

PROJECT MANUAL
FOR
CONTRACT NO. 21-07025
MARIE LOWE DRIVE COMMUNITY CENTER – PUBLIC IMPROVEMENTS

FILE NO. 2021-07025

PREPARED FOR:

BRISTOL TOWNSHIP
2501 BATH ROAD
BRISTOL, PA 19007

JUNE 2023

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PROJECT TITLE PAGE
00 01 01-1

**MARIE LOWE DRIVE COMMUNITY CENTER – PUBLIC IMPROVEMENTS
CONTRACT #21-07025**

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ADVERTISEMENT FOR BIDS

Bristol Township, offices located at **2501 Bath Road, Bristol, PA 19007**, will receive sealed bids online until **11:00 A.M.**, prevailing time on **July 13, 2023** at which time and place the bids shall be publicly opened and read aloud for:

Contract #21-07025 – MARIE LOWE DRIVE COMMUNITY CENTER – PUBLIC IMPROVEMENTS

Work under the three (3) contracts comprises the construction of public improvements at the Marie Lowe Drive Community Center. The Work to be done involves furnishing all materials, machinery, equipment, tools, supplies, transportation, labor, and supervision required to construct improvements to the Bristol Township Marie Lowe Drive Community Center as shown on the Contract Drawings and specified herein.

The General Contract Work consists of but is not limited to: mobilization, traffic control, installation and maintenance of Erosion and Sedimentation Controls, demolition, clearing & grubbing, grading, stormwater facilities, pavement installation, installation of asphalt parking lot, installation of site amenities, curbing, concrete pads, fencing, landscaping, selective demolition, metal wall façade installation, vinyl flooring installation, painting of interior walls and door frames, installation of new gutters/roof drains, and suspended acoustic ceiling system installation. Contractor is responsible for installing the concrete pavilion footers (sealed engineered drawings to be provided by the manufacturer), along with installing the pavilion shade system in accordance with the manufacturer's specifications. Contractor is responsible for coordination with all other contractors to ensure proper installation of the items of this contract. Alternate #1 Work under the Site Contract involves the repainting of the existing metal siding of the community center as well as the installation of exterior metal trim along all four (4) corners of the Community Center. Alternate #2 Work under the Site Contract involves laying grass sodding instead of final seeding for the site.

The Electrical Contract work consists of but is not limited to: mobilization, conduit, wiring and lighting, and installation of new utility pole as shown on the Site Plans and Architectural Plans. Contractor is responsible for installing a new utility pole, as well as the transfer of any electrical lines to the new pole. Contractor is also responsible for exterior and interior electrical wiring and installation of interior electrical equipment within the Community Center building that is to be renovated in accordance with the Site Plans and Electrical Plans. Contractor is responsible for coordinating with all other contractors to ensure proper installation of the items of this contract.

The Plumbing Contract work consists of but is not limited to: mobilization and installation of indoor plumbing facilities as shown on the Plumbing Plans. Contractor is responsible for installing the plumbing equipment in accordance with the Plumbing Plans. Contractor is responsible for coordinating with all other contractors to ensure proper installation of the items of this contract.

All Bidding Documents and Solicitation details may be obtained at PennBid™ <https://pennbid.procureware.com/home>. Click on the "Solicitations" then "View" tabs. All documents, specifications, and drawings can be obtained and secure bids submitted online at no cost. A nominal fee of 0.33% of the bid amount (up to \$5,000) is assessed only to bidders who are awarded contracts. For bidders who are not the winning bid; there are absolutely no fees.

Each bid shall be submitted in accordance with the Instructions to Bidders and must be accompanied by a Bid Bond or Certified Check for not less than ten percent (10%) of the Bid amount payable to **Bristol Township** along with an Agreement of Surety certifying that the required Performance and Payment Bonds will be provided to the Bidder.

The successful Bidder shall be required to furnish proof of insurance and bonds for Performance, Payment, and Maintenance in such form as meets the approval of **Bristol Township** and having as security thereon such Surety company or companies as are approved by **Bristol Township**.

This project is subject to applicable requirements of the Township's Responsible Contractor Ordinance for work

valued at over Ten Thousand Dollars (\$10,000).

No Bidder may withdraw his bid within sixty (60) days after the date set for the opening of the bids.

Bristol Township reserves the right to reject any and all bids, or parts thereof, and to accept the bid, which it deems, in its sole judgment, to be in the best interest of the Township.

Randee J. Elton
Township Manager

END OF DOCUMENT

DOCUMENT 00 21 13

INSTRUCTIONS TO BIDDERS

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ARTICLE 1. DEFINED TERMS

- 1.01 Terms used in these Instructions to Bidders have the meanings indicated in the General Conditions and Supplementary Conditions. Additional terms used in these Instructions to Bidders have the meanings below:
- A. *Bidder*: The individual or entity who submits a Bid directly to Owner.
 - B. *Issuing Office*: The office from which the Bidding Documents are to be issued and where the bidding procedures are to be administered.
 - C. *Successful Bidder*: The lowest responsible Bidder submitting a responsive Bid to whom Owner (on the basis of Owner's evaluation as hereinafter provided) makes an award.

ARTICLE 2. COPIES OF BIDDING DOCUMENTS

- 2.01 Complete sets of the Bidding Documents are available online at no cost at PennBid (<https://pennbid.procurement.com/home>).
- 2.02 Complete sets of Bidding Documents must be used in preparing Bids; neither Owner nor Engineer assumes any responsibility for errors or misinterpretations resulting from the use of incomplete sets of Bidding Documents.
- 2.03 Owner and Engineer in making copies of Bidding Documents available on the above terms do so only for the purpose of obtaining Bids for the Work and do not confer a license or grant for any other use.

ARTICLE 3. QUALIFICATIONS OF BIDDERS

- 3.01 To demonstrate Bidder's qualifications to perform the Work, Bidder must submit with his Bid a completed Bidder Qualification Statement. In lieu of the Bidder Qualification Statement, Bidder may submit with his Bid, a completed Construction Contractor's Qualification Statement for Engineered Construction developed by The Associated General Contractors of America (AGC Document No. 220).
- 3.02 If additional information is necessary to demonstrate qualifications to perform the Work, within five (5) days of Owner's request, Bidder shall submit written evidence such as financial data, previous experience, present commitments and such other data as may be reasonably requested.
- 3.03 Bidder is advised to carefully review those portions of the Bid Form requiring Bidder's representations and certifications.

ARTICLE 4. EXAMINATION OF BIDDING DOCUMENTS, OTHER RELATED DATA, AND SITE

- 4.01 Subsurface and Physical Conditions
- A. The Supplementary Conditions identify:
 - 1. Those reports known to Owner of explorations and tests of subsurface conditions at or contiguous to the Site.
 - 2. Those drawings known to Owner of physical conditions relating to existing surface and subsurface structures at or contiguous to the Site (except Underground Facilities).
 - B. Copies of reports and drawings referenced in paragraph 4.01.A will be made available by Owner to any Bidder on request. Those reports and drawings are not part of the Contract Documents, but the "technical data" contained therein upon which Bidder is entitled to rely as provided in Paragraph 4.02 of the General Conditions has been identified and established in Paragraph 1.06 of the Supplementary Conditions. Bidder is responsible for any interpretation or conclusion Bidder draws from any "technical data" or any other data, interpretations, opinions or information contained in such reports or shown or indicated in such drawings.

4.02 Underground Facilities

- A. Information and data shown or indicated in the Bidding Documents with respect to existing Underground Facilities at or contiguous to the Site is based upon information and data furnished to Owner and Engineer by owners of such Underground Facilities, including Owner, or others.

4.03 Hazardous Environmental Condition

- A. The Supplementary Conditions identify any reports and drawings known to Owner relating to a Hazardous Environmental Condition identified at the Site.
- B. Copies of reports and drawings referenced in Paragraph 4.03.A will be made available by Owner to any Bidder on request. Those reports and drawings are not part of the Contract Documents, but the "technical data" contained therein upon which Bidder is entitled to rely as provided in Paragraph 4.06 of the General Conditions has been identified and established in Paragraph 1.08 of the Supplementary Conditions. Bidder is responsible for any interpretation or conclusion Bidder draws from any "technical data" or any other data, interpretations, opinions, or information contained in such reports or shown or indicated in such drawings.

4.04 Provisions concerning responsibilities for the adequacy of data furnished to prospective Bidders with respect to subsurface conditions, other physical conditions, and Underground Facilities, and possible changes in the Bidding Documents due to differing or unanticipated surface or physical conditions appear in Paragraphs 4.02, 4.03, and 4.04 of the General Conditions. Provisions concerning responsibilities for the adequacy of data furnished to prospective Bidders with respect to a Hazardous Environmental Condition at the Site, if any, and possible changes in the Contract Documents due to any Hazardous Environmental Condition uncovered or revealed at the Site which was not shown or indicated in the Drawings or Specifications or identified in the Contract Documents to be within the scope of the Work appear in Paragraph 4.06 of the General Conditions.

4.05 On request, Owner will provide Bidder access to the Site to conduct such examinations, investigations, explorations, tests, and studies as Bidder deems necessary for submission of a Bid. Bidder shall fill all holes and clean up and restore the Site to its former condition upon completion of such explorations, investigations, tests, and studies. Bidder shall comply with all applicable Laws and Regulations relative to excavation and utility locates.

- 4.06 A. Reference is made to Paragraph 1.17 of the Supplementary Conditions for the identification of the general nature of other work that is to be performed at the Site by Owner or others (such as utilities and other prime contractors) that relates to the Work contemplated by these Bidding Documents. On request, Owner will provide to each Bidder for examination access to or copies of contract documents (other than portions thereof related to price) for such other work.
- B. Paragraph 6.13.C of the General Conditions indicates that if an Owner safety program exists, it will be noted in the Supplementary Conditions.

4.07 It is the responsibility of each Bidder before submitting a Bid to:

- A. examine and carefully study the Bidding Documents, and the other related data identified in the Bidding Documents;
- B. visit the Site and become familiar with and satisfy Bidder as to the general, local, and Site conditions that may affect cost, progress, and performance of the Work;
- C. become familiar with and satisfy Bidder as to all federal, state, and local Laws and Regulations that may affect cost, progress, or performance of the Work;
- D. carefully study all: (1) reports of explorations and tests of subsurface conditions at or contiguous to the Site and all drawings of physical conditions relating to existing surface or subsurface structures at the Site (except Underground Facilities) that have been identified in Paragraph 4.02 of the Supplementary Conditions as containing reliable "technical data", and (2) reports and drawings of Hazardous Environmental Conditions, if any, at the Site that have been identified in Paragraph 4.06 of the Supplementary Conditions as containing reliable "technical data";
- E. consider the information known to Bidder; information commonly known to contractors doing business in the locality of the Site; information and observations obtained from visits to the Site; the Bidding Documents; and the Site-related reports and drawings identified in the Bidding Documents,

with respect to the effect of such information, observations, and documents on (1) the cost, progress, and performance of the Work; (2) the means, methods, techniques, sequences, and procedures of construction to be employed by Bidder, including applying any specific means, methods, techniques, sequences, and procedures of construction expressly required by the Bidding Documents; and (3) Bidder's safety precautions and programs;

- F. agree at the time of submitting its Bid that no further examinations, investigations, explorations, tests, studies, or data are necessary for the determination of its Bid for performance of the Work at the price(s) bid and within the times required, and in accordance with the other terms and conditions of the Bidding Documents.
- G. become aware of the general nature of the work to be performed by Owner and others at the Site that relates to the Work as indicated in the Bidding Documents;
- H. promptly give Engineer written notice of all conflicts, errors, ambiguities, or discrepancies that Bidder discovers in the Bidding Documents and confirm that the written resolution thereof by Engineer is acceptable to Bidder; and
- I. determine that the Bidding Documents are generally sufficient to indicate and convey understanding of all terms and conditions for the performance of the Work.
- J. attend and participate in any mandatory pre-bid conference.

4.08 The submission of a Bid will constitute an incontrovertible representation by Bidder that Bidder has complied with every requirement of this Article 4, that without exception the Bid is premised upon performing and furnishing the Work required by the Bidding Documents and applying any specific means, methods, techniques, sequences, and procedures of construction that may be shown or indicated or expressly required by the Bidding Documents, that Bidder has given Engineer written notice of all conflicts, errors, ambiguities, and discrepancies that Bidder has discovered in the Bidding Documents and the written resolutions thereof by Engineer are acceptable to Bidder, and that the Bidding Documents are generally sufficient to indicate and convey understanding of all terms and conditions for performing and furnishing the Work.

ARTICLE 5. PRE-BID CONFERENCE

5.01 A Pre-Bid Conference will be held on the date specified on Pennbid.

ARTICLE 6. SITE AND OTHER AREAS

6.01 The Site(s) is identified in the Bidding Documents. Easements for permanent structures or permanent changes in existing facilities are to be obtained and paid for by Owner unless otherwise provided in the Bidding Documents. All additional lands and access thereto required for temporary construction facilities, construction equipment, or storage of materials and equipment to be incorporated in the Work are to be obtained and paid for by Contractor.

ARTICLE 7. INTERPRETATIONS AND ADDENDA

- 7.01 All questions about the meaning or intent of the Bidding Documents are to be directed to Engineer by clicking on the Questions tab within PennBid. Interpretations or clarifications considered necessary by Engineer in response to such questions will be by Addenda and posted within the PennBid Documents. Notifications of Addenda will be emailed to all parties recorded by Engineer as having downloaded the Bidding Documents. Questions received after the posted cut-off date may not be answered. Only questions answered by Addenda will be binding. Oral and other interpretations or clarifications will be without legal effect.
- 7.02 Addenda may be issued to clarify, correct, or change the Bidding Documents as deemed advisable by Owner or Engineer.

ARTICLE 8. BID SECURITY

- 8.01 A Bid must be accompanied by Bid security made payable to Owner in an amount of ten percent (10%) of Bidder's maximum Bid price and in the form of a certified check, bank money order or a Bid Bond (on the form in Project Manual or equivalent) issued by a surety meeting the requirements of Paragraphs 5.01 and 5.02 of the General Conditions.
- 8.02 The Bid security of the Successful Bidder will be retained until such Bidder has executed the Agreement, furnished the required contract security and insurance certificate(s) and met the other conditions of the Notice of Award, whereupon the Bid security will be returned. If the Successful Bidder fails to execute and deliver the Agreement and furnish the required contract security and insurance certificate(s) within **10 days** after the Notice of Award, Owner may consider Bidder to be in default, annul the Notice of Award, and the Bid security of that Bidder will be forfeited. Such forfeiture shall be Owner's exclusive remedy if Bidder defaults. The Bid security of other Bidders whom Owner believes to have a reasonable chance of receiving the award may be retained by Owner until the earlier of seven days after the Effective Date of the Agreement, after all bids are rejected by Owner or after the date the bid acceptance period has expired, whichever occurs first, whereupon Bid security furnished by such Bidders will be returned.
- 8.03 Bid security of other Bidders whom Owner believes do not have a reasonable chance of receiving the award will be returned within seven days after the Bid opening.

ARTICLE 9. CONTRACT TIME

- 9.01 The number of days within which, or the dates by which, the Work is to be substantially completed and ready for final payment are set forth in the Agreement.

ARTICLE 10. LIQUIDATED DAMAGES

- 10.01 Provisions for liquidated damages, if any, are set forth in the Agreement.

ARTICLE 11. SUBSTITUTE AND "OR-EQUAL" ITEMS

- 11.01 The Contract, if awarded, will be on the basis of materials and equipment specified or described in the Bidding Documents without consideration of possible substitute or "or-equal" items. Whenever it is specified or described in the Bidding Documents that a substitute or "or-equal" item of material or equipment may be furnished or used by Contractor if acceptable to Engineer, application for such acceptance will not be considered by Engineer until after the Effective Date of the Agreement.

ARTICLE 12. SUBCONTRACTORS, SUPPLIERS, AND OTHERS

- 12.01 If the Supplementary Conditions require the identity of certain Subcontractors, Suppliers, individuals, or entities to be submitted to Owner in advance of a specified date prior to the Effective Date of the Agreement, the apparent Successful Bidder, and any other Bidder so requested, shall within five days after Bid opening, submit to Owner a list of all such Subcontractors, Suppliers, individuals, or entities proposed for those portions of the Work for which such identification is required. Such list shall be accompanied by an experience statement with pertinent information regarding similar projects and other evidence of qualification for each such Subcontractor, Supplier, individual, or entity if requested by Owner. If Owner or Engineer, after due investigation, has reasonable objection to any proposed Subcontractor, Supplier, individual, or entity, Owner may, before the Notice of Award is given, request apparent Successful Bidder to submit a substitute, in which case apparent successful Bidder shall submit an acceptable substitute, Bidder's Bid price will be increased (or decreased) by the difference in cost occasioned by such substitution and Owner may consider such price adjustment in evaluating Bids and making the Contract award.
- 12.02 If apparent Successful Bidder declines to make any such substitution, Owner may award the Contract to the next lowest Bidder that proposes to use acceptable Subcontractors, Suppliers, individuals, or entities. Declining to make requested substitutions will not constitute grounds for forfeiture of the Bid security of any Bidder. Any Subcontractor, Supplier, individual, or entity so listed and against which Owner or Engineer makes no written objection prior to the giving of the Notice of Award will be deemed acceptable to Owner.

and Engineer subject to revocation of such acceptance after the Effective Date of the Agreement as provided in Paragraph 6.06 of the General Conditions.

- 12.03 Contractor shall not be required to employ any Subcontractor, Supplier, individual, or entity against whom Contractor has reasonable objection.
- 12.04 **All Subcontractors are REQUIRED to meet the criteria and complete the Responsible Contractor Certification Form as required by the Responsible Contractor Ordinance in Appendix C of the Supplementary Conditions.**
- 12.05 **Unless authorized by special written consent of the Owner, the Contractor shall perform a value of not less than sixty (60%) percent of the Total Bid Amount for the Contract, with his own organization and with the assistance of work persons under his immediate supervision.**

ARTICLE 13. PREPARATION OF BID

- 13.01 A separate document entitled ***Document 00 21 13.1 - Instructions – Submitting Electronic Bids For This Solicitation*** contains a full description of what documents are to be submitted electronically along with instructions on how to submit sealed bids.
- 13.02 Bidder for this Contract has the option to offer an alternate manufacturer for Owner's consideration for any of the major equipment items on the list within paragraph 6.01 of the Bid Form along with the associated lump sum deduction in the bid price. The deduction shall take into consideration the installed cost and any related modifications and Engineering costs that may be required. Each deduction offer for a major equipment item shall be made separately from any other offer.

The deductive alternate(s) will not be considered in the award of the Contract. After a contract is awarded, Owner may, at his sole discretion, select items of any alternate manufacturer on the list and the lump sum bid price will be adjusted accordingly.

Engineer may require detailed information to be submitted for preliminary evaluation of an alternate manufacturer including technical and performance details and other information as deemed necessary and/or as described in the Project Manual.

If a major equipment item offered by an alternate manufacturer will require modification or deviation from the Drawings, Bidder must prepare and submit detailed drawings to Engineer showing all modifications in structures, piping, electrical and mechanical work required to adapt the Drawings to the major equipment item selected. Bidder also must compensate Engineer for reasonable review and coordination time associated with evaluation of an alternate major equipment item. Engineer will review the aforementioned detailed drawings of modifications and either grant an approval or indicate changes necessary to comply with the project requirements. Detailed drawings which are not approved must be revised and then resubmitted to ENGINEER for approval. If it is determined by ENGINEER that a major equipment item by an alternate manufacturer cannot be approved, then the major equipment item as listed in Section 6.01 as included in determining the lump sum bid price must be provided.

ARTICLE 14. BASIS OF BID; EVALUATION OF BIDS

- 14.01 Unit Price
 - A. Bidders shall submit a Bid on a unit price basis for each item of Work listed in the electronic Bid schedule including any incidental Bid items. Bidders must provide unit costs for each item including all Phases and Alternates.
 - B. The total of all estimated prices will be the sum of the products of the estimated quantity of each item and the corresponding unit price. The final quantities and Contract Price will be determined in accordance with Paragraph 11.03 of the General Conditions.
- 14.02 Bid prices shall include all taxes of whatever nature applicable to the Work or Bidder's performance thereof.

ARTICLE 15. SUBMITTAL OF BID

- 15.01 Bids are to be submitted electronically via the PennBid Program. The document entitled **Document 00 21 13.1 - Instructions – Submitting Electronic Bids For This Solicitation** is included as part of this solicitation and provides instructions on what information needs to be submitted along with how to submit.
- 15.02 A Bid shall be submitted via PennBid no later than the date and time prescribed in the advertisement or invitation to bid.
- 15.03 The Bidder is solely responsible for submitting his Bid by the time indicated in the advertisement or invitation to bid.

ARTICLE 16. MODIFICATION AND WITHDRAWAL OF BID

- 16.01 A Bid may be withdrawn any time prior to the bid closing date and time by clicking on the “Withdraw Bid” button within PennBid.
- 16.02 Bids may be withdrawn within two (2) business days after the opening of Bids only by the withdrawing Bidder's strict compliance with 73 P.S. §1602 and any subsequent amendments.

ARTICLE 17. OPENING OF BIDS

- 17.01 Bids will be opened at the time and place indicated in the advertisement or invitation to bid and, unless obviously non-responsive, read aloud publicly **to coincide with the simultaneous posting of bid results on PennBid™ website**. An abstract of the amounts of the base Bids and major alternates, if any, will be made available to Bidders after the opening of Bids.

ARTICLE 18. BIDS TO REMAIN SUBJECT TO ACCEPTANCE

- 18.01 All Bids will remain subject to acceptance for the period of time stated in the Bid Form, but Owner may, in its sole discretion, release any Bid and return the Bid security prior to the end of this period. Thirty (30) day extensions of the date for the award may be made by the mutual consent of Owner and the lowest responsible and responsive Bidder.

ARTICLE 19. EVALUATION OF BIDS AND AWARD OF CONTRACT

- 19.01 Owner reserves the right to reject any and all Bids, including, without limitation, nonconforming, non-responsive, unbalanced or conditional Bids. Owner further reserves the right to reject the Bid of any Bidder whom it finds, after reasonable inquiry and evaluation, to not be responsible. Owner may also reject the Bid of any bidder if Owner believes that it would not be in the best interest of the Project to make an award to the Bidder due to noncompliance with Bid Specifications and/or prior work history of the Bidder. The successful Bidder shall be required to enter into a written Contract in a form to be approved by the Owner.
- 19.02 More than one Bid for the same Work from an individual or entity under the same or different names will not be considered. Reasonable grounds for believing that any Bidder has an interest in more than one Bid for the Work may be cause for disqualification of that Bidder and the rejection of all Bids in which that Bidder has an interest.
- 19.03 In evaluating Bids, Owner will consider whether or not the Bids comply with the prescribed requirements, and such alternates, unit prices and other data, as may be requested in the Bid Form or prior to the Notice of Award.
- 19.04 In evaluating Bidders, Owner will consider the qualifications of Bidders and may consider the qualifications and experience of Subcontractors, Suppliers, and other individuals or entities proposed for those portions of the Work for which the identity of Subcontractors, Suppliers, and other individuals or entities must be submitted as provided in the Supplementary Conditions.
- 19.05 Owner may conduct such investigations as Owner deems necessary to establish the responsibility, qualifications, and financial ability of Bidders, proposed Subcontractors, Suppliers, individuals, or entities proposed for those portions of the Work in accordance with the Contract Documents. Any Bidders who have

defaulted on a public Contract within five years of the date of the issuance of this Bid document may be eliminated from consideration within the sole discretion of the Owner.

- 19.06 If the Contract is to be awarded, the Owner reserves the right to select any combination of the Base Bid and/or Alternate Bids to determine the lowest responsible Bidder for the selected combination whose Bid is in the best interests of the Project. If the Contract is to be awarded, only one award will be made.**

ARTICLE 20. CONTRACT SECURITY AND INSURANCE

- 20.01 Article 5 of the General Conditions, as may be modified by the Supplementary Conditions, sets forth Owner's requirements as to performance and payment bonds and insurance. When the Successful Bidder delivers the executed Agreement to Owner, it must be accompanied by such Bonds and required insurance certificate(s).

ARTICLE 21. SIGNING OF AGREEMENT

- 21.01 When Owner gives a Notice of Award to the Successful Bidder, it shall be accompanied by the required number of unsigned counterparts of the Agreement. Within **fifteen (15) days** thereafter, Successful Bidder shall sign and deliver the required number of counterparts of the Agreement to Owner with the required Bonds and insurance certificate(s). Owner shall deliver one fully signed counterpart to Successful Bidder within sixty (60) days of the date of the Notice of Award.
- 21.02 **In the event that the contract is not executed within the time set forth above, the sum of \$500.00 is to be paid to the Owner as liquidated damages for the delay and additional expense to the Owner caused thereby.**

ARTICLE 22. SALES AND USE TAXES

- 22.01 All applicable sales and use taxes shall be included in the Bid. Refer to Paragraph 1.15 of the Supplementary Conditions for additional information.

ARTICLE 23. RETAINAGE

- 23.01 Provisions concerning Contractor's rights to deposit securities in lieu of retainage are set forth in the Agreement.

ARTICLE 24. CONTRACTS TO BE ASSIGNED

- 24.01 There are no additional contracts associated with the proposed Work.

ARTICLE 25. BLASTING AND PREBLASTING SURVEY

- 25.01 Blasting requirements associated with construction of the Work are covered in Paragraph 1.25 of the Supplementary Conditions ~~and Section 31-23-16.~~

ARTICLE 26. PERMITS

- 26.01 Paragraph 1.26 of the Supplementary Conditions presents the respective obligations of Owner and Contractor, with regard to the obtaining of permits and/or approvals from governmental agencies relative to the proposed Work.

ARTICLE 27. ROCK REMOVAL

- 27.01 This section not used.

ARTICLE 28. GOVERNMENT REQUIREMENTS

- 28.01 Bids shall be submitted on the basis of full and total compliance with all Federal and State laws, regulations, statutes and requirements pertaining to the Work. Bidder shall refer to Paragraph 1.12 of the Supplementary Conditions.

ARTICLE 29. SEQUENCE OF CONSTRUCTION

- 29.01 Section 01 11 13 notes the sequence of construction and timing relative to construction of the Work.

ARTICLE 30. COORDINATION OF RELATED WORK AT THE SITE

- 30.01 Reference is made to Paragraph 1.18 of the Supplementary Conditions relative to identification of the prime contractor who will have authority and responsibility for coordination of activities involving other parties and/or prime contractors relative to construction of the Project.

ARTICLE 31. INFORMATION CONCERNING OWNER AND ENGINEER

31.01 Owner:

Township of Bristol
2501 Bath Road
Bristol, PA 19007
Telephone: (215) 758-5884
Attention: Randee J. Elton, Manager
Email: relton@bristoltownship.org

31.02 Engineer:

Gilmore & Associates, Inc.
508 Corporate Drive West
Langhorne, PA 19047-8011
Telephone: (215) 369-3955
Fax: (215) 345-8606
Attention: Kurt Schroeder, P.E.
Email: kschroeder@gilmore-assoc.com

END OF DOCUMENT

INSTRUCTIONS – SUBMITTING ELECTRONIC BIDS FOR THIS SOLICITATION

Using the PennBid™ electronic bid management system to respond to this Request-for-Quotation

Many PA municipalities, Authorities, and private firms are utilizing the PennBid™ electronic procurement Program for their solicitations, RFPs, and RFQs. Using PennBid is beneficial to both the agencies as well as the bidders. Costs and bidding effort is greatly reduced as bid documents are available online, all Q&As are via email, and sealed bids can be submitted and updated online. Interested bidders need to register only once, a free process that takes only a few minutes. Once registered, bidders have access to publically available bids and solicitations from every Agency within PennBid, plus are available for By-Invitation-Only RFPs and RFQs. Bidders can obtain all project documents and submit and update their confidential bids online.

Sealed Bid Confidentiality – The confidentiality of the sealed bid system is a cornerstone of the PennBid Program. At no time before Bid Opening can anyone see your electronic bid.

Confidentiality of Identity – When questions are asked and answered, bidder identity is not disclosed to other bidders.

1. Documents – All documents may be downloaded directly to your computer. Documents can be electronically sent to your suppliers and sub contractors.

2. Being added to the “Bidders List” – By downloading any document, you are automatically added to the list of bidders for this solicitation.

3. Questions – by clicking on the “Questions” tab, you can see all questions that have been asked and answered related to this solicitation. You can also ask questions directly through this tab. When the agency answers the question, both the question and answer is emailed directly to all bidders.

4. Submitting and Updating Bids – You may submit and update your bid anytime up to the bid due date and time by clicking on the “Bid” tab. You need only to provide the per unit price. The PennBid Program will automatically calculate the extended price (no more math errors). You can update any line item without affecting the rest of your quote.

What to submit with this bid

Click on the “**Bid**” tab

- Enter financial bid
- Answer questions
- Attach a single electronic file or zipped folder containing the documents listed below
 - 00 43 13 – Bid Bond
 - 00 45 10 – Bidder’s Acknowledgement Form
 - 00 45 13 – Bidder Qualification Statement
 - 00 45 13.1 – Contractor Responsibility Certification and all associated documentation.
 - 00 45 19 – Non-Collusion Affidavit
 - 00 45 53 – Agreement of Surety
 - 00 73 00 Appendix A – Public Works Employment Verification Form (This is required for contracts with a total project cost estimated at over \$25,000 for construction, reconstruction, demolition, alteration or repair work - other than maintenance - using state and/or local funds)
 - List of Proposed Subcontractors, Proposed Suppliers and other individuals and entities required to be identified in this Bid

Important Note 1 - The three apparent low bidders shall submit the above documents in original form and signatures to the agency receiving the bids within 3 business days following bid opening. The recent Financial Statement shall be included with the Bidder Qualification Statement at this time.

Important Note 2 - If the PennBid Program is idle for 50 minutes, a logout warning will appear. Bidders **must** acknowledge. If bidder does not acknowledge that they want to continue working, they **will** be logged out and bidder's data **will not** be saved or submitted.

How to submit your bid

The **Bid** tab contains the electronic bid form. All Per Unit Price fields must be filled out. To no-bid a line item, insert a zero (0). PennBid will automatically complete the line extensions and bid totals. At the bottom of the page, check the **Verification Statement** and click **Submit Bid**. Completed bid form can be printed or saved to Excel by clicking the icons in the middle of the bid form page.

Submitting documents with electronic bid

An electronic copy of the documents listed above is to be submitted with the electronic bid. To attach these documents:

1. Fill out required documents and scan to create a single electronic file or saved as a single zipped folder containing all documents
2. From the **Bid** tab, click on "browse" (middle of the page), then click on the file or zipped folder name. The file will be attached to your bid submission when the **Submit Bid** button is clicked.

Important Note 3 – when uploading a proposal or other document, the maximum individual file or folder size is 20Mb.

Verifying that your bid was submitted

If submitted properly, you will receive an acknowledgement appearing in the middle of your screen saying "Your bid has been submitted".

Withdrawing Your Bid

You may withdraw your bid anytime up to bid due date and time by simply clicking on Withdraw Bid, located at the bottom of the **Bid** tab. However, bids may not be withdrawn following the bid due date and time as stated in the Instructions to Bidders (00 21 13).

Help Guides

There are several Help Guides available from the PennBid™ Home Page.

END OF DOCUMENT

DOCUMENT 00 41 00

BID FORM

The Bid Form associated with a specific Contract may be found on the PennBid website (<https://pennbid.procureware.com/home>) at the "Bids" tab for the specific Contract.

**DOCUMENT 00 43 13
BID BOND**

Any singular reference to Bidder, Surety, Owner or other party shall be considered plural where applicable.

BIDDER (*Name and Address*):

SURETY (*Name and Address of Principal Place of Business*):

OWNER (*Name and Address*):

Bristol Township
2501 Bath Road
Bristol, PA 19007

BID

Bid Due Date:

Description (*Project Name and Include Location*):

BOND

Bond Number:

Date (*Not earlier than Bid due date*):

Penal sum

(Words)

\$

(Figures)

Surety and Bidder, intending to be legally bound hereby, subject to the terms set forth below, do each cause this Bid Bond to be duly executed by an authorized officer, agent, or representative.

BIDDER**SURETY**

Bidder's Name and Corporate Seal (Seal)

Surety's Name and Corporate Seal (Seal)

By: _____
Signature

By: _____
Signature (Attach Power of Attorney)

Print Name

Print Name

Title

Title

Attest: _____
Signature

Attest: _____
Signature

Title

Title

Note: Above addresses are to be used for giving any required notice. Provide execution by any additional parties, such as joint venturers, if necessary.

1. Bidder and Surety, jointly and severally, bind themselves, their heirs, executors, administrators, successors, and assigns to pay to Owner upon default of Bidder the penal sum set forth on the face of this Bond. Payment of the penal sum is the extent of Bidder's and Surety's liability. Recovery of such penal sum under the terms of this Bond shall be Owner's sole and exclusive remedy upon default of Bidder.
2. Default of Bidder shall occur upon the failure of Bidder to deliver within the time required by the Bidding Documents (or any extension thereof agreed to in writing by Owner) the executed Agreement required by the Bidding Documents and any performance and payment bonds required by the Bidding Documents.
3. This obligation shall be null and void if:
 - 3.1 Owner accepts Bidder's Bid and Bidder delivers within the time required by the Bidding Documents (or any extension thereof agreed to in writing by Owner) the executed Agreement required by the Bidding Documents and any performance and payment bonds required by the Bidding Documents, or
 - 3.2 All Bids are rejected by Owner, or
 - 3.3 Owner fails to issue a Notice of Award to Bidder within the time specified in the Bidding Documents (or any extension thereof agreed to in writing by Bidder and, if applicable, consented to by Surety when required by Paragraph 5 hereof).
4. Payment under this Bond will be due and payable upon default of Bidder and within 30 calendar days after receipt by Bidder and Surety of written notice of default from Owner, which notice will be given with reasonable promptness, identifying this Bond and the Project and including a statement of the amount due.
5. Surety waives notice of any and all defenses based on or arising out of any time extension to issue Notice of Award agreed to in writing by Owner and Bidder, provided that the total time for issuing Notice of Award including extensions shall not in the aggregate exceed 120 days from Bid due date without Surety's written consent.
6. No suit or action shall be commenced under this Bond prior to 30 calendar days after the notice of default required in Paragraph 4 above is received by Bidder and Surety and in no case later than one year after Bid due date.
7. Any suit or action under this Bond shall be commenced only in a court of competent jurisdiction located in the state in which the Project is located.
8. Notices required hereunder shall be in writing and sent to Bidder and Surety at their respective addresses shown on the face of this Bond. Such notices may be sent by personal delivery, commercial courier, or by United States Registered or Certified Mail, return receipt requested, postage pre-paid, and shall be deemed to be effective upon receipt by the party concerned.
9. Surety shall cause to be attached to this Bond a current and effective Power of Attorney evidencing the authority of the officer, agent, or representative who executed this Bond on behalf of Surety to execute, seal, and deliver such Bond and bind the Surety thereby.
10. This Bond is intended to conform to all applicable statutory requirements. Any applicable requirement of any applicable statute that has been omitted from this Bond shall be deemed to be included herein as if set forth at length. If any provision of this Bond conflicts with any applicable statute, then the provision of said statute shall govern and the remainder of this Bond that is not in conflict therewith shall continue in full force and effect.
11. The term "Bid" as used herein includes a Bid, offer, or proposal as applicable.

END OF DOCUMENT

DOCUMENT 00 45 10

BIDDER'S ACKNOWLEDGEMENT FORM

PROJECT IDENTIFICATION: **MARIE LOWE DRIVE COMMUNITY CENTER – PUBLIC IMPROVEMENTS**

CONTRACT IDENTIFICATION AND NUMBER: **2021-07025**

ARTICLE 1 - BID RECIPIENT

- 1.01 The undersigned Bidder proposes and agrees, if this Bid is accepted, to enter into an Agreement with OWNER in the form included in the Bidding Documents to perform all Work as specified or indicated in the Bidding Documents for the prices and within the times indicated in this Bid and in accordance with the other terms and conditions of the Bidding Documents.

ARTICLE 2 - BIDDER'S ACKNOWLEDGEMENTS

- 2.01 Bidder accepts all of the terms and conditions of the Advertisement or Invitation to Bid and Instructions to Bidders, including without limitation those dealing with the disposition of Bid security. The Bid will remain subject to acceptance for sixty (60) days after the Bid opening, or for such longer period of time that Bidder may agree to in writing upon request of OWNER.

ARTICLE 3 - BIDDERS REPRESENTATIONS

- 3.01 In submitting this Bid, Bidder represents, as set forth in the Agreement, that:

- A. Bidder has examined and carefully studied the Bidding Documents, the other related data identified in the Bidding Documents, and the following Addenda, receipt of all which is hereby acknowledged.

Addendum No.

Addendum Date

- B. Bidder has visited the Site and become familiar with and is satisfied as to the general, local and Site conditions that may affect cost, progress, and performance of the Work.
- C. Bidder is familiar with and is satisfied as to all federal, state and local Laws and Regulations that may affect cost, progress and performance of the Work.
- D. Bidder has carefully studied all: (1) reports of explorations and tests of subsurface conditions at or contiguous to the Site and all drawings of physical conditions in or relating to existing surface or subsurface structures at or contiguous to the Site (except Underground Facilities) which have been identified in the Supplementary Conditions as provided in paragraph 4.02 of the General Conditions, and (2) reports and drawings of a Hazardous Environmental Condition, if any, which has been identified in the Supplementary Conditions as provided in paragraph 4.06 of the General Conditions.
- E. Bidder has obtained and carefully studied (or assumes responsibility for having done so) all additional or supplementary examinations, investigations, explorations, tests, studies and data concerning conditions (surface, subsurface and Underground Facilities) at or contiguous to the Site which may affect cost, progress, or performance of the Work or which relate to any aspect of the means, methods, techniques, sequences, and procedures of construction to be employed by Bidder, including applying the specific means, methods, techniques, sequences, and procedures of construction expressly required by the Bidding Documents to be employed by Bidder, and safety precautions and programs incident thereto.
- F. Bidder does not consider that any further examinations, investigations, explorations, tests, studies, or data are necessary for the determination of this Bid for performance of the Work at the price(s) bid and within the times and in accordance with the other terms and conditions of the Bidding Documents.
- G. Bidder is aware of the general nature of work to be performed by OWNER and others at the Site that relates to the Work as indicated in the Bidding Documents.

- H. Bidder has correlated the information known to Bidder, information and observations obtained from visits to the Site, reports and drawings identified in the Bidding Documents, and all additional examinations, investigations, explorations, tests, studies, and data with the Bidding Documents.
- I. Bidder has given ENGINEER written notice of all conflicts, errors, ambiguities, or discrepancies that Bidder has discovered in the Bidding Documents, and the written resolution thereof by ENGINEER is acceptable to Bidder.
- J. The Bidding Documents are generally sufficient to indicate and convey understanding of all terms and conditions for performance of the Work for which this Bid is submitted.

ARTICLE 4 - BIDDER'S CERTIFICATION

4.01 Bidder certifies that:

- A. This Bid is genuine and not made in the interest of or on behalf of any undisclosed individual or entity and is not submitted in conformity with any collusive agreement or rules of any group, association, organization, or corporation;
- B. Bidder has not directly or indirectly induced or solicited any other Bidder to submit a false or sham Bid;
- C. Bidder has not solicited or induced any individual or entity to refrain from bidding; and
- D. Bidder has not engaged in corrupt, fraudulent, collusive, or coercive practices in competing for the Contract. For the purposes of this Paragraph 4.01 D.:
 - 1. "corrupt practice" means the offering, giving, receiving, or soliciting of anything of value likely to influence the action of a public official in the bidding process;
 - 2. "fraudulent practice" means an intentional misrepresentation of facts made (a) to influence the bidding process to the detriment of Owner, (b) to establish bid prices at artificial non-competitive levels, or (c) to deprive Owner of the benefits of free and open competition;
 - 3. "collusive practice" means a scheme or arrangement between two or more Bidders, with or without the knowledge of Owner, a purpose of which is to establish bid prices at artificial, non-competitive levels; and
 - 4. "coercive practice" means harming or threatening to harm directly or indirectly, persons or their property to influence their participation in the bidding process or affect the execution of the Contract.

ARTICLE 5 - BASIS OF BID

- 5.01 Bidder will complete the Work in accordance with the Contract Documents for the submitted bid amount.
- 5.02 Unit Prices have been computed in accordance with paragraph 11.03.B of the General Conditions.
- 5.03 Bidder acknowledges that estimated quantities are not guaranteed, and are solely for the purpose of comparison of Bids, and final payment for all Unit Price Bid items will be based on actual quantities provided, determined as provided in the Contract Documents.

ARTICLE 6 - TIME OF COMPLETION

- 6.01 Bidder agrees that the Work will be substantially complete and will be completed and ready for final payment in accordance with Paragraph 14.07 of the General Conditions within the number of calendar days indicated in the Agreement.
- 6.02 Bidder accepts the provisions of the Agreement as to liquidated damages in the event of failure to complete the Work within the times specified above, which shall be stated in the Agreement.

ARTICLE 7 - ATTACHMENTS TO THIS BID

7.01 The following documents are attached to and made a condition of this Bid:

- A. Required Bid security;
- B. Bidder Acknowledgement Form;
- C. Required Bidder's Qualification Form with supporting data;
- D. Contractor Responsibility Certification Form and associated documentation;
- E. Non-Collusion Affidavit;
- F. Required Agreement of Surety;
- G. Public Works Employment Verification Form;

ARTICLE 8 - COMMUNICATIONS

8.01 Communications concerning this Bid shall be addressed to the following individual:

_____.

If the address, telephone number, and fax number of the above individual is different than noted at the end of the Bid Form, note the address, telephone number, and fax number of the above individual:

Business Address: _____

Telephone No.: (____) _____

Fax No. (____) _____

Email: _____

ARTICLE 9 - DEFINED TERMS

9.01 The terms used in this Bid with initial capital letters have the meanings indicated in the Instructions to Bidders, the General Conditions, and the Supplementary Conditions.

ARTICLE 10 - BID SUBMITTAL

10.01 This Bid is submitted on _____, 20____. by:
If Bidder is:

An Individual

Name (typed or printed): _____

By: _____
(Individual's signature)

Doing business as: _____

A Partnership

Partnership Name: _____

By: _____
(Signature of general partner – attach evidence of authority to sign)

Name (typed or printed): _____

Title: _____

A Corporation

Corporation Name: _____(SEAL)

State of Incorporation: _____
Type (General Business, Professional, Service, Limited Liability): _____

By: _____
(Signature – attach evidence of authority to sign)

Name (typed or printed): _____

Title: _____

Attest _____

Date of Qualification to do business in Pennsylvania is ____/____/____.

A Joint Venture

Name of Joint Venture: _____

First Joint Venturer Name: _____(SEAL)

By: _____
(Signature of first joint venture partner – attach evidence of authority to sign)

Name (typed or printed): _____

Title: _____

Second Joint Venturer Name: _____(SEAL)

By: _____
(Signature of second joint venture partner – attach evidence of authority to sign)

Name (typed or printed): _____

Title: _____

(Each joint venturer must sign. The manner of signing for each individual, partnership, and corporation that is a party to the joint venture should be in the manner indicated above.)

Telephone No.: (____) _____

Fax No.: (____) _____

Name of Person authorized to sign (typed or printed): _____

Title of Person authorized to sign (typed or printed): _____

(Authorized Signature)

SEAL

Affix Corporate Seal
if Corporation

Attested by Corporate Secretary or
an Assistant Secretary if Corporation

END OF DOCUMENT

DOCUMENT 00 45 13

BIDDER QUALIFICATION STATEMENT

1. INTRODUCTION

1.1 This document must be included as part of the Bid submission. Failure to submit a fully completed and executed Bidder Qualification Statement may be considered justification for rejection of the bid.

1.2 This Bidder Qualification Statement is submitted with respect to the following project:

Contract No: 2021-07025

Contract For: Marie Lowe Drive Community Center – Public Improvements

2. GENERAL INFORMATION

2.1 Name of Bidder: _____

2.2 Address of Bidder: _____

2.3 Telephone No. of Bidder: _____

3. ORGANIZATIONAL BACKGROUND

3.1 Type of Organization:

- | | |
|---------------------------------------|--|
| <input type="checkbox"/> Corporation | <input type="checkbox"/> Individual |
| <input type="checkbox"/> Partnership | <input type="checkbox"/> Joint Venture |
| <input type="checkbox"/> Other: _____ | |

3.2 How long has your organization been in business

- a. As a Contractor? _____ years
- b. As a Contractor engaged in construction work of the type proposed under this Contract: _____ years
- c. Under your current business name? _____ years

3.3 If the bidder is a corporation, complete this section:

- a. Date & State of Incorporation: _____

b. Names & Titles of Officers:

_____	,	_____
_____	,	_____
_____	,	_____
_____	,	_____
_____	,	_____

3.4 If the Bidder is other than a corporation, describe the structure of your organization including date of initiation as a business and list the principals involved:

3.5 What portions of the work (i.e. trades work items, etc.) included in the proposed contract will be performed by subcontractors?

4. WORK HISTORY

4.1 Attach or list the following information on similar projects which your organization has completed in the past five (5) years. Name and type of project, owner, engineer, contract amount, date of completion.

- 4.2 Attach or list the following information on similar project which your organization now has in progress. Name and type of project, owner, engineer, contract amount, scheduled date of completion.

- 4.3 Has your organization ever defaulted on or otherwise failed to complete any work under contract? If so, note the circumstances:

- 4.4 Has any officer, partner or principal of your organization ever been an officer, partner or principal of another organization which defaulted on or otherwise failed to complete any work under contract? If so, note the circumstances:

- 4.5 Provide the construction experience (length, type) of the principal individuals of your organization which would be assigned to perform the proposed work under this Contract:

5. REFERENCES

5.1 Bonding Company _____

and Agent _____

5.2 Bank _____

5.3 Trade _____

6. FINANCIAL STATEMENT

6.1 Attach a copy of a recent financial statement as prepared by your auditor.

7. CERTIFICATION

7.1 This Bidder Qualification Statement has been prepared on behalf of the following organization:

Name of Organization: _____

Name of Preparer: _____

Title of Preparer: _____

Date: _____

7.2 AFFIDAVIT

State of _____, County of _____

I, _____, being duly sworn, according to
(Name of Official)

law, depose and say that I am the _____,
(position)

of the above organization, and that the responses provided in the Bidder Qualification Statement, including any attachments thereto are true and correct to the best of my knowledge and belief.

Sworn and Subscribed _____
(Signature of Official)

to before me

this _____ day of _____, 20 ____.

Notary Public

END OF DOCUMENT

DOCUMENT 00 45 13.1

CONTRACTOR RESPONSIBILITY CERTIFICATION

PROJECT IDENTIFICATION: **Marie Lowe Drive Community Center – Public Improvements**

CONTRACT IDENTIFICATION AND NUMBER: **#2021-07025**

This Certification is submitted by _____
(Name of Firm)

CONTRACTOR ADDRESS: _____

CONTACT NAME: _____

PHONE NO: _____ FAX NO: _____

1. Has the firm been debarred by any federal, state or local government agency or authority in the past three (3) years.
YES _____ NO _____
2. Has the firm defaulted on any project in the past three (3) years.
YES _____ NO _____
3. Has the firm had any type of business, contracting or trade license revoked or suspended by any governmental agency or authority in the past three (3) years.
YES _____ NO _____
4. Has the firm committed a serious or willful violation of federal or state safety laws as determined by a final decision of a court or government agency authority in the past three (3) years.
YES _____ NO _____
5. Has the firm been found in violation of any other law relating to its contracting business, including but limited to wage or hour laws, environmental laws, antitrust laws, licensing laws or tax laws, by a final decision of a court or government agency authority in the past three (3) years.
YES _____ NO _____
6. The firm has all technical qualifications and resources including equipment, personnel and financial resources, to perform the referenced contract, or will obtain same through the use of qualified, responsible subcontractors.
YES _____ NO _____
7. Proof of participation in a Class A Apprenticeship Program must be attached.

The Township of Bristol may require any other additional information it deems necessary to evaluate a prospective contractor's technical qualifications, resources and performance capabilities, as well as the type of impact its operations will have on a local community impacted by the project. The Township of Bristol may require that such information be included in a Statement of Qualifications and Experience as an attachment to the Contractors Responsibility Certification.

(I / We) stipulate that if awarded a contract the firm will provide a subcontractors list and subcontractors information as specified.

If submitting firm is, or was in the past five years, related to any other company or business entity that provided or provides contractual services in the construction, maintenance, service or repair industries, whether as a parent company, subsidiary or any other business relationship, it shall submit a Contractor Responsibility Certification that explains in detail the nature of any such relationship, if requested.

If any person or entity that is a shareholder, owner or partner of the submitting firm owns an interest of 20% or more in another entity or previously owned such an interest in another entity that provides or has provided contractual services in the construction, maintenance, service or repair industries, it shall attach a separate statement to its Contractor Responsibility Certification that explains in detail the nature of any such relationship.

The Township of Bristol may require that Contractor Responsibility Certifications and other information required by this act be submitted electronically.

Signature

Name

Title

END OF DOCUMENT

DOCUMENT 00 45 19

NON-COLLUSION AFFIDAVIT

COMMONWEALTH OF PENNSYLVANIA:

COUNTY OF:

I, _____, of _____,
(Name) (Name of Contractor)

in the County of _____ and the State of _____, of full age, being duly sworn according to law on my oath depose and say that:

I am of the firm of _____, the Bidder making the Proposal for the above Project, and that I executed the said Proposal with full authority so to do; that said Bidder has not, directly or indirectly, entered into any agreement, participated in any collusion, or otherwise taken any action in restraint of free, competitive bidding in connection with the above named Project; and that all statements contained in said Proposal and in this affidavit are true and correct, and made with full knowledge that **Bristol Township** relies upon the truth of the statements contained in said Proposal and in the statements contained in this affidavit in awarding the Contract for the said Project, the undersigned, on behalf of the Bidder, has not been convicted or found liable for any act prohibited by State or Federal law in any jurisdiction involving conspiracy or collusion with respect to bidding on any public contract within the last three (3) years.

A person's affidavit stating that the person has been convicted or found liable for any act, prohibited by State or Federal law in any jurisdiction, involving conspiracy or collusion with respect to bidding on any public contract within the last three (3) years, does not prohibit a governmental agency from accepting a bid from or awarding a contract to that person, but may be a ground for administrative suspension or debarment at the discretion of a governmental agency under the rules and regulations of that agency, or, in the case of a governmental agency with no administrative suspension or debarment regulations or procedures, may be a ground for consideration on the question whether such agency should decline to award a contract to that person on the basis of a lack of responsibility.

I further warrant that no person or selling agency has been employed or retained to solicit or secure such contract upon an agreement or understanding for a commission, percentage, brokerage or contingent fee, except bona fide employees or bona fide established commercial or selling agencies maintained by

(Name of Contractor)

(Signature)

(Print or Type Name and Title)

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

Notary Public of

My commission expires _____, 20____.

END OF DOCUMENT

AGREEMENT OF SURETY COMPANY

We, _____ as Surety, a corporation existing under the laws of the
(Surety Company)

State of _____, and authorized to transact business in the Commonwealth of Pennsylvania
hereby agree intending to be legally bound hereby, to execute and deliver to

Bristol Township, 2501 Bath Road, Bristol, PA 19007 within the time limit specified in the Contract Documents,
(Owner, Name and Address)

the Performance Bond and Payment Bond in the forms included in the Contract Documents or equivalent each in
an amount of 100% of the contract amount, in favor of Owner, as required for the faithful performance and proper
fulfillment of **Contract #21-07025: Marie Lowe Drive Community Center – Public Improvements** on behalf of

(Bidder, Name and Address)

provided that the above contract is awarded to Bidder within sixty (60) days after the date of opening of the bids or
otherwise as set forth in the Instructions to Bidders.

Surety Company further agrees that should Surety Company, after notification of such award, omit or refuse to
execute the required bonds then Surety Company shall pay to Owner any difference between the total amount
specified in Bidder's proposal for the required work and the amount for which Owner may procure the same work if
the latter amount be in excess of the former and after deduction therefrom of payment made by reason of the
forfeiture of the proposal security.

IN WITNESS WHEREOF, the Surety Company has hereunto set its hand and seal this ____ day of
_____, 20____.

SURETY
Company:

(Corp. Seal)

Signature: _____

Name and Title:

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

END OF DOCUMENT

DOCUMENT 00 52 00

AGREEMENT

THIS AGREEMENT is by and between **Bristol Township** and _____
("OWNER") (CONTRACTOR")

OWNER and CONTRACTOR hereby agree as follows:

ARTICLE 1 - WORK

- 1.01 CONTRACTOR shall complete all Work as specified or indicated in the Contract Documents. The Work is generally described as follows:

Contract 2021-07025-01: Marie Lowe Drive Community Center – Site Work

The General Contract Work consists of but is not limited to: mobilization, traffic control, installation and maintenance of Erosion and Sedimentation Controls, demolition, clearing & grubbing, grading, stormwater facilities, pavement installation, installation of asphalt parking lot, installation of site amenities, curbing, concrete pads, fencing, landscaping, selective demolition, metal wall façade installation, vinyl flooring installation, painting of interior walls and door frames, installation of new gutters/roof drains, and suspended acoustic ceiling system installation. Contractor is responsible for installing the concrete pavilion footers (sealed engineered drawings to be provided by the manufacturer), along with installing the pavilion shade system in accordance with the manufacturer's specifications. Contractor is responsible for coordination with all other contractors to ensure proper installation of the items of this contract. Alternate #1 Work under the Site Contract involves the repainting of the existing metal siding of the community center as well as the installation of exterior metal trim along all four (4) corners of the Community Center. Alternate #2 Work under the Site Contract involves laying grass sodding instead of final seeding for the site.

ARTICLE 2 - THE PROJECT

- 2.01 The Project for which the Work under the Contract Documents may be the whole or only a part is generally described in Article 1.

ARTICLE 3 – ENGINEER/CONSTRUCTION MANAGER

- 3.01 The Project has been designed by: Gilmore & Associates, Inc. (Engineer), which is to act as Owner's representative, assume all duties and responsibilities, and have the rights and authority assigned to Engineer in the Contract Documents in connection with the completion of the Work in accordance with the Contract Documents.

ARTICLE 4 - CONTRACT TIMES

- 4.01 Time of the Essence
- A. All time limits for Milestones, if any, Substantial Completion, and completion and readiness for final payment as stated in the Contract Documents are of the essence of the Contract.
- 4.02 Days to Achieve Substantial Completion and Final Payment
- A. The Work will be substantially completed within 120 calendar days after the date when the Contract Times commence to run as provided in Paragraph 2.03 of the General Conditions, and completed and ready for final payment in accordance with Paragraph 14.07 of the General Conditions within 135 calendar days after the date when the Contract Times commence to run.

4.03 Liquidated Damages

- A. Contractor and Owner recognize that time is of the essence as stated in Paragraph 4.01 above and that Owner will suffer financial loss if the Work is not completed within the time specified in Paragraph 4.02 above, plus any extensions thereof allowed in accordance with Article 12 of the General Conditions. The parties also recognize the delays, expense, and difficulties involved in proving in a legal or arbitration proceeding the actual loss suffered by Owner if the Work is not completed on time. Accordingly, instead of requiring any such proof, Owner and Contractor agree that as liquidated damages for delay (but not as a penalty), Contractor shall pay Owner **\$1,000.00** for each day that expires after the time specified in Paragraph 4.02 for completion and readiness for final payment until the Work is completed and ready for final payment.

ARTICLE 5 - CONTRACT PRICE

- 5.01 OWNER shall pay CONTRACTOR for completion of the Work in accordance with the Contract Documents an amount in current funds equal to the following amount:

- A. For Unit Price Work, an amount equal to the sum of the established unit price for each separately identified item of Unit Price Work times the actual quantity of that item. In that regard, CONTRACTOR's Bid Form is attached hereto as an exhibit.

The Bid prices for Unit Price Work set forth as of the Effective Date of the Agreement are based on estimated quantities. As provided in Paragraph 11.03 of the General Conditions, estimated quantities are not guaranteed, and determinations of actual quantities and classifications are to be made by ENGINEER as provided in Paragraph 9.07 of the General Conditions.

ARTICLE 6 - PAYMENT PROCEDURES

6.01 Submittal and Processing of Payments

- A. CONTRACTOR shall submit Applications for Payment in accordance with Article 14 of the General Conditions. Applications for Payment will be processed by ENGINEER as provided in the General Conditions.

6.02 Progress Payments; Retainage

- A. Owner shall make progress payments on account of the Contract Price on the basis of Contractor's Applications for Payment on or about the 30th day of each month during performance of the Work as provided in Paragraphs 6.02.A.1 below. All such payments will be measured by the schedule of values established in Paragraph 2.07.A of the General Conditions (and in the case of Unit Price Work based on the number of units completed) or, in the event there is no schedule of values, as provided in the General Requirements:
1. Progress payments will be made in an amount equal to the percentage indicated below but, in each case, less the aggregate of payments previously made and less such amounts as Engineer may determine or Owner may withhold, in accordance with paragraph 14.02 of the General Conditions:
 - a. Ninety percent (90%) of Work completed (with the balance being retainage). If the Work (Contract Price as adjusted by Change Orders and incidental bid items) has been 50% completed as determined by Engineer, and if the character and progress of the Work have been satisfactory to Owner and Engineer, then as long as the character and progress of the Work remain satisfactory to Owner and Engineer, 95% of Work completed (with the balance being retainage); and

- b. Fifty percent (50%) of cost of materials and equipment not incorporated in the Work (with the balance being retainage). Such materials and equipment must be delivered, suitably stored and accompanied by documentation satisfactory to OWNER as provided in paragraph 14.02.A.1 of the General Conditions.
- c. When the Work has been 98% completed (Contract Price as adjusted by Change Orders and incidental bid items) as determined by Engineer, Owner shall pay an amount sufficient to increase total payments to Contractor to 100% of the Work completed, less such amounts as Engineer shall determine in accordance with Paragraph 14.02.B.5 of the General Conditions and less 150% of Engineer's estimate of the value of Work to be completed or corrected as shown on the tentative list of items to be completed or corrected as provided to Contractor.

6.03 Final Payment

- A. Upon final completion and acceptance of the Work in accordance with Paragraph 14.07 of the General Conditions, OWNER shall pay the remainder of the Contract Price as recommended by ENGINEER as provided in said Paragraph 14.07.

ARTICLE 7 - INTEREST

- 7.01 All monies not paid when due as provided in Article 14 of the General Conditions shall bear interest in accordance with the following requirements:

- A. Progress Payments: In accordance with 62 PA.C.S. §3932 (c) & (d), interest shall be computed at the rate determined by the Secretary of Revenue for interest payments on overdue taxes or the refund of taxes as provided in Sections 806 and 806.1 of the Act of April 9, 1929 (P.L. 343, No. 176), known as The Fiscal Code. No interest payment shall be paid if payment is made on or before the 15th calendar day after the required payment date.
- B. Final Payment: In accordance with 62 PA. C.S. §3941(b), interest shall be computed at a rate of 10% per annum, the interest to begin after the date such payment becomes due and payable to CONTRACTOR. However, when OWNER has issued bonds to finance the project, interest shall be payable to CONTRACTOR at the rate of interest of the bond issue or at the rate of 10% per annum, whichever is less, but in no event shall the interest payable to CONTRACTOR be at a rate of interest less than the legal rate of interest.

ARTICLE 8 - CONTRACTOR'S REPRESENTATIONS

- 8.01 In order to induce OWNER to enter into this Agreement CONTRACTOR makes the following representations:

- A. CONTRACTOR has examined and carefully studied the Contract Documents and the other related data identified in the Bidding Documents.
- B. CONTRACTOR has visited the Site and become familiar with and is satisfied as to the general, local, and Site conditions that may affect cost, progress, and performance of the Work.
- C. CONTRACTOR is familiar with and is satisfied as to all federal, state, and local Laws and Regulations that may affect cost, progress, and performance of the Work.
- D. Contractor has carefully studied all: (1) reports of explorations and tests of subsurface conditions at or contiguous to the Site and all drawings of physical conditions relating to existing surface or subsurface structures at the Site (except Underground Facilities), if any, that have been identified in the Supplementary Conditions as containing reliable "technical data", and (2) reports and drawings of

Hazardous Environmental Conditions, if any, at the Site which has been identified in the Supplementary Conditions as containing reliable "technical data".

- E. Contractor has considered the information known to Contractor; information commonly known to contractors doing business in the locality of the Site; information and observations obtained from visits to the Site; the Contract Documents; and drawings identified in the Contract Documents, with respect to the effect of such information, observations, and documents on (1) the cost, progress, and performance of the Work; (2) the means, methods, techniques, sequences, and procedures of construction to be employed by Contractor, including any specific means, methods, techniques, sequences, and procedures of construction expressly required by the Contract Documents; and (3) Contractor's safety precautions and programs.
- F. Based on the information and observations referred to in Paragraph 8.01.E above, Contractor does not consider that further examinations, investigations, explorations, tests, studies, or data are necessary for the performance of the Work at the Contract Price, within the Contract Times, and in accordance with the other terms and conditions of the Contract Documents.
- G. CONTRACTOR is aware of the general nature of work to be performed by OWNER and others at the Site that relates to the Work as indicated in the Contract Documents.
- H. CONTRACTOR has given ENGINEER written notice of all conflicts, errors, ambiguities, or discrepancies that CONTRACTOR has discovered in the Contract Documents, and the written resolution thereof by ENGINEER is acceptable to CONTRACTOR.
- I. The Contract Documents are generally sufficient to indicate and convey understanding of all terms and conditions for performance and furnishing of the Work.

ARTICLE 9 - CONTRACT DOCUMENTS

9.01 Contents

- A. The Contract Documents consist of the following:
 - 1. This Agreement (pages 1 to 6, inclusive);
 - 2. Performance Bond (pages 1 to 1 inclusive);
 - 3. Payment Bond (pages 1 to 1 inclusive);
 - 4. General Conditions (pages 1 to 69, inclusive);
 - 5. Supplementary Conditions (pages 1 to 16 inclusive) along with Appendix A, B, & C
 - 6. Specifications as listed in the table of contents of the Project Manual;
 - 7. Drawings consisting of 10 sheets, and as listed in the sheet index shown on the Drawings and in the Project Manual.
 - 8. Addenda (numbers _ to _, inclusive);
 - 9. Exhibits to this Agreement (enumerated as follows):
 - a. CONTRACTOR's Bid (pages 1 to _, inclusive) and shall be marked Exhibit I and attached to the Agreement;
 - b. Documentation submitted by CONTRACTOR prior to Notice of Award (pages 1 to _, inclusive);

c. Insurance Certificate(s).

10. The following which may be delivered or issued on or after the Effective Date of the Agreement:

a. Notice to Proceed

b. Work Change Directives

c. Change Orders

B. There are no Contract Documents other than those listed above in this Article 9.

B. The Contract Documents may only be amended, modified, or supplemented as provided in Paragraph 3.04 of the General Conditions.

ARTICLE 10 - MISCELLANEOUS

10.01 Terms

A. Terms used in this Agreement will have the meanings stated in the General Conditions and the Supplementary Conditions.

10.02 Assignment of Contract

A. No assignment by a party hereto of any rights under or interests in the Contract will be binding on another party hereto without the written consent of the party sought to be bound; and, specifically but without limitation, moneys that may become due and moneys that are due may not be assigned without such consent (except to the extent that the effect of this restriction may be limited by law), and unless specifically stated to the contrary in any written consent to an assignment, no assignment will release or discharge the assignor from any duty or responsibility under the Contract Documents.

10.03 Successors and Assigns

A. OWNER and CONTRACTOR each binds itself, its partners, successors, assigns, and legal representatives to the other party hereto, its partners, successors, assigns, and legal representatives in respect to all covenants, agreements, and obligations contained in the Contract Documents.

10.04 Severability

A. Any provision or part of the Contract Documents held to be void or unenforceable under any Law or Regulation shall be deemed stricken, and all remaining provisions shall continue to be valid and binding upon OWNER and CONTRACTOR, who agree that the Contract Documents shall be reformed to replace such stricken provision or part thereof with a valid and enforceable provision that comes as close as possible to expressing the intention of the stricken provision.

10.05 CONTRACTOR's Certifications

A. CONTRACTOR certifies that it has not engaged in corrupt, fraudulent, collusive, or coercive practices in competing for or in executing the Contract. For the purposes of this Paragraph 10:05:

1. "corrupt practice" means the offering, giving, receiving, or soliciting of any thing of value likely to influence the action of a public official in the bidding process or in the Contract execution;
2. "fraudulent practice" means an intentional misrepresentation of facts made (a) to influence the bidding process or the execution of the Contract to the detriment of OWNER, (b) to establish Bid or

Contract prices at artificial non-competitive levels, or (c) to deprive OWNER of the benefits of free and open competition;

3. "collusive practice" means a scheme or arrangement between two or more Bidders, with or without the knowledge of OWNER, a purpose of which is to establish Bid prices at artificial, non-competitive levels; and
4. "coercive practice" means harming or threatening to harm, directly or indirectly, persons or their property to influence their participation in the bidding process or affect the execution of the Contract.

10.06 Other Provisions –

- A. The Contractor agrees to utilize a professional electrographer, actively engaged in preparation of color DVD or CD recordings for municipal construction projects, to establish video documentation of the existing condition of the roadways, curbing, and limits of project work prior to the start of construction. The Contractor further agrees to provide the Township with two (2) copies of the CD or DVD video documentation for their records. Audio-videotaping shall be completed in accordance with Section 01 32 36 of the project manual.

IN WITNESS WHEREOF, OWNER and CONTRACTOR have signed this Agreement. Counterparts have been delivered to OWNER and CONTRACTOR. All portions of the Contract Documents have been signed or have been identified by OWNER and CONTRACTOR or on their behalf.

This Agreement will be effective on _____, 20_(which is the Effective Date of the Agreement).

OWNER:

Bristol Township

By: _____

Title: _____

[CORPORATE SEAL]

Attest: _____

Title: _____

Address for giving notices:

2501 Bath Road

Bristol, PA 19007

(If OWNER is a corporation, attach evidence of authority to sign. If OWNER is a public body, attach evidence of authority to sign and resolution or other documents authorizing execution of this Agreement.)

Designated Representative:

Name: Sean Nagy

Title: Senior Project Engineer

Address: 508 Corporate Drive West

Langhorne, PA 19047

Phone: 215-345-4330

Facsimile: 215-345-8606

E-mail: snagy@gilmore-assoc.com

CONTRACTOR:

By: _____

Title: _____

[CORPORATE SEAL]

Attest: _____

Title: _____

Address for giving notices:

(If CONTRACTOR is a corporation, a partnership, or a joint venture, attach evidence of authority to sign.)

Agent for service of process: _____

Designated Representative:

Name: __

Title: __

Address: __

Phone: _____

Facsimile: _____

E-mail: _____

END OF DOCUMENT

AGREEMENT
00 52 00-7

DOCUMENT 00 52 00

AGREEMENT

THIS AGREEMENT is by and between Bristol Township and _____
("OWNER") (CONTRACTOR")

OWNER and CONTRACTOR hereby agree as follows:

ARTICLE 1 - WORK

- 1.01 CONTRACTOR shall complete all Work as specified or indicated in the Contract Documents. The Work is generally described as follows:

Contract 2021-07025-02: Marie Lowe Drive Community Center – Electrical Work

The Electrical Contract work consists of but is not limited to: mobilization, conduit, wiring and lighting, and installation of new utility pole as shown on the Site Plans and Architectural Plans. Contractor is responsible for installing a new utility pole, as well as the transfer of any electrical lines to the new pole. Contractor is also responsible for exterior and interior electrical wiring and installation of interior electrical equipment within the Community Center building that is to be renovated in accordance with the Site Plans and Electrical Plans. Contractor is responsible for coordinating with all other contractors to ensure proper installation of the items of this contract.

ARTICLE 2 - THE PROJECT

- 2.01 The Project for which the Work under the Contract Documents may be the whole or only a part is generally described in Article 1.

ARTICLE 3 – ENGINEER/CONSTRUCTION MANAGER

- 3.01 The Project has been designed by: Gilmore & Associates, Inc. (Engineer), which is to act as Owner's representative, assume all duties and responsibilities, and have the rights and authority assigned to Engineer in the Contract Documents in connection with the completion of the Work in accordance with the Contract Documents.

ARTICLE 4 - CONTRACT TIMES

- 4.01 Time of the Essence
- A. All time limits for Milestones, if any, Substantial Completion, and completion and readiness for final payment as stated in the Contract Documents are of the essence of the Contract.
- 4.02 Days to Achieve Substantial Completion and Final Payment
- A. The Work will be substantially completed within 120 calendar days after the date when the Contract Times commence to run as provided in Paragraph 2.03 of the General Conditions, and completed and ready for final payment in accordance with Paragraph 14.07 of the General Conditions within 135 calendar days after the date when the Contract Times commence to run.

4.03 Liquidated Damages

- A. Contractor and Owner recognize that time is of the essence as stated in Paragraph 4.01 above and that Owner will suffer financial loss if the Work is not completed within the time specified in Paragraph 4.02 above, plus any extensions thereof allowed in accordance with Article 12 of the General Conditions. The parties also recognize the delays, expense, and difficulties involved in proving in a legal or arbitration proceeding the actual loss suffered by Owner if the Work is not completed on time. Accordingly, instead of requiring any such proof, Owner and Contractor agree that as liquidated damages for delay (but not as a penalty), Contractor shall pay Owner **\$1,000.00** for each day that expires after the time specified in Paragraph 4.02 for completion and readiness for final payment until the Work is completed and ready for final payment.

ARTICLE 5 - CONTRACT PRICE

- 5.01 OWNER shall pay CONTRACTOR for completion of the Work in accordance with the Contract Documents an amount in current funds equal to the following amount:

- A. For Unit Price Work, an amount equal to the sum of the established unit price for each separately identified item of Unit Price Work times the actual quantity of that item. In that regard, CONTRACTOR's Bid Form is attached hereto as an exhibit.

The Bid prices for Unit Price Work set forth as of the Effective Date of the Agreement are based on estimated quantities. As provided in Paragraph 11.03 of the General Conditions, estimated quantities are not guaranteed, and determinations of actual quantities and classifications are to be made by ENGINEER as provided in Paragraph 9.07 of the General Conditions.

ARTICLE 6 - PAYMENT PROCEDURES

6.01 Submittal and Processing of Payments

- A. CONTRACTOR shall submit Applications for Payment in accordance with Article 14 of the General Conditions. Applications for Payment will be processed by ENGINEER as provided in the General Conditions.

6.02 Progress Payments; Retainage

- A. Owner shall make progress payments on account of the Contract Price on the basis of Contractor's Applications for Payment on or about the 30th day of each month during performance of the Work as provided in Paragraphs 6.02.A.1 below. All such payments will be measured by the schedule of values established in Paragraph 2.07.A of the General Conditions (and in the case of Unit Price Work based on the number of units completed) or, in the event there is no schedule of values, as provided in the General Requirements:
1. Progress payments will be made in an amount equal to the percentage indicated below but, in each case, less the aggregate of payments previously made and less such amounts as Engineer may determine or Owner may withhold, in accordance with paragraph 14.02 of the General Conditions:
 - a. Ninety percent (90%) of Work completed (with the balance being retainage). If the Work (Contract Price as adjusted by Change Orders and incidental bid items) has been 50% completed as determined by Engineer, and if the character and progress of the Work have been satisfactory to Owner and Engineer, then as long as the character and progress of the Work remain satisfactory to Owner and Engineer, 95% of Work completed (with the balance being retainage); and

- b. Fifty percent (50%) of cost of materials and equipment not incorporated in the Work (with the balance being retainage). Such materials and equipment must be delivered, suitably stored and accompanied by documentation satisfactory to OWNER as provided in paragraph 14.02.A.1 of the General Conditions.
- c. When the Work has been 98% completed (Contract Price as adjusted by Change Orders and incidental bid items) as determined by Engineer, Owner shall pay an amount sufficient to increase total payments to Contractor to 100% of the Work completed, less such amounts as Engineer shall determine in accordance with Paragraph 14.02.B.5 of the General Conditions and less 150% of Engineer's estimate of the value of Work to be completed or corrected as shown on the tentative list of items to be completed or corrected as provided to Contractor.

6.03 Final Payment

- A. Upon final completion and acceptance of the Work in accordance with Paragraph 14.07 of the General Conditions, OWNER shall pay the remainder of the Contract Price as recommended by ENGINEER as provided in said Paragraph 14.07.

ARTICLE 7 - INTEREST

- 7.01 All monies not paid when due as provided in Article 14 of the General Conditions shall bear interest in accordance with the following requirements:
 - A. Progress Payments: In accordance with 62 PA.C.S. §3932 (c) & (d), interest shall be computed at the rate determined by the Secretary of Revenue for interest payments on overdue taxes or the refund of taxes as provided in Sections 806 and 806.1 of the Act of April 9, 1929 (P.L. 343, No. 176), known as The Fiscal Code. No interest payment shall be paid if payment is made on or before the 15th calendar day after the required payment date.
 - B. Final Payment: In accordance with 62 PA. C.S. §3941(b), interest shall be computed at a rate of 10% per annum, the interest to begin after the date such payment becomes due and payable to CONTRACTOR. However, when OWNER has issued bonds to finance the project, interest shall be payable to CONTRACTOR at the rate of interest of the bond issue or at the rate of 10% per annum, whichever is less, but in no event shall the interest payable to CONTRACTOR be at a rate of interest less than the legal rate of interest.

ARTICLE 8 - CONTRACTOR'S REPRESENTATIONS

- 8.01 In order to induce OWNER to enter into this Agreement CONTRACTOR makes the following representations:
 - A. CONTRACTOR has examined and carefully studied the Contract Documents and the other related data identified in the Bidding Documents.
 - B. CONTRACTOR has visited the Site and become familiar with and is satisfied as to the general, local, and Site conditions that may affect cost, progress, and performance of the Work.
 - C. CONTRACTOR is familiar with and is satisfied as to all federal, state, and local Laws and Regulations that may affect cost, progress, and performance of the Work.
 - D. Contractor has carefully studied all: (1) reports of explorations and tests of subsurface conditions at or contiguous to the Site and all drawings of physical conditions relating to existing surface or subsurface structures at the Site (except Underground Facilities), if any, that have been identified in the Supplementary Conditions as containing reliable "technical data", and (2) reports and drawings of

Hazardous Environmental Conditions, if any, at the Site which has been identified in the Supplementary Conditions as containing reliable "technical data".

- E. Contractor has considered the information known to Contractor; information commonly known to contractors doing business in the locality of the Site; information and observations obtained from visits to the Site; the Contract Documents; and drawings identified in the Contract Documents, with respect to the effect of such information, observations, and documents on (1) the cost, progress, and performance of the Work; (2) the means, methods, techniques, sequences, and procedures of construction to be employed by Contractor, including any specific means, methods, techniques, sequences, and procedures of construction expressly required by the Contract Documents; and (3) Contractor's safety precautions and programs.
- F. Based on the information and observations referred to in Paragraph 8.01.E above, Contractor does not consider that further examinations, investigations, explorations, tests, studies, or data are necessary for the performance of the Work at the Contract Price, within the Contract Times, and in accordance with the other terms and conditions of the Contract Documents.
- G. CONTRACTOR is aware of the general nature of work to be performed by OWNER and others at the Site that relates to the Work as indicated in the Contract Documents.
- H. CONTRACTOR has given ENGINEER written notice of all conflicts, errors, ambiguities, or discrepancies that CONTRACTOR has discovered in the Contract Documents, and the written resolution thereof by ENGINEER is acceptable to CONTRACTOR.
- I. The Contract Documents are generally sufficient to indicate and convey understanding of all terms and conditions for performance and furnishing of the Work.

ARTICLE 9 - CONTRACT DOCUMENTS

9.01 Contents

- A. The Contract Documents consist of the following:
 - 1. This Agreement (pages 1 to 6, inclusive);
 - 2. Performance Bond (pages 1 to 1 inclusive);
 - 3. Payment Bond (pages 1 to 1 inclusive);
 - 4. General Conditions (pages 1 to 69, inclusive);
 - 5. Supplementary Conditions (pages 1 to 16 inclusive) along with Appendix A, B, & C
 - 6. Specifications as listed in the table of contents of the Project Manual;
 - 7. Drawings consisting of 10 sheets, and as listed in the sheet index shown on the Drawings and in the Project Manual.
 - 8. Addenda (numbers _ to _, inclusive);
 - 9. Exhibits to this Agreement (enumerated as follows):
 - a. CONTRACTOR's Bid (pages 1 to _, inclusive) and shall be marked Exhibit I and attached to the Agreement;
 - b. Documentation submitted by CONTRACTOR prior to Notice of Award (pages 1 to _, inclusive);
 - c. Insurance Certificate(s).

10. The following which may be delivered or issued on or after the Effective Date of the Agreement:

- a. Notice to Proceed
- b. Work Change Directives
- c. Change Orders

B. There are no Contract Documents other than those listed above in this Article 9.

B. The Contract Documents may only be amended, modified, or supplemented as provided in Paragraph 3.04 of the General Conditions.

ARTICLE 10 - MISCELLANEOUS

10.01 Terms

A. Terms used in this Agreement will have the meanings stated in the General Conditions and the Supplementary Conditions.

10.02 Assignment of Contract

A. No assignment by a party hereto of any rights under or interests in the Contract will be binding on another party hereto without the written consent of the party sought to be bound; and, specifically but without limitation, moneys that may become due and moneys that are due may not be assigned without such consent (except to the extent that the effect of this restriction may be limited by law), and unless specifically stated to the contrary in any written consent to an assignment, no assignment will release or discharge the assignor from any duty or responsibility under the Contract Documents.

10.03 Successors and Assigns

A. OWNER and CONTRACTOR each binds itself, its partners, successors, assigns, and legal representatives to the other party hereto, its partners, successors, assigns, and legal representatives in respect to all covenants, agreements, and obligations contained in the Contract Documents.

10.04 Severability

A. Any provision or part of the Contract Documents held to be void or unenforceable under any Law or Regulation shall be deemed stricken, and all remaining provisions shall continue to be valid and binding upon OWNER and CONTRACTOR, who agree that the Contract Documents shall be reformed to replace such stricken provision or part thereof with a valid and enforceable provision that comes as close as possible to expressing the intention of the stricken provision.

10.05 CONTRACTOR's Certifications

A. CONTRACTOR certifies that it has not engaged in corrupt, fraudulent, collusive, or coercive practices in competing for or in executing the Contract. For the purposes of this Paragraph 10:05:

- 1. "corrupt practice" means the offering, giving, receiving, or soliciting of any thing of value likely to influence the action of a public official in the bidding process or in the Contract execution;
- 2. "fraudulent practice" means an intentional misrepresentation of facts made (a) to influence the bidding process or the execution of the Contract to the detriment of OWNER, (b) to establish Bid or Contract prices at artificial non-competitive levels, or (c) to deprive OWNER of the benefits of free and open competition;

3. "collusive practice" means a scheme or arrangement between two or more Bidders, with or without the knowledge of OWNER, a purpose of which is to establish Bid prices at artificial, non-competitive levels; and
4. "coercive practice" means harming or threatening to harm, directly or indirectly, persons or their property to influence their participation in the bidding process or affect the execution of the Contract.

10.06 Other Provisions –

- A. The Contractor agrees to utilize a professional electrographer, actively engaged in preparation of color DVD or CD recordings for municipal construction projects, to establish video documentation of the existing condition of the roadways, curbing, and limits of project work prior to the start of construction. The Contractor further agrees to provide the Township with two (2) copies of the CD or DVD video documentation for their records. Audio-videotaping shall be completed in accordance with Section 01 32 36 of the project manual.

IN WITNESS WHEREOF, OWNER and CONTRACTOR have signed this Agreement. Counterparts have been delivered to OWNER and CONTRACTOR. All portions of the Contract Documents have been signed or have been identified by OWNER and CONTRACTOR or on their behalf.

This Agreement will be effective on _____, 20__ (which is the Effective Date of the Agreement).

OWNER:

Bristol Township

By: _____

Title: _____

[CORPORATE SEAL]

Attest: _____

Title: _____

Address for giving notices:

2501 Bath Road

Bristol, PA 19007

(If OWNER is a corporation, attach evidence of authority to sign. If OWNER is a public body, attach evidence of authority to sign and resolution or other documents authorizing execution of this Agreement.)

Designated Representative:

Name: Sean Nagy

Title: Senior Project Engineer

Address: 508 Corporate Drive West

Langhorne, PA 19047

Phone: 215-345-4330

Facsimile: 215-345-8606

E-mail: snagy@gilmore-assoc.com

CONTRACTOR:

By: _____

Title: _____

[CORPORATE SEAL]

Attest: _____

Title: _____

Address for giving notices:

(If CONTRACTOR is a corporation, a partnership, or a joint venture, attach evidence of authority to sign.)

Agent for service of process: _____

Designated Representative:

Name: _____

Title: _____

Address: _____

Phone: _____

Facsimile: _____

E-mail: _____

END OF DOCUMENT

DOCUMENT 00 52 00

AGREEMENT

THIS AGREEMENT is by and between **Bristol Township** and _____
("OWNER") (CONTRACTOR")

OWNER and CONTRACTOR hereby agree as follows:

ARTICLE 1 - WORK

- 1.01 CONTRACTOR shall complete all Work as specified or indicated in the Contract Documents. The Work is generally described as follows:

Contract 2021-07025-03: Marie Lowe Drive Community Center – Plumbing Work

The Plumbing Contract work consists of but is not limited to: mobilization and installation of indoor plumbing facilities as shown on the Plumbing Plans. Contractor is responsible for installing the plumbing equipment in accordance with the Plumbing Plans. Contractor is responsible for coordinating with all other contractors to ensure proper installation of the items of this contract.

ARTICLE 2 - THE PROJECT

- 2.01 The Project for which the Work under the Contract Documents may be the whole or only a part is generally described in Article 1.

ARTICLE 3 – ENGINEER/CONSTRUCTION MANAGER

- 3.01 The Project has been designed by: Gilmore & Associates, Inc. (Engineer), which is to act as Owner's representative, assume all duties and responsibilities, and have the rights and authority assigned to Engineer in the Contract Documents in connection with the completion of the Work in accordance with the Contract Documents.

ARTICLE 4 - CONTRACT TIMES

- 4.01 Time of the Essence

- A. All time limits for Milestones, if any, Substantial Completion, and completion and readiness for final payment as stated in the Contract Documents are of the essence of the Contract.

- 4.02 Days to Achieve Substantial Completion and Final Payment

- A. The Work will be substantially completed within 120 calendar days after the date when the Contract Times commence to run as provided in Paragraph 2.03 of the General Conditions, and completed and ready for final payment in accordance with Paragraph 14.07 of the General Conditions within 135 calendar days after the date when the Contract Times commence to run.

4.03 Liquidated Damages

- A. Contractor and Owner recognize that time is of the essence as stated in Paragraph 4.01 above and that Owner will suffer financial loss if the Work is not completed within the time specified in Paragraph 4.02 above, plus any extensions thereof allowed in accordance with Article 12 of the General Conditions. The parties also recognize the delays, expense, and difficulties involved in proving in a legal or arbitration proceeding the actual loss suffered by Owner if the Work is not completed on time. Accordingly, instead of requiring any such proof, Owner and Contractor agree that as liquidated damages for delay (but not as a penalty), Contractor shall pay Owner **\$1,000.00** for each day that expires after the time specified in Paragraph 4.02 for completion and readiness for final payment until the Work is completed and ready for final payment.

ARTICLE 5 - CONTRACT PRICE

- 5.01 OWNER shall pay CONTRACTOR for completion of the Work in accordance with the Contract Documents an amount in current funds equal to the following amount:

- A. For Unit Price Work, an amount equal to the sum of the established unit price for each separately identified item of Unit Price Work times the actual quantity of that item. In that regard, CONTRACTOR's Bid Form is attached hereto as an exhibit.

The Bid prices for Unit Price Work set forth as of the Effective Date of the Agreement are based on estimated quantities. As provided in Paragraph 11.03 of the General Conditions, estimated quantities are not guaranteed, and determinations of actual quantities and classifications are to be made by ENGINEER as provided in Paragraph 9.07 of the General Conditions.

ARTICLE 6 - PAYMENT PROCEDURES

6.01 Submittal and Processing of Payments

- A. CONTRACTOR shall submit Applications for Payment in accordance with Article 14 of the General Conditions. Applications for Payment will be processed by ENGINEER as provided in the General Conditions.

6.02 Progress Payments; Retainage

- A. Owner shall make progress payments on account of the Contract Price on the basis of Contractor's Applications for Payment on or about the 30th day of each month during performance of the Work as provided in Paragraphs 6.02.A.1 below. All such payments will be measured by the schedule of values established in Paragraph 2.07.A of the General Conditions (and in the case of Unit Price Work based on the number of units completed) or, in the event there is no schedule of values, as provided in the General Requirements:
1. Progress payments will be made in an amount equal to the percentage indicated below but, in each case, less the aggregate of payments previously made and less such amounts as Engineer may determine or Owner may withhold, in accordance with paragraph 14.02 of the General Conditions:
 - a. Ninety percent (90%) of Work completed (with the balance being retainage). If the Work (Contract Price as adjusted by Change Orders and incidental bid items) has been 50% completed as determined by Engineer, and if the character and progress of the Work have been satisfactory to Owner and Engineer, then as long as the character and progress of the Work remain satisfactory to Owner and Engineer, 95% of Work completed (with the balance being retainage); and

- b. Fifty percent (50%) of cost of materials and equipment not incorporated in the Work (with the balance being retainage). Such materials and equipment must be delivered, suitably stored and accompanied by documentation satisfactory to OWNER as provided in paragraph 14.02.A.1 of the General Conditions.
- c. When the Work has been 98% completed (Contract Price as adjusted by Change Orders and incidental bid items) as determined by Engineer, Owner shall pay an amount sufficient to increase total payments to Contractor to 100% of the Work completed, less such amounts as Engineer shall determine in accordance with Paragraph 14.02.B.5 of the General Conditions and less 150% of Engineer's estimate of the value of Work to be completed or corrected as shown on the tentative list of items to be completed or corrected as provided to Contractor.

6.03 Final Payment

- A. Upon final completion and acceptance of the Work in accordance with Paragraph 14.07 of the General Conditions, OWNER shall pay the remainder of the Contract Price as recommended by ENGINEER as provided in said Paragraph 14.07.

ARTICLE 7 - INTEREST

7.01 All monies not paid when due as provided in Article 14 of the General Conditions shall bear interest in accordance with the following requirements:

- A. Progress Payments: In accordance with 62 PA.C.S. §3932 (c) & (d), interest shall be computed at the rate determined by the Secretary of Revenue for interest payments on overdue taxes or the refund of taxes as provided in Sections 806 and 806.1 of the Act of April 9, 1929 (P.L. 343, No. 176), known as The Fiscal Code. No interest payment shall be paid if payment is made on or before the 15th calendar day after the required payment date.
- B. Final Payment: In accordance with 62 PA. C.S. §3941(b), interest shall be computed at a rate of 10% per annum, the interest to begin after the date such payment becomes due and payable to CONTRACTOR. However, when OWNER has issued bonds to finance the project, interest shall be payable to CONTRACTOR at the rate of interest of the bond issue or at the rate of 10% per annum, whichever is less, but in no event shall the interest payable to CONTRACTOR be at a rate of interest less than the legal rate of interest.

ARTICLE 8 - CONTRACTOR'S REPRESENTATIONS

8.01 In order to induce OWNER to enter into this Agreement CONTRACTOR makes the following representations:

- A. CONTRACTOR has examined and carefully studied the Contract Documents and the other related data identified in the Bidding Documents.
- B. CONTRACTOR has visited the Site and become familiar with and is satisfied as to the general, local, and Site conditions that may affect cost, progress, and performance of the Work.
- C. CONTRACTOR is familiar with and is satisfied as to all federal, state, and local Laws and Regulations that may affect cost, progress, and performance of the Work.
- D. Contractor has carefully studied all: (1) reports of explorations and tests of subsurface conditions at or contiguous to the Site and all drawings of physical conditions relating to existing surface or subsurface structures at the Site (except Underground Facilities), if any, that have been identified in the Supplementary Conditions as containing reliable "technical data", and (2) reports and drawings of

Hazardous Environmental Conditions, if any, at the Site which has been identified in the Supplementary Conditions as containing reliable "technical data".

- E. Contractor has considered the information known to Contractor; information commonly known to contractors doing business in the locality of the Site; information and observations obtained from visits to the Site; the Contract Documents; and drawings identified in the Contract Documents, with respect to the effect of such information, observations, and documents on (1) the cost, progress, and performance of the Work; (2) the means, methods, techniques, sequences, and procedures of construction to be employed by Contractor, including any specific means, methods, techniques, sequences, and procedures of construction expressly required by the Contract Documents; and (3) Contractor's safety precautions and programs.
- F. Based on the information and observations referred to in Paragraph 8.01.E above, Contractor does not consider that further examinations, investigations, explorations, tests, studies, or data are necessary for the performance of the Work at the Contract Price, within the Contract Times, and in accordance with the other terms and conditions of the Contract Documents.
- G. CONTRACTOR is aware of the general nature of work to be performed by OWNER and others at the Site that relates to the Work as indicated in the Contract Documents.
- H. CONTRACTOR has given ENGINEER written notice of all conflicts, errors, ambiguities, or discrepancies that CONTRACTOR has discovered in the Contract Documents, and the written resolution thereof by ENGINEER is acceptable to CONTRACTOR.
- I. The Contract Documents are generally sufficient to indicate and convey understanding of all terms and conditions for performance and furnishing of the Work.

ARTICLE 9 - CONTRACT DOCUMENTS

9.01 Contents

- A. The Contract Documents consist of the following:
 - 1. This Agreement (pages 1 to 6, inclusive);
 - 2. Performance Bond (pages 1 to 1 inclusive);
 - 3. Payment Bond (pages 1 to 1 inclusive);
 - 4. General Conditions (pages 1 to 69, inclusive);
 - 5. Supplementary Conditions (pages 1 to 16 inclusive) along with Appendix A, B, & C
 - 6. Specifications as listed in the table of contents of the Project Manual;
 - 7. Drawings consisting of 10 sheets, and as listed in the sheet index shown on the Drawings and in the Project Manual.
 - 8. Addenda (numbers _ to _, inclusive);
 - 9. Exhibits to this Agreement (enumerated as follows):
 - a. CONTRACTOR's Bid (pages 1 to _, inclusive) and shall be marked Exhibit I and attached to the Agreement;
 - b. Documentation submitted by CONTRACTOR prior to Notice of Award (pages 1 to _, inclusive);
 - c. Insurance Certificate(s).

10. The following which may be delivered or issued on or after the Effective Date of the Agreement:

- a. Notice to Proceed
- b. Work Change Directives
- c. Change Orders

B. There are no Contract Documents other than those listed above in this Article 9.

B. The Contract Documents may only be amended, modified, or supplemented as provided in Paragraph 3.04 of the General Conditions.

ARTICLE 10 - MISCELLANEOUS

10.01 Terms

A. Terms used in this Agreement will have the meanings stated in the General Conditions and the Supplementary Conditions.

10.02 Assignment of Contract

A. No assignment by a party hereto of any rights under or interests in the Contract will be binding on another party hereto without the written consent of the party sought to be bound; and, specifically but without limitation, moneys that may become due and moneys that are due may not be assigned without such consent (except to the extent that the effect of this restriction may be limited by law), and unless specifically stated to the contrary in any written consent to an assignment, no assignment will release or discharge the assignor from any duty or responsibility under the Contract Documents.

10.03 Successors and Assigns

A. OWNER and CONTRACTOR each binds itself, its partners, successors, assigns, and legal representatives to the other party hereto, its partners, successors, assigns, and legal representatives in respect to all covenants, agreements, and obligations contained in the Contract Documents.

10.04 Severability

A. Any provision or part of the Contract Documents held to be void or unenforceable under any Law or Regulation shall be deemed stricken, and all remaining provisions shall continue to be valid and binding upon OWNER and CONTRACTOR, who agree that the Contract Documents shall be reformed to replace such stricken provision or part thereof with a valid and enforceable provision that comes as close as possible to expressing the intention of the stricken provision.

10.05 CONTRACTOR's Certifications

A. CONTRACTOR certifies that it has not engaged in corrupt, fraudulent, collusive, or coercive practices in competing for or in executing the Contract. For the purposes of this Paragraph 10:05:

- 1. "corrupt practice" means the offering, giving, receiving, or soliciting of any thing of value likely to influence the action of a public official in the bidding process or in the Contract execution;
- 2. "fraudulent practice" means an intentional misrepresentation of facts made (a) to influence the bidding process or the execution of the Contract to the detriment of OWNER, (b) to establish Bid or Contract prices at artificial non-competitive levels, or (c) to deprive OWNER of the benefits of free and open competition;

3. "collusive practice" means a scheme or arrangement between two or more Bidders, with or without the knowledge of OWNER, a purpose of which is to establish Bid prices at artificial, non-competitive levels; and
4. "coercive practice" means harming or threatening to harm, directly or indirectly, persons or their property to influence their participation in the bidding process or affect the execution of the Contract.

10.06 Other Provisions –

- A. The Contractor agrees to utilize a professional electrographer, actively engaged in preparation of color DVD or CD recordings for municipal construction projects, to establish video documentation of the existing condition of the roadways, curbing, and limits of project work prior to the start of construction. The Contractor further agrees to provide the Township with two (2) copies of the CD or DVD video documentation for their records. Audio-videotaping shall be completed in accordance with Section 01 32 36 of the project manual.

IN WITNESS WHEREOF, OWNER and CONTRACTOR have signed this Agreement. Counterparts have been delivered to OWNER and CONTRACTOR. All portions of the Contract Documents have been signed or have been identified by OWNER and CONTRACTOR or on their behalf.

This Agreement will be effective on _____, 20__ (which is the Effective Date of the Agreement).

OWNER:

Bristol Township

By: _____

Title: _____

[CORPORATE SEAL]

Attest: _____

Title: _____

Address for giving notices:

2501 Bath Road

Bristol, PA 19007

(If OWNER is a corporation, attach evidence of authority to sign. If OWNER is a public body, attach evidence of authority to sign and resolution or other documents authorizing execution of this Agreement.)

Designated Representative:

Name: Sean Nagy

Title: Senior Project Engineer

Address: 508 Corporate Drive West

Langhorne, PA 19047

Phone: 215-345-4330

Facsimile: 215-345-8606

E-mail: snagy@gilmore-assoc.com

CONTRACTOR:

By: _____

Title: _____

[CORPORATE SEAL]

Attest: _____

Title: _____

Address for giving notices:

(If CONTRACTOR is a corporation, a partnership, or a joint venture, attach evidence of authority to sign.)

Agent for service of process: _____

Designated Representative:

Name: _____

Title: _____

Address: _____

Phone: _____

Facsimile: _____

E-mail: _____

END OF DOCUMENT

DOCUMENT 00 61 13.13

PERFORMANCE BOND

Any singular reference to Contractor, Surety, Owner, or other party shall be considered plural where applicable.

CONTRACTOR (*Name and Address*):

SURETY (*Name, and Address of Principal Place of Business*):

OWNER (*Name and Address*):

Bristol Township

2501 Bath Road

Bristol, PA 19007

CONTRACT

Date of Award:

Amount:

Description (*Name and Location*):

BOND

Bond Number:

Date (*Not earlier than Contract Date of Award*):

Amount:

Modifications to this Bond Form:

Surety and Contractor, intending to be legally bound hereby, subject to the terms set forth below, do each cause this Performance Bond to be duly executed by an authorized officer, agent, or representative.

CONTRACTOR AS PRINCIPAL

SURETY

Contractor's Name and Corporate Seal (Seal)

Surety's Name and Corporate Seal (Seal)

By: _____
Signature

By: _____
Signature (Attach Power of Attorney)

Print Name

Print Name

Title

Title

Attest: _____
Signature

Attest: _____
Signature

Title

Title

Note: Provide execution by additional parties, such as joint venturers, if necessary.

Contractor and Surety, jointly and severally, bind themselves, their heirs, executors, administrators, successors, and assigns to Owner for the performance of the Contract, which is incorporated herein by reference.

1. If Contractor performs the Contract, Surety and Contractor have no obligation under this Bond, except to participate in conferences as provided in Paragraph 2.1.
2. If there is no Owner Default, Surety's obligation under this Bond shall arise after:
 - 2.1 Owner has notified Contractor and Surety, at the addresses described in Paragraph 9 below, that Owner is considering declaring a Contractor Default and has requested and attempted to arrange a conference with Contractor and Surety to be held not later than 15 days after receipt of such notice to discuss methods of performing the Contract. If Owner, Contractor, and Surety agree, Contractor shall be allowed a reasonable time to perform the Contract, but such an agreement shall not waive Owner's right, if any, subsequently to declare a Contractor Default; and
 - 2.2 Owner has declared a Contractor Default and formally terminated Contractor's right to complete the Contract. Such Contractor Default shall not be declared earlier than 20 days after Contractor and Surety have received notice as provided in Paragraph 2.1; and
 - 2.3 Owner has agreed to pay the Balance of the Contract Price to:
 1. Surety in accordance with the terms of the Contract; or
 2. Another contractor selected pursuant to Paragraph 3.3 to perform the Contract.
3. When Owner has satisfied the conditions of Paragraph 2, Surety shall promptly, and at Surety's expense, take one of the following actions:
 - 3.1 Arrange for Contractor, with consent of Owner, to perform and complete the Contract; or
 - 3.2 Undertake to perform and complete the Contract itself, through its agents or through independent contractors; or
 - 3.3 Obtain bids or negotiated proposals from qualified contractors acceptable to Owner for a contract for performance and completion of the Contract, arrange for a contract to be prepared for execution by Owner and contractor selected with Owner's concurrence, to be secured with performance and payment bonds executed by a qualified surety equivalent to the bonds issued on the Contract, and pay to Owner the amount of damages as described in Paragraph 5 in excess of the Balance of the Contract Price incurred by Owner resulting from Contractor Default; or
 - 3.4 Waive its right to perform and complete, arrange for completion, or obtain a new contractor, and with reasonable promptness under the circumstances:
 1. After investigation, determine the amount for which it may be liable to Owner and, as soon as practicable after the amount is determined, tender payment therefor to Owner; or
 2. Deny liability in whole or in part and notify Owner citing reasons therefor.
4. If Surety does not proceed as provided in Paragraph 3 with reasonable promptness, Surety shall be deemed to be in default on this Bond 15 days after receipt of an additional written notice from Owner to Surety demanding that Surety perform its obligations under this Bond, and Owner shall be entitled to enforce any remedy available to Owner. If Surety proceeds as provided in Paragraph 3.4, and Owner refuses the payment tendered or Surety has denied liability, in whole or in part, without further notice Owner shall be entitled to enforce any remedy available to Owner.
5. After Owner has terminated Contractor's right to complete the Contract, and if Surety elects to act under Paragraph 3.1, 3.2, or 3.3 above, then the responsibilities of Surety to Owner shall not be greater than those of Contractor under the Contract, and the responsibilities of Owner to Surety shall not be greater than those of Owner under the Contract. To the limit of the amount of this Bond, but subject to commitment by Owner of the Balance of the Contract Price to mitigation of costs and damages on the Contract, Surety is obligated without duplication for:

- 5.1 The responsibilities of Contractor for correction of defective Work and completion of the Contract;

- 5.2 Additional legal, design professional, and delay costs resulting from Contractor's Default, and resulting from the actions of or failure to act of Surety under Paragraph 3; and
- 5.3 Liquidated damages, or if no liquidated damages are specified in the Contract, actual damages caused by delayed performance or non-performance of Contractor.

6. Surety shall not be liable to Owner or others for obligations of Contractor that are unrelated to the Contract, and the Balance of the Contract Price shall not be reduced or set off on account of any such unrelated obligations. No right of action shall accrue on this Bond to any person or entity other than Owner or its heirs, executors, administrators, or successors.

7. Surety hereby waives notice of any change, including changes of time, to Contract or to related subcontracts, purchase orders, and other obligations.

8. Any proceeding, legal or equitable, under this Bond may be instituted in any court of competent jurisdiction in the location in which the Work or part of the Work is located, and shall be instituted within two years after Contractor Default or within two years after Contractor ceased working or within two years after Surety refuses or fails to perform its obligations under this Bond, whichever occurs first. If the provisions of this paragraph are void or prohibited by law, the minimum period of limitation available to sureties as a defense in the jurisdiction of the suit shall be applicable.

9. Notice to Surety, Owner, or Contractor shall be mailed or delivered to the address shown on the signature page.

10. When this Bond has been furnished to comply with a statutory requirement in the location where the Contract was to be performed, any provision in this Bond conflicting with said statutory requirement shall be deemed deleted herefrom and provisions conforming to such statutory requirement shall be deemed incorporated herein. The intent is that this Bond shall be construed as a statutory bond and not as a common law bond.

11. Definitions.

- 11.1 Balance of the Contract Price: The total amount payable by Owner to Contractor under the Contract after all proper adjustments have been made, including allowance to Contractor of any amounts received or to be received by Owner in settlement of insurance or other Claims for damages to which Contractor is entitled, reduced by all valid and proper payments made to or on behalf of Contractor under the Contract.
- 11.2 Contract: The agreement between Owner and Contractor identified on the signature page, including all Contract Documents and changes thereto.
- 11.3 Contractor Default: Failure of Contractor, which has neither been remedied nor waived, to perform or otherwise to comply with the terms of the Contract.
- 11.4 Owner Default: Failure of Owner, which has neither been remedied nor waived, to pay Contractor as required by the Contract or to perform and complete or otherwise comply with the other terms thereof.

FOR INFORMATION ONLY – (Name, Address and Telephone)

Surety Agency or Broker:

Owner's Representative (*Engineer or other party*): Gilmore & Associates, Inc.
508 Corporate Drive West
Langhorne, PA 19047-8011
215-369-3955

END OF DOCUMENT

DOCUMENT 00 61 13.16

PAYMENT BOND

Any singular reference to Contractor, Surety, Owner, or other party shall be considered plural where applicable.

CONTRACTOR (*Name and Address*):

SURETY (*Name, and Address of Principal Place of Business*):

OWNER (*Name and Address*):

**Bristol Township
2501 Bath Road
Bristol, PA 19007**

CONTRACT

Date of Award:

Amount:

Description (*Name and Location*):

BOND

Bond Number:

Date (*Not earlier than Contract Date of Award*):

Amount:

Modifications to this Bond Form:

Surety and Contractor, intending to be legally bound hereby, subject to the terms set forth below, do each cause this Payment Bond to be duly executed by an authorized officer, agent, or representative.

CONTRACTOR AS PRINCIPAL

SURETY

Contractor's Name and Corporate Seal (Seal)

Surety's Name and Corporate Seal (Seal)

By: _____
Signature

By: _____
Signature (Attach Power of Attorney)

Print Name

Print Name

Title

Title

Attest: _____
Signature

Attest: _____
Signature

Title

Title

Note: Provide execution by additional parties, such as joint venturers, if necessary.

1. Contractor and Surety, jointly and severally, bind themselves, their heirs, executors, administrators, successors, and assigns to Owner to pay for labor, materials, and equipment furnished by Claimants for use in the performance of the Contract, which is incorporated herein by reference.
2. With respect to Owner, this obligation shall be null and void if Contractor:
 - 2.1 Promptly makes payment, directly or indirectly, for all sums due Claimants, and
 - 2.2 Defends, indemnifies, and holds harmless Owner from all claims, demands, liens, or suits alleging non-payment by Contractor by any person or entity who furnished labor, materials, or equipment for use in the performance of the Contract, provided Owner has promptly notified Contractor and Surety (at the addresses described in Paragraph 12) of any claims, demands, liens, or suits and tendered defense of such claims, demands, liens, or suits to Contractor and Surety, and provided there is no Owner Default.
3. With respect to Claimants, this obligation shall be null and void if Contractor promptly makes payment, directly or indirectly, for all sums due.
4. Surety shall have no obligation to Claimants under this Bond until:
 - 4.1 Claimants who are employed by or have a direct contract with Contractor have given notice to Surety (at the address described in Paragraph 12) and sent a copy, or notice thereof, to Owner, stating that a claim is being made under this Bond and, with substantial accuracy, the amount of the claim.
 - 4.2 Claimants who do not have a direct contract with Contractor:
 1. Have furnished written notice to Contractor and sent a copy, or notice thereof, to Owner, within 90 days after having last performed labor or last furnished materials or equipment included in the claim stating, with substantial accuracy, the amount of the claim and the name of the party to whom the materials or equipment were furnished or supplied, or for whom the labor was done or performed; and
 2. Have either received a rejection in whole or in part from Contractor, or not received within 30 days of furnishing the above notice any communication from Contractor by which Contractor had indicated the claim will be paid directly or indirectly; and
 3. Not having been paid within the above 30 days, have sent a written notice to Surety (at the address described in Paragraph 12) and sent a copy, or notice thereof, to Owner, stating that a claim is being made under this Bond and enclosing a copy of the previous written notice furnished to Contractor.
5. If a notice by a Claimant required by Paragraph 4 is provided by Owner to Contractor or to Surety, that is sufficient compliance.
6. Reserved.
7. Surety's total obligation shall not exceed the amount of this Bond, and the amount of this Bond shall be credited for any payments made in good faith by Surety.
8. Amounts owed by Owner to Contractor under the Contract shall be used for the performance of the Contract and to satisfy claims, if any, under any performance bond. By Contractor furnishing and Owner accepting this Bond, they agree that all funds earned by Contractor in the performance of the Contract are dedicated to satisfy obligations of Contractor and Surety under this Bond, subject to Owner's priority to use the funds for the completion of the Work.
9. Surety shall not be liable to Owner, Claimants, or others for obligations of Contractor that are unrelated to the Contract. Owner shall not be liable for payment of any costs or expenses of any Claimant under this Bond, and shall have under this Bond no obligations to make payments to, give notices on behalf of, or otherwise have obligations to Claimants under this Bond.
10. Surety hereby waives notice of any change, including changes of time, to the Contract or to related subcontracts, purchase orders, and other obligations.

11. No suit or action shall be commenced by a Claimant under this Bond other than in a court of competent jurisdiction in the location in which the Work or part of the Work is located or after the expiration of one year from the date (1) on which the Claimant gave the notice required by Paragraph 4.1 or Paragraph 4.2.3, or (2) on which the last labor or service was performed by anyone or the last materials or equipment were furnished by anyone under the Contract, whichever of (1) or (2) first occurs. If the provisions of this paragraph are void or prohibited by law, the minimum period of limitation available to sureties as a defense in the jurisdiction of the suit shall be applicable.

12. Notice to Surety, Owner, or Contractor shall be mailed or delivered to the addresses shown on the signature page. Actual receipt of notice by Surety, Owner, or Contractor, however accomplished, shall be sufficient compliance as of the date received at the address shown on the signature page.

13. When this Bond has been furnished to comply with a statutory requirement in the location where the Contract was to be performed, any provision in this Bond conflicting with said statutory requirement shall be deemed deleted herefrom and provisions conforming to such statutory requirement shall be deemed incorporated herein. The intent is that this Bond shall be construed as a statutory Bond and not as a common law bond.

14. Upon request of any person or entity appearing to be a potential beneficiary of this Bond, Contractor shall promptly furnish a copy of this Bond or shall permit a copy to be made.

15. Definitions

15.1 Claimant: An individual or entity having a direct contract with Contractor, or with a first-tier subcontractor of Contractor, to furnish labor, materials, or equipment for use in the performance of the Contract. The intent of this Bond shall be to include without limitation in the terms "labor, materials or equipment" that part of water, gas, power, light, heat, oil, gasoline, telephone service, or rental equipment used in the Contract, architectural and engineering services required for performance of the Work of Contractor and Contractor's subcontractors, and all other items for which a mechanic's lien may be asserted in the jurisdiction where the labor, materials, or equipment were furnished.

15.2 Contract: The agreement between Owner and Contractor identified on the signature page, including all Contract Documents and changes thereto.

15.3 Owner Default: Failure of Owner, which has neither been remedied nor waived, to pay Contractor as required by the Contract, or to perform and complete or otherwise comply with the other terms thereof.

FOR INFORMATION ONLY – (*Name, Address, and Telephone*)

Surety Agency or Broker:

Owner's Representative (*Engineer or other*): Gilmore & Associates, Inc.
508 Corporate Drive West
Langhorne, PA 19047-8011
215-369-3955

END OF DOCUMENT

DOCUMENT 00 61 19

MAINTENANCE BOND

KNOW ALL MEN BY THESE PRESENTS, that We, _____
hereinafter called the "Principal" and _____
hereinafter called the "Surety" are held and firmly bound unto _____
hereinafter called the "Obligee" in the sum of _____ Dollars (\$ _____),
the payment of which sum, well and truly to be made, we, the said Principal and the said Surety, bind ourselves, our
heirs, executors, administrators, successors and assigns, jointly and severally, firmly by these presents.

WHEREAS, the said Principal has heretofore entered into an Agreement with said Obligee dated _____, 20____ for **Contract #21-07025: Marie Lowe Drive Community Center – Public Improvements**, and;

WHEREAS, the said Agreement provides that the said Principal is required to furnish the said Obligee with a Maintenance Bond for **15%** of the Agreement price, indemnifying the said Obligee against defects in materials or workmanship for a period of **two (2) years** after final completion and acceptance of the Work.

NOW, THEREFORE, the condition of this obligation is such, that if the said Principal shall faithfully carry out and perform the said guarantee, and shall, on due notice, repair and make good at its own expense any and all defects in materials or workmanship in the said work which may develop during the said maintenance period or shall pay over, make good and reimburse to the said Obligee all loss and damage which said Obligee may sustain by reason of failure or default of said Principal so to do, then this obligation shall be null and void; otherwise shall remain in full force and effect.

Signed and sealed this _____ day of _____, 20____.

CONTRACTOR AS PRINCIPAL
Company:

SURETY
Company:

Signature: _____

Signature: _____

Name and Title:

Name and Title:

(Corp. Seal)

(Corp. Seal)

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

END OF DOCUMENT

DOCUMENT 00 62 16

CERTIFICATE OF INSURANCE

PROJECT IDENTIFICATION: **MARIE LOWE DRIVE COMMUNITY CENTER – PUBLIC IMPROVEMENTS**

CONTRACT IDENTIFICATION AND NUMBER: **2021-07025**

ADDITIONAL INSURED REQUIREMENTS:

**Bristol Township and its elected and appointed officials, officers and employees
Gilmore & Associates, Inc.**

COVERAGE AND LIMIT REQUIREMENTS:

See Document 00 73 00, Section 1.10 for Coverage and Limit Requirements

DOCUMENT 00 65 19.13

CONTRACTOR'S AFFIDAVIT

STATE OF _____:

COUNTY OF _____:

Before me, the undersigned, a Notary Public in and for said County and State personally appeared

(Individual/Partner/Duly Authorized Representative of Corporate Contractor)

who being duly sworn according to law deposes and says that all labor, material and outstanding claims and indebtedness of whatever nature arising out of the performance of the Work including all approved change orders under an Agreement dated _____, 20_____ associated with

Contract #21-07025: MARIE LOWE DRIVE COMMUNITY CENTER – PUBLIC IMPROVEMENTS Between
Bristol Township, 2501 Bath Road, Bristol, PA 19007
(Owner, Name and Address)

and _____
(Contractor, Name and Address)

have been satisfied and paid in full.

CONTRACTOR

Company: _____

(Corp. Seal)

Signature: _____
(Individual, Partner or Duly Authorized
Representative of Corporate Contractor)

Name and Title: _____

Sworn and subscribed before me this

_____ day of _____, 20_____.

END OF DOCUMENT

CONTRACTOR'S RELEASE OF LIENS

STATE OF _____:

COUNTY OF _____:

Before me, the undersigned, a Notary Public in and for said County and State personally appeared

(Individual/Partner/Duly Authorized Representative of Corporate Contractor)

Who being duly sworn according to law deposes and says that

_____ this day has received from
(Contractor, Name and Address)

Bristol Township, 2501 Bath Road, Bristol, PA 19007

(Owner, Name and Address)

the sum of One Dollar and other valuable considerations in full satisfaction and payment of all sums of money owed and payable to _____ arising out of the
(Contractor)

performance of the Work including all approved change orders under an Agreement dated _____ associated with **Contract #21-07025: MARIE LOWE DRIVE COMMUNITY CENTER – PUBLIC IMPROVEMENTS**

between **Bristol Township**
(Owner)

and _____
(Contractor)

THEREFORE, _____
(Contractor)

(for myself, my heirs, executors and administrators) (for itself, its successors and assigns) release, quit-claim and forever discharge **Bristol Township** its successors and assigns,
(Owner)

of and from all claims and demands arising from or in connection with the aforementioned Agreement.

This Release is contingent upon receipt of the final payment of \$_____.

CONTRACTOR

Company: _____

(Corp. Seal)

Signature: _____

(Individual, Partner or Duly Authorized
Representative of Corporate Contractor)

Name and Title: _____

Sworn and subscribed before me this

_____ day of _____, 20____.

END OF DOCUMENT

DOCUMENT 00 65 19.19

CONSENT OF SURETY TO FINAL PAYMENT

In accordance with the provisions of an Agreement for the Work associated with
CN #21-07025: Marie Lowe Drive Community Center – Public Improvements, between

_____ **Bristol Township, 2501 Bath Road, Bristol PA 19007** and
(Owner, Name and Address)

(Contractor, Name and Address)

the _____, surety on the bond(s) of
(Surety Company)

_____ after a careful examination of the books
and
(Contractor)

records of Contractor or after receipt of an affidavit from Contractor, which examination or affidavit satisfies this
company that all claims for labor and materials have been satisfactorily settled, hereby approves of the final
payment

to _____, and by these presents
(Contractor)

witnesseth that payment to Contractor of the final estimate shall not relieve the Surety Company of any of its
obligations to _____ **Bristol Township** as set forth in the Surety Company's Bond.
(Owner)

IN WITNESS WHEREOF, the Surety Company has hereunto set its hand and seal this _____ day of
_____, 20_____.

SURETY

Company: _____

(Corp. Seal)

Signature: _____

Name and Title: _____

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

END OF DOCUMENT

STANDARD GENERAL CONDITIONS OF THE CONSTRUCTION CONTRACT

Prepared by

ENGINEERS JOINT CONTRACT DOCUMENTS COMMITTEE

and

Issued and Published Jointly by



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STANDARD GENERAL CONDITIONS OF THE CONSTRUCTION CONTRACT

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ARTICLE 1 – DEFINITIONS AND TERMINOLOGY

1.01 *Defined Terms* See **Supplementary Condition 1.01**

- A. Wherever used in the Bidding Requirements or Contract Documents and printed with initial capital letters, the terms listed below will have the meanings indicated which are applicable to both the singular and plural thereof. In addition to terms specifically defined, terms with initial capital letters in the Contract Documents include references to identified articles and paragraphs, and the titles of other documents or forms.
1. *Addenda*—Written or graphic instruments issued prior to the opening of Bids which clarify, correct, or change the Bidding Requirements or the proposed Contract Documents.
 2. *Agreement*—The written instrument which is evidence of the agreement between Owner and Contractor covering the Work.
 3. *Application for Payment*—The form acceptable to Engineer which is to be used by Contractor during the course of the Work in requesting progress or final payments and which is to be accompanied by such supporting documentation as is required by the Contract Documents.
 4. *Asbestos*—Any material that contains more than one percent asbestos and is friable or is releasing asbestos fibers into the air above current action levels established by the United States Occupational Safety and Health Administration.
 5. *Bid*—The offer or proposal of a Bidder submitted on the prescribed form setting forth the prices for the Work to be performed.
 6. *Bidder*—The individual or entity who submits a Bid directly to Owner.
 7. *Bidding Documents*—The Bidding Requirements and the proposed Contract Documents (including all Addenda).
See Supplementary Condition 1.01
 8. *Bidding Requirements*—The advertisement or invitation to bid, Instructions to Bidders, Bid security of acceptable form, if any, and the Bid Form with any supplements.
See Supplementary Condition 1.01
 9. *Change Order*—A document recommended by Engineer which is signed by Contractor and Owner and authorizes an addition, deletion, or revision in the Work or an adjustment in the Contract Price or the Contract Times, issued on or after the Effective Date of the Agreement.
 10. *Claim*—A demand or assertion by Owner or Contractor seeking an adjustment of Contract Price or Contract Times, or both, or other relief with respect to the terms of the Contract. A demand for money or services by a third party is not a Claim.

11. *Contract*—The entire and integrated written agreement between the Owner and Contractor concerning the Work. The Contract supersedes prior negotiations, representations, or agreements, whether written or oral.
12. *Contract Documents*—Those items so designated in the Agreement. Only printed or hard copies of the items listed in the Agreement are Contract Documents. Approved Shop Drawings, other Contractor submittals, and the reports and drawings of subsurface and physical conditions are not Contract Documents.
13. *Contract Price*—The moneys payable by Owner to Contractor for completion of the Work in accordance with the Contract Documents as stated in the Agreement (subject to the provisions of Paragraph 11.03 in the case of Unit Price Work).
14. *Contract Times*—The number of days or the dates stated in the Agreement to: (i) achieve Milestones, if any; (ii) achieve Substantial Completion; and (iii) complete the Work so that it is ready for final payment as evidenced by Engineer's written recommendation of final payment.
15. *Contractor*—The individual or entity with whom Owner has entered into the Agreement.
16. *Cost of the Work*—See Paragraph 11.01 for definition.
17. *Drawings*—That part of the Contract Documents prepared or approved by Engineer which graphically shows the scope, extent, and character of the Work to be performed by Contractor. Shop Drawings and other Contractor submittals are not Drawings as so defined.
18. *Effective Date of the Agreement*—The date indicated in the Agreement on which it becomes effective, but if no such date is indicated, it means the date on which the Agreement is signed and delivered by the last of the two parties to sign and deliver.
19. *Engineer*—The individual or entity named as such in the Agreement.
20. *Field Order*—A written order issued by Engineer which requires minor changes in the Work but which does not involve a change in the Contract Price or the Contract Times.
21. *General Requirements*—Sections of Division 1 of the Specifications.
22. *Hazardous Environmental Condition*—The presence at the Site of Asbestos, PCBs, Petroleum, Hazardous Waste, or Radioactive Material in such quantities or circumstances that may present a substantial danger to persons or property exposed thereto.
23. *Hazardous Waste*—The term Hazardous Waste shall have the meaning provided in Section 1004 of the Solid Waste Disposal Act (42 USC Section 6903) as amended from time to time.
24. *Laws and Regulations; Laws or Regulations*—Any and all applicable laws, rules, regulations, ordinances, codes, and orders of any and all governmental bodies, agencies, authorities, and courts having jurisdiction.

25. *Liens*—Charges, security interests, or encumbrances upon Project funds, real property, or personal property.
26. *Milestone*—A principal event specified in the Contract Documents relating to an intermediate completion date or time prior to Substantial Completion of all the Work.
27. *Notice of Award*—The written notice by Owner to the Successful Bidder stating that upon timely compliance by the Successful Bidder with the conditions precedent listed therein, Owner will sign and deliver the Agreement.
28. *Notice to Proceed*—A written notice given by Owner to Contractor fixing the date on which the Contract Times will commence to run and on which Contractor shall start to perform the Work under the Contract Documents.
29. *Owner*—The individual or entity with whom Contractor has entered into the Agreement and for whom the Work is to be performed.
30. *PCBs*—Polychlorinated biphenyls.
31. *Petroleum*—Petroleum, including crude oil or any fraction thereof which is liquid at standard conditions of temperature and pressure (60 degrees Fahrenheit and 14.7 pounds per square inch absolute), such as oil, petroleum, fuel oil, oil sludge, oil refuse, gasoline, kerosene, and oil mixed with other non-Hazardous Waste and crude oils.
32. *Progress Schedule*—A schedule, prepared and maintained by Contractor, describing the sequence and duration of the activities comprising the Contractor's plan to accomplish the Work within the Contract Times.
33. *Project*—The total construction of which the Work to be performed under the Contract Documents may be the whole, or a part.
34. *Project Manual*—The bound documentary information prepared for bidding and constructing the Work. A listing of the contents of the Project Manual, which may be bound in one or more volumes, is contained in the table(s) of contents.
35. *Radioactive Material*—Source, special nuclear, or byproduct material as defined by the Atomic Energy Act of 1954 (42 USC Section 2011 et seq.) as amended from time to time.
36. *Resident Project Representative*—The authorized representative of Engineer who may be assigned to the Site or any part thereof.
37. *Samples*—Physical examples of materials, equipment, or workmanship that are representative of some portion of the Work and which establish the standards by which such portion of the Work will be judged.
38. *Schedule of Submittals*—A schedule, prepared and maintained by Contractor, of required submittals and the time requirements to support scheduled performance of related construction activities.

39. *Schedule of Values*—A schedule, prepared and maintained by Contractor, allocating portions of the Contract Price to various portions of the Work and used as the basis for reviewing Contractor's Applications for Payment.
40. *Shop Drawings*—All drawings, diagrams, illustrations, schedules, and other data or information which are specifically prepared or assembled by or for Contractor and submitted by Contractor to illustrate some portion of the Work.
41. *Site*—Lands or areas indicated in the Contract Documents as being furnished by Owner upon which the Work is to be performed, including rights-of-way and easements for access thereto, and such other lands furnished by Owner which are designated for the use of Contractor.
42. *Specifications*—That part of the Contract Documents consisting of written requirements for materials, equipment, systems, standards and workmanship as applied to the Work, and certain administrative requirements and procedural matters applicable thereto.
43. *Subcontractor*—An individual or entity having a direct contract with Contractor or with any other Subcontractor for the performance of a part of the Work at the Site.
44. *Substantial Completion*—The time at which the Work (or a specified part thereof) has progressed to the point where, in the opinion of Engineer, the Work (or a specified part thereof) is sufficiently complete, in accordance with the Contract Documents, so that the Work (or a specified part thereof) can be utilized for the purposes for which it is intended. The terms "substantially complete" and "substantially completed" as applied to all or part of the Work refer to Substantial Completion thereof.
45. *Successful Bidder*—The Bidder submitting a responsive Bid to whom Owner makes an award.
46. *Supplementary Conditions*—That part of the Contract Documents which amends or supplements these General Conditions.
47. *Supplier*—A manufacturer, fabricator, supplier, distributor, materialman, or vendor having a direct contract with Contractor or with any Subcontractor to furnish materials or equipment to be incorporated in the Work by Contractor or Subcontractor.
48. *Underground Facilities*—All underground pipelines, conduits, ducts, cables, wires, manholes, vaults, tanks, tunnels, or other such facilities or attachments, and any encasements containing such facilities, including those that convey electricity, gases, steam, liquid petroleum products, telephone or other communications, cable television, water, wastewater, storm water, other liquids or chemicals, or traffic or other control systems.
49. *Unit Price Work*—Work to be paid for on the basis of unit prices.
50. *Work*—The entire construction or the various separately identifiable parts thereof required to be provided under the Contract Documents. Work includes and is the result of performing or providing all labor, services, and documentation necessary to produce such construction, and

furnishing, installing, and incorporating all materials and equipment into such construction, all as required by the Contract Documents.

51. *Work Change Directive*—A written statement to Contractor issued on or after the Effective Date of the Agreement and signed by Owner and recommended by Engineer ordering an addition, deletion, or revision in the Work, or responding to differing or unforeseen subsurface or physical conditions under which the Work is to be performed or to emergencies. A Work Change Directive will not change the Contract Price or the Contract Times but is evidence that the parties expect that the change ordered or documented by a Work Change Directive will be incorporated in a subsequently issued Change Order following negotiations by the parties as to its effect, if any, on the Contract Price or Contract Times.

1.02 Terminology

- A. The words and terms discussed in Paragraph 1.02.B through F are not defined but, when used in the Bidding Requirements or Contract Documents, have the indicated meaning.

B. *Intent of Certain Terms or Adjectives:*

1. The Contract Documents include the terms “as allowed,” “as approved,” “as ordered,” “as directed” or terms of like effect or import to authorize an exercise of professional judgment by Engineer. In addition, the adjectives “reasonable,” “suitable,” “acceptable,” “proper,” “satisfactory,” or adjectives of like effect or import are used to describe an action or determination of Engineer as to the Work. It is intended that such exercise of professional judgment, action, or determination will be solely to evaluate, in general, the Work for compliance with the information in the Contract Documents and with the design concept of the Project as a functioning whole as shown or indicated in the Contract Documents (unless there is a specific statement indicating otherwise). The use of any such term or adjective is not intended to and shall not be effective to assign to Engineer any duty or authority to supervise or direct the performance of the Work, or any duty or authority to undertake responsibility contrary to the provisions of Paragraph 9.09 or any other provision of the Contract Documents.

C. *Day:*

1. The word “day” means a calendar day of 24 hours measured from midnight to the next midnight.

D. *Defective:*

1. The word “defective,” when modifying the word “Work,” refers to Work that is unsatisfactory, faulty, or deficient in that it:
 - a. does not conform to the Contract Documents; or
 - b. does not meet the requirements of any applicable inspection, reference standard, test, or approval referred to in the Contract Documents; or

- c. has been damaged prior to Engineer's recommendation of final payment (unless responsibility for the protection thereof has been assumed by Owner at Substantial Completion in accordance with Paragraph 14.04 or 14.05).

E. *Furnish, Install, Perform, Provide:*

1. The word "furnish," when used in connection with services, materials, or equipment, shall mean to supply and deliver said services, materials, or equipment to the Site (or some other specified location) ready for use or installation and in usable or operable condition.
 2. The word "install," when used in connection with services, materials, or equipment, shall mean to put into use or place in final position said services, materials, or equipment complete and ready for intended use.
 3. The words "perform" or "provide," when used in connection with services, materials, or equipment, shall mean to furnish and install said services, materials, or equipment complete and ready for intended use.
 4. When "furnish," "install," "perform," or "provide" is not used in connection with services, materials, or equipment in a context clearly requiring an obligation of Contractor, "provide" is implied.
- F. Unless stated otherwise in the Contract Documents, words or phrases that have a well-known technical or construction industry or trade meaning are used in the Contract Documents in accordance with such recognized meaning.

ARTICLE 2 – PRELIMINARY MATTERS

2.01 *Delivery of Bonds and Evidence of Insurance*

- A. When Contractor delivers the executed counterparts of the Agreement to Owner, Contractor shall also deliver to Owner such bonds as Contractor may be required to furnish.
- B. *Evidence of Insurance:* Before any Work at the Site is started, Contractor and Owner shall each deliver to the other, with copies to each additional insured identified in the Supplementary Conditions, certificates of insurance (and other evidence of insurance which either of them or any additional insured may reasonably request) which Contractor and Owner respectively are required to purchase and maintain in accordance with Article 5.

See Supplementary Condition 1.10

2.02 *Copies of Documents*

- A. Owner shall furnish to Contractor up to ten printed or hard copies of the Drawings and Project Manual. Additional copies will be furnished upon request at the cost of reproduction.

See Supplementary Condition 1.05

2.03 *Commencement of Contract Times; Notice to Proceed*

- A. The Contract Times will commence to run on the thirtieth day after the Effective Date of the Agreement or, if a Notice to Proceed is given, on the day indicated in the Notice to Proceed. A Notice to Proceed may be given at any time within 30 days after the Effective Date of the Agreement. In no event will the Contract Times commence to run later than the sixtieth day

after the day of Bid opening or on the thirtieth day after the Effective Date of the Agreement, whichever date is earlier.

See Supplementary Condition 1.02

2.04 *Starting the Work*

- A. Contractor shall start to perform the Work on the date when the Contract Times commence to run. No Work shall be done at the Site prior to the date on which the Contract Times commence to run.

2.05 *Before Starting Construction*

- A. *Preliminary Schedules:* Within 10 days after the Effective Date of the Agreement (unless otherwise specified in the General Requirements), Contractor shall submit to Engineer for timely review:
1. a preliminary Progress Schedule indicating the times (numbers of days or dates) for starting and completing the various stages of the Work, including any Milestones specified in the Contract Documents;
 2. a preliminary Schedule of Submittals; and
 3. a preliminary Schedule of Values for all of the Work which includes quantities and prices of items which when added together equal the Contract Price and subdivides the Work into component parts in sufficient detail to serve as the basis for progress payments during performance of the Work. Such prices will include an appropriate amount of overhead and profit applicable to each item of Work.

See Supplementary Condition 1.03

2.06 *Preconstruction Conference; Designation of Authorized Representatives*

- A. Before any Work at the Site is started, a conference attended by Owner, Contractor, Engineer, and others as appropriate will be held to establish a working understanding among the parties as to the Work and to discuss the schedules referred to in Paragraph 2.05.A, procedures for handling Shop Drawings and other submittals, processing Applications for Payment, and maintaining required records.
- B. At this conference Owner and Contractor each shall designate, in writing, a specific individual to act as its authorized representative with respect to the services and responsibilities under the Contract. Such individuals shall have the authority to transmit instructions, receive information, render decisions relative to the Contract, and otherwise act on behalf of each respective party.

2.07 *Initial Acceptance of Schedules*

A. **See Supplementary Condition 1.04**

1. The Progress Schedule will be acceptable to Engineer if it provides an orderly progression of the Work to completion within the Contract Times. Such acceptance will not impose on

Engineer responsibility for the Progress Schedule, for sequencing, scheduling, or progress of the Work, nor interfere with or relieve Contractor from Contractor's full responsibility therefore.

2. Contractor's Schedule of Submittals will be acceptable to Engineer if it provides a workable arrangement for reviewing and processing the required submittals.
3. Contractor's Schedule of Values will be acceptable to Engineer as to form and substance if it provides a reasonable allocation of the Contract Price to component parts of the Work.

See Supplementary Condition 1.03

ARTICLE 3 – CONTRACT DOCUMENTS: INTENT, AMENDING, REUSE

3.01 *Intent*

- A. The Contract Documents are complementary; what is required by one is as binding as if required by all.

See Supplementary Condition 1.05

- B. It is the intent of the Contract Documents to describe a functionally complete project (or part thereof) to be constructed in accordance with the Contract Documents. Any labor, documentation, services, materials, or equipment that reasonably may be inferred from the Contract Documents or from prevailing custom or trade usage as being required to produce the indicated result will be provided whether or not specifically called for, at no additional cost to Owner.

See Supplementary Condition 1.05

- C. Clarifications and interpretations of the Contract Documents shall be issued by Engineer as provided in Article 9.

3.02 *Reference Standards*

- A. Standards, Specifications, Codes, Laws, and Regulations

1. Reference to standards, specifications, manuals, or codes of any technical society, organization, or association, or to Laws or Regulations, whether such reference be specific or by implication, shall mean the standard, specification, manual, code, or Laws or Regulations in effect at the time of opening of Bids (or on the Effective Date of the Agreement if there were no Bids), except as may be otherwise specifically stated in the Contract Documents.
2. No provision of any such standard, specification, manual, or code, or any instruction of a Supplier, shall be effective to change the duties or responsibilities of Owner, Contractor, or Engineer, or any of their subcontractors, consultants, agents, or employees, from those set forth in the Contract Documents. No such provision or instruction shall be effective to assign to Owner, Engineer, or any of their officers, directors, members, partners, employees, agents, consultants, or subcontractors, any duty or authority to supervise or direct the performance of the Work or any duty or authority to undertake responsibility inconsistent with the provisions of the Contract Documents.

3.03 *Reporting and Resolving Discrepancies*

A. *Reporting Discrepancies:*

1. *Contractor's Review of Contract Documents Before Starting Work:* Before undertaking each part of the Work, Contractor shall carefully study and compare the Contract Documents and check and verify pertinent figures therein and all applicable field measurements. Contractor shall promptly report in writing to Engineer any conflict, error, ambiguity, or discrepancy which Contractor discovers, or has actual knowledge of, and shall obtain a written interpretation or clarification from Engineer before proceeding with any Work affected thereby.
2. *Contractor's Review of Contract Documents During Performance of Work:* If, during the performance of the Work, Contractor discovers any conflict, error, ambiguity, or discrepancy within the Contract Documents, or between the Contract Documents and (a) any applicable Law or Regulation, (b) any standard, specification, manual, or code, or (c) any instruction of any Supplier, then Contractor shall promptly report it to Engineer in writing. Contractor shall not proceed with the Work affected thereby (except in an emergency as required by Paragraph 6.16.A) until an amendment or supplement to the Contract Documents has been issued by one of the methods indicated in Paragraph 3.04.
3. Contractor shall not be liable to Owner or Engineer for failure to report any conflict, error, ambiguity, or discrepancy in the Contract Documents unless Contractor had actual knowledge thereof.

B. *Resolving Discrepancies:*

1. Except as may be otherwise specifically stated in the Contract Documents, the provisions of the Contract Documents shall take precedence in resolving any conflict, error, ambiguity, or discrepancy between the provisions of the Contract Documents and:
 - a. the provisions of any standard, specification, manual, or code, or the instruction of any Supplier (whether or not specifically incorporated by reference in the Contract Documents); or
 - b. the provisions of any Laws or Regulations applicable to the performance of the Work (unless such an interpretation of the provisions of the Contract Documents would result in violation of such Law or Regulation).

3.04 *Amending and Supplementing Contract Documents*

- A. The Contract Documents may be amended to provide for additions, deletions, and revisions in the Work or to modify the terms and conditions thereof by either a Change Order or a Work Change Directive.
- B. The requirements of the Contract Documents may be supplemented, and minor variations and deviations in the Work may be authorized, by one or more of the following ways:

1. A Field Order;
2. Engineer's approval of a Shop Drawing or Sample (subject to the provisions of Paragraph 6.17.D.3); or
3. Engineer's written interpretation or clarification.

3.05 *Reuse of Documents*

A. Contractor and any Subcontractor or Supplier shall not:

1. have or acquire any title to or ownership rights in any of the Drawings, Specifications, or other documents (or copies of any thereof) prepared by or bearing the seal of Engineer or its consultants, including electronic media editions; or
2. reuse any such Drawings, Specifications, other documents, or copies thereof on extensions of the Project or any other project without written consent of Owner and Engineer and specific written verification or adaptation by Engineer.

B. The prohibitions of this Paragraph 3.05 will survive final payment, or termination of the Contract. Nothing herein shall preclude Contractor from retaining copies of the Contract Documents for record purposes.

3.06 *Electronic Data*

- A. Unless otherwise stated in the Supplementary Conditions, the data furnished by Owner or Engineer to Contractor, or by Contractor to Owner or Engineer, that may be relied upon are limited to the printed copies (also known as hard copies). Files in electronic media format of text, data, graphics, or other types are furnished only for the convenience of the receiving party. Any conclusion or information obtained or derived from such electronic files will be at the user's sole risk. If there is a discrepancy between the electronic files and the hard copies, the hard copies govern.
- B. Because data stored in electronic media format can deteriorate or be modified inadvertently or otherwise without authorization of the data's creator, the party receiving electronic files agrees that it will perform acceptance tests or procedures within 60 days, after which the receiving party shall be deemed to have accepted the data thus transferred. Any errors detected within the 60-day acceptance period will be corrected by the transferring party.
- C. When transferring documents in electronic media format, the transferring party makes no representations as to long term compatibility, usability, or readability of documents resulting from the use of software application packages, operating systems, or computer hardware differing from those used by the data's creator.

ARTICLE 4 – AVAILABILITY OF LANDS; SUBSURFACE AND PHYSICAL CONDITIONS; HAZARDOUS ENVIRONMENTAL CONDITIONS; REFERENCE POINTS

4.01 *Availability of Lands*

- A. Owner shall furnish the Site. Owner shall notify Contractor of any encumbrances or restrictions not of general application but specifically related to use of the Site with which Contractor must comply in performing the Work. Owner will obtain in a timely manner and pay for easements for permanent structures or permanent changes in existing facilities. If Contractor and Owner are unable to agree on entitlement to or on the amount or extent, if any, of any adjustment in the Contract Price or Contract Times, or both, as a result of any delay in Owner's furnishing the Site or a part thereof, Contractor may make a Claim therefor as provided in Paragraph 10.05.
- B. Upon reasonable written request, Owner shall furnish Contractor with a current statement of record legal title and legal description of the lands upon which the Work is to be performed and Owner's interest therein as necessary for giving notice of or filing a mechanic's or construction lien against such lands in accordance with applicable Laws and Regulations.
- C. Contractor shall provide for all additional lands and access thereto that may be required for temporary construction facilities or storage of materials and equipment.

4.02 *Subsurface and Physical Conditions*

- A. *Reports and Drawings:* The Supplementary Conditions identify:
 - 1. those reports known to Owner of explorations and tests of subsurface conditions at or contiguous to the Site; and
See Supplementary Condition 1.06
 - 2. those drawings known to Owner of physical conditions relating to existing surface or subsurface structures at the Site (except Underground Facilities).
See Supplementary Condition 1.06
- B. *Limited Reliance by Contractor on Technical Data Authorized:* Contractor may rely upon the accuracy of the "technical data" contained in such reports and drawings, but such reports and drawings are not Contract Documents. Such "technical data" is identified in the Supplementary Conditions. Except for such reliance on such "technical data," Contractor may not rely upon or make any claim against Owner or Engineer, or any of their officers, directors, members, partners, employees, agents, consultants, or subcontractors with respect to:
 - 1. the completeness of such reports and drawings for Contractor's purposes, including, but not limited to, any aspects of the means, methods, techniques, sequences, and procedures of construction to be employed by Contractor, and safety precautions and programs incident thereto; or
 - 2. other data, interpretations, opinions, and information contained in such reports or shown or indicated in such drawings; or

3. any Contractor interpretation of or conclusion drawn from any “technical data” or any such other data, interpretations, opinions, or information.

4.03 *Differing Subsurface or Physical Conditions*

A. *Notice:* If Contractor believes that any subsurface or physical condition that is uncovered or revealed either:

1. is of such a nature as to establish that any “technical data” on which Contractor is entitled to rely as provided in Paragraph 4.02 is materially inaccurate; or
2. is of such a nature as to require a change in the Contract Documents; or
3. differs materially from that shown or indicated in the Contract Documents; or
4. is of an unusual nature, and differs materially from conditions ordinarily encountered and generally recognized as inherent in work of the character provided for in the Contract Documents;

then Contractor shall, promptly after becoming aware thereof and before further disturbing the subsurface or physical conditions or performing any Work in connection therewith (except in an emergency as required by Paragraph 6.16.A), notify Owner and Engineer in writing about such condition. Contractor shall not further disturb such condition or perform any Work in connection therewith (except as aforesaid) until receipt of written order to do so.

B. *Engineer’s Review:* After receipt of written notice as required by Paragraph 4.03.A, Engineer will promptly review the pertinent condition, determine the necessity of Owner’s obtaining additional exploration or tests with respect thereto, and advise Owner in writing (with a copy to Contractor) of Engineer’s findings and conclusions.

C. *Possible Price and Times Adjustments:*

1. The Contract Price or the Contract Times, or both, will be equitably adjusted to the extent that the existence of such differing subsurface or physical condition causes an increase or decrease in Contractor’s cost of, or time required for, performance of the Work; subject, however, to the following:
 - a. such condition must meet any one or more of the categories described in Paragraph 4.03.A; and
 - b. with respect to Work that is paid for on a unit price basis, any adjustment in Contract Price will be subject to the provisions of Paragraphs 9.07 and 11.03.
2. Contractor shall not be entitled to any adjustment in the Contract Price or Contract Times if:
 - a. Contractor knew of the existence of such conditions at the time Contractor made a final commitment to Owner with respect to Contract Price and Contract Times by the submission of a Bid or becoming bound under a negotiated contract; or

- b. the existence of such condition could reasonably have been discovered or revealed as a result of any examination, investigation, exploration, test, or study of the Site and contiguous areas required by the Bidding Requirements or Contract Documents to be conducted by or for Contractor prior to Contractor's making such final commitment; or
 - c. Contractor failed to give the written notice as required by Paragraph 4.03.A.
- 3. If Owner and Contractor are unable to agree on entitlement to or on the amount or extent, if any, of any adjustment in the Contract Price or Contract Times, or both, a Claim may be made therefor as provided in Paragraph 10.05. However, neither Owner or Engineer, or any of their officers, directors, members, partners, employees, agents, consultants, or subcontractors shall be liable to Contractor for any claims, costs, losses, or damages (including but not limited to all fees and charges of engineers, architects, attorneys, and other professionals and all court or arbitration or other dispute resolution costs) sustained by Contractor on or in connection with any other project or anticipated project.

4.04 *Underground Facilities*

A. *Shown or Indicated:* The information and data shown or indicated in the Contract Documents with respect to existing Underground Facilities at or contiguous to the Site is based on information and data furnished to Owner or Engineer by the owners of such Underground Facilities, including Owner, or by others. Unless it is otherwise expressly provided in the Supplementary Conditions:

- 1. Owner and Engineer shall not be responsible for the accuracy or completeness of any such information or data provided by others; and
See Supplementary Condition 1.28
- 2. the cost of all of the following will be included in the Contract Price, and Contractor shall have full responsibility for:
 - a. reviewing and checking all such information and data;
 - b. locating all Underground Facilities shown or indicated in the Contract Documents;
 - c. coordination of the Work with the owners of such Underground Facilities, including Owner, during construction; and
 - d. the safety and protection of all such Underground Facilities and repairing any damage thereto resulting from the Work.

B. *Not Shown or Indicated:*

- 1. If an Underground Facility is uncovered or revealed at or contiguous to the Site which was not shown or indicated, or not shown or indicated with reasonable accuracy in the Contract Documents, Contractor shall, promptly after becoming aware thereof and before further disturbing conditions affected thereby or performing any Work in connection therewith (except in an emergency as required by Paragraph 6.16.A), identify the owner of such

Underground Facility and give written notice to that owner and to Owner and Engineer. Engineer will promptly review the Underground Facility and determine the extent, if any, to which a change is required in the Contract Documents to reflect and document the consequences of the existence or location of the Underground Facility. During such time, Contractor shall be responsible for the safety and protection of such Underground Facility.

2. If Engineer concludes that a change in the Contract Documents is required, a Work Change Directive or a Change Order will be issued to reflect and document such consequences. An equitable adjustment shall be made in the Contract Price or Contract Times, or both, to the extent that they are attributable to the existence or location of any Underground Facility that was not shown or indicated or not shown or indicated with reasonable accuracy in the Contract Documents and that Contractor did not know of and could not reasonably have been expected to be aware of or to have anticipated. If Owner and Contractor are unable to agree on entitlement to or on the amount or extent, if any, of any such adjustment in Contract Price or Contract Times, Owner or Contractor may make a Claim therefor as provided in Paragraph 10.05.

4.05 *Reference Points*

- A. Owner shall provide engineering surveys to establish reference points for construction which in Engineer's judgment are necessary to enable Contractor to proceed with the Work. Contractor shall be responsible for laying out the Work, shall protect and preserve the established reference points and property monuments, and shall make no changes or relocations without the prior written approval of Owner. Contractor shall report to Engineer whenever any reference point or property monument is lost or destroyed or requires relocation because of necessary changes in grades or locations, and shall be responsible for the accurate replacement or relocation of such reference points or property monuments by professionally qualified personnel.

See Supplementary Condition 1.07

4.06 *Hazardous Environmental Condition at Site*

- A. *Reports and Drawings:* The Supplementary Conditions identify those reports and drawings known to Owner relating to Hazardous Environmental Conditions that have been identified at the Site.

See Supplementary Condition 1.08

- B. *Limited Reliance by Contractor on Technical Data Authorized:* Contractor may rely upon the accuracy of the "technical data" contained in such reports and drawings, but such reports and drawings are not Contract Documents. Such "technical data" is identified in the Supplementary Conditions. Except for such reliance on such "technical data," Contractor may not rely upon or make any claim against Owner or Engineer, or any of their officers, directors, members, partners, employees, agents, consultants, or subcontractors with respect to:

1. the completeness of such reports and drawings for Contractor's purposes, including, but not limited to, any aspects of the means, methods, techniques, sequences and procedures of construction to be employed by Contractor and safety precautions and programs incident thereto; or

2. other data, interpretations, opinions and information contained in such reports or shown or indicated in such drawings; or
 3. any Contractor interpretation of or conclusion drawn from any “technical data” or any such other data, interpretations, opinions or information.
- C. Contractor shall not be responsible for any Hazardous Environmental Condition uncovered or revealed at the Site which was not shown or indicated in Drawings or Specifications or identified in the Contract Documents to be within the scope of the Work. Contractor shall be responsible for a Hazardous Environmental Condition created with any materials brought to the Site by Contractor, Subcontractors, Suppliers, or anyone else for whom Contractor is responsible.
- D. If Contractor encounters a Hazardous Environmental Condition or if Contractor or anyone for whom Contractor is responsible creates a Hazardous Environmental Condition, Contractor shall immediately: (i) secure or otherwise isolate such condition; (ii) stop all Work in connection with such condition and in any area affected thereby (except in an emergency as required by Paragraph 6.16.A); and (iii) notify Owner and Engineer (and promptly thereafter confirm such notice in writing). Owner shall promptly consult with Engineer concerning the necessity for Owner to retain a qualified expert to evaluate such condition or take corrective action, if any. Promptly after consulting with Engineer, Owner shall take such actions as are necessary to permit Owner to timely obtain required permits and provide Contractor the written notice required by Paragraph 4.06.E.
- E. Contractor shall not be required to resume Work in connection with such condition or in any affected area until after Owner has obtained any required permits related thereto and delivered written notice to Contractor: (i) specifying that such condition and any affected area is or has been rendered safe for the resumption of Work; or (ii) specifying any special conditions under which such Work may be resumed safely. If Owner and Contractor cannot agree as to entitlement to or on the amount or extent, if any, of any adjustment in Contract Price or Contract Times, or both, as a result of such Work stoppage or such special conditions under which Work is agreed to be resumed by Contractor, either party may make a Claim therefor as provided in Paragraph 10.05.
- F. If after receipt of such written notice Contractor does not agree to resume such Work based on a reasonable belief it is unsafe, or does not agree to resume such Work under such special conditions, then Owner may order the portion of the Work that is in the area affected by such condition to be deleted from the Work. If Owner and Contractor cannot agree as to entitlement to or on the amount or extent, if any, of an adjustment in Contract Price or Contract Times as a result of deleting such portion of the Work, then either party may make a Claim therefor as provided in Paragraph 10.05. Owner may have such deleted portion of the Work performed by Owner’s own forces or others in accordance with Article 7.
- G. To the fullest extent permitted by Laws and Regulations, Owner shall indemnify and hold harmless Contractor, Subcontractors, and Engineer, and the officers, directors, members, partners, employees, agents, consultants, and subcontractors of each and any of them from and against all claims, costs, losses, and damages (including but not limited to all fees and charges

of engineers, architects, attorneys, and other professionals and all court or arbitration or other dispute resolution costs) arising out of or relating to a Hazardous Environmental Condition, provided that such Hazardous Environmental Condition: (i) was not shown or indicated in the Drawings or Specifications or identified in the Contract Documents to be included within the scope of the Work, and (ii) was not created by Contractor or by anyone for whom Contractor is responsible. Nothing in this Paragraph 4.06.G shall obligate Owner to indemnify any individual or entity from and against the consequences of that individual's or entity's own negligence.

- H. To the fullest extent permitted by Laws and Regulations, Contractor shall indemnify and hold harmless Owner and Engineer, and the officers, directors, members, partners, employees, agents, consultants, and subcontractors of each and any of them from and against all claims, costs, losses, and damages (including but not limited to all fees and charges of engineers, architects, attorneys, and other professionals and all court or arbitration or other dispute resolution costs) arising out of or relating to a Hazardous Environmental Condition created by Contractor or by anyone for whom Contractor is responsible. Nothing in this Paragraph 4.06.H shall obligate Contractor to indemnify any individual or entity from and against the consequences of that individual's or entity's own negligence.
- I. The provisions of Paragraphs 4.02, 4.03, and 4.04 do not apply to a Hazardous Environmental Condition uncovered or revealed at the Site.

ARTICLE 5 – BONDS AND INSURANCE

5.01 *Performance, Payment, and Other Bonds*

- A. Contractor shall furnish performance and payment bonds, each in an amount at least equal to the Contract Price as security for the faithful performance and payment of all of Contractor's obligations under the Contract Documents. These bonds shall remain in effect until one year after the date when final payment becomes due or until completion of the correction period specified in Paragraph 13.07, whichever is later, except as provided otherwise by Laws or Regulations or by the Contract Documents. Contractor shall also furnish such other bonds as are required by the Contract Documents.

See Supplementary Condition 1.09

- B. All bonds shall be in the form prescribed by the Contract Documents except as provided otherwise by Laws or Regulations, and shall be executed by such sureties as are named in the list of "Companies Holding Certificates of Authority as Acceptable Sureties on Federal Bonds and as Acceptable Reinsuring Companies" as published in Circular 570 (amended) by the Financial Management Service, Surety Bond Branch, U.S. Department of the Treasury. All bonds signed by an agent or attorney-in-fact must be accompanied by a certified copy of that individual's authority to bind the surety. The evidence of authority shall show that it is effective on the date the agent or attorney-in-fact signed each bond.
- C. If the surety on any bond furnished by Contractor is declared bankrupt or becomes insolvent or its right to do business is terminated in any state where any part of the Project is located or it ceases to meet the requirements of Paragraph 5.01.B, Contractor shall promptly notify Owner and Engineer and shall, within 20 days after the event giving rise to such notification, provide

another bond and surety, both of which shall comply with the requirements of Paragraphs 5.01.B and 5.02.

5.02 *Licensed Sureties and Insurers*

- A. All bonds and insurance required by the Contract Documents to be purchased and maintained by Owner or Contractor shall be obtained from surety or insurance companies that are duly licensed or authorized in the jurisdiction in which the Project is located to issue bonds or insurance policies for the limits and coverages so required. Such surety and insurance companies shall also meet such additional requirements and qualifications as may be provided in the Supplementary Conditions.

See Supplementary Condition 1.10

5.03 *Certificates of Insurance*

- A. Contractor shall deliver to Owner, with copies to each additional insured and loss payee identified in the Supplementary Conditions, certificates of insurance (and other evidence of insurance requested by Owner or any other additional insured) which Contractor is required to purchase and maintain.
- B. Owner shall deliver to Contractor, with copies to each additional insured and loss payee identified in the Supplementary Conditions, certificates of insurance (and other evidence of insurance requested by Contractor or any other additional insured) which Owner is required to purchase and maintain.
- C. Failure of Owner to demand such certificates or other evidence of Contractor's full compliance with these insurance requirements or failure of Owner to identify a deficiency in compliance from the evidence provided shall not be construed as a waiver of Contractor's obligation to maintain such insurance.
- D. Owner does not represent that insurance coverage and limits established in this Contract necessarily will be adequate to protect Contractor.
- E. The insurance and insurance limits required herein shall not be deemed as a limitation on Contractor's liability under the indemnities granted to Owner in the Contract Documents.

See Supplementary Condition 1.10

5.04 *Contractor's Insurance*

- A. Contractor shall purchase and maintain such insurance as is appropriate for the Work being performed and as will provide protection from claims set forth below which may arise out of or result from Contractor's performance of the Work and Contractor's other obligations under the Contract Documents, whether it is to be performed by Contractor, any Subcontractor or Supplier, or by anyone directly or indirectly employed by any of them to perform any of the Work, or by anyone for whose acts any of them may be liable:
 - 1. claims under workers' compensation, disability benefits, and other similar employee benefit acts;

2. claims for damages because of bodily injury, occupational sickness or disease, or death of Contractor's employees;
 3. claims for damages because of bodily injury, sickness or disease, or death of any person other than Contractor's employees;
 4. claims for damages insured by reasonably available personal injury liability coverage which are sustained:
 - a. by any person as a result of an offense directly or indirectly related to the employment of such person by Contractor, or
 - b. by any other person for any other reason;
 5. claims for damages, other than to the Work itself, because of injury to or destruction of tangible property wherever located, including loss of use resulting therefrom; and
 6. claims for damages because of bodily injury or death of any person or property damage arising out of the ownership, maintenance or use of any motor vehicle.
- B. The policies of insurance required by this Paragraph 5.04 shall:
1. with respect to insurance required by Paragraphs 5.04.A.3 through 5.04.A.6 inclusive, be written on an occurrence basis, include as additional insureds (subject to any customary exclusion regarding professional liability) Owner and Engineer, and any other individuals or entities identified in the Supplementary Conditions, all of whom shall be listed as additional insureds, and include coverage for the respective officers, directors, members, partners, employees, agents, consultants, and subcontractors of each and any of all such additional insureds, and the insurance afforded to these additional insureds shall provide primary coverage for all claims covered thereby;
 2. include at least the specific coverages and be written for not less than the limits of liability provided in the Supplementary Conditions or required by Laws or Regulations, whichever is greater;
 3. include contractual liability insurance covering Contractor's indemnity obligations under Paragraphs 6.11 and 6.20;
 4. contain a provision or endorsement that the coverage afforded will not be canceled, materially changed or renewal refused until at least 30 days prior written notice has been given to Owner and Contractor and to each other additional insured identified in the Supplementary Conditions to whom a certificate of insurance has been issued (and the certificates of insurance furnished by the Contractor pursuant to Paragraph 5.03 will so provide);
 5. remain in effect at least until final payment and at all times thereafter when Contractor may be correcting, removing, or replacing defective Work in accordance with Paragraph 13.07; and

6. include completed operations coverage:

- a. Such insurance shall remain in effect for two years after final payment.
- b. Contractor shall furnish Owner and each other additional insured identified in the Supplementary Conditions, to whom a certificate of insurance has been issued, evidence satisfactory to Owner and any such additional insured of continuation of such insurance at final payment and one year thereafter.

See Supplementary Condition 1.10

5.05 *Owner's Liability Insurance*

- A. In addition to the insurance required to be provided by Contractor under Paragraph 5.04, Owner, at Owner's option, may purchase and maintain at Owner's expense Owner's own liability insurance as will protect Owner against claims which may arise from operations under the Contract Documents.

5.06 *Property Insurance*

- A. Unless otherwise provided in the Supplementary Conditions, Owner shall purchase and maintain property insurance upon the Work at the Site in the amount of the full replacement cost thereof (subject to such deductible amounts as may be provided in the Supplementary Conditions or required by Laws and Regulations). This insurance shall:
 1. include the interests of Owner, Contractor, Subcontractors, and Engineer, and any other individuals or entities identified in the Supplementary Conditions, and the officers, directors, members, partners, employees, agents, consultants, and subcontractors of each and any of them, each of whom is deemed to have an insurable interest and shall be listed as a loss payee;
 2. be written on a Builder's Risk "all-risk" policy form that shall at least include insurance for physical loss or damage to the Work, temporary buildings, falsework, and materials and equipment in transit, and shall insure against at least the following perils or causes of loss: fire, lightning, extended coverage, theft, vandalism and malicious mischief, earthquake, collapse, debris removal, demolition occasioned by enforcement of Laws and Regulations, water damage (other than that caused by flood), and such other perils or causes of loss as may be specifically required by the Supplementary Conditions.
 3. include expenses incurred in the repair or replacement of any insured property (including but not limited to fees and charges of engineers and architects);
 4. cover materials and equipment stored at the Site or at another location that was agreed to in writing by Owner prior to being incorporated in the Work, provided that such materials and equipment have been included in an Application for Payment recommended by Engineer;
 5. allow for partial utilization of the Work by Owner;
 6. include testing and startup; and

7. be maintained in effect until final payment is made unless otherwise agreed to in writing by Owner, Contractor, and Engineer with 30 days written notice to each other loss payee to whom a certificate of insurance has been issued.

See Supplementary Condition 1.10

- B. Owner shall purchase and maintain such equipment breakdown insurance or additional property insurance as may be required by the Supplementary Conditions or Laws and Regulations which will include the interests of Owner, Contractor, Subcontractors, and Engineer, and any other individuals or entities identified in the Supplementary Conditions, and the officers, directors, members, partners, employees, agents, consultants and subcontractors of each and any of them, each of whom is deemed to have an insurable interest and shall be listed as a loss payee.
- C. All the policies of insurance (and the certificates or other evidence thereof) required to be purchased and maintained in accordance with this Paragraph 5.06 will contain a provision or endorsement that the coverage afforded will not be canceled or materially changed or renewal refused until at least 30 days prior written notice has been given to Owner and Contractor and to each other loss payee to whom a certificate of insurance has been issued and will contain waiver provisions in accordance with Paragraph 5.07.
- D. Owner shall not be responsible for purchasing and maintaining any property insurance specified in this Paragraph 5.06 to protect the interests of Contractor, Subcontractors, or others in the Work to the extent of any deductible amounts that are identified in the Supplementary Conditions. The risk of loss within such identified deductible amount will be borne by Contractor, Subcontractors, or others suffering any such loss, and if any of them wishes property insurance coverage within the limits of such amounts, each may purchase and maintain it at the purchaser's own expense.
- E. If Contractor requests in writing that other special insurance be included in the property insurance policies provided under this Paragraph 5.06, Owner shall, if possible, include such insurance, and the cost thereof will be charged to Contractor by appropriate Change Order. Prior to commencement of the Work at the Site, Owner shall in writing advise Contractor whether or not such other insurance has been procured by Owner.

See Supplementary Condition 1.10

5.07 *Waiver of Rights*

- A. Owner and Contractor intend that all policies purchased in accordance with Paragraph 5.06 will protect Owner, Contractor, Subcontractors, and Engineer, and all other individuals or entities identified in the Supplementary Conditions as loss payees (and the officers, directors, members, partners, employees, agents, consultants, and subcontractors of each and any of them) in such policies and will provide primary coverage for all losses and damages caused by the perils or causes of loss covered thereby. All such policies shall contain provisions to the effect that in the event of payment of any loss or damage the insurers will have no rights of recovery against any of the insureds or loss payees thereunder. Owner and Contractor waive all rights against each other and their respective officers, directors, members, partners, employees, agents, consultants and subcontractors of each and any of them for all losses and damages caused by, arising out of or resulting from any of the perils or causes of loss covered by such policies and any other

property insurance applicable to the Work; and, in addition, waive all such rights against Subcontractors and Engineer, and all other individuals or entities identified in the Supplementary Conditions as loss payees (and the officers, directors, members, partners, employees, agents, consultants, and subcontractors of each and any of them) under such policies for losses and damages so caused. None of the above waivers shall extend to the rights that any party making such waiver may have to the proceeds of insurance held by Owner as trustee or otherwise payable under any policy so issued.

- B. Owner waives all rights against Contractor, Subcontractors, and Engineer, and the officers, directors, members, partners, employees, agents, consultants and subcontractors of each and any of them for:
1. loss due to business interruption, loss of use, or other consequential loss extending beyond direct physical loss or damage to Owner's property or the Work caused by, arising out of, or resulting from fire or other perils whether or not insured by Owner; and
 2. loss or damage to the completed Project or part thereof caused by, arising out of, or resulting from fire or other insured peril or cause of loss covered by any property insurance maintained on the completed Project or part thereof by Owner during partial utilization pursuant to Paragraph 14.05, after Substantial Completion pursuant to Paragraph 14.04, or after final payment pursuant to Paragraph 14.07.
- C. Any insurance policy maintained by Owner covering any loss, damage or consequential loss referred to in Paragraph 5.07.B shall contain provisions to the effect that in the event of payment of any such loss, damage, or consequential loss, the insurers will have no rights of recovery against Contractor, Subcontractors, or Engineer, and the officers, directors, members, partners, employees, agents, consultants and subcontractors of each and any of them.

5.08 Receipt and Application of Insurance Proceeds

- A. Any insured loss under the policies of insurance required by Paragraph 5.06 will be adjusted with Owner and made payable to Owner as fiduciary for the loss payees, as their interests may appear, subject to the requirements of any applicable mortgage clause and of Paragraph 5.08.B. Owner shall deposit in a separate account any money so received and shall distribute it in accordance with such agreement as the parties in interest may reach. If no other special agreement is reached, the damaged Work shall be repaired or replaced, the moneys so received applied on account thereof, and the Work and the cost thereof covered by an appropriate Change Order.
- B. Owner as fiduciary shall have power to adjust and settle any loss with the insurers unless one of the parties in interest shall object in writing within 15 days after the occurrence of loss to Owner's exercise of this power. If such objection be made, Owner as fiduciary shall make settlement with the insurers in accordance with such agreement as the parties in interest may reach. If no such agreement among the parties in interest is reached, Owner as fiduciary shall adjust and settle the loss with the insurers and, if required in writing by any party in interest, Owner as fiduciary shall give bond for the proper performance of such duties.

5.09 *Acceptance of Bonds and Insurance; Option to Replace*

- A. If either Owner or Contractor has any objection to the coverage afforded by or other provisions of the bonds or insurance required to be purchased and maintained by the other party in accordance with Article 5 on the basis of non-conformance with the Contract Documents, the objecting party shall so notify the other party in writing within 10 days after receipt of the certificates (or other evidence requested) required by Paragraph 2.01.B. Owner and Contractor shall each provide to the other such additional information in respect of insurance provided as the other may reasonably request. If either party does not purchase or maintain all of the bonds and insurance required of such party by the Contract Documents, such party shall notify the other party in writing of such failure to purchase prior to the start of the Work, or of such failure to maintain prior to any change in the required coverage. Without prejudice to any other right or remedy, the other party may elect to obtain equivalent bonds or insurance to protect such other party's interests at the expense of the party who was required to provide such coverage, and a Change Order shall be issued to adjust the Contract Price accordingly.

See Supplementary Condition 1.10

5.10 *Partial Utilization, Acknowledgment of Property Insurer*

- A. If Owner finds it necessary to occupy or use a portion or portions of the Work prior to Substantial Completion of all the Work as provided in Paragraph 14.05, no such use or occupancy shall commence before the insurers providing the property insurance pursuant to Paragraph 5.06 have acknowledged notice thereof and in writing effected any changes in coverage necessitated thereby. The insurers providing the property insurance shall consent by endorsement on the policy or policies, but the property insurance shall not be canceled or permitted to lapse on account of any such partial use or occupancy.

ARTICLE 6 – CONTRACTOR'S RESPONSIBILITIES

6.01 *Supervision and Superintendence*

- A. Contractor shall supervise, inspect, and direct the Work competently and efficiently, devoting such attention thereto and applying such skills and expertise as may be necessary to perform the Work in accordance with the Contract Documents. Contractor shall be solely responsible for the means, methods, techniques, sequences, and procedures of construction. Contractor shall not be responsible for the negligence of Owner or Engineer in the design or specification of a specific means, method, technique, sequence, or procedure of construction which is shown or indicated in and expressly required by the Contract Documents.
- B. At all times during the progress of the Work, Contractor shall assign a competent resident superintendent who shall not be replaced without written notice to Owner and Engineer except under extraordinary circumstances.

6.02 *Labor; Working Hours*

- A. Contractor shall provide competent, suitably qualified personnel to survey and lay out the Work and perform construction as required by the Contract Documents. Contractor shall at all times maintain good discipline and order at the Site.

- B. Except as otherwise required for the safety or protection of persons or the Work or property at the Site or adjacent thereto, and except as otherwise stated in the Contract Documents, all Work at the Site shall be performed during regular working hours. Contractor will not permit the performance of Work on a Saturday, Sunday, or any legal holiday without Owner's written consent (which will not be unreasonably withheld) given after prior written notice to Engineer.

6.03 *Services, Materials, and Equipment*

- A. Unless otherwise specified in the Contract Documents, Contractor shall provide and assume full responsibility for all services, materials, equipment, labor, transportation, construction equipment and machinery, tools, appliances, fuel, power, light, heat, telephone, water, sanitary facilities, temporary facilities, and all other facilities and incidentals necessary for the performance, testing, start-up, and completion of the Work.
- B. All materials and equipment incorporated into the Work shall be as specified or, if not specified, shall be of good quality and new, except as otherwise provided in the Contract Documents. All special warranties and guarantees required by the Specifications shall expressly run to the benefit of Owner. If required by Engineer, Contractor shall furnish satisfactory evidence (including reports of required tests) as to the source, kind, and quality of materials and equipment.
- C. All materials and equipment shall be stored, applied, installed, connected, erected, protected, used, cleaned, and conditioned in accordance with instructions of the applicable Supplier, except as otherwise may be provided in the Contract Documents.

6.04 *Progress Schedule*

- A. Contractor shall adhere to the Progress Schedule established in accordance with Paragraph 2.07 as it may be adjusted from time to time as provided below.
 - 1. Contractor shall submit to Engineer for acceptance (to the extent indicated in Paragraph 2.07) proposed adjustments in the Progress Schedule that will not result in changing the Contract Times. Such adjustments will comply with any provisions of the General Requirements applicable thereto.
 - 2. Proposed adjustments in the Progress Schedule that will change the Contract Times shall be submitted in accordance with the requirements of Article 12. Adjustments in Contract Times may only be made by a Change Order.

6.05 *Substitutes and "Or-Equals"*

- A. Whenever an item of material or equipment is specified or described in the Contract Documents by using the name of a proprietary item or the name of a particular Supplier, the specification or description is intended to establish the type, function, appearance, and quality required. Unless the specification or description contains or is followed by words reading that no like, equivalent, or "or-equal" item or no substitution is permitted, other items of material or equipment or material or equipment of other Suppliers may be submitted to Engineer for review under the circumstances described below.

1. *“Or-Equal” Items:* If in Engineer’s sole discretion an item of material or equipment proposed by Contractor is functionally equal to that named and sufficiently similar so that no change in related Work will be required, it may be considered by Engineer as an “or-equal” item, in which case review and approval of the proposed item may, in Engineer’s sole discretion, be accomplished without compliance with some or all of the requirements for approval of proposed substitute items. For the purposes of this Paragraph 6.05.A.1, a proposed item of material or equipment will be considered functionally equal to an item so named if:
 - a. in the exercise of reasonable judgment Engineer determines that:
 - 1) it is at least equal in materials of construction, quality, durability, appearance, strength, and design characteristics;
 - 2) it will reliably perform at least equally well the function and achieve the results imposed by the design concept of the completed Project as a functioning whole; and
 - 3) it has a proven record of performance and availability of responsive service.
 - b. Contractor certifies that, if approved and incorporated into the Work:
 - 1) there will be no increase in cost to the Owner or increase in Contract Times; and
 - 2) it will conform substantially to the detailed requirements of the item named in the Contract Documents.
2. *Substitute Items:*
 - a. If in Engineer’s sole discretion an item of material or equipment proposed by Contractor does not qualify as an “or-equal” item under Paragraph 6.05.A.1, it will be considered a proposed substitute item.
 - b. Contractor shall submit sufficient information as provided below to allow Engineer to determine if the item of material or equipment proposed is essentially equivalent to that named and an acceptable substitute therefor. Requests for review of proposed substitute items of material or equipment will not be accepted by Engineer from anyone other than Contractor.
 - c. The requirements for review by Engineer will be as set forth in Paragraph 6.05.A.2.d, as supplemented by the General Requirements, and as Engineer may decide is appropriate under the circumstances.
 - d. Contractor shall make written application to Engineer for review of a proposed substitute item of material or equipment that Contractor seeks to furnish or use. The application:
 - 1) shall certify that the proposed substitute item will:
 - a) perform adequately the functions and achieve the results called for by the general design,

- b) be similar in substance to that specified, and
 - c) be suited to the same use as that specified;
 - 2) will state:
 - a) the extent, if any, to which the use of the proposed substitute item will prejudice Contractor's achievement of Substantial Completion on time,
 - b) whether use of the proposed substitute item in the Work will require a change in any of the Contract Documents (or in the provisions of any other direct contract with Owner for other work on the Project) to adapt the design to the proposed substitute item, and
 - c) whether incorporation or use of the proposed substitute item in connection with the Work is subject to payment of any license fee or royalty;
 - 3) will identify:
 - a) all variations of the proposed substitute item from that specified, and
 - b) available engineering, sales, maintenance, repair, and replacement services; and
 - 4) shall contain an itemized estimate of all costs or credits that will result directly or indirectly from use of such substitute item, including costs of redesign and claims of other contractors affected by any resulting change.
- B. *Substitute Construction Methods or Procedures:* If a specific means, method, technique, sequence, or procedure of construction is expressly required by the Contract Documents, Contractor may furnish or utilize a substitute means, method, technique, sequence, or procedure of construction approved by Engineer. Contractor shall submit sufficient information to allow Engineer, in Engineer's sole discretion, to determine that the substitute proposed is equivalent to that expressly called for by the Contract Documents. The requirements for review by Engineer will be similar to those provided in Paragraph 6.05.A.2.
- C. *Engineer's Evaluation:* Engineer will be allowed a reasonable time within which to evaluate each proposal or submittal made pursuant to Paragraphs 6.05.A and 6.05.B. Engineer may require Contractor to furnish additional data about the proposed substitute item. Engineer will be the sole judge of acceptability. No "or equal" or substitute will be ordered, installed or utilized until Engineer's review is complete, which will be evidenced by a Change Order in the case of a substitute and an approved Shop Drawing for an "or equal." Engineer will advise Contractor in writing of any negative determination.
- D. *Special Guarantee:* Owner may require Contractor to furnish at Contractor's expense a special performance guarantee or other surety with respect to any substitute.
- E. *Engineer's Cost Reimbursement:* Engineer will record Engineer's costs in evaluating a substitute proposed or submitted by Contractor pursuant to Paragraphs 6.05.A.2 and 6.05.B. Whether or not Engineer approves a substitute so proposed or submitted by Contractor,

Contractor shall reimburse Owner for the reasonable charges of Engineer for evaluating each such proposed substitute. Contractor shall also reimburse Owner for the reasonable charges of Engineer for making changes in the Contract Documents (or in the provisions of any other direct contract with Owner) resulting from the acceptance of each proposed substitute.

- F. *Contractor's Expense*: Contractor shall provide all data in support of any proposed substitute or "or-equal" at Contractor's expense.

6.06 *Concerning Subcontractors, Suppliers, and Others*

- A. Contractor shall not employ any Subcontractor, Supplier, or other individual or entity (including those acceptable to Owner as indicated in Paragraph 6.06.B), whether initially or as a replacement, against whom Owner may have reasonable objection. Contractor shall not be required to employ any Subcontractor, Supplier, or other individual or entity to furnish or perform any of the Work against whom Contractor has reasonable objection.
- B. If the Supplementary Conditions require the identity of certain Subcontractors, Suppliers, or other individuals or entities to be submitted to Owner in advance for acceptance by Owner by a specified date prior to the Effective Date of the Agreement, and if Contractor has submitted a list thereof in accordance with the Supplementary Conditions, Owner's acceptance (either in writing or by failing to make written objection thereto by the date indicated for acceptance or objection in the Bidding Documents or the Contract Documents) of any such Subcontractor, Supplier, or other individual or entity so identified may be revoked on the basis of reasonable objection after due investigation. Contractor shall submit an acceptable replacement for the rejected Subcontractor, Supplier, or other individual or entity, and the Contract Price will be adjusted by the difference in the cost occasioned by such replacement, and an appropriate Change Order will be issued. No acceptance by Owner of any such Subcontractor, Supplier, or other individual or entity, whether initially or as a replacement, shall constitute a waiver of any right of Owner or Engineer to reject defective Work.
- C. Contractor shall be fully responsible to Owner and Engineer for all acts and omissions of the Subcontractors, Suppliers, and other individuals or entities performing or furnishing any of the Work just as Contractor is responsible for Contractor's own acts and omissions. Nothing in the Contract Documents:
1. shall create for the benefit of any such Subcontractor, Supplier, or other individual or entity any contractual relationship between Owner or Engineer and any such Subcontractor, Supplier or other individual or entity; nor
 2. shall create any obligation on the part of Owner or Engineer to pay or to see to the payment of any moneys due any such Subcontractor, Supplier, or other individual or entity except as may otherwise be required by Laws and Regulations.
- See Supplementary Condition 1.11**
- D. Contractor shall be solely responsible for scheduling and coordinating the Work of Subcontractors, Suppliers, and other individuals or entities performing or furnishing any of the Work under a direct or indirect contract with Contractor.

- E. Contractor shall require all Subcontractors, Suppliers, and such other individuals or entities performing or furnishing any of the Work to communicate with Engineer through Contractor.
- F. The divisions and sections of the Specifications and the identifications of any Drawings shall not control Contractor in dividing the Work among Subcontractors or Suppliers or delineating the Work to be performed by any specific trade.
- G. All Work performed for Contractor by a Subcontractor or Supplier will be pursuant to an appropriate agreement between Contractor and the Subcontractor or Supplier which specifically binds the Subcontractor or Supplier to the applicable terms and conditions of the Contract Documents for the benefit of Owner and Engineer. Whenever any such agreement is with a Subcontractor or Supplier who is listed as a loss payee on the property insurance provided in Paragraph 5.06, the agreement between the Contractor and the Subcontractor or Supplier will contain provisions whereby the Subcontractor or Supplier waives all rights against Owner, Contractor, Engineer, and all other individuals or entities identified in the Supplementary Conditions to be listed as insureds or loss payees (and the officers, directors, members, partners, employees, agents, consultants, and subcontractors of each and any of them) for all losses and damages caused by, arising out of, relating to, or resulting from any of the perils or causes of loss covered by such policies and any other property insurance applicable to the Work. If the insurers on any such policies require separate waiver forms to be signed by any Subcontractor or Supplier, Contractor will obtain the same.

6.07 *Patent Fees and Royalties*

- A. Contractor shall pay all license fees and royalties and assume all costs incident to the use in the performance of the Work or the incorporation in the Work of any invention, design, process, product, or device which is the subject of patent rights or copyrights held by others. If a particular invention, design, process, product, or device is specified in the Contract Documents for use in the performance of the Work and if, to the actual knowledge of Owner or Engineer, its use is subject to patent rights or copyrights calling for the payment of any license fee or royalty to others, the existence of such rights shall be disclosed by Owner in the Contract Documents.
- B. To the fullest extent permitted by Laws and Regulations, Owner shall indemnify and hold harmless Contractor, and its officers, directors, members, partners, employees, agents, consultants, and subcontractors from and against all claims, costs, losses, and damages (including but not limited to all fees and charges of engineers, architects, attorneys, and other professionals, and all court or arbitration or other dispute resolution costs) arising out of or relating to any infringement of patent rights or copyrights incident to the use in the performance of the Work or resulting from the incorporation in the Work of any invention, design, process, product, or device specified in the Contract Documents, but not identified as being subject to payment of any license fee or royalty to others required by patent rights or copyrights.
- C. To the fullest extent permitted by Laws and Regulations, Contractor shall indemnify and hold harmless Owner and Engineer, and the officers, directors, members, partners, employees, agents, consultants and subcontractors of each and any of them from and against all claims, costs, losses, and damages (including but not limited to all fees and charges of engineers,

architects, attorneys, and other professionals and all court or arbitration or other dispute resolution costs) arising out of or relating to any infringement of patent rights or copyrights incident to the use in the performance of the Work or resulting from the incorporation in the Work of any invention, design, process, product, or device not specified in the Contract Documents.

6.08 *Permits*

- A. Unless otherwise provided in the Supplementary Conditions, Contractor shall obtain and pay for all construction permits and licenses. Owner shall assist Contractor, when necessary, in obtaining such permits and licenses. Contractor shall pay all governmental charges and inspection fees necessary for the prosecution of the Work which are applicable at the time of opening of Bids, or, if there are no Bids, on the Effective Date of the Agreement. Owner shall pay all charges of utility owners for connections for providing permanent service to the Work.
See Supplementary Condition 1.26

6.09 *Laws and Regulations*

- A. Contractor shall give all notices required by and shall comply with all Laws and Regulations applicable to the performance of the Work. Except where otherwise expressly required by applicable Laws and Regulations, neither Owner nor Engineer shall be responsible for monitoring Contractor's compliance with any Laws or Regulations.
See Supplementary Conditions 1.12, 1.13, 1.14, 1.15, 1.25, 1.27, and 1.32
- B. If Contractor performs any Work knowing or having reason to know that it is contrary to Laws or Regulations, Contractor shall bear all claims, costs, losses, and damages (including but not limited to all fees and charges of engineers, architects, attorneys, and other professionals and all court or arbitration or other dispute resolution costs) arising out of or relating to such Work. However, it shall not be Contractor's responsibility to make certain that the Specifications and Drawings are in accordance with Laws and Regulations, but this shall not relieve Contractor of Contractor's obligations under Paragraph 3.03.
- C. Changes in Laws or Regulations not known at the time of opening of Bids (or, on the Effective Date of the Agreement if there were no Bids) having an effect on the cost or time of performance of the Work shall be the subject of an adjustment in Contract Price or Contract Times. If Owner and Contractor are unable to agree on entitlement to or on the amount or extent, if any, of any such adjustment, a Claim may be made therefor as provided in Paragraph 10.05.

6.10 *Taxes*

- A. Contractor shall pay all sales, consumer, use, and other similar taxes required to be paid by Contractor in accordance with the Laws and Regulations of the place of the Project which are applicable during the performance of the Work.
See Supplementary Condition 1.16

6.11 *Use of Site and Other Areas*

A. *Limitation on Use of Site and Other Areas:*

1. Contractor shall confine construction equipment, the storage of materials and equipment, and the operations of workers to the Site and other areas permitted by Laws and Regulations, and shall not unreasonably encumber the Site and other areas with construction equipment or other materials or equipment. Contractor shall assume full responsibility for any damage to any such land or area, or to the owner or occupant thereof, or of any adjacent land or areas resulting from the performance of the Work.
2. Should any claim be made by any such owner or occupant because of the performance of the Work, Contractor shall promptly settle with such other party by negotiation or otherwise resolve the claim by arbitration or other dispute resolution proceeding or at law.
3. To the fullest extent permitted by Laws and Regulations, Contractor shall indemnify and hold harmless Owner and Engineer, and the officers, directors, members, partners, employees, agents, consultants and subcontractors of each and any of them from and against all claims, costs, losses, and damages (including but not limited to all fees and charges of engineers, architects, attorneys, and other professionals and all court or arbitration or other dispute resolution costs) arising out of or relating to any claim or action, legal or equitable, brought by any such owner or occupant against Owner, Engineer, or any other party indemnified hereunder to the extent caused by or based upon Contractor's performance of the Work.

B. *Removal of Debris During Performance of the Work:* During the progress of the Work Contractor shall keep the Site and other areas free from accumulations of waste materials, rubbish, and other debris. Removal and disposal of such waste materials, rubbish, and other debris shall conform to applicable Laws and Regulations.

C. *Cleaning:* Prior to Substantial Completion of the Work Contractor shall clean the Site and the Work and make it ready for utilization by Owner. At the completion of the Work Contractor shall remove from the Site all tools, appliances, construction equipment and machinery, and surplus materials and shall restore to original condition all property not designated for alteration by the Contract Documents.

D. *Loading Structures:* Contractor shall not load nor permit any part of any structure to be loaded in any manner that will endanger the structure, nor shall Contractor subject any part of the Work or adjacent property to stresses or pressures that will endanger it.

6.12 *Record Documents*

A. Contractor shall maintain in a safe place at the Site one record copy of all Drawings, Specifications, Addenda, Change Orders, Work Change Directives, Field Orders, and written interpretations and clarifications in good order and annotated to show changes made during construction. These record documents together with all approved Samples and a counterpart of all approved Shop Drawings will be available to Engineer for reference. Upon completion of the

Work, these record documents, Samples, and Shop Drawings will be delivered to Engineer for Owner.

6.13 *Safety and Protection*

- A. Contractor shall be solely responsible for initiating, maintaining and supervising all safety precautions and programs in connection with the Work. Such responsibility does not relieve Subcontractors of their responsibility for the safety of persons or property in the performance of their work, nor for compliance with applicable safety Laws and Regulations. Contractor shall take all necessary precautions for the safety of, and shall provide the necessary protection to prevent damage, injury or loss to:
1. all persons on the Site or who may be affected by the Work;
 2. all the Work and materials and equipment to be incorporated therein, whether in storage on or off the Site; and
 3. other property at the Site or adjacent thereto, including trees, shrubs, lawns, walks, pavements, roadways, structures, utilities, and Underground Facilities not designated for removal, relocation, or replacement in the course of construction.
- B. Contractor shall comply with all applicable Laws and Regulations relating to the safety of persons or property, or to the protection of persons or property from damage, injury, or loss; and shall erect and maintain all necessary safeguards for such safety and protection. Contractor shall notify owners of adjacent property and of Underground Facilities and other utility owners when prosecution of the Work may affect them, and shall cooperate with them in the protection, removal, relocation, and replacement of their property.
- C. Contractor shall comply with the applicable requirements of Owner's safety programs, if any. The Supplementary Conditions identify any Owner's safety programs that are applicable to the Work.
- D. Contractor shall inform Owner and Engineer of the specific requirements of Contractor's safety program with which Owner's and Engineer's employees and representatives must comply while at the Site.
- E. All damage, injury, or loss to any property referred to in Paragraph 6.13.A.2 or 6.13.A.3 caused, directly or indirectly, in whole or in part, by Contractor, any Subcontractor, Supplier, or any other individual or entity directly or indirectly employed by any of them to perform any of the Work, or anyone for whose acts any of them may be liable, shall be remedied by Contractor (except damage or loss attributable to the fault of Drawings or Specifications or to the acts or omissions of Owner or Engineer or anyone employed by any of them, or anyone for whose acts any of them may be liable, and not attributable, directly or indirectly, in whole or in part, to the fault or negligence of Contractor or any Subcontractor, Supplier, or other individual or entity directly or indirectly employed by any of them).
- F. Contractor's duties and responsibilities for safety and for protection of the Work shall continue until such time as all the Work is completed and Engineer has issued a notice to Owner and

Contractor in accordance with Paragraph 14.07.B that the Work is acceptable (except as otherwise expressly provided in connection with Substantial Completion).

6.14 *Safety Representative*

- A. Contractor shall designate a qualified and experienced safety representative at the Site whose duties and responsibilities shall be the prevention of accidents and the maintaining and supervising of safety precautions and programs.

6.15 *Hazard Communication Programs*

- A. Contractor shall be responsible for coordinating any exchange of material safety data sheets or other hazard communication information required to be made available to or exchanged between or among employers at the Site in accordance with Laws or Regulations.

6.16 *Emergencies*

- A. In emergencies affecting the safety or protection of persons or the Work or property at the Site or adjacent thereto, Contractor is obligated to act to prevent threatened damage, injury, or loss. Contractor shall give Engineer prompt written notice if Contractor believes that any significant changes in the Work or variations from the Contract Documents have been caused thereby or are required as a result thereof. If Engineer determines that a change in the Contract Documents is required because of the action taken by Contractor in response to such an emergency, a Work Change Directive or Change Order will be issued.

See Supplementary Condition 1.17

6.17 *Shop Drawings and Samples*

- A. Contractor shall submit Shop Drawings and Samples to Engineer for review and approval in accordance with the accepted Schedule of Submittals (as required by Paragraph 2.07). Each submittal will be identified as Engineer may require.

1. *Shop Drawings:*

- a. Submit number of copies specified in the General Requirements.
- b. Data shown on the Shop Drawings will be complete with respect to quantities, dimensions, specified performance and design criteria, materials, and similar data to show Engineer the services, materials, and equipment Contractor proposes to provide and to enable Engineer to review the information for the limited purposes required by Paragraph 6.17.D.

2. *Samples:*

- a. Submit number of Samples specified in the Specifications.
- b. Clearly identify each Sample as to material, Supplier, pertinent data such as catalog numbers, the use for which intended and other data as Engineer may require to enable Engineer to review the submittal for the limited purposes required by Paragraph 6.17.D.

B. Where a Shop Drawing or Sample is required by the Contract Documents or the Schedule of Submittals, any related Work performed prior to Engineer's review and approval of the pertinent submittal will be at the sole expense and responsibility of Contractor.

C. Submittal Procedures:

1. Before submitting each Shop Drawing or Sample, Contractor shall have:
 - a. reviewed and coordinated each Shop Drawing or Sample with other Shop Drawings and Samples and with the requirements of the Work and the Contract Documents;
 - b. determined and verified all field measurements, quantities, dimensions, specified performance and design criteria, installation requirements, materials, catalog numbers, and similar information with respect thereto;
 - c. determined and verified the suitability of all materials offered with respect to the indicated application, fabrication, shipping, handling, storage, assembly, and installation pertaining to the performance of the Work; and
 - d. determined and verified all information relative to Contractor's responsibilities for means, methods, techniques, sequences, and procedures of construction, and safety precautions and programs incident thereto.
2. Each submittal shall bear a stamp or specific written certification that Contractor has satisfied Contractor's obligations under the Contract Documents with respect to Contractor's review and approval of that submittal.
3. With each submittal, Contractor shall give Engineer specific written notice of any variations that the Shop Drawing or Sample may have from the requirements of the Contract Documents. This notice shall be both a written communication separate from the Shop Drawings or Sample submittal; and, in addition, by a specific notation made on each Shop Drawing or Sample submitted to Engineer for review and approval of each such variation.

D. Engineer's Review:

1. Engineer will provide timely review of Shop Drawings and Samples in accordance with the Schedule of Submittals acceptable to Engineer. Engineer's review and approval will be only to determine if the items covered by the submittals will, after installation or incorporation in the Work, conform to the information given in the Contract Documents and be compatible with the design concept of the completed Project as a functioning whole as indicated by the Contract Documents.
2. Engineer's review and approval will not extend to means, methods, techniques, sequences, or procedures of construction (except where a particular means, method, technique, sequence, or procedure of construction is specifically and expressly called for by the Contract Documents) or to safety precautions or programs incident thereto. The review and approval of a separate item as such will not indicate approval of the assembly in which the item functions.

3. Engineer's review and approval shall not relieve Contractor from responsibility for any variation from the requirements of the Contract Documents unless Contractor has complied with the requirements of Paragraph 6.17.C.3 and Engineer has given written approval of each such variation by specific written notation thereof incorporated in or accompanying the Shop Drawing or Sample. Engineer's review and approval shall not relieve Contractor from responsibility for complying with the requirements of Paragraph 6.17.C.1.

E. *Resubmittal Procedures:*

1. Contractor shall make corrections required by Engineer and shall return the required number of corrected copies of Shop Drawings and submit, as required, new Samples for review and approval. Contractor shall direct specific attention in writing to revisions other than the corrections called for by Engineer on previous submittals.

See Supplementary Condition 1.18

6.18 *Continuing the Work*

- A. Contractor shall carry on the Work and adhere to the Progress Schedule during all disputes or disagreements with Owner. No Work shall be delayed or postponed pending resolution of any disputes or disagreements, except as permitted by Paragraph 15.04 or as Owner and Contractor may otherwise agree in writing.

6.19 *Contractor's General Warranty and Guarantee*

- A. Contractor warrants and guarantees to Owner that all Work will be in accordance with the Contract Documents and will not be defective. Engineer and its officers, directors, members, partners, employees, agents, consultants, and subcontractors shall be entitled to rely on representation of Contractor's warranty and guarantee.
- B. Contractor's warranty and guarantee hereunder excludes defects or damage caused by:
 1. abuse, modification, or improper maintenance or operation by persons other than Contractor, Subcontractors, Suppliers, or any other individual or entity for whom Contractor is responsible; or
 2. normal wear and tear under normal usage.
- C. Contractor's obligation to perform and complete the Work in accordance with the Contract Documents shall be absolute. None of the following will constitute an acceptance of Work that is not in accordance with the Contract Documents or a release of Contractor's obligation to perform the Work in accordance with the Contract Documents:
 1. observations by Engineer;
 2. recommendation by Engineer or payment by Owner of any progress or final payment;
 3. the issuance of a certificate of Substantial Completion by Engineer or any payment related thereto by Owner;

4. use or occupancy of the Work or any part thereof by Owner;
5. any review and approval of a Shop Drawing or Sample submittal or the issuance of a notice of acceptability by Engineer;
6. any inspection, test, or approval by others; or
7. any correction of defective Work by Owner.

6.20 *Indemnification*

- A. To the fullest extent permitted by Laws and Regulations, Contractor shall indemnify and hold harmless Owner and Engineer, and the officers, directors, members, partners, employees, agents, consultants and subcontractors of each and any of them from and against all claims, costs, losses, and damages (including but not limited to all fees and charges of engineers, architects, attorneys, and other professionals and all court or arbitration or other dispute resolution costs) arising out of or relating to the performance of the Work, provided that any such claim, cost, loss, or damage is attributable to bodily injury, sickness, disease, or death, or to injury to or destruction of tangible property (other than the Work itself), including the loss of use resulting therefrom but only to the extent caused by any negligent act or omission of Contractor, any Subcontractor, any Supplier, or any individual or entity directly or indirectly employed by any of them to perform any of the Work or anyone for whose acts any of them may be liable .
- B. In any and all claims against Owner or Engineer or any of their officers, directors, members, partners, employees, agents, consultants, or subcontractors by any employee (or the survivor or personal representative of such employee) of Contractor, any Subcontractor, any Supplier, or any individual or entity directly or indirectly employed by any of them to perform any of the Work, or anyone for whose acts any of them may be liable, the indemnification obligation under Paragraph 6.20.A shall not be limited in any way by any limitation on the amount or type of damages, compensation, or benefits payable by or for Contractor or any such Subcontractor, Supplier, or other individual or entity under workers' compensation acts, disability benefit acts, or other employee benefit acts.
- C. The indemnification obligations of Contractor under Paragraph 6.20.A shall not extend to the liability of Engineer and Engineer's officers, directors, members, partners, employees, agents, consultants and subcontractors arising out of:
 1. the preparation or approval of, or the failure to prepare or approve maps, Drawings, opinions, reports, surveys, Change Orders, designs, or Specifications; or
 2. giving directions or instructions, or failing to give them, if that is the primary cause of the injury or damage.

6.21 *Delegation of Professional Design Services*

- A. Contractor will not be required to provide professional design services unless such services are specifically required by the Contract Documents for a portion of the Work or unless such

services are required to carry out Contractor's responsibilities for construction means, methods, techniques, sequences and procedures. Contractor shall not be required to provide professional services in violation of applicable law.

- B. If professional design services or certifications by a design professional related to systems, materials or equipment are specifically required of Contractor by the Contract Documents, Owner and Engineer will specify all performance and design criteria that such services must satisfy. Contractor shall cause such services or certifications to be provided by a properly licensed professional, whose signature and seal shall appear on all drawings, calculations, specifications, certifications, Shop Drawings and other submittals prepared by such professional. Shop Drawings and other submittals related to the Work designed or certified by such professional, if prepared by others, shall bear such professional's written approval when submitted to Engineer.
- C. Owner and Engineer shall be entitled to rely upon the adequacy, accuracy and completeness of the services, certifications or approvals performed by such design professionals, provided Owner and Engineer have specified to Contractor all performance and design criteria that such services must satisfy.
- D. Pursuant to this Paragraph 6.21, Engineer's review and approval of design calculations and design drawings will be only for the limited purpose of checking for conformance with performance and design criteria given and the design concept expressed in the Contract Documents. Engineer's review and approval of Shop Drawings and other submittals (except design calculations and design drawings) will be only for the purpose stated in Paragraph 6.17.D.1.
- E. Contractor shall not be responsible for the adequacy of the performance or design criteria required by the Contract Documents.

ARTICLE 7 – OTHER WORK AT THE SITE

See Supplementary Condition 1.20

7.01 *Related Work at Site*

- A. Owner may perform other work related to the Project at the Site with Owner's employees, or through other direct contracts therefor, or have other work performed by utility owners. If such other work is not noted in the Contract Documents, then:
 - 1. written notice thereof will be given to Contractor prior to starting any such other work; and
 - 2. if Owner and Contractor are unable to agree on entitlement to or on the amount or extent, if any, of any adjustment in the Contract Price or Contract Times that should be allowed as a result of such other work, a Claim may be made therefor as provided in Paragraph 10.05.**See Supplementary Condition 1.19**
- B. Contractor shall afford each other contractor who is a party to such a direct contract, each utility owner, and Owner, if Owner is performing other work with Owner's employees, proper and safe access to the Site, provide a reasonable opportunity for the introduction and storage of

materials and equipment and the execution of such other work, and properly coordinate the Work with theirs. Contractor shall do all cutting, fitting, and patching of the Work that may be required to properly connect or otherwise make its several parts come together and properly integrate with such other work. Contractor shall not endanger any work of others by cutting, excavating, or otherwise altering such work; provided, however, that Contractor may cut or alter others' work with the written consent of Engineer and the others whose work will be affected. The duties and responsibilities of Contractor under this Paragraph are for the benefit of such utility owners and other contractors to the extent that there are comparable provisions for the benefit of Contractor in said direct contracts between Owner and such utility owners and other contractors.

See Supplementary Condition 1.19

- C. If the proper execution or results of any part of Contractor's Work depends upon work performed by others under this Article 7, Contractor shall inspect such other work and promptly report to Engineer in writing any delays, defects, or deficiencies in such other work that render it unavailable or unsuitable for the proper execution and results of Contractor's Work. Contractor's failure to so report will constitute an acceptance of such other work as fit and proper for integration with Contractor's Work except for latent defects and deficiencies in such other work.

7.02 *Coordination*

- A. If Owner intends to contract with others for the performance of other work on the Project at the Site, the following will be set forth in Supplementary Conditions:
 - 1. the individual or entity who will have authority and responsibility for coordination of the activities among the various contractors will be identified;
 - 2. the specific matters to be covered by such authority and responsibility will be itemized; and
 - 3. the extent of such authority and responsibilities will be provided.

See Supplementary Condition 1.19

- B. Unless otherwise provided in the Supplementary Conditions, Owner shall have sole authority and responsibility for such coordination.

See Supplementary Condition 1.19

7.03 *Legal Relationships*

- A. Paragraphs 7.01.A and 7.02 are not applicable for utilities not under the control of Owner.
- B. Each other direct contract of Owner under Paragraph 7.01.A shall provide that the other contractor is liable to Owner and Contractor for the reasonable direct delay and disruption costs incurred by Contractor as a result of the other contractor's wrongful actions or inactions.
- C. Contractor shall be liable to Owner and any other contractor under direct contract to Owner for the reasonable direct delay and disruption costs incurred by such other contractor as a result of Contractor's wrongful action or inactions.

ARTICLE 8 – OWNER’S RESPONSIBILITIES

8.01 *Communications to Contractor*

- A. Except as otherwise provided in these General Conditions, Owner shall issue all communications to Contractor through Engineer.

8.02 *Replacement of Engineer*

- A. In case of termination of the employment of Engineer, Owner shall appoint an engineer to whom Contractor makes no reasonable objection, whose status under the Contract Documents shall be that of the former Engineer.

8.03 *Furnish Data*

- A. Owner shall promptly furnish the data required of Owner under the Contract Documents.

8.04 *Pay When Due*

- A. Owner shall make payments to Contractor when they are due as provided in Paragraphs 14.02.C and 14.07.C.

8.05 *Lands and Easements; Reports and Tests*

- A. Owner’s duties with respect to providing lands and easements and providing engineering surveys to establish reference points are set forth in Paragraphs 4.01 and 4.05. Paragraph 4.02 refers to Owner’s identifying and making available to Contractor copies of reports of explorations and tests of subsurface conditions and drawings of physical conditions relating to existing surface or subsurface structures at the Site.

8.06 *Insurance*

- A. Owner’s responsibilities, if any, with respect to purchasing and maintaining liability and property insurance are set forth in Article 5.

8.07 *Change Orders*

- A. Owner is obligated to execute Change Orders as indicated in Paragraph 10.03.

8.08 *Inspections, Tests, and Approvals*

- A. Owner’s responsibility with respect to certain inspections, tests, and approvals is set forth in Paragraph 13.03.B.

8.09 *Limitations on Owner’s Responsibilities*

- A. The Owner shall not supervise, direct, or have control or authority over, nor be responsible for, Contractor’s means, methods, techniques, sequences, or procedures of construction, or the safety precautions and programs incident thereto, or for any failure of Contractor to comply with

Laws and Regulations applicable to the performance of the Work. Owner will not be responsible for Contractor's failure to perform the Work in accordance with the Contract Documents.

8.10 *Undisclosed Hazardous Environmental Condition*

- A. Owner's responsibility in respect to an undisclosed Hazardous Environmental Condition is set forth in Paragraph 4.06.

8.11 *Evidence of Financial Arrangements*

- A. Upon request of Contractor, Owner shall furnish Contractor reasonable evidence that financial arrangements have been made to satisfy Owner's obligations under the Contract Documents.

8.12 *Compliance with Safety Program*

- A. While at the Site, Owner's employees and representatives shall comply with the specific applicable requirements of Contractor's safety programs of which Owner has been informed pursuant to Paragraph 6.13.D.

ARTICLE 9 – ENGINEER'S STATUS DURING CONSTRUCTION

9.01 *Owner's Representative*

- A. Engineer will be Owner's representative during the construction period. The duties and responsibilities and the limitations of authority of Engineer as Owner's representative during construction are set forth in the Contract Documents.

See Supplementary Condition 1.33

9.02 *Visits to Site*

- A. Engineer will make visits to the Site at intervals appropriate to the various stages of construction as Engineer deems necessary in order to observe as an experienced and qualified design professional the progress that has been made and the quality of the various aspects of Contractor's executed Work. Based on information obtained during such visits and observations, Engineer, for the benefit of Owner, will determine, in general, if the Work is proceeding in accordance with the Contract Documents. Engineer will not be required to make exhaustive or continuous inspections on the Site to check the quality or quantity of the Work. Engineer's efforts will be directed toward providing for Owner a greater degree of confidence that the completed Work will conform generally to the Contract Documents. On the basis of such visits and observations, Engineer will keep Owner informed of the progress of the Work and will endeavor to guard Owner against defective Work.
- B. Engineer's visits and observations are subject to all the limitations on Engineer's authority and responsibility set forth in Paragraph 9.09. Particularly, but without limitation, during or as a result of Engineer's visits or observations of Contractor's Work, Engineer will not supervise, direct, control, or have authority over or be responsible for Contractor's means, methods, techniques, sequences, or procedures of construction, or the safety precautions and programs

incident thereto, or for any failure of Contractor to comply with Laws and Regulations applicable to the performance of the Work.

9.03 *Project Representative*

- A. If Owner and Engineer agree, Engineer will furnish a Resident Project Representative to assist Engineer in providing more extensive observation of the Work. The authority and responsibilities of any such Resident Project Representative and assistants will be as provided in the Supplementary Conditions, and limitations on the responsibilities thereof will be as provided in Paragraph 9.09. If Owner designates another representative or agent to represent Owner at the Site who is not Engineer's consultant, agent or employee, the responsibilities and authority and limitations thereon of such other individual or entity will be as provided in the Supplementary Conditions.

See Supplementary Condition 1.21

9.04 *Authorized Variations in Work*

- A. Engineer may authorize minor variations in the Work from the requirements of the Contract Documents which do not involve an adjustment in the Contract Price or the Contract Times and are compatible with the design concept of the completed Project as a functioning whole as indicated by the Contract Documents. These may be accomplished by a Field Order and will be binding on Owner and also on Contractor, who shall perform the Work involved promptly. If Owner or Contractor believes that a Field Order justifies an adjustment in the Contract Price or Contract Times, or both, and the parties are unable to agree on entitlement to or on the amount or extent, if any, of any such adjustment, a Claim may be made therefor as provided in Paragraph 10.05.

9.05 *Rejecting Defective Work*

- A. Engineer will have authority to reject Work which Engineer believes to be defective, or that Engineer believes will not produce a completed Project that conforms to the Contract Documents or that will prejudice the integrity of the design concept of the completed Project as a functioning whole as indicated by the Contract Documents. Engineer will also have authority to require special inspection or testing of the Work as provided in Paragraph 13.04, whether or not the Work is fabricated, installed, or completed.

9.06 *Shop Drawings, Change Orders and Payments*

- A. In connection with Engineer's authority, and limitations thereof, as to Shop Drawings and Samples, see Paragraph 6.17.
- B. In connection with Engineer's authority, and limitations thereof, as to design calculations and design drawings submitted in response to a delegation of professional design services, if any, see Paragraph 6.21.
- C. In connection with Engineer's authority as to Change Orders, see Articles 10, 11, and 12.
- D. In connection with Engineer's authority as to Applications for Payment, see Article 14.

9.07 *Determinations for Unit Price Work*

- A. Engineer will determine the actual quantities and classifications of Unit Price Work performed by Contractor. Engineer will review with Contractor the Engineer's preliminary determinations on such matters before rendering a written decision thereon (by recommendation of an Application for Payment or otherwise). Engineer's written decision thereon will be final and binding (except as modified by Engineer to reflect changed factual conditions or more accurate data) upon Owner and Contractor, subject to the provisions of Paragraph 10.05.

9.08 *Decisions on Requirements of Contract Documents and Acceptability of Work*

- A. Engineer will be the initial interpreter of the requirements of the Contract Documents and judge of the acceptability of the Work thereunder. All matters in question and other matters between Owner and Contractor arising prior to the date final payment is due relating to the acceptability of the Work, and the interpretation of the requirements of the Contract Documents pertaining to the performance of the Work, will be referred initially to Engineer in writing within 30 days of the event giving rise to the question.
- B. Engineer will, with reasonable promptness, render a written decision on the issue referred. If Owner or Contractor believes that any such decision entitles them to an adjustment in the Contract Price or Contract Times or both, a Claim may be made under Paragraph 10.05. The date of Engineer's decision shall be the date of the event giving rise to the issues referenced for the purposes of Paragraph 10.05.B.
- C. Engineer's written decision on the issue referred will be final and binding on Owner and Contractor, subject to the provisions of Paragraph 10.05.
- D. When functioning as interpreter and judge under this Paragraph 9.08, Engineer will not show partiality to Owner or Contractor and will not be liable in connection with any interpretation or decision rendered in good faith in such capacity.

9.09 *Limitations on Engineer's Authority and Responsibilities*

- A. Neither Engineer's authority or responsibility under this Article 9 or under any other provision of the Contract Documents nor any decision made by Engineer in good faith either to exercise or not exercise such authority or responsibility or the undertaking, exercise, or performance of any authority or responsibility by Engineer shall create, impose, or give rise to any duty in contract, tort, or otherwise owed by Engineer to Contractor, any Subcontractor, any Supplier, any other individual or entity, or to any surety for or employee or agent of any of them.
- B. Engineer will not supervise, direct, control, or have authority over or be responsible for Contractor's means, methods, techniques, sequences, or procedures of construction, or the safety precautions and programs incident thereto, or for any failure of Contractor to comply with Laws and Regulations applicable to the performance of the Work. Engineer will not be responsible for Contractor's failure to perform the Work in accordance with the Contract Documents.

- C. Engineer will not be responsible for the acts or omissions of Contractor or of any Subcontractor, any Supplier, or of any other individual or entity performing any of the Work.
- D. Engineer's review of the final Application for Payment and accompanying documentation and all maintenance and operating instructions, schedules, guarantees, bonds, certificates of inspection, tests and approvals, and other documentation required to be delivered by Paragraph 14.07.A will only be to determine generally that their content complies with the requirements of, and in the case of certificates of inspections, tests, and approvals that the results certified indicate compliance with, the Contract Documents.
- E. The limitations upon authority and responsibility set forth in this Paragraph 9.09 shall also apply to the Resident Project Representative, if any, and assistants, if any.

9.10 *Compliance with Safety Program*

- A. While at the Site, Engineer's employees and representatives shall comply with the specific applicable requirements of Contractor's safety programs of which Engineer has been informed pursuant to Paragraph 6.13.D.

ARTICLE 10 – CHANGES IN THE WORK; CLAIMS

10.01 *Authorized Changes in the Work*

- A. Without invalidating the Contract and without notice to any surety, Owner may, at any time or from time to time, order additions, deletions, or revisions in the Work by a Change Order, or a Work Change Directive. Upon receipt of any such document, Contractor shall promptly proceed with the Work involved which will be performed under the applicable conditions of the Contract Documents (except as otherwise specifically provided).
- B. If Owner and Contractor are unable to agree on entitlement to, or on the amount or extent, if any, of an adjustment in the Contract Price or Contract Times, or both, that should be allowed as a result of a Work Change Directive, a Claim may be made therefor as provided in Paragraph 10.05.

10.02 *Unauthorized Changes in the Work*

- A. Contractor shall not be entitled to an increase in the Contract Price or an extension of the Contract Times with respect to any work performed that is not required by the Contract Documents as amended, modified, or supplemented as provided in Paragraph 3.04, except in the case of an emergency as provided in Paragraph 6.16 or in the case of uncovering Work as provided in Paragraph 13.04.D.

10.03 *Execution of Change Orders*

- A. Owner and Contractor shall execute appropriate Change Orders recommended by Engineer covering:

1. changes in the Work which are: (i) ordered by Owner pursuant to Paragraph 10.01.A, (ii) required because of acceptance of defective Work under Paragraph 13.08.A or Owner's correction of defective Work under Paragraph 13.09, or (iii) agreed to by the parties;
2. changes in the Contract Price or Contract Times which are agreed to by the parties, including any undisputed sum or amount of time for Work actually performed in accordance with a Work Change Directive; and
3. changes in the Contract Price or Contract Times which embody the substance of any written decision rendered by Engineer pursuant to Paragraph 10.05; provided that, in lieu of executing any such Change Order, an appeal may be taken from any such decision in accordance with the provisions of the Contract Documents and applicable Laws and Regulations, but during any such appeal, Contractor shall carry on the Work and adhere to the Progress Schedule as provided in Paragraph 6.18.A.

10.04 *Notification to Surety*

- A. If the provisions of any bond require notice to be given to a surety of any change affecting the general scope of the Work or the provisions of the Contract Documents (including, but not limited to, Contract Price or Contract Times), the giving of any such notice will be Contractor's responsibility. The amount of each applicable bond will be adjusted to reflect the effect of any such change.

10.05 *Claims*

- A. *Engineer's Decision Required:* All Claims, except those waived pursuant to Paragraph 14.09, shall be referred to the Engineer for decision. A decision by Engineer shall be required as a condition precedent to any exercise by Owner or Contractor of any rights or remedies either may otherwise have under the Contract Documents or by Laws and Regulations in respect of such Claims.
- B. *Notice:* Written notice stating the general nature of each Claim shall be delivered by the claimant to Engineer and the other party to the Contract promptly (but in no event later than 30 days) after the start of the event giving rise thereto. The responsibility to substantiate a Claim shall rest with the party making the Claim. Notice of the amount or extent of the Claim, with supporting data shall be delivered to the Engineer and the other party to the Contract within 60 days after the start of such event (unless Engineer allows additional time for claimant to submit additional or more accurate data in support of such Claim). A Claim for an adjustment in Contract Price shall be prepared in accordance with the provisions of Paragraph 12.01.B. A Claim for an adjustment in Contract Times shall be prepared in accordance with the provisions of Paragraph 12.02.B. Each Claim shall be accompanied by claimant's written statement that the adjustment claimed is the entire adjustment to which the claimant believes it is entitled as a result of said event. The opposing party shall submit any response to Engineer and the claimant within 30 days after receipt of the claimant's last submittal (unless Engineer allows additional time).

- C. *Engineer's Action:* Engineer will review each Claim and, within 30 days after receipt of the last submittal of the claimant or the last submittal of the opposing party, if any, take one of the following actions in writing:
1. deny the Claim in whole or in part;
 2. approve the Claim; or
 3. notify the parties that the Engineer is unable to resolve the Claim if, in the Engineer's sole discretion, it would be inappropriate for the Engineer to do so. For purposes of further resolution of the Claim, such notice shall be deemed a denial.
- D. In the event that Engineer does not take action on a Claim within said 30 days, the Claim shall be deemed denied.
- E. Engineer's written action under Paragraph 10.05.C or denial pursuant to Paragraphs 10.05.C.3 or 10.05.D will be final and binding upon Owner and Contractor, unless Owner or Contractor invoke the dispute resolution procedure set forth in Article 16 within 30 days of such action or denial.
- F. No Claim for an adjustment in Contract Price or Contract Times will be valid if not submitted in accordance with this Paragraph 10.05.

ARTICLE 11 – COST OF THE WORK; ALLOWANCES; UNIT PRICE WORK

11.01 *Cost of the Work*

- A. *Costs Included:* The term Cost of the Work means the sum of all costs, except those excluded in Paragraph 11.01.B, necessarily incurred and paid by Contractor in the proper performance of the Work. When the value of any Work covered by a Change Order or when a Claim for an adjustment in Contract Price is determined on the basis of Cost of the Work, the costs to be reimbursed to Contractor will be only those additional or incremental costs required because of the change in the Work or because of the event giving rise to the Claim. Except as otherwise may be agreed to in writing by Owner, such costs shall be in amounts no higher than those prevailing in the locality of the Project, shall not include any of the costs itemized in Paragraph 11.01.B, and shall include only the following items:
1. Payroll costs for employees in the direct employ of Contractor in the performance of the Work under schedules of job classifications agreed upon by Owner and Contractor. Such employees shall include, without limitation, superintendents, foremen, and other personnel employed full time on the Work. Payroll costs for employees not employed full time on the Work shall be apportioned on the basis of their time spent on the Work. Payroll costs shall include, but not be limited to, salaries and wages plus the cost of fringe benefits, which shall include social security contributions, unemployment, excise, and payroll taxes, workers' compensation, health and retirement benefits, bonuses, sick leave, vacation and holiday pay applicable thereto. The expenses of performing Work outside of regular working hours, on Saturday, Sunday, or legal holidays, shall be included in the above to the extent authorized by Owner.

2. Cost of all materials and equipment furnished and incorporated in the Work, including costs of transportation and storage thereof, and Suppliers' field services required in connection therewith. All cash discounts shall accrue to Contractor unless Owner deposits funds with Contractor with which to make payments, in which case the cash discounts shall accrue to Owner. All trade discounts, rebates and refunds and returns from sale of surplus materials and equipment shall accrue to Owner, and Contractor shall make provisions so that they may be obtained.
3. Payments made by Contractor to Subcontractors for Work performed by Subcontractors. If required by Owner, Contractor shall obtain competitive bids from subcontractors acceptable to Owner and Contractor and shall deliver such bids to Owner, who will then determine, with the advice of Engineer, which bids, if any, will be acceptable. If any subcontract provides that the Subcontractor is to be paid on the basis of Cost of the Work plus a fee, the Subcontractor's Cost of the Work and fee shall be determined in the same manner as Contractor's Cost of the Work and fee as provided in this Paragraph 11.01.
4. Costs of special consultants (including but not limited to engineers, architects, testing laboratories, surveyors, attorneys, and accountants) employed for services specifically related to the Work.
5. Supplemental costs including the following:
 - a. The proportion of necessary transportation, travel, and subsistence expenses of Contractor's employees incurred in discharge of duties connected with the Work.
 - b. Cost, including transportation and maintenance, of all materials, supplies, equipment, machinery, appliances, office, and temporary facilities at the Site, and hand tools not owned by the workers, which are consumed in the performance of the Work, and cost, less market value, of such items used but not consumed which remain the property of Contractor.
 - c. Rentals of all construction equipment and machinery, and the parts thereof whether rented from Contractor or others in accordance with rental agreements approved by Owner with the advice of Engineer, and the costs of transportation, loading, unloading, assembly, dismantling, and removal thereof. All such costs shall be in accordance with the terms of said rental agreements. The rental of any such equipment, machinery, or parts shall cease when the use thereof is no longer necessary for the Work.
 - d. Sales, consumer, use, and other similar taxes related to the Work, and for which Contractor is liable, as imposed by Laws and Regulations.
 - e. Deposits lost for causes other than negligence of Contractor, any Subcontractor, or anyone directly or indirectly employed by any of them or for whose acts any of them may be liable, and royalty payments and fees for permits and licenses.
 - f. Losses and damages (and related expenses) caused by damage to the Work, not compensated by insurance or otherwise, sustained by Contractor in connection with the performance of the Work (except losses and damages within the deductible amounts of

property insurance established in accordance with Paragraph 5.06.D), provided such losses and damages have resulted from causes other than the negligence of Contractor, any Subcontractor, or anyone directly or indirectly employed by any of them or for whose acts any of them may be liable. Such losses shall include settlements made with the written consent and approval of Owner. No such losses, damages, and expenses shall be included in the Cost of the Work for the purpose of determining Contractor's fee.

- g. The cost of utilities, fuel, and sanitary facilities at the Site.
- h. Minor expenses such as telegrams, long distance telephone calls, telephone service at the Site, express and courier services, and similar petty cash items in connection with the Work.
- i. The costs of premiums for all bonds and insurance Contractor is required by the Contract Documents to purchase and maintain.

B. *Costs Excluded:* The term Cost of the Work shall not include any of the following items:

- 1. Payroll costs and other compensation of Contractor's officers, executives, principals (of partnerships and sole proprietorships), general managers, safety managers, engineers, architects, estimators, attorneys, auditors, accountants, purchasing and contracting agents, expeditors, timekeepers, clerks, and other personnel employed by Contractor, whether at the Site or in Contractor's principal or branch office for general administration of the Work and not specifically included in the agreed upon schedule of job classifications referred to in Paragraph 11.01.A.1 or specifically covered by Paragraph 11.01.A.4, all of which are to be considered administrative costs covered by the Contractor's fee.
- 2. Expenses of Contractor's principal and branch offices other than Contractor's office at the Site.
- 3. Any part of Contractor's capital expenses, including interest on Contractor's capital employed for the Work and charges against Contractor for delinquent payments.
- 4. Costs due to the negligence of Contractor, any Subcontractor, or anyone directly or indirectly employed by any of them or for whose acts any of them may be liable, including but not limited to, the correction of defective Work, disposal of materials or equipment wrongly supplied, and making good any damage to property.
- 5. Other overhead or general expense costs of any kind and the costs of any item not specifically and expressly included in Paragraphs 11.01.A.

C. *Contractor's Fee:* When all the Work is performed on the basis of cost-plus, Contractor's fee shall be determined as set forth in the Agreement. When the value of any Work covered by a Change Order or when a Claim for an adjustment in Contract Price is determined on the basis of Cost of the Work, Contractor's fee shall be determined as set forth in Paragraph 12.01.C.

D. *Documentation:* Whenever the Cost of the Work for any purpose is to be determined pursuant to Paragraphs 11.01.A and 11.01.B, Contractor will establish and maintain records thereof in

accordance with generally accepted accounting practices and submit in a form acceptable to Engineer an itemized cost breakdown together with supporting data.

11.02 *Allowances*

A. It is understood that Contractor has included in the Contract Price all allowances so named in the Contract Documents and shall cause the Work so covered to be performed for such sums and by such persons or entities as may be acceptable to Owner and Engineer.

B. *Cash Allowances:*

1. Contractor agrees that:

- a. the cash allowances include the cost to Contractor (less any applicable trade discounts) of materials and equipment required by the allowances to be delivered at the Site, and all applicable taxes; and
- b. Contractor's costs for unloading and handling on the Site, labor, installation, overhead, profit, and other expenses contemplated for the cash allowances have been included in the Contract Price and not in the allowances, and no demand for additional payment on account of any of the foregoing will be valid.

C. *Contingency Allowance:*

1. Contractor agrees that a contingency allowance, if any, is for the sole use of Owner to cover unanticipated costs.

D. Prior to final payment, an appropriate Change Order will be issued as recommended by Engineer to reflect actual amounts due Contractor on account of Work covered by allowances, and the Contract Price shall be correspondingly adjusted.

11.03 *Unit Price Work*

A. Where the Contract Documents provide that all or part of the Work is to be Unit Price Work, initially the Contract Price will be deemed to include for all Unit Price Work an amount equal to the sum of the unit price for each separately identified item of Unit Price Work times the estimated quantity of each item as indicated in the Agreement.

B. The estimated quantities of items of Unit Price Work are not guaranteed and are solely for the purpose of comparison of Bids and determining an initial Contract Price. Determinations of the actual quantities and classifications of Unit Price Work performed by Contractor will be made by Engineer subject to the provisions of Paragraph 9.07.

C. Each unit price will be deemed to include an amount considered by Contractor to be adequate to cover Contractor's overhead and profit for each separately identified item.

D. Owner or Contractor may make a Claim for an adjustment in the Contract Price in accordance with Paragraph 10.05 if:

1. the quantity of any item of Unit Price Work performed by Contractor differs materially and significantly from the estimated quantity of such item indicated in the Agreement; and
2. there is no corresponding adjustment with respect to any other item of Work; and
3. Contractor believes that Contractor is entitled to an increase in Contract Price as a result of having incurred additional expense or Owner believes that Owner is entitled to a decrease in Contract Price and the parties are unable to agree as to the amount of any such increase or decrease.

See Supplementary Condition 1.22

ARTICLE 12 – CHANGE OF CONTRACT PRICE; CHANGE OF CONTRACT TIMES

12.01 *Change of Contract Price*

- A. The Contract Price may only be changed by a Change Order. Any Claim for an adjustment in the Contract Price shall be based on written notice submitted by the party making the Claim to the Engineer and the other party to the Contract in accordance with the provisions of Paragraph 10.05.
- B. The value of any Work covered by a Change Order or of any Claim for an adjustment in the Contract Price will be determined as follows:
 1. where the Work involved is covered by unit prices contained in the Contract Documents, by application of such unit prices to the quantities of the items involved (subject to the provisions of Paragraph 11.03); or
 2. where the Work involved is not covered by unit prices contained in the Contract Documents, by a mutually agreed lump sum (which may include an allowance for overhead and profit not necessarily in accordance with Paragraph 12.01.C.2); or
 3. where the Work involved is not covered by unit prices contained in the Contract Documents and agreement to a lump sum is not reached under Paragraph 12.01.B.2, on the basis of the Cost of the Work (determined as provided in Paragraph 11.01) plus a Contractor's fee for overhead and profit (determined as provided in Paragraph 12.01.C).
- C. *Contractor's Fee:* The Contractor's fee for overhead and profit shall be determined as follows:
 1. a mutually acceptable fixed fee; or
 2. if a fixed fee is not agreed upon, then a fee based on the following percentages of the various portions of the Cost of the Work:
 - a. for costs incurred under Paragraphs 11.01.A.1 and 11.01.A.2, the Contractor's fee shall be 15 percent;
 - b. for costs incurred under Paragraph 11.01.A.3, the Contractor's fee shall be five percent;

- c. where one or more tiers of subcontracts are on the basis of Cost of the Work plus a fee and no fixed fee is agreed upon, the intent of Paragraphs 12.01.C.2.a and 12.01.C.2.b is that the Subcontractor who actually performs the Work, at whatever tier, will be paid a fee of 15 percent of the costs incurred by such Subcontractor under Paragraphs 11.01.A.1 and 11.01.A.2 and that any higher tier Subcontractor and Contractor will each be paid a fee of five percent of the amount paid to the next lower tier Subcontractor;
- d. no fee shall be payable on the basis of costs itemized under Paragraphs 11.01.A.4, 11.01.A.5, and 11.01.B;
- e. the amount of credit to be allowed by Contractor to Owner for any change which results in a net decrease in cost will be the amount of the actual net decrease in cost plus a deduction in Contractor's fee by an amount equal to five percent of such net decrease; and
- f. when both additions and credits are involved in any one change, the adjustment in Contractor's fee shall be computed on the basis of the net change in accordance with Paragraphs 12.01.C.2.a through 12.01.C.2.e, inclusive.

12.02 *Change of Contract Times*

- A. The Contract Times may only be changed by a Change Order. Any Claim for an adjustment in the Contract Times shall be based on written notice submitted by the party making the Claim to the Engineer and the other party to the Contract in accordance with the provisions of Paragraph 10.05.
- B. Any adjustment of the Contract Times covered by a Change Order or any Claim for an adjustment in the Contract Times will be determined in accordance with the provisions of this Article 12.

12.03 *Delays*

- A. Where Contractor is prevented from completing any part of the Work within the Contract Times due to delay beyond the control of Contractor, the Contract Times will be extended in an amount equal to the time lost due to such delay if a Claim is made therefor as provided in Paragraph 12.02.A. Delays beyond the control of Contractor shall include, but not be limited to, acts or neglect by Owner, acts or neglect of utility owners or other contractors performing other work as contemplated by Article 7, fires, floods, epidemics, abnormal weather conditions, or acts of God.
- B. If Owner, Engineer, or other contractors or utility owners performing other work for Owner as contemplated by Article 7, or anyone for whom Owner is responsible, delays, disrupts, or interferes with the performance or progress of the Work, then Contractor shall be entitled to an equitable adjustment in the Contract Price or the Contract Times, or both. Contractor's entitlement to an adjustment of the Contract Times is conditioned on such adjustment being essential to Contractor's ability to complete the Work within the Contract Times.

- C. If Contractor is delayed in the performance or progress of the Work by fire, flood, epidemic, abnormal weather conditions, acts of God, acts or failures to act of utility owners not under the control of Owner, or other causes not the fault of and beyond control of Owner and Contractor, then Contractor shall be entitled to an equitable adjustment in Contract Times, if such adjustment is essential to Contractor's ability to complete the Work within the Contract Times. Such an adjustment shall be Contractor's sole and exclusive remedy for the delays described in this Paragraph 12.03.C.
- D. Owner, Engineer, and their officers, directors, members, partners, employees, agents, consultants, or subcontractors shall not be liable to Contractor for any claims, costs, losses, or damages (including but not limited to all fees and charges of engineers, architects, attorneys, and other professionals and all court or arbitration or other dispute resolution costs) sustained by Contractor on or in connection with any other project or anticipated project.
- E. Contractor shall not be entitled to an adjustment in Contract Price or Contract Times for delays within the control of Contractor. Delays attributable to and within the control of a Subcontractor or Supplier shall be deemed to be delays within the control of Contractor.

ARTICLE 13 – TESTS AND INSPECTIONS; CORRECTION, REMOVAL OR ACCEPTANCE OF DEFECTIVE WORK

13.01 Notice of Defects

- A. Prompt notice of all defective Work of which Owner or Engineer has actual knowledge will be given to Contractor. Defective Work may be rejected, corrected, or accepted as provided in this Article 13.

13.02 Access to Work

- A. Owner, Engineer, their consultants and other representatives and personnel of Owner, independent testing laboratories, and governmental agencies with jurisdictional interests will have access to the Site and the Work at reasonable times for their observation, inspection, and testing. Contractor shall provide them proper and safe conditions for such access and advise them of Contractor's safety procedures and programs so that they may comply therewith as applicable.

13.03 Tests and Inspections

- A. Contractor shall give Engineer timely notice of readiness of the Work for all required inspections, tests, or approvals and shall cooperate with inspection and testing personnel to facilitate required inspections or tests.
- B. Owner shall employ and pay for the services of an independent testing laboratory to perform all inspections, tests, or approvals required by the Contract Documents except:
 - 1. for inspections, tests, or approvals covered by Paragraphs 13.03.C and 13.03.D below;

2. that costs incurred in connection with tests or inspections conducted pursuant to Paragraph 13.04.B shall be paid as provided in Paragraph 13.04.C; and
 3. as otherwise specifically provided in the Contract Documents.
- C. If Laws or Regulations of any public body having jurisdiction require any Work (or part thereof) specifically to be inspected, tested, or approved by an employee or other representative of such public body, Contractor shall assume full responsibility for arranging and obtaining such inspections, tests, or approvals, pay all costs in connection therewith, and furnish Engineer the required certificates of inspection or approval.
 - D. Contractor shall be responsible for arranging and obtaining and shall pay all costs in connection with any inspections, tests, or approvals required for Owner's and Engineer's acceptance of materials or equipment to be incorporated in the Work; or acceptance of materials, mix designs, or equipment submitted for approval prior to Contractor's purchase thereof for incorporation in the Work. Such inspections, tests, or approvals shall be performed by organizations acceptable to Owner and Engineer.
 - E. If any Work (or the work of others) that is to be inspected, tested, or approved is covered by Contractor without written concurrence of Engineer, Contractor shall, if requested by Engineer, uncover such Work for observation.
 - F. Uncovering Work as provided in Paragraph 13.03.E shall be at Contractor's expense unless Contractor has given Engineer timely notice of Contractor's intention to cover the same and Engineer has not acted with reasonable promptness in response to such notice.

13.04 *Uncovering Work*

- A. If any Work is covered contrary to the written request of Engineer, it must, if requested by Engineer, be uncovered for Engineer's observation and replaced at Contractor's expense.
- B. If Engineer considers it necessary or advisable that covered Work be observed by Engineer or inspected or tested by others, Contractor, at Engineer's request, shall uncover, expose, or otherwise make available for observation, inspection, or testing as Engineer may require, that portion of the Work in question, furnishing all necessary labor, material, and equipment.
- C. If it is found that the uncovered Work is defective, Contractor shall pay all claims, costs, losses, and damages (including but not limited to all fees and charges of engineers, architects, attorneys, and other professionals and all court or arbitration or other dispute resolution costs) arising out of or relating to such uncovering, exposure, observation, inspection, and testing, and of satisfactory replacement or reconstruction (including but not limited to all costs of repair or replacement of work of others); and Owner shall be entitled to an appropriate decrease in the Contract Price. If the parties are unable to agree as to the amount thereof, Owner may make a Claim therefor as provided in Paragraph 10.05.
- D. If the uncovered Work is not found to be defective, Contractor shall be allowed an increase in the Contract Price or an extension of the Contract Times, or both, directly attributable to such uncovering, exposure, observation, inspection, testing, replacement, and reconstruction. If the

parties are unable to agree as to the amount or extent thereof, Contractor may make a Claim therefor as provided in Paragraph 10.05.

13.05 *Owner May Stop the Work*

- A. If the Work is defective, or Contractor fails to supply sufficient skilled workers or suitable materials or equipment, or fails to perform the Work in such a way that the completed Work will conform to the Contract Documents, Owner may order Contractor to stop the Work, or any portion thereof, until the cause for such order has been eliminated; however, this right of Owner to stop the Work shall not give rise to any duty on the part of Owner to exercise this right for the benefit of Contractor, any Subcontractor, any Supplier, any other individual or entity, or any surety for, or employee or agent of any of them.

13.06 *Correction or Removal of Defective Work*

- A. Promptly after receipt of written notice, Contractor shall correct all defective Work, whether or not fabricated, installed, or completed, or, if the Work has been rejected by Engineer, remove it from the Project and replace it with Work that is not defective. Contractor shall pay all claims, costs, losses, and damages (including but not limited to all fees and charges of engineers, architects, attorneys, and other professionals and all court or arbitration or other dispute resolution costs) arising out of or relating to such correction or removal (including but not limited to all costs of repair or replacement of work of others).
- B. When correcting defective Work under the terms of this Paragraph 13.06 or Paragraph 13.07, Contractor shall take no action that would void or otherwise impair Owner's special warranty and guarantee, if any, on said Work.

13.07 *Correction Period*

- A. If within one year after the date of Substantial Completion (or such longer period of time as may be prescribed by the terms of any applicable special guarantee required by the Contract Documents) or by any specific provision of the Contract Documents, any Work is found to be defective, or if the repair of any damages to the land or areas made available for Contractor's use by Owner or permitted by Laws and Regulations as contemplated in Paragraph 6.11.A is found to be defective, Contractor shall promptly, without cost to Owner and in accordance with Owner's written instructions:
 - 1. repair such defective land or areas; or
 - 2. correct such defective Work; or
 - 3. if the defective Work has been rejected by Owner, remove it from the Project and replace it with Work that is not defective, and
 - 4. satisfactorily correct or repair or remove and replace any damage to other Work, to the work of others or other land or areas resulting therefrom.

- B. If Contractor does not promptly comply with the terms of Owner's written instructions, or in an emergency where delay would cause serious risk of loss or damage, Owner may have the defective Work corrected or repaired or may have the rejected Work removed and replaced. All claims, costs, losses, and damages (including but not limited to all fees and charges of engineers, architects, attorneys, and other professionals and all court or arbitration or other dispute resolution costs) arising out of or relating to such correction or repair or such removal and replacement (including but not limited to all costs of repair or replacement of work of others) will be paid by Contractor.
- C. In special circumstances where a particular item of equipment is placed in continuous service before Substantial Completion of all the Work, the correction period for that item may start to run from an earlier date if so provided in the Specifications.
- D. Where defective Work (and damage to other Work resulting therefrom) has been corrected or removed and replaced under this Paragraph 13.07, the correction period hereunder with respect to such Work will be extended for an additional period of one year after such correction or removal and replacement has been satisfactorily completed.
- E. Contractor's obligations under this Paragraph 13.07 are in addition to any other obligation or warranty. The provisions of this Paragraph 13.07 shall not be construed as a substitute for, or a waiver of, the provisions of any applicable statute of limitation or repose.

13.08 *Acceptance of Defective Work*

- A. If, instead of requiring correction or removal and replacement of defective Work, Owner (and, prior to Engineer's recommendation of final payment, Engineer) prefers to accept it, Owner may do so. Contractor shall pay all claims, costs, losses, and damages (including but not limited to all fees and charges of engineers, architects, attorneys, and other professionals and all court or arbitration or other dispute resolution costs) attributable to Owner's evaluation of and determination to accept such defective Work (such costs to be approved by Engineer as to reasonableness) and for the diminished value of the Work to the extent not otherwise paid by Contractor pursuant to this sentence. If any such acceptance occurs prior to Engineer's recommendation of final payment, a Change Order will be issued incorporating the necessary revisions in the Contract Documents with respect to the Work, and Owner shall be entitled to an appropriate decrease in the Contract Price, reflecting the diminished value of Work so accepted. If the parties are unable to agree as to the amount thereof, Owner may make a Claim therefor as provided in Paragraph 10.05. If the acceptance occurs after such recommendation, an appropriate amount will be paid by Contractor to Owner.

13.09 *Owner May Correct Defective Work*

- A. If Contractor fails within a reasonable time after written notice from Engineer to correct defective Work, or to remove and replace rejected Work as required by Engineer in accordance with Paragraph 13.06.A, or if Contractor fails to perform the Work in accordance with the Contract Documents, or if Contractor fails to comply with any other provision of the Contract Documents, Owner may, after seven days written notice to Contractor, correct, or remedy any such deficiency.

- B. In exercising the rights and remedies under this Paragraph 13.09, Owner shall proceed expeditiously. In connection with such corrective or remedial action, Owner may exclude Contractor from all or part of the Site, take possession of all or part of the Work and suspend Contractor's services related thereto, take possession of Contractor's tools, appliances, construction equipment and machinery at the Site, and incorporate in the Work all materials and equipment stored at the Site or for which Owner has paid Contractor but which are stored elsewhere. Contractor shall allow Owner, Owner's representatives, agents and employees, Owner's other contractors, and Engineer and Engineer's consultants access to the Site to enable Owner to exercise the rights and remedies under this Paragraph.
- C. All claims, costs, losses, and damages (including but not limited to all fees and charges of engineers, architects, attorneys, and other professionals and all court or arbitration or other dispute resolution costs) incurred or sustained by Owner in exercising the rights and remedies under this Paragraph 13.09 will be charged against Contractor, and a Change Order will be issued incorporating the necessary revisions in the Contract Documents with respect to the Work; and Owner shall be entitled to an appropriate decrease in the Contract Price. If the parties are unable to agree as to the amount of the adjustment, Owner may make a Claim therefor as provided in Paragraph 10.05. Such claims, costs, losses and damages will include but not be limited to all costs of repair, or replacement of work of others destroyed or damaged by correction, removal, or replacement of Contractor's defective Work.
- D. Contractor shall not be allowed an extension of the Contract Times because of any delay in the performance of the Work attributable to the exercise by Owner of Owner's rights and remedies under this Paragraph 13.09.

ARTICLE 14 – PAYMENTS TO CONTRACTOR AND COMPLETION

14.01 *Schedule of Values*

- A. The Schedule of Values established as provided in Paragraph 2.07.A will serve as the basis for progress payments and will be incorporated into a form of Application for Payment acceptable to Engineer. Progress payments on account of Unit Price Work will be based on the number of units completed.

14.02 *Progress Payments*

A. *Applications for Payments:*

- 1. At least 20 days before the date established in the Agreement for each progress payment (but not more often than once a month), Contractor shall submit to Engineer for review an Application for Payment filled out and signed by Contractor covering the Work completed as of the date of the Application and accompanied by such supporting documentation as is required by the Contract Documents. If payment is requested on the basis of materials and equipment not incorporated in the Work but delivered and suitably stored at the Site or at another location agreed to in writing, the Application for Payment shall also be accompanied by a bill of sale, invoice, or other documentation warranting that Owner has received the materials and equipment free and clear of all Liens and evidence that the materials and

equipment are covered by appropriate property insurance or other arrangements to protect Owner's interest therein, all of which must be satisfactory to Owner.

See Supplementary Condition 1.24

2. Beginning with the second Application for Payment, each Application shall include an affidavit of Contractor stating that all previous progress payments received on account of the Work have been applied on account to discharge Contractor's legitimate obligations associated with prior Applications for Payment.
3. The amount of retainage with respect to progress payments will be as stipulated in the Agreement.

B. Review of Applications:

1. Engineer will, within 10 days after receipt of each Application for Payment, either indicate in writing a recommendation of payment and present the Application to Owner or return the Application to Contractor indicating in writing Engineer's reasons for refusing to recommend payment. In the latter case, Contractor may make the necessary corrections and resubmit the Application.
2. Engineer's recommendation of any payment requested in an Application for Payment will constitute a representation by Engineer to Owner, based on Engineer's observations of the executed Work as an experienced and qualified design professional, and on Engineer's review of the Application for Payment and the accompanying data and schedules, that to the best of Engineer's knowledge, information and belief:
 - a. the Work has progressed to the point indicated;
 - b. the quality of the Work is generally in accordance with the Contract Documents (subject to an evaluation of the Work as a functioning whole prior to or upon Substantial Completion, the results of any subsequent tests called for in the Contract Documents, a final determination of quantities and classifications for Unit Price Work under Paragraph 9.07, and any other qualifications stated in the recommendation); and
 - c. the conditions precedent to Contractor's being entitled to such payment appear to have been fulfilled in so far as it is Engineer's responsibility to observe the Work.
3. By recommending any such payment Engineer will not thereby be deemed to have represented that:
 - a. inspections made to check the quality or the quantity of the Work as it has been performed have been exhaustive, extended to every aspect of the Work in progress, or involved detailed inspections of the Work beyond the responsibilities specifically assigned to Engineer in the Contract Documents; or
 - b. there may not be other matters or issues between the parties that might entitle Contractor to be paid additionally by Owner or entitle Owner to withhold payment to Contractor.

4. Neither Engineer's review of Contractor's Work for the purposes of recommending payments nor Engineer's recommendation of any payment, including final payment, will impose responsibility on Engineer:
 - a. to supervise, direct, or control the Work, or
 - b. for the means, methods, techniques, sequences, or procedures of construction, or the safety precautions and programs incident thereto, or
 - c. for Contractor's failure to comply with Laws and Regulations applicable to Contractor's performance of the Work, or
 - d. to make any examination to ascertain how or for what purposes Contractor has used the moneys paid on account of the Contract Price, or
 - e. to determine that title to any of the Work, materials, or equipment has passed to Owner free and clear of any Liens.
5. Engineer may refuse to recommend the whole or any part of any payment if, in Engineer's opinion, it would be incorrect to make the representations to Owner stated in Paragraph 14.02.B.2. Engineer may also refuse to recommend any such payment or, because of subsequently discovered evidence or the results of subsequent inspections or tests, revise or revoke any such payment recommendation previously made, to such extent as may be necessary in Engineer's opinion to protect Owner from loss because:
 - a. the Work is defective, or completed Work has been damaged, requiring correction or replacement;
 - b. the Contract Price has been reduced by Change Orders;
 - c. Owner has been required to correct defective Work or complete Work in accordance with Paragraph 13.09; or
 - d. Engineer has actual knowledge of the occurrence of any of the events enumerated in Paragraph 15.02.A.

See Supplementary Condition 1.22

C. Payment Becomes Due:

1. Ten days after presentation of the Application for Payment to Owner with Engineer's recommendation, the amount recommended will (subject to the provisions of Paragraph 14.02.D) become due, and when due will be paid by Owner to Contractor.

See Supplementary Condition 1.22

D. Reduction in Payment:

1. Owner may refuse to make payment of the full amount recommended by Engineer because:

- a. claims have been made against Owner on account of Contractor's performance or furnishing of the Work;
- b. Liens have been filed in connection with the Work, except where Contractor has delivered a specific bond satisfactory to Owner to secure the satisfaction and discharge of such Liens;
- c. there are other items entitling Owner to a set-off against the amount recommended; or
- d. Owner has actual knowledge of the occurrence of any of the events enumerated in Paragraphs 14.02.B.5.a through 14.02.B.5.c or Paragraph 15.02.A.

See Supplementary Condition 1.23

- 2. If Owner refuses to make payment of the full amount recommended by Engineer, Owner will give Contractor immediate written notice (with a copy to Engineer) stating the reasons for such action and promptly pay Contractor any amount remaining after deduction of the amount so withheld. Owner shall promptly pay Contractor the amount so withheld, or any adjustment thereto agreed to by Owner and Contractor, when Contractor remedies the reasons for such action.
- 3. Upon a subsequent determination that Owner's refusal of payment was not justified, the amount wrongfully withheld shall be treated as an amount due as determined by Paragraph 14.02.C.1 and subject to interest as provided in the Agreement.

14.03 *Contractor's Warranty of Title*

- A. Contractor warrants and guarantees that title to all Work, materials, and equipment covered by any Application for Payment, whether incorporated in the Project or not, will pass to Owner no later than the time of payment free and clear of all Liens.

14.04 *Substantial Completion*

- A. When Contractor considers the entire Work ready for its intended use Contractor shall notify Owner and Engineer in writing that the entire Work is substantially complete (except for items specifically listed by Contractor as incomplete) and request that Engineer issue a certificate of Substantial Completion.
- B. Promptly after Contractor's notification, Owner, Contractor, and Engineer shall make an inspection of the Work to determine the status of completion. If Engineer does not consider the Work substantially complete, Engineer will notify Contractor in writing giving the reasons therefor.
- C. If Engineer considers the Work substantially complete, Engineer will deliver to Owner a tentative certificate of Substantial Completion which shall fix the date of Substantial Completion. There shall be attached to the certificate a tentative list of items to be completed or corrected before final payment. Owner shall have seven days after receipt of the tentative certificate during which to make written objection to Engineer as to any provisions of the certificate or attached list. If, after considering such objections, Engineer concludes that the

Work is not substantially complete, Engineer will, within 14 days after submission of the tentative certificate to Owner, notify Contractor in writing, stating the reasons therefor. If, after consideration of Owner's objections, Engineer considers the Work substantially complete, Engineer will, within said 14 days, execute and deliver to Owner and Contractor a definitive certificate of Substantial Completion (with a revised tentative list of items to be completed or corrected) reflecting such changes from the tentative certificate as Engineer believes justified after consideration of any objections from Owner.

- D. At the time of delivery of the tentative certificate of Substantial Completion, Engineer will deliver to Owner and Contractor a written recommendation as to division of responsibilities pending final payment between Owner and Contractor with respect to security, operation, safety, and protection of the Work, maintenance, heat, utilities, insurance, and warranties and guarantees. Unless Owner and Contractor agree otherwise in writing and so inform Engineer in writing prior to Engineer's issuing the definitive certificate of Substantial Completion, Engineer's aforesaid recommendation will be binding on Owner and Contractor until final payment.
- E. Owner shall have the right to exclude Contractor from the Site after the date of Substantial Completion subject to allowing Contractor reasonable access to remove its property and complete or correct items on the tentative list.

14.05 *Partial Utilization*

- A. Prior to Substantial Completion of all the Work, Owner may use or occupy any substantially completed part of the Work which has specifically been identified in the Contract Documents, or which Owner, Engineer, and Contractor agree constitutes a separately functioning and usable part of the Work that can be used by Owner for its intended purpose without significant interference with Contractor's performance of the remainder of the Work, subject to the following conditions:
 - 1. Owner at any time may request Contractor in writing to permit Owner to use or occupy any such part of the Work which Owner believes to be ready for its intended use and substantially complete. If and when Contractor agrees that such part of the Work is substantially complete, Contractor, Owner, and Engineer will follow the procedures of Paragraph 14.04.A through D for that part of the Work.
 - 2. Contractor at any time may notify Owner and Engineer in writing that Contractor considers any such part of the Work ready for its intended use and substantially complete and request Engineer to issue a certificate of Substantial Completion for that part of the Work.
 - 3. Within a reasonable time after either such request, Owner, Contractor, and Engineer shall make an inspection of that part of the Work to determine its status of completion. If Engineer does not consider that part of the Work to be substantially complete, Engineer will notify Owner and Contractor in writing giving the reasons therefor. If Engineer considers that part of the Work to be substantially complete, the provisions of Paragraph 14.04 will apply with respect to certification of Substantial Completion of that part of the Work and the division of responsibility in respect thereof and access thereto.

4. No use or occupancy or separate operation of part of the Work may occur prior to compliance with the requirements of Paragraph 5.10 regarding property insurance.

14.06 *Final Inspection*

- A. Upon written notice from Contractor that the entire Work or an agreed portion thereof is complete, Engineer will promptly make a final inspection with Owner and Contractor and will notify Contractor in writing of all particulars in which this inspection reveals that the Work is incomplete or defective. Contractor shall immediately take such measures as are necessary to complete such Work or remedy such deficiencies.

See Supplementary Condition 1.29

14.07 *Final Payment*

A. *Application for Payment:*

1. After Contractor has, in the opinion of Engineer, satisfactorily completed all corrections identified during the final inspection and has delivered, in accordance with the Contract Documents, all maintenance and operating instructions, schedules, guarantees, bonds, certificates or other evidence of insurance, certificates of inspection, marked-up record documents (as provided in Paragraph 6.12), and other documents, Contractor may make application for final payment following the procedure for progress payments.
2. The final Application for Payment shall be accompanied (except as previously delivered) by:
 - a. all documentation called for in the Contract Documents, including but not limited to the evidence of insurance required by Paragraph 5.04.B.6;
 - b. consent of the surety, if any, to final payment;
 - c. a list of all Claims against Owner that Contractor believes are unsettled; and
 - d. complete and legally effective releases or waivers (satisfactory to Owner) of all Lien rights arising out of or Liens filed in connection with the Work.
3. In lieu of the releases or waivers of Liens specified in Paragraph 14.07.A.2 and as approved by Owner, Contractor may furnish receipts or releases in full and an affidavit of Contractor that: (i) the releases and receipts include all labor, services, material, and equipment for which a Lien could be filed; and (ii) all payrolls, material and equipment bills, and other indebtedness connected with the Work for which Owner might in any way be responsible, or which might in any way result in liens or other burdens on Owner's property, have been paid or otherwise satisfied. If any Subcontractor or Supplier fails to furnish such a release or receipt in full, Contractor may furnish a bond or other collateral satisfactory to Owner to indemnify Owner against any Lien.

B. Engineer's Review of Application and Acceptance:

1. If, on the basis of Engineer's observation of the Work during construction and final inspection, and Engineer's review of the final Application for Payment and accompanying documentation as required by the Contract Documents, Engineer is satisfied that the Work has been completed and Contractor's other obligations under the Contract Documents have been fulfilled, Engineer will, within ten days after receipt of the final Application for Payment, indicate in writing Engineer's recommendation of payment and present the Application for Payment to Owner for payment (the final Application for Payment will not be recommended to the Owner for payment until all final Punchlist Items are completed and approved). At the same time Engineer will also give written notice to Owner and Contractor that the Work is acceptable subject to the provisions of Paragraph 14.09. Otherwise, Engineer will return the Application for Payment to Contractor, indicating in writing the reasons for refusing to recommend final payment, in which case Contractor shall make the necessary corrections and resubmit the Application for Payment.

C. Payment Becomes Due:

Thirty days after the presentation to Owner of the Application for Payment and accompanying documentation, the amount recommended by Engineer, less any sum Owner is entitled to set off against Engineer's recommendation, including but not limited to liquidated damages, will become due and will be paid by Owner to Contractor.

See Supplementary Condition 1.30

14.08 Final Completion Delayed

- A. If, through no fault of Contractor, final completion of the Work is significantly delayed, and if Engineer so confirms, Owner shall, upon receipt of Contractor's final Application for Payment (for Work fully completed and accepted) and recommendation of Engineer, and without terminating the Contract, make payment of the balance due for that portion of the Work fully completed and accepted. If the remaining balance to be held by Owner for Work not fully completed or corrected is less than the retainage stipulated in the Agreement, and if bonds have been furnished as required in Paragraph 5.01, the written consent of the surety to the payment of the balance due for that portion of the Work fully completed and accepted shall be submitted by Contractor to Engineer with the Application for such payment. Such payment shall be made under the terms and conditions governing final payment, except that it shall not constitute a waiver of Claims.

14.09 Waiver of Claims

- A. The making and acceptance of final payment will constitute:
 1. a waiver of all Claims by Owner against Contractor, except Claims arising from unsettled Liens, from defective Work appearing after final inspection pursuant to Paragraph 14.06, from failure to comply with the Contract Documents or the terms of any special guarantees specified therein, or from Contractor's continuing obligations under the Contract Documents; and

2. a waiver of all Claims by Contractor against Owner other than those previously made in accordance with the requirements herein and expressly acknowledged by Owner in writing as still unsettled.

ARTICLE 15 – SUSPENSION OF WORK AND TERMINATION

15.01 *Owner May Suspend Work*

- A. At any time and without cause, Owner may suspend the Work or any portion thereof for a period of not more than 90 consecutive days by notice in writing to Contractor and Engineer which will fix the date on which Work will be resumed. Contractor shall resume the Work on the date so fixed. Contractor shall be granted an adjustment in the Contract Price or an extension of the Contract Times, or both, directly attributable to any such suspension if Contractor makes a Claim therefor as provided in Paragraph 10.05.

15.02 *Owner May Terminate for Cause*

- A. The occurrence of any one or more of the following events will justify termination for cause:
 1. Contractor's persistent failure to perform the Work in accordance with the Contract Documents (including, but not limited to, failure to supply sufficient skilled workers or suitable materials or equipment or failure to adhere to the Progress Schedule established under Paragraph 2.07 as adjusted from time to time pursuant to Paragraph 6.04);
 2. Contractor's disregard of Laws or Regulations of any public body having jurisdiction;
 3. Contractor's repeated disregard of the authority of Engineer; or
 4. Contractor's violation in any substantial way of any provisions of the Contract Documents.
- B. If one or more of the events identified in Paragraph 15.02.A occur, Owner may, after giving Contractor (and surety) seven days written notice of its intent to terminate the services of Contractor:
 1. exclude Contractor from the Site, and take possession of the Work and of all Contractor's tools, appliances, construction equipment, and machinery at the Site, and use the same to the full extent they could be used by Contractor (without liability to Contractor for trespass or conversion);
 2. incorporate in the Work all materials and equipment stored at the Site or for which Owner has paid Contractor but which are stored elsewhere; and
 3. complete the Work as Owner may deem expedient.
- C. If Owner proceeds as provided in Paragraph 15.02.B, Contractor shall not be entitled to receive any further payment until the Work is completed. If the unpaid balance of the Contract Price exceeds all claims, costs, losses, and damages (including but not limited to all fees and charges of engineers, architects, attorneys, and other professionals and all court or arbitration or other dispute resolution costs) sustained by Owner arising out of or relating to completing the Work,

such excess will be paid to Contractor. If such claims, costs, losses, and damages exceed such unpaid balance, Contractor shall pay the difference to Owner. Such claims, costs, losses, and damages incurred by Owner will be reviewed by Engineer as to their reasonableness and, when so approved by Engineer, incorporated in a Change Order. When exercising any rights or remedies under this Paragraph, Owner shall not be required to obtain the lowest price for the Work performed.

- D. Notwithstanding Paragraphs 15.02.B and 15.02.C, Contractor's services will not be terminated if Contractor begins within seven days of receipt of notice of intent to terminate to correct its failure to perform and proceeds diligently to cure such failure within no more than 30 days of receipt of said notice.
- E. Where Contractor's services have been so terminated by Owner, the termination will not affect any rights or remedies of Owner against Contractor then existing or which may thereafter accrue. Any retention or payment of moneys due Contractor by Owner will not release Contractor from liability.
- F. If and to the extent that Contractor has provided a performance bond under the provisions of Paragraph 5.01.A, the termination procedures of that bond shall supersede the provisions of Paragraphs 15.02.B and 15.02.C.

15.03 *Owner May Terminate For Convenience*

- A. Upon seven days written notice to Contractor and Engineer, Owner may, without cause and without prejudice to any other right or remedy of Owner, terminate the Contract. In such case, Contractor shall be paid for (without duplication of any items):
 - 1. completed and acceptable Work executed in accordance with the Contract Documents prior to the effective date of termination, including fair and reasonable sums for overhead and profit on such Work;
 - 2. expenses sustained prior to the effective date of termination in performing services and furnishing labor, materials, or equipment as required by the Contract Documents in connection with uncompleted Work, plus fair and reasonable sums for overhead and profit on such expenses;
 - 3. all claims, costs, losses, and damages (including but not limited to all fees and charges of engineers, architects, attorneys, and other professionals and all court or arbitration or other dispute resolution costs) incurred in settlement of terminated contracts with Subcontractors, Suppliers, and others; and
 - 4. reasonable expenses directly attributable to termination.
- B. Contractor shall not be paid on account of loss of anticipated profits or revenue or other economic loss arising out of or resulting from such termination.

15.04 *Contractor May Stop Work or Terminate*

- A. If, through no act or fault of Contractor, (i) the Work is suspended for more than 90 consecutive days by Owner or under an order of court or other public authority, or (ii) Engineer fails to act on any Application for Payment within 30 days after it is submitted, or (iii) Owner fails for 30 days to pay Contractor any sum finally determined to be due, then Contractor may, upon seven days written notice to Owner and Engineer, and provided Owner or Engineer do not remedy such suspension or failure within that time, terminate the Contract and recover from Owner payment on the same terms as provided in Paragraph 15.03.
- B. In lieu of terminating the Contract and without prejudice to any other right or remedy, if Engineer has failed to act on an Application for Payment within 30 days after it is submitted, or Owner has failed for 30 days to pay Contractor any sum finally determined to be due, Contractor may, seven days after written notice to Owner and Engineer, stop the Work until payment is made of all such amounts due Contractor, including interest thereon. The provisions of this Paragraph 15.04 are not intended to preclude Contractor from making a Claim under Paragraph 10.05 for an adjustment in Contract Price or Contract Times or otherwise for expenses or damage directly attributable to Contractor's stopping the Work as permitted by this Paragraph.

ARTICLE 16 – DISPUTE RESOLUTION

16.01 *Methods and Procedures*

- A. Either Owner or Contractor may request mediation of any Claim submitted to Engineer for a decision under Paragraph 10.05 before such decision becomes final and binding. The mediation will be governed by the Construction Industry Mediation Rules of the American Arbitration Association in effect as of the Effective Date of the Agreement. The request for mediation shall be submitted in writing to the American Arbitration Association and the other party to the Contract. Timely submission of the request shall stay the effect of Paragraph 10.05.E.
- B. Owner and Contractor shall participate in the mediation process in good faith. The process shall be concluded within 60 days of filing of the request. The date of termination of the mediation shall be determined by application of the mediation rules referenced above.
- C. If the Claim is not resolved by mediation, Engineer's action under Paragraph 10.05.C or a denial pursuant to Paragraphs 10.05.C.3 or 10.05.D shall become final and binding 30 days after termination of the mediation unless, within that time period, Owner or Contractor:
 - 1. elects in writing to invoke any dispute resolution process provided for in the Supplementary Conditions; or
 - 2. agrees with the other party to submit the Claim to another dispute resolution process; or
 - 3. gives written notice to the other party of the intent to submit the Claim to a court of competent jurisdiction.

See Supplementary Condition 1.31

ARTICLE 17 – MISCELLANEOUS

17.01 *Giving Notice*

- A. Whenever any provision of the Contract Documents requires the giving of written notice, it will be deemed to have been validly given if:
 - 1. delivered in person to the individual or to a member of the firm or to an officer of the corporation for whom it is intended; or
 - 2. delivered at or sent by registered or certified mail, postage prepaid, to the last business address known to the giver of the notice.

17.02 *Computation of Times*

- A. When any period of time is referred to in the Contract Documents by days, it will be computed to exclude the first and include the last day of such period. If the last day of any such period falls on a Saturday or Sunday or on a day made a legal holiday by the law of the applicable jurisdiction, such day will be omitted from the computation.

17.03 *Cumulative Remedies*

- A. The duties and obligations imposed by these General Conditions and the rights and remedies available hereunder to the parties hereto are in addition to, and are not to be construed in any way as a limitation of, any rights and remedies available to any or all of them which are otherwise imposed or available by Laws or Regulations, by special warranty or guarantee, or by other provisions of the Contract Documents. The provisions of this Paragraph will be as effective as if repeated specifically in the Contract Documents in connection with each particular duty, obligation, right, and remedy to which they apply.

17.04 *Survival of Obligations*

- A. All representations, indemnifications, warranties, and guarantees made in, required by, or given in accordance with the Contract Documents, as well as all continuing obligations indicated in the Contract Documents, will survive final payment, completion, and acceptance of the Work or termination or completion of the Contract or termination of the services of Contractor.

17.05 *Controlling Law*

- A. This Contract is to be governed by the law of the state in which the Project is located.

17.06 *Headings*

- A. Article and paragraph headings are inserted for convenience only and do not constitute parts of these General Conditions.

DOCUMENT 00 73 00

SUPPLEMENTARY CONDITIONS
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SUPPLEMENTARY CONDITIONS

These Supplementary Conditions amend or supplement the Standard General Conditions of the Construction Contract, EJCDC No. C-700 (2007 Edition). All provisions which are not so amended or supplemental remain in full force and effect.

The terms used in these Supplementary Conditions have the meanings stated in the General Conditions. Additional terms used in these Supplementary Conditions have the meanings stated below, which are applicable to both the singular and plural thereof.

1.01 DEFINED TERMS

- A. The terms "Bidding Documents" and "Bidding Requirements" as defined in Article 1 of the General Conditions are amended to include the Agreement of Surety and the Bidder Qualification Statement.
- B. The term "Substantial Completion" as defined in Article 1 of the General Conditions is supplemented to include completion of all facilities associated with the Work of the Project to the point of startup, approval of the Operation and Maintenance Manual, completion of training for Owner's staff, and successful startup of all facilities associated with the Work of the Project.
- C. Additional Defined Terms:
 - 1. Owner's Site Representative - The authorized representative of Owner who is assigned to the site or any part thereof.
 - 2. Products - Means new material, machinery, components, equipment, fixtures, and systems forming the Work. Does not include machinery and equipment used for preparation, fabrication, conveying and erection of the Work. Products may also include existing materials or components specifically identified for reuse.
 - 3. Engineer's Consultant – An individual or entity having a contract with Engineer to furnish services as Engineer's independent professional associate or consultant with respect to the Project and includes the following parties:
 - a. **Gilmore & Associates, Inc.**

1.02 COMMENCEMENT OF CONTRACT TIMES

Relative to Article 2, Paragraph 2.03.A, amend the last sentence to read as follows. In no event will the Contract Times commence to run later than the thirtieth day after the Effective Date of the Agreement.

1.03 SCHEDULE OF VALUES

Relative to Article 2, Paragraphs 2.05.A.3 and 2.07.A.3 of the General Conditions, the Schedule of Values of the Work for that portion of the Contract where unit prices do not apply, shall be divided on the basis of major divisions: i.e., site work, building A, tank B, etc.. Each major division shall be further subdivided to include all Work associated with that major division: i.e., earthmoving, reinforcing steel, concrete, masonry, miscellaneous metal, doors and frames, glass and glazing, carpentry and woodwork, roofing and shingles, insulation, heating and ventilation equipment, plumbing, interior piping, yard piping, equipment, paving, landscaping, etc. Equipment shall be further subdivided into equipment cost and installation cost.

1.04 FINALIZATION OF SCHEDULES

- A. Relative to Article 2, Paragraph 2.07.A of the General Conditions, delete the initial two (2) sentences and replace with the following sentence. The schedules noted in paragraph 2.05.A shall be finalized and resubmitted to Engineer within ten (10) days of receipt of verbal or written comments by Engineer.

1.05 CONTRACT DOCUMENTS

- A. In accordance with Article 3, Paragraph 3.01.A of the General Conditions, all work shall be completed in accordance with the Contract Documents. The Contract Documents are listed in Article 9 of the Agreement.
- B. Contractor shall have available on the Site at all times one set each of the Drawings, the Project Manual, all Addenda and Change Orders, and approved Shop Drawings.
- C. The Project Manual consists of the following:

1. Procurement and Contracting Requirements
 2. Division 1 - General Requirements
 3. Divisions 2 through 48 - Technical Requirements
- D. The Drawings are listed in Document 00 01 15.

The Drawings indicate plans, details, and notes for completing the Work under this contract. Due to the small scale of the Drawings, it is not possible to indicate all fittings, accessories, or incidentals required to provide a functionally complete Project under the Contract.

It is not intended that the Drawings be scaled to determine dimensions. Contractor shall conduct his work in accordance with the dimensions specifically noted elsewhere in the Project Manual.

- E. Relative to the Article 2, Paragraph 2.02.A of the General Conditions, delete the Paragraph in its entirety and insert the following in its place. Engineer will furnish to Contractor up to the following number of Drawing sets and complete volumes of the Project Manual with Addenda.

<u>Contract</u>	<u>No. of Drawing Sets</u>	<u>No. of Project Manuals</u>
2021-07025	1	1

Additional copies may be obtained from Engineer upon request at the cost of reproduction.

- F. Relative to Article 3, Paragraph 3.01.B of the General Conditions, the Contract Documents are intended to indicate as clearly as practicable the Work to be done. However, construction details cannot always be accurately anticipated and in executing the Work, field conditions may require reasonable modifications in the details of the Drawings and the Work involved. Work shall be carried out to meet these field conditions to the satisfaction of Engineer and in strict conformance with his instructions.

1.06 SUBSURFACE AND PHYSICAL CONDITIONS (EXCEPT UNDERGROUND FACILITIES)

- A. In accordance with Article 4, Paragraph 4.02.A.2 of the General Conditions, this is to advise that no drawings of physical conditions relating to existing surface and subsurface structures (except Underground Facilities) at the Site are known to Owner; Paragraph 4.02.B of the General Conditions becomes not applicable with respect to Paragraph 4.02.A.2 of the General Conditions.

1.07 REFERENCE POINTS

- A. Relative to Article 4, Paragraph 4.05.A of the General Conditions, Owner shall provide engineering surveys to establish reference points for horizontal and vertical control which in Engineer's judgment are necessary to enable Contractor to proceed with the Work. Contractor shall layout the Work based on the established reference points in accordance with the Drawings and any "cut" sheets prepared by Engineer.

1.08 HAZARDOUS ENVIRONMENTAL CONDITIONS AT SITE

- A. In accordance with Article 4, Paragraph 4.06.A of the General Conditions, this is to advise that no reports or drawings related to Hazardous Environmental Conditions at the Site are known to Owner; Paragraph 4.06, B. becomes not applicable.

1.09 ADDITIONAL BONDS REQUIRED

- A. Relative to Article 5, Paragraph 5.01.A, Contractor shall provide a Maintenance Bond prior to release of the Final Payment relative to repair of any and all defects in materials or workmanship in the Work which may develop during the maintenance period.
- B. The amount of the Maintenance Bond shall be **15%** of the completed Contract price (including all Change Orders).
- C. The Maintenance Bond shall remain in effect for **twenty-four (24) months** after the date of final acceptance of the Work by Owner.
- D. The Surety shall utilize the Maintenance Bond form in the Project Manual or equivalent.
- E. The Surety shall meet the requirements set forth in Article 5, Paragraphs 5.01 and 5.02 of the General Conditions.

1.10 INSURANCE COVERAGE AND LIMITS

In accordance with Article 5, paragraph 5.04 of the General Conditions, CONTRACTOR shall provide the following coverages of liability insurance with limits of liability for not less than the following amounts or greater where required by Laws and Regulations:

A. General Insurance Requirements

1. The Contractor shall not commence Work until the Contractor has obtained at the Contractor's own expense all of the insurance as required hereunder and such insurance has been approved by the Township; nor shall the Contractor allow any Subcontractor to commence work on any subcontract until all insurance required of the Subcontractor has been so obtained and approved by the Contractor. Approval of insurance required of the Contractor will be granted only after submission to the Township of original certificates of insurance signed by authorized representatives of the insurers or, at the Township's request, certified copies of the required insurance policies.
2. Insurance as required hereunder shall be in force throughout the term of the Contract and for two years after final payment for the Work by the Township in accordance with C.1.a.iv. Original certificates signed by authorized representatives of the insurers or, at the Township's request, certified copies of insurance policies, evidencing that the required insurance is in effect, shall be maintained with the Township throughout the term of the Contract and for two years after final payment for the Work by Township.
3. The Contractor shall require all Subcontractors to maintain during the term of the Contract commercial general liability insurance, business auto liability insurance, and workers compensation and employers liability insurance to the same extent required of the Contractor in C.1.a, C.1.b, and C.1.c unless any such requirement is expressly waived or amended by the Township in writing. The Contractor shall furnish Subcontractors' certificates of insurance to the Township immediately upon request.
4. All insurance policies required hereunder shall be endorsed to provide that the policy is not subject to cancellation, non-renewal or material reduction in coverage until sixty (60) days prior written notice has been given to the Township.

Therefore, the phrases "endeavor to" and "... but failure to mail such notice shall impose no obligation or liability of any kind upon the company, its agents or representatives" are to be eliminated from the cancellation provision of standard ACORD certificates of insurance.
5. No acceptance and/or approval of any insurance by the Township shall be construed as relieving or excusing the Contractor or the Contractor's Surety from any liability or obligation imposed upon either or both of them by the provisions of this Contract.
6. If the Contractor does not meet the insurance requirements of this Contract, the Contractor shall forward a written request to the Township for a waiver in writing of the insurance requirement(s) not met or approval in writing of alternate insurance coverage, self-insurance, or group self-insurance arrangements. If the Township denies the request, the Contractor must comply with the insurance requirements as specified in this Contract.
7. All required insurance coverages must be underwritten by insurers allowed to do business in the State of Pennsylvania and acceptable to the Township. The insurers must also have a policyholders' rating of "A-" or better, and a financial size of "Class VII" or better in the latest evaluation by A. M. Best Company, unless Township grants specific approval for an exception. The Township hereby grants specific approval for the acquisition of workers compensation and employers liability insurance from the Injured Workers Insurance Fund of Pennsylvania.
8. Any deductibles or retentions in excess of \$10,000 shall be disclosed by the Contractor, and are subject to Township's written approval. Any deductible or retention amounts elected by the Contractor or imposed by the Contractor's insurer(s) shall be the sole responsibility of the Contractor.
9. Any and all return premiums and/or dividends for insurance or coverage directly charged to the Township by the Contractor in connection with this Contract shall belong to and be payable to the Township.

10. If the Township is damaged by the failure or neglect of the Contractor to purchase and maintain insurance as described and required herein, without so notifying the Township, then the Contractor shall bear all reasonable costs properly attributable thereto.

B. Township's Liability Insurance

1. The Township shall be responsible for purchasing and maintaining the Township's usual liability insurance, or solely at the Township's option, the Township may self-insure the Township's liability exposures.

C. Contractor's Liability Insurance

1. The Contractor shall purchase and maintain the following insurance coverages which shall be written for not less than the limits specified below or required by law, whichever is greater.

- a. Commercial general liability insurance or its equivalent for bodily injury, personal injury and property damage including loss of use, with minimum limits of:

\$ 2,000,000	each occurrence;
\$ 2,000,000	personal and advertising injury;
\$ 2,000,000	general aggregate; and
\$ 2,000,000	products/completed operations aggregate.

This insurance shall include coverage for all of the following:

- i. General aggregate limit applying on a per project basis;
 - ii. Liability arising from premises and operations;
 - iii. Liability arising from the actions of independent contractors;
 - iv. Liability arising from products and completed operations with such coverage to be maintained for two years after completion of the Work;
 - v. Contractual liability including protection for the Contractor from bodily injury and property damage claims arising out of liability assumed under this Contract; and
 - vi. Liability arising from the explosion, collapse, or underground (XCU) hazards.
- b. Business auto liability insurance or its equivalent with a minimum limit of \$1,000,000 per accident and including coverage for all of the following:
 - i. Liability arising out of the ownership, maintenance or use of any auto; and
 - ii. Automobile contractual liability.
 - c. Workers compensation insurance or its equivalent with statutory benefits as required by any state or Federal law, including standard "other states" coverage; employers liability insurance or its equivalent with minimum limits of:

\$ 100,000	each accident for bodily injury by accident;
\$ 100,000	each employee for bodily injury by disease; and
\$ 500,000	policy limit for bodily injury by disease.

- d. Umbrella excess liability or excess liability insurance or its equivalent with minimum limits of:

\$ 2,000,000	per occurrence;
\$ 2,000,000	aggregate for other than products/completed operations and auto liability;
\$ 2,000,000	products/completed operations aggregate

and including all of the following coverages on the applicable schedule of underlying insurance:

- i. Commercial general liability;
 - ii. Business auto liability; and
 - iii. Employers liability.
- e. Township and its elected and appointed officials, officers and employees, and the Engineer shall be named as additional insureds on the Contractor's commercial general liability insurance and umbrella excess or excess liability insurance policies with respect to liability arising out of the Contractor's products, installation, and/or services provided under this

Contract. Such coverage shall extend to cover the additional insured(s) for liability arising out of the following:

- i. On-going operations; and
- ii. Products and completed operations.

The commercial general liability policy and the umbrella excess liability or excess liability policies, if required herein, must include additional insured language, which shall afford liability coverage for the exposures listed above in i. and ii.

The CONTRACTOR shall provide a declarations page evidencing that the Township and its elected and appointed officials, officers and employees, and the Engineer are added as additional insured.

Special Note: Policies endorsed with the following combinations of ISO forms shall be acceptable:

CG 2010 entitled "Additional Insured - Owners, Lessees or Contractors – Scheduled Person or Organization" and **CG 2037** entitled "Additional Insured - Owners, Lessees or Contractors – Completed Operations";

OR

CG 2033 entitled "Additional Insured - Owners, Lessees or Contractors - Automatic Status When Required in Construction Agreement With You" and **CG 2037** entitled "Additional Insured - Owners, Lessees or Contractors – Completed Operations".

Both endorsements are required to afford coverage to the additional insured for both on-going operations and products and completed operations. Additionally, the schedules on these endorsements must properly reference Township's elected and appointed officials, officers and employees, and Engineer.

- f. Insurance or self-insurance provided to Township and their elected and appointed officials, officers and employees, and Engineer under any Contractor's liability insurance or self-insurance required herein, including, but not limited to, umbrella and excess liability or excess liability policies, shall apply separately to each insured against whom claim is made or suit is brought, except with respect to the limits of insurance or self-insurance. (Any cross suits or cross liability exclusion shall be deleted from Contractor's liability insurance policies required herein.)
- g. Insurance or self-insurance provided to Township and their elected and appointed officials, officers and employees as specified herein shall be primary, and any other insurance, self-insurance, coverage or indemnity available to Township and their elected and appointed officials, officers and employees, and Engineer shall be excess of and non-contributory with insurance or self-insurance provided to Township and their elected and appointed officials, officers and employees as specified herein.
- 2. If any liability insurance purchased by the Contractor has been issued on a "claims made" basis, the Contractor must agree to comply with the following additional conditions:
 - a. The Contractor shall maintain each such "claims made" coverage and shall provide certificate(s) of insurance evidencing each such "claims made" coverage for a period of two years after final payment for the Contract. Such certificate(s) shall evidence a retroactive date no later than the beginning of the Work under this Contract; **or**
 - b. The Contractor shall purchase an extended (minimum two years) reporting period endorsement for each such "claims made" policy in force as of the date of final acceptance and evidence the purchase of this extended reporting period endorsement by means of a certificate of insurance or a copy of the endorsement itself. Such certificate or copy of the endorsement shall evidence a retroactive date no later than the beginning of the Work under this Contract.

D. Contractor's Property Insurance

1. Property Lost, Damaged or Destroyed: Any property or work to be provided by the Contractor under this Contract will remain at the Contractor's risk until final written acceptance by the Township. The Contractor will replace, at its expense, all property or work lost, damaged, or destroyed by any cause whatsoever. As such, the Contractor may, at its option, purchase and maintain installation floater or other property insurance covering the Work and the materials going into the Work.
2. The Contractor and its Subcontractors shall, at their own expense, purchase and maintain property insurance coverage for their owned, leased or rented machinery, tools or equipment. The Contractor, and its Subcontractors, hereby waive all rights against the Owner and its elected and appointed officials, officers and employees for property damage to or loss of use of such machinery, tools or equipment to the extent that such property damage or loss of use is covered by the Contractor's or Subcontractor's property or equipment floater insurance or other similar property insurance maintained by the Contractor or its Subcontractors. The policies shall provide such waivers of subrogation by endorsement or otherwise.

E. Indemnification and Other

1. Indemnification: To the fullest extent permitted by law, the Contractor shall protect, hold free and harmless, defend and indemnify the Township (including its elected or appointed officials, officers and employees, and Engineer) from all liability, penalties, costs, losses, damages, expenses, causes of action, claims or judgments (including attorney's fees) resulting from injury to or death of any person or damage to property of any kind, which injury, death of any person or damage arises out of, or is in any way connected with the performance of the work under this Contract. This agreement shall apply to any acts or omissions, willful misconduct or negligent conduct, whether active or passive, including acts or omissions of Contractor's agents or employees, except that this agreement shall not be applicable to injury, death or damage to property arising from the sole negligence or sole willful misconduct of the Township (including its elected or appointed officials, officers and employees, and Engineer). Accordingly, the Township shall notify the Contractor promptly, in writing, of any claim or action brought against the Township in connection with the work under this Contract. Upon such notification, the Contractor shall promptly take over and defend any such claim or action. The Township shall have the right and option to be represented in any such claim or action at its own expense. The Contractor's obligation to defend and indemnify the Township and its elected or appointed officials, officers and employees, and Engineer shall survive the termination of this Contract or completion of the Work.
2. To the fullest extent permitted by law, the Contractor shall be solely responsible for any loss or damage to property of the Contractor or its subcontractors, invitees, employees, officials, volunteers, agents and representatives while such property is within or adjacent to the Township's borders.
3. Acknowledgment of Service Provider's Independent Contractor Status and No Coverage for Service Provider under Township's Workers Compensation Insurance: The Contractor hereby acknowledges its status as an independent contractor while performing services on behalf on the Township and that the Township's workers compensation insurance is not intended to and will not respond to cover any medical or indemnity loss arising out of injury to the Contractor or its employees during the Contractor's performance of services for the Township.
4. In accordance with Article 5, paragraph 5.06 of the General Conditions, CONTRACTOR will provide property insurance in the form of installation/builder's risk which shall be in an amount at least equal to the contract price and which shall remain in effect for two years after final payment.
5. The following parties are to be included by endorsement as additional insureds on CONTRACTOR's insurance policies (except for Worker's Compensation):

- (a) OWNERS
- (b) ENGINEER

With respect to Article 5, paragraph 5.02.A of the General Conditions, CONTRACTOR shall purchase and maintain insurance from a company or companies each of which shall carry a "Best's Rating" with a Class VII and underwriting rating of A-.

Relative to Article 2, paragraph 2.05.C of the General Conditions, the first phrase is deleted.

CONTRACTOR will provide a certificate(s) of insurance in compliance with the above terms of Item A when CONTRACTOR delivers the executed Agreement to OWNER and thereafter should any required insurance policy expire prior to completion and acceptance of the Work. Relative to Article 5, paragraph 5.09.A, the first sentence is revised to delete the ten (10) day time period; the insurance certificate(s) must be acceptable prior to execution of the Agreement unless CONTRACTOR and OWNER agree to a different time frame relative to review and acceptance.

CONTRACTOR shall be responsible to insure that all subcontractors conform to the above insurance requirements.

The CONTRACTOR shall provide a declarations page evidencing that the Township and its elected and appointed officials, officers and employees, and the Engineer are added as additional insured.

1.11 PAYMENT INFORMATION TO SUBCONTRACTORS, SUPPLIERS AND OTHERS

- A. Relative to Article 6, paragraph 6.06.C.2 of the General Conditions, Owner may furnish to any such Subcontractor or Supplier, to the extent practicable, information about amounts paid to Contractor on account of Work performed for Contractor by a particular Subcontractor or Supplier.

1.12 PREVENTION OF ENVIRONMENTAL POLLUTION

- A. Relative to Article 6, Paragraph 6.09.A of the General Conditions and pursuant to the requirements set forth in the Commonwealth of Pennsylvania's Procurement Statute (62 PA C.S. §3301), Contractor shall be familiar with and comply with the provisions of Federal and State statutes, rules and regulations dealing with the prevention of environmental pollution, and the preservation of public natural resources that affect the Project.
- B. Any additional work which must be performed as a result of the enactment of new or amended statutes or rules and regulations subsequent to the bid opening date shall be the subject of a Change Order in accordance with the requirements of the Commonwealth of Pennsylvania Procurement Statute (62 PA.C.S. §3302), and the Contract Documents.

1.13 STEEL PRODUCTS PROCUREMENT ACT

- A. Relative to Article 6, Paragraph 6.09.A of the General Conditions, Contractor shall comply with the Steel Products Procurement Act (P.L. 6, No. 3 enacted March 3, 1978).

1.14 PUBLIC WORKS EMPLOYMENT VERIFICATION ACT

- A. Relative to Article 6, Paragraph 6.09.A of the General Conditions, Contractor is advised that this project is subject to requirements of the Public Works Employment Verification Act (P.L. 1086, No. 127 enacted July 5, 2012) if the Contract Price exceeds \$25,000.
- B. Contractor shall comply with the requirements of the Public Works Employment Verification Act, including submission of the Public Works Employment Verification Form included as **Appendix B** of these Supplementary Conditions to the public body that is bidding and awarding the Contract if the Contract Price exceeds \$25,000.00.
- C. Subcontractors shall also be subject to the requirements of the Public Works Employment Verification Act if the total Contract Price exceeds \$25,000, regardless of the value of the subcontract.
- D. Subcontractors shall comply with the requirements of the Public Works Employment Verification Act, including submission of the Public Works Employment Verification Form included as **Appendix B** of these Supplementary Conditions to the contracting public body if the Contract Price exceeds \$25,000.00, regardless of the value of the subcontract, prior to beginning either onsite or offsite work.

1.15 TAX EXEMPTIONS

- A. In accordance with Article 6, Paragraph 6.10.A of the General Conditions, Contractor will be responsible for the payment of all Excise, Sales, or Use Taxes, and all other taxes required by law on all labor, materials, tools, apparatus, equipment, fixtures, and incidentals which Contractor purchases or uses for the purpose of fulfilling the Work.
- B. Tax Exemption. Contractor may purchase equipment, materials and supplies exempt from tax through the use of an Exempt Purchaser's Certification and Sales and Use Tax Exemption Certificate furnished by Owner if the equipment, materials and supplies being purchased will be directly used in this project,

including restoration activities which are directly associated with and necessary to complete this project.

- C. Contractor, in preparing his proposal, shall ascertain those items that will be tax exempt in accordance with Commonwealth of Pennsylvania Law and Department of Revenue Regulations. Owner shall not be responsible for additional payments to Contractor for any tax payments for those items not tax exempt.

1.16 EMERGENCY MAINTENANCE

- A. In accordance with Article 6, Paragraph 6.16.A of the General Conditions, Contractor shall have available at all times, including nights, weekends, and holidays, an emergency maintenance crew and a person of authority and responsibility to act in cases of emergency such as flooding, cave-ins, etc., resulting from construction associated with the Contract. Contractor shall submit to Owner the names and location of emergency personnel prior to the start of construction.
- B. Contractor will be responsible for the cost of any such emergency work done by anyone other than himself.

1.17 SUBMITTALS

- A. Relative to Article 6, Paragraph 6.17.E, Contractor shall furnish required submittals with sufficient information and accuracy in order to obtain required approval of an item with no more than three submittals. Engineer will record Engineer's time for reviewing subsequent submittals of Shop Drawings, samples, or other items requiring approval and Contractor shall reimburse Owner for Engineer's charges for such time.
- B. Relative to Article 6, Paragraph 6.17.E, in the event that Contractor requests a change of a previously approved item, Contractor shall reimburse Owner for Engineer's charges for its review time unless the need for such change is beyond the control of Contractor.

1.18 RELATED WORK AT THE SITE & COORDINATION

- A. Refer to Summary of Work Section 01 12 00 for further information on the related work to be performed by other parties.
- B. Relative to Article 7, Paragraphs 7.02.A and 7.02.B of the General Conditions, Contractor will have authority and responsibility for coordination of certain activities involving the above noted other parties relative to construction of the Project. Refer to Coordination and Meetings (Section 01 31 00) for further information.

1.19 CLAIMS BETWEEN CONTRACTORS

- A. Relative to Article 7, should Contractor cause damage to the work or property of any other contractor at the Site, or should any claim arising out of Contractor's performance of the Work at the Site be made by any contractor against Contractor, Owner, Engineer, or the construction coordinator, then Contractor (without involving Owner, Engineer, or construction coordinator) shall either (1) remedy the damages, (2) agree to compensate the other contractor for remedy of the damages, or (3) remedy the damages and attempt to settle with such other contractor by agreement, or otherwise resolve the dispute by arbitration or at law.
- B. Contractor shall, to the fullest extent permitted by Laws and Regulations, indemnify and hold harmless Owner, Engineer, the construction coordinator and the officers, directors, partners, employees, agents and other consultants and subcontractors of each and any of them from and against all claims, costs, losses and damages (including, but not limited to, fees and charges of engineers, architects, attorneys, and other professionals and court and arbitration costs) arising directly, indirectly or consequentially out of any action, legal or equitable, brought by any other contractor against Owner, Engineer, consultants, or the construction coordinator to the extent said claim is based on or arises out of Contractor's performance of the Work. Should another contractor cause damage to the Work or property of Contractor or should the performance of Work by any other contractor at the Site give rise to any other Claim, Contractor shall not institute any action, legal or equitable, against Owner, Engineer, or the construction coordinator or permit any action against any of them to be maintained and continued in its name or for its benefit in any court or before any arbiter which seeks to impose liability on or to recover damages from Owner, Engineer, or the construction coordinator on account of any such damage or Claim.
- C. If Contractor is delayed at any time in performing or furnishing the Work by any act or neglect of another contractor, and Owner and Contractor are unable to agree as to the extent of any adjustment in Contract

Times attributable thereto, Contractor may make a Claim for an extension of times in accordance with Article 12. An extension of the Contract Times shall be Contractor's exclusive remedy with respect to Owner, Engineer, and construction coordinator for any delay, disruption, interference or hindrance caused by any other contractor. This paragraph does not prevent recovery from Owner, Engineer, or construction coordinator for activities that are their respective responsibilities.

1.20 DUTIES, RESPONSIBILITIES AND LIMITATIONS OF AUTHORITY OF THE RESIDENT PROJECT REPRESENTATIVE

- A. In accordance with Article 9, Paragraph 9.03.A of the General Conditions, a Resident Project Representative including assistants and other field staff as required will be provided by Engineer to observe the performance of the work of Contractor.

The Resident Project Representative (RPR) will be Engineer's employee or agent at the Site, will act as directed by and under the supervision of Engineer, and will confer with Engineer regarding RPR's actions. RPR's dealings in matters pertaining to the Work in general shall be with Engineer and Contractor. RPR's dealings with Subcontractors shall be through or with the full knowledge and approval of Contractor.

B. RPR shall:

1. Schedules: Review the progress schedule, schedule of Shop Drawing and Sample submittals and schedule of values prepared by Contractor and consult with Engineer concerning acceptability.
2. Conferences and Meetings: Attend meetings with Contractor such as preconstruction conferences, progress meetings, and job conferences and other project-related meetings, and prepare and circulate copies of minutes thereof.
3. Liaison:
 - a. Serve as Engineer's liaison with Contractor, working principally through Contractor's authorized representative, assist in providing information regarding the intent of the Contract Documents.
 - b. Assist Engineer in serving as Owner's liaison with Contractor when Contractor's operations affect Owner's on-Site operations.
 - c. Assist in obtaining from Engineer additional details or information, when required for proper execution of the Work.
4. Interpretation of Contract Documents: Report to Engineer when clarification and interpretations of the Contract Documents are needed and transmit to Contractor clarifications and interpretations as issued by Engineer.
5. Shop Drawings and Samples:
 - a. Record date of receipt of Samples and approved Shop Drawings.
 - b. Receive Samples which are furnished at the Site by Contractor, and notify Engineer of availability of Samples for examination.
6. Modifications: Consider and evaluate Contractor's suggestions for modifications in Drawings or Specifications and report such suggestions, together with RPR's recommendations, to Engineer. Transmit to Contractor in writing decisions as issued by Engineer.
7. Review of Work and Rejection of Defective Work:
 - a. Conduct on-Site observations of Contractor's work in progress to assist Engineer in determining if the Work is in general proceeding in accordance with the Contract Documents.
 - b. Report to Engineer whenever RPR believes that any part of Contractor's work in progress will not produce a completed Project that conforms generally to the Contract Documents or will imperil the integrity of the design concept of the completed Project as a functioning whole as indicated in the Contract Documents, or has been damaged, or does not meet the requirements of any inspection, test or approval required to be made; and advise Engineer of that part of work in progress that RPR believes should be corrected or rejected or should be uncovered for observation, or requires special testing, inspection or approval.

8. Inspections, Tests, and System Startup:
 - a. Verify that tests, equipment and systems startups and operating and maintenance training are conducted in the presence of appropriate Owner's personnel, and that Contractor maintains adequate records thereof.
 - b. Observe, record and report to Engineer appropriate details relative to the test procedures and startups.
 9. Records:
 - a. Record names, addresses, fax numbers, e-mail addresses, web-site locations and telephone numbers of all Contractors, Subcontractors and major Suppliers of materials and equipment.
 - b. Maintain records for use in preparing Project documentation.
 10. Reports:
 - a. Furnish to Engineer periodic reports as required of progress of the Work and of Contractor's compliance with the progress schedule and schedule of Shop Drawing and Sample submittals.
 - b. Draft and recommend Engineering proposed Change Orders, Work Change Directives, and Field Orders. Obtain backup material from Contractor.
 - c. Immediately notify Engineer of the occurrence of any Site accidents, emergencies, acts of God endangering the Work, damage to property by fire or other causes, or the discovery of any Hazardous Environmental Condition.
 11. Payment Requests: Review Applications for Payment with Contractor for compliance with the established procedure for their submission and forward with recommendations to Engineer, noting particularly the relationship of the payment requested to the schedule of values, Work completed, and materials and equipment delivered at the Site but not incorporated in the Work.

RPR shall to the maximum feasible extent coordinate with Contractor to reach agreement on quantities involved with unit price work prior to submission of a payment request.
 12. Certificates, Operation and Maintenance Manuals: During the course of the Work, verify that materials and equipment certificates, operation and maintenance manuals and other data required by the Specifications to be assembled and furnished by Contractor are applicable to the items actually installed and in accordance with the Contract Documents, and have these documents delivered to Engineer for review and forwarding to Owner prior to payment for that part of the Work.
 13. Completion:
 - a. Participate in a Substantial Completion inspection, assist in determination of Substantial Completion, and the preparation of lists of items to be completed or corrected.
 - b. Participate in a final inspection in the company of Engineer, Owner, and Contractor and prepare a final list of items to be completed and deficiencies to be remedied.
 - c. Observe whether all items on the final list have been completed or corrected and make recommendations to Engineer concerning acceptance and issuance of the Notice of Acceptability of the Work.
- C. The RPR shall not:
1. Authorize any deviation from the Contract Documents or substitution of materials or equipment (including "or-equal" items).
 2. Exceed limitations of Engineer's authority as set forth in the Contract Documents.
 3. Undertake any of the responsibilities of Contractor, Subcontractors, Suppliers or Contractor's superintendent.
 4. Advise on, issue directions relative to or assume control over any aspect of the means,

methods, techniques, sequences or procedures of Contractor's work unless such advice or directions are specifically required by the Contract Documents.

5. Advise on, issue directions regarding, or assume control over safety practices, precautions, and programs in connection with the activities or operations of Owner or Contractor.
6. Participate in specialized field or laboratory tests or inspections conducted off-site by others except as specifically authorized by Engineer.
7. Accept Shop Drawing or Sample Submittals from anyone other than Contractor.
8. Authorize Owner to occupy the Project in whole or in part.

1.21 UNIT PRICE WORK REEVALUATION

- A. Relative to Article 11, Paragraph 11.03.D of the General Conditions, the paragraph I deleted in its entirety with the following paragraph substituted in its place:

The unit price of an item of Unit Price Work shall be subject to reevaluation and adjustment under the following conditions:

1. if the Bid Price of a particular item of Unit Price Work amounts to 5% or more of the Contract Price and the variation in the quantity of that particular item of Unit Price Work performed by Contractor differs by more than 20% from the estimated quantity of such item indicated in the Agreement; and
2. if there is no corresponding adjustment with respect to any other item of Work; and
3. if Contractor believes that Contractor has incurred additional expense as a result thereof; or if Owner believes that the quantity variation entitles Owner to an adjustment in the unit price, either Owner or Contractor may make a claim for an adjustment in the Contract Price in accordance with Article 10 if the parties are unable to agree as to the effect of any such variations in the quantity of Unit Price Work performed.

1.22 PROGRESS PAYMENTS

- A. Relative to Article 14, Paragraph 14.02.C.1 of the General Conditions, the sentence is to be amended by adjusting the time period at which time a progress payment becomes due from ten days following presentation by Engineer to Owner to forty-five days following the date the application for payment is received.
- B. Relative to Article 14, Paragraphs 14.02.B.5 and 14.02.D.1 of the General Conditions, Engineer may also refuse to recommend the whole or any part of any payment and/or Owner may refuse to make payment of the full amount recommended by Engineer because:
1. Contractor has failed to provide acceptable submittals in accordance with the required and/or accepted schedule.
 2. Contractor has incurred liability for liquidated damages.
 3. Contractor delays or rejection of defective work has caused Owner to pay Engineer additional compensation.
 4. Contractor has failed to maintain a record copy of all Contract Documents annotated to show all changes made during construction.

1.23 PAYMENT FOR ITEMS ON SITE

- A. There are no materials and equipment associated with this Work for which payment upon delivery will be considered.
- B. After onset of construction, Contractor may receive up to fifty (50) percent of the cost of such approved items contingent upon proof of delivery and a paid invoice from the manufacturer, proof of storing in proper conditions as per manufacturer's recommendations, and subject to Engineer's approval. Prior to payment, Contractor shall satisfy Owner that Contractor's insurance will continue to protect Owner in the event of damage, theft, etc.
- C. Contractor shall be responsible for insuring that all materials and equipment, ordered by him and left

on the construction site, shall not hinder others in their Work and shall be protected from exposure to the elements and from theft or damage by vandals. Anything damaged or taken shall be replaced by Contractor at Contractor's expense.

1.24 BLASTING REQUIREMENTS

A. This section not used.

1.25 PERMITS

A. Relative to Article 6, Paragraph 6.08.A of the General Conditions, this is to advise that Owner shall be responsible for obtaining required permits from PADEP and PennDOT (except for pre-drilling approval). Contractor shall be responsible for obtaining all required local municipal permits (building permit, blasting permit, contractor's license, etc.) and any pre-drilling approval from Bucks County. Contractor shall also be responsible for providing any blasting bond(s) or financial security required.

1.26 PROHIBITION OF DISCRIMINATION/SEXUAL HARASSMENT

A. Relative to Article 6, Paragraph 6.09.A of the General Conditions and pursuant to the provisions of 62 PA.C.S. §3701, Contractor shall comply with the following provisions prohibiting discrimination relative to performance of the Work under this Agreement.

1. In the hiring of employee(s) for the manufacture of supplies, performance of Work, or any other activity required under the Contract or any subcontract, no Contractor, Subcontractor or any person acting on behalf of the Contractor or Subcontractor shall not discriminate by reason of gender, race, creed, color, sexual orientation, gender identity or expression, or in violation of the Pennsylvania Human Relations Act (PHRA) and applicable federal laws, against any citizen of this Commonwealth who is qualified and available to perform the Work to which the employment relates.
2. No Contractor or Subcontractor or any person on their behalf shall in any manner discriminate or intimidate any employee hired for the performance of Work under the Contract on account of gender, race, creed, color, sexual orientation, gender identity or expression, or in violation of the PHRA and applicable federal laws.
3. Neither the contractor nor any subcontractor nor any person on their behalf shall in any manner discriminate by reason of race, gender, creed, color, sexual orientation, gender identity or expression, or in violation of the PHRA and applicable federal laws, in the provision or services under the contract or subcontract.
4. Neither the contractor or any subcontractor nor any person on their behalf shall in any manner discriminate against employees by reason of participation in or decision to refrain from participating in labor activities protected under the Public Employee Relations Act, Pennsylvania Labor Relations Act or National Labor Relations Act, as applicable and to the extent determined by entities charged with such Acts' enforcement, and shall comply with any provision of law establishing organizations as employees' exclusive representatives.
5. The contractor or any subcontractor shall establish and maintain a written nondiscrimination and sexual harassment policy and shall inform their employees in writing of the policy. The policy must contain a provision that sexual harassment will not be tolerated and employees who practice it will be disciplined. Posting the Nondiscrimination/Sexual Harassment Clause conspicuously in easily accessible and well-lighted places customarily frequented by employees and at or near where the grant services are performed shall satisfy this requirement for employees with an established work site.
6. The contractor or any subcontractor shall not discriminate by reason of reason of race, gender, creed, color, sexual orientation, gender identity or expression, or in violation of the PHRA and applicable federal laws, against any contractor, subcontractor, or supplier who is qualified to perform the work for this project.
7. The contractor and subcontractor represents that it is presently in compliance with and will maintain compliance with all applicable federal, state, and local laws and regulations relating to nondiscrimination and sexual harassment. The contractor and subcontractor further represents that it has filed a Standard Form 100 Employer Information Report (EEO-1) with the U.S. Equal

Employment Opportunity Commission (EEOC) and shall file an annual EEO-1 report with the EEOC as required for employers' subject to Title VII of the Civil Rights Act of 1964, as amended, that have 100 or more employees and employers that have federal government contracts or first-tier subcontracts and have 50 or more employees. The contractor or any subcontractor shall, upon request and within the time periods requested by the Commonwealth, furnish all necessary employment documents and records, including EEO-1 reports, and permit access to their books, records, and accounts by the granting agency and the Bureau of Diversity, Inclusion and Small Business Opportunities for the purpose of ascertaining compliance with the provisions of this Nondiscrimination/Sexual Harassment Clause.

8. The contractor or any subcontractor shall include the provisions of this Nondiscrimination/Sexual Harassment Clause in every subgrant agreement, contract or subcontract so that those provisions applicable to subgrantees, contractors or subcontractors will be binding upon each subgrantee, contractor or subcontractor.
9. The contractor's or subcontractor's obligations pursuant to these provisions are ongoing from and after the effective date of the grant agreement through the termination date thereof. Accordingly, the contractor and subcontractor shall have an obligation to inform the Commonwealth if, at any time during the term of the grant agreement, it becomes aware of any actions or occurrences that would result in violation of these provisions.
10. The Commonwealth/Owner may cancel or terminate the grant agreement and project and all money due or to become due under the grant agreement/project may be forfeited for a violation of the terms or conditions of this nondiscrimination/sexual harassment clause. In addition, the granting agency may proceed with disbarment or suspension and may place the contractor or subcontractor in the Contractor Responsibility File.

1.27 UNDERGROUND FACILITIES

- A. In accordance with Article 4, Paragraph 4.04.A.1 of the General Conditions, this is to advise that Owner shall be responsible for accuracy and completeness of information for the facilities at the project site which are owned by Owner and which are shown or indicated on the Drawings.

1.28 FINAL INSPECTION

- A. Relative to Article 14, Paragraph 14.06.A of the General Conditions, Engineer will make a final inspection within thirty days of receipt of written notice from Contractor.

1.29 FINAL PAYMENT

- A. Relative to Article 14, Paragraph 14.07.C.1 of the General Conditions, the sentence is to be amended by adjusting the time permit at which time final payment becomes due from thirty days to forty-five days following presentation by Engineer to Owner.
- B. **Final Payment will not be made until Contractor provides CD/DVD copy of preconstruction documentation and all Punchlist items are completed and verified.**

1.30 DISPUTE RESOLUTION

- A. Relative to Article 16 of the General Conditions, delete Paragraph 16.01.C in its entirety and insert the following:
 1. If the Claim is not resolved by mediation, Engineer's action under Paragraph 10.05.C or a denial pursuant to Paragraph 10.05.C.3 or 10.05.D shall become final and binding 30 days after termination of the mediation unless, within that time period, Owner or Contractor:
 - a. elects in writing to demand arbitration of the claim pursuant to the following paragraph B – Arbitration; or
 - b. agrees with the other party to submit the claim to another dispute resolution process.
- B. Arbitration
 1. All Claims or counterclaims, disputes, or other matters in question between Owner and Contractor arising out of or relating to the Contract Documents or the breach thereof (except for Claims which have been waived by the making or acceptance of final payment as provided by

Paragraph 14.09 of the General Conditions) including but not limited to those not resolved under the provisions of Paragraphs 16.01.A and 16.01.B of the General Conditions will be decided by arbitration in accordance with the rules of the American Arbitration Association, subject to the conditions and limitations of this Paragraph B. This agreement to arbitrate and any other agreement or consent to arbitrate entered into will be specifically enforceable under the prevailing law of any court having jurisdiction.

2. The demand for arbitration will be filed in writing with the other party to the Contract and with the selected arbitrator or arbitration provider, and a copy will be sent to Engineer for information. The demand for arbitration will be made within the 30 day period specified in Paragraph 1.29.A.1, and in all other cases within a reasonable time after the Claim or counterclaim, dispute, or other matter in question has arisen, and in no event shall any

such demand be made after the date when institution of legal or equitable proceedings based on such Claim or other dispute or matter in question would be barred by the applicable statute of limitations.
3. No arbitration arising out of or relating to the Contract Documents shall include by consolidation, joinder, or in any other manner any other individual or entity (including Engineer, and Engineer's Consultants and the officer, directors, partners, agents, employees or consultants of any of them) who is not a party to this Contract unless:
 - a. the inclusion of such other individual or entity is necessary if complete relief is to be afforded among those who are already parties to the arbitration; and
 - b. such other individual or entity is substantially involved in a question of law or fact which is common to those who are already parties to the arbitration and which will arise in such proceedings; and
4. The award rendered by the arbitrator(s) shall be consistent with the agreement of the parties, in writing, and include:
 - a. a concise breakdown of the award;
 - b. a written explanation of the award specifically citing the Contract Document provisions deemed applicable and relied on in making the award.
5. The award will be final. Judgment may be entered upon it in any court having jurisdiction thereof, and it will not be subject to modification or appeal, subject to the Controlling Law relating to vacating or modifying an arbitral award.
6. The fees and expenses of the arbitrators and any arbitration service shall be shared equally by Owner and Contractor.

1.33 OSHA COMPLIANCE

- A. Relative to Article 6, Paragraph 6.08, A, Contractor shall conduct all Work in strict compliance with OSHA construction workplace safety standards.

1.34 INQUIRIES

- A. Relative to Article 9, Paragraph 9.01.A, questions during construction of the Work covered by this Contract should be directed to Sean S. Nagy, P.E., Gilmore & Associates, Inc., 508 Corporate Drive West, Langhorne, PA 19047, Telephone: (215) 369-3955, Fax: (215) 345-8606.

END OF DOCUMENT

APPENDIX A

PUBLIC WORKS EMPLOYMENT VERIFICATION FORM



COMMONWEALTH OF PENNSYLVANIA

PUBLIC WORKS EMPLOYMENT VERIFICATION FORM

Date _____

Business or Organization Name (Employer) _____

Address _____

City _____ State _____ Zip Code _____

.....Contractor.....O.....

Contracting Public Body _____

Contract/Project No _____

Project Description _____

Project Location _____

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

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

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

Authorized Representative Signature

APPENDIX B

RESPONSIBLE CONTRACTOR ORDINANCE

ORDINANCE 2006-14

AN ORDINANCE OF THE TOWNSHIP OF BRISTOL, COUNTY OF BUCKS, COMMONWEALTH OF PENNSYLVANIA, ADOPTING A MODEL RESPONSIBLE CONTRACTOR ORDINANCE

BE IT ORDAINED AND ENACTED the Council of the Township of Bristol enacts an Ordinance establishing a Model Responsible Contractor Ordinance in the Township of Bristol.

SECTION 1. Purpose

The Township of Bristol (hereinafter "Bristol Township") recognizes that there is a need to ensure that all work on public construction and maintenance contracts is performed by responsible, qualified firms that maintain the capacity, expertise, personnel, and other qualifications and resources necessary to successfully, re perform such contracts in a timely liable and cost-effective manner.

Therefore, Bristol Township shall require compliance with the provisions of this act by business entities seeking to provide services to Bristol Township as specified herein. The requirements of this act are intended to supplement, not replace, existing contractor qualification and performance standards or criteria currently required by law, public policy or contracting documents. However, in the event that any of the provisions of this Ordinance conflict with any law of Bristol Township, this act shall prevail.

SECTION 2. Qualified, Responsible Contractor Requirements

(a) All contractors and subcontractors of any tier which perform work valued at over (\$10,000) on any public facility or public work project, including construction, alteration, renovation, repair, service or maintenance, shall meet the requirements of this act.

(b) All firms engaged in contracts covered by this act shall be qualified, responsible contractors or subcontractors that have sufficient capabilities in all respects to successfully perform contracts on which they are engaged, including the necessary experience, equipment, technical skills and qualification, organizational and personnel resources. Qualified, responsible firms shall also have a satisfactory past performance record and a satisfactory record of law compliance, integrity and business ethics.

SECTION 3. Contractor Responsibility Certifications

(a) As a condition of performing work on a public works contract subject to this act, a general contractor, construction manager or other lead or prime contractor which seeks award of a contract, shall submit a Contractor Responsibility Certification at the time it submits its bid or proposal for a contract.

(b) The Contractor Responsibility Certification shall be completed on a form provided by

Bristol Township Public Works Department and shall reference the project for which the bid or proposal is being submitted by name and contract or project number.

(c) In the Contractor Responsibility Certification, the construction manager, general contractor or other lead or prime contractor shall confirm the following facts regarding its past performance and work history and its current qualifications and performance capabilities:

(1) The firm has not been or currently is debarred by any federal, state or local government agency or authority in the past three years.

(2) The firm has not defaulted on any project in the past three years.

(3) The firm has not had any type of business; contracting or trade license revoked or suspended in the past three (3) years.

(4) The firm has not committed a serious or willful violation of federal or state safety laws as determined by a final decision of a court or government agency authority in the past three (3) years

(5) The firm has not been found in violation of any other law relating to its contracting business, including, but not limited to wage or hour laws, environmental laws, antitrust laws, licensing laws or tax laws, by a final decision of a court or government agency authority in the past three (3) years.

(6) The firm participates in a Class A Apprenticeship Program for each trade in which it employs craft employees and shall continue to participate in such program or programs for the duration of the project. A Class A Apprenticeship Program is an apprenticeship program which is currently registered with the U.S. Department of Labor or a state apprenticeship agency and has graduated apprentices to journeyman status for each of the past five consecutive years. The firm shall provide proof of meeting this qualification standard by submitting appropriate documentation as an attachment to the Responsible Contractor Certification. To permit development of recently registered programs, the graduation requirement of this provision shall not apply to an apprenticeship training program registered within the past five years.

(7) The firm has all other technical qualifications and resources, including equipment, personnel and financial resources, to perform the referenced contract, or will obtain same through the use of qualified, responsible subcontractors.

(d) The Township of Bristol may require any other additional information it deems necessary to evaluate a prospective contractor's technical qualifications, resources and performance capabilities, as well as the type of impact its operations will have on the local community impacted by the project. The Township of Bristol may require that such information be included in a Statement of Qualifications and Experience as an attachment to the Contractor Responsibility Certification.

(e) In the Contractor Responsibility Certification, the submitting firm shall stipulate that if it receives a Notice of Intent to Award Contract it will provide the Township of Bristol with a

Subcontractor List and subcontractor information as specified herein.

- (f) If the submitting firm is, or was in the past five years, related to any other company or business entity that provided or provides contractual services in the construction, maintenance, service or repair industries, whether as a parent company, subsidiary or any other business relationship, it shall submit a Contractor Responsibility Certification that explains in detail the nature of any such relationship, if requested.
- (g) If any person or entity that is a shareholder, owner or partner of the submitting firm owns an interest of 20% or more in another entity or previously owned such an interest in another entity that provides or has provided contractual services in the construction, maintenance, service or repair industries, it shall attach a separate statement to its Contractor Responsibility Certification that explains in detail the nature of any such relationship.
- (h) The Township of Bristol may require that Contractor Responsibility Certifications and other information required by this act be submitted electronically.
- (i) The Township of Bristol may charge firms submitting bids or proposals a reasonable fee to defray costs of processing and evaluating Contractor Responsibility Certifications and related information and documents.

SECTION 4. Notice of Intent to Award Contract

- (a) After it has received bids or proposals, the Township of Bristol shall issue a Notice of Intent to Award Contract to the firm offering the lowest responsive bid, or in the case of competitive proposals, the firm offering the most advantageous proposal.
- (b) Such Notice shall be issued as soon as practicable after bids or proposals are submitted and shall stipulate that the contract award will be conditioned on the issuance of a written Contractor Responsibility Determination, as required by this Section.

SECTION 5. Subcontractor Lists, Subcontractor Responsibility Certifications

- (a) Within 14 days of receiving such a Notice of Intent to Award Contract, a prospective awardee shall submit to the Township of Bristol, a Subcontractor List containing the names of all subcontractors it will use for the referenced project, their addresses and description of the work each listed subcontractor will perform on the project.
- (b) At the time a prospective awardee submits its Subcontractor List it shall also submit Subcontractor Responsibility Certifications for all listed subcontractors to the Township of Bristol. Subcontractor Responsibility Certifications shall be executed by the respective subcontractors and shall contain the same information and representations required in Contractor Responsibility Certifications.
- (c) A construction manager, general contractor or other lead or prime contractor shall not be permitted to use any subcontractor on procurement contracts subject to this Section which is not on

the Subcontractor List, unless it demonstrates compelling reasons for using an unlisted subcontractor and obtains prior written approval from the Township of Bristol.

(d) An unlisted subcontractor shall not be approved by the Township of Bristol unless it executes a Subcontractor Responsibility Certification as required by this act at least 30 days prior to commencing work. Any such certification shall be made available to the public as specified in Section 8(c) of this act.

SECTION 6. Execution of Contractor and Subcontractor Responsibility Certifications

(a) Contractor and Subcontractor Responsibility Certifications shall be executed by a person who has sufficient knowledge to address all matters in the certification and shall include an attestation stating, under the penalty of perjury, that all information submitted is true, complete and accurate.

(b) If it is subsequently determined that a Contractor or Subcontractor Responsibility Certification contains false or misleading material information that was provided knowingly or with reckless disregard for the truth, or omits material information that was omitted knowingly or with reckless disregard of the truth, the firm for which the certification was submitted shall be prohibited from performing work for the Township of Bristol for a period of three years and shall be further subject to any other penalties and sanctions, including contract termination, available to the Township of Bristol under law. A contract terminated under these circumstances shall further entitle the Township of Bristol to withhold payment of any monies due to the firm as damages.

SECTION 7. Contractor Responsibility Determinations

(a) Once a Notice of Intent to Award Contract has been issued, the Township of Bristol shall undertake a 30 day agency review to determine whether the prospective awardee is a qualified, responsible contractor in accordance with the requirements of this act and other applicable laws and regulations.

(b) As part of this agency review, the Township of Bristol shall ensure that the Contractor Responsibility Certification, Subcontractor List and Subcontractor Responsibility Certifications, as required by this act, have been submitted and properly executed. It shall also ensure, to the extent practicable, that the information provided by subcontractors is truthful and accurate and that such subcontractors are qualified to perform the contract.

(c) The Township of Bristol may further conduct any other inquiry to independently verify that the prospective awardee has the technical qualifications and performance capabilities necessary to successfully perform the contract and has a sufficient record of law compliance and business integrity to justify the award of a public contract. In conducting such inquiries, the Township of Bristol may seek information from firms which have submitted responsibility certifications, prior customers of such firms, or from any other relevant source. In conducting this evaluation, the Township of Bristol may also consider relevant information on any business entities that are found to be related to the firm.

(d) During the agency review period, the Township of Bristol shall also examine the qualifications of the firms on the Subcontractor List to ensure that all identified subcontractors have properly executed Subcontractor Responsibility Certifications, that the information contained in such certifications is accurate and that such firms are otherwise qualified, responsible firms. In conducting this evaluation, the Township of Bristol may also consider relevant information on any business entities that are found to be related to subcontractors.

(e) In the event that the Township of Bristol determines that a prospective subcontractor does not meet the qualification standards included in the Subcontractor Responsibility Certification or does not otherwise qualify as a responsible firm, it shall inform the general contractor, construction manager or other lead or prime contractor and permit it to self-perform the work of the subcontractor or to substitute another subcontractor which meets the requirements of this act.

(f) In the event that a subcontractor is disqualified under this act, the general contractor, construction manager or other lead or prime contractor shall not be permitted to make any type of contractual claim against the Township of Bristol on the basis of a subcontractor disqualification.

(g) If at the conclusion of its internal review, the Township of Bristol determines that all responsibility certifications have been properly completed and executed and if it concludes that the qualifications, background and responsibility of the prospective awardee and the firms on its Subcontractor List are satisfactory, it shall issue a written Contractor Responsibility Determination verifying that the prospective awardee is a qualified, responsible contractor. The Contractor Responsibility Determination shall be issued within 30 days from the date the Notice of Intent to Award Contract is issued. This Responsibility Determination may be revoked or revised in any manner at any time during the Public Review Process set forth in Section 8 of this act in the event the Township of Bristol obtains relevant information warranting any such revocation or revisions.

SECTION 8. Public Review Process

(a) To permit adequate public review of the procurement process, the Township of Bristol shall provide a 30 day Public Review Period commencing from the date the Notice of Intent to Award Contract is issued.

(b) During this period, the Contractor Responsibility Certification, Subcontractor List, Subcontractor Responsibility Certifications and the Determination of Contractor Responsibility, as specified herein, shall be subject to immediate public inspection as they become available.

(c) These records shall be made available for public inspection in a public document room or on a publicly accessible web site. In the alternative, copies of these records shall be produced or otherwise made available for public inspection within five business days upon written request.

(d) During the Public Review Period, any person or organization may protest a contractor or subcontractor for failing to meet applicable requirements of this Ordinance or for any other legitimate ground by submitting a letter with supporting evidence to the Township of Bristol.

(e) A procurement contract subject to this Ordinance shall not be executed until all requirements of this act have been fulfilled.

SECTION 9. Severability, Effective Date

(a) If any provision of this Ordinance shall be held to be invalid or unenforceable by a court of competent jurisdiction, any such holding shall not invalidate any other provisions of this Ordinance and all remaining provisions shall remain in full force and effect.

(b) This Ordinance shall become effective thirty (30) days from the date signed below, but the Township of Bristol shall take such anticipatory administrative action in advance as shall be necessary for the implementation of this Ordinance.

(c) The requirements of this Ordinance shall not apply to contracts executed prior to the effective date of this Ordinance, except that the exercise of an option on a contract covered by this Ordinance shall be deemed to create a new contract for purposes of this Ordinance

ORDAINED AND ENACTED, this 19th day of October, 2006.


ATTEST:

COUNCIL OF THE TOWNSHIP OF BRISTOL,
BUCKS COUNTY, PENNSYLVANIA


Secretary

BY:

President



APPROVED THIS 19TH DAY OF OCTOBER, 2006.


Mayor

Contractor Responsibility Certification

Project Name: _____

Bid Number: _____

This Certification is submitted by _____
(Name of Firm)

Please confirm the following facts regarding your organizations past performance and work history and its qualifications and performance capabilities:

- (1) The firm has not been or currently is debarred by any federal, state or local government agency or authority in the past three years.
- (2) The firm has not defaulted on any project in the past three years.
- (3) The firm has not had any type of business; contracting or trade license revoked or suspended in the past three (3) years.
- (4) The firm has not committed a serious or willful violation of federal or state safety laws as determined by a final decision of a court or government agency authority in the past three (3) years
- (5) The firm has not been found in violation of any other law relating to its contracting business, including, but not limited to wage or hour laws, environmental laws, antitrust laws, licensing laws or tax laws, by a final decision of a court or government agency authority in the past three (3) years.
- (6) Proof of participation in a Class A Apprenticeship Program must be attached.
- (7) The firm has all other technical qualifications and resources, including equipment, personnel and financial resources, to perform the referenced contract, or will obtain same through the use of qualified, responsible subcontractors.

The Township of Bristol may require any other additional information it deems necessary to evaluate a prospective contractor's technical qualifications, resources and performance capabilities, as well as the type of impact its operations will have on the local community impacted by the project. The Township of Bristol may require that such information be included in a Statement of Qualifications and Experience as an attachment to the Contractor Responsibility Certification.

(I / We) stipulate that if awarded a contract the firm will provide a subcontractors list and subcontractors information as specified.

If the submitting firm is, or was in the past five years, related to any other company or business entity that provided or provides contractual services in the construction, maintenance, service or repair industries, whether as a parent company, subsidiary or any other business relationship, it shall submit a Contractor Responsibility Certification that explains in detail the nature of any such relationship, if requested.

If any person or entity that is a shareholder, owner or partner of the submitting firm owns an interest of 20% or more in another entity or previously owned such an interest in another entity that provides or has provided contractual services in the construction, maintenance, service or repair industries, it shall attach a separate statement to its Contractor Responsibility Certification that explains in detail the nature of any such relationship.

The Township of Bristol may require that Contractor Responsibility Certifications and other information required by this act be submitted electronically.

Signature

Name

Title

APPENDIX C

SOIL TESTING / INFILTRATION TESTING REPORT



November 18, 2021

File No. 21-07025

Bristol Township
Attn: Randee J. Elton
2501 Bath Road
Bristol, PA 19007

Reference: Stormwater Infiltration Test Summary Report
1248 Marie Lowe Drive Community Center
Bristol Township, Bucks County, PA

Gilmore & Associates, Inc. (G&A) has completed a feasibility study for stormwater infiltration per local and State stormwater management requirements for proposed improvements on the above referenced property. In addition, G&A evaluated the soil profile in the location of a proposed canopy structure. Soil profile evaluations and infiltration testing were performed October 27, 2021. This field study consisted of three (3) test pits, two (2) double-ring infiltrometer tests and one (1) Wildcat Dynamic Core Penetration test (DCP). The testing locations were field located by G&A using existing features and the provided site plan. Elevations were interpolated from grading on the site plan. Figure 2, included with this report, indicates the testing locations. The infiltration testing was performed in general accordance with the *Pennsylvania Stormwater BMP Manual (2006) (BMP Manual)*. G&A notified PA-1 Call prior to the field effort.

A backhoe was provided by the Township and utilized to advance test pits at three (3) locations on the project site. Test pits 1 and 2 were excavated in proposed stormwater management (rain garden) locations. The stormwater test pits were excavated to a depth of seven (7) feet in each location. Infiltration testing was conducted at 4.5 feet below the existing ground surface (bgs). Test pit 3 was excavated in the proposed canopy location. DCP testing occurred for Test pit 3 adjacent to the test pit at the existing ground surface. No infiltration testing limiting zones were encountered in any of the test pits excavated. Attached to this letter report are Site and Test Location Figures, Infiltration Test Summary, Test Pit Logs, and DCP Test Results Log. Soil profiles were observed and documented in each of the test pits at the time of excavation.

Setting

The project site is an existing community center lawn area, bordered by chain link fencing. The property falls between Marie Lowe Drive, Schumacher Drive, and several residential properties. The study area consisted of the existing lawn areas surrounding the existing community center. Surface drainage features were not observed as site conditions are generally flat.

According to the Commonwealth of Pennsylvania, Topographic and Geologic Survey, *Geologic Map of Pennsylvania*, 1980, the site is underlain by the Trenton Gravel Formation (Geologic Symbol: Qt). As noted in The Pennsylvania Geological Survey, Engineering Characteristics of the Rocks of Pennsylvania, Fourth (4th) Series, Revised 1982, the Trenton Gravel Formation is an alluvial deposit composed of gray to pale-reddish-brown, very gravelly sand with cross bedded sand and clay-silt layers. This formation is typically well bedded and exhibits some cross bedding. The Trenton Gravel Formation

65 East Butler Avenue | Suite 100 | New Britain, PA 18901 | Phone: 215-345-4330 | Fax: 215-345-8606

contains deeply weathered gravel of granite, sandstone, gneiss, siltstone, and quartzite. Good surface drainage and a high porosity and permeability are characteristic of this formation. The excavation of this material is relatively easy. Based on observations during the field investigation, the residual soil conditions at the site appeared typical of the Trenton Gravel or more recent alluvial deposits.

Based on a review of the Web Soil Survey, the project area has been mapped by the Natural Resource Conservation Service as containing Urban land-Matapeake type soils (map symbol: UtB). The Urban land soil mapping unit component indicates considerable coverage of man-made impervious surface such as macadam and roofs. The Matapeake soil series is categorized as having silt loam to gravelly sandy loam profiles. UtB is classified with a well-drained drainage class with a parent material consisting of Eolian deposits over marine deposits. Test pit soil profiles evaluated for this study were generally consistent with the NRCS soil mapping.

Site Soils

Soil conditions were generally consistent with the geology and soils mapping as described in the following sections:

Fill - The surface layer consisted of reworked and disturbed alluvial soils, which are designated Fill for this report. The reworked alluvium consisted generally of dark brown to orange fine to coarse sand, silt, and rounded gravel. Within this stratum trace debris and clean sand was observed. The fill was found directly underlying the topsoil in all three test pits and extended to depths ranging from 2.0 to 4.0 feet bgs.

Alluvium I - Directly underlying the alluvial fill was a fine-grained, silty alluvium that had no indications of being worked during previous construction activity. The alluvium I stratum represents soils deposited by a flowing body of water, and generally consisted of orange to brown clayey silt with varying amounts of fine to coarse sand and trace rounded gravel. The alluvium I stratum was encountered in test pits 1 and 3. Test pit 2 indicated that this stratum had been reworked as fill based on the presence of debris and buried organics. The Alluvium I stratum extended to a depth of 4.0 feet bgs when encountered.

Alluvium II - The Alluvium II stratum represents soils deposited by a flowing body of water, like the Alluvium I stratum, containing larger (less weathered) cobbles and gravel, and generally consisted of an orange to brown silty sand with rounded gravel and rounded cobbles. Encountered at 4.0 feet bgs in all three test pits, the Alluvium II stratum appeared to extend beyond the depths of 7.0 feet bgs, the depth of all three test pits.

Redox features were observed in TP1 and TP-2 at depths of 24 and 20 inches. These features appear to be attributed to perched or infiltrating surface water and not a seasonal high water table condition. Groundwater was not encountered to the depth of exploration during this study. Bedrock was not encountered in the test pits excavated. Detailed soil profile descriptions of each test pit are attached to this report.

Infiltration Testing

Double Ring Infiltrometer tests were utilized to collect infiltration rate data at the testing locations based on engineer's requirements. Based on the encountered soil conditions and feedback from the design engineer, infiltration tests were completed at a depth of 4.5 feet bgs in TP-1 and TP-2, as shown on Figure 2.

The Double-Ring Infiltrometer tests were performed in accordance with standards established by the BMP Manual and results have been calculated using the BMP Manual methodology. Stabilized test readings collected over the three-to-four-time intervals used to calculate final test results. Where test

rates trended slower before reaching a final value, the last time interval was used to determine the test rate. Infiltration tests were named to match the corresponding exploratory test pit designation. A one-hour presoak was completed for each infiltration test prior to recording the test rates provided in the attached table. See the attached Infiltration Testing Summary for testing data.

Infiltration Test Results Summary

Test Pit	Test Depth (ft)	Hydraulic Conductivity Test Rate (in/hr)	Test Pit Termination Depth (in)	Depth to Rock Refusal (in)	Depth to Water (in)	Depth to Soil Redoximorphic Features (in)
TP-1	4.5	9.00	84	NE	NE	24
TP-2	4.5	2.00	84	NE	NE	20

All depths measured from existing ground surface.

NE - None Encountered

Dynamic Core Penetration (DCP) Testing

To assess the subsurface conditions in the proposed canopy area, G&A conducted one (1) Dynamic Core Penetration (DCP) test located adjacent to TP-3, as indicated on the attached Testing Location Figure. The DCP testing procedure consists of recording the number of blows required to advance a 7/8-inch diameter rod and 1.4-inch diameter cone tip a distance of 10 cm using a 35-pound hammer dropped 15 inches. The number of blows required to advance the sampler in each 10 cm interval is recorded and used to determine the cone resistance. The cone resistance values are correlated to Standard Penetration Test (SPT) N Values, a commonly used measure of soil density and consistency.

The subsurface conditions encountered in the Canopy location are summarized below and on the attached DCP Log, detailing the subsurface information collected at the location tested.

Surface Material

The DCP test was conducted within an existing lawn area adjacent to TP-3, and a property dividing wire fence. The topsoil thickness in this location was approximately 12 inches.

Subgrade Consistency

DCP testing was conducted to a depth of 10.0 feet. In general, medium dense/stiff conditions existed from the surface to 5.0 feet bgs, with a very loose/soft pocket between 2.0-3.0 feet bgs. A relatively medium dense/very stiff soil profile was encountered in the DCP probe locations below 5.0 feet bgs. DCP testing was terminated at 10.0 feet bgs due to an achieved target depth. Based on our observations in TP-3 and the DCP log, our interpretation of the soil profile is that there is medium dense/stiff and compact layer of surficial fill extending to approximately 2.0 feet, likely underlain by a looser/softer layer of silty alluvial soil that grades to denser sandy alluvial soil at around 4.0 feet below the ground surface.

Individual DCP log detailing the subsurface information collected at the testing location is attached to this report.

Conclusion

G&A evaluated the site soils at three (3) locations on the subject property. Within those locations, G&A performed infiltration testing at two (2) locations and DCP testing at one (1) location. Soil conditions and infiltration test results indicate that the average permeability of tested soil horizons is within the generally acceptable range for use of infiltration BMPs.

Based on the observed soil characteristics and conditions during the field-testing, a minimum factor of safety of 2 is recommended to be applied to infiltration test rates for engineering calculations. Care should be taken to prevent disturbance or compaction of soils in all proposed stormwater infiltration areas. Development of a site-specific construction sequence and BMP excavation and installation practices to prevent reduction of the natural infiltrative capacity of BMP subgrade soils is imperative to successful infiltration facility construction.

The design, construction, and maintenance of Best Management Practices for stormwater infiltration shall be performed in general accordance with State and local requirements, while also considering how to best prevent or mitigate pollution, manage stormwater as a resource, protect groundwater, and preserve or restore the natural balance of the environment.

Based on the test pit and DCP test data in the vicinity of the proposed canopy, we recommend that foundations bear at a minimum depth of 4.0 feet, within the sandy alluvium layer. Footings should be proportioned based on a maximum allowable bearing pressure of 2,000 lbs. per square foot in this stratum.

Limitations

The conclusions and recommendations contained in this report are based upon the subsurface data collected and on details stated in this report, and on the project information at the time of issue of this report. Should conditions arise which differ from those specifically stated herein, Gilmore & Associates, Inc. should be notified immediately so that our recommendations can be reviewed and revised if necessary. The conclusions and recommendations presented in this report are unique to the specific location of the proposed construction and are not transferable to other development schemes or sites.

This investigation and report have been prepared with a standard of care that is normal and customary for geotechnical investigations for this type of project. The presence or absence of environmental hazards, radioactivity, irritants, pollutants, or other dangerous substances was not the subject of this report.

If you have any questions about the information contained in this letter or if you require any additional services, please call us at 215-345-4330.

Respectfully submitted,

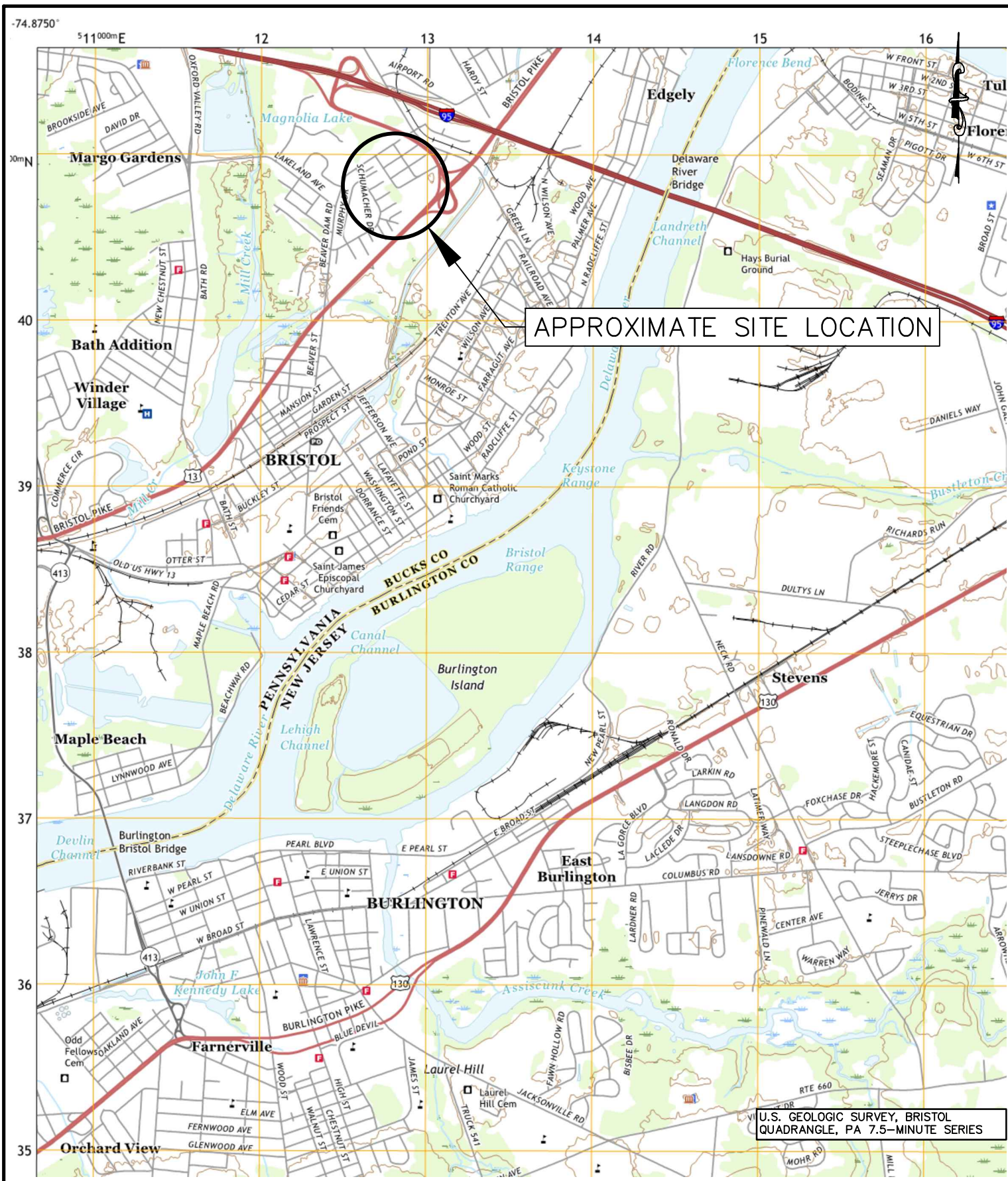


Trevor Woodward, PG
Geotechnical Services Manager
Gilmore & Associates, Inc.



Brandon Broniszewski
Staff Scientist
Gilmore & Associates, Inc.

Enclosures: Site Location Figure, Test Location Figure, Infiltration Test Summary, Test Pit Logs, DCP Test Results Log



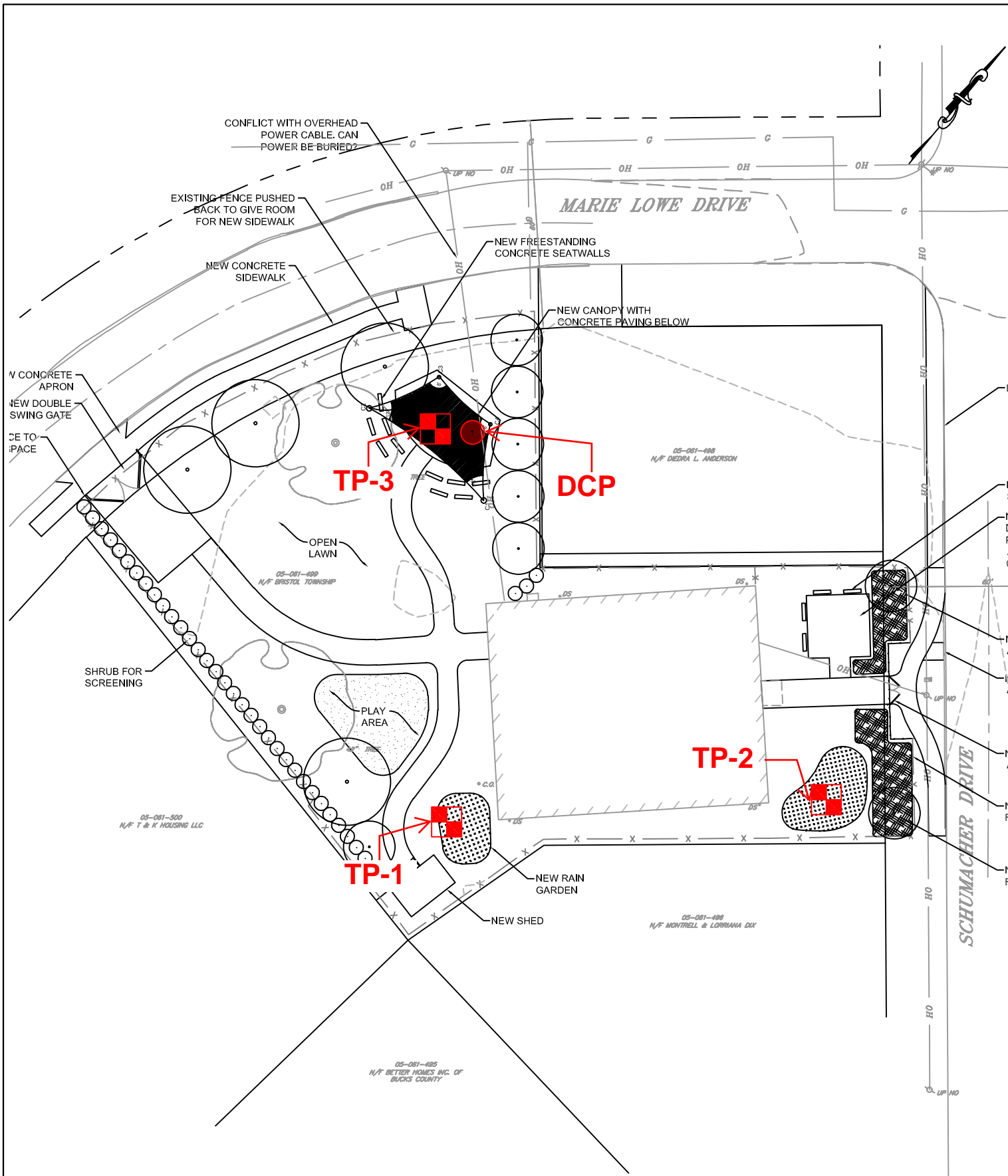
GILMORE & ASSOCIATES, INC.
ENGINEERING & CONSULTING SERVICES
 65 EAST BUTLER AVENUE, SUITE 100, NEW BRITAIN, PA 18901 • (215) 345-4330

DRAWN BY: B. BRONISZEWSKI	JOB NO.: 21-07025	DATE: 10/27/2021	SCALE: 1"=2,000'
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FIGURE 1 – SITE LOCATION MAP

**1248 MARIE LOWE DRIVE
 COMMUNITY CENTER**

BRISTOL TOWNSHIP, BUCKS COUNTY, PENNSYLVANIA



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 65 EAST BUTLER AVENUE, SUITE 100, NEW BRITAIN, PA 18901 • (215) 345-4330

DRAWN BY: B. BRONISZEWSKI	JOB NO.: 21-07025	DATE: 11/1/2021	SCALE: 1"=40'
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FIGURE 2 – SITE LOCATION MAP

**1248 MARIE LOWE DRIVE
 COMMUNITY CENTER**

BRISTOL TOWNSHIP, BUCKS COUNTY, PENNSYLVANIA

Infiltration Testing Summary
 1248 Marie Lowe Drive Community Center-Public Improvements
 G&A Project No. 21-07025
 October 29, 2021

TP-1 (10/29/2021)

Ground Surface Elevation: 26.2	Elapsed Time (minutes)	Test Interval (minutes)	Change Δ (in.)	Final Recorded Rate (in/hr)
Infiltration Test Depth: 4.5'	30	30	6.00	9.00
	60	30	6.00	
	70	10	2.38	
	80	10	2.50	
	90	10	1.13	
	100	10	1.25	
	110	10	1.50	
	120	10	1.50	

TP-2 (10/29/2021)

Ground Surface Elevation: 26.5	Elapsed Time (minutes)	Test Interval (minutes)	Change Δ (in)	Final Recorded Rate (in/hr)
Infiltration Test Depth: 4.5'	30	30	1.13	2.00
	60	30	1.25	
	90	30	0.75	
	120	30	0.75	
	150	30	1.00	
	180	30	1.25	
	210	30	1.00	

TP-3 (10/29/2021)

Ground Surface Elevation: 26.2	Elapsed Time (minutes)	Test Interval (minutes)	Change Δ (mL)	Final Recorded Rate (in/hr)
Infiltration Test Depth: N/A				Not Tested

NOTES:

- Infiltration testing performed using double-ring infiltrometers per the *Pennsylvania Stormwater BMP Manual*, dated 2006.
- A one-hour presoak was performed prior to starting the infiltration testing.
- The test pit locations were field-located by G&A prior to the investigation.
- The test pit and infiltration elevations are based on the existing features plan prepared by G&A.
- below the existing ground surface to support subsurface infiltration facilities.

G&A Representative: Brandon Broniszewski

TEST PIT FIELD LOG

TEST PIT NO.: 1



GILMORE & ASSOCIATES, INC.
CONSULTING ENGINEERS & LAND SURVEYORS
 350 BUTLER AVENUE, NEW BRITAIN, PA 18901
 (215) 345-4330

PROJECT #: 21-07025

DESCRIPTION: SW REGION OF SITE, NEAR SHED

LOCATION: MARIE LOWE DR COMMUNITY CENTER

G&A ENGINEER: B. BRONISZEWSKI

EXCAVATION INFO.

GROUND ELEV.: 26.2

DATE: 10-29-2021

CONTRACTOR: BRISTOL TOWNSHIP

TIME STARTED: 08:15

WEATHER: 60'S CLOUDY

OPERATOR: KARL

MAKE: CAT

MODEL: BACKHOE

CAPACITY: N/A

REACH: 14'

TIME COMPLETED: 08:45

DEPTH	SOIL DESCRIPTION	GROUND-WATER NOTES	EXCAV. EFFORT	REMARK/SAMPLE #
0'	TOPSOIL: dark orange-brown silty f-c SAND, tr. clay, tr. angular gravel, organics	Not Encountered	E	
1'	FILL: dark brown f-c SAND and SILT, tr. clay, tr. rounded gravel, tr. debris		E	
2'	ALLUVIUM I: orange-brown clayey SILT, li. f-c sand, tr. rounded gravel		E	
3'			E	
4'	ALLUVIUM II: red-brown silty f-c SAND, tr. rounded gravel, tr. rounded cobbles		E	Infiltration @ 4.5'
5'			E	
6'			M	
7'	TEST PIT TERMINATED @ 7.0', TARGET DEPTH REACHED			
8'				
9'				
10'				
11'				
12'				
13'				
14'				
15'				

REMARKS: Rounded gravel/cobbles increase in size with depth
 Infiltration testing @ 4.5'
 PVC piping broken @ 20", appears to be outgoing sanitary
 Redox features @ 24"

<p>TEST PIT PLAN</p> <p>VOLUME: _____</p> <p>NORTH</p>	<p>PROPORTION LEGEND</p> <p>TRACE: (TR.) 0 - 10%</p> <p>LITTLE: (LI.) 10 - 20%</p> <p>SOME: (SO.) 20 - 35%</p> <p>AND: 35 - 50%</p>	<p>ABBREVIATIONS</p> <p>F - FINE</p> <p>M - MEDIUM</p> <p>C - COARSE</p> <p>F/M - FINE TO MEDIUM</p> <p>F/C - FINE TO COARSE</p> <p>V - VERY</p> <p>GR. - GRAY</p> <p>BN. - BROWN</p> <p>YEL - YELLOW</p>	<p>EXCAVATION EFFORT</p> <p>E - EASY</p> <p>M - MODERATE</p> <p>D - DIFFICULT</p> <p>GROUNDWATER</p> <p>ELAPSED TIME TO READING (HRS.)</p>
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TEST PIT FIELD LOG

TEST PIT NO.: 2



GILMORE & ASSOCIATES, INC.
CONSULTING ENGINEERS & LAND SURVEYORS
 350 BUTLER AVENUE, NEW BRITAIN, PA 18901
 (215) 345-4330

PROJECT #: 21-07025

DESCRIPTION: SCHUMAKER DRIVE SIDE OF SITE

LOCATION: MARIE LOWE DR COMMUNITY CENTER

G&A ENGINEER: B. BRONISZEWSKI

EXCAVATION INFO.

GROUND ELEV.: 26.5

DATE: 10-29-2021

CONTRACTOR: BRISTOL TOWNSHIP

TIME STARTED: 09:00

WEATHER: 60'S CLOUDY

OPERATOR: KARL

MAKE: CAT

MODEL: BACKHOE

CAPACITY: N/A

REACH: 14'

TIME COMPLETED: 09:30

DEPTH	SOIL DESCRIPTION	GROUND-WATER NOTES	EXCAV. EFFORT	REMARK/SAMPLE #
0'	TOPSOIL: dark orange-brown silty f-c SAND, tr. clay, tr. angular gravel, organics	Not Encountered	E	
1'	FILL: orange-brown f-c SAND and SILT, li. clay tr. rounded gravel, tr. debris, pockets of clean sand		D	
2'			D	
3'			M	
4'	ALLUVIUM II: orange-brown silty f-c SAND, tr. rounded gravel, tr. rounded cobbles		M	Infiltration @ 4.5'
5'			M	
6'			M	
7'	TEST PIT TERMINATED @ 7.0', TARGET DEPTH REACHED			
8'				
9'				
10'				
11'				
12'				
13'				
14'				
15'				

REMARKS: Rounded gravel/cobbles increase in size with depth
 Infiltration testing @ 4.5'
 Vapor barrier, sidewalk pieces, and trash found in FILL
 Redox features @ 20"

<p>TEST PIT PLAN</p> <p>VOLUME: _____</p> <p>NORTH</p>	<p>PROPORTION LEGEND</p> <p>TRACE: (TR.) 0 - 10%</p> <p>LITTLE: (LI.) 10 - 20%</p> <p>SOME: (SO.) 20 - 35%</p> <p>AND: 35 - 50%</p>	<p>ABBREVIATIONS</p> <p>F - FINE</p> <p>M - MEDIUM</p> <p>C - COARSE</p> <p>F/M - FINE TO MEDIUM</p> <p>F/C - FINE TO COARSE</p> <p>V - VERY</p> <p>GR. - GRAY</p> <p>BN. - BROWN</p> <p>YEL - YELLOW</p>	<p>EXCAVATION EFFORT</p> <p>E - EASY</p> <p>M - MODERATE</p> <p>D - DIFFICULT</p> <p>GROUNDWATER</p> <p>ELAPSED TIME TO READING (HRS.)</p>
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TEST PIT FIELD LOG

TEST PIT NO.: 3



GILMORE & ASSOCIATES, INC.
CONSULTING ENGINEERS & LAND SURVEYORS
 350 BUTLER AVENUE, NEW BRITAIN, PA 18901
 (215) 345-4330

PROJECT #: 21-07025

DESCRIPTION: DCP SITE, NORTHMOST LOCATION

LOCATION: MARIE LOWE DR COMMUNITY CENTER

G&A ENGINEER: B. BRONISZEWSKI

EXCAVATION INFO.

GROUND ELEV.: 26.2

DATE: 10-29-2021

CONTRACTOR: BRISTOL TOWNSHIP

TIME STARTED: 09:45

WEATHER: 60'S CLOUDY

OPERATOR: KARL

MAKE: CAT

MODEL: BACKHOE

CAPACITY: N/A

REACH: 14'

TIME COMPLETED: 10:10

DEPTH	SOIL DESCRIPTION	GROUND-WATER NOTES	EXCAV. EFFORT	REMARK/SAMPLE #
0'	TOPSOIL: dark orange-brown silty f-c SAND, tr. clay, tr. angular gravel, organics	Not Encountered	E	DCP @ Surface
1'	FILL: dark brown f-c SAND and SILT, tr. clay, tr. rounded gravel, tr. debris		E	
2'	ALLUVIUM I: orange-brown clayey SILT, so. f-c sand, tr. rounded gravel		E	
3'			E	
4'			E	
5'	ALLUVIUM II: red-brown silty f-c SAND, tr. rounded gravel, tr. rounded cobbles		M	
6'			M	
7'			M	
7'	TEST PIT TERMINATED @ 7.0', TARGET DEPTH REACHED			
8'				
9'				
10'				
11'				
12'				
13'				
14'				
15'				

REMARKS: Rounded gravel/cobbles increase in size with depth
 DCP testing conducted adjacent to test pit @ existing surface
 Vapor barrier, sidewalk pieces, and trash found in FILL

<p>TEST PIT PLAN</p> <p>VOLUME: _____</p> <p>NORTH</p>	<p>PROPORTION LEGEND</p> <p>TRACE: (TR.) 0 - 10%</p> <p>LITTLE: (LI.) 10 - 20%</p> <p>SOME: (SO.) 20 - 35%</p> <p>AND: 35 - 50%</p>	<p>ABBREVIATIONS</p> <p>F - FINE</p> <p>M - MEDIUM</p> <p>C - COARSE</p> <p>F/M - FINE TO MEDIUM</p> <p>F/C - FINE TO COARSE</p> <p>V - VERY</p> <p>GR. - GRAY</p> <p>BN. - BROWN</p> <p>YEL - YELLOW</p>	<p>EXCAVATION EFFORT</p> <p>E - EASY</p> <p>M - MODERATE</p> <p>D - DIFFICULT</p> <p>GROUNDWATER</p> <p>ELAPSED TIME TO READING (HRS.)</p>
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Dynamic Cone Penetration Log

Page 1 of 1

Gilmore & Associates
65 E. Butler Avenue, Suite 100
New Britain, PA 18901-5106

PROJECT NUMBER: 2107025
DATE STARTED: 10-29-2021
DATE COMPLETED: 10-29-2021

HOLE #: DCP-01
CREW: BB/JM
PROJECT: Bristol Community Park
ADDRESS: 1248 Marie Lowe Dr
LOCATION: Bristol Township, Pennsylvania, 19007

SURFACE ELEVATION: NA
WATER ON COMPLETION: Not encountered
HAMMER WEIGHT: 35 lbs.
CONE AREA: 10 sq. cm

DEPTH	BLOWS PER 10 cm	RESISTANCE Kg/cm ²	GRAPH OF CONE RESISTANCE 0 50 100 150	N'	TESTED CONSISTENCY	
					NON-COHESIVE	COHESIVE
-	3	13.3	...	3	VERY LOOSE	SOFT
-	11	48.8	.....	13	MEDIUM DENSE	STIFF
- 1 ft	10	44.4	.....	12	MEDIUM DENSE	STIFF
-	9	40.0	.....	11	MEDIUM DENSE	STIFF
-	6	26.6	.....	7	LOOSE	MEDIUM STIFF
- 2 ft	5	22.2	.....	6	LOOSE	MEDIUM STIFF
-	3	13.3	...	3	VERY LOOSE	SOFT
-	2	8.9	..	2	VERY LOOSE	SOFT
- 3 ft	3	13.3	...	3	VERY LOOSE	SOFT
- 1 m	13	57.7	.....	16	MEDIUM DENSE	VERY STIFF
-	8	30.9	.....	8	LOOSE	MEDIUM STIFF
- 4 ft	8	30.9	.....	8	LOOSE	MEDIUM STIFF
-	9	34.7	.....	9	LOOSE	STIFF
-	9	34.7	.....	9	LOOSE	STIFF
- 5 ft	10	38.6	.....	11	MEDIUM DENSE	STIFF
-	12	46.3	.....	13	MEDIUM DENSE	STIFF
-	20	77.2	.....	22	MEDIUM DENSE	VERY STIFF
- 6 ft	24	92.6	.....	25+	MEDIUM DENSE	VERY STIFF
-	29	111.9	.....	25+	DENSE	HARD
- 2 m	29	111.9	.....	25+	DENSE	HARD
- 7 ft	23	78.7	.....	22	MEDIUM DENSE	VERY STIFF
-	22	75.2	.....	21	MEDIUM DENSE	VERY STIFF
-	27	92.3	.....	25+	MEDIUM DENSE	VERY STIFF
- 8 ft	25	85.5	.....	24	MEDIUM DENSE	VERY STIFF
-	23	78.7	.....	22	MEDIUM DENSE	VERY STIFF
-	15	51.3	.....	14	MEDIUM DENSE	STIFF
- 9 ft	20	68.4	.....	19	MEDIUM DENSE	VERY STIFF
-	21	71.8	.....	20	MEDIUM DENSE	VERY STIFF
-	35	119.7	.....	25+	DENSE	HARD
- 3 m 10 ft	35	119.7	.....	25+	DENSE	HARD
-						
-						
-						
- 11 ft						
-						
-						
- 12 ft						
-						
- 4 m 13 ft						

DOCUMENT 00 91 13

ADDENDA

Addenda issued prior to the time when Bidding Documents are obtained will be included in the Bidding Documents. Addenda issued after the time when Bidding Documents are obtained will be posted on the PennBid website.

END OF DOCUMENT

SECTION 01 12 00

SUMMARY OF PROJECT

PART 1 - GENERAL

1.01 SECTION DESCRIPTION

A. The Work of This Section Includes:

1. Description of Work.
2. Administrative and procedural sections applicable to all contracts.
3. Temporary facilities and services sections applicable to all contracts.
4. Contracts.
5. Alternate manufacturer.
6. Work by Owner.
7. Work by other parties.
8. Owner supplied Products.
9. Contractor use of site and premises.
10. Future work.
11. Project sequence of construction.
12. Owner occupancy.
13. Availability of lands.
14. Permits.

1.02 RELATED SECTIONS

A. Related Work Specified Elsewhere:

1. Division 01 – General Requirements
2. Divisions 02 through 46 (as used) – Technical Requirements

1.03 DEFINITIONS

- ###### A.
- The term Contractor, as used throughout this Section, shall mean the prime contractor on any given contract, unless language is specific to one contract.

1.04 DESCRIPTION OF WORK

- ###### A.
- Work under the three (3) contracts comprises the construction of public improvements at the Marie Lowe Drive Community Center. The Work to be done involves furnishing all materials, machinery, equipment, tools, supplies, transportation, labor, and supervision required to construct improvements to the Bristol Township Marie Lowe Drive Community Center as

SUMMARY OF PROJECT

shown on the Contract Drawings and specified herein.

The General Contract Work consists of but is not limited to: mobilization, traffic control, installation and maintenance of Erosion and Sedimentation Controls, demolition, clearing & grubbing, grading, stormwater facilities, pavement installation, installation of asphalt parking lot, installation of site amenities, curbing, concrete pads, fencing, landscaping, selective demolition, metal wall façade installation, vinyl flooring installation, painting of interior walls and door frames, installation of new gutters/roof drains, and suspended acoustic ceiling system installation. Contractor is responsible for installing the concrete pavilion footers (sealed engineered drawings to be provided by the manufacturer), along with installing the pavilion shade system in accordance with the manufacturer's specifications. Contractor is responsible for coordination with all other contractors to ensure proper installation of the items of this contract. Alternate #1 Work under the Site Contract involves the repainting of the existing metal siding of the community center as well as the installation of exterior metal trim along all four (4) corners of the Community Center. Alternate #2 Work under the Site Contract involves laying grass sodding instead of final seeding for the site.

The Electrical Contract work consists of but is not limited to: mobilization, conduit, wiring and lighting, and installation of new utility pole as shown on the Site Plans and Architectural Plans. Contractor is responsible for installing a new utility pole, as well as the transfer of any electrical lines to the new pole. Contractor is also responsible for exterior and interior electrical wiring and installation of interior electrical equipment within the Community Center building that is to be renovated in accordance with the Site Plans and Electrical Plans. Contractor is responsible for coordinating with all other contractors to ensure proper installation of the items of this contract.

The Plumbing Contract work consists of but is not limited to: mobilization and installation of indoor plumbing facilities as shown on the Plumbing Plans. Contractor is responsible for installing the plumbing equipment in accordance with the Plumbing Plans. Contractor is responsible for coordinating with all other contractors to ensure proper installation of the items of this contract.

- B. The Work is divided among three (3) contracts below. The limits of the work under each of these contracts are described and specified under the section numbers listed in this Section of the Project Manual:

1. Contract 21-07025-01: General
2. Contract 21-07025-02: Electrical
3. Contract 21-07025-03: Plumbing

1.05 PROJECT COORDINATOR DEFINITION & RESPONSIBILITIES

- A. The General Contractor shall act as the Project Coordinator and shall be responsible for coordination between the General Construction Contractor, Electrical Contractor, and Plumbing Contractor and for work/materials to be done or provided by owner.
- B. Project Coordinator shall perform Project coordination activities for the multiple contracts, including, but not limited to, the following:
1. Provide overall coordination of the Work.
 2. Coordinate shared access to workspaces.
 3. Coordinate product selections for compatibility.

3. Provide overall coordination of temporary facilities and controls.
4. Coordinate, schedule, and approve interruptions of permanent and temporary utilities, including those necessary to make connections for temporary services.
6. Coordinate construction and operations of the Work with work performed by each Contract.
7. Prepare coordination drawings in collaboration with each contractor to coordinate work by more than one contract.
8. Coordinate sequencing and scheduling of the Work, including an Initial Coordination Meeting with Contractors, Owner, and Township Engineer; preparation of a combined Contractor's Construction Schedule for the entire Project and submit for approval.
9. Provide progress photographic documentation.
10. Provide quality-assurance and quality-control services specified in Section 01 40 00 "Quality Requirements."
11. Project Coordinator shall be responsible for the overall safety and security of the site.
12. Coordinate sequence of activities to accommodate tests and inspections, and coordinate schedule of tests and inspections.
13. Provide information necessary to adjust, move, or relocate existing utility structures affected by construction, including irrigation.
15. Provide progress cleaning of common areas and coordinate progress cleaning of areas or pieces of equipment where more than one contractor has worked.
16. Provide final cleaning of buildings and site prior to Final Completion.
17. Coordinate cutting and patching.
18. Coordinate protection of the Work.
19. Coordinate completion of interrelated punch list items.
20. Coordinate preparation of Project Record Documents if information from more than one contractor is to be integrated with information from other contractors to form one combined record.

1.06 GENERAL REQUIREMENTS OF ALL CONTRACTS

- A. Extent of Contract: Unless the Agreement contains a more specific description of the Work of each Contract, requirements indicated on Drawings and in Specification Sections determine which contract includes a specific element of the Project.
 1. Unless otherwise indicated, the work described in this Section for each contract shall be complete systems and assemblies, including products, components, accessories, and installation required by the Contract Documents.
 2. Trenches, other excavation, and backfill for the work of each contract shall be the work of each contract for its own work.

3. Furnishing and installation of access panels for the work of each contract shall be the work of each contract for its own work. Any patching required as a result of access panel installation shall be the work of each contract.
4. Equipment pads for the work of each contract shall be the work of each contract for its own work.

1.07 ADMINISTRATIVE AND PROCEDURAL SECTIONS APPLICABLE TO ALL CONTRACTS

- A. Section 01 22 00: Measurement and Payment
- B. Section 01 29 00: Contract Considerations
- C. Section 01 31 00: Coordination and Meetings
- D. Section 01 33 00: Submittals
- E. Section 01 40 00: Quality Control
- F. Section 01 42 13: Organization and Reference Acronyms
- G. Section 01 60 00: Material and Equipment
- H. Section 01 70 00: Contract Closeout
- I. Section 01 75 00: Starting of Systems
- J. Section 01 78 23: Operation and Maintenance Manual

1.08 TEMPORARY FACILITIES AND SERVICES SECTIONS APPLICABLE TO EACH CONTRACT

- A. Section 01 50 00: Construction Facilities and Temporary Controls

1.09 MARIE LOWE DRIVE COMMUNITY CENTER- PUBLIC IMPROVEMENTS No. 21-07057-01: General

A. Division 01 - General Requirements:

1. Contractor Mobilization
2. Administrative and procedural sections listed above.
3. Section 01 32 06: Audio-Video Taping
4. Section 01 57 13: Soil Erosion and Sediment Control

B. Provide all Work identified in, but not limited to the following Divisions:

1. Division 02 – Existing Conditions
2. Division 03 – Concrete
3. Division 10 – Specialties
4. Division 12 – Furnishings

5. Division 31 – Earthwork
 6. Division 32 – Exterior Improvements
 7. Division 33 – Utilities
- C. Provide all Work identified in the Site Improvement and Erosion and Sediment Control Drawings.
- D. The general extent of the Work under Contract 21-07025-01: General includes, but is not limited to, the following main tasks. The proposed sequence of construction is listed below, as well as shown on sheet 8 of the Site Improvement Plans.
1. Install rock construction entrances as shown on plans.
 2. Install silt fences and compost socks, tree protection, rock filter outlets and all other erosion and sediment control measures on site.
 3. Perform site demolition activities and site clearing and grubbing. Stockpile topsoil where designated.
 4. Perform bulk excavation and rough grading to establish subgrade of parking lots, driveways, walkways, patios, and concrete pads.
 5. Construct underground infiltration basin. Construct underground basin, but do not construct inlet pipes or outlet pipe. Underground basin shall be protected from sediment by installing inlet protection on adjacent inlets.
 6. Construct subsurface seepage pit. seepage pit shall be protected from sediment by installing inlet protection on adjacent inlets.
 7. Begin building vestibule and renovations.
 8. Install storm conveyance piping and structures, immediately install inlet protection to all new inlets.
 9. Rough grade rain garden, Maintain a minimum of 12" above planting soil subgrade. Install outlet control structures, headwalls, flared end sections, and rip rap aprons to rain garden. Protect rain garden BMP from sedimentation and compaction throughout construction. Rain gardens shall not receive runoff until the contributory drainage area has achieved final stabilization. Roof drain may be disconnected at any time.
 10. Install curbing and fencing.
 11. Fine grade remaining site.
 12. Stabilize site with permanent vegetation.
 13. Final pave driveways and parking lots and install walkways.
 14. Prepare rain garden for installation of planting soil.
 15. Once the contributory drainage areas to the underground infiltration basin are stabilized, final connection of all storm sewer entering and discharging from the underground infiltration basin may be made.

16. After the site has been stabilized, all temporary E&S controls shall be removed. Areas disturbed during the removal of E&S control BMPs shall be stabilized immediately.

1.11 MARIE LOWE DRIVE COMMUNITY CENTER – PUBLIC IMPROVEMENTS: 21-07025-02: Electrical

A. Division 01 - General Requirements:

1. Administrative and procedural sections listed above.
2. Temporary facilities and services section listed above.
3. Contractor Mobilization.

B. Provide all Work identified in Division 26.

C. Provide all Work identified in the Site and Electrical Plans.

D. The general extent of the Work under Contract 21-07025-02: Electrical includes but is not limited to the tasks described in Section 01-22-00: Measurement and Payment as well as shown on the Electrical Plans.

1.12 MARIE LOWE DRIVE COMMUNITY CENTER – PUBLIC IMPROVEMENTS: 21-07025-03: Plumbing

A. Division 01 - General Requirements:

1. Administrative and procedural sections listed above.
2. Temporary facilities and services section listed above.
3. Contractor Mobilization.

B. Provide all Work identified in Division 22.

C. Provide all Work identified in the Site and Plumbing Plans.

D. The general extent of the Work under Contract 21-07025-03: Plumbing includes but is not limited to the tasks described in Section 01-22-00: Measurement and Payment as well as shown on the Plumbing Plans.

1.13 WORK BY OWNER

- A. No other work is being planned by Owner at the Marie Lowe Drive Community Center during construction of the Work under this contract.

1.14 WORK BY OTHER PARTIES

- A. Aside from the three individual contracts identified above, the Owner plans to install the proposed playground in accordance with the manufacturer's specifications at the Marie Lowe Drive Community Center during construction of the Work under this contract.

1.15 OWNER SUPPLIED PRODUCTS

- A. The owner will supply the shade sail material to the General Contractor for installation. Contractor to install per manufacturer's requirements.

1.16 CONTRACTOR USE OF SITE AND PREMISES

- A. The Work under these contracts must be accomplished following normal Township working hours of 7:00 am to 5:00 pm, Monday through Friday.
- B. Contractor shall take all necessary precautions to protect all existing water, gas, electric, communications, sanitary sewer, storm sewer, or other facilities encountered during the course of his operations, to guard against disruption of service. Before beginning Work, Contractor shall determine the location of each utility/facility. The location of utilities shown on the Drawings represents the best information available; however, it is the responsibility of the Contractor to establish the exact location in accordance with Pennsylvania Act 287 (1974) as last amended by Pennsylvania Act 121 (2008). A Utility User's List is noted on the Drawings.
- C. Contractor will be responsible to notify Owner and Engineer at least seventy-two (72) hours prior to the start of construction on or near their properties.
- D. Contractors shall conduct all Work in strict compliance with OSHA Construction Workplace Safety Standards.

1.17 FUTURE WORK

- A. No future work is being proposed.

1.18 PROJECT SEQUENCE OF CONSTRUCTION

- A. Notice to Proceed.
- B. Contractor shall submit a shop drawing submittal schedule within ten (10) days of the Effective Date of the Agreement. All items with delivery dates greater than ten (10) weeks shall be accompanied by a letter from the manufacturer with specific delivery time.
- C. Contractor shall submit shop drawings for all items having delivery times greater than eight (8) weeks within thirty (30) days from the starting date of the Notice to Proceed. All shop drawings for the Project shall be submitted within sixty (60) days from the starting date of the Notice to Proceed.
- D. Preconstruction Meeting
- E. Within ten (10) days of the Effective Date of the Agreement, Contractor shall submit to Engineer for review a copy of a detailed proposed construction schedule.
- F. The sequences of construction, as defined on each contract's plan sheets, will be followed.
- G. Contractor may propose an alternate sequence of construction subject to prior approval by Engineer.

1.19 OWNER OCCUPANCY

- A. The owner will not need use of the site during the course of construction. The contractor shall ensure construction fencing is in place to prevent unauthorized access of the site.

1.20 AVAILABILITY OF LANDS

- A. The OWNER currently owns the property associated with the above noted work.

- B. CONTRACTOR shall stage equipment according to the Drawings and as directed by the Owner.

1.22 PERMITS

- A. Each Contractor shall complete all construction work in accordance with and prior to expiration of any and all governmental and agency permits and approvals that have been issued for this project. The owner has obtained BCCD permits for this project. General Contractor is responsible to obtain time extensions or time renewals for these permits and approvals as needed. The Contractor is required to obtain all necessary permits beyond those obtained by the Township, including but not limited to Building Permit, etc. The contractor is required to follow the requirements of the permits, including ensuring inspection as required during the course of the construction. All Bristol Township fees will be waived for any required permit.

PART 2 - PRODUCTS

Not Used

PART 3 - EXECUTION

Not Used

END OF SECTION

SECTION 01 22 00

MEASUREMENT AND PAYMENT

PART 1 - GENERAL

1.01 SECTION INCLUDES

- A. Measurement and payment criteria applicable to the Work performed under a Unit Price payment method.

1.02 PROCEDURE

- A. All measurements for payment will be based on completed work, performed in accordance with the Drawings and Project Manual, and with the Agreement's "Schedule of Bid Items".
- B. The Resident Project Representative shall take all measurements and compute quantities relative to all work completed under the Agreement in accordance with the methods included in this section. Contractor shall assist by providing necessary equipment and personnel as required.
- C. In cases where the payment clause for an item in this section relating to the lump sum price requires that the said unit or lump sum price cover and be considered compensation for certain work or material essential to the item, this same work or material shall not be measured or paid for under any other item which may appear elsewhere in this section.

PART 2 - PRODUCTS

Not Used

PART 3 - EXECUTION

3.01 CONTRACT 21-07025-01: GENERAL CONTRACT

1. MOBILIZATION

A. Measurement

Measurement for this work is lump sum and constitutes furnishing all materials and equipment necessary to complete the work associated with this contract. This item also includes providing a Work in accordance with:

Section 01 29 00 – Contract Considerations
Section 01 31 00 – Coordination and Meetings
Section 01 33 00 – Submittals
Section 01 40 00 – Quality Control
Section 01 50 00 – Temporary Facilities and Controls
Section 01 56 39 – Landscape Protection
Section 01 60 00 – Material and Equipment
Section 01 70 00 – Contract Closeout

B. Payment

Payment for this item shall be made at the contract unit price as determined in the Bid Schedule. One half (50%) of the contract lump sum amount for this item will be paid with the first payment application. The remaining 50% will be paid upon satisfactorily

completing 50% of the total original contract amount. This is a lump sum item for the entire contract. No additional payments for Mobilization will be paid as part of the Contract Work. Mobilization shall be performed and payment will be made in accordance to Section 01 71 13 "Mobilization" of the contract.

2. DEMOLITION

A. Measurement

Measurement of demolition of existing paving, stone, concrete, bollards, gates, etc., will be as Lump Sum per the drawings, details and specification Section 02 41 16.

B. Payment

Payment for the demolition of existing paving, stone, concrete, bollards, gates, etc., shall be made at the contract unit price for this item. This price and payment will constitute full compensation for furnishing all labor, materials, and equipment necessary for preparation, maintenance, and removal of existing paving, stone, signs, gate, light poles, concrete, etc. as shown on the drawings. Any partial removal not to the correct depth or incomplete areas will be the responsibility of the Contractor to remove at no additional cost to the Owner.

3. CLEARING & GRUBBING

A. Measurement

Measurement for Clearing and Grubbing of the site will be Lump Sum per the drawings, details, and specifications Section 31 11 00.

B. Payment

Payment for the Clearing & Grubbing shall be made as part of the Lump Sum cost bid for this item. This price and payment will constitute full compensation for furnishing all labor, materials, and equipment necessary for preparation, maintenance, and removal of vegetation, trees, stumps, roots, debris, and topsoil in accordance with PennDOT Pub. 408 specifications section 201 and 810. Any partial removal not to the correct depth or incomplete areas will be the responsibility of the Contractor to remove at no additional cost to the Owner.

4. TEMPORARY SEEDING

A. Measurement

Measurement for seeding will be Lump Sum per the Drawings, details, and specifications.

B. Payment

Payment for the installation of seeding shall be made as part of the Lump Sum cost bid for this item. This price and payment will constitute full compensation for furnishing all labor, materials, and equipment necessary for installation and maintenance, of temporary seeding, including any hay matting as necessary. Any repairs, replacement, or reinstallation will be the responsibility of the Contractor at no additional cost to the Owner, including Contractor's maintenance of seeding to the satisfaction of the Bucks County Conservation District throughout the project duration.

5. SILT SOCK

A. Measurement

Measurement of soil erosion and sediment control Silt Sock will be as determined in the field per linear foot placed, maintained, and removed per the drawings, details and PADOT Publication 408-866 specifications.

B. Payment

Payment for the installation, maintenance, and removal of soil erosion and sediment control Silt Sock shall be made at the contract unit price for this item. This price and payment will constitute full compensation for furnishing all labor, materials, and equipment necessary for installation, maintenance, and removal. Any repairs, replacement, or reinstallation will be the responsibility of the Contractor at no additional cost to the Owner, including Contractor's maintenance of Silt Sock to the satisfaction of the Bucks County Conservation District throughout the project duration.

6. ROCK CONSTRUCTION ENTRANCE

A. Measurement

Measurement for the Rock Construction Entrance will be Each per the Project Manual and Drawings.

B. Payment

Payment for the stone construction entrance will be made at the applicable unit price listed in the Bid Schedule. This price and payment shall constitute full compensation for furnishing all labor, materials, and equipment required to install, maintain, and remove the rock construction entrances as more fully defined elsewhere in the Project Manual and/or on the Drawings.

7. TREE PROTECTION FENCE

A. Measurement

Measurement of this item will be based on the actual linear feet of tree protection fence installed, maintained, and removed in accordance with the Project Manual and Drawings. Measurement for the length will be taken along the centerline of the fence. Appurtenances, fittings and access gates will not be measured and paid for separately.

B. Payment

Payment for Tree Protection Fence shall be made at the contract unit price for this item. This price and payment shall constitute full compensation for furnishing all labor, materials and equipment necessary for furnishing and installing, maintaining, and removal of the Tree Protection Fence as shown on the Drawings.

8. LOD CONSTRUCTION SAFETY FENCING

A. Measurement

Measurement of this item will be lump sum for the 6' high chain link construction fence installed, maintained, and removed in accordance with the Project Manual and

Drawings. Measurement for the length will be taken along the centerline of the fence. Appurtenances, fittings and access gates will not be measured and paid for separately.

B. Payment

Payment for construction fencing shall be made as part of the Lump Sum cost bid for this item. This price and payment shall constitute full compensation for furnishing all labor, materials and equipment necessary for furnishing and installing, maintaining, and removal of the 6' high chain link construction fencing as shown on the Drawings.

9. INLET PROTECTION

A. Measurement

Measurement for this item shall be as determined in the field for each Siltsack Inlet Protection installed, maintained and removed for Type 'M' & 'C' Inlets as indicated on the drawings.

B. Payment

Payment for Siltsack Inlet Protection shall be made at the contract unit price as listed in the Bid Schedule. 50% will be paid upon installation. 50% will be paid upon removal. This price shall constitute full compensation for the furnishing of all labor, materials, equipment, mobilization, and maintenance and protection of traffic necessary for the proper installation, maintenance, and removal of the inlet protection. Contractor shall install Siltsack Inlet Protection at locations indicated on the Drawings. Siltsack Inlet Protection shall remain in place until site stabilization has been achieved as determined by the Bucks County Conservation District and/or Engineer as required. Any repairs or reinstallation will be the responsibility of the contractor at no additional cost to the owner.

10. EARTHWORK

A. Measurement

Measurement for Earthwork will be Lump Sum per the Drawings, details, and specifications, and shall include stripping of topsoil, stockpiling, rough grading, fine grading, respreading a minimum of 6" stockpiled topsoil, and disposing of unsuitable material.

B. Payment

Payment for this item shall be made at the applicable unit price listed in the Bid Schedule. This price and payment will constitute full compensation for furnishing all labor, materials, equipment, and maintenance necessary for stripping of topsoil, stockpiling, rough grading, fine grading, respreading a minimum of 6" stockpiled topsoil, and disposal of unsuitable material as needed. This price shall include all other related work necessary to complete rough and fine grading, including import of fill or export of cut as necessary, as more fully defined elsewhere in the Project Manual and/or shown on the Drawings. Any repairs, replacement, or reinstallation will be the responsibility of the Contractor at no additional cost to the Owner, including Contractor's maintenance of the topsoil stockpile to the satisfaction of the Bucks County Conservation District throughout the project duration.

11. 1.5" 9.5MM SUPERPAVE WEARING COURSE

A. Measurement

Measurement for 1.5" 9.5 MM Superpave Wearing Course will be as determined in the field per Square Yard of wearing course installed. Superpave wearing course shall be a compacted thickness of 1.5" of 9.5 mm Superpave, PG 64-22, 0.3 to 3 million ESALs, SRL-H min., refer to project manual SECTION 32 12 00.

B. Payment

Payment for the 1.5" 9.5 MM Superpave Wearing Course shall be made at the contract unit price for this item. This price shall constitute full payment for furnishing all labor, materials, equipment, and traffic control necessary for the site pavement. The work bid for consists of all labor, equipment and materials to install wearing course for the trails and parking lots. Any temporary paving installed per SECTION 32 12 23 to maintain access shall be incidental to this pay item. Wearing Course shall be in accordance with the latest editions of PennDOT Publication 408, Section 410& 413. Asphalt materials shall be based on PennDOT's **June 2023 Asphalt Cement Price Index. Any walkways and ADA parking areas must meet ADA accessibility guidelines.**

12. 2.5" 12.5MM SUPERPAVE BASE COURSE

A. Measurement

Measurement for 2.5" 12.5 MM Superpave Base Course will be as determined in the field per Square Yard of base course installed. Superpave Base Course shall be a compacted thickness of 2.5" of 12.5 mm Superpave, PG 64-22, 0.3 to 3 million ESALs, SRL-H min., refer to project manual SECTION 32 12 00.

B. Payment

Payment for the 2.5" 12.5 MM Superpave Base Course shall be made at the contract unit price for this item. This price shall constitute full payment for furnishing all labor, materials, equipment, and traffic control necessary for the site pavement. The work bid for consists of all labor, equipment and materials to install base course for the trails. Any temporary paving installed per SECTION 32 12 23 to maintain access shall be incidental to this pay item. Base Course shall be in accordance with the latest editions of PennDOT Publication 408, Section 313 & 316. Asphalt materials shall be based on PennDOT's **June 2023 Asphalt Cement Price Index. Any walkways and ADA parking areas must meet ADA accessibility guidelines.**

13. 6" PENNDOT 2A COARSE AGGREGATE

A. Measurement

Measurement for PennDOT 2A Coarse Aggregate will be as determined in the field per Square Yard of PennDOT 2A Coarse Aggregate placed for the asphalt trails and parking lot.

B. Payment

Payment for the PennDOT 2A Coarse Aggregate shall be made at the contract unit price for this item. The work bid consists of all labor, equipment, materials and maintenance and protection of traffic necessary to install the stone subbase material

for new paving, including removal and disposal of existing unsuitable material in areas designated by the Owner, and installation of geofabric. All PennDOT 2A Coarse Aggregate shall be in accordance with the latest edition of PennDOT Publication 408, Section 703 and Project Manual Section 32 12 23. Work associated with this item that requires EXCAVATION, BACKFILL AND COMPACTION per SECTION 31 23 33 shall be incidental to this pay item.

14. TRAFFIC SIGNAGE AND PAVEMENT MARKINGS

A. Measurement

Measurement of this item will be based at the Lump Sum price for all items required for the pavement markings to be installed as shown on the Drawings.

B. Payment

Payment for the installation of the parking lot pavement markings shall be made at the contract unit price listed in the Bid Schedule. This price and payment will constitute full compensation for furnishing all labor, materials, equipment, accommodation of traffic as necessary for the installment of traffic paint for the handicap symbols, parking stall lines, and gore striping, and all work intended and incidental thereto as more fully defined elsewhere in the Project Manual and/or on the Drawings. Payment for TRAFFIC SIGNS shall be made at the contract unit price for this item. This price and payment shall constitute full compensation for furnishing all labor, materials and equipment necessary for furnishing and installing the flat sheet signs on breakaway steel posts as shown on the Drawings. This includes, but is not limited to, the flat sheet sign, anchors, breakaway steel post, bolts, nuts, and all other miscellaneous anchoring devices required in accordance with the latest edition of PennDOT Publication 408, Section 931, Section 10 14 53 of Project Manual, and recommended by the manufacturer.

15. ADA/PENNDOT COMPLIANT TRUNCATED DOMES

A. Measurement

Measurement for this item shall be as determined in the field for each ADA/PennDOT Compliant Truncated Domes placed as shown on the Drawings.

B. Payment

Payment for the ADA/PennDOT Compliant Truncated Domes shall be made at the contract unit price listed in the Bid Schedule. This price shall constitute full payment for providing and furnishing all labor, materials, equipment, and traffic control necessary for the installation of ADA Compliant Truncated Domes. Demolition and hauling of existing concrete, restoration of existing features, excavation, placement of stone base, vertical adjustment of existing valves to finish grade, and adjustments to the concrete portions of the curb ramps required for the proper installation of the truncated domes shall be included in the unit price bid for this item. The detectable warning surfaces shall extend the entire width of the curb ramp, perpendicular to the direction of travel. Truncated domes shall be a colonial red embedded cast-in-place detectable warning surface and as specified in the Contract Documents. ADA Compliant Truncated Domes shall be in accordance with the latest editions of PennDOT Publication 408, Section 695 and Publication 72, RC-67. **No separate pay item shall be made for any adjustments to the concrete portions of the ramps required for the proper installation of the truncated domes.**

16. 18" CONCRETE CURB

A. Measurement

Measurement for this item shall be as determined in the field per linear feet of 18" Vertical/Depressed Concrete Curb installed. Vertical/Depressed Concrete Curb shall be constructed of 3,500 PSI, air-entrained concrete cement.

B. Payment

Payment for the installation of 18" Vertical/Depressed Concrete Curb shall be made at the contract unit price as listed in the Bid Schedule. This price and payment will constitute full compensation for furnishing all labor, materials, equipment, traffic control, roadway, stone, sealant, and lawn restoration necessary to install 18" Vertical/Depressed Concrete Curb. Contractor shall set up formwork, place and install 18" Vertical/Depressed Concrete Curb as shown on the drawings. Depressed curb at ADA/PennDOT complaint ramps shall be constructed in accordance with the drawings. There should be a **6" reveal** in all parking lots. **Contractor shall apply Aquaron 2000 Cure and Seal immediately upon the removal of the formwork.** Curb line sealing is incidental to the installation of all curb and asphalt. All concrete work shall be in accordance with the latest editions of PennDOT Publication 408, and Publication 72, RC-64, and RC-67. Contractor is responsible for verifying that the final grades, slopes and dimensions are in compliance with the above publications.

17. 4" CONCRETE PAVING

A. Measurement

Measurement for this item shall be as determined in the field per square foot of 4" Concrete Paving installed. 4" Concrete Paving shall be constructed of 3,500 PSI, air-entrained concrete cement over 6" #57 stone.

B. Payment

Payment for the installation of 4" Concrete Paving shall be made at the contract unit price as listed in the Bid Schedule. This price and payment will constitute full compensation for furnishing all labor, materials, equipment, traffic control, roadway, stone, sealant, and lawn restoration necessary to install all proposed sidewalk, plaza, and concrete pad under the proposed shade sail using 4" Concrete Paving. Contractor shall set up formwork, place and install 4" Concrete Paving as shown on the drawings. All concrete work shall be in accordance with the latest editions of PennDOT Publication 408, and Publication 72, RC-64, and RC-67. Contractor is responsible for verifying that the final grades, slopes and dimensions are in compliance with the above publications.

18. 6" CONCRETE DRIVEWAY APRON

A. Measurement

Measurement for this item shall be as determined in the field per square feet of 6" Concrete Driveway Apron installed. 6" Concrete Driveway Apron shall be constructed of 3,500 PSI, air-entrained concrete cement over 6" #57 stone.

B. Payment

Payment for the installation of 6" Concrete Driveway Apron shall be made at the contract unit price as listed in the Bid Schedule. This price and payment will constitute

full compensation for furnishing all labor, materials, equipment, traffic control, roadway, stone, sealant, and lawn restoration necessary to install 6" Concrete Slab. Contractor shall set up formwork, place and install 6" Concrete Driveway Apron as shown on the drawings. Contractor shall apply Aquaron 2000 Cure and Seal immediately upon the removal of the formwork. All concrete work shall be in accordance with the latest editions of PennDOT Publication 408, and Publication 72, RC-64, and RC-67. Contractor is responsible for verifying that the final grades, slopes and dimensions are in compliance with the above publications.

19. PRECAST CONCRETE BENCH

A. Measurement

Measurement for Precast Concrete Bench will be as determined in the field per EACH, installed per contract drawings and spec SECTION 12 93 00.

B. Payment

Payment for Precast Concrete Bench shall be made at the contract unit price for this item. This price and payment shall constitute full compensation for furnishing all labor, materials, and equipment necessary for furnishing and installing the benches as shown on the Drawings. Any repairs, replacement, or reinstallation will be the responsibility of the Contractor at no additional cost to the Owner.

20. 4' ORNAMENTAL PICKET FENCE & GATES

A. Measurement

Measurement for Ornamental Picket Fence & Gates will be as determined in the field per linear feet of 4' Ornamental Picket Fence & Gates, installed per contract drawings and spec SECTION 05 73 00.

B. Payment

Payment for 4' Ornamental Picket Fence & Gates shall be made at the contract unit price for this item. This price and payment shall constitute full compensation for furnishing all labor, materials, and equipment necessary for furnishing and installing the benches as shown on the Drawings. Any repairs, replacement, or reinstallation will be the responsibility of the Contractor at no additional cost to the Owner.

21. 4' CHAIN LINK FENCE & GATES

A. Measurement

Measurement for Chain Link Fence & Gates will be as determined in the field per linear feet of 4' Chain Link Fence, installed per contract drawings and spec SECTION 32 31 10.

B. Payment

Payment for 4' Chain Link Fence & Gates shall be made at the contract unit price for this item. This price and payment shall constitute full compensation for furnishing all labor, materials, and equipment necessary for furnishing and installing the benches as shown on the Drawings. Any repairs, replacement, or reinstallation will be the responsibility of the Contractor at no additional cost to the Owner.

22. 6' SHADOW BOX FENCE ENCLOSURE & DOUBLE SWING GATE

A. Measurement

Measurement for this item shall be as determined in the field per linear feet of 6' Shadow Box Fencing installed as specified on the plans.

B. Payment

Payment for the 6' Shadow Box Fence Enclosure shall be made at the contract unit price as listed in the Bid Schedule. This price and payment will constitute full compensation for furnishing all labor, materials, and equipment necessary for preparation, maintenance, and installation of fencing as shown on the drawings. This includes all concrete foundations and ties as necessary to support the fence posts and fencing. The fencing shall be black vinyl with black powder coated posts. Any repairs or replacement of materials will be the responsibility of the contractor at no additional cost to the owner.

23. SHADE SAIL INSTALLATION

A. Measurement

Measurement for this item shall be as lump sum as based on the installation of the Shade Sail in accordance with the Project Manual and as indicated on the Drawings.

B. Payment

Payment for the Shade Sail shall be made at the applicable lump sum price listed in the Bid Schedule. This price and payment shall constitute full compensation for furnishing all labor, materials and equipment necessary for installing the Owner-Supplied Shade Sail as shown on the Drawings. This includes, but is not limited to grading, stone, compaction, excavation, reinforcing, footings, erection, shade sail installation and all other work intended and incidental thereto in accordance with the design specifications and recommendations by the manufacturer, and as more fully defined in the Project Manual and/or shown on the Drawings. Shade sail material is to be provided by the Owner, installation is the responsibility of the contractor.

24. FINAL SEEDING

A. Measurement

Measurement for seeding will be determined in the field per square foot, including placement and installed once topsoil is installed at final grade per the Contract Documents and Drawings.

B. Payment

Payment for the installation of seeding shall be made at the contract unit price for this item. This price and payment will constitute full compensation for furnishing all labor, materials, and equipment necessary for furnishing and installing the seed as shown on the Drawings, this includes but is not limited to temporary placement. Any repairs, replacement, or reinstallation will be the responsibility of the Contractor at no additional cost to the Owner, including Contractor's maintenance of seeding to the satisfaction of the Bucks County Conservation District throughout the project duration.

25. SPECIALTY SEEDING AREAS

MEASUREMENT AND PAYMENT

01 22 00-9

A. Measurement

Measurement for seeding will be determined in the field per square foot of each special seed mix place in the rain garden areas once topsoil is installed at final grade per the Contract Documents and Drawings.

B. Payment

Payment for the installation of specialty seeding shall be made at the contract unit price for this item. This price and payment will constitute full compensation for furnishing all labor, materials, and equipment necessary for furnishing and installing the seed as shown on the Drawings, this includes but is not limited to temporary placement, raking of topsoil, and seeding supplements. The following seed mixtures should be installed as defined and in the locations shown on the plans: **ERNST Perennial Food & Cover Wetland Seed Mix and Native Detention Area Seed Mix**. Any repairs, replacement, or reinstallation will be the responsibility of the Contractor at no additional cost to the Owner, including Contractor's maintenance of seeding to the satisfaction of the Bucks County Conservation District throughout the project duration.

26. TREES, SHRUBS (PER PLANT LIST)

A. Measurement

Measurement for TREES & SHRUBS (PER PLANT LIST) will be as determined in the field per EACH, installed per contract drawings and spec SECTION 32 92 00.

B. Payment

Payment for TREES & SHRUBS (PER PLANT LIST) shall be made at the contract unit price for this item. This price and payment shall constitute full compensation for furnishing all labor, materials and equipment necessary for furnishing and installing the trees and shrubs as shown on the Drawings. Any repairs, replacement, or reinstallation will be the responsibility of the Contractor at no additional cost to the Owner, including Contractor's maintenance of trees and shrubs to the satisfaction of the Bucks County Conservation District at project completion. Work associated with this item that requires EXCAVATION, BACKFILL AND COMPACTION per SECTION 31 23 33 shall be incidental to this pay item.

27. STORM PIPE

A. Measurement

Measurement for this item shall be as determined in the field for linear feet of Storm pipe installed. Storm Pipe shall be sized as specified on the plans.

B. Payment

Payment for the installation of Storm pipe shall be made at the contract unit price as listed in the Bid Schedule. This price shall constitute full compensation for the furnishing of all labor, materials, equipment, mobilization, and maintenance and protection of traffic necessary for the installation of the HDPE or PVC Pipe including but not limited to excavation, backfill, pipe, dewatering, and permits. This item includes the removal, hauling and disposal of excess soil and/or waste material. The price shall include root trimming or pruning, tree protection, excavation, removal, hauling and disposal of all excess material, trenching, sheeting and/or shoring the

trench where required by OSHA standards, pumping and bailing, laying, cutting and joining of the pipe, cutting for holes in existing structures, pipe bedding, cutting, supporting the underground structures and utilities, geotextile, soft digging around services, replacement of necessary services, earth and stone backfill, removal and resetting of existing features, landscape restoration and all other related work required to complete the installation of the storm sewer pipe as more fully defined elsewhere in the Project Manual and/or shown on the Drawings. Any necessary tree root trimming or pruning to ensure proper installation is incidental to this item.

28. 2'X4' TYPE 'C' INLET

A. Measurement

Measurement for this item shall be as determined in the field for each 2' x 4' Type 'C' Inlet installed as indicated on the drawings.

B. Payment

Payment for the installation of 2' x 4' Type 'C' Inlet shall be made at the contract unit price listed in the Bid Schedule. This price shall constitute full compensation of all labor, materials, equipment, and maintenance necessary for the installation of 2' x 4' Type 'C' Inlet. The price shall include protection of existing utilities, excavation, furnishing and installing inlet and ADA compliant bicycle safe inlet tops, pipe connection, placement and compaction of 2A stone backfill, coatings, adjustment of all utilities, dewatering, crushed stone aggregate base, backfilling, sheeting and shoring, removal of excess excavated material, removal of existing structures, erosion and sedimentation control and all other related work necessary to complete the construction of 2' x 4' Type 'C' Inlet as more fully defined elsewhere in the Project Manual and/or shown on the Drawings.

29. 24" YARD INLET WITH FRAME & GRATE

A. Measurement

Measurement for this item shall be as determined in the field for each 24" Yard Inlet with Frame & Grate installed as indicated on the drawings.

B. Payment

Payment for the installation of 24" Yard Inlet with Frame & Grate shall be made at the contract unit price listed in the Bid Schedule. This price shall constitute full compensation of all labor, materials, equipment, and maintenance necessary for the installation of 24" Yard Inlets with Frame & Grate. The price shall include protection of existing utilities, excavation, furnishing and installing inlets and ADA compliant bicycle safe grates, frame, placement and compaction of 2A stone backfill, installation of snouts, coatings, adjustment of all utilities, dewatering, crushed stone aggregate base, backfilling, sheeting and shoring, removal of excess excavated material, removal of existing structures, erosion and sedimentation control and all other related work necessary to complete the construction of 24" Inlet with Frame & Grate as more fully defined elsewhere in the Project Manual and/or shown on the Drawings.

30. 18" FILTER INLET

A. Measurement

Measurement for this item shall be as determined in the field for each 18" filter inlet

installed as indicated on the drawings.

B. Payment

Payment for the installation of 18" filter inlet shall be made at the contract unit price listed in the Bid Schedule. This price shall constitute full compensation of all labor, materials, equipment, and maintenance necessary for the installation of the 18" Filter Inlet. This price shall include protection of existing utilities, excavation, furnishing and installing inlet, frame, grate, placement and compaction of 2A stone backfill, coatings, adjustment of all utilities, dewatering, crushed stone aggregate base, backfilling, sheeting and shoring, removal of excess excavated material, removal of existing structures, erosion and sedimentation control and all other related work necessary to complete the construction of 18" Filter Inlet with Frame & Grate as more fully defined elsewhere in the Project Manual and/or shown on the Drawings.

31. NYLOPLAST STORM MANHOLE

A. Measurement

Measurement for this item shall be as determined in the field for each Nyloplast Storm Manhole as indicated on the drawings.

B. Payment

Payment for the installation of Nyloplast Storm Manhole shall be made at the contract unit price listed in the Bid Schedule. This price shall constitute full compensation of all labor, materials, equipment, and maintenance necessary for the installation of the Nyloplast Storm Manhole. This price shall include protection of existing utilities, excavation, furnishing and installing manholes, frame, grate, placement and compaction of 2A stone backfill, coatings, adjustment of all utilities, dewatering, crushed stone aggregate base, backfilling, sheeting and shoring, removal of excess excavated material, removal of existing structures, erosion and sedimentation control and all other related work necessary to complete the construction of Nyloplast Storm Manhole as more fully defined elsewhere in the Project Manual and/or shown on the Drawings.

32. RAIN GARDEN

A. Measurement

Measurement of this item will be lump sum based on the installation and completion of the Rain Garden in accordance with the Project Manual and as indicated on the Drawings.

B. Payment

Payment for the Rain Garden shall be made at the applicable lump sum price listed in the bid schedule. This price shall constitute full compensation of all labor, materials, equipment, and maintenance necessary for installation of the Rain Garden. This includes, but is not limited to grading, stone, compaction, amended soils, underdrain, slope protection, anti-seep collars, cleanouts, and all other work intended and incidental thereto in accordance with the design specifications, and as more fully defined in the Project Manual and/or shown on the Drawings.

33. STONE SEEPAGE PIT/INFILTRATION BASIN

A. Measurement

Measurement for this item shall be as determined in the field per cubic yard of Stone Seepage Pit/Infiltration Basin installed as specified on the plans.

B. Payment

Payment for the Stone Seepage Pit/Infiltration Basin shall be made at the contract unit price as listed in the Bid Schedule. This price and payment will constitute full compensation for furnishing all labor, materials, and equipment necessary for preparation, maintenance, excavation, bedding, geotextile, stone, and backfill as shown on the drawings. Any repairs or replacement of materials will be the responsibility of the contractor at no additional cost to the owner. Storm structures and piping associated with the stone seepage pit/infiltration basins to be installed and paid per separate line items.

34. BUILDING RENOVATIONS

A. Measurement

Measurement for this item shall be lump sum as based on the building renovations shown in the Architectural Drawings and as specified on the plans.

B. Payment

Payment for the Building Renovations shall be made at the contract unit price as listed in the Bid Schedule. This price and payment will constitute full compensation for furnishing all labor, materials, and equipment necessary for preparation, maintenance, selective demolition, replacement of VCT flooring in main room of Community Center, replacement of ceiling tiles in the main room of the Community Center, repainting of interior walls of the main room of the Community Center, installation of new gutters and downspout on the exterior of the Community Center, and new front façade installation as shown on the site development plans and architectural plans. (Sheet A-1.2 of the Architectural Plans, Detail 1 and Sheet A-2.0 of the Architectural Plans, as well as Sec 01 22 00.01 - Exterior Façade Exhibit). Any repairs or replacement of materials will be the responsibility of the contractor at no additional cost to the owner.

35. ALTERNATE #1 – EXISTING EXTERIOR BUILDING SIDE WALLS REPAINTING

A. Measurement

Measurement for repainting of the existing side walls will be Lump Sum per the Contract Documents and Drawings.

B. Payment

Payment for repainting of the existing side walls shall be made at the applicable lump sum price listed in the Bid Schedule. This price and payment shall constitute full compensation for furnishing all labor, materials, and equipment necessary to repaint the side walls as shown on the Drawings (Sheet A-2.0 of the Architectural Plans, as well as Sec 01 22 00.01 - Exterior Façade Exhibit).

36. ALTERNATE #1 – EXTERIOR METAL TRIM INSTALLATION

A. Measurement

Measurement for exterior metal trim installation will be Lump Sum per the Contract Documents and Drawings.

B. Payment

Payment for exterior metal trim installation shall be made at the applicable lump sum price listed in the Bid Schedule. This price and payment shall constitute full compensation for furnishing all labor, materials, and equipment necessary to install the exterior metal trim on all four corners as shown on the Drawings (Sheet A-2.0 of the Architectural Plans, Details B and C as well as Sec 01 22 00.01 - Exterior Façade Exhibit).

37. ALTERNATE #2 GRASS SOD – ADDITIONAL COST (ADD COST = TOTAL COST – ITEM 3.01.24)

A. Measurement

Measurement for Grass Sod will be determined in the field per square foot, including placement and installed once topsoil is installed at final grade per the Contract Documents and Drawings.

B. Payment

Payment for the installation of Grass Sod shall be made at the contract unit price for the Additional Cost to Install Sod in Place of Final Seeding, Line Item 3.24. This price and payment will constitute full compensation for furnishing all labor, materials, and equipment necessary for furnishing and installing the Grass Sod as shown on the Drawings, this includes but is not limited to temporary placement. Any repairs, replacement, or reinstallation will be the responsibility of the Contractor at no additional cost to the Owner, including Contractor's maintenance of the Grass Sod to the satisfaction of the Bucks County Conservation District throughout the project duration.

3.02 CONTRACT #21-07025-02: ELECTRICAL CONTRACT

1. MOBILIZATION

A. Measurement

Measurement for this work is lump sum and constitutes furnishing all materials and equipment necessary to complete the work associated with this contract. This item also includes providing a Work in accordance with:

Section 01 29 00 – Contract Considerations
Section 01 31 00 – Coordination and Meetings
Section 01 33 00 – Submittals
Section 01 40 00 – Quality Control
Section 01 50 00 – Temporary Facilities and Controls
Section 01 56 39 – Landscape Protection
Section 01 60 00 – Material and Equipment
Section 01 70 00 – Contract Closeout

B. Payment

Payment for this item shall be made at the contract unit price as determined in the Bid Schedule. One half (50%) of the contract lump sum amount for this item will be paid with the first payment application. The remaining 50% will be paid upon satisfactorily completing 50% of the total original contract amount. This is a lump sum item for the entire contract. No additional payments for Mobilization will be paid as part of the Contract Work. Mobilization shall be performed and payment will be made in accordance to Section 01 71 13 "Mobilization" of the contract.

2. INSTALLATION OF UTILITY POLE

A. Measurement

Measurement for Installation of Utility Pole will be lump sum per the Contract Documents and Site Plan.

B. Payment

Payment for the installation of the new utility shall be made at the applicable lump sum price listed in the Bid Schedule. This price and payment shall constitute full compensation for furnishing all labor, materials, and equipment necessary to install the new utility pole utility pole, underground wiring, and conduit as shown on the Site Plan.

3. SITE ELECTRICAL WIRING AND CONDUIT

A. Measurement

Measurement for Site Electrical Wiring and Conduit will be lump sum per the Contract Documents and Site Plan.

B. Payment

Payment for the installation of the Site Electrical Wiring and Conduit shall be made at the applicable lump sum price listed in the Bid Schedule. This price and payment shall constitute full compensation for furnishing all labor, materials, and equipment necessary to install the underground wiring and conduit to the existing meter of the Community Center as shown on the Site Plan.

4. INSTALLATION OF INTERIOR ELECTRICAL EQUIPMENT

A. Measurement

Measurement for Installation of Interior Electrical Equipment will be lump sum per the Contract Documents and Electrical Drawings.

B. Payment

Payment for the installation of the interior electrical equipment shall be made at the applicable lump sum price listed in the Bid Schedule. This price and payment shall constitute full compensation for furnishing all labor, materials, and equipment necessary to install interior wiring and lighting, and all other electrical equipment as shown on the Electrical Drawings.

3.03 CONTRACT #21-07025-03: PLUMBING CONTRACT

1. MOBILIZATION

A. Measurement

Measurement for this work is lump sum and constitutes furnishing all materials and equipment necessary to complete the work associated with this contract. This item also includes providing a Work in accordance with:

Section 01 29 00 – Contract Considerations
Section 01 31 00 – Coordination and Meetings
Section 01 33 00 – Submittals
Section 01 40 00 – Quality Control
Section 01 50 00 – Temporary Facilities and Controls
Section 01 56 39 – Landscape Protection
Section 01 60 00 – Material and Equipment
Section 01 70 00 – Contract Closeout

B. Payment

Payment for this item shall be made at the contract unit price as determined in the Bid Schedule. One half (50%) of the contract lump sum amount for this item will be paid with the first payment application. The remaining 50% will be paid upon satisfactorily completing 50% of the total original contract amount. This is a lump sum item for the entire contract. No additional payments for Mobilization will be paid as part of the Contract Work. Mobilization shall be performed and payment will be made in accordance to Section 01 71 13 “Mobilization” of the contract.

2. INSTALLATION OF INTERIOR PLUMBING FACILITIES

A. Measurement

Measurement for the Installation of Interior Plumbing Facilities will be Lump Sum for all equipment installed including, but not limited to piping, toilets, sinks, floor drains, and pump outs as indicated on the drawings.

B. Payment

Payment for the Installation of Interior Plumbing Facilities shall be made at the applicable lump sum contract unit price listed in the Bid Schedule. This price and payment shall constitute full compensation for furnishing all labor, materials, and equipment necessary for the installation of piping, toilets, risers, sinks, floor drains, pump outs, grease interceptor, water heater, cleanouts, and all other work intended and incidental thereto to install the Interior Plumbing Facilities as shown on the Plumbing Plans and elsewhere in the Project Manual.

3.04 INCIDENTAL ITEMS

1. ALLOWANCES

The Owner is including a General Allowance for any work that may need to be completed beyond that defined in the contract. The allowance is defined for the Dollar amount for each item.

2. MAINTENANCE AND PROTECTION OF TRAFFIC

There will be no separate payment for Maintenance and Protection of Traffic as Maintenance and Protection of Traffic is incidental to all other Work. Maintenance and protection of traffic includes all labor, material, and equipment necessary for installation, maintenance, and relocation of traffic control devices and flagging to complete all work. This may include the flaggers, erection, placement, and maintenance in good condition of barricades, warning signs, lights, flares, approved yellow-flashing light units, rubber traffic cones, and other warning and danger signals and devices, appropriate and adequate for the specific needs at the project site. This applies to pedestrian and vehicular traffic. All work shall be completed in accordance with Section 01 55 26 and as directed.

3. BITUMINOUS TACK COAT

Separate payment for tack coat will not be made as its cost will be included in the applicable items associated with its use. This shall include all labor, materials, equipment, and traffic control necessary for the tack coat installation. Tack Coat shall be in accordance with the latest editions of PennDOT Publication 408, Section 460. Asphalt materials shall be based on PennDOT's **June 2023 Asphalt Cement Price Index**.

4. EROSION AND SEDIMENT CONTROL MAINTENANCE

There will be no separate payment for Erosion and Sediment Control Maintenance as Erosion and Sediment Control Maintenance is incidental to all Erosion & Sediment Control devices. All Erosion & Sediment Control Devices should be routinely inspected and maintained in accordance with PADEP and the Bucks County Conservation District standards throughout the project duration. **Payment for Erosion and Sediment Control Maintenance will not be made as Erosion and Sediment Control Maintenance will be made incidental to all other Work as specified above.**

5. CONSTRUCTION SURVEYING

There will be no separate payment for Construction Surveying since all survey will be incidental to the rest of the work.

6. MATERIAL TESTING

There will be no separate payment for Materials Testing since all testing will be incidental to the rest of the work. The contractors are required to complete materials testing such as concrete testing, compaction testing, etc. as defined in the technical specifications and as directed by the Owner's Representative. Copies of material testing results should be provided to the Owner's Representative as soon as they are received.

END OF SECTION

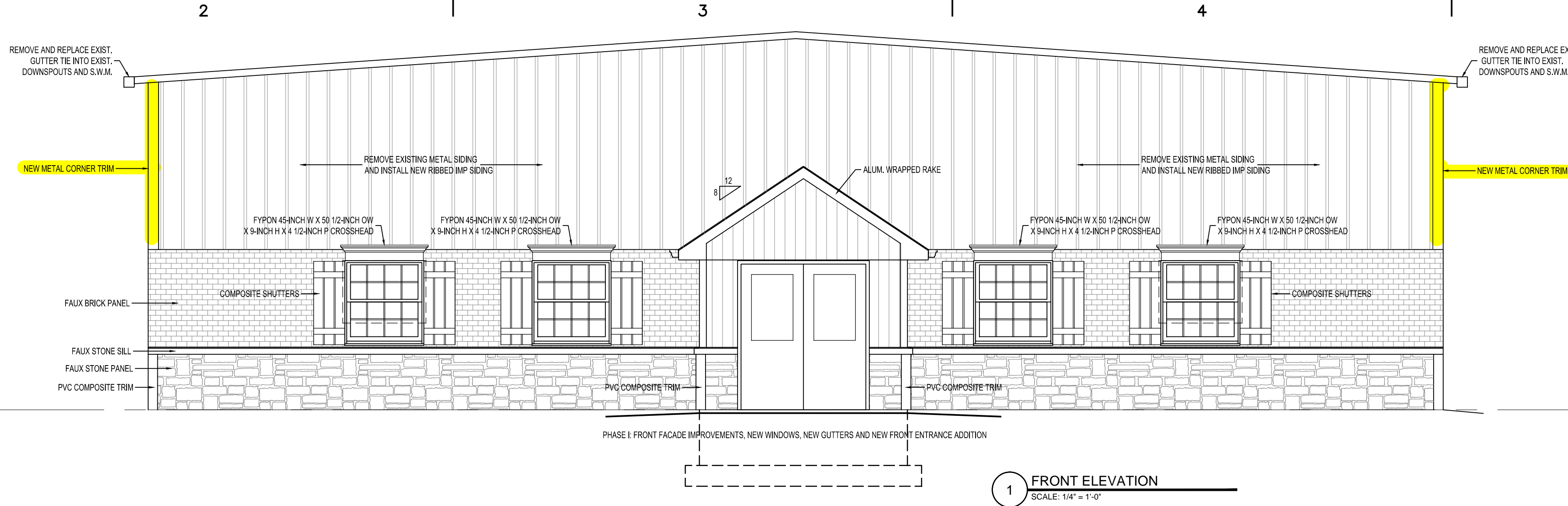
THIS DRAWING IS THE PROPERTY OF KLOPPMANN ARCHITECTS. THIS DRAWING MAY NOT BE REPRODUCED WITHOUT PERMISSION. NOR MAY THE INFORMATION CONTAINED HEREON BE USED WITHOUT THE EXPRESS, WRITTEN PERMISSION OF KLOPPMANN ARCHITECTS. CONTRACTOR SHALL VERIFY ALL DIMENSIONS AND CONDITIONS AT THE SITE BEFORE PROCEEDING WITH THE WORK.



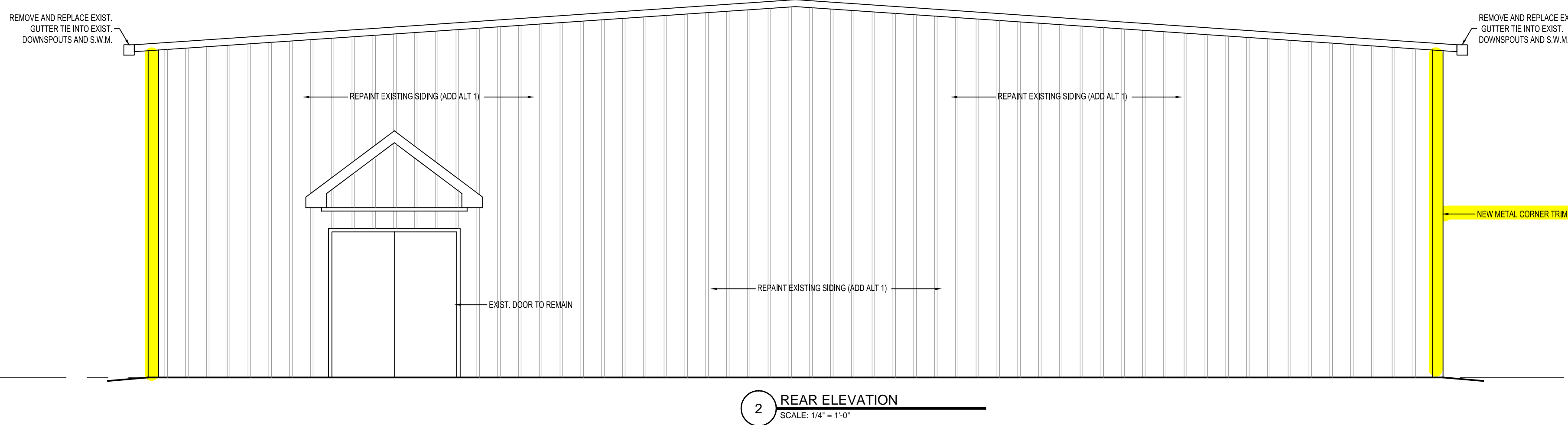
B EXIST. REAR/RIGHT SIDE ELEVATION
SCALE: N.T.S.



C EXIST. REAR/LEFT SIDE ELEVATION
SCALE: N.T.S.



1 FRONT ELEVATION
SCALE: 1/4" = 1'-0"



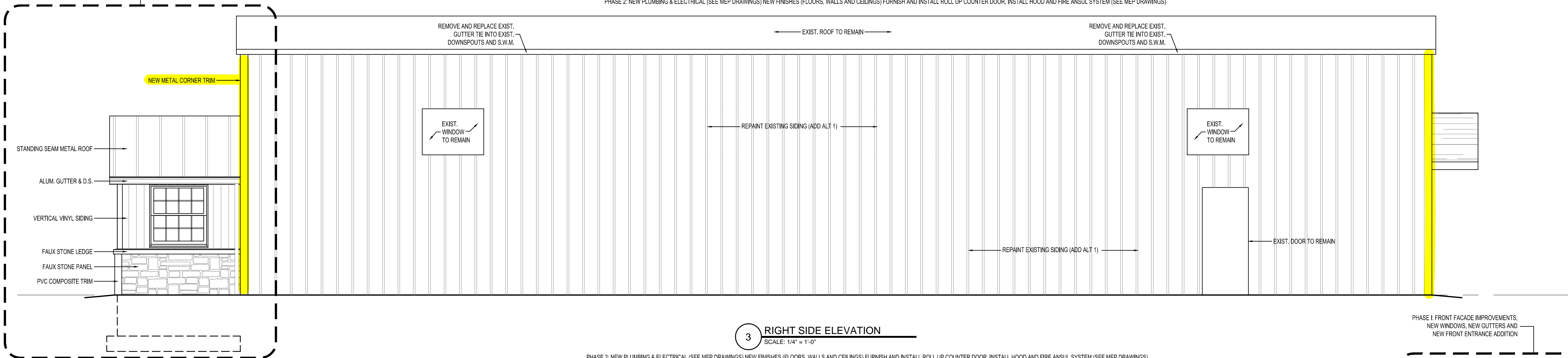
2 REAR ELEVATION
SCALE: 1/4" = 1'-0"

ADD ALTERNATE #1
CONTRACTOR TO PROVIDE A PRICE
TO REPAINT THE EXISTING SIDING
ON THE REAR AND SIDES OF THE BUILDING

STONE PANEL/LEDGE SPECIFICATIONS
- PROVIDE NEW FAUX STONE AND BRICK PANELS BY BARRON
DESIGNS, OR APPROVED EQUAL. REFER TO MANUF. INFORMATION
FOR COMPLETE INSTALLATION DETAILS.

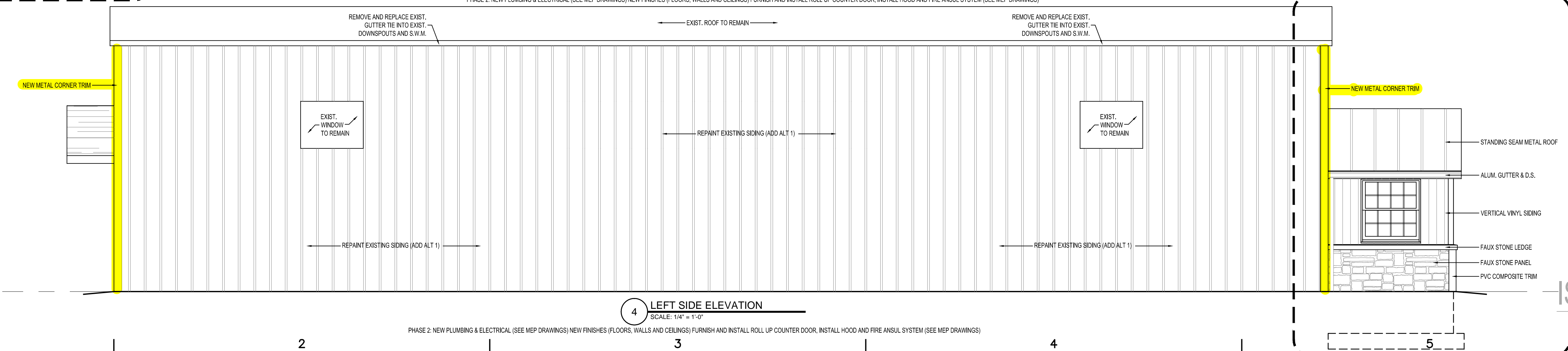
<https://store-y7zjaeumjx.mybigcommerce.com/content/pdf/Install/PN01FGB-Barron-Panels-Exterior.pdf>

PHASE 1 FRONT FACADE IMPROVEMENTS,
NEW WINDOWS, NEW GUTTERS AND
NEW FRONT ENTRANCE ADDITION



3 RIGHT SIDE ELEVATION
SCALE: 1/4" = 1'-0"

PHASE 1 FRONT FACADE IMPROVEMENTS,
NEW WINDOWS, NEW GUTTERS AND
NEW FRONT ENTRANCE ADDITION



4 LEFT SIDE ELEVATION
SCALE: 1/4" = 1'-0"

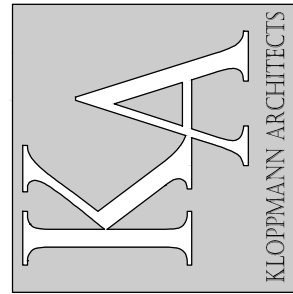
PHASE 2 NEW PLUMBING & ELECTRICAL (SEE MEP DRAWINGS) NEW FINISHES (FLOORS, WALLS AND CEILINGS) FURNISH AND INSTALL ROLL UP COUNTER DOOR, INSTALL HOOD AND FIRE ANSUL SYSTEM (SEE MEP DRAWINGS)



A EXIST. FRONT ELEVATION
SCALE: N.T.S.

CONSULTANTS

KLOPPMANN
ARCHITECTS LLC



RENOVATIONS TO:
BRISTOL TWP COMMUNITY CNTR
1248 MARIE LOWE DRIVE
BRISTOL, PA 19007
BRISTOL TOWNSHIP, BUCKS COUNTY

REVISIONS	MARK	DATE	DESCRIPTION

PROJECT NO: 21.053
CAD DWG FILE: 2105L_00007L_TWP_K2.DWG
DATE: 05/24/2023
DRAWN BY: JDC

A-2.0
SHEET 8 OF 9

ISSUED FOR:
OWNER REVIEW

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SECTION 01 26 73

BITUMINOUS MATERIAL PRICE ADJUSTMENT

PART 1 GENERAL

1.01 DESCRIPTION OF WORK

- A. These requirements provide for a price adjustment, in the form of a payment to Contractor or a rebate to Owner, for fluctuations in the cost of asphalt cement used in the bituminous materials placed as part of the construction work specified in PennDOT Publication 408, Section 110.04. Applicable contract items include any bituminous materials specified in Section 110.04 of Publication 408.
- B. These price adjustment provisions apply only to projects where more than 100 tons of asphalt cement, including asphalt cement residue contained in emulsions or cut backs, will be used in the bituminous materials specified or indicated for placement. The Pennsylvania Department of Transportation posts monthly index prices for asphalt cement (PG 64-22) using price data obtained, on the last Wednesday of the preceding month, from a survey of producers who do business in Pennsylvania. Data provided by producers serving the eastern portion of the state is averaged to compute the index price for Zone 1 (Districts 3-0, 4-0, 5-0, 6-0, and 8-0).

PART 2 - PRODUCTS

Not Used

PART 3 - EXECUTION

3.01 PRICE ADJUSTMENT CRITERIA AND CONDITIONS

- A. No Price Adjustment
 - 1. When the ratio IP/IB falls within the range of 0.90 to 1.10, no price adjustment will be made for any bituminous material placed during the relevant month.
- B. Price Rebate
 - 1. When the ratio IP/IB is calculated to be less than 0.90, Owner will receive an automatic price rebate determined according to the following formula:
$$P.R. = (0.90 - IP/IB) (Q) (IB)$$
 where:
P.R. = Price Rebate
IP = Price Index for the last Wednesday of the month preceding the month in which the material is placed (One-Month Price Adjustment Period)
IB = Price Index in the Proposal
Q = Quantity tons of Bitumen in Mixture placed
- C. Price Increase
 - 1. When the ratio IP/IB is calculated to be greater than 1.10, Contractor will receive a price increase determined according to the following formula:
$$P.I. = (IP/IB - 1.10) (Q) (IB)$$
 where:
P.I. = Price Increase
IP = Price Index for the last Wednesday of the month preceding the month in which the material is placed (One-Month Price Adjustment Period)
IB = Price Index in the Proposal
Q = Quantity tons of Bitumen in Mixture placed
- D. Equivalent Tonnage.
 - 1. Square Yard Basis. For bituminous mixtures placed on a square yard basis, the equivalent tonnage is computed as follows:
$$\text{Bituminous Mixture Tonnage Placed} = (0.000375) (A) (D) (d)$$
 where:
A = Surface Area (square yards)
D = Design Depth (inches)
d = Design Density* (pounds per cubic feet)

BITUMINOUS MATERIAL PRICE ADJUSTMENT

- The Design Density will be obtained from the approved JMF (Form TR-448A, Job Mix Formula Report) for the bituminous mixture placed. The Design Density will be the "Lab Density" listed on the applicable JMF. The Design Density (i.e. Lab Density) obtained from Form TR-448A will be converted to the proper units by multiplying by the density of water, 62.4 pounds per cubic foot.
 - ** The Percent Bitumen will be obtained from the approved JMF (Form TR-448A, Job Mix Formula Report) for the bituminous mixture placed. The Percent Bitumen will be the "Virgin AC%" listed on the applicable JMF.
2. Gallons per Square Yard Basis. For bituminous material placed on a gallons per square yard basis according to specification, and residue content according to Bulletin 25, the equivalent tonnage is computed as follows:
- Bitumen Tonnage = (0.004164) (A) (a) (g) where:
A = Surface Area (square yards)
a = Actual Residue Application Rate (gallons per square yard)
g = Specific Gravity of Bituminous Material
3. Gallon Basis. For bituminous material placed on a gallon basis, the equivalent tonnage is computed as follows:
- Bitumen Tonnage = (0.004164) (g) (p) (No. of gallons) where:
g = Specific Gravity of Bituminous Material
p = % Asphalt in Emulsion
- E. Expiration of Contract Time.
1. If bituminous materials or mixtures are placed after expiration of contract time and liquidated damages are chargeable, the value for IP used to compute the price adjustment will be either the price index at the time of actual placement or the price index at the time contract time expired, whichever is less.
- F. Approval.
1. Should the price index at time of placement, IP, indicate an increase of 50% or more over the price index in the proposal, IB, do not furnish bituminous material for the project without prior written approval.
- G. Payment/Rebate.
1. The price adjustment will be paid, or rebated, upon approval of a work order to be prepared after completion of all work. Cumulative price adjustments amounting to less than \$500 will be disregarded. Upon written request by Contractor, partial payments may be made, before total completion, when the unpaid accrued price increase exceeds \$10,000 or once every 12 months.
- H. Inspection of Records.
1. Owner reserves the right to inspect the records of Contractor and its subcontractors and material suppliers to ascertain actual pricing and cost information for the asphalt cement used in the bituminous materials incorporated in the work.
- I. Extra Work.
1. If applicable items of work, as specified herein, are added to the contract as extra work, no price adjustment will be made for fluctuations in the cost of asphalt cement used in any bituminous materials placed in the performance of the extra work, unless otherwise approved.

END OF SECTION

SECTION 01 29 00

CONTRACT CONSIDERATIONS

PART 1 GENERAL

1.01 SECTION DESCRIPTION

A. The Work of This Section Includes:

1. Schedule of values.
2. Application for payment.
3. Change procedures.
4. Alternates.

1.02 RELATED SECTIONS

A. Related Work Specified Elsewhere:

1. Document 00 52 00: Agreement: Contract Price
2. Section 01 22 00: Measurement and Payment
3. Section 01 33 00: Submittals: Schedule of Values.
4. Section 01 60 00: Material and Equipment: Product substitutions and options.

1.03 SCHEDULE OF VALUES

- A. Submit a printed schedule on Contractor's standard form or electronic media printout.
- B. Submit preliminary Schedule of Values in duplicate within 10 days after Effective Date of the Agreement.
- C. Format: See Supplementary Conditions
- D. Include in each line item, the amount of allowance. For unit cost allowances, identify quantities taken from Contract Documents multiplied by the unit cost to achieve the total for the item.
- E. Include within each line item, a direct proportional amount of Contractor's overhead and profit.
- F. Revise schedule to list approved Change Orders, with each Application for Payment.

1.04 APPLICATIONS FOR PAYMENT

- A. Submit three (3) copies of each application on EJCDC Form C-620.
- B. Content and Format: **Utilize Schedule of Values for listing items in Application for Payment.**
- C. Payment Period: Monthly
- D. Waiver of Liens or Contractor's Affidavit, Contractor's Release and Statement of Surety Company (with Final Payment Application only)
- E. Include Payroll Certification forms with each Payment Application.
- F. Include an updated construction progress schedule.

1.05 CHANGE PROCEDURES

- A. Engineer will advise of minor changes in the Work not involving an adjustment to Contract Price or Contract Time as authorized by Paragraph 9.5 of the General Conditions by issuing supplemental instructions.
- B. Engineer may issue a Proposal Request which includes a detailed description of a proposed change with supplementary or revised Drawings and specifications. Contractor will prepare and submit an estimate within **5 days** relative to changes in Contract Price and/or Contract Time.
- C. Contractor may propose changes by submitting a request for change to Engineer, describing the proposed change and its full effect on the Work. Include a statement describing the reason for the change, and the effect on the Contract Price and Contract Time with full documentation and a

CONTRACT CONSIDERATIONS

statement describing effect on Work by any other contractors. Document any requested substitutions in accordance with Section 01 60 00.

- D. Stipulated Price Change Order: Based on Proposal Request and Contractor's fixed price quotation or Contractor's request for a Change Order as approved by Engineer.
 - E. Unit Price Change Order: For contract unit prices and quantities, the Change Order will be executed on a fixed unit price basis. For unit costs or quantities of units of work which are not predetermined, the Change Order will be executed based on Contractor's proposed unit prices and quantities of units as approved by Engineer.
 - F. Work Change Directive: Engineer may issue a directive, on EJCDC Form C-940 Work Change Directive signed by Owner, instructing Contractor to proceed with a change in the Work, for subsequent inclusion in a Change Order. Document will describe changes in the Work, and designate method of determining any change in Contract Price or Contract Time. Promptly execute the change.
 - G. Time and Material Change Order: Submit itemized account and supporting data after completion of change, within time limits indicated in the Conditions of the Contract. Engineer will determine the change allowable in Contract Price and Contract Time as provided in the Contract Documents.
 - H. Maintain detailed records of Work done on Time and Material basis. Provide full information required for evaluation of proposed changes, and to substantiate costs for changes in the Work.
 - I. Change Order Form: EJCDC Form C-941.
 - J. Execution of Change Orders: Engineer will issue Change Orders for signatures of parties as provided in the Conditions of the Contract.
- 1.06 ALTERNATES
- A. Accepted alternates and/or equipment deduct alternates will be identified in the Agreement.
 - B. Coordinate related work and modify surrounding work as required.

PART 2 PRODUCTS

Not Used

PART 3 EXECUTION

Not Used

END OF SECTION

SECTION 01 31 00

COORDINATION AND MEETINGS

PART 1 - GENERAL

1.01 SECTION DESCRIPTION

- A. The Work of this Section Includes:
1. Coordination and Project conditions.
 2. Field engineering.
 3. Preconstruction meeting.
 4. Progress meetings.
 5. Pre-installation meetings.
 6. Construction coordination requirements.

1.02 RELATED SECTIONS

- A. Section not used.

1.03 COORDINATION AND PROJECT CONDITIONS

- A. Coordinate scheduling, submittals, and Work of the various sections of the Project Manual to ensure efficient and orderly sequence of installation of interdependent construction elements, with provisions for accommodating items installed later.
- B. Verify utility requirements and characteristics of operating equipment are compatible with building utilities. Coordinate work of various sections having interdependent responsibilities for installing, connecting to, and placing in service, such equipment.
- C. Coordinate space requirements, supports, and installation of mechanical and electrical Work which are indicated diagrammatically on Drawings. Follow routing shown for pipes, ducts, and conduit, as closely as practicable; place runs parallel with lines of building. Utilize spaces efficiently to maximize accessibility for other installations, for maintenance, and for repairs.
- D. In finished areas except as otherwise indicated, conceal pipes, ducts, and wiring within the construction. Coordinate locations of fixtures and outlets with finish elements.
- E. Coordinate completion and clean-up of Work of separate sections in preparation for Substantial Completion and for portions of Work designated for Owner's partial occupancy.
- F. After Owner occupancy of premises, coordinate access to site for correction of defective Work and Work not in accordance with Contract Documents, to minimize disruption of Owner's activities.

1.04 FIELD ENGINEERING

- A. Contractor shall locate survey control and reference points and provide stakeout as required for construction activities. Contractor is responsible for the protection of survey control and reference points and will compensate Owner for re-establishment of survey control and reference points.
- B. Verify set-backs and easements; confirm drawing dimensions and elevations.
- C. Provide field engineering services. Establish elevations, lines, and levels, utilizing recognized engineering survey practices.
- D. Construct Work based on elevations, lines and locations as established, utilizing recognized survey control points and stakeout.

1.05 PRECONSTRUCTION MEETING

- A. Engineer will schedule a meeting at the Project site after the Effective Date of the Agreement and prior to commencement of Work and Contractor occupancy, prepare an agenda with copies for participants, and preside at the meeting.
- B. Attendance Required: Owner, Engineer, Resident Project Representative, Contractor, Contractor's Superintendent and major Subcontractors.
- C. Agenda:

COORDINATION AND MEETINGS

1. Distribution of Contract Documents.
2. Submission of list of Subcontractors, list of Products, schedule of values, and progress schedule.
3. Designation of personnel representing the parties in Contract, and the Engineer.
4. Procedures and processing of field decisions, submittals, substitutions, applications for payments, Change Orders, and Contract closeout procedures.
5. Scheduling.
6. Use of premises by Owner and Contractor.
7. Owner's requirements and occupancy.
8. Construction facilities and controls provided by Owner.
9. Security and housekeeping procedures.
10. Procedures for testing.
11. Procedures for maintaining record documents.
12. Inspection and acceptance of work.

- D. Engineer shall record minutes and distribute copies within five (5) working days after meeting to Owner and all other participants.

1.06 PROGRESS MEETINGS

- A. Meetings shall be scheduled throughout progress of the Work on an as-needed basis.
- B. Resident Project Representative will make arrangements for meetings, prepare agenda with copies for participants, and preside at meetings.
- C. Attendance Required: Contractor's superintendent, major Subcontractors and suppliers, Engineer as appropriate to agenda topics for each meeting.
- D. Resident Project Representative shall record minutes and distribute copies within five (5) working days after meeting to Owner, Engineer and all other participants.

1.07 PRE-INSTALLATION MEETINGS

- A. When required in individual specification sections, convene a pre-installation meeting at the site prior to commencing work of the section.
- B. Require attendance of parties directly affecting, or affected by, work of the specific section.
- C. Notify Resident Project Representative five (5) working days in advance of meeting date.
- D. Prepare agenda and preside at meeting:
 1. Review conditions of installation, preparation and installation procedures.
 2. Review coordination with related work.
- E. Record minutes and distribute copies within five (5) working days after meeting to Owner, Engineer and all other participants.

PART 2 – PRODUCTS

- 2.01 Not Used.

PART 3 – EXECUTION

3.01 CONSTRUCTION COORDINATION REQUIREMENTS

- A. General
 1. Construction work under this contract shall not interfere with the operations of the Owner and the general public. Contractor shall be responsible for any construction related damage to private/leased or Owner owned property on the site. Access to private driveways must be maintained at all times during the course of the Work and Contractor shall accommodate periodic needs of the Owner and residents for access to site.
 2. **Contractor shall provide the Resident Project Representative with weekly milling and paving schedule updates.**

B. Coordination of Contractor's, other contractor's and Owner's Workmen

1. Contractor is advised that construction of other contracts may be in progress at the same time that this Contract is under construction. Contractor shall schedule his work so as not to conflict or interfere with these other contracts.
2. Contractor shall conduct his operations so as not to interfere with or injure the work of other contractors or workmen performing work for Owner. Contractor shall promptly repair, at his own expense, any injury or damage which may be done to such work by him or his employees, agents, or subcontractors.
3. Contractor shall suspend such part of the Work, or shall carry on the same in such a manner as may be ordered by Engineer when necessary to facilitate the work of such other contractors and workmen of Owner.
4. Any difference which may arise between Contractor and any other contractors or workmen of Owner in regard to their Work shall be determined and adjusted by Owner insofar as Owner has authority.
5. Contractor shall not claim any extra compensation or damages as a result of delays or hindrances which may be caused by the work of such contractors or workmen of Owner, unless specifically permitted elsewhere in the Contract documents.

END OF SECTION

SECTION 01 32 16

NARRATIVE CONSTRUCTION SCHEDULE

PART 1 - GENERAL

1.01 SECTION DESCRIPTION

- A. The Work Of This Section Includes:
 - 1. The preparation, maintenance, and revision of the construction project schedule to monitor progress of project operations and duration.

1.02 RELATED SECTIONS

- A. Related Work Specified Elsewhere:
 - 1. Section 01 31 00 - Coordination and Meetings

PART 2 – PRODUCTS

- 2.01 Not Used

PART 3 - EXECUTION

3.01 CONSTRUCTION SCHEDULE

- A. Owner, after consultation with Contractor, may elect not to release progress payments until the schedule is submitted and accepted.
- B. Engineer will review and respond to the detailed schedule and supporting documentation within 10 calendar days of receipt. Include, as a minimum, the following in the initial schedule and in all schedule revisions:
 - Activity description & location;
 - Duration of activity, in working days; and
 - Start and finish calendar dates of activities.
- D. In addition, submit a workday calendar showing work days and non-work days, number of shifts per day, and number of hours per shift.
- E. Provide enough activities to demonstrate the necessary interdependencies. Use the above information to complete a narrative description of the construction schedule.
- F. If the schedule is not received prior to the start of construction, Contractor will be required to attend a scheduling meeting in order to prepare an acceptable schedule. Owner may elect not to release progress payments until the scheduling has been completed.

END OF SECTION

SECTION 01 32 36

AUDIO-VIDEOTAPING

PART 1 GENERAL

1.01 DESCRIPTION

- A. Contractor shall utilize a professional electrographer who is actively engaged in preparation of color DVD or CD recordings for municipal construction projects, similar to the Work included in this Contract.

1.02 QUALITY ASSURANCE

- A. Owner may make such investigations as Owner deems necessary to determine the ability of the electrographer to perform the work. Contractor shall furnish to Owner all such information and data for this purpose as requested by Owner. Owner reserves the right to reject any electrographer if the investigation of such electrographer fails to satisfy Owner that such electrographer is properly qualified to carry out the work specified herein. Upon rejection of an electrographer by Owner, Contractor shall engage the services of another electrographer, who shall be subject to a similar review and approval process by Owner specified herein, prior to approval by Owner.
- B. No construction shall begin prior to review and approval of the DVD's and/or CD's covering the existing conditions of the entire project area by Engineer. Any recordings that are unacceptable to Engineer shall be re-recorded by the electrographer at no additional charge. All DVD's and/or CD's and written records shall become the property of Owner, upon approval and acceptance.

1.03 SUBMITTALS

- A. Two (2) complete copies of project DVD's and/or CD's shall be provided to Engineer for approval.

1.04 JOB CONDITIONS

- A. All recording shall be performed during days when good visibility is available. No recording shall be done during when more than ten (10) percent of the project's ground area is covered with snow, unless otherwise authorized by Engineer.

PART 2 PRODUCTS

2.01 EQUIPMENT

- A. Mobile Unit

When conventional wheeled vehicles are used, the distance from the camera lens to the ground shall be at least twelve (12) feet in order to ensure that the proper perspective is obtained. In some instances, recorded coverage will be required in areas not accessible by conventional wheeled vehicles. In that case, such coverage shall be obtained by walking or special conveyance approved by Engineer.

- B. Camera

Video output from the camera used must be capable of producing NTSC-525 lines/60 field. Video output shall provide resolution in the "Y" channel, minimum 500 TV lines at center, utilizing a bias lit beam split prism, in combination with a professional and/or industrial charge-coupled device (CCD) camera, for optimum color imagery and minimum lag through 3.1 meter-candles (10 foot-candles), with geometric distortion not to exceed 1.5% of picture height at any point in the picture area.

- C. Audio-video recording medium

Contractor's electrographer shall utilize professional-grade DVD or CD recording equipment in the preparation of the project recordings. Contractor's electrographer shall provide a sufficient quantity of DVD's or CD's to properly and completely record the work. DVD's and/or CD's shall become the property of Owner at the completion of the project.

- D. Lighting

Contractor shall provide, if necessary, all lighting and power that is required to fill in any "shadow"

AUDIO-VIDEOTAPING

areas caused by trees, signs, structures, or other objects.

2.02 RECORDED INFORMATION

A. Audio

Each DVD or CD shall begin with the current date, project name and municipality, and be followed by the general location (intersecting street, municipal boundary line, etc.). The viewing side and direction of progress (northerly, southeasterly, etc.) shall also be included.

B. Video

Periodic transparent alpha-numeric information consisting of the project name, description of area covered, direction of travel, viewing side, etc. shall appear on the screen. All video recordings shall, by electronic means, display continuously and simultaneously generated transparent digital information to include the date and time of recording. The date information shall contain the month, day and year (i.e. 4/15/11) and shall be placed directly below the time information. The time information shall consist of hours, minutes and seconds, separated by colons (i.e. 11:42:22). This transparent information shall appear on the extreme upper left hand third of the screen (or as approved by Engineer).

C. Audio-Video Tracks

The DVD or CD shall consist of both visual and audio information, recorded simultaneously. Tracks shall consist of original live recordings and shall not be copies of previous recordings. Audio track shall contain the narrative commentary of the electrographer, recorded simultaneously with his fixed elevation visual record of construction. Engineer shall have the option of recording comments on the audio track.

PART 3 EXECUTION

3.01 DVD OR CD COVERAGE

- A. The entire project site shall be recorded. The zone of influence shall be extended a minimum of 15 feet from each side of each roadway designated to receive a mill and overlay.
- B. Recorded coverage shall include all surface features located within the above mentioned area supported by appropriate audio description. Audio description shall be made simultaneously with video coverage. Such coverage shall include, but not be limited to, all existing driveways, road surface, sidewalks, signs, drainage culverts, visible utilities, retaining walls, railroad grade crossing features, parking areas, curbs, and drainage ditches located within the zone of influence.
- C. When applicable, house numbers shall be used to identify houses or other buildings, in such a manner that proposed system structures (i.e. manholes) may be located by reference.
- D. The rate of speed in the direction of travel of conveyance shall not exceed 48 feet per minute. Panning rates and zoom rates shall be controlled sufficiently so that object clarity will not be obscured during playback.

3.02 IDENTIFICATION

- A. All DVD's or CD's (on the disk and on storage cases) shall be properly identified by number, location, date, project name, and municipality in a manner acceptable to Engineer.
- B. A record of the contents of each DVD or CD shall be supplied by a sheet identifying each segment in the disk by location. This shall include roll number, street or road viewing, tape counter number, viewing side, starting point, traveling direction and ending destination point.

END OF SECTION

SECTION 01 33 00

SUBMITTALS

PART 1 GENERAL

1.01 SECTION DESCRIPTION

- A. The Work of This Section Includes:
1. Submittal procedures.
 2. Construction progress schedules.
 3. Product data.
 4. Shop Drawings.
 5. Samples.
 6. Design data.
 7. Test reports.
 8. Certificates.

1.02 RELATED SECTIONS

- A. Related Work Specified Elsewhere:
1. Section 01 40 00: Quality Control: Manufacturers' field services.
 2. Section 01 70 00: Contract Closeout: Contract closeout submittals including maintenance bond, manufacturers' warranties, and record drawings.

1.03 REFERENCES

- A. AGC (Associated General Contractors of America) publication "The Use of CPM in Construction - A Manual for General Contractors and the Construction Industry".

1.04 SUBMITTAL PROCEDURES

- A. Transmit each submittal to Engineer.
- B. Sequentially number the transmittal forms. Revise submittals with original number and a sequential alphabetic suffix.
- C. Identify Project, Contractor, Subcontractor or supplier; pertinent drawing and detail number, and specification section number, as appropriate.
- D. Apply Contractor's stamp, signed or initialed certifying that review, approval, 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.
- E. Schedule submittals to expedite the Project and to coordinate submission of related items.
- F. For each submittal for review, allow 15 days excluding delivery time to and from Contractor.
- G. Identify variations from Contract Documents and Product or system limitations which may be detrimental to successful performance of the completed Work.
- H. Provide space for Contractor and Engineer review stamps.
- I. When revised for resubmission, identify all changes made since previous submission.
- J. Distribute copies of reviewed submittals as appropriate. Instruct parties to promptly report any inability to comply with requirements.
- K. Submittals not requested will not be recognized or processed.

1.05 CONSTRUCTION PROGRESS SCHEDULES

- A. Submit preliminary progress schedule in duplicate within 10 days after Effective Date of Agreement for review by Engineer.
- B. Revise and resubmit as required.

- C. Submit final progress schedule within 10 days of preconstruction conference or within 10 days upon request of Engineer if no preconstruction conference is to be held.
- D. Submit revised progress schedule in duplicate with each Application for Payment, identifying changes since previous version.
- E. Submit a horizontal bar chart with separate line for each section of Work, identifying first work day of each week.
- F. 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.
- G. Indicate estimated percentage of completion for each item of Work at each submission.
- H. Indicate submittal dates required for shop drawings, product data, samples, and product delivery dates, including those furnished by Owner.

1.06 PRODUCT DATA

- A. Product Data For Review:
 - 1. Submitted to Engineer for review for the limited purpose of checking for conformance with information given and the design concept expressed in the Contract Documents.
 - 2. After review, provide copies and distribute in accordance with Submittal Procedures article above and for record documents purposes described in Section 01 70 00 - Contract Closeout.
- B. Product Data For Information:
 - 1. Submitted for the Engineer's knowledge as contract administrator or for OWNER.
- C. Product Data For Project Closeout:
 - 1. Submitted for Owner's benefit during and after project completion.
- D. Submit the number of copies which Contractor requires, plus three copies which will be retained by Engineer.
- E. Mark each copy to identify applicable Products, models, options, and other data. Supplement manufacturers' standard data to provide information specific to this Project.
- F. Indicate Product utility and electrical characteristics, utility connection requirements, and location of utility outlets for service for functional equipment and appliances.

1.07 SHOP DRAWINGS

- A. Shop Drawings For Review:
 - 1. Submitted to Engineer for review for the limited purpose of checking for conformance with information given and the design concept expressed in the Contract Documents.
 - 2. After review, produce copies and distribute in accordance with Submittal Procedures article above and for record documents purposes described in Section 01 70 00 - Contract Closeout.
- B. Shop Drawings For Information:
 - 1. Submitted for Engineer's knowledge as contract administrator or for Owner.
- C. Shop Drawings For Project Closeout:
 - 1. Submitted for Owner's benefit during and after project completion.
- D. Indicate special utility and electrical characteristics, utility connection requirements, and location of utility outlets for service for functional equipment and appliances.
- E. Submit the number of opaque reproductions which Contractor requires, plus three copies which will be retained by Engineer.

1.08 SAMPLES

A. Samples For Review:

1. Submitted to Engineer for review for the limited purpose of checking for conformance with information given and the design concept expressed in the Contract Documents.
2. After review, produce duplicates and distribute in accordance with Submittal Procedures article above and for record documents purposes described in Section 01 70 00 - Contract Closeout.

B. Samples For Information:

1. Submitted for Engineer's knowledge as contract administrator or for Owner.
- D. Submit samples to illustrate functional and aesthetic characteristics of the Product, with integral parts and attachment devices. Coordinate sample submittals for interfacing work.
- E. Include identification on each sample, with full Project information.
- F. Submit the number of samples specified in individual specification sections; one of which will be retained by Engineer.
- G. Reviewed samples which may be used in the Work are indicated in individual specification sections.
- H. Samples will not be used for testing purposes unless specifically stated in the specification section.

1.09 DESIGN DATA

- A. Submit for Engineer's knowledge as contract administrator or for Owner.
- B. Submit for information for the limited purpose of assessing conformance with information given and the design concept expressed in the Contract Documents.

1.10 TEST REPORTS

- A. Submit for Engineer's knowledge as contract administrator or for Owner.
- B. Submit test reports for information for the limited purpose of assessing conformance with information given and the design concept expressed in the Contract Documents.

1.11 CERTIFICATES

- A. When specified in individual specification sections, submit certification by the manufacturer, installation/application subcontractor, or Contractor to Engineer, in quantities specified for Product Data.
- B. Indicate material or Product conforms to or exceeds specified requirements. Submit supporting reference data, affidavits, and certifications as appropriate.
- C. Certificates may be recent or previous test results on material or Product, but must be acceptable to Engineer.

PART 2 PRODUCTS

Not Used

PART 3 EXECUTION

Not Used

END OF SECTION

SECTION 01 40 00

QUALITY CONTROL

PART 1 GENERAL

1.01 SECTION DESCRIPTION

- A. The Work of This Section Includes:
1. Quality assurance - control of installation.
 2. Tolerances.
 3. References and standards.
 4. Testing laboratory services.
 5. Observation services.
 6. Examination.
 7. Preparation.

1.02 RELATED SECTIONS

- A. Related Work Specified Elsewhere:
1. Document 00 72 00: General Conditions: References to Standards and Specifications of Technical Societies; Reporting and Resolving Discrepancies.
 2. Document 00 73 00: Supplementary Conditions: Duties, Responsibilities and Limitation of Authority of the Resident Project Representative.
 3. Section 01 33 00: Submittals: Submission of manufacturer's instructions and certificates.
 4. Section 01 42 13: Organization and Reference Acronyms
 5. Section 01 60 00: Material and Equipment: Requirements for material and product quality.

1.03 QUALITY ASSURANCE-CONTROL OF INSTALLATION

- A. Monitor quality control over suppliers, manufacturers, Products, services, site conditions, and workmanship, to produce Work of specified quality.
- B. Comply fully with manufacturers' instructions, including each step in sequence.
- C. Should manufacturers' instructions conflict with Contract Documents, request clarification from Engineer before proceeding.
- D. Comply with specified standards as minimum quality for the Work except when more stringent tolerances, codes, or specified requirements indicate higher standards or more precise workmanship.
- E. Perform Work by persons qualified to produce required and specified quality.
- F. Verify that field measurements are as indicated on shop drawings or as instructed by the manufacturer.
- G. Secure Products in place with positive anchorage devices designed and sized to withstand stresses, vibration, physical distortion or disfigurement.

1.04 TOLERANCES

- A. Monitor fabrication and installation tolerance control of Products to produce acceptable Work. Do not permit tolerances to accumulate.
- B. Comply with manufacturers' tolerances. Should manufacturers' tolerances conflict with Contract Documents, request clarification from Engineer before proceeding.
- C. Adjust Products to appropriate dimensions; position before securing Products in place.

1.05 REFERENCES AND STANDARDS

- A. For Products or workmanship specified by association, trade or other consensus standards, comply with requirements of the standard, except when more rigid requirements are specified or are required by applicable codes.
- B. Conform to reference standard by date of issue current on date for receiving bids, except where a specific date is established by code.

- C. Obtain copies of standards where required by Product specification sections.
- D. Should specified reference standard conflict with Contract Documents, request clarification from Engineer before proceeding.
- E. Neither the contractual relationships, duties, or responsibilities of the parties in Contract nor those of Engineer shall be altered from the Contract Documents by mention or inference otherwise in any reference document.

1.06 TESTING LABORATORY SERVICES

- A. Contractor shall furnish to Engineer duplicate certified copies of all routine tests made by the mill, shop or factory at which material or equipment is fabricated or manufactured for the Work when so specified in individual specification sections.
- B. An independent firm will perform tests and other services when so specified in individual specification sections and as required by Engineer.
- C. Testing and source quality control may occur on or off the Project site. Perform off-site testing as required by Engineer.
- D. Reports will be submitted by the independent firm to Engineer, in duplicate, indicating observations and results of tests and indicating compliance or non-compliance with Contract Documents.
- E. Cooperate with independent firm; furnish samples of materials, design mix, equipment, tools, storage, safe access and assistance by incidental labor as requested.
 - 1. Notify Engineer and independent firm 24 hours prior to expected time for operations requiring services.
 - 2. Make arrangements with independent firm and pay for additional samples and tests required for Contractor's use.
- F. Testing does not relieve Contractor to perform Work to contract requirements.
- G. Retesting required because of non-conformance to specified requirements shall be performed by the same independent firm on instructions by Engineer.
- H. Contractor shall pay for all testing and laboratory services and/or test reports as are required in individual specification sections.

1.07 OBSERVATION SERVICES

- A. Owner will employ and pay for observation services during construction of the Project.
- B. Cooperate with construction observer; furnish safe access and assistance by incidental labor as requested.
 - 1. Notify construction observer 24 hours prior to expected time for operations requiring services.
- C. Observation does not relieve Contractor to perform Work to contract requirements.

PART 2 PRODUCTS

Not Used

PART 3 EXECUTION

3.01 EXAMINATION

- A. Verify that existing site conditions and substrate surfaces are acceptable for subsequent Work. Beginning new Work means acceptance of existing conditions.
- B. Verify that existing substrate is capable of structural support or attachment of new Work being applied or attached.
- C. Examine and verify specific conditions described in individual specification sections.
- D. Verify that utility services are available, of the correct characteristics, and in the correct locations.

3.02 PREPARATION

- A. Clean substrate surfaces prior to applying next material or substance.
- B. Seal cracks or openings of substrate prior to applying next material or substance.
- C. Apply manufacturer required or recommended substrate primer, sealer, or conditioner prior to applying any new material or substance in contact or bond.

END OF SECTION

SECTION 01 42 13

ORGANIZATION AND REFERENCE ACRONYMS

PART 1 GENERAL

1.01 SECTION INCLUDES

- A. Listing of acronyms and associated organization and/or references which may be cited in the Project Manual.

1.02 SCHEDULE OF ACROYNYS

AASHTO	American Association of State Highway and Transportation Officials
ACI	American Concrete Institute
AI	Asphalt Institute
AISC	American Institute of Steel Construction
AISI	American Iron and Steel Institute
AITC	American Institute of Timber Construction
AMCA	Air Movement & Control Association
ANSI	American National Standards Institute
APA	American Plywood Association
ASHRAE	American Society of Heating, Refrigerating and Air Conditioning Engineers
ASME	American Society of Mechanical Engineers
ASTM	American Society for Testing and Materials
AWPA	American Wood-Preservers Association
AWS	American Welding Society
AWWA	American Water Works Association
BOCA	Building Officials & Code Administrators International, Inc.
CLFMI	Chain Link Fence Manufacturers Institute
CRSI	Concrete Reinforcing Steel Institute
CSA	Canadian Standards Association
DHI	Door and Hardware Institute
EJCDC	Engineers' Joint Contract Documents Committee
FIA	Factory Insurance Association
FM	Factory Mutual System
FS	Federal Specification
IEEE	Institute of Electrical and Electronic Engineers
IPCEA	Insulated Power Cable Engineer's Association
MIL-STD	Military Standard
NAAMM	National Association of Architectural Metal Manufacturers
NEC	National Electrical Code
NEMA	National Electrical Manufacturers' Association
NFPA	National Fire Protection Association
OSHA	Occupational Safety and Health Administration
PADEP	Pennsylvania Department of Environmental Protection
PennDOT	Pennsylvania Department of Transportation
PCA	Portland Cement Association
SDI	Steel Door Institute
SMACNA	Sheet Metal and Air Conditioning Contractors' National Association
SSPC	Steel Structures Painting Council
UL	Underwriters' Laboratories, Inc.

END OF SECTION

SECTION 01 50 00

CONSTRUCTION FACILITIES AND TEMPORARY CONTROLS

PART 1 GENERAL

1.01 GENERAL

- A. The Work of this Section shall be the responsibility of the contractor as noted in the Summary of Work: Section 01 11 13.

1.02 SECTION INCLUDES

- A. Temporary Utilities: Electricity, lighting, ventilation, communications service, water and sanitary facilities.
- B. Temporary Controls: Barriers, enclosures and fencing, protection of the Work, water control and dust control.
- C. Construction Facilities: Access roads, parking, progress cleaning, project signage, and temporary buildings.

1.03 RELATED SECTIONS

- A. Section 01 55 26: Traffic Regulation.
- B. Section 01 70 00: Contract Closeout: Final cleaning.

1.04 TEMPORARY ELECTRICITY

- A. Cost: By Contractor; provide and pay for power service required from utility source.

1.05 TEMPORARY LIGHTING FOR CONSTRUCTION PURPOSES

- A. Provide and maintain lighting for construction operations and for security purposes.
- B. Provide branch wiring from power source to distribution boxes with lighting conductors, pigtails, and lamps as required.
- C. Maintain lighting and provide routine repairs.

1.06 BARRIERS

- A. Provide barriers to prevent unauthorized entry to construction areas, and to protect existing facilities and adjacent properties from damage from construction operations and demolition.
- B. Protect non-owned vehicular traffic, stored materials, site, and structures from damage.

1.07 FENCING

- A. Construction: Contractor's option.
- B. Provide 6 foot high fence around construction site; equip with vehicular and pedestrian gates with locks.

1.08 WATER CONTROL

- A. Grade site to drain. Maintain excavations free of water. Provide, operate, and maintain pumping equipment.
- B. Protect site from puddling or running water.

1.09 PROTECTION OF INSTALLED WORK

- A. Protect installed Work and provide special protection where specified in individual specification sections.
- B. Provide temporary and removable protection for installed Products. Control activity in immediate work area to prevent damage.

1.10 PROGRESS CLEANING AND WASTE REMOVAL

- A. Maintain areas free of waste materials, debris, and rubbish. Maintain site in a clean and orderly condition.
- B. Collect and remove waste materials, debris, and rubbish from site daily and dispose off-site.

1.12 PROJECT IDENTIFICATION

- A. No other signs are allowed without Owner permission except those required by law.

1.13 REMOVAL OF UTILITIES, FACILITIES, AND CONTROLS

- A. Clean and repair damage caused by installation or use of temporary work.
- B. Restore existing facilities used during construction to original condition. Restore permanent facilities used during construction to specified condition.

1.12 DUST CONTROL

- A. Execute Work by methods to minimize raising dust from construction operations.
- B. Provide positive means (i.e. use of sprinkling water or other methods approved by the Resident Project Representative) to prevent air-borne dust from dispersing into atmosphere.
- C. Dust control measures shall be employed when required in the opinion of the Resident Project Representative at no additional cost to Owner.

PART 2 PRODUCTS

Not Used

PART 3 EXECUTION

Not Used

END OF SECTION

SECTION 01 55 26

TRAFFIC REGULATION

PART 1 - GENERAL

1.01 SECTION DESCRIPTION

- A. This Section involves the Contractor's obligations relative to maintaining the safe and efficient movement of traffic in the vicinity of construction.
- B. Contractor will be required to furnish, erect, and maintain traffic cones, drums, barricades, flashing danger signal lights, directional signs and provide trained and equipped flagmen as required by the State and local permit requirements to restrict the movement of traffic within the construction areas and to clearly indicate the restrictions well in advance to vehicular traffic.

1.02 SECTION INCLUDES

- A. Traffic Control Plan
- B. Notification
- C. Construction parking controls.
- D. Flag persons.
- E. Flares and lights.
- F. Haul routes.
- G. Traffic signs and signals.
- H. Other Requirements
- I. Removal.

1.03 RELATED SECTIONS

- A. Section 01 11 13 - Summary of Work.
- B. Section 01 31 00 - Coordination and Meetings: Coordination and Project conditions.

PART 2 - PRODUCTS

2.01 SIGNS, SIGNALS, AND DEVICES

- A. Post Mounted and Wall Mounted Traffic Control and Informational Signs: As approved by the authority having jurisdiction.
- B. Traffic Control Signals: As approved by the authority having jurisdiction.
- C. Traffic Cones and Drums, Flares and Lights: As approved by the authority having jurisdiction.
- D. Flagperson Equipment: As required by the authority having jurisdiction.

PART 3 - EXECUTION

3.01 TRAFFIC CONTROL PLAN

- A. Contractor shall implement Traffic Control Plan requirements imposed by the Road Opening Permit issued by Bristol Township relative to Work.

3.02 NOTIFICATIONS

- A. Contractor shall provide advance notification to any parties so noted in the local municipal Road Opening Permit in accordance with the required time schedule. In any event, the local municipal Police Department shall be notified at least **ten (10) days prior** to the date Contractor desires to restrict traffic in or along any highways or roads.
- B. Contractor shall obtain advance approval from the authority having jurisdiction should it be necessary to restrict traffic in or along any highways or roads, including temporary closure of a road. The following parties shall be notified at least **three (3) days** in advance:
 - 1. Local Municipal Police
 - 2. Local Fire Company
 - 3. Local School District

- 4. Local Ambulance Service
- 5. All affected residents

- C. At least one lane must be open for traffic during non-working periods and Contractor must be prepared to allow passage of emergency vehicles at any time.
- D. The Contractor is responsible for notifying all property owners and residents that on-street parking will not be permitted during work hours. Notifications must be distributed 3 days prior to the milling and paving of each road and should include the specific the dates and times. If proper notice is not given, the Contractor will be responsible for the towing costs necessary to complete the work.

3.03 CONSTRUCTION PARKING CONTROLS

- A. Control vehicular parking to prevent interference with public traffic and parking, access by emergency vehicles, and Owner's operations.
- B. Monitor parking of construction personnel's vehicles in existing facilities. Maintain vehicular access to and through parking areas.
- C. Prevent parking on or adjacent to access roads or in non-designated areas.

3.04 FLAG PERSONS

- A. Provide trained and equipped flag persons to regulate traffic when construction operations or traffic encroach on public traffic lanes.

3.05 FLARES AND LIGHTS

- A. Use flares and lights during hours of low visibility to delineate traffic lanes and to guide traffic.

3.06 HAUL ROUTES

- A. Consult with authority having jurisdiction, establish public thoroughfares to be used for haul routes and site access.

3.07 TRAFFIC SIGNS AND SIGNALS

- A. At approaches to site and on site, install at crossroads, detours, parking areas, and elsewhere as needed to direct construction and affected public traffic.
- B. Install and operate [automatic] traffic control signals to direct and maintain orderly flow of traffic in areas under Contractor's control, and areas affected by Contractor's operations.
- C. Relocate as Work progresses, to maintain effective traffic control.

3.08 OTHER REQUIREMENTS

- A. Maintain access at all times during non-working periods and to the maximum extent feasible during working periods to all driveways and entrances of adjacent properties. In this regard, use and maintenance of steel plates or other decking across the trench may be necessary to reduce to a minimum interference with access to the adjacent properties.
- B. Provide safe decking over open trenches in or along highways or roads during non-work periods by the use and maintenance of steel plates or other decking, which shall have sufficient strength to safely support all traffic including truck loads.
- C. Do not allow traffic to drive on any milled surface for more than 6 calendar days. The 1-1/2"-inch bituminous wearing course must be installed within 7 calendar days from the start of the milling operation.

3.09 REMOVAL

- A. Remove equipment and devices when no longer required.
- B. Repair damage caused by installation.
- C. Remove post settings to a depth of 2 feet.

END OF SECTION

SECTION 01 56 39

LANDSCAPE PROTECTION

PART 1 - GENERAL

1.01 SECTION DESCRIPTION

A. The Work of this Section Includes:

1. Provisions for landscape protection including the location and erection of protective fencing as may be appropriate for specific plant materials so as to insure their survival during and after completion of construction.

1.02 RELATED SECTIONS

A. Related Work Specified Elsewhere:

1. Section 01 57 13: Soil Erosion and Sediment Control
2. Section 31 23 33: Excavation, Backfill and Compaction

1.03 QUALITY ASSURANCE

A. Reference Standards

1. Pennsylvania Dept. of Transportation Publication 408 Specifications.

1.04 JOB CONDITIONS

- A. Contractor is responsible for determining through site inspection and assessment of construction requirements what protection standards are necessary and practical based on plant type and location.
- B. Engineer will arrange for a site inspection with Contractor prior to initiation of construction to review specific landscape protection concerns.

PART 2 - PRODUCTS

2.01 FABRICATED PRODUCTS

A. Temporary Fencing:

1. Undamaged, standard picket snow fence, 4' high, formed of wooden slats, tightly woven with wire cable; orange, open mesh construction fencing; or other acceptable, highly visible, weather resistant, easily maintained fencing that provides a substantial barrier.
2. High carbon channel bar steel posts, 7 feet in length. Designed to drive satisfactorily into the ground and with at least ten fence holding lugs of the rivet type. Alternate post types may be approved by Engineer.

PART 3 - EXECUTION

3.01 PREPARATION

- A. Prior to initiating construction, Contractor shall assess the site area and determine the protection standards required in addition to any specifically noted on the Drawings. Unusual circumstances or exceptions to the standards specified shall be resolved by agreement with Engineer.

3.02 GENERAL REQUIREMENTS

- A. Grade changes and excavation shall not encroach upon a protection area.
- B. No toxic materials shall be stored within 100 feet of a protection area including petroleum based and/or derived products.
- C. The area within a protection area shall not be built upon, nor shall any materials be stored there either temporarily or permanently. Vehicles and equipment shall not be parked in a protection area.
- D. When tree stumps are located within ten feet of a protection area the stumps shall be removed by means of a stump grinder to minimize the effect on surrounding root systems.

- E. Tree roots which must be severed shall be cut by a backhoe or similar equipment aligned radially to the tree to reduce the lateral movement of the roots during excavation, which could damage the intertwined roots of adjacent trees. Within four (4) hours of any severance of roots, all tree roots that have been exposed and/or damaged shall be trimmed cleanly and covered temporarily with moist peat moss, moist burlap or other moist biodegradable material to keep them from drying out until permanent cover can be installed.
- F. Sediment, retention and detention basins shall not be located within the protection area or discharge into the protection area.

3.03 ERECTION OF TEMPORARY FENCING

- A. Prior to start of construction or earthmoving, a snow fence or approved alternate shall be placed around plant material specified to remain at a distance of 15' from the trunk of the plant material or the distance from the trunk to the dripline whichever is greater. For a group of trees or woodlands, the fence location shall be determined by the aggregate distance or driplines for the individual plant. Exceptions to this requirement must be approved by Engineer.
- B. Temporary fencing shall be periodically inspected and repairs accomplished to insure continued integrity during the construction period.
- C. Temporary fencing shall remain in place until final restoration of the site is to occur.

3.04 PRUNING

- A. All final cuts shall be made sufficiently close to the trunk or parent limb but without cutting into the branch collar or leaving a protruding stub, according to National Arborist Association Standards. All necessary pruning cuts must be made to prevent bark from being torn from the tree and to facilitate rapid healing. Flush cuts are unacceptable.

3.05 FERTILIZATION

- A. All trees which have experienced any disturbance or have had damage to the roots or branches shall be fertilized.
- B. Trees shall be fertilized in early fall (September- October) or mid-spring (April-May). Fall applications are preferred.
- C. Fertilizer grade shall have approximately 3 parts nitrogen to 1 part phosphorus and potassium (3-1-1 ratio).
- D. Fertilizer shall be broadcast over the soil surface in an area twice the size of the protection zone at a rate of 1 pound nitrogen per 1000 square feet. A minimum of 1000 square feet per tree shall receive fertilization.

3.06 TRENCHING AND TUNNELING

- A. If there is no alternative but to locate a utility line through a protection area, tunneling shall be used instead of trenching, except where in the opinion of Engineer survival of the tree(s) would not be affected by either method. Engineer shall determine the most desirable location for the utility line.
- B. Trenches shall be filled as soon as possible, and tamped to avoid air spaces.

END OF SECTION

SECTION 01 57 13

SOIL EROSION AND SEDIMENT CONTROL

PART 1 - GENERAL

1.01 SECTION DESCRIPTION

A. The Work of This Section Includes:

1. Contractor shall implement and maintain the Soil Erosion and Sediment Control Plan prepared for the Project and/or Work as shown on the Drawings and described in this Section.
2. Contractor shall carry out the construction operations in such a manner that soil erosion and resulting turbid stormwater runoff and sedimentation are minimized.

1.02 RELATED SECTIONS

A. Related Work Specified Elsewhere:

1. Section 31 11 00: Clearing and Grubbing
2. Section 31 20 00: Earthwork
3. Section 31 23 33: Excavation, Backfill and Compaction
4. Section 32 93 00: Landscaping

1.03 QUALITY ASSURANCE

A. Reference Standards:

1. Pennsylvania Department of Environmental Protection Soil Erosion and Sediment Pollution Control Manual.
2. Pennsylvania Department of Transportation Publication 408 Specifications

1.04 JOB CONDITIONS

A. The associated work activities include but are not limited to the following items:

1. Temporary and permanent measures will have to be undertaken before, during and after construction to control sediment from being carried onto adjoining properties and into swales or watercourses as a result of stormwater runoff.
2. The use of temporary control devices as shown on the Drawings and as described in these Specifications are for providing the trapping of sediment resulting from construction activities and to reduce the velocities of the temporary stormwater courses to minimize erosion.
3. The erosion and sediment control devices shall be inspected on a weekly basis and after every storm event and shall be maintained throughout the life of this project. These shall include, but are not limited to, temporary sediment basins and traps, stabilized construction entrances, perimeter dikes, perimeter swales and silt fences, as shown on the Drawings or other measures that are required for the construction of the Project and/or Work.

4. Upon completion of the Project and/or Work, and stabilization of disturbed areas, the temporary control devices shall be removed by Contractor.
5. Soil erosion and sediment control practices shall be consistent with the procedures outlined in the latest edition of the "Soil Erosion and Sediment Pollution Control Manual", Commonwealth of Pennsylvania, Department of Environmental Protection.

PART 2 - PRODUCTS

2.01 MATERIALS

- A. Silt Fence:
 1. Section 865, Publication 408 Specifications.
- B. Super Silt Fence
- C. Compost Filter Sock
- D. Orange Construction Fence
- E. Coarse Aggregate (Stabilized Construction Entrance)
 1. AASHTO #1, Table C, Section 703.2, Publication 408 Specifications.
- F. Inlet Protection Devices
- G. Temporary Seeding
 1. See Section 32 93 00
- H. Permanent Seeding
 1. See Section 32 93 00

PART 3 - EXECUTION

3.01 TEMPORARY CONTROL MEASURES

- A. Utility Construction:
 1. Install erosion and sediment control measures in accordance with the Project Drawings and sequence of construction.
 2. Excavated material resulting from the installation of the water service line, sewage force main & appurtenances and gravity sanitary sewer shall be completely surrounded by silt fence or completely covered with a plastic sheet during non-work periods.
 3. Limit the removal of natural ground cover to the minimum area required for construction within non-paved areas.
 4. Perform temporary seeding and mulching immediately upon completion of earthmoving, within seasonal constraints, of disturbed areas which are not actively being regraded until final grading and stabilization can be accomplished. Temporary

seeding is covered in Section 32 93 00.

5. Dewatering or pumping out of excavated areas directly into existing storm ditches or natural channels which causes silt deposition, turbidity and/or possible erosion of banks is prohibited. Contractor must make use of sediment traps, filters, or other methods acceptable to the Resident Project Representative.

3.02 PERMANENT CONTROL MEASURES

A. Utility Construction:

1. Perform permanent seeding and mulching of any disturbed areas immediately following final grading of any non-paved areas within seasonal constraints. Seeding is covered in Section 32 93 00.

3.03 FIELD MODIFICATIONS

- #### A.
- Owner reserves the right to require modifications to any or all sediment control measures provided in order to establish proper soil erosion and sedimentation control. In addition, any measures recommended or required by the County Conservation District shall be promptly implemented.

END OF SECTION

SECTION 01 57 14

EROSION CONTROL BLANKET

PART 1 - GENERAL

1.01 SECTION DESCRIPTION

- A. This Work shall consist of furnishing and placing a biodegradable erosion control blanket for use as a temporary control to establish seeded areas.

1.02 RELATED SECTIONS

- A. Related Work Specified Elsewhere:
 - 1. Section 31 11 00: Clearing and Grubbing
 - 2. Section 32 93 00: Landscaping

PART 2 - PRODUCTS

2.01 MATERIALS

- A. The erosion control blanket shall be a machine produced 100% biodegradable mat of 70% agricultural straw and 30% coconut fiber blend matrix with a functional longevity of approximately 18 months. The blanket shall be of consistent thickness with the straw and coconut fiber evenly distributed over the entire area of the mat. The blanket shall be covered on the top and bottom sides with 100% biodegradable woven natural organic fiber netting. The netting shall consist of machine directional strands formed from two intertwined yarns with cross directional strands interwoven through the twisted machine strands (commonly referred to as a Leno weave) to form an approximate 0.50 x1.00 inch mesh. The blanket shall be sewn together on 1.50 inch centers (50 stitches per roll width) with biodegradable thread.
- B. The straw / coconut fiber erosion control blanket shall be SC150 BN as manufactured by North American Green, or equivalent. The straw / coconut erosion control fiber blanket shall have the following properties:

Material Content:

Matrix: 70% Straw Fiber (0.35 lbs / sq. yd.)
30% Coconut Fiber (0.15 lbs / sq. yd.)

Netting: Top – Leno woven 100% Biodegradable organic jute fiber (9.3 lbs / 1,000 sq. ft. approximate weight)
Bottom - 100% Biodegradable organic jute fiber (7.7 lbs / 1,000 sq. ft. approximate weight)

Thread: Biodegradable

PART 3 - EXECUTION

3.01 SHIPPING & STORAGE

- A. The erosion control blanket rolls shall be furnished with suitable wrapping for protection against moisture in a manner that protects them from the elements. If stored outdoors, they shall be elevated and protected with a waterproof cover. At no time shall the erosion control blanket be exposed to ultraviolet light for a period exceeding 14 days.

3.02 SITE PREPARATION

- A. Prepare the seedbed by raking, seeding, and fertilizing

3.03 GEOTEXTILE PLACEMENT

- A. Begin at the top of slope by anchoring the blanket in a 6" deep by 6" wide trench with approximately 12" of blanket extended beyond the up-slope portion of the trench. Anchor the blanket with a row of staples approximately 12" apart in the bottom of the trench. Backfill and compact the trench after stapling. Apply seed to the compacted soil and fold the remaining 12" portion of the blanket back over seed and compacted soil. Secure blanket over compacted soil with a row of staples spaced approximately 12" apart across the width of the blanket.
- B. Roll the blankets down the slope. Blankets will unfold with appropriate side against the soil surface. All blankets must be securely fastened to soil surface by placing staples in appropriate locations as specified by the manufacturer.
- C. The edges of parallel blankets must be stapled with approximately 3" overlap. To ensure proper seam alignment, place the edge of the overlapping blanket even with the colored seam stitch on the previously installed blanket.
- D. Consecutive blankets spliced down the slope must be placed end over end (shingle style) with an approximate 3" overlap. Staple through overlapped area, approximately 12" apart across the entire blanket width.

*NOTE: In loose soil conditions, the use of staple lengths greater than 6" may be necessary to properly secure the blankets.

END OF SECTION

SECTION 01 60 00

MATERIAL AND EQUIPMENT

PART 1 - GENERAL

1.01 SECTION DESCRIPTION

A. The Work of This Section Includes:

1. Products.
2. Transportation and handling.
3. Storage and protection.
4. Product options.
5. Substitutions.
6. Equipment Guarantee

1.02 RELATED SECTIONS

A. Related Work Specified Elsewhere:

1. Document 00 21 13: Instructions to Bidders: Substitute or "or-equal" items.
2. Section 01 40 00: Quality Control: Product quality monitoring.

1.03 PRODUCTS

- A. Do not use materials and equipment removed from existing premises, except as specifically permitted by the Contract Documents.
- B. Provide interchangeable components of the same manufacturer for components being replaced.

1.04 TRANSPORTATION AND HANDLING

- A. Transport and handle Products in accordance with manufacturer's instructions.
- B. Promptly inspect shipments to assure that Products comply with requirements, quantities are correct, and Products are undamaged.
- C. Provide equipment and personnel to handle Products by methods to prevent soiling, disfigurement, or damage.

1.05 STORAGE AND PROTECTION

- A. Store and protect Products in accordance with manufacturers' instructions.
- B. Store with seals and labels intact and legible.
- C. Store sensitive Products in weather tight, climate controlled, enclosures in an environment favorable to Product.
- D. For exterior storage of fabricated Products, place on sloped supports above ground.
- E. Provide off-site storage and protection when site does not permit on-site storage or protection.
- F. Cover Products subject to deterioration with impervious sheet covering. Provide ventilation to prevent condensation and degradation of Products.
- G. Store loose granular materials on solid flat surfaces in a well-drained area. Prevent mixing with

foreign matter.

- H. Provide equipment and personnel to store Products by methods to prevent soiling, disfigurement, or damage.
- I. Arrange storage of Products to permit access for inspection. Periodically inspect to assure Products are undamaged and are maintained under acceptable condition.

1.06 PRODUCT OPTIONS

- A. Products Specified by Reference Standards or by Description Only: Any product meeting those standards or description.
- B. Products Specified by Naming One or More Manufacturers: Products of manufacturers named and meeting specifications, no options or substitutions allowed.
- C. Products Specified by Naming One or More Manufacturers with a Provision for Substitutions: Submit a request for substitution for any manufacturer not named in accordance with the following Article.

1.07 SUBSTITUTIONS

- A. Instructions to Bidders specify time restrictions for submitting requests for Substitutions during the bidding period to requirements specified in this section.
- B. Substitutions may be considered when a Product becomes unavailable through no fault of the Contractor.
- C. Document each request with complete data substantiating compliance of proposed Substitution with Contract Documents.
- D. A request constitutes a representation that Contractor:
 - 1. Has investigated proposed Product and determined that it meets or exceeds the quality level of the specified Product.
 - 2. Will provide the same warranty for the Substitution as for the specified Product.
 - 3. Will coordinate installation and make changes to other Work which may be required for the Work to be complete with no additional cost to Owner.
 - 4. Waives claims for additional costs or time extension which may subsequently become apparent.
 - 5. Will reimburse Owner and Engineer for review or redesign services associated with re-approval by authorities.
- E. Substitutions will not be considered when they are indicated or implied on shop drawing or Product data submittals, without separate written request, or when acceptance will require revision to the Contract Documents.
- F. Substitution Submittal Procedure:
 - 1. Submit three copies of request for Substitution for consideration. Limit each request to one (1) proposed Substitution.
 - 2. Submit Shop Drawings, Product data, and certified test results attesting to the proposed Product equivalence. Burden of proof is on proposer.
 - 3. Engineer will notify Contractor in writing of decision to accept or reject request.
- G. For each equipment item in which the manufacturer was listed on the Bid Form, Engineer reserves the right to require Contractor to use the equipment item of the listed manufacturer.

1.08 EQUIPMENT GUARANTEE

- A. All equipment furnished shall be guaranteed by the manufacturer to be free from all defects in workmanship, design and material for a period of not less than 12 months from the date that the equipment is placed in continuous operation or not less than 18 months from the date of delivery to the job site, whichever occurs first.
- B. This guarantee shall be in addition to the correction period provided by Contractor under Article 13, paragraph 13.07 of the General Conditions and the Maintenance Bond provided by Contractor under Paragraph 1.09 of the Supplementary Conditions.
- C. The manufacturer shall furnish all parts necessary to correct defective work and Contractor shall be responsible for the installation of all parts.
- D. If the continuous operation of a piece of equipment is interrupted due to a defect requiring the replacement of the equipment, or part thereof, the equipment manufacturer's 12-month guarantee shall restart from the beginning when the required replacement item is installed and the equipment is returned to continuous operation.

PART 2 PRODUCTS

Not Used

PART 3 EXECUTION

Not Used

END OF SECTION

SECTION 01 70 00

CONTRACT CLOSEOUT

PART 1 GENERAL

1.01 SECTION DESCRIPTION

- A. The Work of This Section Includes:
1. Closeout procedures.
 2. Final cleaning.
 3. Adjusting.
 4. Project record documents.
 5. Operation and maintenance manual.
 6. Spare parts and maintenance Products.
 7. Other documentation.

1.02 RELATED SECTIONS

- A. Section not used.

1.03 CLOSEOUT PROCEDURES

- A. Submit written certification that Contract Documents have been reviewed, Work has been inspected, and that Work is complete in accordance with Contract Documents and ready for Engineer's review.
- B. Engineer shall make a final inspection and prepare a punchlist of items remaining to be completed or corrected prior to final acceptance in accordance with Article 14, paragraph 14.06 of the General Conditions.
- C. Complete all items on the punchlist, plus any new items that may be subsequently added, as soon as possible and within the Contract Time.
- D. Provide submittals to Engineer that are required by governing or other authorities.
- E. Submit final Application for Payment identifying total adjusted Contract Price, previous payments, and remaining amount due.
- F. Final Payment will not be made until final completion and acceptance of the Work.
- G. Owner will occupy all portions of the Project upon Substantial Completion upon completion and acceptance as specified in Section 01 11 13.

1.04 FINAL CLEANING

- A. Execute final cleaning prior to final Project inspection.
- B. Clean interior and exterior glass and surfaces exposed to view; remove temporary labels, stains and foreign substances, polish transparent and glossy surfaces, vacuum carpeted and soft surfaces.
- C. Clean equipment and fixtures to a sanitary condition with cleaning materials appropriate to the surface and material being cleaned.
- D. Clean or replace filters of operating equipment.
- E. Clean debris from roofs, gutters, downspouts, and drainage systems.
- F. Clean site; sweep paved areas, rake clean landscaped surfaces.
- G. Remove waste and surplus materials, rubbish, and construction facilities from the site.

1.05 ADJUSTING

- A. Adjust operating Products and equipment to ensure smooth and unhindered operation.

1.06 PROJECT RECORD DOCUMENTS

- A. Maintain on-site one set of the following record documents; record actual revisions to the Work:
1. Drawings.

2. Specifications.
 3. Addenda.
 4. Change Orders and other modifications to the Contract.
 5. Reviewed Shop Drawings, Product data, and samples.
 6. Manufacturer's instructions for assembly, installation and adjusting.
- B. Ensure entries are complete and accurate, enabling future reference by Owner.
- C. Store record documents separate from documents used for construction.
- D. Record information concurrent with construction progress.
- E. Specifications: Legibly mark and record at each Product section description of actual Products installed, including the following:
1. Manufacturer's name and product model and number.
 2. Product substitutions or alternates utilized.
 3. Changes made by Addenda and modifications.
- F. Record Drawings and Shop Drawings: Legibly mark each item to record actual construction including:
1. Measured depth of foundations in relation to finish main floor datum.
 2. Measured horizontal and vertical locations of underground utilities and appurtenances, referenced to permanent surface improvements.
 3. Measured locations of internal utilities and appurtenances concealed in construction, referenced to visible and accessible features of the Work.
 4. Field changes of dimension and detail.
 5. Details not on original Contract Drawings.
- G. Delete Engineer's title block and seal from all documents.
- H. Submit documents to Engineer with claim for final Application for Payment.

1.07 OTHER DOCUMENTATION

- A. Provide data and documentation properly completed and executed prior to final Application for Payment as Engineer may reasonably require including:
1. Payroll Certification forms by Contractor and all Subcontractors (if price exceeds \$25,000).
 2. Waiver of Liens by all Subcontractors and Suppliers or Contractor's Affidavit, Contractor's Release of Liens and Consent of Surety to Final Payment.
 3. Maintenance Bond.
 4. **CS-4171 Material Form from Suppliers for asphalt used during paving to closeout Liquid Fuels funding requirements.**
 5. Any Change Orders with supporting documentation which remain to be submitted.
 6. Test and/or sample results.
 7. Equipment warranties.
 8. CD/DVD copies of preconstruction documentation.

PART 2 PRODUCTS

Not Used

PART 3 EXECUTION

Not Used

END OF SECTION

SECTION 01 71 13

MOBILIZATION

PART 1 - GENERAL

1.01 Description of Work

- A. This work is the assembly and set-up of the general plant required to comply with the contract and with local and State laws and regulations. General plant includes Contractor's offices, shops, plants, storage areas, and sanitary or other facilities. This work includes obtaining the required permits, insurance, bonds, and any other initial items required for the start of the work and protection of work during the contract.

PART 2 - PRODUCTS

2.01 Material

- A. Furnish adequate material, equipment, and furnishings required. These material and furnishings will not be considered a part of the other completed contract items.

PART 3 - EXECUTION

3.01 Construction

- A. Construct the necessary facilities to maintain proper site conditions.

3.02 Measurement and Payment

- A. Mobilization will be paid as follows:

Payment 1 = 50% of contract bid amount to be paid at first estimate.

Payment 2 = 50% of contract bid to be paid after 50% of the original contract amount, including payments for deliverable materials but excluding mobilization.

- B. No additional mobilization will be awarded for any reason including but not limited to scheduling conflicts, holidays, weather, etc.

END OF SECTION

SECTION 01 75 00

STARTING OF SYSTEMS

PART 1 GENERAL

1.01 SECTION DESCRIPTION

A. The Work of This Section Includes:

1. Starting systems.
2. Demonstration and instructions.
3. Specific startup and initial operation procedures.
4. Follow-up instruction.

1.02 RELATED SECTIONS

A. Related Work Specified Elsewhere:

1. Section 01 33 00: Submittals: Manufacturers' field reports.
2. Section 01 40 00: Quality Control: Manufacturers' field services.
3. Section 01 70 00: Contract Closeout: Operation and maintenance manual and extra materials.

1.03 STARTING SYSTEMS

- A. Coordinate schedule for start-up of various equipment and systems.
- B. Notify Engineer seven days prior to start-up of each item.
- C. Verify that each piece of equipment or system has been checked for proper lubrication, drive rotation, belt tension, control sequence, and for conditions which may cause damage.
- D. Verify that tests, meter readings, and specified electrical characteristics agree with those required by the equipment or system manufacturer.
- E. Verify wiring and support components for equipment are complete and tested.
- F. Execute start-up under supervision of qualified personnel and perform testing and adjusting in accordance with manufacturers' instructions.
- G. When specified in individual specification sections, require manufacturer to provide authorized representative to be present at site to inspect, check and approve equipment or system installation prior to start-up, and to supervise placing equipment or system in operation.
- H. Submit a written report in accordance with Section 01 33 00 Submittals that equipment or system has been properly installed and is functioning correctly.

1.04 DEMONSTRATION AND INSTRUCTIONS

- A. Demonstrate operation and maintenance of Products by a qualified manufacturer's representative to Owner's personnel prior to date of Substantial Completion.

- B. For equipment or systems requiring seasonal operation, perform demonstration for other season within six months.
- C. Utilize operation and maintenance manuals as basis for instruction. Review contents of manual with Owner's personnel in detail to explain all aspects of operation and maintenance.
- D. Demonstrate start-up, operation, control, adjustment, trouble-shooting, servicing, maintenance, and shutdown of each item of equipment at an agreed-upon time, at equipment location.
- E. Prepare and insert additional data in operations and maintenance manuals when need for additional data becomes apparent during instruction.
- F. The amount of time required for instruction on each item of equipment and system is that specified in individual sections.

1.05 SPECIFIC STARTUP AND INITIAL OPERATION PROCEDURES

- A. Upon completion of construction, installed piping shall be cleaned and tested in accordance with Section 33 01 30.12 Testing of Piping Systems and Concrete Structures.
- B. Contractor shall supply an Operation and Maintenance Manual for review and approval by Owner and Engineer. Approval must precede acceptance of the facilities by Owner.
- C. Contractor shall be responsible for placing the completed facilities into initial operation, including testing of mechanical and electrical equipment. The schedule and sequence of the initial operation procedures shall be submitted to Engineer in advance for approval. Contractor shall coordinate all initial operation procedures with Owner's personnel at all times. All costs to place the completed facility into operation and testing required to verify proper operation shall be at Contractor's expense.
- D. Upon the completion of installation and connection of all mechanical and electrical equipment and at such time as the equipment is ready for initial operation, Contractor shall arrange to have the equipment inspected by an approved representative of the equipment manufacturer. The manufacturer's representative shall supervise the start-up of the equipment and shall complete any fine adjustments required. Upon completion of final adjustments, the manufacturer's representative shall certify by letter to Engineer that the equipment is complete, properly installed, and ready for operation.
- E. Upon receipt by Engineer of the certification by the authorized representative of the manufacturer, Contractor shall place the equipment into service for the initial operating period. All equipment shall fully and effectively operate for five (5) continuous twenty-four (24) hour periods without failure or adjustment. During this period, the facilities shall be operated by Contractor who shall assume full responsibility. Personnel of Owner shall have full access to the facilities to observe the operation by Contractor. During this period, Contractor shall complete all final adjustments of the equipment to the satisfaction of Engineer and failure to complete final adjustments shall act to extend the initial operation period.
- F. At the completion of the initial operating period, an inspection will be performed by Owner, Engineer, and Contractor. If all facilities are acceptable, the Work will be considered to have reached the point of Substantially Completion. However, if the facilities are not acceptable, Contractor shall successfully address the issues of concern before the Work will be considered to have reached the point of Substantial Completion.

1.06 FOLLOW-UP INSTRUCTION

- A. At any time during the twelve (12) month period commencing when the equipment is placed in continuous operation, Contractor, at the request of Owner or Engineer, shall provide the services of the respective equipment manufacturer's representative for each item of equipment for a total period not to exceed ten (10) hours at no cost to Owner for purpose of providing follow-up detailed instructions to personnel of Owner regarding any items pertaining to equipment operation and maintenance.

PART 2 PRODUCTS

Not Used

PART 3 EXECUTION

Not Used

END OF SECTION

SECTION 01 78 23

OPERATION AND MAINTENANCE MANUAL

PART 1 GENERAL

1.01 SECTION DESCRIPTION

A. The Work of This Section Includes:

1. Format and content of manuals.
2. Instruction of OWNER's personnel.
3. Schedule of submittals.

1.02 RELATED SECTIONS

A. Related Work Specified Elsewhere:

1. Section 01 33 00: Submittals: Submittal procedures, Shop Drawings, Product data, and samples.
2. Section 01 40 00: Quality Control: Manufacturer's instructions, Test reports.
3. Section 01 60 00: Material and Equipment: Systems demonstration.
4. Section 01 70 00: Contract Close-out: Contract close-out procedures, Project record documents, warranties.
5. Individual Specifications Sections: Specific requirements for operation and maintenance data.

1.03 QUALITY ASSURANCE

- A. Prepare instructions and data by personnel experienced in maintenance and operation of described products.

1.04 FORMAT

- A. Prepare data in the form of an instructional manual.
- B. Binders: Commercial quality, 8-1/2 x 11 inch three-ring binders with durable plastic covers; 2-inch maximum ring size. When multiple binders are used, correlate data into related consistent groupings.
- C. Cover: Identify each binder with typed or printed title OPERATION AND MAINTENANCE MANUAL; list title of Project; identify subject matter of contents.
- D. Provide tabbed dividers for each separate Product and system, with typed description of Product and major component of equipment.
- E. Text: Manufacturer's printed data, or typewritten data on 20 pound paper.
- F. Drawings: Provide with reinforced punched binder tab. Bind in with text; fold larger drawings to size of text pages.
- G. Contents: Prepare a Table of Contents for each volume, with each Product or system description identified, in three parts as follows:

1. Part 1: Directory, listing names, addresses, and telephone numbers of Engineer, Contractor, Subcontractors, and major equipment suppliers.
2. Part 2: Operation and maintenance instructions arranged by system and subdivided by specification section. For each category, identify names, addresses, and telephone numbers of Subcontractors and suppliers. Identify the following:
 - a. Significant design criteria.
 - b. List of equipment.
 - c. Parts list for each component.
 - d. Operating instructions.
 - e. Maintenance instructions for equipment and systems.
 - f. Maintenance instructions for finishes, including recommended cleaning methods and materials, and special precautions identifying detrimental agents.
3. Part 3: Project documents and certificates, including the following:
 - a. Approved submittals: Shop drawings and Product data.
 - b. Air and water balance reports.
 - c. Certificates.
 - d. Photocopies of warranties and equipment bonds.

1.05 CONTENTS, EACH VOLUME

- A. Table of Contents: Provide title of Project; names, addresses, and telephone numbers of Engineer, subconsultants, and Contractor with name of responsible parties; schedule of Products and systems, indexed to content of the volume.
- B. For Each Product or System: List names, addresses and telephone numbers of Subcontractors and suppliers, including local source of supplies and replacement parts.
- C. Project Data: Mark each sheet to clearly identify specific products and component parts, and data applicable to installation. Delete inapplicable information. Include approved submittal of Product data.
- D. Drawings: Supplement product data to illustrate relations of component parts of equipment and systems, to show control and flow diagrams. Do not use Project Record Documents as maintenance drawings. Include approved submittal of Shop drawings.
- E. Typed Text: As required to supplement product data. Provide logical sequence of instructions for each procedure, incorporating manufacturer's instruction specified in Section 01 40 00 Quality Control.
- F. Warranties: Bind in copy of each.
- G. Equipment Bonds: Bind in photocopy of each.

1.06 MANUAL FOR MATERIALS AND FINISHES

- A. Building Products, Applied Materials, and Finishes: Include Product data, with catalog number, size, composition, and color and texture designations. Provide information for re-ordering custom manufactured Products.
- B. Instructions for Care and Maintenance: Include manufacturer's recommendations for cleaning agents and methods, precautions against detrimental agents and methods, and

recommended schedule for cleaning and maintenance.

- C. Moisture Protection and Weather Exposed Products: Include product data listing applicable reference standards, chemical composition, and details of installation. Provide recommendations for inspections, maintenance, and repair.
- D. Additional Requirements: As specified in individual Product specification sections.
- E. Provide a listing in Table of Contents for design data, with tabbed fly sheet and space for insertion of data.

1.07 MANUAL FOR EQUIPMENT AND SYSTEMS

- A. Each Item of Equipment and Each System: Include description of unit or system, and component parts. Identify function, normal operating characteristics, and limiting conditions. Include performance curves, with engineering data and tests, and complete nomenclature and model number of replaceable parts.
- B. Panel board Circuit Directories: Provide electrical service characteristics, controls and communications; typed.
- C. Include color coded wiring diagrams as installed.
- D. Operating Procedures: Include start-up, break-in, and routine normal operating instructions and sequences. Include regulation, control, stopping, shut-down, and emergency instructions. Include summer, winter, and any special operating instructions.
- E. Maintenance Requirements: Include routine procedures and guide for trouble-shooting; disassembly, repair, and reassembly instructions; and alignment, adjusting, balancing, and checking instructions.
- F. Provide servicing and lubrications schedule, and list of lubricants required.
- G. Include manufacturer's printed operation and maintenance instructions.
- H. Include sequence of operation by controls manufacturer.
- I. Provide original manufacturer's parts list, illustrations, assembly drawings, and diagrams required for maintenance.
- J. Provide control diagrams by controls manufacturer as installed.
- K. Provide Contractor's coordination drawings, with color coded piping diagrams as installed.
- L. Provide charts of valve tag numbers, with location and function of each valve, keyed to flow and control diagrams.
- M. Provide list of original manufacturer's spare parts, current prices, and recommended quantities to be maintained in storage.
- N. Include test and balancing reports as specified in Section 01 40 00.
- O. Additional Requirements: As specified in individual Product specification sections.
- P. Provide a listing in Table of Contents for design data, with tabbed fly sheet and space for insertion of data.

1.08 INSTRUCTION OF OWNER PERSONNEL

- A. Before final inspection, instruct Owner's designated personnel in operation, adjustment, and maintenance of Products, equipment, and systems, at agreed upon times.
- B. For equipment requiring seasonal operation, perform instructions for other seasons within six months.
- C. Use operation and maintenance manuals as basis for instruction. Review contents of manual with personnel in detail to explain all aspects of operation and maintenance.
- D. Prepare and insert additional data in Operation and Maintenance Manual when need for such data becomes apparent during instruction.

1.09 SUBMITTALS

- A. Submit two copies of preliminary draft or proposed formats and outlines of contents 90 days prior to final inspection. Owner and Engineer will review draft and return one copy with comments.
- B. For equipment, or component parts of equipment put into service during construction and operated by Owner, submit documents within 10 days after acceptance.
- C. Submit one copy of completed volumes 15 days prior to final inspection. A copy will be reviewed and returned after final inspection, with Owner's and Engineer's comments. Revise content of all document sets as required prior to final submission.
- D. Submit two copies of revised final volumes in final form within 15 days after receipt of Owner's and Engineer's review comments of previously completed volumes.

PART 2 PRODUCTS

Not Used

PART 3 EXECUTION

Not Used

END OF SECTION