG, PA. 15601

OCTOBER 1, 2025

PREPARED & ASSEMBLED BY:

Westmoreland County Housing Authority

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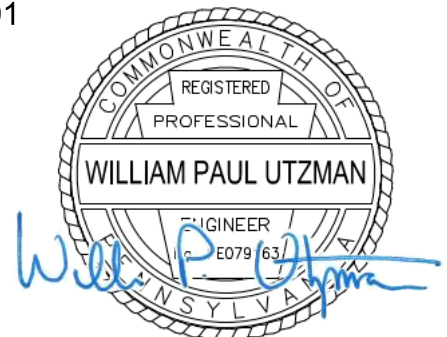
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WESTMORELAND COUNTY HOUSING AUTHORITY

**HEMPFIELD TOWERS
2025 PARKING LOT REHABILITATION PROJECT
2500 S. GRANDE BLVD. GREENSBURG, PA. 15601**

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NOTICE TO BIDDERS

The Westmoreland County Housing Authority (WCHA) is requesting bids for:

HEMPFIELD TOWERS 2025 PARKING LOT REHABILITATION PROJECT 2500 GRANDE BLVD. GREENSBURG, PA. 15601

GENERAL SITE CONSTRUCTION – CONTRACT – PA 28-8-02-2025.1 GC-SITE

Westmoreland County Housing Authority is requesting General Site Construction bids for the referenced project through sealed bids which will be received by the **Westmoreland County Housing Authority**, until **October 21, 2025 at 10:00 A.M. (eastern standard time)**. Bids shall be deposited at the Administrative Office of the Westmoreland County Housing Authority, 167 South Greengate Road, Greensburg PA 15601. Bids received will then be opened publicly.

A **Pre-Bid Meeting** is scheduled for **October 8, 2025 at 1:30 P.M. (eastern standard time)**. Attendance is not mandatory, but highly recommended. Meeting location will be at WCHA HEMPFIELD TOWERS – 2500 South Grande Blvd., Greensburg, PA. 15601.

Electronic Bid Documents are available for downloading at www.wchaonline.com. Bidders are required to register online at the www.wchaonline.com to view bid documents. Plan holders proposing to bid shall also register their intent to submit a bid with **Westmoreland County Housing Associates, Inc.** via email to lindam@wchaonline.com and eriks@wchaonline.com in accordance with the bid requirements.

Tribune Review - Advertisement Dates: October 1, 2025 and October 5, 2025

Pittsburgh Courier - October 1, 2025

Mon-Valley Independent – October 1, 2025

Westmoreland County Housing Authority.

By: Michael L. Washowich, Executive Director

002113.02 Supplemental Conditions for Project Bidding

1. **Pre-Qualification of Bidders:** Prospective bidders will be required to pre-qualify in order to submit bid. However, all bidders will be required to submit adequate performance qualifications for sealing and paving. Each bidder must assert that they have installed a minimum of 1000 sf of the sealer type as described within the contract documents. The prospective bidders shall submit documentation displaying that the bidder is qualified to perform the required work (i.e. Profile of Firm Form and required resumes). Failure by the prospective bidder to provide the requested information may, at the HA's discretion, eliminate that bidder from consideration, provided that all bidders were required to submit the same information as a part of the IFB process (in the case of a successful bidder(s), these requirements shall also apply in the context of the successful bidder or bidders).
2. The HA reserves the right to, at any time, request and receive from any or all bidders a Lump Sum Cost Breakdown (LSCB) of any or all of the costs bid. The bid documents constitute an outline of the work to be completed by the bidder. These documents are intended to include all major items, and the *lump sum cost breakdown* computed therefrom will be the maximum compensation for all work and materials whatsoever furnished by the bidder in order to comply with the bid documents in their present form, whether or not indicated in the approximate quantities or pertaining to the items of work as listed.
 - a. The purpose of this LSCB will serve the HA in two distinct areas:
 - b. **Prior to award of bids:** The HA may request a LSCB for any or all items reflected within the IFB document as "lump sum" for the purpose of determining an unbalanced cost bid. The CO, using acceptable methods dictated by the industry, shall conduct the analysis.
 - c. **After award:** The HA may request a LSCB for any or all items reflected within the IFB document as "lump sum" for the purpose of making partial payments to the successful bidder.
 - d. Under no circumstances, may any cost item reflected as "lump sum" be increased/decreased as a result of the LSCB analysis.
3. **Bid Evaluation and Award** – Bids will be evaluated based on either a total combination bid or "individually" for each Housing Rental Unit. The Housing Authority reserves the right to evaluate and award the bids at their discretion based on allocated funding.
4. Each prospective bidder must review each site and assert that they have performed their due diligence with reviewing existing site conditions for establishing quantities of work in preparing their bids.
5. **Estimated Quantities:** Unless otherwise indicated within the IFB documents (Summary of Work), the quantities reflected within the IFB documents, to the best of the HA's knowledge, reflect projected consumption data. These quantities are not meant to infer or imply actual consumption figures or quantities that will be purchased by the HA under the finalized contract; but, pursuant to all IFB documents, these quantities will be used as calculation figures to determine the successful bidder.

Each prospective bidder must review each site and assert that they have performed their due diligence with reviewing existing site conditions for establishing quantities of work in preparing their bid.

**Equal Employment
Opportunity Certification**
Excerpt From 41 CFR §60-1.4(b)

**U.S. Department of Housing
and Urban Development**
Office of Housing
Federal Housing Commissioner

Department of Veterans Affairs
OMB Control No. 2502-0029
(exp. 4/30/2020)

The applicant hereby agrees that it will incorporate or cause to be incorporated into any contract for construction work, or modification thereof, as defined in the regulations of the Secretary of Labor at 41 CFR Chapter 60, which is paid for in whole or in part with funds obtained from the Federal Government or borrowed on the credit of the Federal Government pursuant to a grant, contract, loan insurance, or guarantee, or undertaken pursuant to any Federal program involving such grant, contract, loan, insurance, or guarantee, the following equal opportunity clause:

During the performance of this contract, the contractor agrees as follows:

- (1) The contractor will not discriminate against any employee or applicant for employment because of race, color, religion, sex, or national origin. The contractor will take affirmative action to ensure that applicants are employed, and that employees are treated during employment without regard to their race, color, religion, sex, or national origin, such action shall include, but not be limited to the following: Employment, upgrading, demotion, or transfer; recruitment or recruitment advertising; layoff or termination; rates of pay or other forms of compensation; and selection for training, including apprenticeship. The contractor agrees to post in conspicuous places, available to employees and applicants for employment, notices to be provided setting forth the provisions of this nondiscrimination clause.
- (2) The contractor will, in all solicitations or advertisements for employees placed by or on behalf of the contractor, state that all qualified applicants will receive considerations for employment without regard to race, color, religion, sex, or national origin.
- (3) The contractor will send to each labor union or representative of workers with which it has a collective bargaining agreement or other contract or understanding, a notice to be provided advising the said labor union or workers' representatives of the contractor's commitments under this section, and shall post copies of the notice in conspicuous places available to employees and applicants for employment.
- (4) The contractor will comply with all provisions of Executive Order 11246 of September 24, 1965, and of the rules, regulations and relevant orders of the Secretary of Labor.
- (5) The contractor will furnish all information and reports required by Executive Order 11246 of September 24, 1965, and by rules, regulations, and orders of the Secretary of Labor, or pursuant thereto, and will permit access to its books, records, and accounts by the administering agency and the Secretary of Labor for purposes of investigation to ascertain compliance with such rules, regulations, and orders.

- (6) In the event of the contractor's noncompliance with the nondiscrimination clauses of this contract or with any of the said rules, regulations, or orders, this contract may be canceled, terminated, or suspended in whole or in part and the contractor may be declared ineligible for further Government contracts or federally assisted construction contracts in accordance with procedures authorized in Executive Order 11246 of September 24, 1965, and such other sanctions may be imposed and remedies invoked as provided in Executive Order 11246 of September 24, 1965, or by rule, regulation, or order of the Secretary of Labor, or as otherwise provided by law.
- (7) The contractor will include the portion of the sentence immediately preceding paragraph (1) and the provisions of paragraphs (1) through (7) in every subcontract or purchase order unless exempted by rules, regulations, or orders of the Secretary of Labor issued pursuant to section 204 of Executive Order 11246 of September 24, 1965, so that such provisions will be binding upon each subcontractor or vendor. The contractor will take such action with respect to any subcontract or purchase order as the administering agency may direct as a means of enforcing such provisions, including sanctions for noncompliance: **Provided, however,** That in the event a contractor becomes involved in, or is threatened with, litigation with a subcontractor or vendor as a result of such direction by the administering agency the contractor may request the United States to enter into such litigation to protect the interests of the United States.

The applicant further agrees that it will be bound by the above equal opportunity clause with respect to its own employment practices when it participates in federally assisted construction work:

Provided, That if the applicant so participating is a State or local government, the above equal opportunity clause is not applicable to any agency, instrumentality or subdivision of such government which does not participate in work on or under the contract.

The applicant agrees that it will assist and cooperate actively with the administering agency and the Secretary of Labor in obtaining the compliance of contractors and subcontractors with the equal opportunity clause and the rules, regulations, and relevant orders of the Secretary of Labor, that it will furnish the administering agency and the Secretary of Labor such information as they may require for the supervision of such compliance, and that it will otherwise assist the administering agency in the discharge of the agency's primary responsibility for securing compliance.

The applicant further agrees that it will refrain from entering into any contract or contract modification subject to Executive Order 11246 of September 24, 1965, with a contractor debarred from, or who has not demonstrated eligibility for, Government contracts and Federally-assisted construction contracts pursuant to the Executive order and will carry out such sanctions and penalties for violation of the equal opportunity clause as may be imposed

Firm Name and Address

By

Title

upon contractors and subcontractors by the administering agency or the Secretary of Labor pursuant to Part II, Subpart D of the Executive order. In addition, the applicant agrees that if it fails or refuses to comply with these undertakings, the administering agency may take any or all of the following actions: Cancel, terminate, or suspend in whole or in part this grant (contract, loan, insurance, guarantee); refrain from extending any further assistance to the applicant under the program with respect to which the failure or refund occurred until satisfactory assurance of future compliance has been received from such applicant; and refer the case to the Department of Justice for appropriate legal proceedings.

Excerpt from HUD Regulations

200.410Definition of term “applicant”.

- (a) In multifamily housing transactions where controls over the mortgagor are exercised by the Commissioner either through the ownership of corporate stock or under the provisions of a regulatory agreement, the term “applicant” as used in this subpart shall mean the mortgagor.
- (b) In transactions other than those specified in paragraph(a) of this section, the term “applicant” as used in this subpart shall mean the builder, dealer or contractor performing the construction, repair or rehabilitation work for the mortgagor or other borrower.

200.420Equal Opportunity Clause to be included in contracts and subcontracts.

- (a) The following equal opportunity clause shall be included in each contract and subcontract which is not exempt:
During the performance of this contract, the contractor agrees as follows:
 - (1) The contractor will not discriminate against any employee or applicant for employment because of race, creed, color, or national origin. The contractor will take affirmative action to ensure that applicants are employed, and that employees are treated during employment without regard to their race, creed, color, or national origin. Such action shall include, but not be limited to the following: employment, upgrading, demotion or transfer; recruitment or recruitment advertising; layoff or termination; rates of pay or other forms of compensation; and selection for training, including apprenticeship. The contractor agrees to post in conspicuous places, available to employees and applicants for employment, notices to be provided setting forth the provisions of the nondiscrimination clause.
 - (2) The contractor will in all solicitations or advertisements for employees placed by or on behalf of the contractor, state that all qualified applicants will receive consideration for employment without regard race, creed, color, or national origin.
 - (3) The contractor will send to each labor union or representative of workers with which he has a collective bargaining agreement or other contract or understanding, a notice, to be provided, advising the said labor union or workers' representative of the contractor's commitments under this section, and shall post copies of the notices in conspicuous places available to employees and applicants for employment.
 - (4) The contractor will comply with all provisions of Executive Order 10925 of March 6 1961, as amended, and of the regulations, and relevant orders of the President's Committee on Equal Employment Opportunity created thereby.

(5) The contractor will furnish all information and reports required by Executive Order 10925 of March 6, 1961, as amended, and by the regulations, and orders of the said Committee, or pursuant thereto, and will permit access to his books, records, and accounts by HUD and the Committee for purposes of investigation to ascertain compliance with such regulations, and orders.

(6) In the event of the contractor's non-compliance with the nondiscrimination clause of this contract or with any of the said regulations, or orders, this contract may be cancelled, terminated or suspended in whole or in part and the contractor may be declared ineligible for further Government contracts or Federally-assisted construction contracts in accordance with procedures authorized in Executive Order 10925 of March 6, 1961, as amended, and such other sanctions may be imposed and remedies invoked provided in the said Executive Order or by regulations, or order of the President's Committee on Equal Employment Opportunity, or as otherwise provided by law.

(7) The contractor will include the provisions of Paragraphs(1) through (7) in every subcontract or purchase order unless exempted by regulations, or orders of the President's Committee on Equal Employment Opportunity issued pursuant to Section 303 of Executive Order 10925 of March 6, 1961, as amended, so that such provisions will be binding upon each subcontractor or vendor. The contractor will take such action with respect to any subcontract or purchase orders as HUD may direct as a means of enforcing such provisions, including sanctions for noncompliance: Provided, however, that in the event the contractor becomes involved in, or is threatened with, litigation with a subcontractor or vendor as a result of such direction by HUD, the contractor may request the United States to enter into such litigation to protect the interests of the United States.

- (b) Except in subcontracts for the performance of construction work at the site of construction, the clause is not required to be inserted in subcontracts below the second tier. Subcontracts may incorporate by reference to the equal opportunity clause.

200.425Modification in and exemptions from the regulations in this subpart.

- (a) The following transactions and contracts are exempt from the regulations in this subpart:
 - (1) Loans, mortgages, contracts and subcontracts not exceeding \$10,000.
 - (2) Contract and subcontracts not exceeding \$100,000 for standard commercial supplies or raw material;
 - (3) Contracts and subcontracts under which work is to be or has been performed outside the United States and where no recruitment of workers within the United States is involved. To the extent that work pursuant to such contracts is done within the United States, the equal opportunity clause shall be applicable;
 - (4) Contracts for the sale of Government property where no appreciable amount of work is involved; and
 - (5) Contracts and subcontracts for an indefinite quantity which are not to extend for more than one year if the purchaser determines that the amounts to be ordered under any such contract or subcontract are not reasonably expected to exceed \$100,000 in the case of contracts or subcontracts for standard commercial supplies and raw materials, or \$10,000 in the case of all other contracts and subcontracts.

WESTMORELAND COUNTY HOUSING AUTHORITY
HEMPFIELD TOWERS
2025 PARKING LOT REHABILITATION PROJECT
2500 S. GRANDE BLVD. GREENSBURG, PA. 15601

GENERAL SITE CONSTRUCTION – CONTRACT – PA 28-8-02-2025.1 GC-SITE
FORM OF PROPOSAL

DEPOSIT AND OPENING OF BIDS

Westmoreland County Housing Authority is requesting General Site Construction bids for the referenced project through sealed bids which will be received by the **Westmoreland County Housing Authority**, until **October 21, 2025 at 10:00 A.M. (eastern standard time)**. Bids shall be deposited at the Administrative Office of the Westmoreland County Housing Authority, 167 South Greengate Road, Greensburg PA 15601. Bids received will then be opened publicly.

IMPORTANT - Be sure to show figures in ink or typewritten, sign the bid form, and attach as a proposal guaranty a certified check drawn by the depositor to the **Westmoreland County Housing Authority**, or a bid bond executed by the Bidder and a surety company, in the amount of at least ten percent (10%) of the total bid.

CONTRACT – PA 28-8-02-2025.1 GC-SITE \$ _____

Contract No. PA-28-8-02-2025-1 GC-SITE Bid of hereinafter called "Bidder" organized and existing under the laws of the State of _____ doing business as _____ (Corporation, Partnership, Limited Partnership, Sole Proprietor, Etc.), located at

Physical Business Address

to furnish all labor, equipment, and materials and to perform all work in a substantial and workmanlike manner, in accordance with the Contract Documents provided.

This bid must be filled in by the Bidder, in ink or typewritten, and any omission of bid prices, where a bid is made, will be sufficient to cause rejection of the bid as informal. The Owner reserves the right to reject any and all bids, and to waive any informalities, defects, or irregularities in the bids.

In accordance with the advertisement of the **Westmoreland County Housing Authority** inviting bids for and in conformity with the Contract Documents on file at the office of Owner, and the supplements and revisions attached hereto and made a part hereof, the Bidder hereby certifies that the Bidder is the only person(s) interested in this bid as principal(s); that it is made without collusion with any persons, firm, or corporation; that an examination has been made of the Contract Documents, and same person(s) has(have) had sufficient time to investigate and is(are) satisfied as to the character of the Contract, that the Bidder proposes to furnish and deliver the

necessary services required for **HEMPFIELD TOWERS 2025 PARKING LOT REHABILITATION PROJECT** to the **Westmoreland County Housing Authority**.

It is further proposed to execute the Contract, including the bonds, in accordance with the requirements of the Contract Documents, to begin work on the date specified in the Notice to Proceed, and to substantially complete the work within **NINETY (90) calendar days**.

It is understood that if the work is not completed within the time specified on the Notice to Proceed, or such extensions thereof as may be granted in accordance with the Specifications, the Contractor shall pay the Westmoreland County Housing Authority liquidated damages in the amount of one hundred dollars **(\$100.00)** for each and every consecutive calendar day thereafter, until the work shall be completed and accepted.

Enclosed is a depositor's check certified by (name of bank of deposit) or a bid bond executed by the Bidder and (name of surety) _____

in the amount of at least ten percent (10%) of the total amount bid, made payable to the **Westmoreland County Housing Authority** as a proposal guaranty which, it is understood, will be forfeited in case the Contractor fails to execute and return the Contract in accordance with the requirements of the Specifications.

TO BE FILLED IN IF ADDENDA ARE ISSUED:

The Bidder acknowledges the receipt of Addenda hereinafter enumerated, which have been issued during the period of bidding, and agrees that said Addenda shall become a part of this Contract. The Bidder shall list below the numbers and issuing dates of the Addenda received:

ADDENDUM NO. _____ ADDENDUM NO. ____

ISSUING DATE _____ ISSUING DATE ____

BID PROPOSAL:

The Bidder agrees to perform all of the construction work described and detailed in the Contract Specifications and Drawings for the lump sum of :

_____ Dollars. (\$)_____. (Bid to be rounded to nearest dollar amount.)

Bid Amount shall be illustrated in words and figures. The amount shown in words shall govern over figures if a discrepancy exists.

As previously stated in the Information for Bidders, **HEMPFIELD TOWERS 2025 PARKING LOT REHABILITATION PROJECT** shall be awarded to the lowest bid submitted by a responsible Bidder, as determined by the Owner, provided such bid falls within the financing ability of the Owner.

Bidder by submission of the above bid amount represents the project scope of work and bid documents have been thoroughly reviewed and evaluated including additional requests related to the interpretation or clarification of the design intent of the bid documents and acknowledgment of

Addendum(s), if applicable. **Each prospective bidder must review each site and assert they have performed their due diligence with reviewing existing site conditions for establishing quantities of work in preparing their bids.** Bidder represents that it has the knowledge, skill, labor, equipment and expertise to perform the work described and illustrated within the Contract Documents; that it understands that it must make reasonable inferences to determine portions of the work not illustrated within the Contract Documents that would insure a complete project meeting as a minimum industry standards for the particular assignment. Bidder further acknowledges the bid amount represents all costs for such inferences in its bid; and, that Bidder is not relying on representations from the Contract Documents for the purpose of determining the means, methods, sequences of procedures of performing the work.

Bidder certifies that he does not maintain or provide for his employees any segregated facilities at any of his establishments, and that he does not permit his employees to perform their services at any location, under his control, where segregated facilities are maintained. He certifies further that he will not maintain or provide for his employees to perform their services at any location, under his control, where segregated facilities are maintained. The bidder agrees that a breach of this certification is a violation of the Equal Opportunity clause in this contract. As used in this certification, the term "segregated facilities" means any waiting rooms, work areas, rest rooms and wash rooms, restaurants and other eating areas, time clocks, locker rooms and other storage or dressing areas, parking lots, drinking fountains, recreation or other entertainment areas, transportation, and housing facilities provided for employees which are segregated by explicit directive or are in fact segregated on the basis of race, color, religion, or national origin, because of habit, local custom, or otherwise. He further agrees that (except where he has obtained identical certifications from proposed subcontractors for specific time periods) he will obtain identical certifications from proposed subcontractors prior to the award of subcontracts exceeding \$10,000 which are not exempt from the provisions of the Equal Opportunity Clause; that he will retain such certifications in his files; and that he will forward a notice to his proposed subcontractors as provided in the Instructions to Bidders.

The Owner reserves the right to reject any and all bids and to waive any informality in the bidding and Bidder understands and agrees to this right and reservation by submitting the above bid.

The Owner reserves the right to evaluate and hold all bids and bid securities for a period of **Ninety (90)** calendar days following the date of public opening; Bidder understands and agrees to this right and reservation by submitting the above bid. **Owner plans to conduct a pre-award meeting with the lowest responsible bidder to review construction means and methods, construction details, sequencing, etc. If an agreement of understanding cannot be reached between the owner and bidder on specific construction means and methods, construction detailing, product applications, materials of construction the owner may elect to reject the lowest bid.**

Upon acceptance of this bid at any time before this bid is withdrawn, the undersigned agrees to execute and deliver a Contract in the prescribed form and furnished the required bonds and Insurance Certificates within ten (10) days after the Notice of Award.

BID EXECUTION:

Name of Bidder _____

Business Type _____ (Tax Filing Status)

Business Physical Address _____

Business Phone: _____

Business E.I.N. _____

By _____

(Signature of person authorized to sign bid) (Blue Ink)

Title _____

Corporate Seal:

Bid Submission Date: _____, 2025

SECTION 004113

BID TABULATION (CONTRACT: PA 18-2025.1 GC)
WETMORELAND COUNTY HOUSING AUTHORITY
HEMPFIELD TOWERS PARKING LOT REHABILITATION PROJECT
Located At
2500 S. GRANDE BLVD, GREENSBURG, PA. 15601

The undersigned, having fully familiarized themselves with all aspects of the IFB, hereby proposes the following Parking Lot Rehabilitation Fee
 Proposal at the following locations

ITEM NO.	LOCATION	BID PRICE
1	MILLING & RESURFACING (Includes Milling, Resurfacing, sawcutting, and any incidentals required.)	_____ L.S.
2	SOFT SPOT REPAIR (STANDARD DUTY) (Includes sawcutting, removing material, stonebase, pavement structures, labor and any incidentals required).	_____ L.S.
3	SOFT SPOT REPAIR (HEAVY DUTY) (Includes sawcutting, removing material, stonebase, pavement structures, labor and any incidentals required).	_____ L.S.
4	INLET TOP REPLACEMENT (Includes sawcutting, inlet frame & grate removal, pipe cleaning , installation of new concrete frame & grate, stonebase, and pavement reconstruction, including an and all incidentals required.)	_____ L.S.
5	PIPE REPLACEMENT (Includes excavation, backfill, pipe installation and full depth pavement restoration along with all incidentals required)	_____ L.S.
6	PAVEMENT SEALING (Includes surface prep and cleaning debris, crack cleaning and sealing, surface treatment and final sealing)	_____ L.S.
7	CONCRETE SIDEWALK REPLACEMENT (Includes demolition, removal of concrete, surface prep, stone base, concrete placement and any incidentals required)	_____ L.S.
8	LINE STRIPING, and ADA MARKINGS (Includes surface prep, and all incidentals)	_____ L.S.
9	CONCRETE AREA REMOVAL (Includes concrete removal, full depth pavement restoration)	_____ L.S.
10	CONCRETE PAVING AREA CRACK CLEANING (Includes surface prep and cleaning debris, crack cleaning and sealing, surface treatment and final sealing)	_____ L.S.
11	HANDRAIL REPLACEMENT (Includes Removal of existing handrail, ADA approved Handrail, complete in place)	_____ L.S.
	TOTAL BASE BID - ITEMS 1 THROUGH 5	_____ L.S.

ADD ALTERNATE BID ITEMS:

"The Owner reserves the right to approve alternate bid items, in whole or in part, on an individual bid basis.

20	ADD ALTERNATE 1 - CONCRETE REMOVAL (Includes concrete removal, full depth pavement restoration) (152 SY)	_____ L.S.
21	ADD ALTERNATE 2 - NEW CONCRETE SIDEWALK 4" DEPTH (152 SY) (Includes stone, wire mesh, complete installation, seeding and all incidentals)	_____ L.S.
22	ADD ALTERNATE 3 - NEW CONCRETE ADA PAVING 6" DEPTH (53 SY) (Includes stone, wire mesh, complete installation, seeding and all incidentals)	_____ L.S.
22	ADD ALTERNATE 4 - NEW CONCRETE SIDEWALK WALKWAY 4" DEPTH (31 SY) (Includes stone, wire mesh, complete installation, seeding and all incidentals)	_____ L.S.

Estimated quantities of work are provided for the bidder as a reference in the "Summary of Work" section of the Contract Documents. The Bidder is responsible for reviewing each site individually and assert that they have performed their due diligence with their review of existing site conditions for establishing quantities of work in preparing their bids. Each Bidder also acknowledges that this is a "Lump Sum" Bid and it is understood that the Westmoreland County Housing Authority has the right to award the Base Bid with or without Add Alternates at it's discretion.

 Signature (Contractor's Authorized Representative)

 Date

NON-COLLUSION AFFIDAVIT

CONTRACT No. HEMPFIELD TOWERS 2025 PARKING LOT REHABILITATION
PROJECT CONTRACT – PA 28-8-02-2025.1 GC-SITE

STATE OF _____:
S.S

COUNTY OF _____:

I state that I am _____(Title) of

_____(Name of Firm)

being first duly sworn, deposes and says that I am authorized to make this affidavit on behalf of my firm, and its owners, directors, and, officers. I am the person responsible in my firm for the price(s) and the amount of this bid.

I state that:

The party making the foregoing proposal or bid, that such proposal or bid is genuine and not conclusive or; that said bidder has not colluded, conspired, connived, or agreed, directly or indirectly, with any bidder or person to put in a sham bid or to refrain from bidding, and has not in any manner, directly or indirectly, sought by agreement or collusion, or communication or conference, with any person, to fix the bid price or affiant or of any other bidder, to fix overhead, profit or cost element of said bid price, or of that of any other bidder, or to secure any advantage against the Housing Authority or any person interested in the proposed contract; and that all statements in said proposal or bid are true.

By: _____

(Signature)

(Signatory's Name)

(Signatory's Title)

SWORN TO AND SUBSCRIBED BEFORE ME THIS

_____ day of _____, 202__.

(Notary Public)

My Commission Expires_____.

SECTION 004113.02 BID BOND

KNOW ALL MEN BY THESE PRESENTS, that we, the undersigned _____
_____ as Principal, and

_____ as Surety, are hereby held and firmly bound unto

_____ as Owner in the penal sum of

_____ dollars (\$ _____) for payment of which,
well

and truly to be made, we hereby jointly and severally bind ourselves, successors, and assigns.

Signed, this _____ day of _____, 202__.

THE CONDITION OF THE ABOVE OBLIGATION IS SUCH that whereas the Principal has submitted to the Owner
a certain bid, attached hereto, and hereby made a part hereof, to enter into a Contract in writing for the

_____.

NOW THEREFORE,

- If said bid shall be rejected, or in the alternate,
- If said bid shall be accepted and the Principal shall execute and deliver a Contract in the form of Contract attached hereto (properly completed in accordance with said bid) and shall furnish a bond for his faithful performance of said Contract, and for the payment of all persons performing labor or furnishing materials in connection therewith, and shall in all other respects perform the Agreement created by the acceptance of said BID, then this obligation shall be void, otherwise the same shall remain in force and effect; it being expressly understood and agreed that the liability of the Surety for any and all claims hereunder shall, in no event, exceed the penal amount of this obligation as herein stated.

The Surety, for value received, hereby stipulates and agrees that the obligation of said Surety and its bond shall be in no way impaired or affected by any extension of the time within which the Owner may accept such bid; and said Surety does hereby waive notice of any such extension.

IN WITNESS WHEREOF, the Principal and the Surety have hereunto set their hands and seals, and such of them as are corporations have caused their corporate seals to be hereto affixed and these presents to be signed by their proper officers, the day and year first set forth above.

In Presence of:

By:

Witness

Bidder (Principal)

Witness

Surety Name

Surety Address

Attorney-In-Fact (Signature)

IMPORTANT: Surety companies executing bonds must appear on the Treasury Department's most current list (Circular 570 as amended) and be authorized to transact business in the Commonwealth of Pennsylvania.

SECTION 004113.03 STATEMENT OF BIDDER'S QUALIFICATIONS
HEMPFIELD TOWERS - 2025 PARKING LOT REHABILITATION PROJECT
2500 S. GRANDE BLVD. GREENSBURG, PA. 15601

All questions must be answered. The data given must be clear and comprehensive. This statement must be notarized.

- Name of bidder _____
- Business address _____
- When organized _____
- Where incorporated _____
- How many years have you been engaged in the contracting business under your present firm or trade name? _
- Financial statement: (To be provided if requested by WCHA)
- Contracts now on hand, gross amount \$ _____
- Type of Business Organization _____
- Number of Full Time Employees: _____
- Have you ever refused to sign a contract at your original bid price? _____
- Have you ever defaulted on a contract? _____
- Last Contract where Liquidated Damages were assessed: _____
_____How Many Days Assessed _____
- Will you, upon request, furnish any other information that the Local Authority may require? _____
- Does your company have a fully staffed office within **50 miles** of the job site. Yes____,No _____
- Is your company capable of securing and providing payment and performance bonds to WCHA.
Yes____ No _____

The undersigned hereby authorizes and requests any person to furnish any information requested by the Local Authority in verification of the recitals comprising this Statement of Bidder's Qualifications.

Dated _____ this _____ day of _____, 202____.

(Name of Bidder)

BY: _____

SECTION 005213 CONTRACT
AGREEMENT BETWEEN OWNER AND CONTRACTOR

THIS AGREEMENT made this _____ day of _____, in the year **Two Thousand and Twenty Three (2023)** by and between _____ hereinafter called the "**CONTRACTOR**", and **Westmoreland County Housing Authority – 167 South Greengate Road, Greensburg, Pennsylvania 15601** hereinafter called the "WCHA".

WITNESSETH, THAT THE CONTRACTOR AND WCHA FOR THE CONSIDERATION STATED HEREIN MUTUALLY AGREE AS FOLLOWS:

ARTICLE 1. STATEMENT OF WORK: The Contractor shall furnish

HEMPFIELD TOWERS - 2025 PARKING LOT REHABILITATION PROJECT
2500 S. GRANDE BLVD. GREENSBURG, PA. 15601
CONTRACT – PA 28-8-02-2025.1 GC-SITE

in strict accordance with the specifications and the drawings referred to therein, all as assembled by WCHA, which said Specifications, Addendum and Drawings are incorporated herein by reference and made part hereof.

ARTICLE 2. MINORITY BUSINESS PARTICIPATION:

Whereas, it is the policy of the **WCHA** to take positive steps to maximize the utilization of the Minority Businesses in its operations.

It is hereby required that the Contractor use his best efforts to carry out the Minority Business Enterprise Policy.

ARTICLE 3. THE CONTRACT PRICE:

The **WCHA** will pay the Contractor for the performance of the Contract, in current funds, subject to additions and deductions as provided in the Specifications, the Contract Sum of

Dollars (\$ _____). (Rounded to nearest dollar amount)

ARTICLE 4. CONTRACT DOCUMENTS:

The Contract shall consist of the following component parts:

- This Instrument
- General Conditions
- Special / Supplemental Conditions
- Technical Specifications
- Drawing(s)

This instrument, together with the documents enumerated in this Article 4, which said other documents are as fully as part of the Contract as if hereto attached or herein repeated, form the Contract. In event that any provision in any component part of the Contract conflict with any provision of any other component part, the provision of the component part first enumerated in this Article 4 shall govern, except as otherwise specifically stated. The various provisions in any Addenda shall be construed in the order of preference of the component part of the Contract which each modified.

ARTICLE 5. CONTRACT WAGES (DAVIS BACON DETERMINATION):

The wage rate determination included within this contract document specification supersedes any and all State or tribal prevailing wage rates that may exceed the established federal wage rate for this contract work project. All such State or Tribal wage rates are to be considered inapplicable. (Ref: HUD Notice PHIL-BALT H-89-01 issued Jan. 13, 1998 per Authority Federal Register dtd 8/10/88 24 CFR Parts 905, 941, 965 and 968). Note: Residential Wage Determination governs over Heavy/Highway Determination. If employment classification does not exist in Residential Determination then Heavy / Highway shall govern.

IN WITNESS WHEREOF, the parties hereto have caused this instrument to be executed in **THREE (3)** original counterparts as the day and year first above written:

Attest:

Firm: _____

By: _____

Title: _____

Business Address: _____

Street _____

City / State / Zip _____

Attest:

WESTMORELAND COUNTY HOUSING AUTHORITY

By: _____

By: Michael Washowich, Executive

Title:

Director/Contract Officer

Business Address:

167 South Greengate Road
Greensburg, PA. 15601

SECTION 00600 PERFORMANCE BOND

Bond No. _____

KNOW ALL BY THESE PRESENTS THAT _____,

Contractor, (Full Name and Business Address), hereinafter called **Principal**, and

_____, a Bonding Company, a corporation duly organized under the laws of the State of _____, hereinafter called **Surety**, are held and firmly bound unto **WESTMORELAND COUNTY HOUSING AUTHORITY**, as Obligee, in the amount of _____ Dollars (\$), **{100% of Contract Price}**, for the payment whereof Contractor and Surety bind themselves, their heirs, executors, administrators, successors, and assigns, jointly and severally, firmly by these presents.

WHEREAS, Contractor has by written agreement dated _____, 202__ entered into a contract with **WCHA** for the complete construction of Contract No

HEMPFIELD TOWERS - 2025 PARKING LOT REHABILITATION PROJECT

2500 S. GRANDE BLVD. GREENSBURG, PA. 15601

CONTRACT – PA 28-8-02-2025.1 GC-SITE

in accordance with drawings and specifications assembled by the **Westmoreland County Housing Authority**, 167 South Greengate Road, Greensburg, PA. 15601, which contract is by reference made a part hereof referred to as the Contract.

NOW, THEREFORE, THE CONDITIONS OF THIS OBLIGATION is such that, if Contractor shall promptly and faithfully perform said Contract then this obligation shall be null and void; otherwise it shall remain in full force and effect. The Surety hereby waives notice of any alteration of extension provided the same is within the scope of the contract. Whenever Contractor shall be, and is declared by **WCHA** to be default under the Contract, the **WCHA** having performed **WCHA's** obligations thereunder, the Surety may promptly remedy the default or shall promptly:

- 1.) Complete the Contract in accordance with its terms and conditions; or
- 2.) Obtain a bid or bids for completing the Contract in accordance with its terms and conditions, and upon determination by the **WCHA** and the Surety jointly of the lowest responsive, responsible bidder, arrange for a contract between such bidder and the **WCHA** and make available as work progress (even though there should be a default or succession of defaults under the contract or contracts of completion arranged under this paragraph) sufficient funds to pay the cost of completion less the balance of the contract price; but not exceeding, including other cost and damages for which the Surety may be liable hereunder, the amount set forth in the first paragraph hereof. The term "balance of the contract price," as used in this paragraph, shall mean the total amount payable by **WCHA** to Contractor under the Contract and any amendments thereto, less the amount property paid by **WCHA** to Contractor. No right of action shall accrue on this bond to or for the use of any person or corporation other than the **WCHA** or successors of the **WCHA**.

Signed and sealed this _____ day of _____ 202__.

(Principal Name)

(Seal)

(Business Address)

(Witness)

By: _____
(Principle Title)

(Surety Name)

(Surety Address)

(Witness)

By: _____
(Attorney-In-Fact)

SECTION 00610 LABOR AND MATERIAL PAYMENT BOND

HEMPFIELD TOWERS - 2025 PARKING LOT REHABILITATION PROJECT

2500 S. GRANDE BLVD. GREENSBURG, PA. 15601

CONTRACT – PA 28-8-02-2025.1 GC-SITE

BOND NO. _____ KNOW ALL BY THESE PRESENTS THAT :

_____, CONTRACTOR, hereinafter referred to as Principal, and _____, a Bonding Company, a corporation duly organized under the laws of the State of _____, as Oblige, hereinafter called **WCHA**, for the use and benefit of claimants as herein below defined, in the amount of _____, [Contract Sum x 100%] . Dollars (\$_____), for the payment whereof Principal and Surety bind themselves, their heirs, executors, administrators, successors, and assigns, jointly and severally, firmly by these presents.

WHEREAS, Principal has by written agreement dated _____ 202__ entered into a contract with **WCHA**, for construction of Contract No.

HEMPFIELD TOWERS - 2025 PARKING LOT REHABILITATION PROJECT

2500 S. GRANDE BLVD. GREENSBURG, PA. 15601

CONTRACT – PA 28-8-02-2025.1 GC-SITE

in accordance with drawings and specifications assembled by the **WCHA – 167 South Greengate Road, Greensburg, PA. 15601**, which contract is by reference made a part hereof, and is hereinafter referred to as the Contract.

NOW, THEREFORE, THE CONDITIONS OF THIS OBLIGATION is such that, if Principal shall promptly make payment to all claimants as hereinafter defined, for all labor and material used or reasonably required for use in the performance of the Contract, then this obligation shall be void; otherwise it shall remain in full force and effect, subject, however, to the following conditions:

A claimant is defined as one having a direct contract with the Principal or with a Subcontractor of the Principal for labor, material, or both, used or reasonably required for use in the performance of the Contract, labor and material being construed to include that part of water, gas, power, light, heat, oil, gasoline, telephone service, or rental of equipment directly applicable to the Contract.

The above-named Principal and Surety hereby jointly and severally agree with the **WCHA** that every claimant as herein defined, who has not been paid in full before the expiration of a period of ninety (90) days after the date on which the last of such claimant's work or labor was done or performed, or materials were furnished by such claimant, may sue on this bond for the use of such claimant, prosecute the suit to final judgment for such sum or sums as may be justly due claimant, and have execution thereon. The **WCHA** shall not be liable for the payment of any costs or expenses of any such suit.

No suit or action shall be commenced hereunder by any claimant:

- a.) Unless claimant, other than one having a direct contract with the Principal, shall have written notice to any two of the following: the Principal, the **WCHA**, or the surety above named, within ninety (90) days after such claimant did or furnished the last of the materials for which said claim is made, stating with substantial accuracy the amount claimed and the name of the party to whom the materials were furnished, or for whom the work or labor was done or performed. Such notice shall be personally served or served by mailing the same by registered mail or certified mail, postage prepaid, in an envelope addressed to the Principal at any place the Principal maintains an office or conducts its business.

- b.) After the expiration of one (1) year following the date on which the last of the labor was performed or material was supplied by the party bringing suit.
- c.) Other than in a court of competent jurisdiction for the county or district in which the construction contract was to be performed.

The amount of this bond shall be reduced by and to the extent of any payment or payments made in good faith hereinunder, inclusive of the payment by Surety of mechanics' liens which may be filed of record against said improvement, whether or not claim for the amount of such lien be presented under and against this bond.

Signed and sealed this _____ day of _____ 202__

(Principal Name)

(Seal)

(Business Address)

(Witness)

By: _____

(Principle Title)

(Surety Name)

(Surety Address)

(Witness)

By: _____
(Attorney-In-Fact)

SECTION 00630 CONTRACTOR'S CERTIFICATE & RELEASE OF LIENS

PROJECT: **2025 HEMPFIELD TOWERS SITE REHABILITATION
LOCATED AT 2500 S. GRANDE BLVD,
GREENSBURG, PA. 15601**

Contract: **CONTRACT – PA 28-8-02-2025.1 GC-SITE**

From _____ to: Westmoreland County Housing Authority
(Contractor) (Owner)

REFERENCE: contract entered into the ____ day of _____, 202__, between the above parties referenced above for the **2025 Hempfield Towers Site Rehabilitation for WCHA Warehouse Building at 154 South Greengate Road, Greensburg, PA. 15601.**

The undersigned hereby certifies that there is due from and payable by the **WCHA**, (Owner) to the Contractor, the balance of \$ _____ pursuant to the Contract and duly approved Change Orders and modifications.

The undersigned certifies that all work required under this contract has been performed in accordance with the terms thereof, and that there are no unpaid claims for materials, supplies, or equipment and no claims of laborers or mechanics for unpaid wages arising out of the performance of this Contract.

That upon receipt of the final payment stated in Paragraph 1 hereof, the undersigned does hereby release the **WCHA** Property Owner from any and all claims arising under or by virtue of this Contract; provided, however, that if for any reason the (Owner) does not pay in the full amount stated in Paragraph 1 hereof, the unpaid amount will become the amount which the Contractor has not released.

(Contractor)

(Authorized Signature)

(Title)

(Date)

(To be notarized on page 2)

ACKNOWLEDGEMENT

State of _____}

County of _____}

Signed and sworn before me on this _____ day of _____, 20____.

Notary Public My Commission Expires: _____

SECTION 00640 SURETY STATEMENT FOR CONTRACTOR RELEASE OF LIENS

PROJECT: **HEMPFIELD TOWERS - 2025 PARKING LOT REHABILITATION PROJECT**
2500 S. GRANDE BLVD. GREENSBURG, PA. 15601

Contract: **CONTRACT – PA 28-8-02-2025.1 GC-SITE**

In accordance with the provisions of the above Contract dated _____, 20____ between the
WCHA and _____[Contractor], of

_____[Contractor Business Address] the
_____[Surety Company] of said
_____[Contractor]

providing surety on the bond of _____[Contractor], after a careful
examination of the books and records of said contractor or after receipt of an affidavit from Contractor, which examination
or affidavit satisfies this company that all claims for labor, material and equipment rental have been satisfactorily settled,
except such as are included in a list attached hereto, hereby approves of the final payment of the said

_____[Contractor] , and by these
presents witnesseth that payment to the contractor of the final estimate shall not relieve the Surety Company of any of its
obligations to the **WCHA** or have any claim for labor and material furnished as set forth in the said Surety Company's
Bond.

IN WITNESSTH WHEREOF, the said Surety Company has hereunto set its hand and seal this

_____ day of _____
_____, 20____.

Corporate Seal

IN WITNESSTH WHEREOF, the said Surety Company has herunto set its hand and seal this

_____ day of _____, 20____.

(Corporate Seal)

(Witness)

ACKNOWLEDGEMENT

State of _____ }

County of _____ }

Signed and sworn before me on this _____ day of _____, 20____.

Notary Public My Commission Expires: _____

SECTION 00650 CERTIFICATION OF BIDDER

PROJECT: **HEMPFIELD TOWERS - 2025 PARKING LOT REHABILITATION PROJECT**
2500 S. GRANDE BLVD. GREENSBURG, PA. 15601

Contract: **CONTRACT – PA 28-8-02-2025.1 GC-SITE**
Owner: Westmoreland County Housing Authority

The undersigned hereby certifies that he/she and/or his/her authorized representative has thoroughly reviewed and evaluated the Contract Documents to determine whether he/she needs clarification of the Contract Documents or additional interpretation of the intent of the Contract Documents to determine the bid and that he/she has requested any needed clarification prior to submitting the bid; that he/she has visited the job site and that he/she fully understands the scope of work and the conditions affecting the work; that he/she has taken field measurements and fully understands the nature of the Project and the quantities of labor and materials that are required.

Additionally, he/she certifies that he/she understands the scope of the required work and that his price includes all of the labor and materials required to complete the Project as contemplated by the Construction Documents.

Additionally, he/she certifies that he/she has read and fully understands the requirements of specifications sections "GENERAL CONDITIONS", "SUPPLEMENTARY CONDITIONS", and "SCOPE OF WORK" as well as all other sections that have or may have an influence upon the work.

NAME OF BIDDER _____

STREET ADDRESS _____

CITY, STATE _____ ZIP _____

AUTHORIZED SIGNATURE _____

DATE: _____

**SECTION 000710
SUPPLEMENTAL GENERAL CONDITIONS**

PART 1 - GENERAL

1.1 SCOPE

- A. These Supplemental General Conditions amend or supplement the Standard General Conditions of the Contract and other provisions of the Contract Documents as indicated below. All provisions which are not so amended or supplemented shall remain in full force and effect.

1.2 AMBIGUITIES

- A. In the event of an ambiguity or conflicting statement or intent within the Contract Documents, the following order of priority shall apply:
1. Detailed Drawings shall govern over General Drawings.
 2. Stated dimensions shall govern over scaled dimensions.
 3. Detailed Technical Specifications shall govern over Drawings.
 4. Detailed Technical Specifications shall govern over Supplemental General Conditions.
 5. Supplemental General Conditions shall govern over General Conditions.
 6. General Conditions shall govern over Forms of Proposal.
 7. Forms of Proposal shall govern over Information for Bidders.
 8. Information for Bidders shall govern over Advertisement for Bids.

1.3 INSURANCE

- A. This condition supplements the insurance requirements set forth in the General Conditions.
- B. The Contractor shall provide insurance from an insurance company or companies licensed to conduct business in the Commonwealth of Pennsylvania.
- C. The Contractor shall provide the following types of insurance:

Workman Comp	\$500,000
Commercial General Public Liability	\$500,000 - \$1,000,000
Property Damage	\$500,000 - \$1,000,000
Auto Liability	\$500,000 - \$1,000,000
Umbrella coverage	\$2,000,000
Builder's coverage	Actual Contract Cost

Builders Risk - Property Insurance: Builders Risk "All Risk." Only applicable to projects involving structures.

The limit of coverage shall correspond to the amount of the Contract less the agreed-to uninsurable portions of the work, as approved by the Owner. In cases of projects involving utility lines or other work on which Builder's Risk policies are normally not written, the Contractor shall furnish an "All-Risk" Installation Floater which provides coverage for all materials stored or installed. Such insurance may have a deductible clause, but the amount of the deductible shall not exceed One Thousand Dollars (\$1,000.00) and the deductible shall be paid by the Contractor.

- D. Liability insurance shall include all major divisions of coverage and shall be on a comprehensive basis including:
1. Premises - Operations including explosion-collapse-underground (X-C-U)
 2. Completed Operations
 3. Contractual - Including specified provisions for the Contractor's obligations under Article 24 of the General Conditions
 4. Owned, non-owned, and hired motor vehicles
 5. Broad form coverage for property damage
- E. Required insurance shall be written for not less than the aforementioned limits of liability or as required by law, whichever is greater.
- Completed operations insurance shall remain in force for at least ninety (90) days following the final acceptance of the work by the Owner.
- F. The Contractor's protective liability and all-risk insurance shall name the Owner, the Architect as "Additional-Insured."
- G. Certificate of Insurance: The Contractor shall submit, as directed by the Notice of Intent to Award, four (4) copies of the "Certificate of Insurance." The certificates are to be completed in each and every category by the Contractor's insurance company(s) and signed by an authorized agent(s) of the insurance company(s). The Contractor shall not commence any work under this Contract until such "Certificate of Insurance" is in the hands of, and approved by, the Owner.
- H. Public Liability and Property Damage Insurance: The Contractor shall take out and maintain, during the life of this Contract, sufficient comprehensive public liability and property damage insurance as will protect him and any subcontractor performing work covered by this Contract, from claims for damage, for personal injury, including accidental death, as well as from claims for property damage, which may arise from operations under this Contract whether such operations be by himself or by any subcontractor or by anyone

directly or indirectly employed by either of them. The property damage insurance shall cover both above ground and underground structures. Property damage liability coverage is to include C (collapse) U (underground) X (explosion) hazard insurance policies. The amounts of such insurance shall be as follows:

1. Comprehensive General Liability and Property Damage: The Contractor shall carry the Comprehensive Form of General Liability and Property Damage Insurance during the life of the Contract covering all risks itemized in the form for "Certificate of Insurance" provided for in this Contract. The limits shall be not less than \$1,000,000 Combined Single Limit.
The Contractor shall likewise take out and maintain either as separate policies or as a coverage included in said Public Liability and Property Damage Insurance during the life of this Contract, similar Public Liability and Property Damage Insurance in similar amounts in favor of the Owner, Engineer, Engineer's Consultant, and any Municipality or political sub-division within the bounds of which the Contract work is to be performed.
2. Comprehensive Automobile Liability and Property Damage: The Contractor shall carry the Comprehensive Form of Automobile Liability and Property Damage Insurance during the life of the Contract, "Certificate of Insurance" provided for in this Contract, and (a) Contractor's own automotive equipment (b) hired and non-owned vehicles. The limits shall be not less than \$1,000,000 Combined Single Limit.
3. Umbrella and/or Excess Liability: The Contractor shall carry Umbrella and/or Excess Liability Insurance during the life of the Contract covering all risks above the limits shown above. The limit shall be not less than \$2,000,000.
4. Indemnification:
 - a. The Contractor shall indemnify and hold harmless the Owner, its agents, employees, workmen, and servants from and against all claims, damages, losses, and expenses, including Attorney's fees, arising out of or resulting from the performance of the work, provided that any such claim, damage, loss, or expense (a) is attributable to bodily injury, sickness, disease, death, or to injury to or destruction of tangible property (other than the work itself) including the loss of use resulting therefrom and (b) is caused in whole or in part by any negligent act or omission of the Contractor, any Subcontractor, or anyone for whose acts they may be liable, regardless of whether or not it is caused in part by the negligence of a party indemnified hereunder.
 - b. In any and all claims against the Owner or any of its agents or employees of the Contractor, Subcontractor, or anyone directly or indirectly employed by any of them, or anyone for whose acts any of them may be liable, the indemnification obligation under subparagraph (1) shall not be limited in any way by any limitation on the amount or type of damages, compensation, or benefits payable by or for the Contractor or any Subcontractor under Workmen's Compensation Acts, disability benefit acts, or other employee acts.

- c. Any provision of subparagraph (1) in respect to indemnification which is prohibited or unenforceable by law in the State in which the work, or other performance described in this Contract, is cited shall be ineffective to this extent of such prohibition or unenforceability and shall not invalidate the remaining provisions of subparagraph (1) or this Agreement.
- 5. Workmen's Compensation Insurance: The Contractor shall carry Workmen's Compensation Insurance during the life of the Contract to insure his statutory liability to his employees in the state or states in which the work under this Contract is to be performed, plus \$500,000 Employer's Liability coverage and, in case any work is sublet, the Contractor shall require the subcontractor similarly to provide Workmen's Compensation Insurance for all of the latter's employees unless such employees are covered by the protection afforded the Contractor.
- 6. In case any class of employees is engaged in hazardous work under this Contract at the site of the project and is not protected under Workmen's Compensation Statute, the Contractor shall provide adequate insurance coverage for the protection of his employees not otherwise protected. Proof shall be provided as requested by the Owner.

1.4 CONTRACTOR'S SCHEDULE

- A. Unless written authorization is given to the Contractor or such work is required by unforeseen circumstances, the Contractor shall set and maintain a regular work schedule not to exceed forty (40) working hours per week.
 - 1. The Contractor shall furnish a written schedule as required by the General Conditions.
- B. Failure to maintain a regular schedule may result in back-charging of the Contractor for additional administrative or inspection expense caused by his irregular working hours.

1.5 CLAIMS

- A. Should the Contractor be of the opinion, at any time or times, that he is entitled to any additional compensation whatsoever over and above the compensation stipulated in the Contract Documents, or for quantities or amounts over and above the quantities or amounts allowed or approved by the Owner or Architect for damages, losses, costs, or expenses alleged to have been sustained, suffered, or incurred by him in connection with the project herein contemplated, he shall, in order to permit examination by the Owner or Architect and in each instance, request this fact to be entered on the Inspector's "Daily Progress Report," and then promptly, or no later than five (5) days after such alleged damages, losses, costs, or expenses shall have been sustained, suffered, or incurred, make a written claim thereof to the Owner and Architect.

- B. The written claim shall give the time, date, and location in the work where the alleged damages, losses, costs, or expenses occurred and the estimated value thereof. Claims shall be delivered to the Owner and/or Architect by registered mail or receipted hand deliver. On or before the fifteenth (15) day of the calendar month succeeding that in which such alleged damages, losses, costs, or expenses shall have been sustained, suffered, or incurred, the Contractor shall file with the Owner a written, itemized statement of the details and the amount of such claim and statement shall be thus made and filed, in such instance, the Contractor's claim for such additional compensation shall be held and taken to be absolutely invalidated; and he shall not be entitled to any compensation on account of such alleged damage, loss, cost, or expense.
- C. The provisions of this subsection shall be held and taken to constitute a condition precedent to the right of the Contractor to recover. They shall also apply to all claims by the Contractor in any way relating to the complete project, even though the claims or work involved may be regarded as "outside the Contract."
- D. It is understood and agreed, however, that nothing contained in this subsection shall be held or taken to enlarge in any way the rights of the Contractor or the obligations of the Owner under the Contract Documents.

1.6 CONTRACT DRAWINGS

- A. A listing of the separately bound Contract Drawings which comprise a part of the Contract Documents is shown on Contract Drawing Title Sheet.

1.7 NON-DISCRIMINATION CLAUSE

- A. During the term of this Contract, the Contractor agrees as follows:
 - 1. The Contractor shall not discriminate against any employee, applicant for employment, independent contractor, or any other person because of race, color, religion, creed, ancestry, national origin, age, or sex.
 - 2. The Contractor shall take affirmative action to ensure that applicants are employed, and that employees or agents are treated during employment, without regard to their race, color, religious creed, ancestry, national origin, age, or sex. Such affirmative action shall include, but is not limited to, the following: employment, upgrading, demotion, transfer, recruitment or recruitment advertising, layoff or termination, rates of pay or other forms of compensation, and selection for training.
 - 3. The Contractor shall post in conspicuous places, available to employees, agents, applicants for employment, and other persons, a notice to be provided by the contracting agency setting forth the provisions of this non-discrimination clause.
 - 4. The Contractor shall, in advertisements or requests for employment placed by it or on its behalf, state that all qualified applicants will receive consideration for employment without regard to race, color, religious creed, ancestry, national origin, age, or sex.

5. The Contractor shall send each labor union or workers' representative with which it has a collective bargaining agreement or other contract or understanding, a notice advising said labor union or workers' representative of its commitment to this non-discrimination clause. Similar notice shall be sent to every source of recruitment regularly utilized by the Contractor.
6. It shall be no defense to a finding of noncompliance with the Contract Compliance Regulations issued by the Pennsylvania Human Relations Commission or this non-discrimination clause that the Contractor had delegated some of its employment practices to any union, training program, or other source of recruitment which prevents it from meeting its obligations. However, if the evidence indicates that the Contractor was not on notice of the third-party discrimination or made a good faith effort to correct it, such factor shall be considered in mitigation in determining appropriate sanctions.
7. When the practices of a union or of any training program or other source of recruitment will result in the exclusion of a minority group person, so that the Contractor will be unable to meet its obligations under the Contract Compliance Regulations issued by the Pennsylvania Human Relations Commission or this non-discrimination clause, the Contractor shall then employ and fill vacancies through other non-discriminatory employment procedures.
8. The Contractor shall comply with the Contract Compliance Regulations of the Pennsylvania Human Relations Commission, 16 PA Code Chapter 49, and with all laws prohibiting discrimination in hiring or employment opportunities. In the event of the Contractor's non-compliance with the non-discrimination clause of this Contract or with any such laws, this Contract may, after hearing and adjudication, be terminated or suspended, in whole or in part, and the Contractor may be declared temporarily ineligible for further Commonwealth contracts, and such other sanctions may be imposed, and remedies invoked as provided by the Contract Compliance Regulations.
9. The Contractor shall furnish all necessary employment documents and records to, and permit access to its books, records, and accounts by, the contracting agency and the Human Relations Commission, for purposes of investigation to ascertain compliance with the provisions of the Contract Compliance Regulations, pursuant to §49.35 of these Regulations. If the Contractor does not possess documents or records reflecting the necessary information requested, it shall furnish such information on reporting forms supplied by the Contracting Agency.
10. The Contractor shall actively recruit minority subcontractors and women subcontractors or subcontractors with substantial minority representation among their employees.
11. The term used in this non-discrimination clause shall have the same meaning as in the Contract Compliance Regulations issued by the Pennsylvania Human Relations Commission, 16 PA Code Chapter 49.
12. The Contractor's obligations under this clause are limited to the Contractor's facilities within Pennsylvania, or, where the Contract is for the purchase of goods manufactured outside of Pennsylvania, the facilities at which such goods are actually produced.

1.8 FEDERAL OCCUPATIONAL SAFETY AND HEALTH ACT OF 1970 O.S.H.A.

- A. All work under this Contract and these Contract Documents shall meet or exceed the minimum standards and requirements of the U.S. Department of Labor, Occupational Safety and Health Administration's Occupational Safety, and Health Regulations for Construction and Occupational Safety and Health Standards.

1.9 REMEDIES

- A. All claims, counter claims, disputes, and other matters in question between the Owner and the Contractor arising under or relating to, or arising in connection with this Contract, its breach, or termination thereof will be decided by a court of competent jurisdiction within the State and County in which the project is located.
- B. The Contractor shall not cause a delay of work, but shall maintain the progress schedule during all disputes or disagreements with the Owner. No work shall be delayed or postponed pending resolution of any disputes or disagreements, except as the Contractor and the Owner may otherwise agree in writing.

1.10 MISCELLANEOUS

- A. Whenever any provision of the Contract Documents requires giving of written notice, it shall be deemed to have been validly given if delivered in person to the individual or a member of the firm or to an officer of the corporation for whom it is intended, or if delivered at or sent by registered or certified mail, postage prepaid, to the last business address known to him who gave the notice.
- B. All Specifications, Drawings, and copies thereof furnished by the Owner or Architect/Engineer shall remain their property. They shall not be used on another project and, with the exception of those sets which have been signed in connection with the execution of the Agreement, shall be returned to them on request upon completion of the project.
- C. The Contract Documents shall be governed by the law of the place of the project. This shall include, but not be limited to, PA State Act 317 regulating the award and execution of public Contracts.
- D. Unless otherwise provided in the Contract Documents, all materials and equipment shall be new.

1.11 PREVAILING WAGE REQUIREMENTS

- A. This Contract is governed by the conditions of the Federal Prevailing Wage Act. The Contractor shall meet the following requirements:

1. The general prevailing minimum wage rates, including contributions for employee benefits, must be paid to the workmen employed in the performance of the Contract. The Contractor shall pay no less than the wage rates as determined in the wage decision listed within this Contract Specification.
2. Workmen shall be paid no less than such general prevailing minimum wage rates and such other provisions to assure payment thereof as heretofore set forth in the section.
3. The Contract provisions shall apply to all work performed on the Contract by the Contractor and to all work performed on the Contract by all Subcontractors.
4. The Contractor shall insert in each of his Subcontracts all of the stipulations contained in these required provisions and such other stipulations as may be required.
5. No workmen may be employed on the public work except in accordance with the classifications set forth in the decisions of the Secretary. In the event that additional or different classifications are necessary, the procedure set forth in these regulations shall be followed.
6. All workmen employed or working on the public work shall be paid unconditionally, regardless of whether any contractual relationship exists or the nature of any contractual relations which may be alleged to exist between any Contractor, Subcontractor, or rebate, on any account, either directly or indirectly, except authorized deductions, the full amounts due at the time of payment, computed at the rates applicable to the time worked in the appropriate classification. Nothing in the Contract, the Act, or these regulations shall prohibit the payment of more than the general prevailing minimum wage rates as determined by the Secretary to any workman on public work.
7. The Contractor and each Subcontractor shall post for the entire period of construction the wage determination decisions of the Secretary, including the effective date of any changes thereof, in a prominent and easily accessible place or places at the site of the work and at such place or places used by them to pay workmen their wages.
8. The Contractor and all Subcontractors shall keep an accurate record showing the name, craft and/or classification, number of hours worked per day, and the actual hourly rate of wage paid (including employee benefits) to each workman employed by him in connection with the public work and such record must include any deductions from each workman. The record shall be preserved for two (2) years from the date of payment and shall be open at all reasonable hours for the inspection of the public body awarding the Contract and the Secretary or his duly authorized representatives.
9. The provisions of the Act and these regulations shall be incorporated by reference in the Contract.
10. CONTRACTOR SHALL TAKE NOTICE RESIDENTIAL DETERMINATION GOVERNS OVER THE HEAVY HIGHWAY DETERMINATION. IF AN EMPLOYMENT CLASSIFICATION IS NOT LOCATED IN THE RESIDENTIAL DETERMINATION THEN THE HEAVY / HIGHWAY DETERMINATION CAN BE USED.

END OF SECTION

SECTION 00720 - SPECIAL CONDITIONS

PART 1 – GENERAL

1.1 TIME FOR COMPLETION:

The work shall be commenced at the time stipulated in the Notice to Proceed to the Contractor and shall be fully completed within **NINETY (90)** consecutive calendar days thereafter. Contract period may be extended due to weather conditions by mutual agreement between Owner and Contractor.

1.2 LIQUIDATED DAMAGES:

- a. As actual damages for any delay in completion are impossible of determination, the Contractor and his Sureties shall be liable for and shall pay to the **WCHA** the sums hereinafter stipulated as fixed, agreed and liquidated damages for each calendar day of delay until the work is completed or accepted:

\$ 100.00 per calendar day applicable to all work, all contracts.

- b. The **WCHA** may accept any part of the work if there has been such a degree of completion as will, in its opinion make such part reasonably safe, fit, and convenient for the use and accommodation for which it was intended.

It is the obligation of the Contractors each to coordinate their own work with that of each other. The **WCHA** is not responsible for the coordination of the work of any Contractor. If there is unexcused delay in completing the work of the general construction, the **WCHA** shall determine to what extent such delay, or any portion thereof, is chargeable to each such contractor. Liquidated damages in the full amount stated herein shall be assessed against each contractor to the extent he is responsible for such delay as determined by the **WCHA**.

1.3 COMMUNICATIONS:

- a. All notices, demands, requests, instructions, approvals, proposals, and claims must be in writing.
- b. Any notice to or demand upon the Contractor shall be sufficiently given if delivered at the Office of the Contractor stated on the signature page of the Contract (or at such other office as he may from time to time designate in writing to the **WCHA** or deposited in the U.S. Mail in a sealed envelope, or if delivered with charges prepaid to any telegraph company for transmission, in each case addressed to such an office).
- c. All papers required to be delivered to the **Westmoreland County Housing Authority**, unless otherwise specified in writing to the Contractor, documents shall be delivered to the **Director of Arch. & Engineering Services, Erik Spiegel, 167 South Greengate Road, Greensburg, PA 15601** and any notice to or demand upon the **WCHA** shall be sufficiently given if so delivered or deposited in the U.S. Mail in a sealed envelope, postage pre-paid, or delivered with the charges pre-paid to any telegraph company for transmission to the said **Director of A & E Services**, at such address as, or to such other representatives of the **WCHA** or to such address as the **WCHA** may subsequently specify in writing to the Contractor for such purposes.

- d. Any such notice shall be deemed to have been given as of the time of actual delivery; or in the case of mailing, when the same should have been received in due course of the post; or, in the case of telegrams, at the time of actual receipt, as the case may be.

1.4 JOB OFFICES:

- a. The Contractor and his subcontractors shall maintain such offices and storage facilities on the site as may be necessary in the proper conduct of the work. These shall be located so as to cause no interference to any work to be performed on the site. The **WCHA** shall be consulted with regard to locations.

1.5 MINIMUM RATES OF PAY:

- a. A schedule of the minimum rates of pay applicable to this Contract is attached.
- b. No overtime work or weekend work shall be performed without the permission of Owner/ **WCHA**.
- c. All Contractors when first entering the project shall identify themselves with the project manager or maintenance supervisor.

1.6 CHANGE ORDERS:

- a. Any additions and/or deletions in scope of work which would constitute an increase in the contract amount must be initiated by **WCHA - Contracting Officer**. Contractors proceeding with extra work items without formal written approval of **WCHA - Contracting Officer** is strictly prohibited and contractors will take the risk on nonpayment for these extras, if he proceeds without written approval.
- b. The Contractor or Subcontractor is prohibited from placing a lien on the **Westmoreland County Housing Authority** property.

1.7 PERFORMANCE, LABOR AND MATERIAL PAYMENT BONDS:

- a. The company providing the required Performance and Labor and Material Payment Bonds must be listed in U.S. Treasury Circular No. 570 as a surety approved to issue bonds securing Government contracts in the Commonwealth of Pennsylvania.
- b. Upon a successful bidder's failure or refusal to execute and deliver to the **WCHA**, the contract agreement and/or a required performance bond, payment bond or any other applicable bond, and insurance certificate within a period of 10 days of written notification of the acceptance of the successful bidder's bid and the award of the contract, the successful bidder shall forfeit its bid security to the **WCHA** as liquidated damages.

1.8 SALES AND USE TAX:

- a. The contractor agrees to assign and transfer to the Owner all its rights to sales and use tax which may be refunded as a result of a claim for refund for materials purchased in connection with this Contract. The Contractor further agrees that it will not file a claim for refund for any sales or use tax which is the subject of this agreement. The Contractor agrees to include this language in any contracts with subcontractors.

1.9 GENERAL CONTRACTOR – PROJECT SUPERINTENDENT :

- a. Each prime contractor shall assign and designate an on site full time superintendent person as the "Quality Control Inspector". This person shall be in site during all working hours and be responsible to monitor and control quality of installations. The Quality Inspector shall provide daily written reports as to the progress of the job, listing such items as the location and description of work on a particular day, the results of the QC inspector's surveillance, and the results of any tests performed. Also document any verbal information given or received, discrepancies in the work or in the plans and specifications, or manpower usage, delays in the contractor's progress and safety problems.

1.10 BID GUARANTY

- a. Each prime contractor shall submit with his bid a bid guaranty in an amount not less than 10% of the total bid.

END OF SECTION

SECTION 00810
US DEPARTMENT OF HOUSING AND URBAN DEVELOPMENT STANDARD FEDERAL EQUAL
EMPLOYMENT CONSTRUCTION CONTRACT
SPECIFICATIONS (EXECUTIVE ORDER 11246)

1. As used in these specifications:
 - a. "Covered area" means the geographical area described in the solicitation from which this contract resulted;
 - b. "Director" means Director, Office of Federal Contract Compliance Programs, United States Department of Labor, or any person to whom the Director delegates authority;
 - c. "Employer identification number" means the Federal Social Security number used on the Employer's Quarterly Federal Tax Return, US Treasury Department Form 941.
 - d. "Minority" includes:
 - (i) Black (all persons having origins in any of the Black African racial groups not of Hispanic origin).
 - (ii) Hispanic (all persons of Mexican, Puerto Rican, Cuban, Central or South American or other Spanish Culture or origin, regardless of race);
 - (iii) Asian and Pacific Islander (all persons having origins in any of the original peoples of the Far East, Southeast Asia, the Indian Subcontinent, or the Pacific Islands); and
 - (iv) American Indian or Alaskan Native (all persons having origins in any of the original peoples of North America and maintaining identifiable tribal affiliations through membership and participation or community identification).
2. Whenever the Contractor, or any Subcontractor at any tier, subcontracts a portion of the work involving any construction trade, it shall physically include in each subcontract in excess of \$10,000 the provisions of these specifications and the Notice which contains the applicable goals for minority and female participation and which is set forth in the solicitations from which this contract resulted.
3. If the Contractor is participating (pursuant to 41 CFR 60-4.5) in a Hometown Plan approved by the US Department of Labor in the covered area either individually or through an association, its affirmative action obligations on all work in the Plan area (including goals and timetables) shall be in accordance with that Plan for those trades which have unions participating in the Plan. Contractors must be able to demonstrate their participation in and compliance with the provisions of any such Hometown Plan. Each Contractor or Subcontractor participation in an approved Plan is individually required to comply with its obligations under the EEO Clause, and to make a good faith effort to achieve each goal under the Plan in each trade in which it has employees. The overall good faith performance by other Contractors or Subcontractors toward a goal in an approved Plan does not excuse any covered Contractor's or Subcontractor's failure to take good faith efforts to achieve the Plan goals and timetables.
4. The Contractor shall implement the specific affirmative action standards provided in paragraphs 7a through p of these specifications. The goals set forth in the solicitation from which this contract resulted are expressed as percentages of the total hours of employment and training of minority and female utilization the Contractor should reasonably be able to achieve in each construction trade in which it has employees in the covered area. The Contractor is expected to make substantially uniform progress toward its goals in each craft during the period specified.
5. Neither the provisions of any collective bargaining agreement, nor the failure by a union with whom the

Contractor has a collective bargaining agreement, to refer either minorities or women shall excuse the Contractor's obligations under these specifications, Executive Order 112465, of the regulations promulgated pursuant thereto.

6. In order for the nonworking training hours of apprentices and trainees to be counted in meeting the goals, such apprentices and trainees must be employed by the Contractor during the training period, and the Contractor must have made a commitment to employ the apprentices and trainees at the completion of their training, subject to the availability of employment opportunities. Trainees must be trained pursuant to training programs approved by the US Department of Labor.
7. The Contractor shall take specific affirmative actions to ensure equal employment opportunity. The evaluation of the Contractor's compliance with these specifications shall be based upon its effort to achieve maximum results from its actions. The Contractor shall document these efforts fully and shall implement affirmative action steps at least as extensive as the following:
 - a. Ensure and maintain a working environment free of harassment, intimidation, and coercion, at all sites, and in all facilities at which the Contractor's employees are assigned to project. The Contractor, where possible, will assign two or more women to each construction project. The Contractor shall specifically ensure that all foremen, superintendents, and other on-site supervisory personnel are aware of and carry out the Contractor's obligation to maintain such a working environment, with specific attention to minority or female individuals working at such sites or in such facilities.
 - b. Establish and maintain a current list of minority and female recruitment sources, provide written notification to minority and female recruitment sources and to community organizations when the Contractor or its unions have employment opportunities available, and maintain a record of the organizations' responses.
 - c. Maintain a current file of the names, addresses and telephone numbers of each minority and female off-the-street applicant and minority or female referral from a union, a recruitment source or community organization and of what actions was taken with respect to each such individual. If such individual was sent to the union hiring hall for referral and was not referred back to the contractor by the union or, if referred, not employed by the Contractor, this shall be documented in the file with the reason therefore, along with whatever additional actions the Contractor may have taken.
 - d. Provide immediate written notification to the director when the union or unions with which the Contractor has a collective bargaining agreement has not referred to the Contractor a minority person or woman sent by the Contractor, or when the Contractor has other information that the union referral process has impeded the Contractor's efforts to meet its obligations.
 - e. Develop on-the-job training opportunities and/or participate in training programs for the area which expressly include minorities and women, including upgrading programs and apprenticeship and trainee programs relevant to the Contractor's employment needs, especially those programs funded or approved by the Department of Labor. The Contractor shall provide notice of these programs to the sources compiled under 7b above.
 - f. Disseminate the Contractor's EEO policy by providing notice of the policy to unions and training programs and requesting their cooperation in assisting the Contractor in meeting its EEO obligations; by including it in any policy manual and collective bargaining agreement by publicizing it in the company newspaper, annual report, etc.; by specific review of the policy with all management personnel and with all minority and female employees at least once a year; and by posting the company EEO policy on bulletin boards accessible to all employees at each location where construction work is performed.
 - g. Review, at least annually, the company's EEO policy and affirmative action obligations under

these specifications with all employees having any responsibility for hiring, assignment, layoff, termination or other employment decisions including specific review of these items with on-site supervisory personnel such as Superintendents, General Foremen, etc. prior to the initiation of construction work at any job site. A written record shall be made and maintained identifying the time and place of these meetings, persons attending, subject matter discussed, and disposition of the subject matter.

- h. Disseminate the Contractor's EEO policy externally by including it in any advertising in the news media, specifically including minority and female news media, and providing written notification to and discussing the Contractor's EEO policy with other Contractors and Subcontractors with whom the Contractor does or anticipates doing business.
 - i. Direct its recruitment efforts, both oral and written, to minority, female and community organizations, to schools with minority and female students and to minority and female recruitment and training organizations serving the Contractor's recruitment area and employment needs. Not later than one month prior to the date for the acceptance of applications for apprenticeship or other training by any recruitment source, the Contractor shall send written notification to organizations such as the above, describing the openings, screening procedures, and tests to be used in the selection process.
 - j. Encourage present minority and female employees to recruit other minority persons and women and, where reasonable, provide after school, summer and vacation employment to minority and female youth both on the site and in other areas of a Contractor's work force.
 - k. Validate all tests and other selection requirements where there is an obligation to do so under 41 CFR Part 60-3.
 - l. Conduct, at least annually, an inventory and evaluation at least of all minority and female personnel for promotional opportunities and encourage these employees to seek or to prepare for, through appropriate training, etc., such opportunities.
 - m. Ensure that seniority practices, job classifications, work assignments and other personnel practices, do not have a discriminatory effect by continually monitoring all personnel and employment related activities to ensure that the EEO policy and the Contractor's obligations under these specifications are being carried out.
 - n. Ensure that all facilities and company activities are non-segregated except that separate or single-user toilet and necessary changing shall be provided to assure privacy between the sexes.
 - o. Document and maintain a record of all solicitations of offers for subcontracts from minority and female construction contractors and suppliers, including circulation of solicitations to minority and female contractor associations and other business associations.
 - p. Conduct a review, at least annually, of all supervisors' adherence to and performance under the Contractor's EEO policies and affirmative action obligations.
8. Contractors are encouraged to participate in voluntary associations which assist in fulfilling one or more of their affirmative action obligations (7a through p). The efforts of a contractor association, joint contractor-union, a contractor-community, or other similar group of which the contractor is a members and participant, may be asserted as fulfilling any one or more of its obligations under 7a through p of these Specifications provided that the contractor actively participates in the group, makes every effort to assure that the group has a positive impact on the employment of minorities and women in the industry, ensures that the concrete benefits of the program area reflected in the Contractor's minority and female work force participation, makes a good faith effort to most its individual goals and timetables, and can provide access to documentation which demonstrates the effectiveness of actions taken on behalf of the Contractor. The obligation to comply, however, is the Contractor's and failure of such a group to fulfill in obligation shall not be a defense for the Contractor's noncompliance.
9. A single goal for minorities and a separate single goal for women have been established. The Contractor,

however, is required to provide equal employment opportunity and to take affirmative action for all minority groups, both male and female, and all women, both minority and non-minority. Consequently, the Contractor may be in violation of the Executive Order if a particular group is employed in a substantially disparate manner (for example, even though the Contractor has achieved its goals for women generally, the Contractor may be in violation of the Executive Order if a specific minority group of women is underutilized).

10. The Contractor shall not use the goals and timetables or affirmative action standards to discriminate against any person because of race, color, religion, sex, or national origin.
11. The Contractor shall not enter into any Subcontract with any person or firm debarred from Government contracts pursuant to Executive Order 11246.
12. The Contractor shall carry out such sanctions and penalties for violation of these specifications and of the Equal Opportunity Clause, including suspension, termination and cancellation of existing subcontracts as may be imposed or ordered pursuant to Executive Order 11246, as amended, and its implementing regulations, by the Office of Federal Contract Compliance Programs. Any Contractor who fails to carry out such sanctions and penalties shall be in violation of these specifications and Executive Order 11246, as amended.
13. The Contractor, in fulfilling its obligations under these specifications, shall implement specific affirmative action steps, at least as extensive as those standards prescribed in paragraph 7 of these specifications, so as to achieve maximum results from its efforts to ensure equal employment opportunity. If the Contractor fails to comply with the requirements of the Executive Order, the implementing regulations, to these specifications, the Director shall proceed in accordance with 41 CFR 60-4.8.
14. The Contractor shall designate a responsible official to monitor all employment related activity to ensure that the company EEO policy is being carried out to submit reports relating to the provision hereof as may be required by the Government and to keep records. Records shall at least include for each employee the name, address, telephone numbers, construction trade, union affiliation if any, employee identification number when assigned, social security number, race, sex, status (i.e., mechanic, apprentice trainee, helper, or laborer), dates of changes in status, hours worked per week in the indicated trade, rate of pay, and locations at which the work was performed. Records shall be maintained in an easily understandable and retrievable form; however, to the degree that existing records satisfy this requirements, contractors shall not be required to maintain separate records.,
15. Nothing herein provided shall be construed as a limitation upon the application of other laws which established different standards of compliance or upon the application of requirements for the hiring of local or other area residents (e.g., those under the Public Works Employment Act of 1987 and the Community Development Block Grant Program).

END OF SECTION

**Equal Employment
Opportunity Certification**
Excerpt From 41 CFR §60-1.4(b)

**U.S. Department of Housing
and Urban Development**
Office of Housing
Federal Housing Commissioner

Department of Veterans Affairs
OMB Control No. 2502-0029
(exp. 4/30/2020)

The applicant hereby agrees that it will incorporate or cause to be incorporated into any contract for construction work, or modification thereof, as defined in the regulations of the Secretary of Labor at 41 CFR Chapter 60, which is paid for in whole or in part with funds obtained from the Federal Government or borrowed on the credit of the Federal Government pursuant to a grant, contract, loan insurance, or guarantee, or undertaken pursuant to any Federal program involving such grant, contract, loan, insurance, or guarantee, the following equal opportunity clause:

During the performance of this contract, the contractor agrees as follows:

- (1) The contractor will not discriminate against any employee or applicant for employment because of race, color, religion, sex, or national origin. The contractor will take affirmative action to ensure that applicants are employed, and that employees are treated during employment without regard to their race, color, religion, sex, or national origin, such action shall include, but not be limited to the following: Employment, upgrading, demotion, or transfer; recruitment or recruitment advertising; layoff or termination; rates of pay or other forms of compensation; and selection for training, including apprenticeship. The contractor agrees to post in conspicuous places, available to employees and applicants for employment, notices to be provided setting forth the provisions of this nondiscrimination clause.
- (2) The contractor will, in all solicitations or advertisements for employees placed by or on behalf of the contractor, state that all qualified applicants will receive considerations for employment without regard to race, color, religion, sex, or national origin.
- (3) The contractor will send to each labor union or representative of workers with which it has a collective bargaining agreement or other contract or understanding, a notice to be provided advising the said labor union or workers' representatives of the contractor's commitments under this section, and shall post copies of the notice in conspicuous places available to employees and applicants for employment.
- (4) The contractor will comply with all provisions of Executive Order 11246 of September 24, 1965, and of the rules, regulations and relevant orders of the Secretary of Labor.
- (5) The contractor will furnish all information and reports required by Executive Order 11246 of September 24, 1965, and by rules, regulations, and orders of the Secretary of Labor, or pursuant thereto, and will permit access to its books, records, and accounts by the administering agency and the Secretary of Labor for purposes of investigation to ascertain compliance with such rules, regulations, and orders.

- (6) In the event of the contractor's noncompliance with the nondiscrimination clauses of this contract or with any of the said rules, regulations, or orders, this contract may be canceled, terminated, or suspended in whole or in part and the contractor may be declared ineligible for further Government contracts or federally assisted construction contracts in accordance with procedures authorized in Executive Order 11246 of September 24, 1965, and such other sanctions may be imposed and remedies invoked as provided in Executive Order 11246 of September 24, 1965, or by rule, regulation, or order of the Secretary of Labor, or as otherwise provided by law.
- (7) The contractor will include the portion of the sentence immediately preceding paragraph (1) and the provisions of paragraphs (1) through (7) in every subcontract or purchase order unless exempted by rules, regulations, or orders of the Secretary of Labor issued pursuant to section 204 of Executive Order 11246 of September 24, 1965, so that such provisions will be binding upon each subcontractor or vendor. The contractor will take such action with respect to any subcontract or purchase order as the administering agency may direct as a means of enforcing such provisions, including sanctions for noncompliance: **Provided, however,** That in the event a contractor becomes involved in, or is threatened with, litigation with a subcontractor or vendor as a result of such direction by the administering agency the contractor may request the United States to enter into such litigation to protect the interests of the United States.

The applicant further agrees that it will be bound by the above equal opportunity clause with respect to its own employment practices when it participates in federally assisted construction work:

Provided, That if the applicant so participating is a State or local government, the above equal opportunity clause is not applicable to any agency, instrumentality or subdivision of such government which does not participate in work on or under the contract.

The applicant agrees that it will assist and cooperate actively with the administering agency and the Secretary of Labor in obtaining the compliance of contractors and subcontractors with the equal opportunity clause and the rules, regulations, and relevant orders of the Secretary of Labor, that it will furnish the administering agency and the Secretary of Labor such information as they may require for the supervision of such compliance, and that it will otherwise assist the administering agency in the discharge of the agency's primary responsibility for securing compliance.

The applicant further agrees that it will refrain from entering into any contract or contract modification subject to Executive Order 11246 of September 24, 1965, with a contractor debarred from, or who has not demonstrated eligibility for, Government contracts and Federally-assisted construction contracts pursuant to the Executive order and will carry out such sanctions and penalties for violation of the equal opportunity clause as may be imposed

Firm Name and Address

By

Title

upon contractors and subcontractors by the administering agency or the Secretary of Labor pursuant to Part II, Subpart D of the Executive order. In addition, the applicant agrees that if it fails or refuses to comply with these undertakings, the administering agency may take any or all of the following actions: Cancel, terminate, or suspend in whole or in part this grant (contract, loan, insurance, guarantee); refrain from extending any further assistance to the applicant under the program with respect to which the failure or refund occurred until satisfactory assurance of future compliance has been received from such applicant; and refer the case to the Department of Justice for appropriate legal proceedings.

Excerpt from HUD Regulations

200.410Definition of term “applicant”.

- (a) In multifamily housing transactions where controls over the mortgagor are exercised by the Commissioner either through the ownership of corporate stock or under the provisions of a regulatory agreement, the term “applicant” as used in this subpart shall mean the mortgagor.
- (b) In transactions other than those specified in paragraph(a) of this section, the term “applicant” as used in this subpart shall mean the builder, dealer or contractor performing the construction, repair or rehabilitation work for the mortgagor or other borrower.

200.420Equal Opportunity Clause to be included in contracts and subcontracts.

- (a) The following equal opportunity clause shall be included in each contract and subcontract which is not exempt:
During the performance of this contract, the contractor agrees as follows:
 - (1) The contractor will not discriminate against any employee or applicant for employment because of race, creed, color, or national origin. The contractor will take affirmative action to ensure that applicants are employed, and that employees are treated during employment without regard to their race, creed, color, or national origin. Such action shall include, but not be limited to the following: employment, upgrading, demotion or transfer; recruitment or recruitment advertising; layoff or termination; rates of pay or other forms of compensation; and selection for training, including apprenticeship. The contractor agrees to post in conspicuous places, available to employees and applicants for employment, notices to be provided setting forth the provisions of the nondiscrimination clause.
 - (2) The contractor will in all solicitations or advertisements for employees placed by or on behalf of the contractor, state that all qualified applicants will receive consideration for employment without regard race, creed, color, or national origin.
 - (3) The contractor will send to each labor union or representative of workers with which he has a collective bargaining agreement or other contract or understanding, a notice, to be provided, advising the said labor union or workers' representative of the contractor's commitments under this section, and shall post copies of the notices in conspicuous places available to employees and applicants for employment.
 - (4) The contractor will comply with all provisions of Executive Order 10925 of March 6 1961, as amended, and of the regulations, and relevant orders of the President's Committee on Equal Employment Opportunity created thereby.

(5) The contractor will furnish all information and reports required by Executive Order 10925 of March 6, 1961, as amended, and by the regulations, and orders of the said Committee, or pursuant thereto, and will permit access to his books, records, and accounts by HUD and the Committee for purposes of investigation to ascertain compliance with such regulations, and orders.

(6) In the event of the contractor's non-compliance with the nondiscrimination clause of this contract or with any of the said regulations, or orders, this contract may be cancelled, terminated or suspended in whole or in part and the contractor may be declared ineligible for further Government contracts or Federally-assisted construction contracts in accordance with procedures authorized in Executive Order 10925 of March 6, 1961, as amended, and such other sanctions may be imposed and remedies invoked provided in the said Executive Order or by regulations, or order of the President's Committee on Equal Employment Opportunity, or as otherwise provided by law.

(7) The contractor will include the provisions of Paragraphs(1) through (7) in every subcontract or purchase order unless exempted by regulations, or orders of the President's Committee on Equal Employment Opportunity issued pursuant to Section 303 of Executive Order 10925 of March 6, 1961, as amended, so that such provisions will be binding upon each subcontractor or vendor. The contractor will take such action with respect to any subcontract or purchase orders as HUD may direct as a means of enforcing such provisions, including sanctions for noncompliance: Provided, however, that in the event the contractor becomes involved in, or is threatened with, litigation with a subcontractor or vendor as a result of such direction by HUD, the contractor may request the United States to enter into such litigation to protect the interests of the United States.

- (b) Except in subcontracts for the performance of construction work at the site of construction, the clause is not required to be inserted in subcontracts below the second tier. Subcontracts may incorporate by reference to the equal opportunity clause.

200.425Modification in and exemptions from the regulations in this subpart.

- (a) The following transactions and contracts are exempt from the regulations in this subpart:
 - (1) Loans, mortgages, contracts and subcontracts not exceeding \$10,000.
 - (2) Contract and subcontracts not exceeding \$100,000 for standard commercial supplies or raw material;
 - (3) Contracts and subcontracts under which work is to be or has been performed outside the United States and where no recruitment of workers within the United States is involved. To the extent that work pursuant to such contracts is done within the United States, the equal opportunity clause shall be applicable;
 - (4) Contracts for the sale of Government property where no appreciable amount of work is involved; and
 - (5) Contracts and subcontracts for an indefinite quantity which are not to extend for more than one year if the purchaser determines that the amounts to be ordered under any such contract or subcontract are not reasonably expected to exceed \$100,000 in the case of contracts or subcontracts for standard commercial supplies and raw materials, or \$10,000 in the case of all other contracts and subcontracts.

"General Decision Number: PA20250002 08/22/2025

Superseded General Decision Number: PA20240002

State: Pennsylvania

Construction Types: Heavy and Highway

Counties: Allegheny, Armstrong, Beaver, Bedford, Blair, Butler, Cambria, Cameron, Centre, Clarion, Clearfield, Clinton, Crawford, Elk, Erie, Fayette, Forest, Franklin, Fulton, Greene, Huntingdon, Indiana, Jefferson, Lawrence, McKean, Mercer, Mifflin, Potter, Somerset, Venango, Warren, Washington and Westmoreland Counties in Pennsylvania.

HEAVY AND HIGHWAY CONSTRUCTION PROJECTS (excluding sewer grouting projects and excluding sewage and water treatment plant projects)

Note: Contracts subject to the Davis-Bacon Act are generally required to pay at least the applicable minimum wage rate required under Executive Order 14026 or Executive Order 13658. Please note that these Executive Orders apply to covered contracts entered into by the federal government that are subject to the Davis-Bacon Act itself, but do not apply to contracts subject only to the Davis-Bacon Related Acts, including those set forth at 29 CFR 5.1(a)(1).

If the contract is entered into on or after January 30, 2022, or the contract is renewed or extended (e.g., an option is exercised) on or after January 30, 2022: 	. Executive Order 14026 generally applies to the contract. . The contractor must pay all covered workers at least \$17.75 per hour (or the applicable wage rate listed on this wage determination, if it is higher) for all hours spent performing on the contract in 2025.
If the contract was awarded on or between January 1, 2015 and January 29, 2022, and the contract is not renewed or extended on or after January 30, 2022: 	. Executive Order 13658 generally applies to the contract. . The contractor must pay all covered workers at least \$13.30 per hour (or the applicable wage rate listed on this wage determination,

	if it is higher) for all
	hours spent performing on
	that contract in 2025.

The applicable Executive Order minimum wage rate will be adjusted annually. If this contract is covered by one of the Executive Orders and a classification considered necessary for performance of work on the contract does not appear on this wage determination, the contractor must still submit a conformance request.

Additional information on contractor requirements and worker protections under the Executive Orders is available at <http://www.dol.gov/whd/govcontracts>.

Modification Number	Publication Date
0	01/03/2025
1	01/10/2025
2	01/17/2025
3	02/21/2025
4	03/07/2025
5	03/21/2025
6	03/28/2025
7	05/23/2025
8	06/27/2025
9	07/11/2025
10	08/22/2025

BOIL0013-005 01/01/2025

CENTRE, FRANKLIN, POTTER, CLINTON, FULTON, HUNTINDON AND
MIFFLIN COUNTIES

	Rates	Fringes
BOILERMAKER.....	\$ 55.00	35.48

BOIL0154-004 01/01/2025		

ALLEGHENY, ARMSTRONG, BEAVER, BEDFORD, BLAIR, BUTLER, CAMBRIA,
CAMERON, CLARION, CLEARFIELD, CRAWFORD, ELK, FAYETTE, FOREST,
GREENE, INDIANA, JEFFERSON, LAWRENCE, MCKEAN, MERCER, SOMERSET,
VENANGO, WARREN, WASHINGTON AND WESTMORELAND COUNTIES

	Rates	Fringes
BOILERMAKER.....	\$ 48.28	33.17

BOIL0744-003 07/01/2008

ERIE COUNTY

	Rates	Fringes
BOILERMAKER.....	\$ 35.34	18.48

BRPA0005-033 05/01/2022

MIFFLIN COUNTY

	Rates	Fringes
Bricklayer, Stonemason.....	\$ 32.66	21.58

BRPA0005-046 05/03/2020

FRANKLIN COUNTY

	Rates	Fringes
Bricklayer, Stonemason.....	\$ 33.99	16.87

BRPA0005-071 05/03/2020

CLINTON COUNTY

	Rates	Fringes
BRICKLAYER.....	\$ 34.17	17.20

BRPA0009-004 12/01/2022

BEDFORD, BLAIR, CAMBRIA, CENTRE COUNTY (Halfmoon, Houston, Patton, Rush, Taylor and Worth Townships), FULTON, HUNTINGDON, and SOMERSET COUNTIES

	Rates	Fringes
Bricklayer, Stonemason & Marble Setter.....	\$ 34.14	22.00

BRPA0009-006 12/01/2022

CLEARFIELD, FOREST, JEFFERSON, VENANGO, AND CLARION (Except Brady, Madison, Perry, Porter, Redbank, and Toby Townships) COUNTIES

	Rates	Fringes
Bricklayer, Stonemason.....	\$ 34.14	22.77
Marble mason.....	\$ 34.14	22.77

BRPA0009-023 12/01/2022

BEAVER COUNTY

	Rates	Fringes
BRICKLAYER.....	\$ 35.28	24.49

BRPA0009-025 12/01/2022

BUTLER, LAWRENCE, AND MERCER COUNTIES

	Rates	Fringes
BRICKLAYER.....	\$ 34.73	24.14

BRPA0009-032 06/01/2017

FAYETTE (Jefferson & Washington Twps), GREENE (Except Cumberland, Dunkirk, Greene, Monongahelia Twps), INDIANA, AND WESTMORELAND (Rostraver Twp) COUNTIES

	Rates	Fringes
BRICKLAYER.....	\$ 31.00	20.66

BRPA0009-033 12/01/2022

ARMSTRONG, CLARION (Brady, Madison, Perry, Tobe, Porter, Redbank Twps), FAYETTE (Except Jefferson & Washington Twps), GREENE (Cumberland, Dunkirk, Greene, Monongahelia Twps), INDIANA, AND WESTMORELAND (Except Rostrave Twp) COUNTIES

	Rates	Fringes
BRICKLAYER.....	\$ 36.55	24.46

BRPA0009-034 11/01/2019

ERIE COUNTY

	Rates	Fringes
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BRICKLAYER.....	\$ 28.64	21.86
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BRPA0009-058 06/01/2020

ALLEGHENY, WASHINGTON (Cross Creek, Hanover, Jefferson, Mt Pleasant, Nottingham, Peters, Robinson, Smith, Union Twps) COUNTIES

	Rates	Fringes
BRICKLAYER.....	\$ 34.05	22.81

BRPA0009-059 12/01/2022

CAMERON, ELK, MCKEAN, POTTER AND WARREN COUNTIES

	Rates	Fringes
BRICKLAYER.....	\$ 31.62	22.81

CARP0274-001 01/01/2025

	Rates	Fringes
PILEDRIVERMAN		
Piledriverman (welder).....	\$ 43.38	22.67
Piledriverman.....	\$ 41.88	22.67

CARP0274-002 01/01/2025

	Rates	Fringes
Diver.....	\$ 62.82	22.67
Tender.....	\$ 41.88	22.67

CARP0443-004 06/01/2024

	Rates	Fringes
MILLWRIGHT.....	\$ 43.00	23.44

CARP2274-001 01/01/2025

	Rates	Fringes
CARPENTER (ALLEGHENY, ARMSTRONG, BEAVER, BUTLER, ERIE, FAYETTE, GREENE, LAWRENCE, MERCER, WASHINGTON, AND WESTMORELAND COUNTIES)		

Carpenters (Welders).....	\$ 42.85	22.09
Carpenters.....	\$ 41.35	22.09
CARPENTER (BEDFORD, BLAIR, CAMBRIA, CAMERON, CENTRE, CLARION, CLINTON, CLEARFIELD, CRAWFORD, ELK, FOREST, FRANKLIN, FULTON, HUNTINGDON, INDIANA, JEFFERSON, MCKEAN, MIFFLIN, POTTER, SOMERSET, VENANGO, AND WARREN COUNTIES)		
Carpenters (Welders).....	\$ 42.60	22.09
Carpenters.....	\$ 41.10	22.09

ELEC0005-006 12/27/2024

ALLEGHENY, ARMSTRONG, BEDFORD, BLAIR, BUTLER CAMBRIA, CAMERON,
CENTRE (Remainder), CLARION, CLEARFIELD, ELK, FAYETTE, FULTON,
GREENE, HUNTINGDON, INDIANA, JEFFERSON, MCKEAN, SOMERSET,
VENANGO, WASHINGTON, AND WESTMORELAND COUNTIES

	Rates	Fringes
ELECTRICIAN.....	\$ 50.86	31.78

ELEC0056-004 06/01/2025

ERIE, FOREST AND WARREN COUNTIES

	Rates	Fringes
ELECTRICIAN.....	\$ 43.25	26.56

ELEC0126-005 06/03/2024

ALLEGHENY, ARMSTRONG, BEAVER, BEDFORD, BLAIR, CAMBRIA, CENTRE,
CLARION, CLEARFIELD, FAYETTE, FULTON, GREENE, HUNTINGDON,
INDIANA, JEFFERSON, SOMERSET, WASHINGTON AND WESTMORELAND

	Rates	Fringes
Line Construction:		
Cable Splicer.....	\$ 54.38	34.25%+11.50
Groundman.....	\$ 32.63	34.25%+11.50
Lineman.....	\$ 54.38	34.25%+11.50
Truck Driver.....	\$ 35.35	34.25%+11.50
Winch Truck Operator.....	\$ 38.07	34.25%+11.50

ELEC0126-007 06/03/2024

FRANKLIN AND MIFFLIN COUNTIES

	Rates	Fringes
Line Construction:		
Cable Splicer.....	\$ 53.20	34.25%+11.50
Groundman.....	\$ 31.92	34.25%+11.50
Lineman.....	\$ 53.20	34.25%+11.50
Truck Driver.....	\$ 34.58	34.25%+11.50
Winch Truck Operator.....	\$ 37.24	34.25%+11.50

ELEC0143-007 06/01/2025		

FRANKLIN and MIFFLIN COUNTIES

	Rates	Fringes
ELECTRICIAN.....	\$ 40.00	27.42

ELEC0712-003 01/01/2024		

CRAWFORD, BEAVER, LAWRENCE AND MERCER COUNTIES

	Rates	Fringes
ELECTRICIAN.....	\$ 47.30	28.12

ELEC0812-008 06/01/2024		

CLINTON COUNTY

	Rates	Fringes
ELECTRICIAN.....	\$ 37.43	26.17

ELEC0812-009 06/01/2024		

POTTER COUNTY

	Rates	Fringes
ELECTRICIAN.....	\$ 38.44	26.20

ELEC0812-011 06/01/2024		

CENTRE COUNTY (Burnside, Curtin, Liberty, Howard, Marion, Walker, Miles, Haines Townships)

Rates	Fringes
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ELECTRICIAN.....	\$ 37.43	26.17
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ELEC1319-004 01/01/2025

BUTLER, CAMERON, CLINTON, CRAWFORD, ELK, ERIE, FOREST,
LAWRENCE, MCKEAN, MERCER, VENANGO, WARREN AND POTTER COUNTIES

	Rates	Fringes
Line Construction:		
Equipment Operator.....	\$ 66.33	23.56
Groundmen.....	\$ 41.12	14.73
Linemen.....	\$ 66.33	29.56
Truck Driver.....	\$ 43.11	14.87

* ENGI0066-016 01/01/2025

	Rates	Fringes
Power equipment operators: (ALLEGHENY, ARMSTRONG, BEAVER, BLAIR, BUTLER, CAMBRIA, CENTRE, CLARION, CLEARFIELD, CRAWFORD, ERIE, ELK, FAYETTE, GREENE, INDIANA, JEFFERSON, LAWRENCE, MCKEAN, MERCER, SOMERSET, VENANGO, WARREN, WASHINGTON, AND WESTMORELAND COUNTIES)		
GROUP 1.....	\$ 40.39	24.23
GROUP 1-A.....	\$ 43.39	24.23
GROUP 1-B.....	\$ 42.39	24.23
GROUP 2.....	\$ 40.13	24.23
GROUP 3.....	\$ 36.48	24.23
GROUP 4.....	\$ 36.02	24.23
GROUP 5.....	\$ 35.77	24.23

Power equipment operators: (BEDFORD, CAMERON, CLINTON, FOREST, FRANKLIN, FULTON, HUNTINGDON, MIFFLIN, AND POTTER COUNTIES)		
GROUP 1.....	\$ 40.10	24.23
GROUP 1-A.....	\$ 43.10	24.23
GROUP 1-B.....	\$ 42.10	24.23
GROUP 2.....	\$ 39.82	24.23
GROUP 3.....	\$ 36.18	24.23
GROUP 4.....	\$ 35.69	24.23
GROUP 5.....	\$ 35.48	24.23

POWER EQUIPMENT OPERATORS CLASSIFICATIONS

GROUP 1 - Asphalt Paving Machine (Spreader), Autograde (C.M.I. and similar); Backfiller, Compactor with Blade, Backhoe - 360 and 180 degree Swing; Cableway; Caisson Drill (similar to Hugh Williams), Central Mix Plant; Cooling Plant; Concrete Paving Mixer, Concrete Pump (self-propelled); Cranes; Cranes (boom or mast over 101ft.\$150 per each additional 50 feet inclusive of jib), Cranes (Tower Stationary- Climbing Tower Crane); Derrick; Derrick Boat; Dozer(greater than 25,000 lbs.); Dragline; Dredge; Dredge Hydraulic; Elevating Grader; Franki Pile Machine; Gradall (remote control or otherwise), Grader (power-fine grade); Hllift (4 cy. and over); Hoist 2 Drums or more (in one unit); Hydraulic Boom Truck with pivotal cab (single motor-Pitman or similar), Hydraulic Boom Truck (non pivotal cab); Hydro-pneumatic Excavation Equipment (or similar); (Boom and Mast over 101 feet will be paid an additional 50 feet inclusive of jib if used;) Kocal; Mechanic, Locomotive (std. Gauge); Metro-chip Harvester or similar; Milling Machine (Roto Mill or similar); Mix Mobile; Mix Mobile (with Self Loading Attachment), Mucking Machine (tunnel); Pile Driver Machine; Pipe Extrusion Machine; Presplitter Drill (self contained); Refrigeration Plant (soil Stablization) Rough Terrain Crane (25 ton over) (Boom and Mast over 101 feet will be paid an additional 50 feet inclusive of jib if used); Rough Terrain Crane (under 25 ton), Scrapers; Shovel-Power; Slip form Paver (C.M.I. and similar); Trenching Machine (30,000 lbs. and over), Trenching Machine (under 30,000 lb.), Tunnell Machine (Mark XXI Jarva or similar), Vermeer Saw, Whirley, Mechanic, Compactor with blade

GROUP 1-A Backhoes-360 degree swing (above 120,000 lbs. gross weight); Cranes (over 100 tons), Cranes-Rough Terrain (over 100 ton); Tug Boat Pilot (on boats over 800 horsepower)

GROUP 1-B Backhoes-360 degree swing (above 70,000 lbs. to 120,000 lbs. gross weight); Cranes (up to 100 ton), Cranes-Rough Terrain (65 ton-100 ton), Tower Crane

GROUP 2: Asphalt plant operator; auger (tractor mtd.); auger (truck mtd.); belt loader (euclid or similar); boring machine; cable placer or layer; Directional drill over 3,000 lbs thrust; concrete batch plant (electronically synchronized); concrete belt placer (C.M.I. and similar); concrete finishing machine and spreader, concrete mixer (over 1 cy.) concrete pump (stationary); core drill (truck or skid mtd. - similar to penn drill), dozer (25,000 lbs or less); Ditch Witch Saw, force feedloader; fork lift (lull or similar); grader - power; grease unit opertor (head); guard rail post driver (truck mounted) guard rail post

driver (skid type); hilift (under 4 cy.); skid steer loader; hydraulic boom truck (non-pivotal cab); job work boat (powered), jumbo operator; locomotive (narrow guage); minor equipment operator (accumulative four units); mucking machine; multi-head saw (groover); overhead crane; roller -power- asphalt; ross carrier; side boom or tractor mounted boom; shuttle buggy (asphalt), stone crusher (screening-washing plants); stone spreader (self propelled) truck mounted drill (davey or similar); welder and repairman; well point pump operator; bidwell concrete finishing machine (or similar).

GROUP 3: Broom Finisher (C.M.I. or similar); Compactors/Rollers (static or vibratory (Self-propelled) on dirt or stone; Curb Builder; Minor Equipment Opertor (two or three units); Multi-head Tie Tamper; Pavement Breaker (self-propelled or ridden); Soil Stablizer Machine; Tire Repairman; Tractor (snaking and hauling); Well Driller and Horizontal: Winch or ""A"" Frame Truck (when hoisting and lowering).

GROUP 4: Ballast Regulator; Compressor; Concrete Mixer (1 cy. & under with skip); Concrete Saw (Ridden or selp-propelled); Conveyor; Elevator (Material hauling only); Fork-lift (Ridden or self-propelled); Form Line Machine; Generator; Groute Pump; Heater (Machinical); Hoist (single Drum); Ladavator, Light Plant; Mulching Machine; Personnel Boat (Powered), Pulverizer, Pumps, Seeding Machine, spray Cure Machine (powered Driven); Subgrader; Tie Puller; Tugger; Welding Machine (Gas or Diesel).

GROUP 5: Deck Hand; Farm Tractor; Fireman on Boiler; Oiler; Power Broom; Side Delivery Shoulder Spreader (attachment);

IRON0003-001 06/01/2023

ALLEGHENY, FAYETTE, WESTMORELAND, CAMBRIA, INDIANA, ARMSTRONG, BUTLER, BEAVER, CLARION, AND WASHINGTON COUNTIES

	Rates	Fringes
IRONWORKER.....	\$ 38.89	34.54

IRON0003-007 06/01/2023

BLAIR, CAMERON, CENTRE, CLEARFIELD, CLINTON, ELK, JEFFERSON, MCKEAN, AND POTTER COUNTIES

	Rates	Fringes
IRONWORKER.....	\$ 32.29	32.41

IRON0003-011 06/01/2023

CRAWFORD, ERIE, FOREST, AND WARREN COUNTIES

	Rates	Fringes
IRONWORKER.....	\$ 33.57	32.23

IRON0207-002 06/01/2025

LAWRENCE, MERCER, AND VENANGO COUNTIES

	Rates	Fringes
IRONWORKER.....	\$ 36.26	28.16

IRON0404-008 07/01/2024

FRANKLIN (Remainder), HUNTINGDON (Remainder), AND MIFFLIN COUNTIES

	Rates	Fringes
IRONWORKER, STRUCTURAL.....	\$ 37.26	32.63

IRON0549-002 12/01/2022

GREENE COUNTY

	Rates	Fringes
IRONWORKER.....	\$ 35.19	25.66

IRON0568-004 05/01/2025

BEDFORD, FRANKLIN (Southwest 1/3), FULTON, HUNTINGDON (Western 2/3), AND SOMERSET COUNTIES

	Rates	Fringes
IRONWORKER Structural, Ornamental, Reinforcing, Machinery Mover, Rigger & Machinery Erector, Welder, Fence		

Erector.....	\$ 31.65	24.50
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LAB01058-001 01/01/2025

	Rates	Fringes
LABORER (BEDFORD, CAMERON, CENTRE, CLINTON, CRAWFORD, FOREST, FRANKLIN, FULTON, HUNTINGDON, JEFFERSON, MIFFLIN, AND POTTER COUNTIES)		
GROUP 1.....	\$ 33.60	26.00
GROUP 2.....	\$ 33.76	26.00
GROUP 3.....	\$ 34.25	26.00
GROUP 4.....	\$ 34.70	26.00
GROUP 5.....	\$ 35.11	26.00
GROUP 6.....	\$ 31.95	26.00
GROUP 7.....	\$ 34.60	26.00
GROUP 8.....	\$ 36.10	26.00
Laborers: (ALLEGHENY, ARMSTRONG, BEAVER, BLAIR, BUTLER, CAMBRIA, CLARION, CLEARFIELD, ELK, ERIE, FAYETTE, GREENE, INDIANA, LAWRENCE, MCKEAN, MERCER, SOMERSET, VENANGO, WARREN, WASHINGTON, AND WESTMORELAND COUNTIES)		
GROUP 1.....	\$ 33.70	26.00
GROUP 2.....	\$ 33.86	26.00
GROUP 3.....	\$ 34.25	26.00
GROUP 4.....	\$ 34.70	26.00
GROUP 5.....	\$ 35.11	26.00
GROUP 6.....	\$ 31.95	26.00
GROUP 7.....	\$ 34.70	26.00
GROUP 8.....	\$ 36.20	26.00

LABORERS CLASSIFICATIONS

GROUP 1: Asphalt curb sealer; Asphalt tamper; Batcherman (weigh) Blaster, Boatman, Brakeman, Change house attendant, Cofferdam, Concrete curing pitman, Puddler, Drill Runner's helper (Includes Drill Mounted on Truck, Track, or similar and Davey Drill Spots, Clean up, helps to maintain), Electric Brush and or Grinder, Fence Construction (Including Fence Machine Operator) Form stripper and Mover, Gabion (Erectors and Placers) Hydro jet blaster nozzleman; Landscape laborer, Manually moved emulsion sprayer, Radio actuated traffic control operator Rip rap work, scaffolds and Runways, Sheet piers and Shoring (includes lagging) structural concrete Top Surfer, Walk Behind Street

Sweeper, and Wood Chipper; water boy

GROUP 2: Air tool operator (all types); Asphalt, batch & concrete plant operator (manually operated) Burner, Caisson; men (open air); Carryable pumps; Chain saw operator including attachments, Cribbing, (concrete or steel); Curb machine operator (asphalt or concrete walk behind); Diamond head Core Driller, Drill runner's helper (tunnel) Fork Lift, (walk behind), Form Setter (Road Forms Line man) Highway Slab reinforcement placers (including joint and Basket Setters) Hydraulic pipe pusher; Liner plates (Tile or Vitrified Clay) Mechanical compacting equipment operators, Mechanical joint sealer, Dope pot and Tar Kettle, Mortar mixer (hand or machine) Muckers, Brakemen & all other Labor, (Includes installation of utility lines) Pipe Layers /Fusion /Heating Iron (Regardless of materials) Portable Single Unit Conveyor, Post Hole Auger, (2 or 4 cycle hand operated) Power wheelbarrows and buggies, Rail porter or similar; Sand blaster; Signal Man, Vibrator operator, All RAILROAD TRACK WORK TO INCLUDE THE FOLLOWING: adzing machine, ballast Router, Bolting Machine, Power Jacks, Rail Drills, Railroad Brakeman, Rail Saws, Spike Drivers (Manually or hand held tool) Spike Pullers Tamping Machine, Thermitweld

GROUP 3: Asphalt Luteman/Raker, Blacksmith, Blaster, Brick, stone and block pavers and block cutters (wood, belgian and asphalt); Cement mortar lining car pusher; Cement mortar mixer (pipe relining); Cement mortar pipe reliners; concrete saw operator (walk behind); Curb cutters and setters; Elevated roadway drainage construction; erector of overhead signs, Form setter (road forms-lead man); Grout machine operator; Gunite or dry pack gun (nozzle and machine man); Manhole or catch basin builder (Brick block concrete or any prefabrication) Miners and drillers (including lining, supporting and form workmen, setting of shields, miscellaneous equipment and jumbos); Multi-plate pipe (aligning and securing); Placing wire mesh on gunite projects; Wagon drill operators (air track or similar); Walk behind ditching machine (trencher or similar); crown screed adjuster and welder

GROUP 4: Reinforcing Steel Placer (Bending, aligning, and securing, Cadweld)

GROUP 5: High Burner, (Any burning not done from deck), Welder (Pipeline)

GROUP 6: Uniformed Flagperson, Watchman

GROUP 7: Toxic/Hazardous Waste Removal Laborer Levels C & D

GROUP 8: Toxic/Hazardous Waste Removal Laborer Levels A & B

PAIN0021-019 05/01/2021

CLINTON COUNTY

	Rates	Fringes
Painters:		
Bridge.....	\$ 36.67	18.80
Brush & Roller.....	\$ 29.02	21.14
Spray.....	\$ 30.02	21.14

PAIN0021-024 05/01/2021

FRANKLIN COUNTY

	Rates	Fringes
PAINTER		
Brush.....	\$ 25.84	16.30

PAIN0057-014 06/01/2023

ALLEGHENY, FAYETTE, GREENE, WASHINGTON COUNTIES

	Rates	Fringes
Painters:		
Bridge.....	\$ 38.33	23.72
Brush & Roller.....	\$ 30.56	23.72
Spray.....	\$ 30.56	23.72

PAIN0057-015 06/01/2023

ARMSTRONG, BEAVER, BEDFORD, BLAIR, BUTLER, CAMBRIA, CENTRE,
CLARION, CLEARFIELD, ELK, FULTON, HUNTINGTON, INDIANA,
JEFFERSON, LAWRENCE, MERCER, MIFFLIN, SOMERSET, VENANGO AND
WESTMORELAND COUNTIES

	Rates	Fringes
Painters:		
Bridge.....	\$ 38.33	23.72
Brush and Roller.....	\$ 30.56	23.72
Spray.....	\$ 30.56	23.72

PAIN0057-022 05/01/2024

	Rates	Fringes
Painters: (ERIE, McKEAN, AND WARREN (Including Columbus and Freehold twps) COUNTIES)		
Bridges, Stacks, Towers.....	\$ 28.87	24.89
Brush and Roller.....	\$ 26.37	24.89
Spray and Sandblasting.....	\$ 27.12	24.89

PAIN0057-027 06/01/2023

CAMERON, CRAWFORD, POTTER, WARREN, (Excluding Columbus and Freehold twps)

	Rates	Fringes
PAINTER		
Brush and Roller.....	\$ 30.56	23.72

PLAS0526-002 01/01/2025

	Rates	Fringes
CEMENT MASON/CONCRETE FINISHER...	\$ 35.94	27.50

PLUM0027-001 06/01/2023

ALLEGHENY, ARMSTRONG, BEAVER, BUTLER, CLARION, GREENE (Except extreme Eastern portion), LAWRENCE, WASHINGTON (Except extreme Eastern portion) and WESTMORELAND (City of Arnold and City of New Kensington Only) COUNTIES

	Rates	Fringes
Plumbers and Pipefitters		
(Bridge Drain Pipe).....	\$ 48.65	25.47

PLUM0027-009 06/01/2023

CRAWFORD, ERIE, FOREST, McKEAN, MERCER, VENANGO and WARREN COUNTIES

	Rates	Fringes
Plumbers and Pipefitters		
(Bridge Drain Pipe).....	\$ 46.98	25.47

PLUM0354-005 06/01/2012

BEDFORD, BLAIR, CAMBRIA, CAMERON, CLEARFIELD, ELK, FAYETTE,
GREENE (Extreme Eastern portion), HUNTINGDON, INDIANA,
JEFFERSON, SOMERSE, WASHINGTON (Extreme Eastern portion), AND
WESTMORELAND COUNTIES

	Rates	Fringes
Plumbers and Pipefitters (Bridge Drain Pipe).....	\$ 35.54	19.97

TEAM0040-006 01/01/2025

	Rates	Fringes
TRUCK DRIVER (ALLEGHENY, ARMSTRONG, BEAVER, BLAIR, BUTLER, CAMBRIA, CENTRE, CLARFIELD, CRAWFORD, ERIE, FAYETTE, GREENE, INDIANA, JEFFERSON, LAWRENCE, MCKEAN, MERCER, SOMERSET, VENANGO, WARREN, WASHINGTON, AND WESTMORELAND)		
GROUP 1.....	\$ 36.43	23.21
GROUP 2.....	\$ 36.89	23.52
Truck drivers: (BEDFORD, CAMERON, CLAIRON, CLINTON, ELK, FOREST, FRANKLIN, FULTON, HUNTINGDON, MIFFLIN, AND POTTER COUNTIES)		
GROUP 1.....	\$ 36.29	23.13
GROUP 2.....	\$ 36.75	23.43

FOOTNOTES: A. Hazardous/toxic waste material/work level A
& B receive additional \$2.50 per hour above classification
rate

B. Hazardous/toxic waste materials/Work level C & D receive
\$1.00 per hour above classification

TRUCK DRIVERS CLASSIFICATIONS

GROUP 1 - Single Axle (2 axles including steering axle);
Includes partsman and warehoueman. Tandem - Tri-Axle -
Semi-Tractor Trailer (combination) (3 axles or more
including steering axle)

GROUP 2 - Specialty Vehicles; Heavy equipment whose capacity

exceeds that for which state licenses are issued specifically refers to units in excess of eight (8) feet width (such as Euclids, Atley Wagon, Payloader, Tournawagons, and similar equipment when not self loaded); Tar and Asphalt Distributors Trucks, Heavy Duty Trailer, such as Low Boy, High Boy

WELDERS - Receive rate prescribed for craft performing operation to which welding is incidental.

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Note: Executive Order (EO) 13706, Establishing Paid Sick Leave for Federal Contractors applies to all contracts subject to the Davis-Bacon Act for which the contract is awarded (and any solicitation was issued) on or after January 1, 2017. If this contract is covered by the EO, the contractor must provide employees with 1 hour of paid sick leave for every 30 hours they work, up to 56 hours of paid sick leave each year. Employees must be permitted to use paid sick leave for their own illness, injury or other health-related needs, including preventive care; to assist a family member (or person who is like family to the employee) who is ill, injured, or has other health-related needs, including preventive care; or for reasons resulting from, or to assist a family member (or person who is like family to the employee) who is a victim of, domestic violence, sexual assault, or stalking. Additional information on contractor requirements and worker protections under the EO is available at <https://www.dol.gov/agencies/whd/government-contracts>.

Unlisted classifications needed for work not included within the scope of the classifications listed may be added after award only as provided in the labor standards contract clauses (29CFR 5.5 (a) (1) (iii)).

The body of each wage determination lists the classifications and wage rates that have been found to be prevailing for the type(s) of construction and geographic area covered by the wage determination. The classifications are listed in alphabetical order under rate identifiers indicating whether the particular rate is a union rate (current union negotiated rate), a survey rate, a weighted union average rate, a state adopted rate, or a supplemental classification rate.

Union Rate Identifiers

A four-letter identifier beginning with characters other than ""SU"", ""UAVG"", ?SA?, or ?SC? denotes that a union rate was prevailing for that classification in the survey. Example: PLUM0198-005 07/01/2024. PLUM is an identifier of the union whose collectively bargained rate prevailed in the survey for this classification, which in this example would be Plumbers. 0198 indicates the local union number or district council number where applicable, i.e., Plumbers Local 0198. The next number, 005 in the example, is an internal number used in processing the wage determination. The date, 07/01/2024 in the example, is the effective date of the most current negotiated rate.

Union prevailing wage rates are updated to reflect all changes over time that are reported to WHD in the rates in the collective bargaining agreement (CBA) governing the classification.

Union Average Rate Identifiers

The UAVG identifier indicates that no single rate prevailed for those classifications, but that 100% of the data reported for the classifications reflected union rates. EXAMPLE: UAVG-OH-0010 01/01/2024. UAVG indicates that the rate is a weighted union average rate. OH indicates the State of Ohio. The next number, 0010 in the example, is an internal number used in producing the wage determination. The date, 01/01/2024 in the example, indicates the date the wage determination was updated to reflect the most current union average rate.

A UAVG rate will be updated once a year, usually in January, to reflect a weighted average of the current rates in the collective bargaining agreements on which the rate is based.

Survey Rate Identifiers

The ""SU"" identifier indicates that either a single non-union rate prevailed (as defined in 29 CFR 1.2) for this classification in the survey or that the rate was derived by computing a weighted average rate based on all the rates reported in the survey for that classification. As a weighted average rate includes all rates reported in the survey, it may include both union and non-union rates. Example: SUFL2022-007 6/27/2024. SU indicates the rate is a single non-union prevailing rate or a weighted average of survey data for that classification. FL indicates the State of Florida. 2022 is the year of the survey on which these classifications and rates are based. The next number, 007 in the example, is an internal number used in producing the wage determination. The date, 6/27/2024 in the example, indicates the survey completion date

for the classifications and rates under that identifier.

?SU? wage rates typically remain in effect until a new survey is conducted. However, the Wage and Hour Division (WHD) has the discretion to update such rates under 29 CFR 1.6(c)(1).

State Adopted Rate Identifiers

The "SA" identifier indicates that the classifications and prevailing wage rates set by a state (or local) government were adopted under 29 C.F.R 1.3(g)-(h). Example: SAME2023-007 01/03/2024. SA reflects that the rates are state adopted. ME refers to the State of Maine. 2023 is the year during which the state completed the survey on which the listed classifications and rates are based. The next number, 007 in the example, is an internal number used in producing the wage determination. The date, 01/03/2024 in the example, reflects the date on which the classifications and rates under the ?SA? identifier took effect under state law in the state from which the rates were adopted.

WAGE DETERMINATION APPEALS PROCESS

1) Has there been an initial decision in the matter? This can be:

- a) a survey underlying a wage determination
- b) an existing published wage determination
- c) an initial WHD letter setting forth a position on a wage determination matter
- d) an initial conformance (additional classification and rate) determination

On survey related matters, initial contact, including requests for summaries of surveys, should be directed to the WHD Branch of Wage Surveys. Requests can be submitted via email to davisbaconinfo@dol.gov or by mail to:

Branch of Wage Surveys
Wage and Hour Division
U.S. Department of Labor
200 Constitution Avenue, N.W.
Washington, DC 20210

Regarding any other wage determination matter such as conformance decisions, requests for initial decisions should be directed to the WHD Branch of Construction Wage Determinations. Requests can be submitted via email to BCWD-Office@dol.gov or by mail to:

Branch of Construction Wage Determinations
Wage and Hour Division
U.S. Department of Labor
200 Constitution Avenue, N.W.
Washington, DC 20210

2) If an initial decision has been issued, then any interested party (those affected by the action) that disagrees with the decision can request review and reconsideration from the Wage and Hour Administrator (See 29 CFR Part 1.8 and 29 CFR Part 7). Requests for review and reconsideration can be submitted via email to dba.reconsideration@dol.gov or by mail to:

Wage and Hour Administrator
U.S. Department of Labor
200 Constitution Avenue, N.W.
Washington, DC 20210

The request should be accompanied by a full statement of the interested party's position and any information (wage payment data, project description, area practice material, etc.) that the requestor considers relevant to the issue.

3) If the decision of the Administrator is not favorable, an interested party may appeal directly to the Administrative Review Board (formerly the Wage Appeals Board). Write to:

Administrative Review Board
U.S. Department of Labor
200 Constitution Avenue, N.W.
Washington, DC 20210.

=====

END OF GENERAL DECISION"

GENERAL REQUIREMENTS & TECHNICAL SPECIFICATIONS

WESTMORELAND COUNTY HOUSING AUTHORITY

HEMPFIELD TOWERS - 2025 PARKING LOT REHABILITATION PROJECT

2500 S. GRANDE BLVD. GREENSBURG, PA. 15601

CONTRACT – PA 28-8-02-2025.1 GC-SITE

THIS CONTRACT– includes but not limited to asphalt / pavement rehabilitation, soft spot repair (heavy duty & standard duty), milling and resurfacing, crack sealing, surface cleaning & preparation, inlet replacement, and all incidentals required to complete the work on unit price bid.

SECTION 01100

SUMMARY OF WORK

PART 1 - GENERAL

1.1 RELATED DOCUMENTS

- A. Contract Exhibits are attached at the end of these Specifications.

1.2 PROJECT DESCRIPTION

- A. The Project consists of milling and resurfacing of the surrounding parking lot, soft spot repairs with standard duty or heavy duty pavement, inlet frame/grate replacement, sealing with Seal Master PMCTS, crack sealing, soft spot repair, surface cleaning/preparation (to include crack cleaning, weed killing, pressure washing and oil/gas spot primer). :
- B. The Work consists of (but is not necessarily limited to) the following work items including all related work for each HUD Unit Parking Lot:

BASE BID – includes but not limited to asphalt / pavement rehabilitation, soft spot repair (heavy duty & standard duty), milling and resurfacing, crack sealing, surface cleaning & preparation, inlet frame replacement, and all incidentals required to complete the work on unit price bid.

ADD ALTERNATES – included separate rehabilitation of concrete sidewalks, concrete paving on a per item basis. Owner reserves the right to award with Base Bid with or without Add alternates its discretion.

Each prospective bidder must review the site and assert that they have performed their due diligence with reviewing existing site conditions for establishing quantities of work in preparing their bids.

GENERAL CONDITIONS OF THE CONTRACT

- C. The "General Conditions of the Contract" bound herewith are a part of the Specifications for all construction and shall apply to each subheading of the Specifications.
- D. All Contractors will be held to have examined all "Instructions to Bidders", "Conditions of Contract" which apply to all branches of the Work and all Contractors will be bound by the provisions contained therein.

1.3 EXAMINATION OF THE SITE AND PLANS

- A. **IMPORTANT NOTICE:**
Before submitting their bid prices, the Contractor shall visit the project site, to compare their bid with the requirements set forth within Contract Bid Documents and note anything, which will affect the proposed work. **FAILURE TO DO SO WILL NOT RELIEVE THE CONTRACTOR FROM PROVIDING PRICES BASED ON COMPLETE AND APPROVED SERVICE AND INSTALLATION WORK.**
The Contractor shall verify all material quantities contained in the specifications at the site.
- B. Contractors shall contact Mr. Erik Spiegel – WCHA Director of A&E Services to arrange site inspections. Contact information is: 724-832-7248 ext. 3056 and 724 640-4596 Cell.

1.4 PRE-BID CONFERENCE

- A. A Pre-Bid Conference will be held prior to bidding.

1.5 PRE-AWARD CONFERENCE

- A. Prior to award of the Contract, a site meeting will be held at the site covering planning, scheduling, means and methods for constructing the Project and to address any questions, issues, raised or identified during the bid phase related to any contract document discrepancies that may exist.
- B. The Pre-Award Conference will be scheduled with the lowest responsible bidder prior to the awarding of the contract. Attendance at the conference is mandatory and will be limited to: Owner, Contractor & Superintendent. The conference is intended to clarify and review Project documentation, WCHA documentation associated with payment requests, certified payrolls, submittals, schedules,
- C. The Contractor shall furnish to the Owner a list of proposed subcontractors, suppliers, and manufacturers for approval prior to the Pre-Award Conference.

1.6 WORK SEQUENCE

- A. The Work shall be scheduled and conducted in cooperation with the Owner to provide the least possible interference to the activities of the Owner's personnel and the tenants.
- B. Subcontractors (if applicable) shall submit to the General Contractor information of his or her respective work sequencing and schedule for coordination. General contractor to compile each contractor's information into a comprehensive construction schedule and submit to Owner within 14 days of start of construction.
- C. Work sequence is to take into consideration seasonal weather conditions for work items to be performed.

1.7 WCHA DISCLAIMER FOR EXTRA COSTS

- A. The Westmoreland County Housing Authority (WCHA) or the Architect/Engineer will not be responsible for added Contractor's costs resulting from failure or delay to obtain any or all material on a timely basis, necessary to complete the work as specified.
- B. Any scope changes involving extra costs will be deemed valid only by an agreement in writing signed by the WCHA and the Architect authorizing such changes or extra in advance of work being executed by the Contractor.
- C. Material and labor needed to complete each phase of work to ensure the complete and satisfactory installation of the entire job and permit operation of essential systems, shall be planned and executed without additional charges to the WCHA.

1.8 PERMITS, APPROVALS, INSPECTIONS ETC.

- A. The Owner will obtain the required building permits. (Not required)
- B. The Owner will coordinate and pay for all required municipal inspections. (Not required)

1.9 CONTRACTOR USE OF PREMISES

- A. General: Limit use of the premises to construction activities in areas indicated; allow for Owner and tenant occupancy and use by the public.
 - 1. Confine operations to areas within Contract limits indicated. Portions of the site beyond areas in which construction operations are indicated are not to be disturbed.

2. Keep roadways, driveways and entrances serving the premises clear and available to the Owner, the Owner's employees, and the tenants at all times. Do not use these areas for parking or storage of materials. Schedule deliveries to minimize space and time requirements for storage of materials and equipment on site.

1.10 PROTECTION OF WORK

- A. Material and work in progress shall be protected at all times from damage by persons or weather and all damaged items made good before final acceptance, without additional cost to the WCHA.
- B. Any material lost or stolen from the job site shall be made good by the Contractor at his expense. It shall be the Contractor's responsibility to provide suitable storage for all material stockpiled for use on this project.
- C. Contractor shall take all precautions to avoid damage to existing facilities. Contractor will restore all damaged items to their original condition or better at his expense.

1.11 OWNER OCCUPANCY

- A. Full Owner/tenant Occupancy: The Owner/tenant will occupy the site and existing buildings during the entire construction period. Cooperate with the Owner/tenant during construction operations to minimize conflicts and facilitate Owner/tenant usage. Perform the Work so as not to interfere with the Tenant / Owner's operations.

1.12 BARRICADES, BARRIERS, AND PROTECTION

- A. The Contractor shall erect and maintain any and all necessary railings, fences, temporary roofs and enclosures or other construction for purposes of protecting the buildings and/or personnel and the public during and after working hours. Warning lights or lanterns shall be supplied, maintained and kept operative at all times that any hazard exists.
- B. The Contractor shall maintain a work site area that complies with all applicable OSHA regulations.

1.13 GENERAL DIRECTIONS

- A. The Contractor shall examine all requirements related to his work and be fully informed as to the extent of his contract plans.
- B. The Contractor shall make a maximum effort to protect the comfort and safety of the tenants and to not cause unreasonable inconvenience to the same.
- C. The Contractor shall maintain clean work conditions as required in the specifications and shall expedite removal of all rubbish, surplus material and trash.
- D. The Contractor shall be required to dispose of all refuse in a timely manner and utilize his own containers. Do not use the existing tenants' dumpster containers for rubbish disposal. The Contractor shall at his expense make provisions for timely rubbish/trash removal as a result of work on this project. Contractor shall maintain clean working conditions at all times during construction to avoid injuries to maintenance personnel or tenants. Site cleanup shall be done at the end of each workday.

1.14 COORDINATION WITH MAINTENANCE/ SERVICE PERSONNEL/TENANTS/REFUSE PICK UP

- A. Contractor shall insure that full coordination and cooperation with maintenance and service personnel in order to permit operation of essential systems and services are maintained during the course of work on this Project. The WCHA shall not be liable for extra costs due to the Contractor's disregard for this requirement.
- B. Each successful bidder must provide notification to each HA premise a minimum 48 hours in advance prior to any work being performed. Notification may include the posting of signs visible to tenants entering and exiting the HA premise.
- C. Each successful bidder must coordinate all work efforts around refuse pick up times in order for work to be performed without any conflicts. Schedules are available for you by contacting the HA bid administrator.

1.15 ELECTRICAL SERVICE DURING CONSTRUCTION

- A. The Contractor **may not** use electrical receptacles from common areas for work on this Project.

1.16 STANDARD OF QUALITY

- A. The various materials and products specified in the specifications by name or description are given to establish a standard of quality and of cost for bid purposes. It is not the intent to limit the acceptance to any one material or product specified but rather to name or describe it as the absolute minimum standard that is desired and acceptable. A material or product of lesser quality would not be acceptable. Where proprietary names are used, whether or not followed by the words "or equivalent", they shall be subject to equals only as approved by the Architect.

1.17 COMPLETION DATE

- A. The Contractor shall commence work under this contract within **10** days after receiving "Notice to Proceed" by the Owner. The completion time for all work is **ninety (90)** calendar days from the date of "Notice to Proceed".
- C. Scheduling of all work shall be done through the Project Office. During the Pre-Award Conference, contractor work will be discussed and clarified. It is hereby made clear that time is of the essence for the completion of the Work on this Project and it will take the cooperation of the contractors and all parties involved to expedite the completion.

1.18 DRAWINGS AND SPECIFICATIONS

- A. The local Authority will furnish to the Contractor upon request two (2) copies of drawings and specifications without charge.

1.19 SUBMITTALS

- A. The Contractor shall submit samples and shop drawings of pertinent material to be furnished for approval by the Owner or Architect. Approved samples shall be standard for materials furnished. Submit six (6) copies of all shop drawings for approval, which three (3) reviewed shop drawings will be returned.
- B. All submittals must be reviewed, stamped approved, and signed by the Contractor before submission to the Architect's or Engineer's office for review. No submittal will be reviewed by the Owner or Architect's office without this approval.

1.20 PRODUCT DELIVERY, STORAGE AND HANDLING

- A. The material used shall be delivered to the job site in original unopened packages with contents legibly indicated. Any materials stored on site shall be kept dry and protected from damage until

ready for use.

1.21 JOB OFFICES

- A. The Contractor and his subcontractors may maintain an office, storage, and toilet facilities on the site as may be necessary in the proper conduct of the Work. These shall be located so as to cause no interference to any work to be performed on the site. The WCHA shall approve locations.
- B. Upon completion of the Project, or as directed by the WCHA or Architect/Engineer, the Contractor shall remove all such temporary structures and facilities from the site, same to become his property, and leave the premises in the condition required by the Contract.

1.22 GUARANTEE

- A. The Contractor shall be responsible for submitting to the Owner at completion all manufactures guarantee certificates required and contractor guarantees for all general workmanship and materials against defects for a period of one year from date of completion.

1.23 STATE WAGE PRE-EMPTION

- A. Any State wage rate that exceeds the corresponding Federal wage rate as contained within these specifications is inapplicable and shall not be enforced.

1.24 OWNER'S PROTECTION

- A. The Contractor shall protect the local authority against any and all claims arising out of the performance of the contract, including damages to tenant owned items.

1.25 REQUIRED INSURANCE COVERAGE

- A. All Contractors and subcontractors shall submit to the WCHA, with other contract documents, Certificates of Insurance for required coverage as stated in the General Conditions.

1.26 LIQUIDATED DAMAGES

- A. Liquidated damages for failure to complete the contract on time: For each calendar day as specified in the Contract, that any Work remains uncompleted after the contract time (including all extensions and adjustments as provided in Clause 33 of the General Conditions of the Contract), the sum specified as liquidated damages will be deducted from any money due or to become due the Contractor or his surety. Such deducted sums shall not be deducted as a penalty but shall be considered, as liquidation of a reasonable portion of damages that will be incurred by the Owner should the Contractor fail to complete the Work in the time provided in his contract. The Liquidated Damages assessment for this Contract shall be **One Hundred Dollars (\$ 100.00)** per day.
- B. Permitting the Contractor to continue and finish the Work or any part of it after the time fixed for its completion, or after the date to which the time for completion may have been extended, will in no way operate as a waiver on the part of the Owner of his rights under the Contract.

1.27 AS-BUILT DRAWINGS

- A. Each Contractor shall maintain and document construction changes, etc. on site working copy of drawings. A final "as-built" set of drawings is to be provided to the WCHA at completion of Work.

1.28 INSTALLATION OF MATERIALS

- A. All materials and means and methods shall be installed in strict accordance with the manufacturer's printed installation instructions and construction details, unless otherwise directed in writing by the

1.29 LIMITATION OF LIABILITY

- A. Bidder is skilled and experienced in the use and interpretation of drawings and specifications. He has carefully reviewed the drawings and specifications for this Project and found them free of ambiguities and sufficient for bid purposes. Further, he has carefully examined the site of the work and, from his own observations, has satisfied himself as to the nature and location of the work, the character, quality, and quantity of materials, and the difficulties likely to be encountered and other items, which may affect the performance of the work.

Contractor has based their bid solely on these documents and observations and has not relied in any way on any explanation or interpretation, oral or written, from any other source.

Therefore, the bidder agrees to limit the liability of the Owner and Consulting Architect/Engineer for his professional negligence, errors, or omissions, to a total aggregated liability to him of \$25,000. However, bidder in no way assumes liability for the negligence, errors, or omissions of the Owner or Consulting Architect/Engineer.

1.30 SAFETY

- A. Contractor shall be responsible for all means and methods as they relate to safety and shall comply with all applicable local, state and federal requirements that are safety related. Job-Site Safety shall be the sole responsibility of the General Contractor. All related personnel shall be instructed daily to be mindful of the full time requirement to maintain a safe work environment for the facility's occupants including residents, staff, and visitors.
- B. Contractor shall install all required safety control measures to meet OSHA Requirements.
- C. Material Safety Data Sheets (MSDS) must be located on the site at all times.

1.31 WORKMANSHIP & QUALITY ASSURANCE

- A. All work shall be of the highest quality and in strict conformance with the manufacturer's published specifications and to the WCHA satisfaction.
- B. A quality control / site supervisor shall be on the job site at all times during construction and when subcontractors will be on site.

1.32 WARRANTY

- A. General Construction and Material warranties not covered by a specific manufacturer's warranty shall cover a period of one year from the established date of substantial completion.

PART 2 - PRODUCTS (Not applicable).

PART 3 - EXECUTION (Not applicable).

END OF SECTION

SECTION 01250

CONTRACT MODIFICATION PROCEDURES

PART 1 - GENERAL

1.1 SUMMARY

- A. Section includes administrative and procedural requirements for handling and processing Contract modifications.
- B. **General Conditions - Section 28** will govern over the administration of Contract Modifications with this specification intended to further clarify proposed procedures associated with Contract Modifications should changes be warranted.

1.2 MINOR CHANGES IN THE WORK

- A. Owner and/or Architect/Engineer may issue supplemental instructions authorizing minor changes in the Work, not involving adjustment to the Contract Sum or the Contract Time. Directives given to contractor will be documented on a regular basis within the weekly Job Conference Meeting Minutes, and/ or Construction Correspondences.

1.3 PROPOSAL REQUESTS

- A. Owner-Initiated Proposal Requests: Owner - Construction Inspector or Director of A&E Services 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. Proposal Requests issued by Owner are not instructions either to stop work in progress or to execute the proposed change.
 - 2. Within five (5) business days after receipt of Proposal Request, Contractor shall 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 delivery charges, equipment rental, and amounts of trade discounts.
 - c. Include costs of labor and supervision directly attributable to the change.
 - d. Include overhead and profit as separate line items.
 - e. 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.
 - 3. Owner will evaluate Contractors proposal against an Independent Cost Estimate generated by Architect and will issue an SF-30 Change Order Form if change order proposal is accepted.

- 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 Owner.
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 overhead and profit as separate line items.
 6. 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.
- 7. Owner will evaluate Contractors proposal against an Independent Cost Estimate generated by Architect and will issue an SF-30 Change Order Form if change order proposal is accepted. If Contractor proposal is not acceptable, Owner will attempt to negotiate a compromise.**

1.4 CHANGE ORDER PROCEDURES

- A. On Owner's approval of a Change Order Proposal will be transmitted on an SF-30 Contract Form, signed by the WCHA-Contracting Officer. The WCHA-Contracting Officer is the only entity of the WCHA who can approve a contract change order.

PART 2 - PRODUCTS (Not Used)

PART 3 - EXECUTION (Not Used)

END OF SECTION

Section 01300
SUBMITTALS

Part 1- GENERAL

1.1 RELATED DOCUMENTS

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

1.2 SCOPE

- A. Contractor upon notice of award shall proceed to prepare submittals described herewithin and in accordance with the General Conditions and revise and resubmit as necessary to achieve compliance with the contract requirements. Owner recommends to Contractor to start the submittal process as soon as the notice of award is issued, which is prior to the issuance of a Notice to Proceed.
- B. The following submittals required to be submitted shall be sent to the **WCHA - Owner**, attention **Mr. Erik Spiegel, Director of A&E Services, 167 South Greengate Road, Greensburg, PA. 15601** by the Contractor with a letter of transmittal identifying each item.
- C. Submittal(s) and associated data must be reviewed and "stamped" approved prior to submittal to the **Owner** to insure that all data is complete, accurate and complies with the requirements of this project. Any data that is submitted without the Contractor's review and "Stamp" will be rejected in total, without review by the **Owner**, and returned to the Contractor for re-submittal. Delays in project completion as a result of non-compliance with this requirement will be the responsibility of the Contractor, and any costs or penalties incurred as a result of same shall be borne by the Contractor.
- D. Satisfactory review by the **Owner** must be obtained prior to release for order or fabrication unless specifically approved otherwise by the **Owner** in writing. Failure to comply will result in rejection of any material or equipment not completely in conformance with the Contract Documents.

1.3 SUMMARY

- | | |
|------------------------------------|---|
| A. Submittal Procedures | F. Samples |
| B. Construction Progress Schedules | G. Manufacturer's Installation Instructions |
| C. Proposed Products List | H. Manufacturer's Certificates |
| D. Shop Drawings | |
| E. Product Data | |

1.4 SUBMITTAL PROCEDURES

- A. Sequentially number the transmittal form. Revise submittals with original number and a sequential alphabetic suffix.
- B. Identify Project, Contractor, Subcontractor or Supplier; pertinent drawing and detail number, and specification section number, as appropriate.

- C. Apply Contractor's stamp, signed or initialed certifying that review, verification of Products required, field dimensions, adjacent construction Work, and coordination of information, is in accordance with the requirements of the Work and Contract Documents.
- D. Schedule submittals as required to expedite the Project, and deliver to the Owner of record.
- E. Identify variations from Contract Documents and Product or system limitations, which may be detrimental to successful performance of the completed Work.
- F. Provide space for the Owner of Record review stamps.
- G. When material is re-submitted, identify all changes made since previous submission.
- H. Distribute copies of reviewed submittals as appropriate. Instruct parties to promptly report any inability to comply with provisions.
- I. Submittals not requested will not be recognized or processed.
- J. Coordination: Contractor shall coordinate the preparation and processing of submittals with performance of construction activities.
 - i. Prior to each submittal, Contractor shall review and coordinate all aspects of each item being submitted. Coordinate each submittal with fabrication, purchasing, testing, delivery, other submittals, and related activities that require sequential activity, before submission to Owner or Architect.
 - ii. Contractor shall stamp, sign and/or initial all submittals certifying that he or she has reviewed and verified the products submitted meet or exceed the project specifications.
 - iii. Retain subparagraph and associated subparagraph below if one submittal has an impact on another submittal. Submittals that require concurrent review should be so indicated in those Sections.
 - iv. Coordinate transmittal of different types of submittals for related parts of the Work so processing will not be delayed because of need to review submittals concurrently for coordination.
 - v. Owner or Architect reserves the right to withhold action on a submittal requiring coordination with other submittals until related submittals are received.
- K. Processing Time: Allow enough time for submittal review, including time for resubmittals, as follows. Time for review shall commence on Architect'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.
 - i. Initial Review: Allow 15 days for initial review of each submittal. Allow additional time if coordination with subsequent submittals is required. Architect will advise Contractor when a submittal being processed must be delayed for coordination.

ii. Intermediate Review: If intermediate submittal is necessary, process it in same manner as initial submittal.

iii. Resubmittal Review: Allow 15 days for review of each resubmittal.

- L. Deviations: Highlight, encircle, or otherwise specifically identify deviations from the Contract Documents on submittals.
- M. Coordinate first paragraph and subparagraph below with office policy. Marking numerous copies of submittals can be time consuming.
- N. Additional Copies: Unless additional copies are required for final submittal, and unless Architect observes noncompliance with provisions in the Contract Documents, initial submittal may serve as final submittal.
 - i. Additional copies submitted for maintenance manuals will be marked with action taken and will be returned.
- O. Transmittal: Package each submittal individually and appropriately for transmittal and handling. Transmit each submittal using a transmittal form.
- P. Resubmittals: Make resubmittals in same form and number of copies as initial submittal.
 - i. Note date and content of previous submittal.
 - ii. Note date and content of revision in label or title block and clearly indicate extent of revision.
- Q. Distribution: Furnish copies of final submittals to manufacturers, subcontractors, suppliers, fabricators, and installers, authorities having jurisdiction, and others as necessary for performance of construction activities. Show distribution on transmittal forms.
- R. Use for Construction: Use only final submittals with mark indicating "Approved" taken by Architect.
- T. Upon substantial completion of the Project, and prior to final payment, submit the following data in accordance with the General Conditions as modified by the Supplemental Conditions:
 - 1. Bound copies of all guarantees/warranties. (3 Copies)
 - 2. Bound copies of all maintenance manuals. (3-Copies)
 - 3. Corrected, as-installed, reproducible plans. (1-Copy)Note: Electronic Format copies, if available, is recommended and requested.

All shall be submitted in accordance with the General Conditions of the Contract as modified by the Supplemental Conditions.

PART 2 - PRODUCTS

- A. **General:** Prepare and submit Submittals required by individual Specification Sections.
- B. **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 printed data are not suitable 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 written recommendations.
 - b. Manufacturer's product specifications.
 - c. Manufacturer's installation instructions.
 - d. Manufacturer's catalog cuts.
 - e. Wiring diagrams showing factory-installed wiring.
 - f. Printed performance curves.
 - g. Operational range diagrams.
 - h. Compliance with specified referenced standards.
 - i. Testing by recognized testing agency.
 - 4. Number of Copies: Submit three copies of Product Data, unless otherwise indicated. Architect will return two copies. Mark up and retain one returned copy as a Project Record Document.
- C. **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. Dimensions.
 - b. Identification of products.
 - c. Fabrication and installation drawings.
 - d. Roughing-in and setting diagrams.
 - e. Wiring diagrams showing field-installed wiring, including power, signal, and control wiring.
 - f. Shopwork manufacturing instructions.
 - g. Templates and patterns.
 - h. Schedules.
 - i. Notation of coordination requirements.
 - j. Notation of dimensions established by field measurement.
 - k. Relationship to adjoining construction clearly indicated.
 - l. Seal and signature of professional engineer if specified.
 - m. Wiring Diagrams: Differentiate between manufacturer-installed and field-installed wiring.
 - 2. Sheet Size: Except for templates, patterns, and similar full-size drawings, submit Shop Drawings on sheets at least 8-1/2 by 11 inches but no larger than 30 by 40 inches.

- D. Samples: Submit Samples for review of kind, color, pattern, and texture for a check of these characteristics with other elements and for a comparison of these characteristics between submittal and actual component as delivered and installed.
1. Transmit Samples that contain multiple, related components such as accessories together in one submittal package.
 2. Identification: Attach label on unexposed side of Samples that includes the following:
 - a. Generic description of Sample.
 - b. Product name and name of manufacturer.
 - c. Sample source.
 - d. Number and title of appropriate Specification Section.
 3. 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.
 4. 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 of available choices where color, pattern, texture, or similar characteristics are required to be selected from manufacturer's product line. Architect will return submittal with options selected.
 5. 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.
- E. Product Schedule or List: As required in individual Specification Sections, prepare a written summary indicating types of products required for the Work and their intended location.
- F. 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.
1. Number of Copies: Submit three copies of subcontractor list, unless otherwise indicated. Architect will return two copies.

PART 3-EXECUTION

3.1 INSTRUCTION OF WCHA MAINTENANCE PERSONNEL

- A. General: Instruct the WCHA – Maintenance personnel in the correct and safe means of maintaining materials, and of operating and maintaining equipment and related systems.
1. Arrange for each installer of Work requiring continuing maintenance or operation to meet with

Owners personnel at Project Site to provide basic instructions needed for operation and maintenance of Work. Include instruction by manufacturer's representatives where installers are not expert in the procedures.

2. Review maintenance manuals, record documentation, tools, spare parts and materials, lubricants, fuels, identification system, control sequences, hazards, emergency procedures, cleaning and similar procedures, and facilities.
 3. Review maintenance and operations in relation with applicable Warranties and Guarantees, agreements to maintain bonds, and similar continuing commitments.
- B. Schedule instructions through the WCHA -Construction Inspector or Director of A/E Services.

3.2 SUBMITTAL ADMINISTRATION:

- A. Contractor shall 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 Architect.
- B. Contractor shall stamp each submittal with a uniform, approval stamp. Include Project name and location, submittal number, Specification Section title and number, 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.
- C. Owner or Architect will not review submittals that do not bear Contractor's approval stamp and will return them without action.
- D. Owner or Architect will review each submittal, make marks to indicate corrections or modifications required, and return it. Architect will stamp each submittal with an action stamp and will mark stamp appropriately to indicate action taken, as follows:
- E. On advice of counsel, select appropriate terms for action stamp and insert term and explanation of each action taken in subparagraph below. See Evaluations.
- F. Partial submittals are not acceptable, will be considered nonresponsive, and will be returned without review.
- G. Submittals not required by the Contract Documents may not be reviewed and may be discarded.

3.3 CONSTRUCTION PROGRESS SCHEDULES

- A. Submit initial Construction Managers schedule in duplicate within fifteen (15) days and/or as requested by WCHA – Director of A/E Services, after the date of Notice to Proceed (NTP).
- B. Revise and re-submit as requested.
- C. Submit updated schedules with each Application for Payment, identifying and highlighting changes since previous version.

- D. Submit a Gantt chart (readable by Microsoft Project 2000) with separate line for each major section of Work or operation, identifying first day of each week.
- E. Show complete sequence of construction by activity, identifying Work of separate stages and other logically grouped activities. Indicate the early and late start, early and late finish, float dates, and duration.
- F. Indicate estimated percentage of completion for each item of Work at each submission. Indicate submittal dates required for shop drawings, product data, samples, and product delivery dates, including those furnished by Owner.

3.4 PROPOSED PRODUCTS LIST

- A. Within fifteen (15) days and/or as requested by Owner, after date of Notice To Proceed, submit list of major products proposed for use, with name of manufacturer, trade name, and model number of each product.

3.5 SHOP DRAWINGS

- A. Submit a total of six (6) copies and/or as requested by Owner, three copies will be retained.
- B. Shop Drawings: Submit for review. After review, produce copies and distribute in accordance with the SUBMITTAL PROCEDURES article above.

3.6 PRODUCT DATA

- A. Submit six (6) copies and/or as requested by Owner, three will be retained.
- B. Mark each copy to identify applicable products, models, options, and other data. Supplement manufacturers' standard data to provide information unique to this Project.

3.7 SAMPLES

- A. Submit samples to illustrate functional and aesthetic characteristics of the Product, with integral parts and attachment devices. Coordinate sample submittals for interfacing work.
- B. Submit samples of finish from the full range of manufacturers' standard colors, textures and patterns for selection by the Owner.
- C. Include identification on each sample, with full Project information.
- D. Submit the number of samples specified in individual specification sections; three of which will be retained by the Engineer of Record.
- E. Reviewed samples, which may be used in the Work, are indicated in individual specification sections.

3.8 MANUFACTURER INSTALLATION INSTRUCTIONS

- A. When specified in individual specification sections, submit printed instructions for delivery,

- storage, assembly, installation, start-up, adjusting, and finishing, to the Owner.
- B. Indicate special procedures, perimeter conditions requiring special attention, and special environmental criteria required for application or installation.

3.9 MANUFACTURER CERTIFICATES

- A. When specified in individual specification sections, submit certification by manufacturer to the Owner (3 copies).
- B. Indicate material or Product conforms to or exceeds specified requirements. Submit supporting reference data, affidavits and certifications as appropriate. (3 copies)
- C. Certificates may be recent or previous test results on material or Product, but must be acceptable to the Owner. (3 copies).

END SECTION

SECTION 01420

REFERENCES

PART 1 - GENERAL

1.1 DEFINITIONS

- A. General: Basic Contract definitions are included in the Conditions of the Contract.
- B. "Approved": When used to convey action on Contractor's submittals, applications, and requests.
- C. "Directed": A command or instruction by Owner and/or Architect. Other terms including "requested," "authorized," "selected," "required," and "permitted" have the same meaning as "directed."
- D. "Indicated": Requirements expressed by graphic representations or in written form on Drawings, in Specifications, and in other Contract Documents. Other terms including "shown," "noted," "scheduled," and "specified" have the same meaning as "indicated."
- E. "Regulations": Laws, ordinances, statutes, and lawful orders issued by authorities having jurisdiction, and rules, conventions, and agreements within the construction industry that control performance of the Work.
- F. "Furnish": Supply and deliver to Project site, ready for unloading, unpacking, assembly, installation, and similar operations.
- G. "Install": Operations at Project site including unloading, temporarily storing, unpacking, assembling, erecting, placing, anchoring, applying, working to dimension, finishing, curing, protecting, cleaning, and similar operations.
- H. "Provide": Furnish and install, complete and ready for the intended use.
- I. "Project Site": Space available for performing construction activities. The extent of Project site is shown on Drawings and may or may not be identical with the description of the land on which Project is to be built.

1.2 INDUSTRY STANDARDS

- A. Applicability of Standards: Unless the Contract Documents include more stringent requirements, applicable construction industry standards have the same force and effect as if bound or copied directly into the Contract Documents to the extent referenced. Such standards are made a part of the Contract Documents by reference.
- B. Publication Dates: Comply with standards in effect as of date of the Contract Documents unless otherwise indicated.
- C. Copies of Standards: Each entity engaged in construction on Project should be familiar with industry standards applicable to its construction activity. Copies of applicable standards are not bound with the Contract Documents.

1. Where copies of standards are needed to perform a required construction activity, obtain copies directly from publication source.

1.3 ABBREVIATIONS AND ACRONYMS

- A. Industry Organizations: Where abbreviations and acronyms are used in Specifications or other Contract Documents, they shall mean the recognized name of the entities indicated in Thomson Gale's "Encyclopedia of Associations" or in Columbia Books' "National Trade & Professional Associations of the U.S."
- B. Code Agencies: Where abbreviations and acronyms are used in Specifications or other Contract Documents, they shall mean the recognized name of the entities in the following list.

IAPMO International Association of Plumbing and Mechanical Officials

ICC International Code Council

ICC-ES ICC Evaluation Service, Inc.

UBC Uniform Building Code
(See ICC)

- C. Federal Government Agencies: Where abbreviations and acronyms are used in Specifications or other Contract Documents, they shall mean the recognized name of the entities in the following list. Names, telephone numbers, and Web sites are subject to change and are believed to be accurate and up-to-date as of the date of the Contract Documents.

CE Army Corps of Engineers

CPSC Consumer Product Safety Commission

DOC Department of Commerce

DOD Department of Defense

DOE Department of Energy

EPA Environmental Protection Agency

HUD Department of Housing and Urban Development

NIST National Institute of Standards and Technology

OSHA Occupational Safety & Health Administration

- D. Standards and Regulations: Where abbreviations and acronyms are used in Specifications or other Contract Documents, they shall mean the recognized name of the standards and regulations in the following list. Names, telephone numbers, and Web sites are subject to change and are believed to be accurate and up-to-date as of the date of the Contract Documents.

ADAAG	Americans with Disabilities Act (ADA) Architectural Barriers Act (ABA) Accessibility Guidelines for Buildings and Facilities Available from U.S. Access Board
CFR	Code of Federal Regulations Available from Government Printing Office
FED-STD	Federal Standard (See FS)
FS	Federal Specification Available from Department of Defense Single Stock Point
UFAS	Uniform Federal Accessibility Standards Available from Access Board

PART 2 - PRODUCTS (Not Used)

PART 3 - EXECUTION (Not Used)

END OF SECTION

SECTION 01500

TEMPORARY FACILITIES AND CONTROLS

PART 1 - GENERAL

1.1 SUMMARY

- A. Section includes requirements for temporary utilities, support facilities, and security and protection facilities.
- B. Related Section:
 - 1. Contract Drawings and Contract Specifications, including General, Supplemental, and Special Conditions and Division 1 Various Sections for limitations on work restrictions and utility interruptions.

1.2 USE CHARGES

- A. General: Installation and removal of and use charges for temporary facilities shall be included in the Contract Sum unless otherwise indicated.
- B. Water and Sewer Service from Existing System: Water is available from fire hydrant with approval from the Municipal Authority of Westmoreland County. Provide connections and extensions of services as required for construction operations.
- C. Electric Power Service from Existing System: Electric power from Owner's existing system **is not** available for use.

1.3 INFORMATIONAL SUBMITTALS

- A. Plan of Construction: Contractor shall indicate in a narrative format a plan to address electrical needs, temporary sanitary facilities, any applicable temporary facilities, utility hookups, staging areas, storage needs etc. .

1.4 QUALITY ASSURANCE

- A. Electric Service: Comply with NECA, NEMA, and UL standards and regulations for temporary electric service. Install service to comply with NFPA 70.
- B. Tests and Inspections: Coordinate with **WCHA – Construction Inspector** concerning the scheduling of owner and/or municipal inspections required by authorities having jurisdiction to test and inspect each temporary utility before use. Obtain required certifications and permits.

1.5 PROJECT CONDITIONS

- A. Contractor shall coordinate with WCHA – Construction Inspector concerning the location of temporary facilities and use of WCHA – Facilities. WCHA reserves to right to make final determinations on selected location of temporary facilities and use limitations of WCHA facilities.

- B. Contractor shall take notice WCHA will endeavor to provide temporary power if capacity is available. If WCHA determines Temporary Electric services cannot be provided Contractor shall provide other means of energizing its equipment, at no additional cost to the owner.

PART 2 - PRODUCTS

2.1 MATERIALS

- A. Work Zone Fencing Enclosure shall be installed around cranes, equipment staging areas, where WCHA residents and general public can be injured by falling debris, construction equipment, materials, etc. Fencing shall be constructed of Portable Chain-Link Fencing: PVC – Fencing of sufficient structural integrity to keep persons from entering the restricted work zones.

2.2 TEMPORARY FACILITIES

- A. Field Offices, General: Not Required for the Contract.
- B. Storage and Fabrication Sheds: Provide sheds sized, furnished, and equipped to accommodate materials and equipment for construction operations.
- C. Sanitary Facility: Contractor shall provide a commercially constructed restroom “Port-a-john” for use by employees. Facilities shall be kept odor free, secure and emptied on a weekly basis.

2.3 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 INSTALLATION, 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.
 - 1. Locate facilities to limit site disturbance and as agreed upon by **WCHA – Construction Inspector**.
 - 2. Provide each facility ready for use when needed to avoid delay. Do not remove until facilities are no longer needed or are replaced by authorized use of completed permanent facilities.

3.2 TEMPORARY UTILITY INSTALLATION

- A. Sanitary Facilities: Provide temporary toilets, wash facilities, and drinking water for use of construction personnel. Comply with requirements of authorities having jurisdiction for type, number, location, operation, and maintenance of fixtures and facilities.
 - 1. Toilets: Use of Owner's existing toilet facilities will not be permitted.
- B. Electric Power Service: Connect to Owner's existing electric power service if capacity is available. Maintain equipment in a condition acceptable to Owner. Coordinate with WCHA-Inspector

3.3 SUPPORT FACILITIES INSTALLATION

- A. General: Comply with the following:
1. Provide construction for temporary offices, shops, and sheds located within construction area or within 30 feet of building lines that is noncombustible according to ASTM E 136. Comply with NFPA 241.
 2. Maintain support facilities until Architect schedules Substantial Completion inspection. Remove before Substantial Completion. Personnel remaining after Substantial Completion will be permitted to use permanent facilities, under conditions acceptable to Owner.
- B. Parking: Use of on-street parking will need to be used by construction personnel.
- C. Project Signs: Provide Project signs as indicated. Unauthorized signs are not permitted.
1. Identification Signs: Provide Project identification signs as indicated on Drawings.
 2. Temporary Signs: Provide other signs as indicated and as required to inform public and individuals seeking entrance to Project.
 - a. Provide temporary, directional signs for construction personnel and visitors.
 3. Maintain and touchup signs so they are legible at all times.
- D. Waste Disposal Facilities: **Contractor shall remove and dispose of all waste materials daily from each site.**
- 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 Division 1 Section "Execution Requirements" for progress cleaning requirements.

3.4 SECURITY AND PROTECTION FACILITIES INSTALLATION

- A. 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.
- B. Security Enclosure and Lockup: Install temporary enclosure around partially completed areas of construction, equipment, staging areas, storage areas. Provide secured entrances to prevent unauthorized entrance, vandalism, theft, and similar violations of security.
- C. Barricades, Warning Signs, and Lights: Comply with requirements of authorities having jurisdiction or WCHA – field directives for erecting structurally adequate barricades, including warning signs and lighting.
- D. Temporary Egress: Maintain temporary egress from existing occupied facilities as indicated and as required by authorities having jurisdiction.
- E. Temporary Enclosures: Provide temporary enclosures for protection of construction, in progress and completed, from exposure, foul weather, other construction operations, and similar activities. Provide temporary weathertight enclosure for building exterior.

3.5 MOISTURE AND MOLD CONTROL

- A. Contractor's Moisture Protection Plan: Avoid trapping water in finished work. Document visible signs of mold that may appear during construction.
- B. Exposed Construction Phase: Before installation of weather barriers, when materials are subject to wetting and exposure and to airborne mold spores, protect materials from water damage and keep porous and organic materials from coming into prolonged contact with concrete.

3.6 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. Maintenance: Maintain facilities in good operating condition until removal.
 - 1. Maintain operation of temporary enclosures, heating, cooling, humidity control, ventilation, and similar facilities on a 24-hour basis where required to achieve indicated results and to avoid possibility of damage.
- C. 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.
- D. Materials and facilities that constitute temporary facilities are property of Contractor. Owner reserves right to take possession of Project identification signs.
 - 1. At Substantial Completion, repair, renovate, and clean permanent facilities used during construction period. Comply with final cleaning requirements specified in Division 1 Section "Closeout Procedures."

END OF SECTION

SECTION 01600

PRODUCT REQUIREMENTS

PART 1 - GENERAL

1.1 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 Section:
 - 1. 01330 Submittals
 - 2. General Conditions
 - 3. Technical Division Specifications

1.2 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. Products salvaged or recycled from other projects are not considered new products.
 - 3. Comparable Product: Product that is demonstrated and approved through submittal process 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 specific manufacturer's product is named and accompanied by the words "basis-of-design product," including make or model number or other designation, to establish the significant qualities related to type, function, dimension, in-service performance, physical properties, appearance, and other characteristics for purposes of evaluating comparable products of additional manufacturers named in the specification.

1.3 ACTION SUBMITTALS

- A. Comparable Product Requests: Submit request for consideration of each comparable product. Identify product or fabrication or installation method to be replaced. Include Specification Section number and title and Drawing numbers and titles.
 - 1. Owner or Architect Action: If necessary, Owner or Architect will request additional information or

documentation for evaluation within one week of receipt of a comparable product request. Contractor will be notified of approval or rejection of proposed comparable product request within [14] days of receipt of request, or [7] days of receipt of additional information or documentation, whichever is later.

- a. Use product specified if Owner or Architect does not issue a decision on use of a comparable product request within time allocated.

- B. Basis-of-Design Product Specification Submittal: Comply with requirements in Division 1 Section "Submittal Procedures." Show compliance with requirements.

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.

1.5 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 to determine that products are undamaged and properly protected.

- C. Storage:

1. Store products to allow for inspection and measurement of quantity or counting of units.
2. Store materials in a manner that will not endanger Project structure.
3. Store products that are subject to damage by the elements, under cover in a weathertight enclosure above ground, with ventilation adequate to prevent condensation.
4. Store foam plastic from exposure to sunlight, except to extent necessary for period of installation and concealment.
5. Comply with product manufacturer's written instructions for temperature, humidity, ventilation, and weather-protection requirements for storage.
6. Protect stored products from damage and liquids from freezing.

1.6 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 warranty furnished by individual manufacturer for a particular product and specifically endorsed by manufacturer to Owner.
 2. Special Warranty: Written warranty required by the Contract Documents to provide specific rights for 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 with the Specifications, prepare a written document using indicated form properly executed.
 3. Refer to Divisions 2 through 16. Sections for specific content requirements and particular requirements for submitting special warranties.
- C. Submittal Time: Comply with requirements in Division 1 Section "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. Standard Products: If available, and unless custom products or nonstandard options are specified, provide standard products of types that have been produced and used successfully in similar situations on other projects.
 3. Owner reserves the right to limit selection to products with warranties not in conflict with requirements of the Contract Documents.
 4. Where products are accompanied by the term "as selected," Architect will make selection.
 5. Descriptive, performance, and reference standard requirements in the Specifications establish salient characteristics of products.
- B. Product Selection Procedures:
1. Product: Where Specifications name a single manufacturer and product, provide the named product that complies with requirements. Comparable products or substitutions for Contractor's convenience will not be considered.
 2. Manufacturer/Source: Where Specifications name a single manufacturer or source, provide a product by the named manufacturer or source that complies with requirements. Comparable products or substitutions for Contractor's convenience will not be considered.
 3. Products:

- a. Restricted List: 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 be considered, unless otherwise indicated.
 - b. Nonrestricted List: Where Specifications include a list of names of both available manufacturers and products, provide one of the products listed, or an unnamed product, that complies with requirements. Comply with requirements in "Comparable Products" Article for consideration of an unnamed product.
- 4. Manufacturers:
 - a. Restricted List: 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, unless otherwise indicated.
 - b. Nonrestricted List: Where Specifications include a list of available manufacturers, provide a product by one of the manufacturers listed, or a product by an unnamed manufacturer, that complies with requirements. Comply with requirements in "Comparable Products" Article for consideration of an unnamed manufacturer's product.
- 5. 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 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.
- C. Visual Matching Specification: Where Specifications require "match Architect's sample", provide a product that complies with requirements and matches Architect's sample. Architect'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 Division 1 Section "Substitution Procedures" for proposal of product.
- D. Visual Selection Specification: Where Specifications include the phrase "as selected by Architect from manufacturer's full range" or similar phrase, select a product that complies with requirements. Architect will select color, gloss, pattern, density, or texture from manufacturer's product line that includes both standard and premium items.

2.2 COMPARABLE PRODUCTS

- A. Conditions for Consideration: Owner will consider Contractor's request for comparable product when the following conditions are satisfied. If the following conditions are not satisfied, Owner or Architect may return requests without action, except to record noncompliance with these requirements:
 - 1. Evidence that the proposed product does not require revisions to the Contract Documents, that it is consistent with the Contract Documents and will produce the indicated results, and that it is

- compatible with other portions of the Work.
2. Detailed comparison of significant qualities of proposed product with those named in the Specifications. Significant qualities include attributes such as performance, weight, size, durability, visual effect, and specific features and requirements indicated.
 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 architects and owners, if requested.
 5. Samples, if requested.

PART 3 - EXECUTION (Not Used)

END OF SECTION

SECTION 01700

CUTTING AND PATCHING

1. GENERAL:

1.1 SUMMARY

A. This Section establishes general requirements pertaining to cutting, excavating, coring, fitting, and patching of the Contracted Work in existing or new WCHA facilities (structures) required to:

1. Saw cut and excavate the limits of disturbance identified in the contract drawings including: roadway, concrete walkways, curbs, patios ...
2. Uncover work to provide for removal, installing, inspecting, or both, of ill-timed work;
3. Remove and replace work not conforming to requirements of the Contract Documents; and
4. Remove and replace defective work.

B. RELATED WORK:

1. Documents affecting Works of this Contract include, but are not necessarily limited to, the GENERAL CONDITIONS, DIVISION 1 •GENERAL REQUIREMENTS and other Sections of the Project Manual.
2. In addition to other specified requirements, the CONTRACTOR shall, upon the OWNER'S or Architect's request, uncover work to provide for inspection by the Owner or Architect of uncovered work and remove samples of installed materials for testing.
3. Do not cut or alter Work performed under separate Contracts without the Owner's or Architect's written permission.

1.2 SUBMITTALS

A. Request For Owner's or Architect's Consent:

1. Prior to cutting which effects structural safety, submit written request to the Owner or Architect's for permission to proceed with cutting.
2. Submit, to the Owner and/or Architect, for approval, the method(s) of cutting and patching, and protection plan for each. Submit structural calculation, prepared by a Pennsylvania State licensed Engineer, as directed by the Owner or Architect.
3. Submit all Shop Drawings or submittals as required by other Sections of the Project Manual.

4. Should conditions of the Work or schedule indicate a required change of materials or methods for cutting and patching, so notify the Owner or Architect/Engineer and secure written permission prior to proceeding.

1.3 QUALITY ASSURANCE

- A. Use adequate numbers of skilled workers who are thoroughly trained and experienced in the necessary crafts, and who are completely familiar with the specified requirements and the methods needed for proper performance of the Work of this Section.
- B. The safety provisions of applicable laws, building and construction codes shall be observed. **PA One Call shall be performed before any excavation is performed.**
- C. For each finish surface condition prepare a representative mock-up area which shall be completely cleaned and finished for review by Owner or Architect/Engineer. Approval shall be obtained before proceeding with additional cutting and patching work.
- D. Requirements for Structural Work: Do not cut and patch structural elements in a manner that would reduce their load-carrying capacity.
- E. Obtain approval of the cutting and patching proposal before cutting and patching any structural elements.
- F. Operational and Safety Limitations: Do not cut and patch operating elements or safety related components in a manner that would result in reducing their capacity to perform as intended, or result in increased maintenance, or decreased operational life or safety.
- G. Obtain approval of the cutting and patching proposal before cutting and patching any operating elements.
- H. If no deposition of existing detail of existing improvements or conditions is made on the Drawings or in the Project Manual, it shall be the Contractor's responsibilities to provide necessary site investigations including testing, potholes, exposure, etc. to obtain site information at no additional cost to the WCHA. Contractor shall submit site information as part of the submittal. Contractor shall repair all testholes, exposures, etc. as part of the Contract.
- I. Visual Requirements: Do not cut and patch construction exposed on the exterior or in occupied spaces, in a manner that would, in the Owner's or Architect's opinion, reduce the building's aesthetic qualities, or result in visual evidence of cutting and patching. Remove and replace work cut and patched in a visually unsatisfactory manner.

2. PRODUCTS :

2.1 MATERIALS

- A. **General:** Use materials that are identical to existing materials. If identical materials are not available, or existing materials do not meet codes or cannot be used where exposed surfaces are involved, use materials that match existing adjacent surfaces to the fullest extent possible with

regard to visual effect. Use materials whose installed performance will equal or surpass that of existing materials. Submit method of repair including lapping, splicing and joining of new and existing materials.

- B. For replacement of items removed, use materials complying with pertinent Sections this Project Manual.

3. EXECUTION :

3.1 SURFACE CONDITIONS

1. Inspect existing conditions, including elements subject to movement or damage prior to the Bid, during cutting, excavating, patching, and backfilling.
2. Identify all existing utilities, protect and maintain service to occupied areas in accordance with GENERAL REQUIREMENTS.
3. Obtain required shear tests for existing [concrete] [brick] materials.] (If applicable)
4. Obtain required weldability test on existing steel. (If applicable)]
5. Unless specified otherwise, inspect and determine location of existing rebars in masonry and/or concrete walls or flooring prior to cutting.
6. After uncovering the work, inspect conditions affecting installation of new work.
7. If uncovered conditions are not as anticipated, immediately notify in writing the Owner or the Architect/Engineer secure needed directions.
8. Do not proceed until unsatisfactory conditions are corrected.

3.2 PREPARATION PRIOR TO CUTTING

Provide required protection including, but not necessarily limited to, shoring, bracing, and support to maintain structural integrity of the work. Provide duplicate copy of shoring permit and plan to the Owner or Architect prior to start of Contracted Work.

3.3 PERFORMANCE

1. Perform cutting and demolition by methods, which will prevent damage to other portions of the Contracted Work and provide proper surfaces to receive a proper installation of repair and new work.
2. Perform fitting and adjusting of products to provide finished installation complying with the specified tolerances and finishes noted in the Technical Sections of the Project Manual.

3. Cutting: Cut existing construction using methods least likely to damage elements to be retained or adjoining construction. Where possible, review proposed procedures with the original installer. If CONTRACTOR does not concur with the original installer's recommendations, CONTRACTOR shall notify the Owner and/or Architect and request instructions.
4. In general, where cutting is required, use hand or small power tools designed for sawing or grinding, not hammering and chopping. Impact tools are not to be used in the building. Cut holes and slots neatly to size required with minimum disturbance of adjacent surfaces. Temporarily cover openings when not in use.
5. To avoid marring existing finished surfaces, cut or drill from the exposed or finished side into concealed surfaces, or spaces.
6. Cut through concrete and masonry using a cutting machine such as a diamond tipped or carborundum saw or diamond core drill. Use methods or locations that could avoid cutting the rebars. All cut rebars, approved by the Owner or Architect shall be rounded off any sharp edges and dabbed with a coat of protective coating against rusting.
7. Unless specified otherwise, all cut floor or roof ledgers and blockings shall be repaired, spliced and installed with approved steel connectors. If necessary, install new double wooden ledgers or blocking without additional cost to the WCHA.
8. Unless specified otherwise, all cut ceiling framing members shall be repaired or replaced with new framing members to the satisfaction of the Owner or Architect. Re-install all ceiling, mechanical grills, and lighting fixtures affected by the cutting and repairs.
9. Unless specified otherwise, all existing masonry walls shall be removed to the nearest grout joint. All removed masonry units shall be protected, salvaged and reused.
10. Patching: Patch with durable seams that are as invisible as possible. Comply with specified tolerances.
11. Where feasible, inspect and test patched areas to demonstrate integrity of the installation.
12. 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.
13. All existing masonry wall shall be repointed and regouted to the nearest wythe joint to match existing.
14. Restore all building insulation and fireproofing to match existing thickness and conditions.
15. Restore complete [caulking], [sealer], [waterproofing] etc. to achieve maximum performance as required at no additional cost to the WCHA.

3.3 CLEANING

1. Thoroughly clean areas and spaces where cutting and patching is performed or used as access. Remove completely paint, mortar, oils, putty and items of similar nature. Thoroughly clean piping, conduit and similar features before painting or other finishing is applied. Restore damaged pipe covering to its original condition.

3.5 TESTING

Arrange with local authorized agencies and test all existing utility services, mechanical and plumbing systems, fire and life systems affected by the cutting and patching.

END OF SECTION

SECTION 01770
CLOSEOUT PROCEDURES

PART 1 – GENERAL

1.1 SUMMARY

This section includes administration and procedural requirements for contract closeout, including but not limited to, the following:

- A. Requirements preparatory to final inspection.
- B. Final inspection.
- C. Warranties
- D. Acceptance of the Work and final payment.
- E. Before and After Photographs.

1.2 REQUIREMENTS PREPARATORY TO FINAL INSPECTION

- A. The Contractor shall request a final inspection to determine the state of completion of the Work after the following has been completed:
 - 1. Prepare a list of items to be completed and corrected (contractor generated - punch list), the value of items on the list, and reasons why the Work is not complete.
 - 2. Advise Owner of pending insurance changeover requirements.
 - 3. Submit specific warranties, workmanship bonds, maintenance service agreements, final certifications, and similar documents.
 - 4. Obtain and submit releases permitting Owner unrestricted use of the Work and access to services and utilities. Include occupancy permits, operating certificates, and similar releases.
 - 5. Prepare and submit Project Record Documents, operation and maintenance manuals, damage or settlement surveys, property surveys, and similar final record information.
 - 6. Deliver tools, spare parts, extra materials, and similar items to location designated by Owner. Label with manufacturer's name and model number where applicable.
 - 7. Terminate and remove temporary facilities from Project site, along with mockups, construction tools, and similar elements.
 - 8. Submit changeover information related to Owner's occupancy, use, operation, and maintenance.
 - 9. Complete final cleaning requirements, including touchup painting.
 - 10. Touch up and otherwise repair and restore marred exposed finishes to eliminate visual defects.
- B. The request for final inspection shall be made in writing, addressed to the Owner and/or Architect, at least seven days in advance of the requested date of the preliminary inspection.
- C. The Owner and/or Architect / Engineer will perform the final inspection within three

days of the requested date.

1.3 FINAL INSPECTION

- A. When all requirements of the above list have been completed, the Contractor shall request the final inspection to determine eligibility for issuance of the Certificate of Substantial Completion.
- B. The request shall be made in writing, addressed to the Owner and/or Architect, at least seven days in advance of the requested date of the final inspection. The owner and / or Architect will endeavor to perform said inspection within 3 days of the requested date.
- C. The Contractor shall be represented by its principal superintendent and such Subcontractors and Suppliers as may be necessary to verify the completion of the Work including punch list items.
- D. Depending on the extensiveness of the punch list items, certain elements of the Work may be scheduled separately for final inspection at appointed times.
- E. If the Work has been substantially completed in accordance with the Contract Documents, and only minor corrective measures are required, the Owner will proceed to issue a Certificate of Substantial Completion, based upon the Contractor's assurance that remaining corrective measures will be completed within the shortest practicable time period usually 30 days. A Final Inspection punch list will be attached to the Certificate of Substantial Completion. A fixed schedule for such corrective measures shall be submitted to the Owner, for approval.
- F. If the Work has not been substantially completed in accordance with the Contract Documents, and corrective measures are still required, a new punch list will be prepared
- G. The date of the Certificate of Substantial Completion will establish the completion date of the Work, or portions thereof as specifically referenced in the Certificate, and for determining liquidated damages and start of warranty periods.

1.4 WARRANTIES

- A. Contractor shall deliver to the Owner a contractors warranty in a form of a Maintenance Bond covering the remaining materials and workmanship for a period of 12 months starting on the date of substantial completion.

1.5 ACCEPTANCE OF THE WORK AND FINAL PAYMENT

- A. Upon completion and acceptance of the Substantial Completion punch list items, the Owner will formally accept the Work.
- B. Acceptance of the Work will be made in accordance with the General Conditions. Final payment will be made in accordance with of the General Conditions.

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.

1. Complete the following cleaning operations before requesting inspection for certification of Substantial Completion for entire Project or for a portion of Project:

- a. Clean Project site, yard, and grounds, in areas disturbed by construction activities, including landscape development areas, of rubbish, waste material, litter, and other foreign substances.
- b. Sweep paved areas broom clean. Remove petrochemical spills, stains, and other foreign deposits.
- c. Rake grounds that are neither planted nor paved to a smooth, even-textured surface.
- d. Remove tools, construction equipment, machinery, and surplus material from Project site.
- e. Clean exposed exterior and interior hard-surfaced finishes to a dirt-free condition, free of stains, films, and similar foreign substances. Avoid disturbing natural weathering of exterior surfaces. Restore reflective surfaces to their original condition.
- f. Remove debris and surface dust from limited access spaces, including roofs, plenums, shafts, trenches, equipment vaults, manholes, attics, and similar spaces.
- g. Touch up and otherwise repair and restore marred, exposed finishes and surfaces. Replace finishes and surfaces that cannot be satisfactorily repaired or restored or that already show evidence of repair or restoration.
- h. Do not paint over "UL" and other required labels and identification, including mechanical and electrical nameplates.
- i. Leave Project clean and ready for occupancy.

END OF SECTION

SECTION 01781

PROJECT RECORD DOCUMENTS

PART 1 - GENERAL

1.1 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.
- B. Related Sections:
 - 1. General, Supplemental and Special Conditions
 - 2. Divisions 2 through 16 Sections for specific requirements for project record documents of the Work in those Sections.

1.2 CLOSEOUT SUBMITTALS

- A. Record Drawings: Comply with the following:
 - 1. Number of Copies: Submit ONE set of marked-up record prints.
 - 2. Number of Copies: Submit copies of record Drawings as follows:
 - a. Final Submittal: Submit ONE paper copy or PDF electronic files of marked-up record prints.
- B. Record Product Data: Submit one paper bound copy and one PDF electronic file copy of each submittal.

PART 2 - PRODUCTS

2.1 RECORD DRAWINGS

- A. Record Prints: Maintain one set of marked-up paper copies of the Contract Drawings and Shop Drawings.
 - 1. Preparation: Mark record prints to show the actual installation where installation varies from that shown originally. Require individual or entity who obtained record data, whether individual or entity is Installer, subcontractor, or similar entity, to provide information for preparation of corresponding marked-up record prints.

- a. Give particular attention to information on concealed elements that would be difficult to identify or measure and record later.
 - b. Record data as soon as possible after obtaining it.
 - c. Record and check the markup before enclosing concealed installations.
2. Mark the Contract Drawings and Shop Drawings completely and accurately. Utilize personnel proficient at recording graphic information in production of marked-up record prints.
3. Mark record sets with erasable, red-colored pencil. Use other colors to distinguish between changes for different categories of the Work at same location.
4. Note Construction Change Directive numbers, alternate numbers, Change Order numbers, and similar identification, where applicable.

Immediately before inspection for Certificate of Substantial Completion, review marked-up record prints with Owner representative. When authorized, prepare a full set of corrected digital data files of the Contract Drawings, as follows:

- B. Format: Identify and date each record Drawing; include the designation "PROJECT RECORD DRAWING" in a prominent location.
 1. Record Prints: Organize record prints and newly prepared record Drawings into manageable sets. Bind each set with durable paper cover sheets. Include identification on cover sheets.

2.2 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.
 2. Mark copy with the proprietary name and model number of products, materials, and equipment furnished, including substitutions and product options selected.
 3. Record the name of manufacturer, supplier, Installer, and other information necessary to provide a record of selections made.
 4. Note related Change Orders, record Product Data, and record Drawings where applicable.
- B. Format: Submit record Specifications as ONE paper copy, or scanned PDF electronic file(s) of marked up paper copy of Specifications.

2.3 RECORD PRODUCT DATA

- A. 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 manufacturer's written instructions for installation.

3. Note related Change Orders, record Specifications,] and record Drawings where applicable.
- B. Format: Submit record Specifications as ONE paper copy, or scanned PDF electronic file(s) of marked up paper copy of Specifications.

2.4 MISCELLANEOUS RECORD SUBMITTALS

- A. Assemble miscellaneous records required by other Specification Sections for miscellaneous record keeping and submittal in connection with actual performance of the Work. Bind or file miscellaneous records and identify each, ready for continued use and reference.
- B. Format: Submit record Specifications as ONE paper copy, or scanned PDF electronic file(s) of marked up paper copy of Specifications.

PART 3 - EXECUTION

3.1 RECORDING AND MAINTENANCE

- A. Recording: Maintain one copy of each submittal during the construction period for project record document purposes. Post changes and modifications to project record documents as they occur; do not wait until the end of Project.
- B. Maintenance of Record Documents and Samples: Store record documents and Samples in the field office apart from the Contract Documents used for construction. Do not use project record documents for construction purposes. Maintain record documents in good order and in a clean, dry, legible condition, protected from deterioration and loss. Provide access to project record documents Owners representative reference during normal working hours.

END OF SECTION

Division 32 – Site Work

SECTION 32A – SUBSURFACE INFORMATION

32A.1 Subsurface Information

- A. No geotechnical borings were obtained for this project.

32A.2 Subsurface Exploration

- A. Contractors, during the bidding period, may be permitted to conduct subsurface explorations for their own information in the preparation of their bids, provided Contractors obtain approval of Property Owners, PennDOT or the Owner to conduct subsurface explorations upon their respective properties.
- B. Requests to conduct subsurface explorations shall be addressed to both Owner and Engineer in writing providing the following data:
 - 1. Person or firm to conduct subsurface exploration;
 - 2. Detailed location of all proposed bore holes or excavation trenches;
 - 3. Insurance certificates for liability against claims due to damage to both public and private property and buried public utility lines;
 - 4. Waiver holding Owner and Engineer harmless in all claims arising from damages to property, bodily injury, or public utilities as a result of subsurface explorations;
 - 5. Every request for permission to conduct subsurface explorations shall be acted upon within five (5) days from date of receipt;
 - 6. In no case will either Owner or Engineer assume responsibility for claims or inaccurate or incomplete bids due to insufficient subsurface information, and;
 - 7. No subsurface excavation work will be permitted until the Contractor furnishes the Inspector or Resident Engineer with the serial number he obtained when he made the "one-call" telephone call (1-800-242-1776).

SECTION 32B – EXISTING UTILITIES AND UNDERGROUND STRUCTURES

32B.1 General

- A. Contractors shall comply with requirements of Pa. Act 287 or Act 172, as applicable, regulating excavation operations around underground utility lines by calling the toll free "One Call" number (1-800-242-1776).
 - 1. Contractor shall supply the project Inspector with the serial number given when making the one-call prior to being permitted any excavation work.
- B. A utility line shall be deemed to include all plant, equipment, controls, transmission and distribution lines, including services to individual customers, both above and below ground, owned, operated, or leased by a public, semi-public, or private utility.
- C. In addition to utility lines and facilities as defined by the Pennsylvania One Call System (PA Acts 287 and 187); the Contractor will encounter pipes and drains installed by Property Owners which are not defined as a utility. The Contractor shall be responsible for the labor, equipment and materials necessary to protect, maintain and repair these underground non-utility facilities. The Contractor shall repair all damage which they have caused to these facilities. In some cases non-utility facilities crossing the proposed pipeline will have to be relocated. If such a condition exists, and if the facility is 8" or larger in inside diameter, the Owner will have the line relocated at his cost. The cost of relocating and or reconnecting any pipelines smaller than 8" shall be the responsibility of the Contractor at no extra cost to the Owner.

32B.2 Existing Utilities

- A. Location and extent of all known utility lines are indicated on the drawings. Information presented on the drawings is not guaranteed to be either complete or correct. **Each Contractor shall be responsible for contacting all utilities (water, sewer, gas, phone, cable, electric, etc.) to determine the precise location and depth of underground utility lines within the project area.**
- B. Protect all existing utility lines from damage. Follow individual utility's recommendations for utility line protection.
- C. Contractors shall immediately report all damage to utility lines to both utility and Engineer.
- D. All damage caused to existing utility lines by Contractor's operations shall be repaired by the Contractor to complete satisfaction of the utility at no additional cost to the Owner.
- E. Contractors shall assume all liability for damages filed by a utility arising from loss of utility service due to Contractor's operation.
- F. Contractor shall adjust all utility caps, rims, etc as necessary to ensure snow blowing is not impeded or unnecessary low points that could retain runoff.

- G. Contractors shall notify individual utilities of intent to commence construction around existing utility lines at least seven (7) calendar days before construction is to commence. Notification shall be in writing.
- H. Should uncharted or incorrectly charted piping or other utilities be encountered during excavation, consult Engineer immediately for directions as to how to proceed.
- I. Contractors shall not interrupt existing utility's service unless written permission to do so is obtained from utility affected.
- J. In some cases, existing pipelines or cables cross the proposed pipelines at an elevation where construction of the proposed work cannot reasonably proceed until the utility has been relocated. If, in the opinion of the Engineer, such condition exists and if the pipeline is 8" or larger in internal diameter, the Owner will have the line relocated at its cost. However, the Contractor shall make all necessary subsurface investigations and shall locate such utility far enough in advance of the trenching work so that the Owner may arrange for its relocation before the Contractor commences work in such particular area. Failure of the Contractor to notify the Owner of such interferences far enough in advance of this construction work will not make the Owner liable for any additional expenses incurred by the Contractor while the utility is being relocated. The cost of relocating and/or reconnecting any pipelines or cables smaller than 8" in internal diameter, including service connections to dwellings and business establishments, shall be the responsibility of the Contractor and shall be no extra cost to the Owner.

32B.3 Emergency Action

- A. In the event damage to an existing utility line would result in potential loss of life or extensive property damage, Contractors shall immediately proceed with whatever means are at their disposal to remove the hazard.
- B. Immediately upon removal of the hazard, Contractors shall notify both the utility and the Engineer.

32B.4 Other Underground Structures

- A. Any other pipe or structure encountered shall be protected from damage.
- B. Contractor shall be responsible for any damage caused by his work and shall repair, to the satisfaction of the Authority and Engineer, at no additional cost to the Owner or Engineer.

DIVISION 32C – EXCAVATION

32C.1 General

- A. Excavation shall consist of removing, hauling, and disposing of all and any material encountered, regardless of character, at any location indicated on the drawings, as specified herein or as directed by the Owner or Engineer.
- B. The Contractor shall saw cut the limits of sidewalk, curbing and pavement as shown on the plans. The sawcut shall be full depth of the walk or pavement.
- C. All brick removed from the project shall be disposed of accordingly.
- B. The Contractor shall not at any time claim a misunderstanding in regard to depth or character of the excavation to be made or in the nature of the materials to be encountered. All excavation shall be unclassified and no extra payment will be made for hand excavation or for rock, boulders, shale, timbers, logs, old foundations, masonry, paving, or other natural or artificial materials encountered.
- C. All excavation is unclassified. For the purpose of describing and establishing limits, excavation work will be defined as follows:
 - 1. General Excavation shall include all excavation required for pavement, concrete sidewalks, curbing, concrete pavement, channels, trenching etc.

32C.2 Explosives

- A. No blasting shall be permitted during this Contract.

32C.3 Rights-of-Way and Easements

- A. Right of ways are not anticipated for this project. If required, the owner will be responsible for obtaining rights-of-ways.

32C.4 Miscellaneous

- A. The Contractor shall protect structures, utilities, sidewalks, pavements and other facilities from damage caused by settlement, lateral movement, undermining, washout and other hazards created by earthwork operations.
 - 1. Equipment having rubber runners or tires shall be utilized exclusively on permanent pavement. Track-type excavators may be employed when street mats (as approved by the Engineer) are used to protect the pavement; however, dirt mat pavement protection is not to be used.
 - 2. The Contractor shall excavate by hand in areas where deemed necessary by the Engineer or where available space is too limited to permit use of equipment.
 - 3. Damage of any kind that is outside of either the permanent right-of-way or limit of excavation whichever is less shall be repaired to the satisfaction of the Engineer at no additional cost to the Owner or Engineer.

- B. Adequate provisions shall be made for the flow of sewers, drains, culverts, and water courses encountered during construction.
 - 1. All such structures disturbed or damaged during the work shall be repaired to the satisfaction of the Engineer at no additional cost to the Owner.
- C. The Contractor shall perform earthwork operations in such a manner as to keep the job site free of ponded water and the subgrade at proper moisture content required for compaction. Diversion and care of water and dewatering shall be as specified in Section 2D or as directed by the Engineer.
- D. Excavated material shall be deposited in such a manner as to interfere as little as possible with the execution of the work, including preventing cave-ins or material falling or sliding into ditches. Ditches shall be kept free of debris.
- E. Earthwork operations shall be conducted so as to maintain safe pedestrian and vehicular traffic unless provisions for detours or disruption of traffic are set forth herein or are approved by the Engineer prior to start of construction.
 - 1. Access to all existing valve pit covers, valve boxes, curb stop boxes, fire and police call boxes or other utility controls shall be maintained at all times.
- F. All materials encountered, regardless of types or hardness and including existing foundations and other underground installations, shall be removed to required lines and depths. No claims for extra compensation or extension of time due to subsurface conditions encountered will be considered.
- G. The Contractor shall remove sidewalks, pavements, curbing, drains, barriers, walls and other such obstacles as required for proper execution of the work and shall store and protect all materials that can be used in restoring the site to its original condition.
- H. Pavements surfaces shall be removed as part of the excavation. Pavement shall be removed beyond the limit of excavation by sawing to a neat straight line. The face of the remaining pavement shall be approximately vertical.
- I. Excavate all ashes, cinders, refuse, organic material and other unsatisfactory subgrade materials that extend below required elevations to additional depth required by the Engineer. Replace unsuitable material with approved backfill material. Compact and grade backfill to the required density and tolerance.
 - 1. Such additional excavation and backfill shall be considered incidental to the work of the project.
 - 2. Unsuitable excavated material shall be removed from site of work and wasted in approved areas.
- J. The Contractor shall protect the bottom of all excavations from freezing.
- K. Provide and place all timberwork, sheeting, shoring, bracing and other classes of timberwork to adequately protect the work from earth pressure as required by federal

and state laws and municipal ordinances. All sheeting, bracing, shoring or other supports not ordered left in place by the Engineer shall be removed after excavation is refilled in such a manner to prevent caving in. Upon removal, all voids shall be carefully backfilled and compacted. Where sheeting and bracing are required, excavation width shall be increased accordingly. Trench sheeting shall remain in place until pipe has been laid and earth around pipe compacted to a depth of 2' over top of pipe.

1. The decision as to whether or not sheeting and shoring are necessary and the design of such sheeting and shoring will be made by the Contractor who shall assume sole responsibility for the safety of the work and adjacent structures and properties during and following the excavation operation.
- L. Removal of materials beyond indicated subgrade elevations or dimensions without specific directions of the Engineer is prohibited.
1. Unauthorized excavation beneath footings, foundation bases, or concrete anchors shall be corrected by extending indicated bottom elevation to the excavation bottom without altering the required top elevation.
 - a. Type C concrete fill as specified in Division 3 may be used to bring elevations to proper position only when approved by Engineer.
 2. All other unauthorized excavations shall be backfilled and compacted to the indicated grade as specified for authorized excavations of the same type.
 3. No claims or extra compensation due to unauthorized excavations will be allowed.
- M. Contractor shall protect excavation bottoms against freezing when atmospheric temperature is less than 35° F.

32C.5 General Excavation

- A. General excavation shall be to the limits shown on the drawings, as specified herein or as directed by the Engineer.
1. Excavation for structures shall conform to the elevations and tolerances shown within $\pm 0.10'$. Extend excavations a sufficient distance from footings and foundations to permit placing and removal of concrete formwork and inspection of structure surfaces.

32C.6 Federal and State Laws

- A. All applicable federal and state laws concerning excavations shall be followed, including OSHA Paragraphs 1926.50 through 1926.652 pertaining to excavations.

SECTION 32D – COMPACTED BACKFILL, FILL AND SUBGRADE

32D.1 SCOPE

- A. The Contractor shall provide all materials, labor, and equipment necessary to perform all backfill, fill, and grading required for the construction of the project.

32D.2 GENERAL

- A. Subgrade shall consist of the preparation of the top surface of the roadbed or ground to accommodate the placement of pavements, slabs, structures, shoulders, curbs, gutters, etc. in accordance with these Specifications and to the lines and grades as shown on the Drawings.
- B. No frozen or excessively wet material shall be used as backfill.

32D.3 MATERIALS

- A. The subbase material shall be a naturally or artificially graded mixture of natural or crushed gravel, crushed stone, or natural or crushed sand meeting the following requirements:
 - 1. Backfill 2" below and 6" above the top of any conduit shall be stone dust, rock-free earth, or topsoil with no stones larger than 1 1/2" in diameter permitted.
 - 2. Backfill from 6" above the top of any conduit to final grade shall be native backfill containing no large rock within turf area.
 - 3. Backfill from 6" above the top of any conduit to final grade shall be 2A stone.

32D.4 PLACEMENT AND COMPACTION

- A. The Contractor shall place acceptable backfill and fill material in layers to the required subgrade elevations for each area classification listed below.
 - 1. Under grassed areas: The Contractor shall use satisfactory excavated or borrow backfill and fill material.
 - 2. Under building and structure slabs: The Contractor shall use subbase material.
- B. The Contractor shall backfill excavations as promptly as work permits, but not until the completion of the following:
 - 1. Acceptance by the Engineer of construction below finish grade.
 - 2. Inspection, testing, approval, and recording the locations of underground utilities.
 - 3. Removal of concrete formwork.
 - 4. Removal of shoring and bracing and backfilling of voids with satisfactory materials. The Contractor shall cut off temporary sheet piling driven below the bottom of structures or utilities, or leave it in place if required by the Engineer.
 - 5. Removal of trash and debris.
- C. Backfilling operations shall be conducted so that permanent structures will not be disturbed and so that the lines and grades of the pipes will be maintained. Backfill shall be placed in the dry and shall not be placed on wet or frozen ground.

- D. Backfill around structures and pipe trench backfill shall be placed in four inch (4") layers and each layer shall be compacted with approved mechanical tampers. Where the material is granular in nature, vibratory-type power tampers shall be used. The Contractor may increase the backfill placement depth if hydraulic equipment is used; however, the equipment and the placement depths must receive prior approval from the Engineer. The Contractor shall provide proper compaction to comply with PennDOT requirements in PennDOT rights-of-way. Other compaction shall be as follows:
1. Pipe Trench - Unpaved Areas - Compaction shall be 85% of Standard Proctor.
 2. Pipe Trench - Paved Areas - Compaction shall be 95% of Standard Proctor.
 3. Pipe Trench - Road Shoulder Areas - Compaction shall be 95% of Standard Proctor.
 4. Specified compaction requirements shall not relieve the Contractor from making repairs to backfilled areas in the event of settlement.
- E. The Contractor shall place backfill and fill materials evenly adjacent to structures and pipes to the required elevations. The Contractor shall take care to prevent wedging action of the backfill against structures and conduits by carrying the material uniformly around the structure to approximately the same elevation in each lift.
- F. The backfill material around structures and in pipe trenches shall be moistened or dried as necessary to bring it to the optimum moisture for compaction. Backfill shall be brought up equally on opposite sides of pipe lines, culverts, wall stems, and similar structures. Backfill material having such a high water content as to prevent good compaction shall not be used. Backfill layers shall be evenly spread before compaction. Prior to operating equipment over pipes and other structures, the backfill material shall be uniformly compacted as indicated on the Contract Drawings to prevent damage to the pipes or structures.
- G. Pipe zone bedding for pipes shall be as shown on the Drawings for the type of pipe specified.
- H. The subgrade shall be prepared in accordance with the requirements of PennDOT Publication 408 (2000 Edition) Section 210, "Subgrade."
- I. The Engineer will have the right to conduct compaction tests at "random" throughout the work. If it is found that the compaction is unsatisfactory, the Contractor will be notified. If it is confirmed that the backfill compaction is not as specified, then the Contractor shall remove all unsatisfactory backfill and shall replace it properly at no additional cost to the Owner.

32D.5 GRADING

- A. The Contractor shall uniformly grade areas within the limits of grading under this section, including adjacent transition areas. The Contractor shall smooth the finished surface within specified tolerances, compact with uniform levels or slopes between points where elevations are shown or between such points and existing grades.
- B. The Contractor shall grade areas to drain away from structures and to prevent ponding. The Contractor shall finish surfaces to be free from irregular surface

changes and as follows:

1. Grassed areas: The Contractor shall finish areas to receive topsoil to within not more than one-tenth of one foot (0.10') above or below the required subgrade elevations.
 2. Shoulders, berms, road, and pavements: The Contractor shall shape surface areas under shoulders, berms, or pavements to the lines, grades, and cross sections with the finish surfaces not more than one-half inch ($\frac{1}{2}$ ") above or below the required subgrade elevation.
- C. After grading, the Contractor shall compact subgrade surfaces to the depths and densities previously specified.

32D.6 MAINTENANCE

- A. The Contractor shall protect newly graded areas from traffic and erosion and shall keep them free of trash and debris. The Contractor shall repair and re-establish grades in settled, eroded, and rutted areas to the specified tolerances. Where completed, compacted areas are disturbed by subsequent construction operations or adverse weather, the Contractor shall scarify the surface, reshape, and compact it to the required density prior to further construction.

32D.7 DISPOSAL OF EXCESS AND WASTE MATERIALS

- A. Excess excavated material, suitable for use as fill, shall be placed to the lines and grades shown on the Drawings or as to the limits of such material available. Compaction shall be as specified in Section 2F.4.
- B. Excess excavated material, unacceptable excavated material, trash, debris, and waste materials shall be removed from the Owner's property and disposed of as specified under the section for Clearing, Grubbing, and Topsoil Removal.

SECTION 32E – SURFACE PREPARATION

32E.1 GENERAL

- A. Areas to receive new sealant, stripping, or crack sealing shall comply with requirements of this spec.
- B. The work shall be performed in coordination with all asphalt operations (if applicable).

32E.2 CONSTRUCTION

- A. Surface Preparation shall be conducted in the following order:
 - 1. Parking lots shall be broom swept or air blown to clear debris from the working surface and surface joints prior to any and all work being conducted.
 - 2. Weed & grass killer shall be applied in all cracks prior to application of sealant.
 - 3. All areas to receive sealant with oil or gas stains shall be treated with an oil and gas stain primer prior to sealant application.

32E.3 MATERIALS

- A. Weed killer shall be Roundup Weed & Grass Killer or approved equal post-emergent weed & grass killer.
- B. Oil and gas stain primer shall be Petro Seal Concentrated Oil Spot Primer (by Sealmaster) or approved equal.

SECTION 32F – BITUMINOUS PAVING REHABILITATION

32F.1 GENERAL

- A. Section contains the work consisting of milling and resurfacing of parking lot surfaces. Cost of any flagmen and inspectors for all work shall be paid for by Contractor. This work also consists of shaping, finishing, fine grading, and compaction of the reclaimed base material.
- B. Work shall be conducted in accordance with the Drawings, General Conditions, and the requirements of this Section.

32F.2 CONSTRUCTION

- A. Equipment: Use machinery that is:
 - 1. Capable of milling 1.5" of top surface.
 - 2. Capable of laying 1.5" of top surface in at least ten foot (10') widths.
- B. Procedure:
 - 1. Prior to milling, existing pavement shall be cut or sawed in a neat straight line along any curb. Drilling shall not be permitted.
 - 2. Keyways shall be saw cut at all transitions between existing and resurfaced pavement and shall conform to the construction detail as shown in the typical details.
 - 3. Pavement surface shall be milled to a depth of 1.5". Existing unsuitable material shall be removed and hauled off-site at the Contractor's expense to the lines and grades established by the Engineer and replaced with a suitable material as determined by the Engineer.
 - 4. Binder surface shall be cleaned, smoothed, and prepared for resurfacing.
 - 5. The Contractor shall apply bituminous tack coat in accordance with PennDOT Publication 408, Section 460.
 - 6. Virgin Bituminous topcoat surface shall then be applied to a depth of 1.5" in accordance with PennDOT Publication 408, Section 420.
 - 7. Overlay of existing curb shall be performed unless existing curbing is in poor condition where it shall be removed and replaced with a new curb. The Contractor shall overlay and compact one inch (1") of wearing course along the sloped faces.
 - 8. After the topcoat has been placed and compacted flush with the existing adjacent pavements, the joints between the new and existing pavement, all inlets, and manholes, along the gutter line and along the center seam of the parking lot shall be sealed with a double coating (allowing proper drying between coats) of CrackMaster Supreme DF (by Sealmaster), or approved equal, placed in a minimum four inch (4") strip (maximum six inch (6") width) and sprinkled with sand to prevent pick-up by traffic.
- C. Materials:

Pavement materials shall be virgin materials and shall conform to requirements of Publication Title 67, Pennsylvania Code Chapter 459, Latest Edition. Pavement materials shall be as follows:

1. Superpave HMA 25.0mm Binder Course – conforming to PennDOT Publication 408, Section 409.
2. Superpave Standard and RPS HMA 9.5mm Fine Grade Wearing Course – conforming to PennDOT Publication 408, Section 409.
3. Bituminous Surface Treatment shall conform to PennDOT Publication 408, Section 480.
4. Tack Coat - E-1 Emulsified Asphalt conforming to PennDOT Publication 408, Section 460.
5. Joint Sealer - shall conform to PennDOT Publication 408, Section 401.3(j)(3).

32F.3 PART 2 – MISCELLANEOUS

- A. All areas disturbed as a result of the construction process shall be restored to the same condition that existed prior to construction, or better. This work includes utilities, unpaved areas, etc.
- B. It shall be the Contractor's responsibility to maintain the proper functioning of drainage in the areas under construction, up to and including the time when the final system is put into use.

SEALMASTER POLYMER-MODIFIED COAL TAR SEALER (PMCTS)

SMT-105

REVISED 2/22/19

PRODUCT DESCRIPTION & BENEFITS

SealMaster Polymer Modified Coal Tar Sealer (PMCTS) is a premium quality coal tar emulsion pavement sealer fortified with cross-linking rubber polymers and special surfactants. PMCTS is job-mixed with specifically graded aggregate and applied at a rate of 55-57% solids (unlike conventional sealers that are applied at 40-43% solids). The aggregate provides a safe, skid-resistant surface for both pedestrian and vehicle traffic. PMCTS dries faster than conventional pavement sealers that are diluted with water prior to application. PMCTS protects pavement from oxidation, moisture intrusion, fuel, and oil. PMCTS's deep, rich black color gives old, oxidized pavement a "like new" surface that melts snow and ice faster, and reduces cleaning and maintenance costs.

USES

SealMaster PMCTS is designed to beautify and protect asphalt pavement surfaces including parking lots, airports, driveways, and roadways.

COMPOSITION

PMCTS is a polymer-modified, clay stabilized coal tar pitch emulsion pavement sealer fortified with specialty surfactants to promote superior adhesion and durability. PMCTS is job mixed with select aggregate to produce a superior skid-resistant wearing surface.

SIZES

SealMaster PMCTS is available in 4,000 gallon bulk tankers, 55-gallon drums, and 5-gallon pails.

COLOR

PMCTS dries to a deep, rich black color.

LIMITATIONS

SealMaster PMCTS shall not be applied when temperature is expected to drop below 50°F at any time within a 24 hour period after application.

ENVIRONMENTAL CONSIDERATIONS

SealMaster PMCTS does not contain asbestos. PMCTS is an environmentally friendly water based pavement sealer containing less than 50 grams per liter volatile organic content (VOC).

PHYSICAL CHEMICAL PROPERTIES

SealMaster PMCTS is a premium quality pavement sealer that meets the following material requirements when tested in accordance with ASTM D 140, ASTM D 466, ASTM D 490, ASTM B117, ASTM D 529, ASTM D 2939, and ASTM D244 procedures.

Test	Specifications	Result
Material	Material shall be homogenous and show no separation or coagulation that cannot be overcome by moderate stirring.	PASSES
Chem. & Physical Analysis		
- Non Volatiles %	40%	PASSES
- Ash Non Volatiles %	30 - 40	PASSES
- Solubility of Non Volatiles in CS ₂ %	20 Min.	PASSES
- Specific Gravity 25°C	1.18 Minimum	PASSES
Drying Time	8 hr. Max (Typically less than 60 min.)	PASSES
Adhesion & Resistance to Water	No Penetration or Loss of Adhesion	PASSES
Resistance to Heat	No Blistering or Sagging	PASSES
Flexibility	No Cracking or Flaking	PASSES
Resistance to Impact	No Chipping, Flaking or Cracking	PASSES
Resistance to Volatilization	10% Loss in Weight Max.	PASSES
Wet Film Continuity	Smooth, Nongranular Free from Coarse Particles	PASSES

INSTALLATION

Surface must be clean and free from all loose material and dirt. Pavement surface repairs should be made with a suitable hot or cold asphalt mix. Cracks should be filled with SealMaster hot pour or cold applied crack fillers. Treat all grease, oil, and gasoline spots or stains with SealMaster Petro Seal or Prep Seal.

METHODS

SealMaster PMCTS shall be applied by either pressurized spray application equipment or self-propelled squeegee equipment. Pressurized spray equipment shall be capable of spraying pavement sealer with sand added. Equipment shall have continuous agitation or mixing capabilities to maintain homogeneous consistency of pavement sealer mixture throughout the application process. Self-propelled squeegee equipment shall have at least 2 squeegee or brush devices (one behind the other) to assure adequate distribution and penetration of sealer into bituminous pavement. Hand squeegees and brushes shall be acceptable in areas where practicality prohibits the use of mechanized equipment.

MIXING PROCEDURES

For optimum results, PMCTS shall be mixed in accordance with the following mix design (based on 100 gallons for ease of calculation):

PMCTS Concentrate..... 100 gallons
Sand* 200-400 lbs.

*(40-70 mesh AFS rating)

SEALMASTER POLYMER-MODIFIED COAL TAR SEALER (PMCTS)

SMT-105

REVISED 2/22/19

NOTE: If required, a small amount of water may be added to facilitate application of mixed material.

APPLICATION

For optimum performance and durability apply two coats of PMCTS with sand. A third coat of PMCTS with sand may be applied to high traffic areas such as entrances, exits, and drive lanes.

APPLICATION RATE OF MIXED PMCTS

Apply properly mixed PMCTS (PMCTS Concentrate, Sand, and Water - if needed) at a rate of .11 to .13 gallon per square yard (70-82 square feet per gallon) per coat.

ESTIMATING MATERIAL REQUIREMENTS

To estimate gallons of PMCTS required to cover a specific area use the following coverage rate:

- One gallon of SealMaster Coal Tar Concentrate will cover approximately 85-95 square feet (9.4 to 10.5 square yards) per coat when properly mixed and applied.

NOTE: Coverage rates may vary due to pavement age and porosity.

PRECAUTIONS

Both surface and ambient temperature shall be a minimum of 50°F in a 24 hour period following application. New asphalt surfaces should be allowed to cure a minimum of four weeks under ideal weather conditions (70°F) before applying PMCTS. Keep out of reach of children. Do not store unopened drums or pails in freezing temperatures.

WARRANTY AND DISCLAIMER

The statements made on this technical data sheet are believed to be true and accurate and are intended to provide a guide for approved application practices. As workmanship, weather, construction, condition of pavement, tools utilized, and other variables affecting results are all beyond our control, the manufacturer warrants only that the material conforms to product specifications and any liability to the buyer or user of this product is limited to the replacement value of the product only. The manufacturer expressly disclaims any implied warranties of merchantability or fitness for a particular purpose.



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SECTION 2G – PAVEMENT SEALANT

2G.1 GENERAL

- A. Areas to receive parking lot sealant shall comply with the requirements of this spec.
- B. The work shall be performed in coordination with all asphalt operations (if applicable).

2G.2 CONSTRUCTION

- A. Equipment:
 - 1. Sealant shall be applied by squeegee machine.
- B. Application:
 - 1. For PMB one primer coat and two sand coats of sealant shall be applied. For PMCTS, two sand coats shall be applied. A third coat shall be applied to entrances and exits.
 - 2. Temperature Restrictions: Both surface and ambient temperatures shall be a minimum of 50° F. Temperature shall not drop below 50° in a 24 hour period following application.
 - 3. New asphalt surfaces shall be allowed to cure for a minimum of 4 weeks before applying PMB or Polymer-Modified Coal Tar (PMCTS)
 - 4. PMCTS shall not be applied when rain is imminent or forecast.

2G.3 MATERIALS

- A. Pavement Sealant shall be PMCTS (by Sealmaster), Polymer-Modified Coal Tar Sealant (by Sealmaster) or approved equal.

SECTION 32H – CRACK SEALANT

32H.1 GENERAL:

- A. Areas to receive crack sealant shall comply with the requirements of this spec.
- B. The work shall be performed in coordination with all asphalt operations (if applicable).

32H.2 CONSTRUCTION:

- A. Equipment:
 - 1. Melter to be used shall be either a direct fire or oil jacketed kettle system.
 - 2. Machine to be used shall be capable of applying crack sealant to a height no higher than 1/8" above the surrounding pavement.
 - 3. Melter shall be cleared of all debris and flammable material.
 - 4. Protective apparel must be worn. Protective apparel to be worn shall consist of a hard hat with face shield, long sleeved shirt buttoned at the wrist, heat resistant gloves, long cuffless pants, and safety toed work boots.

32H.3 PROCEDURE:

- 1. After the wearing course has been placed and compacted flush with the existing adjacent pavement, the joint between the new and existing pavement, all inlets and manholes, and along the gutter line shall be sealed with a double coating (allowing proper drying between coats) of CrackMaster Supreme DF (or approved equal) placed in a minimum four inch (4") strip (maximum six inch (6") width) and sprinkled with sand to prevent pick-up by traffic.
- 2. When applying to aligatored areas CrackMaster Supreme DF (or approved equal) shall be applied in a minimum four inch (4") strip (maximum six inch (6") width) and sprinkled with sand to prevent pick-up by traffic.

32H.4 MATERIALS:

- A. Crack Sealant shall be CrackMaster Supreme DF (by Sealmaster) or approved equal.

CRACKMASTER SUPREME

Hot Pour Crack Sealant

SMT-190

REVISED 07/16/25

PRODUCT DESCRIPTION

CrackMaster Supreme is a single component, hot applied crack and joint sealant. CrackMaster Supreme is specially formulated for both direct fire and oil-jacketed melters. It is heat stabilized to withstand temperatures up to 450°F without experiencing polymer degradation. When melted and properly applied it forms a resilient crack sealant for both asphaltic and cementitious pavements. CrackMaster Supreme meets manufacturer's specifications.

USES

CrackMaster Supreme is designed to seal expansion joints, longitudinal and transverse cracks, joints between concrete and asphalt shoulders, and random cracks in both asphalt and concrete pavements. CrackMaster Supreme is relatively hard and has a high softening point, which makes it well suited for parking lots and driveways.

COMPOSITION

As supplied, CrackMaster Supreme is supplied in solid blocks comprised of heat stabilized polymers and asphalt.

COLOR

Black.

LIMITATIONS

Do not overheat material. Cracks must be free from moisture, dust, loose aggregate and other contaminants prior to application. Not recommended for cracks in excess of 1" wide.

TECHNICAL DATA

CrackMaster Supreme meets SealMaster Product Specification when tested in accordance with ASTM D5329. (see chart below).

Chemical & Physical Analysis	
Recommended Pour Temperature	350-400°F
Maximum Heating Temperature	400°F
Cone Penetration at 25°C	50 max.
Flow at 60°C, mm	0
Softening Point	200°F Min
Flexibility 0°F	(1" Mandrel) - PASS
Specific Gravity	1.17
Asphalt Compatibility	PASSES

ENVIRONMENTAL CONSIDERATIONS

CrackMaster Supreme is considered a non-hazardous material.

INSTALLATION

Proper surface preparation will facilitate adequate adhesion and consequently the maximum service life of the sealant. The crack must be free from moisture, dust, and loose aggregate. Routing or wire brushing are preferred methods followed by a compressed air heat lance immediately prior to sealing. The substrate and air temperature must be above 40°F.

METHODS

CrackMaster Supreme shall be melted in direct fired or oil jacketed melters. Carefully insert blocks of material (with plastic bag) into the melting equipment while the agitator is turned off. Load material slowly to avoid splashing. After the initial load of material has reached the recommended pouring temperature (350-400°F), fresh material may be added as sealant is used. Melt only enough material that will be used the same day. Avoid overheating material. Excessive heat could cause material to gel in the equipment or fail in crack and joints. A significant viscosity increase accompanied by stringiness signals the approach of gelation. If this occurs, immediately remove the material from the melter and dispose of it.

IMPORTANT

Protective apparel is recommended with application of CrackMaster Supreme. The extremely hot material will cause severe burns on contact with skin. OSHA Safety Regulations require workers to wear the following types of safety attire (see current OSHA/Safety Regulations for additional information): Hard hat with face shield; long sleeved shirt buttoned at the wrist; heat resistant gloves; long, cuffless pants; and safety toed work boots. Make certain all area around melter is clear of all debris and flammable materials. Avoid breathing vapors. Use with adequate ventilation.

MIXING PROCEDURES

Use material as supplied. Do not blend with other materials.

APPLICATION

Apply heated CrackMaster Supreme using either a pump and wand system or a pour pot. For best results the sealant depth to width ratio should not exceed 2 to 1 (i.e. 2-inches deep to 1-inch wide). The cooled sealant height should not exceed 1/8" above surrounding pavement. Using a sealing shoe or squeegee, band the material 2 to 3 inches wide over the crack.

ESTIMATING MATERIAL REQUIREMENTS

CRACKMASTER SUPREME

Hot Pour Crack Sealant

SMT-190**REVISED 07/16/25**

Use the following chart as a guideline for estimating material requirements (based upon pounds of material needed for 100 feet of cracks):

Crack Width	Depth	Lbs/100 Ft
3/8"	3/8"	6.2 lbs.
3/8"	1/2"	8.3 lbs.
1/2"	1/2"	11.1 lbs.
1/2"	1"	22.2 lbs.
3/4"	1/2"	16.6 lbs.
3/4"	3/4"	25.00 lbs.

The above coverage rates are only a guideline. Actual material usage may vary due to width of application and thickness of material above pavement surfaces.

PRECAUTIONS

Cracks must be free from moisture, dust, dirt, and debris. Both substrate and air temperature must be above 40°F. Keep boxes of material dry during storage. Do not store in direct sunlight.

PACKAGING AND AVAILABILITY

CrackMaster Supreme is supplied in both meltable packaging and cardboard cartons. CrackMaster Hot Pour Crack Sealants are supported by a nationwide network of SealMaster facilities along with a national and international network of professional applicators.

WARRANTY AND DISCLAIMER

The statements made on this technical data sheet are believed to be true and accurate and are intended to provide a guide for approved application practices. As workmanship, weather, construction, condition of pavement, tools utilized, and other variables affecting results are all beyond our control, the manufacturer warrants only that the material conforms to product specifications and any liability to the buyer or user of this product is limited to the replacement value of the product only. The manufacturer expressly disclaims any implied warranties of merchantability or fitness for a particular purpose.

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SECTION 32I – SOFT SPOT REPAIR

32I.1 GENERAL

- A. Areas shown on the Drawings or indicated by the Engineer as requiring soft spot repair shall be repaired in accordance with these Specifications, PennDOT Publication 408, latest edition.
- B. Section contains the work consisting of repairing areas of limited extent by saw cut, removal of existing top course, and replacement of top course.
- C. Work shall be conducted in accordance with the Drawings, General Conditions, and the requirements of this Section.

32I.2 CONSTRUCTION

- A. Equipment: Use a machine that is:
 - 1. Capable of cutting to a depth of 5” min to 8” maximum through the existing top coat.
 - 2. Equipped to allow for walk behind operation.
- B. Procedure:
 - 1. Pavement surface shall have area to be cut outlined in bright colored paint in a neat uniform manner to be approved by Owner or Engineer prior to saw cutting.
 - 2. Pavement surface shall be saw cut to a depth of 5” along painted outlines.
 - 3. Cut pavement surface shall be removed and hauled off site at the direct expense of the Contractor.
 - 4. Soft Spot Duty
 - a. **Standard Duty**: Mill 5.5” depth in front of dumpster and resurface with 4” of Superpave 25MM Binder Course and 1-1/2” of Superpave 9.5MM FG Wearing Course 23 SY in accordance with PennDOT Publication 408, Section 420 latest edition.
 - b. **Heavy Duty**: Mill 11.5” depth in front of dumpster and place 8” No.2A Modified Stone and compact, resurface with 4” of Superpave 25MM Binder Course and 1-1/2” of Superpave 9.5MM FG Wearing Course 23 SY in accordance with PennDOT Publication 408, Section 420 latest edition.
 - 5. After the topcoat has been placed and compacted flush with the existing adjacent pavements, the joints between the new and existing pavement, all inlets, and manholes, along the gutter line and along the center seam of the parking lot shall be sealed with a double coating (allowing proper drying between coats) of CrackMaster Supreme DF (by Sealmaster), or approved equal, placed in a minimum four inch (4”) strip (maximum six inch (6”) width) and sprinkled with sand to prevent pick-up by traffic.

C. Materials:

Pavement materials shall be virgin materials and shall conform to requirements of Publication Title 67, Pennsylvania Code Chapter 459, Latest Edition. Pavement materials shall be as follows:

1. Superpave Standard and RPS HMA 9.5mm Fine Grade Wearing Course – conforming to PennDOT Publication 408, Section 409.
2. Subbase – No. 2A Stone, conforming to PennDOT Publication 408, Sections 350 and 703.2.
3. Superpave Standard and RPS HMA 19.0mm Binder Course – conforming to PennDOT Publication 408.
4. Joint Sealer – shall conform to PennDOT Publication 408, Section 401.3(j)(3).

32I.3 MISCELLANEOUS

- A. All areas disturbed as a result of the construction process shall be restored to the same condition that existed prior to construction, or better. This work includes utilities, unpaved areas, etc.

SECTION 32J – LINE STRIPING

32J.1 GENERAL

- A. Areas indicated or illustrated on the contract drawings to be stripped shall be performed in accordance with these Penn DOT Publication 408-sections, 961 and 962, Latest edition and these specifications.
- B. The work shall be performed in coordination with Asphalt Sealing Operations (if applicable).
- C. Type of markings will be as follows:
 - 1. Parking lines - four (4") inches wide.
 - 2. Stop line - twenty-four (24") inches wide.
 - 3. No parking and handicap area - each four (4") inches wide
 - 4. Painted markings shall be in accordance with Publication 408, Section 962.
- D. Pavement Marking Colors
 - 1. Standard parking stall lines shall be white.
 - 2. Handicap stall lines shall be blue.

32J.2. CONSTRUCTION

- A. Equipment: Use a machine that is:
 - 1. capable of simultaneously applying two 4-inch parallel lines, in either solid or broken patterns or various combinations thereof;
 - 2. capable of automatically dispensing glass beads onto the painted surface, at the required application rate, by the pressurized glass-gun method; and
 - 3. equipped with a measuring device, which automatically and continuously measures the length of each line placed, to the nearest foot.
- B. Application Rates
 - 1. Paint. Dispense in a wet-film thickness of 15 mils $\pm$ 1 mil, except that edge markings may be 12 mils $\pm$ 1 mil.
 - 2. Glass Beads. Apply at a rate of 6 pounds per gallon of paint.
 - 3. Surface Preparation. The Inspector-in-Charge will determine the need for cleaning prior to painting operations. Satisfactorily clean and dry the roadway surfaces. Blow or sweep free of loose dirt and other debris.
 - 4. Temperature Restriction. Do not apply when the air temperature is less than 40F

32J.3 PROTECTION OF PAINTED SURFACES

- A. Provide satisfactory protection for center lines, lane lines, edge lines, crosswalks, stop bars, symbols, and legends for at least 30 minutes or until paint is dry and track free from vehicular traffic. Barrier cones are satisfactory protection.
- B. Repaint marked or damaged areas, as directed.

32J.4 MATERIAL

- A. Paint shall be **FastTrack 2706** all-acrylic emulsion, or approved equal, manufactured by **Dow Chemical Company**, or approved equal.

FASTRACK™ 2706

Use FASTRACK™ 2706 polymer emulsion to create waterborne traffic marking paints that offer substantial safety, application, and environmental advantages over alkyds. Incorporates patented Quick Set technology for improved dry under humid conditions, resistance to early rain, and track-free time.

Used in:

In traffic marking paints

Typical Properties

These properties are typical but do not constitute specifications.

Density Dry (g/ml)	1.13
Class	ACRYLIC
Solids (%)	49.5-50.5
Density Dry (lb/gal)	9.43
Density Wet (g/ml)	1.05
Density Wet (lb/gal)	8.76
Part Size (Micron)	0.20
pH	10.0-10.6
Tg	25.0
Viscosity (cps)	<250

Advantages:

Environmentally Acceptable – Can be formulated to V.O.C.s as low as 0.8 pounds/gallon, meeting or exceeding most regulations for traffic marking paints.

Better Retention of Glass Beads – Paints formulated with waterborne acrylics retain their flexibility on aging and retain glass beads longer than typical alkyds.

Longer “Useful Life” – When properly formulated and applied, waterborne traffic paints retain their retro reflectivity longer, so reapplication is required less frequently.

Increased Worker Safety – Exposure to volatile organic solvents is greatly reduced.

Easier, Safer Cleanup – Can be done almost exclusively using water and mild solvents or detergents.

Significantly Reduced Disposal Costs – Waterborne acrylic paints can be solidified easily and disposed of as non-hazardous waste.

SECTION 03 3001

CAST-IN-PLACE CONCRETE - EXTERIOR

PART 1 – GENERAL

1.01 SCOPE

- A. Work shall be conducted in accordance with the Drawings, General Conditions, and the requirements of this Section.
- B. This section covers materials, mixing, forming, placing, and curing of all cast-in-place concrete, including reinforcement.
- C. Concrete Sealant, refer to PennDOT 408 latest edition.

1.02 GENERAL REQUIREMENTS

- A. The Contractor shall coordinate his work with the work of other trades to provide anchors, sleeves, conduits, and other openings or materials to be installed prior to the concrete placement.
 - 1. Should equipment or pipe not be delivered to the site in sufficient time for incorporation into the concrete, the Contractor may provide an opening for later incorporation of such equipment, provided written permission is obtained from the Engineer at the time of the request.
- B. Shop Drawings showing all of the necessary dimensions for the fabrication and placement of reinforcing steel and accessories, without reference to the Project Drawings, shall be submitted for approval in accordance with these Specifications.
 - 1. At the discretion of the Engineer, additional Shop Drawings for formwork may be required when safety considerations are involved.
- C. The Contractor shall adhere to ACI 304-73, "Recommended Practice for Measuring, Mixing, Transporting, and Placing Concrete" and ACI 318-83, "Building Code Requirements for Reinforced Concrete," in executing the requirements of this section. Additional code requirements shall be followed for concrete construction not covered within the above referenced Code:
 - 1. Current "Manual of Standard Practice for Detailing Reinforced Concrete Structures" (ACI 315).
 - 2. Current "Recommended Practice for Measuring, Mixing and Placing Concrete" (ACI 304).
 - 3. All matters in connection with concrete work, not otherwise specified shall conform to the applicable section of the Pennsylvania Department of Transportation Pub. 408.

1.03 STORAGE OF MATERIALS

- A. The cement shall be stored in weather-tight bins or a building that will protect it from dampness and in such a manner as to permit easy access for suitable inspection and identification of each carload or equivalent. The cement shall not be stored in excess of eight (8) bags high and shall be covered with tarpaulins. When permission is given by the Engineer to temporarily store cement in the open, a platform and adequate waterproof covering shall be provided.
- B. Aggregate stockpiles shall be arranged and used in a manner to avoid excessive segregation or contamination with other materials or with other sizes of like aggregates. To insure that this condition is met, any test for determining the conformation to the requirements for cleanliness and grading shall be performed on samples secured from the aggregates at the point of

batching. Stockpiles shall be built in successive horizontal layers not exceeding four feet (4') in thickness, with each layer completed before the next one is started. Frozen or partially frozen aggregates shall not be used.

- C. Sand shall be allowed to drain until it has reached a uniform moisture content before it is used.
- D. Admixtures shall be stored in such a manner as to avoid contamination or damage. For those used in the form of suspensions or non-stable solutions, suitable agitating equipment shall be provided to ensure a uniform distribution of the ingredients. Liquid admixtures shall be protected from freezing and other temperature changes that would adversely affect their characteristics.

1.04 UNIT PRICE - MEASUREMENT AND PAYMENT

- A. Section 012000 - Price and Payment Procedures: Contract Sum/Price modification procedures.
- B. Concrete - Slab-on-Fill or Grade:
 - 1. Basis of Measurement: Per contract bid of lump sum
 - 2. Basis of Payment: Includes concrete, placement accessories, consolidating, leveling, troweling, and curing.
- C. Concrete - Miscellaneous Locations:
 - 1. Basis of Measurement: Per contract bid of lump sum
 - 2. Basis of Payment: Includes concrete, placement accessories, consolidating, leveling, troweling, and curing.

PART 2 - PRODUCTS

2.01 MATERIALS

- A. Cement
 - 1. Portland Cement Type I or Type III conforming to ASTM Designation C-150.
 - 2. Cement shall only be delivered in approved bags or barrels with the brand, type, and name of the manufacturer clearly marked thereon or may be delivered in bulk in a manner approved by the Engineer. A bag of cement shall contain ninety-four pounds (94 lbs) net. A barrel of cement shall contain three hundred and seventy-six pounds (376 lbs) net. Information as to the brand, type, and manufacturer must be provided in shipping invoices accompanying bulk cement. Cement which has been retrieved or reclaimed from used bags shall not be used.
- B. Aggregate
 - 1. Concrete aggregate shall conform to the specifications for Concrete Aggregate, ASTM Designation C-33.
 - a. Fine Aggregate: Natural, artificial, or manufactured sand will be acceptable.
 - b. Coarse Aggregate: Coarse aggregate shall be crushed stone or gravel.
 - 1) The maximum size of the aggregate shall be no larger than one-fifth (1/5) of the narrowest dimension between the sides of the forms within which the concrete is to be cast, nor larger than three-quarters (3/4) of the minimum clear spacing between the reinforcing bars and the forms. For unreinforced slabs, the maximum size of the aggregate shall not be larger than one-third (1/3) of the slab thickness.

These requirements may be waived if, in the opinion of the Engineer, the mixture possesses sufficient workability that the concrete can be placed without honeycombs or voids.

- 2) In general, the maximum size of aggregate to be used in the various items of concrete work shall be in accordance with the following table, but shall not exceed the limitations of the above paragraph.

Range for Maximum Size of Aggregates* in Inches

Minimum Dimension of Section in Inches	Reinforced Walls, Beams, and Columns	Unreinforced Walls	Heavily Reinforced Slabs	Lightly Reinforced or Unreinforced Slabs	All Other Construction
2-1/2 - 5	2 T- 3/4	3/4	3/4 - 1	3/4 - 1.5	3/4 - 1
6 - 11	3/4 - 1.5	1.5	1.5	1.5 - 3	1.5
12 - 29	1.5 - 3	3	1.5 - 3	3	3
30 or more	1.5 - 3	6	1.5 - 3	3 - 6	3 - 6

* Based on square sieve openings

C. Water

1. Water shall be tasteless, odorless, colorless, free from injurious amounts of sewage, oil, acid, alkali, organic matter, and other deleterious substances, and shall be suitable for human consumption.

D. Admixtures

1. Water-Reducing – “Eucon WR 75” by the Euclid Chemical Company, “Pozzolith 200N” by Master Builders or “Plastocrete 160” by Sika Chemical Corporation. The admixture shall conform to ASTM C-494, Type A and shall contain not more than one percent (1%) chloride ions.
2. High-Range Water Reducing (Super Plasticizer) – “Eucon Super 37” by the Euclid Chemical Company or “Sikament” by Sika Chemical Corporation. The admixture shall conform to ASTM C-494, Type F or G and shall contain not more than one percent (1%) chloride ions.
3. Non-Corrosive Accelerator – “Accelguard” by the Euclid Chemical Company or “Darex Set Accelerator” by W. R. Grace & Company. The admixture shall conform to ASTM C-494, Type C or E, and have long term test data proving its noncorrosive effect on metal decks and reinforcing steel.
4. Water Reducing, Retarding – “Eucon Retarder 75” by the Euclid Chemical Company, “Pozzolith 100R” by Master Builders or “Plastiment” by Sika Chemical Corporation. The admixture shall conform to ASTM 495, Type D, and shall not contain more than one percent (1%) chloride ions.
5. Air Entraining - Conform to ASTM C-260.
6. Calcium Chloride - Not permitted.

PART 3 – EXECUTION

3.01 MIXES

- A. All mix designs shall be proportioned in accordance with Section 4.3 (Field Experience and/or Trial Mixtures) of ACI 318-83.
- B. Concrete for all parts of the work shall be homogenous and, when hardened, shall have the required strength, resistance to deterioration, durability, and other specified properties. Three types of concrete are designated as follows:
1. Type A: (Air entrainment is optional) - For interior slabs on grade, footings, foundations, and thrust blocks protected against cyclical freezing and thawing.
 2. Type B: (Air entrainment is required) - For exterior slabs on grade, stream encasements, endwalls, headwalls, basement walls, retaining walls, and beams subjected to cyclical freezing and thawing and placement in very wet conditions.
 3. Type C: (Air entrainment is optional) - For all other concrete use.
- B. The required concrete strength f_c' shall be as follows:

Type	Compressive (psi)			Flexural (psi)		
	3 Days	7 Days	28 Days	3 Days	7 Days	28 Days
A	-	2750	3300	-	500	600
B	-	3330	4000	-	500	600
C	-	1500	2000	-	350	400

High Early Strength - Concrete shall achieve 7 and 28-day strengths for the type intended, at 3 and 7 days respectively.

- D. Concrete subjected to destructive exposure, such as freezing and thawing, severe weathering, or chemicals, shall contain entrained air as required by these Specifications. For all such concrete, the water-cement ratio shall not exceed 0.53 (6.0 gallons per sack of cement). The water-cement ratio for concrete subjected to deicers shall not exceed 0.45 (5.1 gallons per sack of cement).
- E. The slump of concrete of normal weight, as determined by "Method of Test for Slump of Portland Cement Concrete" (ASTM C-143), shall be in accordance with Table 1 unless the HRWR admixture (Super Plasticizer) is used. Water, in excess of that included in the approved mix design, may not be added at the plant or in the field.

Table 1 – Slump of Concrete of Normal Weight

Type of Construction	Slump in Inches	
	Hand Placed	Vibrator Used
Reinforced Footings	2 to 5	1 to 3
Plain Footings and Substructure Walls	1 to 4	1 to 3
Slabs, Beams, and Reinforced Walls	2 to 5	1 to 4
All Other Placements	1 to 3	1 to 2

The maximum slump of concrete containing the HRWR admixture (Super Plasticizer) shall be eight inches (8") unless otherwise approved by the Engineer.

- F. The air content of air-entrained concrete shall conform to Table 2. The air content shall be determined in accordance with ASTM C-173 (Volumetric Method) or ASTM C-231 (Pressure Method).

Table 2 – Total Air Content for Various Sizes of Coarse Aggregates

Nominal Maximum Size of Coarse Aggregates in Inches	Total Air Content Percent by Volume
2 or smaller	5 to 9
3/4	4 to 8
1	3.5 to 6.5
1-1/2 or larger	3 to 6

- G. Admixtures shall be used as follows:
1. Any concrete may contain the specified water-reducing admixture (Type A) or the specified HRWR admixture (Super Plasticizer, Type F or G) when approved by the Engineer.
 2. When increased workability, pumpability, lower water-cement ratio, or higher ultimate and/or early strengths are required, the HRWR admixture (Super Plasticizer) may be used when approved by the Engineer.
 3. All thin slabs (8" thick or less) placed below 50°F shall contain the specified non-corrosive accelerator when approved by the Engineer.
 4. When high temperatures, humidity, and/or placing conditions dictate, the Engineer may require a change to the specified water-reducing, retarding formulation (Type D) in lieu of the water-reducing admixture (Type A).
 5. All concrete required to be air entrained shall contain an approved air-entraining admixture.
 6. All Class B Concrete shall contain a water reducing, retarding admixture as specified in Section 3A.4, D(4).
- H. Calcium chloride shall not be permitted.
- I. The proportion of ingredients shall be selected to produce:
1. Proper placability, durability, strength, and other required properties.
 2. A mixture that will work readily into the corners and angles of the forms and around reinforcement by the methods of placing and consolidation employed on the work, but without permitting the materials to segregate or excessive free water to collect on the surface.
- J. The mix designs shall be proportioned in accordance with Section 4.3 (Field Experience and/or Trial Mixtures) of ACI 318-83. If the proposed mix is based on previous field experience, the mix and supporting data shall be submitted to the Engineer for approval. Otherwise, the mix design shall be prepared in accordance with trial batches (Section 4.3) by an independent laboratory engaged by the Contractor. The tests shall be made in accordance with the following procedures:
1. Concrete trial mixtures having proportions and consistency suitable for the work shall be made using at least three (3) different water-cement ratios which will produce a range of strengths encompassing those required for the work. Trial mixes shall be designed to produce the maximum allowable slump.
 2. The proportions of ingredients shall be determined, and tests conducted, in accordance with the basic relationships and procedures outlined in "Recommended Practice for Selecting Proportions for Normal and Heavyweight Concrete," ACI 211.1.
 3. For each water-cement ratio, at least three (3) specimens age to be tested shall be made and cured in accordance with "Method of Making and Curing Concrete Test Specimens in the Laboratory," ASTM C-192, and tested for strength at 28-days, or at any earlier or later age specified. The tests shall be conducted in accordance with "Method of Test for Compressive Strength of Cylindrical Concrete Specimens," ASTM C-39.
 4. From the results of these tests, a curve shall be plotted showing the relationship between water-cement ratio and compressive strength. The water-cement ratio to be used in the proposed mix design shall be that which achieves an average strength 1200 psi above the specified strength, f'_c .

Maximum Permissible Water-Cement Ratios, by Weight			
Type	Specified by 28-Day Compressive Strength in psi	Non-Air Entrained Concrete	Air Entrained Concrete
A	3300	0.55	0.44
B	4000	-	0.35
C	2000	0.76	0.62

Concrete subjected to deicers shall have a maximum water-cement ratio of 0.45. If the concrete is designed to be watertight, it shall have a maximum water-cement ratio of 0.48.

K. The Contractor shall submit supporting data for his proposed mix design for approval.

3.02 MIXING CONCRETE

A. General: Ready-mixed concrete shall be mixed and delivered in accordance with ASTM C-94, "Standard Specifications for Ready-Mixed Concrete," modified as follows:

1. During a continuous placement, the interval between loads shall not exceed twenty (20) minutes, or be so great that the concrete in place becomes partially hardened.
2. Water used to flush the mixer or agitator between loads shall not become a part of the concrete in the work.
3. Concrete shall be obtained from a batch plant currently approved by the Pennsylvania Department Of Transportation (PENNDOT).
4. Truck mixers shall be the revolving drum type equipped with a water mixing tank. Only the prescribed amount of mixing water shall be placed in the tank for the batch type and size unless the tank is equipped with a device to allow the Engineer to read the amount of water added and his approval is given.
5. The Contractor shall prepare delivery tickets for every ready-mixed concrete load delivered. If a laboratory representative is inspecting the batching operation, he shall prepare the ticket. Otherwise the batch plant operator shall prepare the ticket. Truck drivers shall deliver the tickets to the Engineer at the site at the time of delivery. The tickets shall contain the following information:
 - a. The number of yards delivered on the truck.
 - b. The quantities of materials in the batch.
 - c. The time at which the truck left the batching plant.
 - d. The time at which the cement was added.
 - e. The outdoor temperature in the shade.
 - f. The numerical sequence of the delivery.
 - g. The date.

B. Batch Mixing at the Site:

1. The concrete shall be mixed in a batch mixer conforming to the requirements of the Mixer Manufacturers Bureau of the Associated General Contractors of America. The mixer shall bear a manufacturer's rating plate indicating the rated capacity and the recommended revolutions per minute and shall be operated in accordance with these recommendations. It shall be equipped with a suitable charging hopper, water storage tank, and a water-measuring device, it shall be capable of thoroughly mixing the aggregates, admixtures, cement, and water into a uniform mass within the specified mixing time, and it shall be capable of discharging the mix without segregation.
2. All liquid admixtures shall be dispensed by means of an automatic dispenser or similar metering device. Powdered admixtures shall be weighed or measured by volume as recommended by the manufacturer. The accuracy of the measurement of any admixture shall be within $\pm 3\%$ of the quantity used.
3. The batch shall be charged into the mixer so that some water will enter in advance of the cement and aggregates. Water shall continue to flow for a period which may extend to the end of the first twenty-five percent (25%) of the specified mixing time. Controls shall be

provided to ensure that no additional water may be added during mixing. The entire batch shall be discharged before the mixer is recharged.

4. Each batch of two cubic yards (2 C.Y.) or less shall be mixed for not less than one and one-half (1 ½) minutes. The mixing time shall be increased fifteen (15) seconds for each additional cubic yard or fraction thereof.
5. The mixer shall be clean and the pick-up and throw-over blades on the drum shall be replaced when they have lost ten percent (10%) of their original depth.

C. Re-tempering and Changing Slump

1. The concrete shall be mixed only in quantities for immediate use. Concrete which has set shall not be re-tempered, but shall be discarded.
2. The addition of water to increase the slump shall be prohibited. Ingredients shall be cooled before mixing, or well-crushed ice may be substituted for all or part of the mixing water if, due to high temperature, deemed necessary by the Engineer.

D. Cold Weather

1. To maintain the temperature of the concrete above the minimum placing temperature, the as-mixed temperature shall not be less than 55°F when the mean temperature falls below 40°F.
2. If the water or aggregate has been heated, the water shall be combined with the aggregate in the mixer before the cement is added. Cement shall not be added to the mixture of water and aggregate when the temperature of the mixture is greater than 100°F.

E. Hot Weather

1. The ingredients shall be cooled before mixing, if necessary, to maintain the temperature of the concrete below the maximum placement temperature of 90°F.

3.03 PLACING CONCRETE

A. General

1. The placement of the concrete shall be done in accordance with ACI 304, "Recommended Practice for Measuring, Mixing, Transporting, and Placing Concrete," except as modified or revised by these Specifications.

B. Preparation Before Placing

1. Hardened concrete and foreign materials shall be removed from the inner surfaces of the conveying equipment.
2. Chutes shall be metal or metal-lined.
3. If two or more lengths of chute are used, they shall have approximately the same slope. Slopes shall neither exceed one vertical to two horizontal (1V:2H), nor be less than one vertical to three horizontal (1V:3H).
4. If the distance of the discharge end of the chute above the surface of the concrete is more than three (3) times the thickness of the layer being deposited, or more than four feet (4') total, a spout shall be used as practical. When operation is intermittent, the chute shall discharge into a hopper.
5. The chute shall be thoroughly cleaned before and after each run and the debris from any water used shall be discharged outside the forms.

C. Placing

1. The concrete shall be deposited continuously or in layers of such thickness that no concrete will be deposited on concrete which has hardened sufficiently to cause the formation of seams or places of weakness within the section.
2. If a section cannot be placed continuously, construction joints shall be located at approved points.
3. Placement shall be carried on at such a rate that the concrete which is being integrated

with the fresh concrete is still plastic. Concrete which has partially hardened, or has been contaminated by foreign materials, shall not be deposited.

4. Concrete shall be deposited into the forms as nearly as practical in its final position to avoid re-handling.
5. Temporary spreaders in the forms shall be removed when the concrete placement has reached an elevation rendering their service unnecessary. They may remain embedded in the concrete only if made of metal or concrete and if prior approval is obtained.
6. Forms for walls or thin sections of considerable height shall be provided with openings or other devices that will prevent the segregation and the accumulation of hardened concrete on the forms or on the metal reinforcement above the level of the concrete.
7. Before depositing new concrete on or against concrete which has hardened and to which it is to bond, the forms shall be retightened. The surface of the hardened concrete shall be roughened in a manner that will not leave loosened particles of aggregate or damaged concrete as the surface. It shall be thoroughly cleaned of foreign matter and laitance, and dampened with water. New concrete shall be placed after the bonding compound has dried.
8. Where a smooth finish is required, the concrete shall be carefully placed and consolidated to assure a full surface of mortar against the form without the formation of excessive surface voids.
9. Mechanical vibrators shall have a minimum frequency of 8,000 vibrations per minute and be operated by competent workmen. Over-vibration and the use of vibrators to transport concrete within the forms shall not be allowed. Vibrators shall be inserted and withdrawn (approximately vertically) at many points from eighteen inches (18") to thirty inches (30") apart for five to ten (5-10) seconds duration. A spare vibrator shall be kept on the job site during all concrete placement operations.
10. The accumulation of water on the surface of the concrete due to water gain, segregation, or other causes during placement and consolidation shall be prevented as far as possible by adjustments in the mixture. A provision shall be made for the removal of such accumulated water so that under no circumstances will the concrete be finished with such "bleed water" on the surface.
11. Unless adequate protection is provided, or prior approval is obtained from the Engineer, concrete shall not be placed during rain, sleet, or snow.
12. Rainwater shall not be allowed to increase the mixing water, or to damage the surface finish.

D. Cold Weather Placing

1. Concrete shall be placed in cold weather in accordance with ACI 306, "Recommended Practice for Cold Weather Concrete," except as modified or revised below:
 - a. Before placing concrete during cold weather, the forms shall be free from frost and ice.
 - b. During those seasons of the year (after the first frost in the fall and until the daily mean temperature in the spring reaches 40°F for three (3) successive days) when freezing temperatures can be anticipated, the Contractor shall maintain facilities to keep the concrete from freezing for at least forty-eight (48) hours after placement.
 - c. When the daily mean temperature drops below 40°F for more than one (1) day, the concrete shall be maintained at a temperature of 55°F for a minimum of five (5) days. During this period, the concrete and adjacent form surfaces shall be kept moist at all times. When heating enclosures are to be provided, care shall be taken to provide adequate space around the outer edges and the top of the concrete structure to permit the circulation of the heater air so that neither freezing nor excessive heating of these extremities can occur. The method proposed for protection must have the approval of the Engineer, and all facilities for protection and heating must be on-hand before the concrete is placed.
 - d. A specified noncorrosive accelerator may be used when approved by the Engineer.
 - e. After the required protection period is over, the heat shall be removed gradually so that

a temperature differential of not more than 40°F will occur over the first twenty-four (24) hours.

- f. The forms shall not be removed from the concrete surfaces during the protection period stipulated above, nor shall the forms be removed for a period of three (3) days during those seasons of the year previously specified when the difference between the daily high and low temperatures may reasonably be expected to exceed 40°F.

E. Hot Weather Placing

- 1. Concrete shall be placed in hot weather in accordance with ACI 305, "Recommended Practice for Hot Weather Concreting," except as modified below:
 - a. At air temperatures of 90°F or above, the concrete shall be kept as cool as possible during placement. Exposed concrete surfaces shall be kept continuously moist by wet-curing for at least twenty-four (24) hours after the concrete has been placed. After the period of wet-curing, a suitable heat-reflecting plastic membrane or white-pigmented curing compound may be used.

3.04 REPAIR OF SURFACE DEFECTS

- A. After the forms have been removed, any concrete not formed as shown, or which shows a defective surface which cannot be properly repaired or patched, shall be removed. The adequacy of the surfaces will be governed by the judgement of the Engineer.
- B. All tie holes and repairable defective areas shall be patched immediately after form removal.
- C. All honeycombed and other defective concrete shall be removed to sound concrete, but in no case to a depth of less than one inch (1"). The area to be patched, and an area at least six inches (6") wide surrounding it, shall be dampened to prevent the absorption of water from the patching mortar. The bonding compound "Euco Weld" by the Euclid Chemical Company, or "Weldcrete" by Larson Products, or an approved equal shall be applied. The patching mortar shall be placed after the bonding compound has dried.
- D. The patching mixture shall be made of the same material and of approximately the same proportion as that used for the concrete, except that the coarse aggregate shall be omitted and the mortar shall consist of not more than one part cement to two and one-half parts sand by damp, loose volume.
- E. The quantity of mixing water shall be no more than necessary for handling and placing. Patching mortar shall be mixed in advance and allowed to stand with frequent manipulation with a trowel, without the addition of water, until it has reached the stiffest consistency that will permit placement.
- F. Tie holes shall be cleaned, dampened, and filled solid with patching mortar.
- G. With prior approval of the Engineer as to the method and procedures, the compounds used for all structural repairs shall be "Euco Epoxy #456, #460, or #463" by the Euclid Chemical Company, "Colma Dur Mortar," "Skiadur Hi-Mod L.V.," or "Skiadur Hi-Mod" by Sika Chemical Corporation, or an approved equal.

3.05 FLATWORK

- A. Edge forms and intermediate screed strips shall be set accurately to produce the designed elevations and contours in the finished surface, and shall be sufficiently strong to support vibrating bridge screeds or roller pipe screeds if the nature of the finish specified requires the use of such equipment. The concrete surface shall be aligned to the contours of the screed strips by the use of strike-off templates or approved compacting type screeds.

- B. Concrete in slabs shall be thoroughly consolidated. Internal vibrations shall be used along the bulkheads of slabs on grade. The consolidation of slabs shall be obtained with vibrating bridge screeds, roller pipe screeds, or other approved means. The concrete to be consolidated shall be as dry as practicable and the surfaces shall not be manipulated prior to finishing operations.

3.06 CONCRETE FINISH

- A. All concrete surfaces shall be finished as specified as soon after placing the concrete as conditions will permit. The placement of concrete and the removal of forms shall be scheduled so that the finishing of surfaces can be completed as soon as possible without jeopardizing the structure. No cement plaster or cement brush coats will be acceptable.
- B. Formed concrete surfaces which are not exposed to view in the finished work shall be finished by removing the form ties below the surface of the concrete, pointing up, and rubbing down to remove fins and irregularities and leave a reasonably smooth surface.
- C. Formed concrete surfaces exposed to view in the finished work shall be finished by removing the forms as early as is practical, immediately removing the form ties to a depth of at least three-quarters of an inch (3/4") beneath the surface, pointing up the holes, filling all cavities and depressions with a cement mortar similar to that in the concrete, and finishing flush with a wood float or trowel.
- D. Cement mortar shall not be applied except to fill holes or cavities.
- E. Fins, form marks, projections, and uneven spots shall be removed by rubbing or grinding the surfaces. The entire surface of the concrete shall then be thoroughly drenched with water and rubbed with a carborundum brick or other approved abrasive until all fins, joint marks, and mortar spots have been eliminated and a smooth finish of uniform texture and appearance has been produced.
- F. Similar finishes on exterior exposed walls shall be carried one foot (1') below finished grade. All exposed concrete surfaces shall be required to present a smooth and uniform surface.
- G. Concrete for slabs shall be placed, consolidated, struck off, and leveled to established grade. After the surface has stiffened sufficiently to permit the operation and the water sheen has disappeared, the Contractor shall float the surface at least twice to a uniform sandy texture. Where required, the surface shall then be troweled, at least twice, to a smooth, hard, dense finish. The floating operation shall not begin until all excess water has been removed or evaporated.
- H. All interior floors and platforms exposed to view shall receive a steel trowel finish.
- I. All exterior slabs, sidewalks, etc. shall receive a broomed finish after the surface has received a float finish. The texture shall be as directed by the Engineer.

3.07 CURING AND PROTECTION

- A. Freshly deposited concrete shall be protected from premature drying and excessively hot or cold temperatures and maintained at a relatively constant temperature without drying for a period of seven (7) days, or for a longer time if necessary for the hydration of the cement and proper strength gain.
- B. Initial curings shall immediately follow the finish operation. The concrete shall be kept continuously moist for at least twenty-four (24) hours.

- C. Immediately following the initial curing and before the concrete has dried, additional curing shall be accomplished by one (1) of the following materials or methods:
 - 1. Continuing the method used in the initial curing.
 - 2. Building paper or polyethylene sheeting as specified.
 - 3. Liquid membrane-curing compound, except on surfaces to receive coatings or additional lifts of concrete. Curing compounds conforming to "Specifications for Liquid Membrane-Forming Compounds for Curing Concrete" (ASTM C-309). Such compounds shall be applied in accordance with the recommendations of the manufacturer and shall not be used on any surfaces against which additional concrete or other cementitious finishing materials are to be bonded, or on surfaces on which such curing is prohibited by these Specifications.
- D. Final curing shall continue until the temperature of the air in contact with the concrete is above 50°F for seven (7) cumulative days.
- E. If high early strength concrete has been used, these temperatures need only to be maintained for three (3) days.
- F. Rapid drying at the end of the curing period shall be prevented.
- G. During the curing period, the concrete shall be protected from damaging mechanical disturbances, particularly load stresses, heavy shock, and excessive vibration. All finished concrete surfaces shall be protected from damage caused by construction equipment, materials or methods, and by rain or running water. Self-supporting structures shall not be loaded in such a way to overstress the concrete.

3.08 FORMWORK

- A. All formwork shall be as required in ACI 347, "Recommended Practice for Concrete Formwork" except as modified below:
 - 1. Forms shall conform to the shape, lines, grades, and dimensions of the concrete as called for in the Drawings. All lumber used for forms shall be thoroughly cleaned and treated with an approved form oil. Lumber forms used for exposed surfaces shall be dressed to a uniform thickness and be free from loose knots or other defects. For unexposed surfaces and rough work, undressed lumber free of nails and cleaned of hardened concrete or other foreign material may be used. Lumber once used in forms shall have any nails withdrawn and all surfaces to be in contact with the concrete shall be thoroughly cleaned before being used again. Forms for all exposed concrete shall be carefully built to produce the contour and design indicated. Care shall be taken to ensure that all form joints are vertical or horizontal. No sloping joints will be accepted.
- B. Form sheathing for exposed surfaces shall be composed of tongue and groove lumber, shiplap, plywood, concrete form board, or steel.
- C. Steel lining of wood lagging will not be permitted. When used, tongue and groove shiplap shall conform to the American Lumber Standards for No. 2 boards.
- D. Plywood used for sheathing or lining shall be Grade B-B, exterior or better, as described in the Commercial Standards of the Douglas Fir Plywood Association.
- E. The forms used shall produce a concrete surface with "abrupt" irregularities less than one-quarter inch (1/4") and gradual irregularities less than one-half inch (1/2") in five feet (5').
- F. Where circular or curved surfaces with radii greater than ten feet (10'0") will be exposed to view, the forms may be constructed of panels with a maximum width of twelve inches (12").

- G. For small radius curves of ten feet (10'0") or less, the forms shall be circular, conforming to the true shape of the structure.
- H. Forms shall be sufficiently tight to prevent the leakage of mortar. They shall be properly braced or tied together to maintain the desired position and shape during and after the placement of concrete, and so that they will not tremble or distort in a high wind.
- I. Embedded metal rods of a design approved by the Engineer shall be used for internal form-ties. They shall be so designed and arranged that when the forms are removed, no metal shall be within three-quarters of an inch (3/4") of any concrete surface. The ties used shall be manufactured in such a way that their installation will not necessitate a hole in the form larger than the tie-rod. Ordinary wire ties and ties that require removal from the concrete will not be permitted. Wall ties shall be submitted to the Engineer for approval prior to use on the job.
- J. Form surfaces shall be prepared as follows:
 - 1. Forms shall be sufficiently tight to prevent the leakage of grout or cement paste. Board forms whose joints have opened by the shrinkage of wood shall be swelled by wetting until closed before the concrete is placed.
 - 2. Plywood and other wood surfaces not subject to shrinkage shall be sealed against the absorption of moisture from concrete by either:
 - a. A field applied commercial form oil or sealer.
 - b. A factory applied nonabsorptive line. Excess oil sealers shall be removed prior to the placement of concrete.
 - 3. When steel forms are coated to prevent bonding with the concrete, it shall be done prior to placing reinforcing steel. Excess material shall not be allowed to stand in puddles in the forms, nor shall it be allowed to come in contact with the concrete or reinforcing against which fresh concrete will be placed.
 - 4. Where cast finishes are required, materials which will impart a stain to the concrete shall not be applied to the form surfaces. Where the finished surface is required to be painted, the material applied to the form surfaces shall be compatible with the type of paint to be used. All form surfaces shall be cleaned before reuse.
- K. No form or form support shall be removed from the formed surface for at least twenty-four (24) hours. Exposed surfaces shall receive moisture curing as soon as the fresh concrete will accept it without damage. The forms shall be removed in such a manner as to insure the complete safety of the structure. The responsibility for the removal of the forms shall be with the Contractor. However, the following minimum requirements shall be adhered to:
 - 1. In cold or inclement weather, the requirements for the removal of the forms shall be as stated in the article under "Placing Concrete in Cold Weather."
 - 2. Forms for supporting reinforced concrete roofs or floors shall not be removed, nor shall form supports be slackened for a period of 28-days, unless the Contractor can produce satisfactory evidence that the concrete has attained the specified 28-day strength characteristics.
 - 3. Portions of the structure subjected to construction loads or backfill shall have attained sufficient strength to withstand these loads, and the Contractor shall be required to produce evidence that such strength has been attained.
 - 4. No construction loads exceeding the structural design loads shall be supported upon any unshored portion of the structure under construction.
- L. Evidence that the concrete has attained sufficient strength for the above conditions shall consist of reports of compression tests made on job-cured cylinders.
- M. In case the Contractor shall remove any form or slacken any support before the above conditions have been met, the concrete elements may be condemned even though there is not an apparent defect.

3.09 REINFORCEMENT

- A. Reinforcing bars shall conform to the requirements of ASTM A-615 "Standard Specifications for Deformed and Plain Billet-Steel Bars for Concrete Reinforcement." All reinforcing bars shall be Grade 60 unless otherwise noted on the Drawings.
- B. Welded wire fabric for concrete reinforcement shall be electrically welded wire fabric of cold-drawn wire conforming to ASTM A-185, "Specification for Welded Steel Wire Fabric for Concrete Reinforcement."
- C. Reinforcement shall be accurately formed to the dimensions indicated on the Drawings. Stirrups and tie bars shall be bent around a pin having a diameter not less than two (2) times the minimum thickness of the bar except for hooks. Bends for other bars shall be made around a pin having a diameter not less than six (6) times the minimum thickness, except for bars larger than one inch (1"), in which case the bend shall be made around a pin of eight (8) bar diameter. All bars shall be bent cold.
- D. Bars used for concrete reinforcement shall meet the following requirements for fabricating tolerances:
 - 1. Sheared length: ± 1 inch
 - 2. Depth of truss bars: $+0, -1/2$ inch
 - 3. Stirrups, ties, and spirals: ± 2 inch
 - 4. All other bends: ± 2 inch
- E. Metal reinforcement shall not be straightened or re-bent in a manner that will injure the material. Bars with kinks or bends not shown on the Drawings shall not be used. Heating the reinforcement will not be permitted.
- F. Metal reinforcement shall be accurately positioned in accordance with the information on the Drawings and it shall be secured against displacement by using annealed iron wire ties or suitable clips at intersections, and it shall be supported by concrete or metal supports, spacers, or metal hangers.
- G. Bars shall be placed to the following tolerances:
 - 1. Concrete cover to formed surfaces: $\pm 1/4$ inch
 - 2. Minimum spacing between bars: $\pm 1/4$ inch
 - 3. Top bars in slabs and beams:
 - a. Members 3 inches deep or less: $\pm 1/4$ inch
 - b. Members more than 8 inches but not over 2 feet deep: ± 2 inch
 - 4. Crosswise of members: Spaced evenly with 2 inches
 - 5. Lengthwise of members: ± 2 inches
 - 6. 3-inch members more than 2 feet deep: ± 1 inch
- H. Bars may be moved as necessary to avoid interference with other reinforcing steel, conduits, or embedded items. If the bars are moved more than one (1) bar diameter, or enough to exceed the above tolerances, the resulting arrangement of bars shall be subject to the approval of the Engineer.

- I. If it is necessary to splice the reinforcement at points other than those shown on the Drawings, the character of the splice shall be determined by the Engineer. The overlap in splices shall be 40 bar diameter.
- J. Welded wire fabric shall be lapped at least one and one-half ($1 \frac{1}{2}$) meshes plus the end extension of the wires, but not less than twelve inches (12") in structural slabs. It shall be lapped at least one half ($1/2$) mesh plus the end extension of the wires, but not less than six inches (6") in slabs on the ground. All laps of wire mesh shall be securely tied together with No. 14 tie wire, one (1) tie for each two running feet (2'). Wires shall be staggered and tied in such a manner that they cannot slip. The mesh shall be extended across supporting beams and walls. Adequate support for the mesh shall be used during the placement of concrete so that the mesh is completely surrounded by concrete and not less than two inches (2") above the bottom of the slabs on the ground, or one-half inch ($1/2$ ") above the formwork.
- K. Before being positioned, the metal reinforcement shall be free from loose mill and rust scale, and from coatings, including ice and form oil, that destroy or reduce the bond. Where there is a delay in depositing the concrete, the reinforcement shall be reinspected and cleaned where necessary.
- L. Unless permitted, the reinforcement shall not be bent after being partially embedded in hardened concrete.

3.10 JOINTS AND EMBEDDED ITEMS

A. Construction Joints

- 1. Joints shall be so made and located as to least impair the strength of the structure and shall be approved. In general, they shall be located as shown on the Drawings; however, if not shown, in no case shall construction joints be placed at intervals greater than twenty-five feet (25'). Joints shall be perpendicular to the main reinforcement.
- 2. All reinforcing steel and mesh shall be continued across construction joints not intended for expansion or contraction of the structure. Additional reinforcing shall be provided as directed by the Engineer.
- 3. The surface of the concrete at all joints shall be thoroughly cleaned and all laitance shall be removed.
- 4. For structural members, when required or permitted, bond shall be obtained by one of the following methods:
 - a. Use of the bonding compound "Euco Weld" by Euclid Chemical Company or "Weldcrete" by Larson Products.
 - b. Use of the surface retarder "Surface Retarder-F" by Sika Chemical Corporation, which delays but does not prevent the setting of surface mortar. Retarded mortar shall be moved within twenty-four (24) hours after placement to produce a rough exposed aggregate bonding surface.
 - c. By roughening the surface of the concrete in an approved manner which will expose the aggregate uniformly and will not leave laitance, loosened particles of aggregate, or damaged concrete at the surface.

B. Expansion Joints

- 1. Expansion joint locations shall be as shown on the Drawings; however, if not shown, in no case shall expansion joints be placed at intervals greater than seventy-five feet (75').
- 2. Reinforcement or other embedded metal items bonded to concrete shall not be permitted to extend continuously through expansion joints.
- 3. Pre-molded expansion joint filler shall be of the size shown on the project drawings, and shall conform to "Standard Specification for Preformed Sponge Rubber and Cork Expansion Joint Fillers for Concrete Paving and Structural Construction," (ASTM D-1752).

C. Other Embedded Items

1. All sleeves, inserts, anchors, and embedded items with the exception of the railing posts required for adjoining work, or for its support, shall be placed prior to concreting.

D. Placing Embedded Items

1. Expansion joint material and embedded items shall be positioned accurately and supported against displacement. Voids in sleeves, inserts, and anchor slots shall be filled temporarily with readily removable material to prevent the entry of concrete into the voids.

3.11 CONCRETE SEALANT

- A. This work shall consist of furnishing and application of concrete acrylic polymer upon all new concrete.

- B. Sealant shall be Cure & Seal 25 UV EX by SPECICHEM, LLC or approved equal.

C. APPLICATION AND STANDARDDDS

1. Refer to Technical Data for more information.
2. Refer to Material and Safety Datasheet for more information.

END OF SECTION 03 3001

SECTION 03 41 00 – PRECAST STRUCTURAL CONCRETE

PART 1 GENERAL

1.01 SUMMARY

- A. Section includes precast concrete units that are cast in other than their permanent location, by a manufacturer listed in PennDOT Bulletin 15.
- B. Shop drawings for all precast units shall be submitted to Owner or their designee for review.
- C. Work shall be conducted in accordance with the Drawings, General Conditions, and the requirements of this Section.

PART 2 PRODUCTS - PRECAST CONCRETE UNITS - EXTERIOR

- A. Approved manufacturing plants may fabricate any of the following items:
 - 1. Concrete barrier
 - 2. Reinforced concrete manhole sections w/ protective Bitumastic Coating
 - 3. Inlet Boxes
 - 4. Concrete Top Units for Inlet Boxes
 - 5. Junction boxes
 - 6. Median barrier
 - 7. Endwalls
 - 8. Sound barrier posts and panels
- B. Any precast concrete units not listed but are required for construction shall be approved by Owner or their designee.
- C. Material:
 - 1. Cement Concrete – PennDOT Pub. 408, Section 704, except Sections 704.1(d)3., 704.1(d)4., and 704.2(d). Requirements for remediation of a potential alkali-silica reaction do not apply for cement concrete used in the fabrication of precast concrete barrier that is to be used in temporary installations only, as specified in Section 627, and indicated as such, as specified in Section 714.6(d).
 - 2. Coarse Aggregate, Type A, No. 8, No. 57, or No. 67 - PennDOT Pub. 408, Section 703.2
 - 3. Fine Aggregate, Type A - PennDOT Pub. 408, Section 703.1
 - 4. Concrete Curing Material - PennDOT Pub. 408, Sections 711.1 and 711.2(a), Type 1-D, translucent with red fugitive dye.
 - 5. Reinforcement Steel - PennDOT Pub. 408, Section 709. Epoxy coated or galvanized reinforcement bars or epoxy coated or galvanized welded wire fabric are not required for the fabrication of precast concrete barrier that is to be used in temporary installations only, as specified in Section 627, and indicated as such, as specified in Section 714.6(d).
 - 6. Steel Anchor Bolts - PennDOT Pub. 408, Section 1105.2(c)
 - 7. Metal Units—Sections 605.2(a) and (b)
 - 8. Manhole Steps—Section 605.2(c)
 - 9. Protective Coating (Boiled Linseed Oil)—Section 503.2

END OF SECTION

SECTION 32 1313

CONCRETE PAVING

PART 1 - GENERAL

1.1 SUMMARY

- A. Section Includes:
 - 1. Driveways, shall be PennDOT Class AA
 - 2. Roadways.
 - 3. Parking lots, shall be PennDOT Class AA
 - 4. Curbs and gutters; shall be PennDOT Class AA
 - 5. Walkways and Ramps, Footers, Ramp Walls; shall be PennDOT Class AA
- B. **Refer to Pennsylvania Department of Transportation Publication 408 for additional specifications no specifically listed within these specifications.**

1.2 ACTION SUBMITTALS

- A. Product Data: For each type of product indicated.
- B. Samples: For each exposed product and for each color and texture specified.
- C. Other Action Submittals:
 - 1. Design Mixtures: For each concrete paving mixture. Include alternate design mixtures when characteristics of materials, Project conditions, weather, test results, or other circumstances warrant adjustments.

1.3 QUALITY ASSURANCE

- A. Ready-Mix-Concrete Manufacturer Qualifications: A firm experienced in manufacturing ready-mixed concrete products and that complies with PennDOT 408 latest addition.
- B. ACI Publications: Comply with **ACI 301** unless otherwise indicated.

PART 2 - PRODUCTS

2.1 STEEL REINFORCEMENT

- A. Recycled Content: Postconsumer recycled content plus one-half of preconsumer recycled content not less than 25 percent.

- B. Plain-Steel Welded Wire Reinforcement: ASTM A 185/A 185M, fabricated from as-drawn steel wire into flat sheets.
- C. Deformed-Steel Welded Wire Reinforcement: ASTM A 497/A 497M, flat sheet.
- D. Reinforcing Bars: ASTM A 615/A 615M, **Grade 60**; deformed.
- E. Plain-Steel Wire: ASTM A 82/A 82M, as drawn.
- F. Deformed-Steel Wire: ASTM A 496/A 496M.
- G. Dowel Bars: ASTM A 615/A 615M, **Grade 60** plain-steel bars; zinc coated (galvanized) after fabrication according to ASTM A 767/A 767M, Class I coating. Cut bars true to length with ends square and free of burrs.
- H. Bar Supports: Bolsters, chairs, spacers, and other devices for spacing, supporting, and fastening reinforcing bars, welded wire reinforcement, and dowels in place. Manufacture bar supports according to CRSI's "Manual of Standard Practice" from steel wire, plastic, or precast concrete of greater compressive strength than concrete specified.

2.2 CONCRETE MATERIALS

- A. Cementitious Material: Use the following cementitious materials, of same type, brand, and source throughout Project:
 - 1. Portland Cement: ASTM C 150, portland cement Type I/II.
- B. Normal-Weight Aggregates: ASTM C 33, Class 4S, uniformly graded. Provide aggregates from a single source.
- C. Water: Potable and complying with ASTM C 94/C 94M.
- D. Air-Entraining Admixture: ASTM C 260.
- E. Chemical Admixtures: Admixtures certified by manufacturer to be compatible with other admixtures and to contain not more than 0.1 percent water-soluble chloride ions by mass of cementitious material.

2.3 CURING MATERIALS

- A. Absorptive Cover: AASHTO M 182, Class 3, burlap cloth made from jute or kenaf, weighing approximately **9 oz./sq. yd.**.
- B. Moisture-Retaining Cover: ASTM C 171, polyethylene film or white burlap-polyethylene sheet.
- C. Water: Potable.

- D. Evaporation Retarder: Waterborne, monomolecular, film forming, manufactured for application to fresh concrete.
- E. Clear, Waterborne, Membrane-Forming Curing Compound: ASTM C 309, Type 1, Class B, dissipating.
- F. White, Waterborne, Membrane-Forming Curing Compound: ASTM C 309, Type 2, Class B, dissipating.

2.4 RELATED MATERIALS

- A. Joint Fillers: ASTM D 1751, asphalt-saturated cellulosic fiber in preformed strips.
- B. Joint Sealants: Joint sealant shall be a silicone material intended for use as a PCC pavement sealant and shall conform to ASTM D 5893, Standard Specifications for Cold Applied, Single Component, Chemically Curing Silicone Joint Sealant for Portland Cement Concrete Pavements.

2.5 CONCRETE MIXTURES

- A. Prepare design mixtures, proportioned according to **ACI 301 (ACI 301M)**, with the following properties:
 - 1. Compressive Strength (28 Days): **3,500 psi**.
 - 2. Maximum Water-Cementitious Materials Ratio at Point of Placement: 0.48.
 - 3. Slump Limit: 2 inches slip form, **3 inches other**.
 - 4. Air Content: 5 percent minimum, 7.5 percent maximum.
- B. Chemical Admixtures: Use admixtures according to manufacturer's written instructions.

2.6 CONCRETE MIXING

- A. Ready-Mixed Concrete: Measure, batch, and mix concrete materials and concrete according to ASTM C 94/C. Furnish batch certificates for each batch discharged and used in the Work.

PART 3 - EXECUTION

3.1 EXAMINATION AND PREPARATION

- A. Proof-roll prepared subbase surface below concrete paving to identify soft pockets and areas of excess yielding.
- B. Remove loose material from compacted subbase surface immediately before placing concrete.

3.2 EDGE FORMS AND SCREED CONSTRUCTION

- A. Set, brace, and secure edge forms, bulkheads, and intermediate screed guides to required lines, grades, and elevations. Install forms to allow continuous progress of work and so forms can remain in place at least 24 hours after concrete placement.
- B. Clean forms after each use and coat with form-release agent to ensure separation from concrete without damage.

3.3 STEEL REINFORCEMENT

- A. General: Comply with CRSI's "Manual of Standard Practice" for fabricating, placing, and supporting reinforcement.

3.4 JOINTS

- A. General: Form construction, isolation, and contraction joints and tool edges true to line, with faces perpendicular to surface plane of concrete. Construct transverse joints at right angles to centerline unless otherwise indicated. Maximum joint spacing shall be 15 feet in any direction.
- B. Construction Joints: Set construction joints at side and end terminations of paving and at locations where paving operations are stopped for more than one-half hour unless paving terminates at isolation joints.
- C. Isolation Joints: Form isolation joints of preformed joint-filler strips abutting concrete curbs, catch basins, manholes, inlets, structures, other fixed objects, and where indicated.
- D. Contraction Joints: Form weakened-plane contraction joints, sectioning concrete into areas as indicated. Construct contraction joints for a depth equal to at least one-fourth of the concrete thickness.
- E. Edging: After initial floating, tool edges of paving, gutters, curbs, and joints in concrete with an edging tool to a 3/8-inch radius. Repeat tooling of edges after applying surface finishes. Eliminate edging-tool marks on concrete surfaces.

3.5 CONCRETE PLACEMENT

- A. Moisten subbase to provide a uniform dampened condition at time concrete is placed.
- B. Comply with ACI 301 requirements for measuring, mixing, transporting, placing, and consolidating concrete.
- C. Deposit and spread concrete in a continuous operation between transverse joints. Do not push or drag concrete into place or use vibrators to move concrete into place.
- D. Screed paving surface with a straightedge and strike off.

- E. Commence initial floating using bull floats or darbies to impart an open-textured and uniform surface plane before excess moisture or bleed water appears on the surface. Do not further disturb concrete surfaces before beginning finishing operations or spreading surface treatments.
- F. During cold weather periods, do not commence PCC placement until the ambient air temperature is thirty-five (35) degrees Fahrenheit and rising. Cease placement when the ambient air temperature falls below forty (40) degrees Fahrenheit. Do not place PCC below the minimum allowable temperature without prior authorization by the Engineer. Maintain the temperature of the PCC at or above fifty (50) degrees Fahrenheit for a minimum of 3 days. Provide external heat sources and insulating blankets or other insulating materials as necessary. Do not place PCC on frozen materials.
- G. Assure pavement thickness by stringline of base or probe measurement while plastic.

3.6 FLOAT FINISHING

- A. General: Do not add water to concrete surfaces during finishing operations.
- B. Float Finish: Begin the second floating operation when bleed-water sheen has disappeared and concrete surface has stiffened sufficiently to permit operations. Float surface with power-driven floats or by hand floating if area is small or inaccessible to power units. Finish surfaces to true planes. Cut down high spots and fill low spots. Refloat surface immediately to uniform granular texture. Finish method in accordance with direction from Architect.
 - 1. Burlap Finish: Drag a seamless strip of damp burlap across float-finished concrete, perpendicular to line of traffic, to provide a uniform, gritty texture.
 - 2. Medium-to-Coarse-Textured Broom Finish: Provide a coarse finish by striating float-finished concrete surface **1/16 to 1/8 inch** deep with a stiff-bristled broom, perpendicular to line of traffic.

3.7 CONCRETE PROTECTION AND CURING

- A. General: Protect freshly placed concrete from premature drying and excessive cold or hot temperatures.
- B. Comply with ACI 306.1 for cold-weather protection.
- C. Evaporation Retarder: Apply evaporation retarder to concrete surfaces if hot, dry, or windy conditions cause moisture loss approaching **0.2 lb/sq. ft. x h** before and during finishing operations. Apply according to manufacturer's written instructions after placing, screeding, and bull floating or darbying concrete but before float finishing.
- D. Begin curing after finishing concrete but not before free water has disappeared from concrete surface.
- E. Curing Methods: Cure concrete by curing compound.

1. Within one (1) hour of PCC placement, protect the exposed, finished PCC surface from high or low temperature extremes, low humidity, and drying winds. Use protection measures that inhibit moisture loss and maintain the PCC temperature at or above fifty degrees (50) Fahrenheit for a minimum of three (3) days unless otherwise directed by Contract Documents or the Engineer. Apply liquid membrane-forming curing compounds at the concentration and application rate recommended by the manufacturer.

3.8 PAVING TOLERANCES

- A. Comply with tolerances in ACI 117 and as follows:
 1. Elevation: **1/4 inch**.
 2. Thickness: Plus **3/8 inch**, minus **1/4 inch**.
 3. Surface: Gap below **10-foot-** long, unleveled straightedge not to exceed **1/4 inch**.
 4. Joint Spacing: **3 inches**.
 5. Contraction Joint Depth: Plus **1/4 inch**, no minus.
 6. Joint Width: Plus **1/8 inch**, no minus.

3.9 PAVEMENT MARKING

- A. Allow concrete paving to cure for a minimum of 28 days and be dry before starting pavement marking.
- B. Sweep and clean surface to eliminate loose material and dust.
- C. Apply paint with mechanical equipment to produce markings of dimensions indicated with uniform, straight edges. Apply at manufacturer's recommended rates to provide a minimum wet film thickness of **15 mils**.

3.10 REPAIRS AND PROTECTION

- A. Remove and replace concrete paving that is broken, damaged, or defective or that does not comply with requirements in this Section. Remove work in complete sections from joint to joint unless otherwise approved by Architect.
- B. Protect concrete paving from damage. Exclude traffic from paving for at least 14 days after placement. When construction traffic is permitted, maintain paving as clean as possible by removing surface stains and spillage of materials as they occur.
- C. Maintain concrete paving free of stains, discoloration, dirt, and other foreign material. Sweep paving not more than two days before date scheduled for Substantial Completion inspections.

3.11 TESTING and ACCEPTANCE

- A. QC. PLAN: Prepare a QC Plan as specified in Section 106.03 of PennDOT 408 latest addition and submit for review before the start of project. Include a QC Plan testing frequencies and action points to initiate corrective measures.
- B. CONCRETE TECHNICIAN: Provide, and assign to the work, a concrete technician properly instructed and trained to develop the concrete design, to control the quality and gradation of aggregates used, to perform required concrete tests, and to control the operations and concrete deliveries so that the completed mixture conforms to the specifications at the point of placement.

END OF SECTION 321313