

Bid Documents

For

Village of Diamond

Water Main Improvements,
Various Locations

November, 2023

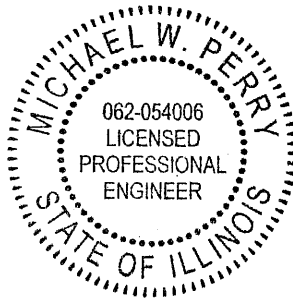


Chamlin & Associates
ENGINEERS • SURVEYORS • PLANNERS

Project No. 09865.00

Village of Diamond
Water Main Improvements
(Various Locations)

November, 2023



A handwritten signature in black ink, appearing to read "Michael W. Perry".

ENGINEER'S SEAL & SIGNATURE

1-4-2024

DATE

Prepared by
Chamlin & Associates, Inc.
Peru Morris Ottawa
Illinois

Professional Design Firm
License No. 184-001717

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ADVERTISEMENT FOR BIDS

Village of Diamond
1750 E. Division Street
Diamond, IL 60416

Separate sealed BIDS for the construction of "Water Main Improvements (Various Locations)" will be received at the office of the Village Clerk at 1750 E. Division Street, Diamond, IL 60416 at 10:00 a.m. on Friday, May 17, 2024 and then at said office publicly opened and read aloud.

The work for this project includes but is not limited to: Construction of approximately 2,021 L.F. of 4", 6" and 8" PVC water main, service line hook-ups, hydrants, valves and associated materials for water main improvements on School, Skinner and Perona Streets.

The successful Bidder shall provide at least 40% of all labor required for the completion of this project.

This procurement will be subject to regulations contained in the Davis-Bacon Act (40 USC 276a through 276a-5) as defined by the United States Department of Labor, the Employment of Illinois Workers on Public Works Act (30 ILCS 570), the federal Build America, Buy America Act" requirements contained in the Infrastructure Investment and Jobs Act, Pub. L. No. 117-58, and American Iron and Steel (AIS) provision (as a subset of BABA).

Bidders are required to comply with the President's Executive Order No. 11246, as amended. The requirements for bidders and contractors under this order are explained in 41 CFR 60-4.

Plans and specifications may be accessed on-line at: www.chamlin.com

Full-size plans and specifications are available from Chamlin & Associates, Inc., 4152 Progress Boulevard, Peru, IL 61354 at the non-refundable cost of \$50 per set.

The CONTRACT DOCUMENTS may also be examined at the following locations:

Village of Diamond, 1750 E. Division Street, Diamond, IL 60416
Chamlin & Associates, Inc., 4152 Progress Boulevard, Peru, IL 61354

The Bid shall be accompanied by a certified check or bid bond, in the amount of five percent (5%) of the gross amount of the bid and be payable to the order of the Village of Diamond.

Bids may be held by the Village of Diamond for a period not to exceed 90 days from the date of the opening of Bids for the purpose of reviewing the Bids and investigating the qualifications of Bidders, prior to awarding of the Contract.

The Owner reserves the right to accept or reject any or all Bids and to waive any informalities in the bidding.

BY ORDER OF:

MAYOR & BOARD OF COMMISSIONERS
VILLAGE OF DIAMOND, ILLINOIS

INFORMATION FOR BIDDERS

BIDS will be received by the Village of Diamond (herein called the "OWNER"), at 1750 E. Division Street, Diamond, IL 60416 until 10:00 a.m. on Friday, May 17, 2024 and then at said office publicly opened and read aloud.

Each BID must be submitted in a sealed envelope, addressed to Lori Holmes, Village Clerk at Village of Diamond, 1750 E. Division Street, Diamond, IL 60450. Each sealed envelope containing a BID must be plainly marked on the outside as BID for "Village of Diamond - Water Main Improvements (Various Locations)" and the envelope should bear on the outside the name of the BIDDER, his/her address, his/her license number if applicable and the name of the project for which the BID is submitted. If forwarded by mail, the sealed envelope containing the BID must be enclosed in another envelope addressed to the OWNER at Village of Diamond, 1750 E. Division Street, Diamond, IL 60416.

All BIDS must be made on the required BID form. All blank spaces for BID prices must be filled in, in ink or typewritten, and the BID form must be fully completed and executed when submitted. Only one copy of the BID form is required.

Any BID may be modified or withdrawn prior to the above scheduled time for the opening of BIDS or authorized postponement thereof. Any BID received after the time and date specified shall not be considered. No BIDDER may withdraw a BID within 90 days after the actual date of the opening thereof. Should there be reasons why the contract cannot be awarded within the specified period, the time may be extended by mutual agreement between the OWNER and BIDDER.

BIDDERS must satisfy themselves of the accuracy of the estimated quantities in the BID Schedule by examination of the site and a review of the drawings and specifications including ADDENDA. After BIDS have been submitted, the BIDDER shall not assert that there was a misunderstanding concerning the quantities of WORK or of the nature of the WORK to be done.

The OWNER shall provide to BIDDERS prior to BIDDING, all information that is pertinent to, and delineates and describes, the land owned and rights-of-way acquired or to be acquired.

The CONTRACT DOCUMENTS contain the provisions required for the construction of the PROJECT. Information obtained from an officer, agent, or employee of the OWNER or any other person shall not affect the risks or obligations assumed by the CONTRACTOR or relieve him from fulfilling any of the conditions of the contract.

A BID bond payable to the OWNER must accompany each BID for five percent (5%) of the total amount of the BID. As soon as the BID prices have been compared, the OWNER will return the BONDS of all except the three lowest responsible BIDDERS. When the Agreement is executed, the bonds of the two remaining unsuccessful BIDDERS will be returned. The BID BOND of the successful BIDDER will be retained until the payment BOND and performance BOND have been executed and approved, after which it will be returned. A certified check may be used in lieu of a BID BOND.

A performance BOND and a payment BOND, each in the amount of 100 percent of the CONTRACT PRICE, with a corporate surety approved by the OWNER, will be required for the faithful performance of the contract.

Attorneys-in-fact who sign BID BONDS or payment BONDS and performance BONDS must file with each BOND a certified and effective dated copy of their power of attorney.

Any contract entered into by the loan recipient and any sub-agreement hereunder shall provide that representatives of the Agency will have access to the work whenever it is in preparation or progress and that the contractor or subcontractor will provide proper facilities for such access and inspection. Such contract or sub-agreement must also provide that the Agency or any authorized representative shall have access to any books, documents, papers, and records of the contractor or subcontractor which are pertinent to the project for the purpose of making audit, examination, excerpts, and transcriptions thereof.

The party to whom the contract is awarded will be required to execute the Agreement and obtain the performance BOND and payment BOND within ten (10) calendar days from the date when NOTICE OF AWARD is delivered to the BIDDER. The necessary Agreement and BOND forms shall accompany the NOTICE OF AWARD. In case of failure of the BIDDER to execute the Agreement, the OWNER may at his option consider the BIDDER in default, in which case the BID BOND accompanying the proposal shall become the property of the OWNER.

The OWNER within ten (10) days of receipt of acceptable performance BOND, payment BOND and Agreement signed by the party to whom the Agreement was awarded shall sign the Agreement and return to such party an executed duplicate of the Agreement. Should the OWNER not execute the Agreement within such period, the BIDDER may by WRITTEN NOTICE withdraw his signed Agreement. Such notice of withdrawal shall be effective upon receipt of the notice by the OWNER.

The OWNER shall issue the NOTICE TO PROCEED within ten (10) days of the execution of the Agreement. Should there be reasons why the NOTICE TO PROCEED cannot be issued within such period, the time may be extended by mutual agreement between the OWNER and CONTRACTOR. If the NOTICE TO PROCEED has not been issued within the ten (10) day period or within the period mutually agreed upon, the CONTRACTOR may terminate the Agreement without further liability on the part of either party.

The OWNER may make such investigations as he deems necessary to determine the ability of the BIDDER to perform the WORK, and the BIDDER shall furnish to the OWNER all such information and data for this purpose as the OWNER may request. The OWNER reserves the right to reject any BID if the evidence submitted by, or investigation of, such BIDDER fails to satisfy the OWNER that such BIDDER is properly qualified to carry out the obligations of the Agreement and to complete the WORK contemplated therein.

A conditional or qualified BID will not be accepted.

Award will be made to the low, responsive, responsible BIDDER.

All applicable laws, ordinances, and the rules and regulations of all authorities having jurisdiction over construction of the PROJECT shall apply to the contract throughout including the Employment of Illinois Workers on Public Works Act (30 ILCS 570) and the Davis-Bacon Wage Act (40 USC 276a through 276a-5) as defined by the United States Department of Labor.

BIDDERS will comply with the federal Build America, Buy America Act (BABA) which is included in the Infrastructure Investment and Jobs Act, Pub. L. No. 117-58 and specifies that all iron, steel, manufactured products, and construction materials used in the project are produced in the United States, and the American Iron and Steel (AIS) provision (as a subset of BABA).

BIDDER shall not discriminate on the basis of race, color, national origin or sex in the performance of this contract. The contract shall carry out applicable requirements of 40 CFR Part 33 in the award and administration of contracts awarded. Failure by the Contractor to carry out these requirements is a material breach of this contract which may result in the termination of this contract or other legally available remedies.

Each BIDDER is responsible for inspecting the site and for reading and being thoroughly familiar with the CONTRACT DOCUMENTS. The failure or omission of any BIDDER to do any of the foregoing shall in no way relieve the BIDDER from any obligation in respect to his BID.

Each BIDDER shall supply a list of all subcontractors that submitted proposals and if requested by the OWNER, all major material suppliers.

The ENGINEER is Chamlin & Associates, Inc. Their address is 4152 Progress Boulevard, Peru, IL 61354.

STANDARD GENERAL CONDITIONS
OF THE CONSTRUCTION CONTRACT

Prepared By



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STANDARD GENERAL CONDITIONS OF THE CONSTRUCTION CONTRACT

ARTICLE 1—DEFINITIONS AND TERMINOLOGY

1.01 *Defined Terms*

- A. Wherever used in the Bidding Requirements or Contract Documents, a term printed with initial capital letters, including the term's singular and plural forms, will have the meaning indicated in the definitions below. 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, executed by Owner and Contractor, that sets forth the Contract Price and Contract Times, identifies the parties and the Engineer, and designates the specific items that are Contract Documents.
 3. *Application for Payment*—The document prepared by Contractor, in a form acceptable to Engineer, to request progress or final payments, and which is to be accompanied by such supporting documentation as is required by the Contract Documents.
 4. *Bid*—The offer of a Bidder submitted on the prescribed form setting forth the prices for the Work to be performed.
 5. *Bidder*—An individual or entity that submits a Bid to Owner.
 6. *Bidding Documents*—The Bidding Requirements, the proposed Contract Documents, and all Addenda.
 7. *Bidding Requirements*—The Advertisement or invitation to bid, Instructions to Bidders, Bid Bond or other Bid security, if any, the Bid Form, and the Bid with any attachments.
 8. *Change Order*—A document 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, or other revision to the Contract, issued on or after the Effective Date of the Contract.
 9. *Change Proposal*—A written request by Contractor, duly submitted in compliance with the procedural requirements set forth herein, seeking an adjustment in Contract Price or Contract Times; contesting an initial decision by Engineer concerning the requirements of the Contract Documents or the acceptability of Work under the Contract Documents; challenging a set-off against payments due; or seeking other relief with respect to the terms of the Contract.
 10. *Claim*
 - a. A demand or assertion by Owner directly to Contractor, duly submitted in compliance with the procedural requirements set forth herein, seeking an adjustment of Contract Price or Contract Times; contesting an initial decision by Engineer concerning the

requirements of the Contract Documents or the acceptability of Work under the Contract Documents; contesting Engineer's decision regarding a Change Proposal; seeking resolution of a contractual issue that Engineer has declined to address; or seeking other relief with respect to the terms of the Contract.

- b. A demand or assertion by Contractor directly to Owner, duly submitted in compliance with the procedural requirements set forth herein, contesting Engineer's decision regarding a Change Proposal, or seeking resolution of a contractual issue that Engineer has declined to address.
 - c. A demand or assertion by Owner or Contractor, duly submitted in compliance with the procedural requirements set forth herein, made pursuant to Paragraph 12.01.A.4, concerning disputes arising after Engineer has issued a recommendation of final payment.
 - d. A demand for money or services by a third party is not a Claim.
11. *Constituent of Concern*—Asbestos, petroleum, radioactive materials, polychlorinated biphenyls (PCBs), lead-based paint (as defined by the HUD/EPA standard), hazardous waste, and any substance, product, waste, or other material of any nature whatsoever that is or becomes listed, regulated, or addressed pursuant to Laws and Regulations regulating, relating to, or imposing liability or standards of conduct concerning, any hazardous, toxic, or dangerous waste, substance, or material.
 12. *Contract*—The entire and integrated written contract between Owner and Contractor concerning the Work.
 13. *Contract Documents*—Those items so designated in the Agreement, and which together comprise the Contract.
 14. *Contract Price*—The money that Owner has agreed to pay Contractor for completion of the Work in accordance with the Contract Documents.
 15. *Contract Times*—The number of days or the dates by which Contractor shall: (a) achieve Milestones, if any; (b) achieve Substantial Completion; and (c) complete the Work.
 16. *Contractor*—The individual or entity with which Owner has contracted for performance of the Work.
 17. *Cost of the Work*—See Paragraph 13.01 for definition.
 18. *Drawings*—The part of the Contract that graphically shows the scope, extent, and character of the Work to be performed by Contractor.
 19. *Effective Date of the Contract*—The date, indicated in the Agreement, on which the Contract becomes effective.
 20. *Electronic Document*—Any Project-related correspondence, attachments to correspondence, data, documents, drawings, information, or graphics, including but not limited to Shop Drawings and other Submittals, that are in an electronic or digital format.
 21. *Electronic Means*—Electronic mail (email), upload/download from a secure Project website, or other communications methods that allow: (a) the transmission or communication of Electronic Documents; (b) the documentation of transmissions, including sending and receipt; (c) printing of the transmitted Electronic Document by the

recipient; (d) the storage and archiving of the Electronic Document by sender and recipient; and (e) the use by recipient of the Electronic Document for purposes permitted by this Contract. Electronic Means does not include the use of text messaging, or of Facebook, Twitter, Instagram, or similar social media services for transmission of Electronic Documents.

22. *Engineer*—The individual or entity named as such in the Agreement.
23. *Field Order*—A written order issued by Engineer which requires minor changes in the Work but does not change the Contract Price or the Contract Times.
24. *Hazardous Environmental Condition*—The presence at the Site of Constituents of Concern in such quantities or circumstances that may present a danger to persons or property exposed thereto.
 - a. The presence at the Site of materials that are necessary for the execution of the Work, or that are to be incorporated into the Work, and that are controlled and contained pursuant to industry practices, Laws and Regulations, and the requirements of the Contract, is not a Hazardous Environmental Condition.
 - b. The presence of Constituents of Concern that are to be removed or remediated as part of the Work is not a Hazardous Environmental Condition.
 - c. The presence of Constituents of Concern as part of the routine, anticipated, and obvious working conditions at the Site, is not a Hazardous Environmental Condition.
25. *Laws and Regulations; Laws or Regulations*—Any and all applicable laws, statutes, rules, regulations, ordinances, codes, and binding decrees, resolutions, and orders of any and all governmental bodies, agencies, authorities, and courts having jurisdiction.
26. *Liens*—Charges, security interests, or encumbrances upon Contract-related funds, real property, or personal property.
27. *Milestone*—A principal event in the performance of the Work that the Contract requires Contractor to achieve by an intermediate completion date, or by a time prior to Substantial Completion of all the Work.
28. *Notice of Award*—The written notice by Owner to a Bidder of Owner's acceptance of the Bid.
29. *Notice to Proceed*—A written notice 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.
30. *Owner*—The individual or entity with which Contractor has contracted regarding the Work, and which has agreed to pay Contractor for the performance of the Work, pursuant to the terms of the Contract.
31. *Progress Schedule*—A schedule, prepared and maintained by Contractor, describing the sequence and duration of the activities comprising Contractor's plan to accomplish the Work within the Contract Times.
32. *Project*—The total undertaking to be accomplished for Owner by engineers, contractors, and others, including planning, study, design, construction, testing, commissioning, and start-up, and of which the Work to be performed under the Contract Documents is a part.

33. *Resident Project Representative*—The authorized representative of Engineer assigned to assist Engineer at the Site. As used herein, the term Resident Project Representative (RPR) includes any assistants or field staff of Resident Project Representative.
34. *Samples*—Physical examples of materials, equipment, or workmanship that are representative of some portion of the Work and that establish the standards by which such portion of the Work will be judged.
35. *Schedule of Submittals*—A schedule, prepared and maintained by Contractor, of required submittals and the time requirements for Engineer’s review of the submittals.
36. *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.
37. *Shop Drawings*—All drawings, diagrams, illustrations, schedules, and other data or information that are specifically prepared or assembled by or for Contractor and submitted by Contractor to illustrate some portion of the Work. Shop Drawings, whether approved or not, are not Drawings and are not Contract Documents.
38. *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, and such other lands or areas furnished by Owner which are designated for the use of Contractor.
39. *Specifications*—The part of the Contract that consists of written requirements for materials, equipment, systems, standards, and workmanship as applied to the Work, and certain administrative requirements and procedural matters applicable to the Work.
40. *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.
41. *Submittal*—A written or graphic document, prepared by or for Contractor, which the Contract Documents require Contractor to submit to Engineer, or that is indicated as a Submittal in the Schedule of Submittals accepted by Engineer. Submittals may include Shop Drawings and Samples; schedules; product data; Owner-delegated designs; sustainable design information; information on special procedures; testing plans; results of tests and evaluations, source quality-control testing and inspections, and field or Site quality-control testing and inspections; warranties and certifications; Suppliers’ instructions and reports; records of delivery of spare parts and tools; operations and maintenance data; Project photographic documentation; record documents; and other such documents required by the Contract Documents. Submittals, whether or not approved or accepted by Engineer, are not Contract Documents. Change Proposals, Change Orders, Claims, notices, Applications for Payment, and requests for interpretation or clarification are not Submittals.
42. *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 of such Work.

43. *Successful Bidder*—The Bidder to which the Owner makes an award of contract.
44. *Supplementary Conditions*—The part of the Contract that amends or supplements these General Conditions.
45. *Supplier*—A manufacturer, fabricator, supplier, distributor, 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 a Subcontractor.
46. *Technical Data*
- a. Those items expressly identified as Technical Data in ~~the Supplementary Conditions~~ ***certain Specification sections***, with respect to either (1) existing subsurface conditions at or adjacent to the Site, or existing physical conditions at or adjacent to the Site including existing surface or subsurface structures (except Underground Facilities) or (2) Hazardous Environmental Conditions at the Site.
 - b. If no such express identifications of Technical Data have been made with respect to conditions at the Site, then Technical Data is defined, with respect to conditions at the Site under Paragraphs 5.03, 5.04, and 5.06, as the data contained in boring logs, recorded measurements of subsurface water levels, assessments of the condition of subsurface facilities, laboratory test results, and other factual, objective information regarding conditions at the Site that are set forth in any geotechnical, environmental, or other Site or facilities conditions report prepared for the Project and made available to Contractor.
 - c. Information and data regarding the presence or location of Underground Facilities are not intended to be categorized, identified, or defined as Technical Data, and instead Underground Facilities are shown or indicated on the Drawings.
47. *Underground Facilities*—All active or not-in-service underground lines, pipelines, conduits, ducts, encasements, cables, wires, manholes, vaults, tanks, tunnels, or other such facilities or systems at the Site, including but not limited to those facilities or systems that produce, transmit, distribute, or convey telephone or other communications, cable television, fiber optic transmissions, power, electricity, light, heat, gases, oil, crude oil products, liquid petroleum products, water, steam, waste, wastewater, storm water, other liquids or chemicals, or traffic or other control systems. An abandoned facility or system is not an Underground Facility.
48. *Unit Price Work*—Work to be paid for on the basis of unit prices.
49. *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; furnishing, installing, and incorporating all materials and equipment into such construction; and may include related services such as testing, start-up, and commissioning, all as required by the Contract Documents.
50. *Work Change Directive*—A written directive to Contractor issued on or after the Effective Date of the Contract, signed by Owner and recommended by Engineer, ordering an addition, deletion, or revision in the Work.

1.02 Terminology

- A. The words and terms discussed in Paragraphs 1.02.B, C, D, and E are not defined terms that require initial capital letters, but, when used in the Bidding Requirements or Contract Documents, have the indicated meaning.
- B. *Intent of Certain Terms or Adjectives:* 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 Article 10 or any other provision of the Contract Documents.
- C. *Day:* The word “day” means a calendar day of 24 hours measured from midnight to the next midnight.
- D. *Defective:* The word “defective,” when modifying the word “Work,” refers to Work that is unsatisfactory, faulty, or deficient in that it:
1. does not conform to the Contract Documents;
 2. does not meet the requirements of any applicable inspection, reference standard, test, or approval referred to in the Contract Documents; or
 3. 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 15.03 or Paragraph 15.04).
- E. *Furnish, Install, Perform, Provide*
1. The word “furnish,” when used in connection with services, materials, or equipment, means 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, means 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, means to furnish and install said services, materials, or equipment complete and ready for intended use.
 4. If the Contract Documents establish an obligation of Contractor with respect to specific services, materials, or equipment, but do not expressly use any of the four words “furnish,” “install,” “perform,” or “provide,” then Contractor shall furnish and install said services, materials, or equipment complete and ready for intended use.

- F. *Contract Price or Contract Times*: References to a change in “Contract Price or Contract Times” or “Contract Times or Contract Price” or similar, indicate that such change applies to (1) Contract Price, (2) Contract Times, or (3) both Contract Price and Contract Times, as warranted, even if the term “or both” is not expressed.
- G. 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 Performance and Payment Bonds; Evidence of Insurance*

- A. *Performance and Payment Bonds*: When Contractor delivers the signed counterparts of the Agreement to Owner, Contractor shall also deliver to Owner the performance bond and payment bond (if the Contract requires Contractor to furnish such bonds).
- B. *Evidence of Contractor’s Insurance*: When Contractor delivers the signed counterparts of the Agreement to Owner, Contractor shall also deliver to Owner, with copies to each additional insured (as identified in the Contract), the certificates, endorsements, and other evidence of insurance required to be provided by Contractor in accordance with Article 6, except to the extent the Supplementary Conditions expressly establish other dates for delivery of specific insurance policies.
- C. *Evidence of Owner’s Insurance*: After receipt of the signed counterparts of the Agreement and all required bonds and insurance documentation, Owner shall promptly deliver to Contractor, with copies to each additional insured (as identified in the Contract), the certificates and other evidence of insurance required to be provided by Owner under Article 6.

2.02 *Copies of Documents*

- A. Owner shall furnish to Contractor ~~four~~ **one** printed ~~copies~~ **copy** of the Contract (including one fully signed counterpart of the Agreement), and one copy in electronic portable document format (PDF), **if requested**. Additional printed copies will be furnished upon request at the cost of reproduction.
- B. Owner shall maintain and safeguard at least one original printed record version of the Contract, including Drawings and Specifications signed and sealed by Engineer and other design professionals. Owner shall make such original printed record version of the Contract available to Contractor for review. Owner may delegate the responsibilities under this provision to Engineer.

2.03 *Before Starting Construction*

- A. *Preliminary Schedules*: Within 10 days after the Effective Date of the Contract (or as otherwise required by the Contract Documents), 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;
 - 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.

2.04 *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 2.03.A, procedures for handling Shop Drawings, Samples, and other Submittals, processing Applications for Payment, electronic or digital transmittals, 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 and receive information, render decisions relative to the Contract, and otherwise act on behalf of each respective party.

2.05 *Acceptance of Schedules*

- A. At least 10 days before submission of the first Application for Payment a conference, attended by Contractor, Engineer, and others as appropriate, will be held to review the schedules submitted in accordance with Paragraph 2.03.A. No progress payment will be made to Contractor until acceptable schedules are submitted to Engineer.
 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 therefor.
 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 the component parts of the Work.
 4. If a schedule is not acceptable, Contractor will have an additional 10 days to revise and resubmit the schedule.

2.06 *Electronic Transmittals*

- A. Except as otherwise stated elsewhere in the Contract, the Owner, Engineer, and Contractor may send, and shall accept, Electronic Documents transmitted by Electronic Means.
- B. If the Contract does not establish protocols for Electronic Means, then Owner, Engineer, and Contractor shall jointly develop such protocols.
- C. Subject to any governing protocols for Electronic Means, when transmitting Electronic Documents by Electronic Means, the transmitting party makes no representations as to long-term compatibility, usability, or readability of the Electronic Documents resulting from the

recipient's use of software application packages, operating systems, or computer hardware differing from those used in the drafting or transmittal of the Electronic Documents.

ARTICLE 3—CONTRACT DOCUMENTS: INTENT, REQUIREMENTS, REUSE

3.01 Intent

- A. The Contract Documents are complementary; what is required by one Contract Document is as binding as if required by all.
- 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.
- C. Unless otherwise stated in the Contract Documents, if there is a discrepancy between the electronic versions of the Contract Documents (including any printed copies derived from such electronic versions) and the printed record version, the printed record version will govern.
- D. The Contract supersedes prior negotiations, representations, and agreements, whether written or oral.
- E. Engineer will issue clarifications and interpretations of the Contract Documents as provided herein.
- F. Any provision or part of the Contract Documents held to be void or unenforceable under any Law or Regulation will be deemed stricken, and all remaining provisions will continue to be valid and binding upon Owner and Contractor, which agree that the Contract Documents will 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.
- G. Nothing in the Contract Documents creates:
 - 1. any contractual relationship between Owner or Engineer and any Subcontractor, Supplier, or other individual or entity performing or furnishing any of the Work, for the benefit of such Subcontractor, Supplier, or other individual or entity; or
 - 2. any obligation on the part of Owner or Engineer to pay or to see to the payment of any money due any such Subcontractor, Supplier, or other individual or entity, except as may otherwise be required by Laws and Regulations.

3.02 Reference Standards

- A. *Standards Specifications, Codes, Laws and Regulations*
 - 1. Reference in the Contract Documents to standard specifications, manuals, reference standards, or codes of any technical society, organization, or association, or to Laws or Regulations, whether such reference be specific or by implication, means the standard specification, manual, reference standard, code, or Laws or Regulations in effect at the time of opening of Bids (or on the Effective Date of the Contract 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, reference standard, or code, and no instruction of a Supplier, will be effective to change the duties or responsibilities of Owner, Contractor, or Engineer from those set forth in the part of the Contract Documents prepared by or for Engineer. No such provision or instruction shall be effective

to assign to Owner or Engineer 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 part of the Contract Documents prepared by or for Engineer.

3.03 *Reporting and Resolving Discrepancies*

A. *Reporting Discrepancies*

1. *Contractor's Verification of Figures and Field Measurements:* Before undertaking each part of the Work, Contractor shall carefully study the Contract Documents, and check and verify pertinent figures and dimensions therein, particularly with respect to applicable field measurements. Contractor shall promptly report in writing to Engineer any conflict, error, ambiguity, or discrepancy that Contractor discovers, or has actual knowledge of, and shall not proceed with any Work affected thereby until the conflict, error, ambiguity, or discrepancy is resolved by a clarification or interpretation by Engineer, or by an amendment or supplement to the Contract issued pursuant to Paragraph 11.01.
2. *Contractor's Review of Contract Documents:* If, before or 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) actual field conditions, (c) any standard specification, manual, reference standard, or code, or (d) 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 7.15) until the conflict, error, ambiguity, or discrepancy is resolved, by a clarification or interpretation by Engineer, or by an amendment or supplement to the Contract issued pursuant to Paragraph 11.01.
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 part of the Contract Documents prepared by or for Engineer take precedence in resolving any conflict, error, ambiguity, or discrepancy between such provisions of the Contract Documents and:
 - a. the provisions of any standard specification, manual, reference standard, or code, or the instruction of any Supplier (whether or not specifically incorporated by reference as a Contract Document); 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 *Requirements of the Contract Documents*

- A. During the performance of the Work and until final payment, Contractor and Owner shall submit to the Engineer in writing all matters in question concerning the requirements of the Contract Documents (sometimes referred to as requests for information or interpretation—RFIs), or relating to the acceptability of the Work under the Contract Documents, as soon as

possible after such matters arise. Engineer will be the initial interpreter of the requirements of the Contract Documents, and judge of the acceptability of the Work.

- B. Engineer will, with reasonable promptness, render a written clarification, interpretation, or decision on the issue submitted, or initiate an amendment or supplement to the Contract Documents. Engineer's written clarification, interpretation, or decision will be final and binding on Contractor, unless it appeals by submitting a Change Proposal, and on Owner, unless it appeals by filing a Claim.
- C. If a submitted matter in question concerns terms and conditions of the Contract Documents that do not involve (1) the performance or acceptability of the Work under the Contract Documents, (2) the design (as set forth in the Drawings, Specifications, or otherwise), or (3) other engineering or technical matters, then Engineer will promptly notify Owner and Contractor in writing that Engineer is unable to provide a decision or interpretation. If Owner and Contractor are unable to agree on resolution of such a matter in question, either party may pursue resolution as provided in Article 12.

3.05 *Reuse of Documents*

- A. Contractor and its Subcontractors and Suppliers 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 versions, or 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; or
 - 2. have or acquire any title or ownership rights in any other Contract Documents, reuse any such Contract Documents for any purpose without Owner's express written consent, or violate any copyrights pertaining to such Contract Documents.
- B. The prohibitions of this Paragraph 3.05 will survive final payment, or termination of the Contract. Nothing herein precludes Contractor from retaining copies of the Contract Documents for record purposes.

ARTICLE 4—COMMENCEMENT AND PROGRESS OF THE WORK

4.01 *Commencement of Contract Times; Notice to Proceed*

- A. The Contract Times will commence to run on the 30th day after the Effective Date of the Contract 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 Contract. In no event will the Contract Times commence to run later than the 60th day after the day of Bid opening or the 30th day after the Effective Date of the Contract, whichever date is earlier.

4.02 *Starting the Work*

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

4.03 *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.

4.04 *Progress Schedule*

- A. Contractor shall adhere to the Progress Schedule established in accordance with Paragraph 2.05 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 2.05) proposed adjustments in the Progress Schedule that will not result in changing the Contract Times.
 - 2. Proposed adjustments in the Progress Schedule that will change the Contract Times must be submitted in accordance with the requirements of Article 11.
- B. Contractor shall carry on the Work and adhere to the Progress Schedule during all disputes or disagreements with Owner. No Work will be delayed or postponed pending resolution of any disputes or disagreements, or during any appeal process, except as permitted by Paragraph 16.04, or as Owner and Contractor may otherwise agree in writing.

4.05 *Delays in Contractor's Progress*

- A. If Owner, Engineer, 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 Contract Price or Contract Times.
- B. Contractor shall not be entitled to an adjustment in Contract Price or Contract Times for delay, disruption, or interference caused by or within the control of Contractor. Delay, disruption, and interference attributable to and within the control of a Subcontractor or Supplier shall be deemed to be within the control of Contractor.
- C. If Contractor's performance or progress is delayed, disrupted, or interfered with by unanticipated causes not the fault of and beyond the control of Owner, Contractor, and those for which they are responsible, then Contractor shall be entitled to an equitable adjustment in Contract Times. Such an adjustment will be Contractor's sole and exclusive remedy for the delays, disruption, and interference described in this paragraph. Causes of delay, disruption, or interference that may give rise to an adjustment in Contract Times under this paragraph include but are not limited to the following:
 - 1. Severe and unavoidable natural catastrophes such as fires, floods, epidemics, and earthquakes;
 - 2. Abnormal weather conditions;
 - 3. Acts or failures to act of third-party utility owners or other third-party entities (other than those third-party utility owners or other third-party entities performing other work at or

adjacent to the Site as arranged by or under contract with Owner, as contemplated in Article 8); and

4. Acts of war or terrorism.
- D. Contractor's entitlement to an adjustment of Contract Times or Contract Price is limited as follows:
1. Contractor's entitlement to an adjustment of the Contract Times is conditioned on the delay, disruption, or interference adversely affecting an activity on the critical path to completion of the Work, as of the time of the delay, disruption, or interference.
 2. Contractor shall not be entitled to an adjustment in Contract Price for any delay, disruption, or interference if such delay is concurrent with a delay, disruption, or interference caused by or within the control of Contractor. Such a concurrent delay by Contractor shall not preclude an adjustment of Contract Times to which Contractor is otherwise entitled.
 3. Adjustments of Contract Times or Contract Price are subject to the provisions of Article 11.
- E. Each Contractor request or Change Proposal seeking an increase in Contract Times or Contract Price must be supplemented by supporting data that sets forth in detail the following:
1. The circumstances that form the basis for the requested adjustment;
 2. The date upon which each cause of delay, disruption, or interference began to affect the progress of the Work;
 3. The date upon which each cause of delay, disruption, or interference ceased to affect the progress of the Work;
 4. The number of days' increase in Contract Times claimed as a consequence of each such cause of delay, disruption, or interference; and
 5. The impact on Contract Price, in accordance with the provisions of Paragraph 11.07.
- Contractor shall also furnish such additional supporting documentation as Owner or Engineer may require including, where appropriate, a revised progress schedule indicating all the activities affected by the delay, disruption, or interference, and an explanation of the effect of the delay, disruption, or interference on the critical path to completion of the Work.
- F. Delays, disruption, and interference to the performance or progress of the Work resulting from the existence of a differing subsurface or physical condition, an Underground Facility that was not shown or indicated by the Contract Documents, or not shown or indicated with reasonable accuracy, and those resulting from Hazardous Environmental Conditions, are governed by Article 5, together with the provisions of Paragraphs 4.05.D and 4.05.E.
- G. Paragraph 8.03 addresses delays, disruption, and interference to the performance or progress of the Work resulting from the performance of certain other work at or adjacent to the Site.

ARTICLE 5—SITE; SUBSURFACE AND PHYSICAL CONDITIONS; HAZARDOUS ENVIRONMENTAL CONDITIONS

5.01 *Availability of Lands*

- A. Owner shall furnish the Site. Owner shall notify Contractor in writing 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.
- 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 permanent improvements are to be made 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.

5.02 *Use of Site and Other Areas*

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

- 1. Contractor shall confine construction equipment, temporary construction facilities, the storage of materials and equipment, and the operations of workers to the Site, adjacent areas that Contractor has arranged to use through construction easements or otherwise, and other adjacent areas permitted by Laws and Regulations, and shall not unreasonably encumber the Site and such other adjacent areas with construction equipment or other materials or equipment. Contractor shall assume full responsibility for (a) damage to the Site; (b) damage to any such other adjacent areas used for Contractor's operations; (c) damage to any other adjacent land or areas, or to improvements, structures, utilities, or similar facilities located at such adjacent lands or areas; and (d) for injuries and losses sustained by the owners or occupants of any such land or areas; provided that such damage or injuries result from the performance of the Work or from other actions or conduct of the Contractor or those for which Contractor is responsible.
- 2. If a damage or injury claim is made by the owner or occupant of any such land or area because of the performance of the Work, or because of other actions or conduct of the Contractor or those for which Contractor is responsible, Contractor shall (a) take immediate corrective or remedial action as required by Paragraph 7.13, or otherwise; (b) promptly attempt to settle the claim as to all parties through negotiations with such owner or occupant, or otherwise resolve the claim by arbitration or other dispute resolution proceeding, or in a court of competent jurisdiction; and (c) to the fullest extent permitted by Laws and Regulations, 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 any such claim, and against all 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 directly or indirectly, in whole or in part by, or based upon, Contractor's performance of the Work, or because of other actions or conduct of the Contractor or those for which Contractor is responsible.

- B. *Removal of Debris During Performance of the Work:* During the progress of the Work the Contractor shall keep the Site and other adjacent areas free from accumulations of waste materials, rubbish, and other debris. Removal and disposal of such waste materials, rubbish, and other debris will 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 and adjacent areas 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 of 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 structures or land to stresses or pressures that will endanger them.

5.03 *Subsurface and Physical Conditions*

- A. *Reports and Drawings:* ~~The Supplementary Conditions~~ **Specification sections may** identify:
 - 1. Those reports of explorations and tests of subsurface conditions at or adjacent to the Site that contain Technical Data;
 - 2. Those drawings of existing physical conditions at or adjacent to the Site, including those drawings depicting existing surface or subsurface structures at or adjacent to the Site (except Underground Facilities), that contain Technical Data; and
 - 3. Technical Data contained in such reports and drawings.
- B. *Underground Facilities:* Underground Facilities are shown or indicated on the Drawings, pursuant to Paragraph 5.05, and not in the drawings referred to in Paragraph 5.03.A. Information and data regarding the presence or location of Underground Facilities are not intended to be categorized, identified, or defined as Technical Data.
- C. *Reliance by Contractor on Technical Data:* Contractor may rely upon the accuracy of the Technical Data expressly identified in ~~the Supplementary Conditions~~ **certain Specification sections** with respect to such reports and drawings, but such reports and drawings are not Contract Documents. If no such express identification has been made, then Contractor may rely upon the accuracy of the Technical Data as defined in Paragraph 1.01.A.46.b.
- D. *Limitations of Other Data and Documents:* Except for such reliance on 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;
 - 2. other data, interpretations, opinions, and information contained in such reports or shown or indicated in such drawings;
 - 3. the contents of other Site-related documents made available to Contractor, such as record drawings from other projects at or adjacent to the Site, or Owner's archival documents concerning the Site; or

4. any Contractor interpretation of or conclusion drawn from any Technical Data or any such other data, interpretations, opinions, or information.

5.04 *Differing Subsurface or Physical Conditions*

- A. *Notice by Contractor:* If Contractor believes that any subsurface or physical condition that is uncovered or revealed at the Site:
1. is of such a nature as to establish that any Technical Data on which Contractor is entitled to rely as provided in Paragraph 5.03 is materially inaccurate;
 2. is of such a nature as to require a change in the Drawings or Specifications;
 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 7.15), notify Owner and Engineer in writing about such condition. Contractor shall not further disturb such condition or perform any Work in connection therewith (except with respect to an emergency) until receipt of a written statement permitting Contractor to do so.

- B. *Engineer's Review:* After receipt of written notice as required by the preceding paragraph, Engineer will promptly review the subsurface or physical condition in question; determine whether it is necessary for Owner to obtain additional exploration or tests with respect to the condition; conclude whether the condition falls within any one or more of the differing site condition categories in Paragraph 5.04.A; obtain any pertinent cost or schedule information from Contractor; prepare recommendations to Owner regarding the Contractor's resumption of Work in connection with the subsurface or physical condition in question and the need for any change in the Drawings or Specifications; and advise Owner in writing of Engineer's findings, conclusions, and recommendations.
- C. *Owner's Statement to Contractor Regarding Site Condition:* After receipt of Engineer's written findings, conclusions, and recommendations, Owner shall issue a written statement to Contractor (with a copy to Engineer) regarding the subsurface or physical condition in question, addressing the resumption of Work in connection with such condition, indicating whether any change in the Drawings or Specifications will be made, and adopting or rejecting Engineer's written findings, conclusions, and recommendations, in whole or in part.
- D. *Early Resumption of Work:* If at any time Engineer determines that Work in connection with the subsurface or physical condition in question may resume prior to completion of Engineer's review or Owner's issuance of its statement to Contractor, because the condition in question has been adequately documented, and analyzed on a preliminary basis, then the Engineer may at its discretion instruct Contractor to resume such Work.
- E. *Possible Price and Times Adjustments*
1. Contractor shall be entitled to an equitable adjustment in Contract Price or Contract Times, to the extent that the existence of a differing subsurface or physical condition, or any related delay, disruption, or interference, 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 fall within any one or more of the categories described in Paragraph 5.04.A;
 - 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 Paragraph 13.03; and,
 - c. Contractor's entitlement to an adjustment of the Contract Times is subject to the provisions of Paragraphs 4.05.D and 4.05.E.
2. Contractor shall not be entitled to any adjustment in the Contract Price or Contract Times with respect to a subsurface or physical condition if:
- a. Contractor knew of the existence of such condition at the time Contractor made a 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 otherwise;
 - b. The existence of such condition reasonably could have been discovered or revealed as a result of any examination, investigation, exploration, test, or study of the Site and contiguous areas expressly required by the Bidding Requirements or Contract Documents to be conducted by or for Contractor prior to Contractor's making such commitment; or
 - c. Contractor failed to give the written notice required by Paragraph 5.04.A.
3. If Owner and Contractor agree regarding Contractor's entitlement to and the amount or extent of any adjustment in the Contract Price or Contract Times, then any such adjustment will be set forth in a Change Order.
4. Contractor may submit a Change Proposal regarding its entitlement to or the amount or extent of any adjustment in the Contract Price or Contract Times, no later than 30 days after Owner's issuance of the Owner's written statement to Contractor regarding the subsurface or physical condition in question.
- F. *Underground Facilities; Hazardous Environmental Conditions:* Paragraph 5.05 governs rights and responsibilities regarding the presence or location of Underground Facilities. Paragraph 5.06 governs rights and responsibilities regarding Hazardous Environmental Conditions. The provisions of Paragraphs 5.03 and 5.04 are not applicable to the presence or location of Underground Facilities, or to Hazardous Environmental Conditions.

5.05 *Underground Facilities*

- A. *Contractor's Responsibilities:* Unless it is otherwise expressly provided in the ~~Supplementary Conditions~~ ***Specifications***, the cost of all of the following is included in the Contract Price, and Contractor shall have full responsibility for:
1. reviewing and checking all information and data regarding existing Underground Facilities at the Site;
 2. complying with applicable state and local utility damage prevention Laws and Regulations;

3. verifying the actual location of those Underground Facilities shown or indicated in the Contract Documents as being within the area affected by the Work, by exposing such Underground Facilities during the course of construction;
 4. coordination of the Work with the owners (including Owner) of such Underground Facilities, during construction; and
 5. the safety and protection of all existing Underground Facilities at the Site, and repairing any damage thereto resulting from the Work.
- B. *Notice by Contractor:* If Contractor believes that an Underground Facility that is uncovered or revealed at the Site was not shown or indicated on the Drawings, or was not shown or indicated on the Drawings with reasonable accuracy, then 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 7.15), notify Owner and Engineer in writing regarding such Underground Facility.
- C. *Engineer's Review:* Engineer will:
1. promptly review the Underground Facility and conclude whether such Underground Facility was not shown or indicated on the Drawings, or was not shown or indicated with reasonable accuracy;
 2. identify and communicate with the owner of the Underground Facility; prepare recommendations to Owner (and if necessary issue any preliminary instructions to Contractor) regarding the Contractor's resumption of Work in connection with the Underground Facility in question;
 3. obtain any pertinent cost or schedule information from Contractor; determine the extent, if any, to which a change is required in the Drawings or Specifications to reflect and document the consequences of the existence or location of the Underground Facility; and
 4. advise Owner in writing of Engineer's findings, conclusions, and recommendations.
- During such time, Contractor shall be responsible for the safety and protection of such Underground Facility.
- D. *Owner's Statement to Contractor Regarding Underground Facility:* After receipt of Engineer's written findings, conclusions, and recommendations, Owner shall issue a written statement to Contractor (with a copy to Engineer) regarding the Underground Facility in question addressing the resumption of Work in connection with such Underground Facility, indicating whether any change in the Drawings or Specifications will be made, and adopting or rejecting Engineer's written findings, conclusions, and recommendations in whole or in part.
- E. *Early Resumption of Work:* If at any time Engineer determines that Work in connection with the Underground Facility may resume prior to completion of Engineer's review or Owner's issuance of its statement to Contractor, because the Underground Facility in question and conditions affected by its presence have been adequately documented, and analyzed on a preliminary basis, then the Engineer may at its discretion instruct Contractor to resume such Work.
- F. *Possible Price and Times Adjustments*
1. Contractor shall be entitled to an equitable adjustment in the Contract Price or Contract Times, to the extent that any existing Underground Facility at the Site that was not shown

or indicated on the Drawings, or was not shown or indicated with reasonable accuracy, or any related delay, disruption, or interference, causes an increase or decrease in Contractor's cost of, or time required for, performance of the Work; subject, however, to the following:

- a. 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 Paragraph 13.03;
 - b. Contractor's entitlement to an adjustment of the Contract Times is subject to the provisions of Paragraphs 4.05.D and 4.05.E; and
 - c. Contractor gave the notice required in Paragraph 5.05.B.
2. If Owner and Contractor agree regarding Contractor's entitlement to and the amount or extent of any adjustment in the Contract Price or Contract Times, then any such adjustment will be set forth in a Change Order.
 3. Contractor may submit a Change Proposal regarding its entitlement to or the amount or extent of any adjustment in the Contract Price or Contract Times, no later than 30 days after Owner's issuance of the Owner's written statement to Contractor regarding the Underground Facility in question.
 4. The information and data shown or indicated on the Drawings with respect to existing Underground Facilities at the Site is based on information and data (a) furnished by the owners of such Underground Facilities, or by others, (b) obtained from available records, or (c) gathered in an investigation conducted in accordance with the current edition of ASCE 38, Standard Guideline for the Collection and Depiction of Existing Subsurface Utility Data, by the American Society of Civil Engineers. If such information or data is incorrect or incomplete, Contractor's remedies are limited to those set forth in this Paragraph 5.05.F.

5.06 *Hazardous Environmental Conditions at Site*

- A. *Reports and Drawings:* ~~The Supplementary Conditions~~ ***Specification sections*** may identify:
 1. those reports known to Owner relating to Hazardous Environmental Conditions that have been identified at or adjacent to the Site;
 2. drawings known to Owner relating to Hazardous Environmental Conditions that have been identified at or adjacent to the Site; and
 3. Technical Data contained in such reports and drawings.
- B. *Reliance by Contractor on Technical Data Authorized:* Contractor may rely upon the accuracy of the Technical Data expressly identified in the ~~Supplementary Conditions~~ ***Specification sections*** with respect to such reports and drawings, but such reports and drawings are not Contract Documents. If no such express identification has been made, then Contractor may rely on the accuracy of the Technical Data as defined in Paragraph 1.01.A.46.b. Except for such reliance on 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;
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 removing or remediating any Hazardous Environmental Condition encountered, uncovered, or revealed at the Site unless such removal or remediation is expressly identified in the Contract Documents to be within the scope of the Work.
- D. Contractor shall be responsible for controlling, containing, and duly removing all Constituents of Concern brought to the Site by Contractor, Subcontractors, Suppliers, or anyone else for whom Contractor is responsible, and for any associated costs; and for the costs of removing and remediating any Hazardous Environmental Condition created by the presence of any such Constituents of Concern.
- E. If Contractor encounters, uncovers, or reveals a Hazardous Environmental Condition whose removal or remediation is not expressly identified in the Contract Documents as being within the scope of the Work, or if Contractor or anyone for whom Contractor is responsible creates a Hazardous Environmental Condition, then Contractor shall immediately: (1) secure or otherwise isolate such condition; (2) stop all Work in connection with such condition and in any area affected thereby (except in an emergency as required by Paragraph 7.15); and (3) 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 5.06.F. If Contractor or anyone for whom Contractor is responsible created the Hazardous Environmental Condition in question, then Owner may remove and remediate the Hazardous Environmental Condition, and impose a set-off against payments to account for the associated costs.
- F. Contractor shall not resume Work in connection with such Hazardous Environmental Condition or in any affected area until after Owner has obtained any required permits related thereto, and delivered written notice to Contractor either (1) specifying that such condition and any affected area is or has been rendered safe for the resumption of Work, or (2) specifying any special conditions under which such Work may be resumed safely.
- G. 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, as a result of such Work stoppage, such special conditions under which Work is agreed to be resumed by Contractor, or any costs or expenses incurred in response to the Hazardous Environmental Condition, then within 30 days of Owner's written notice regarding the resumption of Work, Contractor may submit a Change Proposal, or Owner may impose a set-off. Entitlement to any such adjustment is subject to the provisions of Paragraphs 4.05.D, 4.05.E, 11.07, and 11.08.
- H. 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, following the contractual change procedures in Article 11. Owner may have such deleted portion of the Work performed by Owner's own forces or others in accordance with Article 8.

- I. 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, arbitration, or other dispute resolution costs) arising out of or relating to a Hazardous Environmental Condition, provided that such Hazardous Environmental Condition (1) was not shown or indicated in the Drawings, Specifications, or other Contract Documents, identified as Technical Data entitled to limited reliance pursuant to Paragraph 5.06.B, or identified in the Contract Documents to be included within the scope of the Work, and (2) was not created by Contractor or by anyone for whom Contractor is responsible. Nothing in this Paragraph 5.06.I obligates Owner to indemnify any individual or entity from and against the consequences of that individual's or entity's own negligence.
- J. 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 failure to control, contain, or remove a Constituent of Concern brought to the Site by Contractor or by anyone for whom Contractor is responsible, or to a Hazardous Environmental Condition created by Contractor or by anyone for whom Contractor is responsible. Nothing in this Paragraph 5.06.J obligates Contractor to indemnify any individual or entity from and against the consequences of that individual's or entity's own negligence.
- K. The provisions of Paragraphs 5.03, 5.04, and 5.05 do not apply to the presence of Constituents of Concern or to a Hazardous Environmental Condition uncovered or revealed at the Site.

ARTICLE 6—BONDS AND INSURANCE

6.01 *Performance, Payment, and Other Bonds*

- A. Contractor shall furnish a performance bond and a payment bond, each in an amount at least equal to the Contract Price, as security for the faithful performance and payment of Contractor's obligations under the Contract. These bonds must remain in effect until one year after the date when final payment becomes due or until completion of the correction period specified in Paragraph 15.08, whichever is later, except as provided otherwise by Laws or Regulations, the terms of a prescribed bond form, ~~the Supplementary Conditions~~, or other provisions of the Contract.
- B. Contractor shall also furnish such other bonds (if any) as are required by ~~the Supplementary Conditions~~ or other provisions of the Contract.
- C. All bonds must be in the form included in the Bidding Documents or otherwise specified by Owner prior to execution of the Contract, except as provided otherwise by Laws or

Regulations, and must be issued and signed by a surety named in "Companies Holding Certificates of Authority as Acceptable Sureties on Federal Bonds and as Acceptable Reinsuring Companies" as published in Department Circular 570 (as amended and supplemented) by the Bureau of the Fiscal Service, U.S. Department of the Treasury. A bond 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 must show that it is effective on the date the agent or attorney-in-fact signed the accompanying bond.

- D. Contractor shall obtain the required bonds from surety companies that are duly licensed or authorized, in the state or jurisdiction in which the Project is located, to issue bonds in the required amounts.
- E. If the surety on a bond furnished by Contractor is declared bankrupt or becomes insolvent, or the surety ceases to meet the requirements above, then Contractor shall promptly notify Owner and Engineer in writing and shall, within 20 days after the event giving rise to such notification, provide another bond and surety, both of which must comply with the bond and surety requirements above.
- F. If Contractor has failed to obtain a required bond, Owner may exclude the Contractor from the Site and exercise Owner's termination rights under Article 16.
- G. Upon request to Owner from any Subcontractor, Supplier, or other person or entity claiming to have furnished labor, services, materials, or equipment used in the performance of the Work, Owner shall provide a copy of the payment bond to such person or entity.
- H. Upon request to Contractor from any Subcontractor, Supplier, or other person or entity claiming to have furnished labor, services, materials, or equipment used in the performance of the Work, Contractor shall provide a copy of the payment bond to such person or entity.

6.02 *Insurance—General Provisions*

- A. Owner and Contractor shall obtain and maintain insurance as required in this article and in the Supplementary Conditions.
- B. All insurance required by the Contract to be purchased and maintained by Owner or Contractor shall be obtained from insurance companies that are duly licensed or authorized in the state or jurisdiction in which the Project is located to issue insurance policies for the required limits and coverages. Unless a different standard is indicated in the Supplementary Conditions, all companies that provide insurance policies required under this Contract shall have an A.M. Best rating of A-VII or better.
- C. Alternative forms of insurance coverage, including but not limited to self-insurance and "Occupational Accident and Excess Employer's Indemnity Policies," are not sufficient to meet the insurance requirements of this Contract, unless expressly allowed in the Supplementary Conditions.
- D. Contractor shall deliver to Owner, with copies to each additional insured identified in the Contract, certificates of insurance and endorsements establishing that Contractor has obtained and is maintaining the policies and coverages required by the Contract. Upon request by Owner or any other insured, Contractor shall also furnish other evidence of such required insurance, including but not limited to copies of policies, documentation of applicable self-insured retentions (if allowed) and deductibles, full disclosure of all relevant exclusions, and evidence of insurance required to be purchased and maintained by

Subcontractors or Suppliers. In any documentation furnished under this provision, Contractor, Subcontractors, and Suppliers may block out (redact) (1) any confidential premium or pricing information and (2) any wording specific to a project or jurisdiction other than those applicable to this Contract.

- E. Owner shall deliver to Contractor, with copies to each additional insured identified in the Contract, certificates of insurance and endorsements establishing that Owner has obtained and is maintaining the policies and coverages required of Owner by the Contract (if any). Upon request by Contractor or any other insured, Owner shall also provide other evidence of such required insurance (if any), including but not limited to copies of policies, documentation of applicable self-insured retentions (if allowed) and deductibles, and full disclosure of all relevant exclusions. In any documentation furnished under this provision, Owner may block out (redact) (1) any confidential premium or pricing information and (2) any wording specific to a project or jurisdiction other than those relevant to this Contract.
- F. Failure of Owner or Contractor to demand such certificates or other evidence of the other party's full compliance with these insurance requirements, or failure of Owner or Contractor to identify a deficiency in compliance from the evidence provided, will not be construed as a waiver of the other party's obligation to obtain and maintain such insurance.
- G. In addition to the liability insurance required to be provided by Contractor, the Owner, at Owner's option, may purchase and maintain Owner's own liability insurance. Owner's liability policies, if any, operate separately and independently from policies required to be provided by Contractor, and Contractor cannot rely upon Owner's liability policies for any of Contractor's obligations to the Owner, Engineer, or third parties.
- H. Contractor shall require:
 - 1. Subcontractors to purchase and maintain worker's compensation, commercial general liability, and other insurance that is appropriate for their participation in the Project, and to name as additional insureds Owner and Engineer (and any other individuals or entities identified in the Supplementary Conditions as additional insureds on Contractor's liability policies) on each Subcontractor's commercial general liability insurance policy; and
 - 2. Suppliers to purchase and maintain insurance that is appropriate for their participation in the Project.
- I. If either party does not purchase or maintain the insurance required of such party by the Contract, 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.
- J. If Contractor has failed to obtain and maintain required insurance, Contractor's entitlement to enter or remain at the Site will end immediately, and Owner may impose an appropriate set-off against payment for any associated costs (including but not limited to the cost of purchasing necessary insurance coverage), and exercise Owner's termination rights under Article 16.
- K. Without prejudice to any other right or remedy, if a party has failed to obtain required insurance, the other party may elect (but is in no way obligated) to obtain equivalent insurance to protect such other party's interests at the expense of the party who was required to provide such coverage, and the Contract Price will be adjusted accordingly.

- L. Owner does not represent that insurance coverage and limits established in this Contract necessarily will be adequate to protect Contractor or Contractor's interests. Contractor is responsible for determining whether such coverage and limits are adequate to protect its interests, and for obtaining and maintaining any additional insurance that Contractor deems necessary.
- M. The insurance and insurance limits required herein will not be deemed as a limitation on Contractor's liability, or that of its Subcontractors or Suppliers, under the indemnities granted to Owner and other individuals and entities in the Contract or otherwise.
- N. All the policies of insurance required to be purchased and maintained under this Contract will contain a provision or endorsement that the coverage afforded will not be canceled, or renewal refused, until at least 10 days prior written notice has been given to the purchasing policyholder. Within three days of receipt of any such written notice, the purchasing policyholder shall provide a copy of the notice to each other insured and Engineer.

6.03 *Contractor's Insurance*

- A. *Required Insurance:* Contractor shall purchase and maintain Worker's Compensation, Commercial General Liability, and other insurance pursuant to the specific requirements of the Supplementary Conditions.
- B. *General Provisions:* The policies of insurance required by this Paragraph 6.03 as supplemented must:
 1. include at least the specific coverages required;
 2. be written for not less than the limits provided, or those required by Laws or Regulations, whichever is greater;
 3. remain in effect at least until the Work is complete (as set forth in Paragraph 15.06.D), and longer if expressly required elsewhere in this Contract, and at all times thereafter when Contractor may be correcting, removing, or replacing defective Work as a warranty or correction obligation, or otherwise, or returning to the Site to conduct other tasks arising from the Contract;
 4. apply with respect to the performance of the Work, whether such performance is 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; and
 5. include all necessary endorsements to support the stated requirements.
- C. *Additional Insureds:* The Contractor's commercial general liability, automobile liability, employer's liability, umbrella or excess, ~~pollution liability~~, and unmanned aerial vehicle liability policies, if required by this Contract, must:
 1. include and list as additional insureds Owner and Engineer, and any individuals or entities identified as additional insureds in the Supplementary Conditions;
 2. include coverage for the respective officers, directors, members, partners, employees, and consultants of all such additional insureds;
 3. afford primary coverage to these additional insureds for all claims covered thereby (including as applicable those arising from both ongoing and completed operations);

4. not seek contribution from insurance maintained by the additional insured; and
5. as to commercial general liability insurance, apply to additional insureds with respect to liability caused in whole or in part by Contractor's acts or omissions, or the acts and omissions of those working on Contractor's behalf, in the performance of Contractor's operations.

6.04 *Builder's Risk and Other Property Insurance*

- A. *Builder's Risk*: Unless otherwise provided in the Supplementary Conditions, Contractor shall purchase and maintain builder's risk insurance upon the Work on a completed value basis, in the amount of the Work's full insurable replacement cost (subject to such deductible amounts as may be provided in the Supplementary Conditions or required by Laws and Regulations). The specific requirements applicable to the builder's risk insurance are set forth in the Supplementary Conditions.
- B. *Property Insurance for Facilities of Owner Where Work Will Occur*: Owner is responsible for obtaining and maintaining property insurance covering each existing structure, building, or facility in which any part of the Work will occur, or to which any part of the Work will attach or be adjoined. Such property insurance will be written on a special perils (all-risk) form, on a replacement cost basis, providing coverage consistent with that required for the builder's risk insurance, and will be maintained until the Work is complete, as set forth in Paragraph 15.06.D.
- C. *Property Insurance for Substantially Complete Facilities*: Promptly after Substantial Completion, and before actual occupancy or use of the substantially completed Work, Owner will obtain property insurance for such substantially completed Work, and maintain such property insurance at least until the Work is complete, as set forth in Paragraph 15.06.D. Such property insurance will be written on a special perils (all-risk) form, on a replacement cost basis, and provide coverage consistent with that required for the builder's risk insurance. The builder's risk insurance may terminate upon written confirmation of Owner's procurement of such property insurance.
- D. *Partial Occupancy or Use by Owner*: If Owner will occupy or use a portion or portions of the Work prior to Substantial Completion of all the Work, as provided in Paragraph 15.04, then Owner (directly, if it is the purchaser of the builder's risk policy, or through Contractor) will provide advance notice of such occupancy or use to the builder's risk insurer, and obtain an endorsement consenting to the continuation of coverage prior to commencing such partial occupancy or use.
- E. *Insurance of Other Property; Additional Insurance*: If the express insurance provisions of the Contract do not require or address the insurance of a property item or interest, then the entity or individual owning such property item will be responsible for insuring it. If Contractor elects to obtain other special insurance to be included in or supplement the builder's risk or property insurance policies provided under this Paragraph 6.04, it may do so at Contractor's expense.

6.05 *Property Losses; Subrogation*

- A. The builder's risk insurance policy purchased and maintained in accordance with Paragraph 6.04 (or an installation floater policy if authorized by the Supplementary Conditions), will contain provisions to the effect that in the event of payment of any loss or damage the insurer will have no rights of recovery against any insureds thereunder, or against

Engineer or its consultants, or their officers, directors, members, partners, employees, agents, consultants, or subcontractors.

1. Owner and Contractor waive all rights against each other and the 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, risks, 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 Engineer, its consultants, all individuals or entities identified in the Supplementary Conditions as builder's risk or installation floater insureds, 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.
 2. None of the above waivers extends to the rights that any party making such waiver may have to the proceeds of insurance held by Owner or Contractor as trustee or fiduciary, or otherwise payable under any policy so issued.
- B. Any property insurance policy maintained by Owner covering any loss, damage, or consequential loss to Owner's existing structures, buildings, or facilities in which any part of the Work will occur, or to which any part of the Work will attach or adjoin; to adjacent structures, buildings, or facilities of Owner; or to part or all of the completed or substantially completed Work, during partial occupancy or use pursuant to Paragraph 15.04, after Substantial Completion pursuant to Paragraph 15.03, or after final payment pursuant to Paragraph 15.06, will contain provisions to the effect that in the event of payment of any loss or damage the insurer will have no rights of recovery against any insureds thereunder, or against Contractor, Subcontractors, or Engineer, or the officers, directors, members, partners, employees, agents, consultants, or subcontractors of each and any of them, and that the insured is allowed to waive the insurer's rights of subrogation in a written contract executed prior to the loss, damage, or consequential loss.
1. 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 all losses and damages caused by, arising out of, or resulting from fire or any of the perils, risks, or causes of loss covered by such policies.
- C. The waivers in this Paragraph 6.05 include the waiver of rights 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 insured peril, risk, or cause of loss.
- D. Contractor shall be responsible for assuring that each Subcontract contains provisions whereby the Subcontractor waives all rights against Owner, Contractor, all individuals or entities identified in the Supplementary Conditions as insureds, the Engineer and its consultants, 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 fire or other peril, risk, or cause of loss covered by builder's risk insurance, installation floater, and any other property insurance applicable to the Work.

6.06 *Receipt and Application of Property Insurance Proceeds*

- A. Any insured loss under the builder's risk and other policies of property insurance required by Paragraph 6.04 will be adjusted and settled with the named insured that purchased the policy. Such named insured shall act as fiduciary for the other insureds, and give notice to such other insureds that adjustment and settlement of a claim is in progress. Any other insured may state its position regarding a claim for insured loss in writing within 15 days after notice of such claim.
- B. Proceeds for such insured losses may be made payable by the insurer either jointly to multiple insureds, or to the named insured that purchased the policy in its own right and as fiduciary for other insureds, subject to the requirements of any applicable mortgage clause. A named insured receiving insurance proceeds under the builder's risk and other policies of insurance required by Paragraph 6.04 shall maintain such proceeds in a segregated account, and distribute such proceeds in accordance with such agreement as the parties in interest may reach, or as otherwise required under the dispute resolution provisions of this Contract or applicable Laws and Regulations.
- C. If no other special agreement is reached, Contractor shall repair or replace the damaged Work, using allocated insurance proceeds.

ARTICLE 7—CONTRACTOR'S RESPONSIBILITIES

7.01 *Contractor's Means and Methods of Construction*

- A. Contractor shall be solely responsible for the means, methods, techniques, sequences, and procedures of construction.
- B. If the Contract Documents note, or Contractor determines, that professional engineering or other design services are needed to carry out Contractor's responsibilities for construction means, methods, techniques, sequences, and procedures, or for Site safety, then Contractor shall cause such services to be provided by a properly licensed design professional, at Contractor's expense. Such services are not Owner-delegated professional design services under this Contract, and neither Owner nor Engineer has any responsibility with respect to (1) Contractor's determination of the need for such services, (2) the qualifications or licensing of the design professionals retained or employed by Contractor, (3) the performance of such services, or (4) any errors, omissions, or defects in such services.

7.02 *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.
- B. At all times during the progress of the Work, Contractor shall assign a competent resident superintendent who will not be replaced without written notice to Owner and Engineer except under extraordinary circumstances.

7.03 *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 maintain good discipline and order at the Site.

- B. Contractor shall be fully responsible to Owner and Engineer for all acts and omissions of Contractor's employees; of Suppliers and Subcontractors, and their employees; and of any other individuals or entities performing or furnishing any of the Work, just as Contractor is responsible for Contractor's own acts and omissions.
- C. 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 will be performed during regular working hours, Monday through Friday. Contractor will not perform Work on a Saturday, Sunday, or any legal holiday. Contractor may perform Work outside regular working hours or on Saturdays, Sundays, or legal holidays only with Owner's written consent, which will not be unreasonably withheld.

7.04 *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, whether or not such items are specifically called for in the Contract Documents.
- B. All materials and equipment incorporated into the Work must be new and of good quality, except as otherwise provided in the Contract Documents. All special warranties and guarantees required by the Specifications will 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 must 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.

7.05 *"Or Equals"*

- A. *Contractor's Request; Governing Criteria:* Whenever an item of equipment or material is specified or described in the Contract Documents by using the names of one or more proprietary items or specific Suppliers, the Contract Price has been based upon Contractor furnishing such item as specified. The specification or description of such an item 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 is permitted, Contractor may request that Engineer authorize the use of other items of equipment or material, or items from other proposed Suppliers, under the circumstances described below.
 - 1. If Engineer in its sole discretion determines that an item of equipment or material proposed by Contractor is functionally equal to that named and sufficiently similar so that no change in related Work will be required, Engineer will deem it an "or equal" item. For the purposes of this paragraph, a proposed item of equipment or material will be considered functionally equal to an item so named if:
 - a. in the exercise of reasonable judgment Engineer determines that the proposed item:
 - 1) is at least equal in materials of construction, quality, durability, appearance, strength, and design characteristics;

- 2) 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;
 - 3) has a proven record of performance and availability of responsive service; and
 - 4) is not objectionable to Owner.
- b. Contractor certifies that, if the proposed item is approved and incorporated into the Work:
- 1) there will be no increase in cost to the Owner or increase in Contract Times; and
 - 2) the item will conform substantially to the detailed requirements of the item named in the Contract Documents.
- B. *Contractor's Expense*: Contractor shall provide all data in support of any proposed "or equal" item at Contractor's expense.
- C. *Engineer's Evaluation and Determination*: Engineer will be allowed a reasonable time to evaluate each "or-equal" request. Engineer may require Contractor to furnish additional data about the proposed "or-equal" item. Engineer will be the sole judge of acceptability. No "or-equal" item will be ordered, furnished, installed, or utilized until Engineer's review is complete and Engineer determines that the proposed item is an "or-equal," which will be evidenced by an approved Shop Drawing or other written communication. Engineer will advise Contractor in writing of any negative determination.
- D. *Effect of Engineer's Determination*: Neither approval nor denial of an "or-equal" request will result in any change in Contract Price. The Engineer's denial of an "or-equal" request will be final and binding, and may not be reversed through an appeal under any provision of the Contract.
- E. *Treatment as a Substitution Request*: If Engineer determines that an item of equipment or material proposed by Contractor does not qualify as an "or-equal" item, Contractor may request that Engineer consider the item a proposed substitute pursuant to Paragraph 7.06.

7.06 Substitutes

- A. *Contractor's Request; Governing Criteria*: Unless the specification or description of an item of equipment or material required to be furnished under the Contract Documents contains or is followed by words reading that no substitution is permitted, Contractor may request that Engineer authorize the use of other items of equipment or material under the circumstances described below. To the extent possible such requests must be made before commencement of related construction at the Site.
1. Contractor shall submit sufficient information as provided below to allow Engineer to determine if the item of material or equipment proposed is functionally equivalent to that named and an acceptable substitute therefor. Engineer will not accept requests for review of proposed substitute items of equipment or material from anyone other than Contractor.
 2. The requirements for review by Engineer will be as set forth in Paragraph 7.06.B, as supplemented by the Specifications, and as Engineer may decide is appropriate under the circumstances.

3. Contractor shall make written application to Engineer for review of a proposed substitute item of equipment or material that Contractor seeks to furnish or use. The application:
 - a. will certify that the proposed substitute item will:
 - 1) perform adequately the functions and achieve the results called for by the general design;
 - 2) be similar in substance to the item specified; and
 - 3) be suited to the same use as the item specified.
 - b. will state:
 - 1) the extent, if any, to which the use of the proposed substitute item will necessitate a change in Contract Times;
 - 2) 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
 - 3) whether incorporation or use of the proposed substitute item in connection with the Work is subject to payment of any license fee or royalty.
 - c. will identify:
 - 1) all variations of the proposed substitute item from the item specified; and
 - 2) available engineering, sales, maintenance, repair, and replacement services.
 - d. will contain an itemized estimate of all costs or credits that will result directly or indirectly from use of such substitute item, including but not limited to changes in Contract Price, shared savings, costs of redesign, and claims of other contractors affected by any resulting change.
- B. *Engineer's Evaluation and Determination:* Engineer will be allowed a reasonable time to evaluate each substitute request, and to obtain comments and direction from Owner. Engineer may require Contractor to furnish additional data about the proposed substitute item. Engineer will be the sole judge of acceptability. No substitute will be ordered, furnished, installed, or utilized until Engineer's review is complete and Engineer determines that the proposed item is an acceptable substitute. Engineer's determination will be evidenced by a Field Order or a proposed Change Order accounting for the substitution itself and all related impacts, including changes in Contract Price or Contract Times. Engineer will advise Contractor in writing of any negative determination.
- C. *Special Guarantee:* Owner may require Contractor to furnish at Contractor's expense a special performance guarantee or other surety with respect to any substitute.
- D. *Reimbursement of Engineer's Cost:* Engineer will record Engineer's costs in evaluating a substitute proposed or submitted by Contractor. 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.

- E. *Contractor's Expense:* Contractor shall provide all data in support of any proposed substitute at Contractor's expense.
- F. *Effect of Engineer's Determination:* If Engineer approves the substitution request, Contractor shall execute the proposed Change Order and proceed with the substitution. The Engineer's denial of a substitution request will be final and binding, and may not be reversed through an appeal under any provision of the Contract. Contractor may challenge the scope of reimbursement costs imposed under Paragraph 7.06.D, by timely submittal of a Change Proposal.

7.07 *Concerning Subcontractors and Suppliers*

- A. Contractor may retain Subcontractors and Suppliers for the performance of parts of the Work. Such Subcontractors and Suppliers must be acceptable to Owner. The Contractor's retention of a Subcontractor or Supplier for the performance of parts of the Work will not relieve Contractor's obligation to Owner to perform and complete the Work in accordance with the Contract Documents.
- B. Contractor shall retain specific Subcontractors and Suppliers for the performance of designated parts of the Work if required by the Contract to do so.
- C. Subsequent to the submittal of Contractor's Bid or final negotiation of the terms of the Contract, Owner may not require Contractor to retain any Subcontractor or Supplier to furnish or perform any of the Work against which Contractor has reasonable objection.
- D. Prior to entry into any binding subcontract or purchase order, Contractor shall submit to Owner the identity of the proposed Subcontractor or Supplier (unless Owner has already deemed such proposed Subcontractor or Supplier acceptable during the bidding process or otherwise). Such proposed Subcontractor or Supplier shall be deemed acceptable to Owner unless Owner raises a substantive, reasonable objection within 5 days.
- E. Owner may require the replacement of any Subcontractor or Supplier. Owner also may require Contractor to retain specific replacements; provided, however, that Owner may not require a replacement to which Contractor has a reasonable objection. If Contractor has submitted the identity of certain Subcontractors or Suppliers for acceptance by Owner, and Owner has accepted it (either in writing or by failing to make written objection thereto), then Owner may subsequently revoke the acceptance of any such Subcontractor or Supplier so identified solely on the basis of substantive, reasonable objection after due investigation. Contractor shall submit an acceptable replacement for the rejected Subcontractor or Supplier.
- F. If Owner requires the replacement of any Subcontractor or Supplier retained by Contractor to perform any part of the Work, then Contractor shall be entitled to an adjustment in Contract Price or Contract Times, with respect to the replacement; and Contractor shall initiate a Change Proposal for such adjustment within 30 days of Owner's requirement of replacement.
- G. No acceptance by Owner of any such Subcontractor or Supplier, whether initially or as a replacement, will constitute a waiver of the right of Owner to the completion of the Work in accordance with the Contract Documents.

- H. On a monthly basis, Contractor shall submit to Engineer a complete list of all Subcontractors and Suppliers having a direct contract with Contractor, and of all other Subcontractors and Suppliers known to Contractor at the time of submittal.
- I. Contractor shall be solely responsible for scheduling and coordinating the work of Subcontractors and Suppliers.
- J. The divisions and sections of the Specifications and the identifications of any Drawings do not control Contractor in dividing the Work among Subcontractors or Suppliers, or in delineating the Work to be performed by any specific trade.
- K. All Work performed for Contractor by a Subcontractor or Supplier must be pursuant to an appropriate contractual agreement that specifically binds the Subcontractor or Supplier to the applicable terms and conditions of the Contract for the benefit of Owner and Engineer.
- L. Owner may furnish to any Subcontractor or Supplier, to the extent practicable, information about amounts paid to Contractor for Work performed for Contractor by the Subcontractor or Supplier.
- M. Contractor shall restrict all Subcontractors and Suppliers from communicating with Engineer or Owner, except through Contractor or in case of an emergency, or as otherwise expressly allowed in this Contract.

7.08 *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 an 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 will be disclosed 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.

7.09 *Permits*

- A. Unless otherwise provided in the Contract Documents, Contractor shall obtain and pay for all construction permits, licenses, and certificates of occupancy. 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 the submission of Contractor's Bid (or when Contractor became bound under a negotiated contract). Owner shall pay all charges of utility owners for connections for providing permanent service to the Work.

7.10 *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.

7.11 *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. Neither Owner nor Engineer shall be responsible for monitoring Contractor's compliance with any Laws or Regulations.
- B. If Contractor performs any Work or takes any other action knowing or having reason to know that it is contrary to Laws or Regulations, Contractor shall bear all resulting costs and losses, and 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 such Work or other action. It is not Contractor's responsibility to make certain that the Work described in the Contract Documents is in accordance with Laws and Regulations, but this does not relieve Contractor of its obligations under Paragraph 3.03.
- C. Owner or Contractor may give written notice to the other party of any changes after the submission of Contractor's Bid (or after the date when Contractor became bound under a negotiated contract) in Laws or Regulations having an effect on the cost or time of performance of the Work, including but not limited to changes in Laws or Regulations having an effect on procuring permits and on sales, use, value-added, consumption, and other similar taxes. If Owner and Contractor are unable to agree on entitlement to or on the amount or extent, if any, of any adjustment in Contract Price or Contract Times resulting from such changes, then within 30 days of such written notice Contractor may submit a Change Proposal, or Owner may initiate a Claim.

7.12 *Record Documents*

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

7.13 *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.
- B. Contractor shall designate a qualified and experienced safety representative whose duties and responsibilities are the prevention of Work-related accidents and the maintenance and supervision of safety precautions and programs.
- C. 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, other work in progress, utilities, and Underground Facilities not designated for removal, relocation, or replacement in the course of construction.
- D. All damage, injury, or loss to any property referred to in Paragraph 7.13.C.2 or 7.13.C.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 at its expense (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).
- E. 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.
- F. Contractor shall notify Owner; the owners of adjacent property; the owners of Underground Facilities and other utilities (if the identity of such owners is known to Contractor); and other contractors and utility owners performing work at or adjacent to the Site, in writing, when Contractor knows that prosecution of the Work may affect them, and shall cooperate with them in the protection, removal, relocation, and replacement of their property or work in progress.
- G. Contractor shall comply with the applicable requirements of Owner's safety programs, if any. Any Owner's safety programs that are applicable to the Work ~~are~~ **may be** identified or included in the ~~Supplementary Conditions or~~ Specifications.
- H. 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.

- I. Contractor's duties and responsibilities for safety and protection will continue until all the Work is completed, Engineer has issued a written notice to Owner and Contractor in accordance with Paragraph 15.06.C that the Work is acceptable, and Contractor has left the Site (except as otherwise expressly provided in connection with Substantial Completion).
- J. Contractor's duties and responsibilities for safety and protection will resume whenever Contractor or any Subcontractor or Supplier returns to the Site to fulfill warranty or correction obligations, or to conduct other tasks arising from the Contract Documents.

7.14 *Hazard Communication Programs*

- A. Contractor shall be responsible for coordinating any exchange of safety data sheets (formerly known as 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.

7.15 *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 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 by an emergency, or are required as a result of Contractor's response to an emergency. If Engineer determines that a change in the Contract Documents is required because of an emergency or Contractor's response, a Work Change Directive or Change Order will be issued.

7.16 *Submittals*

A. *Shop Drawing and Sample Requirements*

1. Before submitting a Shop Drawing or Sample, Contractor shall:
 - a. review and coordinate the Shop Drawing or Sample with other Shop Drawings and Samples and with the requirements of the Work and the Contract Documents;
 - b. determine and verify:
 - 1) all field measurements, quantities, dimensions, specified performance and design criteria, installation requirements, materials, catalog numbers, and similar information with respect to the Submittal;
 - 2) the suitability of all materials and equipment offered with respect to the indicated application, fabrication, shipping, handling, storage, assembly, and installation pertaining to the performance of the Work; and
 - 3) all information relative to Contractor's responsibilities for means, methods, techniques, sequences, and procedures of construction, and safety precautions and programs incident thereto;
 - c. confirm that the Submittal is complete with respect to all related data included in the Submittal.
2. Each Shop Drawing or Sample must bear a stamp or specific written certification that Contractor has satisfied Contractor's obligations under the Contract Documents with respect to Contractor's review of that Submittal, and that Contractor approves the Submittal.

3. With each Shop Drawing or Sample, Contractor shall give Engineer specific written notice of any variations that the Submittal may have from the requirements of the Contract Documents. This notice must be set forth in a written communication separate from the Submittal; and, in addition, in the case of a Shop Drawing by a specific notation made on the Shop Drawing itself.
- B. *Submittal Procedures for Shop Drawings and Samples:* Contractor shall label and submit Shop Drawings and Samples to Engineer for review and approval in accordance with the accepted Schedule of Submittals.
1. *Shop Drawings*
 - a. Contractor shall submit the number of copies required in the Specifications.
 - b. Data shown on the Shop Drawings must 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 7.16.C.
 2. *Samples*
 - a. Contractor shall submit the number of Samples required in the Specifications.
 - b. Contractor shall 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 7.16.C.
 3. 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. *Engineer's Review of Shop Drawings and Samples*
1. Engineer will provide timely review of Shop Drawings and Samples in accordance with the accepted Schedule of Submittals. 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, comply with the requirements of 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, or to safety precautions or programs incident thereto.
 3. Engineer's review and approval of a separate item as such will not indicate approval of the assembly in which the item functions.
 4. Engineer's review and approval of a Shop Drawing or Sample will not relieve Contractor from responsibility for any variation from the requirements of the Contract Documents unless Contractor has complied with the requirements of Paragraph 7.16.A.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 will

document any such approved variation from the requirements of the Contract Documents in a Field Order or other appropriate Contract modification.

5. Engineer's review and approval of a Shop Drawing or Sample will not relieve Contractor from responsibility for complying with the requirements of Paragraphs 7.16.A and B.
6. Engineer's review and approval of a Shop Drawing or Sample, or of a variation from the requirements of the Contract Documents, will not, under any circumstances, change the Contract Times or Contract Price, unless such changes are included in a Change Order.
7. Neither Engineer's receipt, review, acceptance, or approval of a Shop Drawing or Sample will result in such item becoming a Contract Document.
8. Contractor shall perform the Work in compliance with the requirements and commitments set forth in approved Shop Drawings and Samples, subject to the provisions of Paragraph 7.16.C.4.

D. Resubmittal Procedures for Shop Drawings and Samples

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.
2. Contractor shall furnish required Shop Drawing and Sample submittals with sufficient information and accuracy to obtain required approval of an item with no more than two resubmittals. Engineer will record Engineer's time for reviewing a third or subsequent resubmittal of a Shop Drawing or Sample, and Contractor shall be responsible for Engineer's charges to Owner for such time. Owner may impose a set-off against payments due Contractor to secure reimbursement for such charges.
3. If Contractor requests a change of a previously approved Shop Drawing or Sample, Contractor shall be responsible for Engineer's charges to Owner for its review time, and Owner may impose a set-off against payments due Contractor to secure reimbursement for such charges, unless the need for such change is beyond the control of Contractor.

E. Submittals Other than Shop Drawings, Samples, and Owner-Delegated Designs

1. The following provisions apply to all Submittals other than Shop Drawings, Samples, and Owner-delegated designs:
 - a. Contractor shall submit all such Submittals to the Engineer in accordance with the Schedule of Submittals and pursuant to the applicable terms of the Contract Documents.
 - b. Engineer will provide timely review of all such Submittals in accordance with the Schedule of Submittals and return such Submittals with a notation of either Accepted or Not Accepted. Any such Submittal that is not returned within the time established in the Schedule of Submittals will be deemed accepted.
 - c. Engineer's review will be only to determine if the Submittal is acceptable under the requirements of the Contract Documents as to general form and content of the Submittal.

- d. If any such Submittal is not accepted, Contractor shall confer with Engineer regarding the reason for the non-acceptance, and resubmit an acceptable document.
 2. Procedures for the submittal and acceptance of the Progress Schedule, the Schedule of Submittals, and the Schedule of Values are set forth in Paragraphs 2.03, 2.04, and 2.05.
- F. Owner-delegated Designs: Submittals pursuant to Owner-delegated designs are governed by the provisions of Paragraph 7.19.

7.17 *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 is entitled to rely on Contractor's warranty and guarantee.
- B. Owner's rights under this warranty and guarantee are in addition to, and are not limited by, Owner's rights under the correction period provisions of Paragraph 15.08. The time in which Owner may enforce its warranty and guarantee rights under this Paragraph 7.17 is limited only by applicable Laws and Regulations restricting actions to enforce such rights; provided, however, that after the end of the correction period under Paragraph 15.08:
 1. Owner shall give Contractor written notice of any defective Work within 60 days of the discovery that such Work is defective; and
 2. Such notice will be deemed the start of an event giving rise to a Claim under Paragraph 12.01.B, such that any related Claim must be brought within 30 days of the notice.
- C. Contractor's warranty and guarantee hereunder excludes defects or damage caused by:
 1. abuse, or improper modification, 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.
- D. Contractor's obligation to perform and complete the Work in accordance with the Contract Documents is absolute. None of the following will constitute an acceptance of Work that is not in accordance with the Contract Documents, a release of Contractor's obligation to perform the Work in accordance with the Contract Documents, or a release of Owner's warranty and guarantee rights under this Paragraph 7.17:
 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;
 6. The issuance of a notice of acceptability by Engineer;
 7. The end of the correction period established in Paragraph 15.08;
 8. Any inspection, test, or approval by others; or

- 9. Any correction of defective Work by Owner.
- E. If the Contract requires the Contractor to accept the assignment of a contract entered into by Owner, then the specific warranties, guarantees, and correction obligations contained in the assigned contract will govern with respect to Contractor's performance obligations to Owner for the Work described in the assigned contract.

7.18 *Indemnification*

- A. To the fullest extent permitted by Laws and Regulations, and in addition to any other obligations of Contractor under the Contract or otherwise, 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 losses, damages, costs, and judgments (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 from third-party claims or actions relating to or resulting from the performance or furnishing of the Work, provided that any such claim, action, loss, cost, judgment or damage is attributable to bodily injury, sickness, disease, or death, or to damage 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 7.18.A will 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.

7.19 *Delegation of Professional Design Services*

- A. Owner may require Contractor to provide professional design services for a portion of the Work by express delegation in the Contract Documents. Such delegation will specify the performance and design criteria that such services must satisfy, and the Submittals that Contractor must furnish to Engineer with respect to the Owner-delegated design.
- B. Contractor shall cause such Owner-delegated professional design services to be provided pursuant to the professional standard of care by a properly licensed design professional, whose signature and seal must appear on all drawings, calculations, specifications, certifications, and Submittals prepared by such design professional. Such design professional must issue all certifications of design required by Laws and Regulations.
- C. If a Shop Drawing or other Submittal related to the Owner-delegated design is prepared by Contractor, a Subcontractor, or others for submittal to Engineer, then such Shop Drawing or other Submittal must bear the written approval of Contractor's design professional when submitted by Contractor to Engineer.

- D. Owner and Engineer shall be entitled to rely upon the adequacy, accuracy, and completeness of the services, certifications, and approvals performed or provided by the design professionals retained or employed by Contractor under an Owner-delegated design, subject to the professional standard of care and the performance and design criteria stated in the Contract Documents.
- E. Pursuant to this Paragraph 7.19, Engineer's review, approval, and other determinations regarding design drawings, calculations, specifications, certifications, and other Submittals furnished by Contractor pursuant to an Owner-delegated design will be only for the following limited purposes:
 - 1. Checking for conformance with the requirements of this Paragraph 7.19;
 - 2. Confirming that Contractor (through its design professionals) has used the performance and design criteria specified in the Contract Documents; and
 - 3. Establishing that the design furnished by Contractor is consistent with the design concept expressed in the Contract Documents.
- F. Contractor shall not be responsible for the adequacy of performance or design criteria specified by Owner or Engineer.
- G. Contractor is not required to provide professional services in violation of applicable Laws and Regulations.

ARTICLE 8—OTHER WORK AT THE SITE

8.01 *Other Work*

- A. In addition to and apart from the Work under the Contract Documents, the Owner may perform other work at or adjacent to the Site. Such other work may be performed by Owner's employees, or through contracts between the Owner and third parties. Owner may also arrange to have third-party utility owners perform work on their utilities and facilities at or adjacent to the Site.
- B. If Owner performs other work at or adjacent to the Site with Owner's employees, or through contracts for such other work, then Owner shall give Contractor written notice thereof prior to starting any such other work. If Owner has advance information regarding the start of any third-party utility work that Owner has arranged to take place at or adjacent to the Site, Owner shall provide such information to Contractor.
- C. Contractor shall afford proper and safe access to the Site to each contractor that performs such other work, each utility owner performing other work, and Owner, if Owner is performing other work with Owner's employees, and provide a reasonable opportunity for the introduction and storage of materials and equipment and the execution of such other work.
- D. 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.

- E. If the proper execution or results of any part of Contractor's Work depends upon work performed by others, 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.
- F. The provisions of this article are not applicable to work that is performed by third-party utilities or other third-party entities without a contract with Owner, or that is performed without having been arranged by Owner. If such work occurs, then any related delay, disruption, or interference incurred by Contractor is governed by the provisions of Paragraph 4.05.C.3.

8.02 *Coordination*

- A. If Owner intends to contract with others for the performance of other work at or adjacent to the Site, to perform other work at or adjacent to the Site with Owner's employees, or to arrange to have utility owners perform work at or adjacent to the Site, the following will be set forth in the ~~Supplementary Conditions~~ **Specifications** or provided to Contractor prior to the start of any such other work:
 - 1. The identity of the individual or entity that will have authority and responsibility for coordination of the activities among the various contractors;
 - 2. An itemization of the specific matters to be covered by such authority and responsibility; and
 - 3. The extent of such authority and responsibilities.
- B. Unless otherwise provided in the ~~Supplementary Conditions~~ **Specifications**, Owner shall have sole authority and responsibility for such coordination.

8.03 *Legal Relationships*

- A. If, in the course of performing other work for Owner at or adjacent to the Site, the Owner's employees, any other contractor working for Owner, or any utility owner that Owner has arranged to perform work, causes damage to the Work or to the property of Contractor or its Subcontractors, or delays, disrupts, interferes with, or increases the scope or cost of the performance of the Work, through actions or inaction, then Contractor shall be entitled to an equitable adjustment in the Contract Price or the Contract Times. Contractor must submit any Change Proposal seeking an equitable adjustment in the Contract Price or the Contract Times under this paragraph within 30 days of the damaging, delaying, disrupting, or interfering event. The entitlement to, and extent of, any such equitable adjustment will take into account information (if any) regarding such other work that was provided to Contractor in the Contract Documents prior to the submittal of the Bid or the final negotiation of the terms of the Contract, and any remedies available to Contractor under Laws or Regulations concerning utility action or inaction. When applicable, any such equitable adjustment in Contract Price will be conditioned on Contractor assigning to Owner all Contractor's rights against such other contractor or utility owner with respect to the damage, delay, disruption, or interference that is the subject of the adjustment. Contractor's entitlement to an adjustment of the Contract Times or Contract Price is subject to the provisions of Paragraphs 4.05.D and 4.05.E.

- B. Contractor shall take reasonable and customary measures to avoid damaging, delaying, disrupting, or interfering with the work of Owner, any other contractor, or any utility owner performing other work at or adjacent to the Site.
1. If Contractor fails to take such measures and as a result damages, delays, disrupts, or interferes with the work of any such other contractor or utility owner, then Owner may impose a set-off against payments due Contractor, and assign to such other contractor or utility owner the Owner's contractual rights against Contractor with respect to the breach of the obligations set forth in this Paragraph 8.03.B.
 2. When Owner is performing other work at or adjacent to the Site with Owner's employees, Contractor shall be liable to Owner for damage to such other work, and for the reasonable direct delay, disruption, and interference costs incurred by Owner as a result of Contractor's failure to take reasonable and customary measures with respect to Owner's other work. In response to such damage, delay, disruption, or interference, Owner may impose a set-off against payments due Contractor.
- C. If Contractor damages, delays, disrupts, or interferes with the work of any other contractor, or any utility owner performing other work at or adjacent to the Site, through Contractor's failure to take reasonable and customary measures to avoid such impacts, or if any claim arising out of Contractor's actions, inactions, or negligence in performance of the Work at or adjacent to the Site is made by any such other contractor or utility owner against Contractor, Owner, or Engineer, then Contractor shall (1) promptly attempt to settle the claim as to all parties through negotiations with such other contractor or utility owner, or otherwise resolve the claim by arbitration or other dispute resolution proceeding or at law, and (2) 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 any such claims, and against all 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 damage, delay, disruption, or interference.

ARTICLE 9—OWNER'S RESPONSIBILITIES

9.01 *Communications to Contractor*

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

9.02 *Replacement of Engineer*

- A. Owner may at its discretion appoint an engineer to replace Engineer, provided Contractor makes no reasonable objection to the replacement engineer. The replacement engineer's status under the Contract Documents will be that of the former Engineer.

9.03 *Furnish Data*

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

9.04 *Pay When Due*

- A. Owner shall make payments to Contractor when they are due as provided in the Agreement.

- 9.05 *Lands and Easements; Reports, Tests, and Drawings*
- A. Owner's duties with respect to providing lands and easements are set forth in Paragraph 5.01.
 - B. Owner's duties with respect to providing engineering surveys to establish reference points are set forth in Paragraph 4.03.
 - C. Article 5 refers to Owner's identifying and making available to Contractor copies of reports of explorations and tests of conditions at the Site, and drawings of physical conditions relating to existing surface or subsurface structures at the Site.
- 9.06 *Insurance*
- A. Owner's responsibilities, if any, with respect to purchasing and maintaining liability and property insurance are set forth in Article 6.
- 9.07 *Change Orders*
- A. Owner's responsibilities with respect to Change Orders are set forth in Article 11.
- 9.08 *Inspections, Tests, and Approvals*
- A. Owner's responsibility with respect to certain inspections, tests, and approvals is set forth in Paragraph 14.02.B.
- 9.09 *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.
- 9.10 *Undisclosed Hazardous Environmental Condition*
- A. Owner's responsibility in respect to an undisclosed Hazardous Environmental Condition is set forth in Paragraph 5.06.
- 9.11 *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 (including obligations under proposed changes in the Work).
- 9.12 *Safety Programs*
- 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.
 - B. Owner shall furnish copies of any applicable Owner safety programs to Contractor.

ARTICLE 10—ENGINEER'S STATUS DURING CONSTRUCTION

10.01 *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.

10.02 *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 10.07. 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.

10.03 *Resident Project Representative*

- A. If Owner and Engineer have agreed that Engineer will furnish a Resident Project Representative to represent Engineer at the Site and assist Engineer in observing the progress and quality of the Work, then the authority and responsibilities of any such Resident Project Representative will be as provided in the ~~Supplementary Conditions~~ **Specifications**, and limitations on the responsibilities thereof will be as provided in the ~~Supplementary Conditions~~ **Specifications** and in Paragraph 10.07.
- B. If Owner designates an individual or entity who is not Engineer's consultant, agent, or employee to represent Owner at the Site, then the responsibilities and authority of such individual or entity will be as provided in the ~~Supplementary Conditions~~ **Specifications**.

10.04 *Engineer's Authority*

- A. Engineer has the authority to reject Work in accordance with Article 14.
- B. Engineer's authority as to Submittals is set forth in Paragraph 7.16.
- C. Engineer's authority as to design drawings, calculations, specifications, certifications and other Submittals from Contractor in response to Owner's delegation (if any) to Contractor of professional design services, is set forth in Paragraph 7.19.
- D. Engineer's authority as to changes in the Work is set forth in Article 11.

E. Engineer's authority as to Applications for Payment is set forth in Article 15.

10.05 *Determinations for Unit Price Work*

A. Engineer will determine the actual quantities and classifications of Unit Price Work performed by Contractor as set forth in Paragraph 13.03.

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

A. Engineer will render decisions regarding the requirements of the Contract Documents, and judge the acceptability of the Work, pursuant to the specific procedures set forth herein for initial interpretations, Change Proposals, and acceptance of the Work. In rendering such decisions and judgments, Engineer will not show partiality to Owner or Contractor, and will not be liable to Owner, Contractor, or others in connection with any proceedings, interpretations, decisions, or judgments conducted or rendered in good faith.

10.07 *Limitations on Engineer's Authority and Responsibilities*

- A. Neither Engineer's authority or responsibility under this Article 10 or under any other provision of the Contract, 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, will 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 Contractor under Paragraph 15.06.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 10.07 also apply to the Resident Project Representative, if any.

10.08 *Compliance with Safety Program*

A. While at the Site, Engineer's employees and representatives will comply with the specific applicable requirements of Owner's and Contractor's safety programs of which Engineer has been informed.

ARTICLE 11—CHANGES TO THE CONTRACT

11.01 *Amending and Supplementing the Contract*

- A. The Contract may be amended or supplemented by a Change Order, a Work Change Directive, or a Field Order.
- B. If an amendment or supplement to the Contract includes a change in the Contract Price or the Contract Times, such amendment or supplement must be set forth in a Change Order.
- C. All changes to the Contract that involve (1) the performance or acceptability of the Work, (2) the design (as set forth in the Drawings, Specifications, or otherwise), or (3) other engineering or technical matters, must be supported by Engineer's recommendation. Owner and Contractor may amend other terms and conditions of the Contract without the recommendation of the Engineer.

11.02 *Change Orders*

- A. Owner and Contractor shall execute appropriate Change Orders covering:
 - 1. Changes in 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;
 - 2. Changes in Contract Price resulting from an Owner set-off, unless Contractor has duly contested such set-off;
 - 3. Changes in the Work which are: (a) ordered by Owner pursuant to Paragraph 11.05, (b) required because of Owner's acceptance of defective Work under Paragraph 14.04 or Owner's correction of defective Work under Paragraph 14.07, or (c) agreed to by the parties, subject to the need for Engineer's recommendation if the change in the Work involves the design (as set forth in the Drawings, Specifications, or otherwise) or other engineering or technical matters; and
 - 4. Changes that embody the substance of any final and binding results under: Paragraph 11.03.B, resolving the impact of a Work Change Directive; Paragraph 11.09, concerning Change Proposals; Article 12, Claims; Paragraph 13.02.D, final adjustments resulting from allowances; Paragraph 13.03.D, final adjustments relating to determination of quantities for Unit Price Work; and similar provisions.
- B. If Owner or Contractor refuses to execute a Change Order that is required to be executed under the terms of Paragraph 11.02.A, it will be deemed to be of full force and effect, as if fully executed.

11.03 *Work Change Directives*

- A. A Work Change Directive will not change the Contract Price or the Contract Times but is evidence that the parties expect that the modification ordered or documented by a Work Change Directive will be incorporated in a subsequently issued Change Order, following negotiations by the parties as to the Work Change Directive's effect, if any, on the Contract Price and Contract Times; or, if negotiations are unsuccessful, by a determination under the terms of the Contract Documents governing adjustments, expressly including Paragraph 11.07 regarding change of Contract Price.

- B. If Owner has issued a Work Change Directive and:
 - 1. Contractor believes that an adjustment in Contract Times or Contract Price is necessary, then Contractor shall submit any Change Proposal seeking such an adjustment no later than 30 days after the completion of the Work set out in the Work Change Directive.
 - 2. Owner believes that an adjustment in Contract Times or Contract Price is necessary, then Owner shall submit any Claim seeking such an adjustment no later than 60 days after issuance of the Work Change Directive.

11.04 *Field Orders*

- A. Engineer may authorize minor changes in the Work if the changes 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. Such changes will be accomplished by a Field Order and will be binding on Owner and also on Contractor, which shall perform the Work involved promptly.
- B. If Contractor believes that a Field Order justifies an adjustment in the Contract Price or Contract Times, then before proceeding with the Work at issue, Contractor shall submit a Change Proposal as provided herein.

11.05 *Owner-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. Changes involving the design (as set forth in the Drawings, Specifications, or otherwise) or other engineering or technical matters will be supported by Engineer's recommendation.
- B. Such changes in the Work may be accomplished by a Change Order, if Owner and Contractor have agreed as to the effect, if any, of the changes on Contract Times or Contract Price; or by a Work Change Directive. Upon receipt of any such document, Contractor shall promptly proceed with the Work involved; or, in the case of a deletion in the Work, promptly cease construction activities with respect to such deleted Work. Added or revised Work must be performed under the applicable conditions of the Contract Documents.
- C. Nothing in this Paragraph 11.05 obligates Contractor to undertake work that Contractor reasonably concludes cannot be performed in a manner consistent with Contractor's safety obligations under the Contract Documents or Laws and Regulations.

11.06 *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, except in the case of an emergency as provided in Paragraph 7.15 or in the case of uncovering Work as provided in Paragraph 14.05.C.2.

11.07 *Change of Contract Price*

- A. The Contract Price may only be changed by a Change Order. Any Change Proposal for an adjustment in the Contract Price must comply with the provisions of Paragraph 11.09. Any Claim for an adjustment of Contract Price must comply with the provisions of Article 12.
- B. 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, then by application of such unit prices to the quantities of the items involved (subject to the provisions of Paragraph 13.03);
 2. Where the Work involved is not covered by unit prices contained in the Contract Documents, then by a mutually agreed lump sum (which may include an allowance for overhead and profit not necessarily in accordance with Paragraph 11.07.C.2); or
 3. Where the Work involved is not covered by unit prices contained in the Contract Documents and the parties do not reach mutual agreement to a lump sum, then on the basis of the Cost of the Work (determined as provided in Paragraph 13.01) plus a Contractor's fee for overhead and profit (determined as provided in Paragraph 11.07.C).
- C. *Contractor's Fee*: When applicable, the Contractor's fee for overhead and profit will 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 13.01.B.1 and 13.01.B.2, the Contractor's fee will be 15 percent;
 - b. For costs incurred under Paragraph 13.01.B.3, the Contractor's fee will be 5 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 11.07.C.2.a and 11.07.C.2.b is that the Contractor's fee will be based on: (1) a fee of 15 percent of the costs incurred under Paragraphs 13.01.B.1 and 13.01.B.2 by the Subcontractor that actually performs the Work, at whatever tier, and (2) with respect to Contractor itself and to any Subcontractors of a tier higher than that of the Subcontractor that actually performs the Work, a fee of 5 percent of the amount (fee plus underlying costs incurred) attributable to the next lower tier Subcontractor; provided, however, that for any such subcontracted Work the maximum total fee to be paid by Owner will be no greater than 27 percent of the costs incurred by the Subcontractor that actually performs the Work;
 - d. No fee will be payable on the basis of costs itemized under Paragraphs 13.01.B.4, 13.01.B.5, and 13.01.C;
 - e. The amount of credit to be allowed by Contractor to Owner for any change which results in a net decrease in Cost of the Work will be the amount of the actual net decrease in Cost of the Work and a deduction of an additional amount equal to 5 percent of such actual net decrease in Cost of the Work; and
 - f. When both additions and credits are involved in any one change or Change Proposal, the adjustment in Contractor's fee will be computed by determining the sum of the costs in each of the cost categories in Paragraph 13.01.B (specifically, payroll costs, Paragraph 13.01.B.1; incorporated materials and equipment costs, Paragraph 13.01.B.2; Subcontract costs, Paragraph 13.01.B.3; special consultants costs, Paragraph 13.01.B.4; and other costs, Paragraph 13.01.B.5) and applying to each such cost category sum the appropriate fee from Paragraphs 11.07.C.2.a through 11.07.C.2.e, inclusive.

11.08 *Change of Contract Times*

- A. The Contract Times may only be changed by a Change Order. Any Change Proposal for an adjustment in the Contract Times must comply with the provisions of Paragraph 11.09. Any Claim for an adjustment in the Contract Times must comply with the provisions of Article 12.
- B. Delay, disruption, and interference in the Work, and any related changes in Contract Times, are addressed in and governed by Paragraph 4.05.

11.09 *Change Proposals*

- A. *Purpose and Content:* Contractor shall submit a Change Proposal to Engineer to request an adjustment in the Contract Times or Contract Price; contest an initial decision by Engineer concerning the requirements of the Contract Documents or relating to the acceptability of the Work under the Contract Documents; challenge a set-off against payment due; or seek other relief under the Contract. The Change Proposal will specify any proposed change in Contract Times or Contract Price, or other proposed relief, and explain the reason for the proposed change, with citations to any governing or applicable provisions of the Contract Documents. Each Change Proposal will address only one issue, or a set of closely related issues.

B. *Change Proposal Procedures*

1. *Submittal:* Contractor shall submit each Change Proposal to Engineer within 30 days after the start of the event giving rise thereto, or after such initial decision.
2. *Supporting Data:* The Contractor shall submit supporting data, including the proposed change in Contract Price or Contract Time (if any), to the Engineer and Owner within 15 days after the submittal of the Change Proposal.
 - a. Change Proposals based on or related to delay, interruption, or interference must comply with the provisions of Paragraphs 4.05.D and 4.05.E.
 - b. Change proposals related to a change of Contract Price must include full and detailed accounts of materials incorporated into the Work and labor and equipment used for the subject Work.

The supporting data must be accompanied by a written statement that the supporting data are accurate and complete, and that any requested time or price adjustment is the entire adjustment to which Contractor believes it is entitled as a result of said event.

3. *Engineer's Initial Review:* Engineer will advise Owner regarding the Change Proposal, and consider any comments or response from Owner regarding the Change Proposal. If in its discretion Engineer concludes that additional supporting data is needed before conducting a full review and making a decision regarding the Change Proposal, then Engineer may request that Contractor submit such additional supporting data by a date specified by Engineer, prior to Engineer beginning its full review of the Change Proposal.
4. *Engineer's Full Review and Action on the Change Proposal:* Upon receipt of Contractor's supporting data (including any additional data requested by Engineer), Engineer will conduct a full review of each Change Proposal and, within 30 days after such receipt of the Contractor's supporting data, either approve the Change Proposal in whole, deny it in whole, or approve it in part and deny it in part. Such actions must be in writing, with a copy provided to Owner and Contractor. If Engineer does not take action on the Change

Proposal within 30 days, then either Owner or Contractor may at any time thereafter submit a letter to the other party indicating that as a result of Engineer's inaction the Change Proposal is deemed denied, thereby commencing the time for appeal of the denial under Article 12.

5. *Binding Decision*: Engineer's decision is final and binding upon Owner and Contractor, unless Owner or Contractor appeals the decision by filing a Claim under Article 12.
- C. *Resolution of Certain Change Proposals*: If the Change Proposal does not involve the design (as set forth in the Drawings, Specifications, or otherwise), the acceptability of the Work, or other engineering or technical matters, then Engineer will notify the parties in writing that the Engineer is unable to resolve the Change Proposal. For purposes of further resolution of such a Change Proposal, such notice will be deemed a denial, and Contractor may choose to seek resolution under the terms of Article 12.
- D. *Post-Completion*: Contractor shall not submit any Change Proposals after Engineer issues a written recommendation of final payment pursuant to Paragraph 15.06.B.

11.10 *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.

ARTICLE 12—CLAIMS

12.01 *Claims*

- A. *Claims Process*: The following disputes between Owner and Contractor are subject to the Claims process set forth in this article:
 1. Appeals by Owner or Contractor of Engineer's decisions regarding Change Proposals;
 2. Owner demands for adjustments in the Contract Price or Contract Times, or other relief under the Contract Documents;
 3. Disputes that Engineer has been unable to address because they do not involve the design (as set forth in the Drawings, Specifications, or otherwise), the acceptability of the Work, or other engineering or technical matters; and
 4. Subject to the waiver provisions of Paragraph 15.07, any dispute arising after Engineer has issued a written recommendation of final payment pursuant to Paragraph 15.06.B.
- B. *Submittal of Claim*: The party submitting a Claim shall deliver it directly to the other party to the Contract promptly (but in no event later than 30 days) after the start of the event giving rise thereto; in the case of appeals regarding Change Proposals within 30 days of the decision under appeal. The party submitting the Claim shall also furnish a copy to the Engineer, for its information only. The responsibility to substantiate a Claim rests with the party making the Claim. In the case of a Claim by Contractor seeking an increase in the Contract Times or Contract Price, Contractor shall certify that the Claim is made in good faith, that the supporting data are accurate and complete, and that to the best of Contractor's knowledge

and belief the amount of time or money requested accurately reflects the full amount to which Contractor is entitled.

- C. *Review and Resolution:* The party receiving a Claim shall review it thoroughly, giving full consideration to its merits. The two parties shall seek to resolve the Claim through the exchange of information and direct negotiations. The parties may extend the time for resolving the Claim by mutual agreement. All actions taken on a Claim will be stated in writing and submitted to the other party, with a copy to Engineer.
- D. *Mediation*
 - 1. At any time after initiation of a Claim, Owner and Contractor may mutually agree to mediation of the underlying dispute. The agreement to mediate will stay the Claim submittal and response process.
 - 2. If Owner and Contractor agree to mediation, then after 60 days from such agreement, either Owner or Contractor may unilaterally terminate the mediation process, and the Claim submittal and decision process will resume as of the date of the termination. If the mediation proceeds but is unsuccessful in resolving the dispute, the Claim submittal and decision process will resume as of the date of the conclusion of the mediation, as determined by the mediator.
 - 3. Owner and Contractor shall each pay one-half of the mediator's fees and costs.
- E. *Partial Approval:* If the party receiving a Claim approves the Claim in part and denies it in part, such action will be final and binding unless within 30 days of such action the other party invokes the procedure set forth in Article 17 for final resolution of disputes.
- F. *Denial of Claim:* If efforts to resolve a Claim are not successful, the party receiving the Claim may deny it by giving written notice of denial to the other party. If the receiving party does not take action on the Claim within 90 days, then either Owner or Contractor may at any time thereafter submit a letter to the other party indicating that as a result of the inaction, the Claim is deemed denied, thereby commencing the time for appeal of the denial. A denial of the Claim will be final and binding unless within 30 days of the denial the other party invokes the procedure set forth in Article 17 for the final resolution of disputes.
- G. *Final and Binding Results:* If the parties reach a mutual agreement regarding a Claim, whether through approval of the Claim, direct negotiations, mediation, or otherwise; or if a Claim is approved in part and denied in part, or denied in full, and such actions become final and binding; then the results of the agreement or action on the Claim will be incorporated in a Change Order or other written document to the extent they affect the Contract, including the Work, the Contract Times, or the Contract Price.

ARTICLE 13—COST OF THE WORK; ALLOWANCES; UNIT PRICE WORK

13.01 *Cost of the Work*

- A. *Purposes for Determination of Cost of the Work:* The term Cost of the Work means the sum of all costs necessary for the proper performance of the Work at issue, as further defined below. The provisions of this Paragraph 13.01 are used for two distinct purposes:
 - 1. To determine Cost of the Work when Cost of the Work is a component of the Contract Price, under cost-plus-fee, time-and-materials, or other cost-based terms; or

2. When needed to determine the value of a Change Order, Change Proposal, Claim, set-off, or other adjustment in Contract Price. When the value of any such adjustment is determined on the basis of Cost of the Work, Contractor is entitled only to those additional or incremental costs required because of the change in the Work or because of the event giving rise to the adjustment.
- B. *Costs Included:* Except as otherwise may be agreed to in writing by Owner, costs included in the Cost of the Work will be in amounts no higher than those commonly incurred in the locality of the Project, will not include any of the costs itemized in Paragraph 13.01.C, and will 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 in advance of the subject Work. Such employees include, without limitation, superintendents, foremen, safety managers, safety representatives, and other personnel employed full time on the Work. Payroll costs for employees not employed full time on the Work will be apportioned on the basis of their time spent on the Work. Payroll costs include, but are not limited to, salaries and wages plus the cost of fringe benefits, which include social security contributions, unemployment, excise, and payroll taxes, workers' compensation, health and retirement benefits, sick leave, and vacation and holiday pay applicable thereto. The expenses of performing Work outside of regular working hours, on Saturday, Sunday, or legal holidays, will 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 accrue to Contractor unless Owner deposits funds with Contractor with which to make payments, in which case the cash discounts will accrue to Owner. All trade discounts, rebates, and refunds and returns from sale of surplus materials and equipment will 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, which 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 will be determined in the same manner as Contractor's Cost of the Work and fee as provided in this Paragraph 13.01.
 4. Costs of special consultants (including but not limited to engineers, architects, testing laboratories, surveyors, attorneys, and accountants) employed or retained for services specifically related to the Work.
 5. Other costs consisting of 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, 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.

- 1) In establishing included costs for materials such as scaffolding, plating, or sheeting, consideration will be given to the actual or the estimated life of the material for use on other projects; or rental rates may be established on the basis of purchase or salvage value of such items, whichever is less. Contractor will not be eligible for compensation for such items in an amount that exceeds the purchase cost of such item.

c. *Construction Equipment Rental*

- 1) Rentals of all construction equipment and machinery, and the parts thereof, in accordance with rental agreements approved by Owner as to price (including any surcharge or special rates applicable to overtime use of the construction equipment or machinery), and the costs of transportation, loading, unloading, assembly, dismantling, and removal thereof. All such costs will be in accordance with the terms of said rental agreements. The rental of any such equipment, machinery, or parts must cease when the use thereof is no longer necessary for the Work.
- 2) Costs for equipment and machinery owned by Contractor or a Contractor-related entity will be paid at a rate shown for such equipment in the equipment rental rate book specified ~~in the Supplementary Conditions~~ **by the Engineer**. An hourly rate will be computed by dividing the monthly rates by 176. These computed rates will include all operating costs.
- 3) With respect to Work that is the result of a Change Order, Change Proposal, Claim, set-off, or other adjustment in Contract Price ("changed Work"), included costs will be based on the time the equipment or machinery is in use on the changed Work and the costs of transportation, loading, unloading, assembly, dismantling, and removal when directly attributable to the changed Work. The cost of any such equipment or machinery, or parts thereof, must cease to accrue when the use thereof is no longer necessary for the changed 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 builder's risk or other property insurance established in accordance with Paragraph 6.04), 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 include settlements made with the written consent and approval of Owner. No such losses, damages, and expenses will 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 communication 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 that Contractor is required by the Contract Documents to purchase and maintain.

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

- 1. Payroll costs and other compensation of Contractor's officers, executives, principals, general 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 13.01.B.1 or specifically covered by Paragraph 13.01.B.4. The payroll costs and other compensation excluded here are to be considered administrative costs covered by the Contractor's fee.
- 2. The cost of purchasing, renting, or furnishing small tools and hand tools.
- 3. Expenses of Contractor's principal and branch offices other than Contractor's office at the Site.
- 4. Any part of Contractor's capital expenses, including interest on Contractor's capital employed for the Work and charges against Contractor for delinquent payments.
- 5. 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.
- 6. Expenses incurred in preparing and advancing Claims.
- 7. Other overhead or general expense costs of any kind and the costs of any item not specifically and expressly included in Paragraph 13.01.B.

D. *Contractor's Fee*

- 1. When the Work as a whole is performed on the basis of cost-plus-a-fee, then:
 - a. Contractor's fee for the Work set forth in the Contract Documents as of the Effective Date of the Contract will be determined as set forth in the Agreement.
 - b. for any Work covered by a Change Order, Change Proposal, Claim, set-off, or other adjustment in Contract Price on the basis of Cost of the Work, Contractor's fee will be determined as follows:
 - 1) When the fee for the Work as a whole is a percentage of the Cost of the Work, the fee will automatically adjust as the Cost of the Work changes.
 - 2) When the fee for the Work as a whole is a fixed fee, the fee for any additions or deletions will be determined in accordance with Paragraph 11.07.C.2.
- 2. When the Work as a whole is performed on the basis of a stipulated sum, or any other basis other than cost-plus-a-fee, then Contractor's fee for any Work covered by a Change

Order, Change Proposal, Claim, set-off, or other adjustment in Contract Price on the basis of Cost of the Work will be determined in accordance with Paragraph 11.07.C.2.

- E. *Documentation and Audit:* Whenever the Cost of the Work for any purpose is to be determined pursuant to this Article 13, Contractor and pertinent Subcontractors will establish and maintain records of the costs in accordance with generally accepted accounting practices. Subject to prior written notice, Owner will be afforded reasonable access, during normal business hours, to all Contractor's accounts, records, books, correspondence, instructions, drawings, receipts, vouchers, memoranda, and similar data relating to the Cost of the Work and Contractor's fee. Contractor shall preserve all such documents for a period of three years after the final payment by Owner. Pertinent Subcontractors will afford such access to Owner, and preserve such documents, to the same extent required of Contractor.

13.02 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:* Contractor agrees that:
 - 1. 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
 - 2. 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 for any of the foregoing will be valid.
- C. *Owner's Contingency Allowance:* Contractor agrees that an Owner's 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 for Work covered by allowances, and the Contract Price will be correspondingly adjusted.

13.03 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. Payments to Contractor for Unit Price Work will be based on actual quantities.
- 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. 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, and the final adjustment of Contract Price will be set forth in a Change Order, subject to the provisions of the following paragraph.

E. *Adjustments in Unit Price*

1. Contractor or Owner shall be entitled to an adjustment in the unit price with respect to an item of Unit Price Work if:
 - a. the quantity of the item of Unit Price Work performed by Contractor differs materially and significantly from the estimated quantity of such item indicated in the Agreement; and
 - b. Contractor's unit costs to perform the item of Unit Price Work have changed materially and significantly as a result of the quantity change.
2. The adjustment in unit price will account for and be coordinated with any related changes in quantities of other items of Work, and in Contractor's costs to perform such other Work, such that the resulting overall change in Contract Price is equitable to Owner and Contractor.
3. Adjusted unit prices will apply to all units of that item.

ARTICLE 14—TESTS AND INSPECTIONS; CORRECTION, REMOVAL, OR ACCEPTANCE OF DEFECTIVE WORK

14.01 *Access to Work*

- A. Owner, Engineer, their consultants and other representatives and personnel of Owner, independent testing laboratories, and authorities having jurisdiction 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 with such procedures and programs as applicable.

14.02 *Tests, Inspections, and Approvals*

- A. Contractor shall give Engineer timely notice of readiness of the Work (or specific parts thereof) for all required inspections and tests, and shall cooperate with inspection and testing personnel to facilitate required inspections and tests.
- B. Owner shall retain and pay for the services of an independent inspector, testing laboratory, or other qualified individual or entity to perform all inspections and tests expressly required by the Contract Documents to be furnished and paid for by Owner, except that costs incurred in connection with tests or inspections of covered Work will be governed by the provisions of Paragraph 14.05.
- 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, obtaining, and paying for all inspections and tests required:
1. by the Contract Documents, unless the Contract Documents expressly allocate responsibility for a specific inspection or test to Owner;
 2. to attain Owner's and Engineer's acceptance of materials or equipment to be incorporated in the Work;
 3. by manufacturers of equipment furnished under the Contract Documents;
 4. for testing, adjusting, and balancing of mechanical, electrical, and other equipment to be incorporated into the Work; and
 5. for acceptance of materials, mix designs, or equipment submitted for approval prior to Contractor's purchase thereof for incorporation in the Work.

Such inspections and tests will be performed by independent inspectors, testing laboratories, or other qualified individuals or entities acceptable to Owner and Engineer.

- E. If the Contract Documents require the Work (or part thereof) to be approved by Owner, Engineer, or another designated individual or entity, then Contractor shall assume full responsibility for arranging and obtaining such approvals.
- F. 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. Such uncovering will be at Contractor's expense unless Contractor had given Engineer timely notice of Contractor's intention to cover the same and Engineer had not acted with reasonable promptness in response to such notice.

14.03 *Defective Work*

- A. *Contractor's Obligation:* It is Contractor's obligation to assure that the Work is not defective.
- B. *Engineer's Authority:* Engineer has the authority to determine whether Work is defective, and to reject defective Work.
- C. *Notice of Defects:* Prompt written notice of all defective Work of which Owner or Engineer has actual knowledge will be given to Contractor.
- D. *Correction, or Removal and Replacement:* Promptly after receipt of written notice of defective Work, Contractor shall correct all such defective Work, whether or not fabricated, installed, or completed, or, if Engineer has rejected the defective Work, remove it from the Project and replace it with Work that is not defective.
- E. *Preservation of Warranties:* When correcting defective Work, Contractor shall take no action that would void or otherwise impair Owner's special warranty and guarantee, if any, on said Work.
- F. *Costs and Damages:* In addition to its correction, removal, and replacement obligations with respect to defective Work, Contractor shall pay all claims, costs, losses, and damages arising out of or relating to defective Work, including but not limited to the cost of the inspection, testing, correction, removal, replacement, or reconstruction of such defective Work, fines levied against Owner by governmental authorities because the Work is defective, and the costs of repair or replacement of work of others resulting from defective Work. Prior to final payment, if Owner and Contractor are unable to agree as to the measure of such claims, costs,

losses, and damages resulting from defective Work, then Owner may impose a reasonable set-off against payments due under Article 15.

14.04 *Acceptance of Defective Work*

- A. If, instead of requiring correction or removal and replacement of defective Work, Owner prefers to accept it, Owner may do so (subject, if such acceptance occurs prior to final payment, to Engineer's confirmation that such acceptance is in general accord with the design intent and applicable engineering principles, and will not endanger public safety). Contractor shall pay all claims, costs, losses, and damages 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. If any such acceptance occurs prior to final payment, the necessary revisions in the Contract Documents with respect to the Work will be incorporated in a Change Order. If the parties are unable to agree as to the decrease in the Contract Price, reflecting the diminished value of Work so accepted, then Owner may impose a reasonable set-off against payments due under Article 15. If the acceptance of defective Work occurs after final payment, Contractor shall pay an appropriate amount to Owner.

14.05 *Uncovering Work*

- A. Engineer has the authority to require additional inspection or testing of the Work, whether or not the Work is fabricated, installed, or completed.
- B. If any Work is covered contrary to the written request of Engineer, then Contractor shall, if requested by Engineer, uncover such Work for Engineer's observation, and then replace the covering, all at Contractor's expense.
- C. If Engineer considers it necessary or advisable that covered Work be observed by Engineer or inspected or tested by others, then 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, and provide all necessary labor, material, and equipment.
 1. If it is found that the uncovered Work is defective, Contractor shall be responsible for all claims, costs, losses, and damages 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 pending Contractor's full discharge of this responsibility the Owner shall be entitled to impose a reasonable set-off against payments due under Article 15.
 2. 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, 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, then Contractor may submit a Change Proposal within 30 days of the determination that the Work is not defective.

14.06 *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, then 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 will 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.

14.07 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 defective Work as required by Engineer, then Owner may, after 7 days' written notice to Contractor, correct or remedy any such deficiency.
- B. In exercising the rights and remedies under this Paragraph 14.07, 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, 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 incurred or sustained by Owner in exercising the rights and remedies under this Paragraph 14.07 will be charged against Contractor as set-offs against payments due under Article 15. 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 14.07.

ARTICLE 15—PAYMENTS TO CONTRACTOR; SET-OFFS; COMPLETION; CORRECTION PERIOD

15.01 Progress Payments

- A. *Basis for Progress Payments:* The Schedule of Values established as provided in Article 2 will serve as the basis for progress payments and will be incorporated into a form of Application for Payment acceptable to Engineer. Progress payments for Unit Price Work will be based on the number of units completed during the pay period, as determined under the provisions of Paragraph 13.03. Progress payments for cost-based Work will be based on Cost of the Work completed by Contractor during the pay period.
- B. *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.
 - 2. 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 must also be accompanied by: (a) a bill of sale, invoice, copies of subcontract or purchase order payments, or other documentation

establishing full payment by Contractor for the materials and equipment; (b) at Owner's request, documentation warranting that Owner has received the materials and equipment free and clear of all Liens; and (c) evidence that the materials and equipment are covered by appropriate property insurance, a warehouse bond, or other arrangements to protect Owner's interest therein, all of which must be satisfactory to Owner.

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

C. *Review of Applications*

1. Engineer will, within 10 days after receipt of each Application for Payment, including each resubmittal, 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 13.03, 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; 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;
 - b. for the means, methods, techniques, sequences, or procedures of construction, or the safety precautions and programs incident thereto;
 - c. for Contractor's failure to comply with Laws and Regulations applicable to Contractor's performance of the Work;
 - d. to make any examination to ascertain how or for what purposes Contractor has used the money paid by Owner; 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 15.01.C.2.
6. Engineer will recommend reductions in payment (set-offs) necessary in Engineer's opinion to protect Owner from loss because:
 - a. the Work is defective, requiring correction or replacement;
 - b. the Contract Price has been reduced by Change Orders;
 - c. Owner has been required to correct defective Work in accordance with Paragraph 14.07, or has accepted defective Work pursuant to Paragraph 14.04;
 - d. Owner has been required to remove or remediate a Hazardous Environmental Condition for which Contractor is responsible; or
 - e. Engineer has actual knowledge of the occurrence of any of the events that would constitute a default by Contractor and therefore justify termination for cause under the Contract Documents.

D. Payment Becomes Due

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

E. Reductions in Payment by Owner

1. In addition to any reductions in payment (set-offs) recommended by Engineer, Owner is entitled to impose a set-off against payment based on any of the following:
 - a. Claims have been made against Owner based on Contractor's conduct in the performance or furnishing of the Work, or Owner has incurred costs, losses, or damages resulting from Contractor's conduct in the performance or furnishing of the Work, including but not limited to claims, costs, losses, or damages from workplace injuries, adjacent property damage, non-compliance with Laws and Regulations, and patent infringement;

- b. Contractor has failed to take reasonable and customary measures to avoid damage, delay, disruption, and interference with other work at or adjacent to the Site;
 - c. Contractor has failed to provide and maintain required bonds or insurance;
 - d. Owner has been required to remove or remediate a Hazardous Environmental Condition for which Contractor is responsible;
 - e. Owner has incurred extra charges or engineering costs related to submittal reviews, evaluations of proposed substitutes, tests and inspections, or return visits to manufacturing or assembly facilities;
 - f. The Work is defective, requiring correction or replacement;
 - g. Owner has been required to correct defective Work in accordance with Paragraph 14.07, or has accepted defective Work pursuant to Paragraph 14.04;
 - h. The Contract Price has been reduced by Change Orders;
 - i. An event has occurred that would constitute a default by Contractor and therefore justify a termination for cause;
 - j. Liquidated or other damages have accrued as a result of Contractor's failure to achieve Milestones, Substantial Completion, or final completion of the Work;
 - k. 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; or
 - l. Other items entitle Owner to a set-off against the amount recommended.
2. If Owner imposes any set-off against payment, whether based on its own knowledge or on the written recommendations of Engineer, Owner will give Contractor immediate written notice (with a copy to Engineer) stating the reasons for such action and the specific amount of the reduction, 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, if Contractor remedies the reasons for such action. The reduction imposed will be binding on Contractor unless it duly submits a Change Proposal contesting the reduction.
 3. Upon a subsequent determination that Owner's refusal of payment was not justified, the amount wrongfully withheld will be treated as an amount due as determined by Paragraph 15.01.D.1 and subject to interest as provided in the Agreement.

15.02 *Contractor's Warranty of Title*

- A. Contractor warrants and guarantees that title to all Work, materials, and equipment furnished under the Contract will pass to Owner free and clear of (1) all Liens and other title defects, and (2) all patent, licensing, copyright, or royalty obligations, no later than 7 days after the time of payment by Owner.

15.03 *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 and request that Engineer issue a certificate of Substantial Completion. Contractor shall at the same time

submit to Owner and Engineer an initial draft of punch list items to be completed or corrected before final payment.

- 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 preliminary certificate of Substantial Completion which will fix the date of Substantial Completion. Engineer shall attach to the certificate a punch list of items to be completed or corrected before final payment. Owner shall have 7 days after receipt of the preliminary certificate during which to make written objection to Engineer as to any provisions of the certificate or attached punch list. If, after considering the objections to the provisions of the preliminary certificate, Engineer concludes that the Work is not substantially complete, Engineer will, within 14 days after submission of the preliminary certificate to Owner, notify Contractor in writing that the Work is not substantially complete, stating the reasons therefor. If Owner does not object to the provisions of the certificate, or if despite consideration of Owner's objections Engineer concludes that the Work is substantially complete, then Engineer will, within said 14 days, execute and deliver to Owner and Contractor a final certificate of Substantial Completion (with a revised punch list of items to be completed or corrected) reflecting such changes from the preliminary certificate as Engineer believes justified after consideration of any objections from Owner.
- D. At the time of receipt of the preliminary certificate of Substantial Completion, Owner and Contractor will confer regarding Owner's use or occupancy of the Work following Substantial Completion, review the builder's risk insurance policy with respect to the end of the builder's risk coverage, and confirm the transition to coverage of the Work under a permanent property insurance policy held by Owner. Unless Owner and Contractor agree otherwise in writing, Owner shall bear responsibility for security, operation, protection of the Work, property insurance, maintenance, heat, and utilities upon Owner's use or occupancy of the Work.
- E. After Substantial Completion the Contractor shall promptly begin work on the punch list of items to be completed or corrected prior to final payment. In appropriate cases Contractor may submit monthly Applications for Payment for completed punch list items, following the progress payment procedures set forth above.
- F. 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 punch list.

15.04 *Partial Use or Occupancy*

- 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. At any time, Owner may request in writing that Contractor permit Owner to use or occupy any such part of the Work that Owner believes to be 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 15.03.A through 15.03.E for that part of the Work.
2. At any time, Contractor may notify Owner and Engineer in writing that Contractor considers any such part of the Work 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 15.03 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 6.04 regarding builder's risk or other property insurance.

15.05 *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, or agreed portion thereof, is incomplete or defective. Contractor shall immediately take such measures as are necessary to complete such Work or remedy such deficiencies.

15.06 *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, annotated record documents (as provided in Paragraph 7.12), and other documents, Contractor may make application for final payment.
2. The final Application for Payment must be accompanied (except as previously delivered) by:
 - a. all documentation called for in the Contract Documents;
 - b. consent of the surety, if any, to final payment;
 - c. satisfactory evidence that all title issues have been resolved such that title to all Work, materials, and equipment has passed to Owner free and clear of any Liens or other title defects, or will so pass upon final payment.

- d. a list of all duly pending Change Proposals and Claims; and
 - e. complete and legally effective releases or waivers (satisfactory to Owner) of all Lien rights arising out of the Work, and of Liens filed in connection with the Work.
3. In lieu of the releases or waivers of Liens specified in Paragraph 15.06.A.2 and as approved by Owner, Contractor may furnish receipts or releases in full and an affidavit of Contractor that: (a) the releases and receipts include all labor, services, material, and equipment for which a Lien could be filed; and (b) 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, or Owner at its option may issue joint checks payable to Contractor and specified Subcontractors and Suppliers.
- B. *Engineer's Review of Final Application and Recommendation of Payment:* 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 have been fulfilled, Engineer will, within 10 days after receipt of the final Application for Payment, indicate in writing Engineer's recommendation of final payment and present the final Application for Payment to Owner for payment. Such recommendation will account for any set-offs against payment that are necessary in Engineer's opinion to protect Owner from loss for the reasons stated above with respect to progress payments. 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. *Notice of Acceptability:* In support of its recommendation of payment of the final Application for Payment, Engineer will also give written notice to Owner and Contractor that the Work is acceptable, subject to stated limitations in the notice and to the provisions of Paragraph 15.07.
- D. *Completion of Work:* The Work is complete (subject to surviving obligations) when it is ready for final payment as established by the Engineer's written recommendation of final payment and issuance of notice of the acceptability of the Work.
- E. *Final Payment Becomes Due:* Upon receipt from Engineer of the final Application for Payment and accompanying documentation, Owner shall set off against the amount recommended by Engineer for final payment any further sum to which Owner is entitled, including but not limited to set-offs for liquidated damages and set-offs allowed under the provisions of this Contract with respect to progress payments. Owner shall pay the resulting balance due to Contractor within 30 days of Owner's receipt of the final Application for Payment from Engineer.

15.07 *Waiver of Claims*

- A. By making final payment, Owner waives its claim or right to liquidated damages or other damages for late completion by Contractor, except as set forth in an outstanding Claim,

appeal under the provisions of Article 17, set-off, or express reservation of rights by Owner. Owner reserves all other claims or rights after final payment.

- B. The acceptance of final payment by Contractor will constitute a waiver by Contractor of all claims and rights against Owner other than those pending matters that have been duly submitted as a Claim, or appealed under the provisions of Article 17.

15.08 *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 ~~Supplementary Conditions~~ **Specifications** or the terms of any applicable special guarantee required by the Contract Documents), Owner gives Contractor written notice that any Work has been found to be defective, or that Contractor's repair of any damages to the Site or adjacent areas has been found to be defective, then after receipt of such notice of defect Contractor shall promptly, without cost to Owner and in accordance with Owner's written instructions:
 - 1. correct the defective repairs to the Site or such adjacent areas;
 - 2. correct such defective Work;
 - 3. remove the defective Work from the Project and replace it with Work that is not defective, if the defective Work has been rejected by Owner, and
 - 4. satisfactorily correct or repair or remove and replace any damage to other Work, to the work of others, or to other land or areas resulting from the corrective measures.
- B. Owner shall give any such notice of defect within 60 days of the discovery that such Work or repairs is defective. If such notice is given within such 60 days but after the end of the correction period, the notice will be deemed a notice of defective Work under Paragraph 7.17.B.
- C. If, after receipt of a notice of defect within 60 days and within the correction period, 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. Contractor shall pay all 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). Contractor's failure to pay such costs, losses, and damages within 10 days of invoice from Owner will be deemed the start of an event giving rise to a Claim under Paragraph 12.01.B, such that any related Claim must be brought within 30 days of the failure to pay.
- D. 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.
- E. Where defective Work (and damage to other Work resulting therefrom) has been corrected or removed and replaced under this paragraph, 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.

- F. Contractor's obligations under this paragraph are in addition to all other obligations and warranties. The provisions of this paragraph are not to be construed as a substitute for, or a waiver of, the provisions of any applicable statute of limitation or repose.

ARTICLE 16—SUSPENSION OF WORK AND TERMINATION

16.01 *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 written notice to Contractor and Engineer. Such notice will fix the date on which Work will be resumed. Contractor shall resume the Work on the date so fixed. Contractor shall be entitled to an adjustment in the Contract Price or an extension of the Contract Times directly attributable to any such suspension. Any Change Proposal seeking such adjustments must be submitted no later than 30 days after the date fixed for resumption of Work.

16.02 *Owner May Terminate for Cause*

- A. The occurrence of any one or more of the following events will constitute a default by Contractor and 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);
 - 2. Failure of Contractor to perform or otherwise to comply with a material term of the Contract Documents;
 - 3. Contractor's disregard of Laws or Regulations of any public body having jurisdiction; or
 - 4. Contractor's repeated disregard of the authority of Owner or Engineer.
- B. If one or more of the events identified in Paragraph 16.02.A occurs, then after giving Contractor (and any surety) 10 days' written notice that Owner is considering a declaration that Contractor is in default and termination of the Contract, Owner may proceed to:
 - 1. declare Contractor to be in default, and give Contractor (and any surety) written notice that the Contract is terminated; and
 - 2. enforce the rights available to Owner under any applicable performance bond.
- C. Subject to the terms and operation of any applicable performance bond, if Owner has terminated the Contract for cause, Owner may exclude Contractor from the Site, take possession of the Work, 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 complete the Work as Owner may deem expedient.
- D. Owner may not proceed with termination of the Contract under Paragraph 16.02.B if Contractor within 7 days of receipt of notice of intent to terminate begins to correct its failure to perform and proceeds diligently to cure such failure.
- E. If Owner proceeds as provided in Paragraph 16.02.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 the cost to complete the Work, including all related claims, costs, losses, and damages (including but not limited to all fees and charges of engineers, architects,

attorneys, and other professionals) sustained by Owner, such excess will be paid to Contractor. If the cost to complete the Work including such related claims, costs, losses, and damages exceeds 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.

- F. 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, or any rights or remedies of Owner against Contractor or any surety under any payment bond or performance bond. Any retention or payment of money due Contractor by Owner will not release Contractor from liability.
- G. If and to the extent that Contractor has provided a performance bond under the provisions of Paragraph 6.01.A, the provisions of that bond will govern over any inconsistent provisions of Paragraphs 16.02.B and 16.02.D.

16.03 *Owner May Terminate for Convenience*

- A. Upon 7 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; and
 - 3. other reasonable expenses directly attributable to termination, including costs incurred to prepare a termination for convenience cost proposal.
- B. Contractor shall not be paid for any loss of anticipated profits or revenue, post-termination overhead costs, or other economic loss arising out of or resulting from such termination.

16.04 *Contractor May Stop Work or Terminate*

- A. If, through no act or fault of Contractor, (1) the Work is suspended for more than 90 consecutive days by Owner or under an order of court or other public authority, or (2) Engineer fails to act on any Application for Payment within 30 days after it is submitted, or (3) Owner fails for 30 days to pay Contractor any sum finally determined to be due, then Contractor may, upon 7 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 16.03.
- 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, 7 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 are not intended to preclude Contractor from submitting a Change Proposal 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 17—FINAL RESOLUTION OF DISPUTES

17.01 *Methods and Procedures*

- A. *Disputes Subject to Final Resolution:* The following disputed matters are subject to final resolution under the provisions of this article:
1. A timely appeal of an approval in part and denial in part of a Claim, or of a denial in full, pursuant to Article 12; and
 2. Disputes between Owner and Contractor concerning the Work, or obligations under the Contract Documents, that arise after final payment has been made.
- B. *Final Resolution of Disputes:* For any dispute subject to resolution under this article, Owner or Contractor may:
1. elect in writing to invoke the dispute resolution process provided for in the ~~Supplementary Conditions~~ **Specifications**;
 2. agree with the other party to submit the dispute to another dispute resolution process; or
 3. if no dispute resolution process is provided for in the ~~Supplementary Conditions~~ **Specifications** or mutually agreed to, give written notice to the other party of the intent to submit the dispute to a court of competent jurisdiction.

ARTICLE 18—MISCELLANEOUS

18.01 *Giving Notice*

- A. Whenever any provision of the Contract requires the giving of written notice to Owner, Engineer, or Contractor, it will be deemed to have been validly given only if delivered:
1. in person, by a commercial courier service or otherwise, to the recipient's place of business;
 2. by registered or certified mail, postage prepaid, to the recipient's place of business; or
 3. by e-mail to the recipient, with the words "Formal Notice" or similar in the e-mail's subject line.

18.02 *Computation of Times*

- A. When any period of time is referred to in the Contract 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.

18.03 *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. 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.

18.04 *Limitation of Damages*

- A. With respect to any and all Change Proposals, Claims, disputes subject to final resolution, and other matters at issue, neither Owner nor Engineer, nor any of their officers, directors, members, partners, employees, agents, consultants, or subcontractors, shall be liable to Contractor for any claims, costs, losses, or damages sustained by Contractor on or in connection with any other project or anticipated project.

18.05 *No Waiver*

- A. A party's non-enforcement of any provision will not constitute a waiver of that provision, nor will it affect the enforceability of that provision or of the remainder of this Contract.

18.06 *Survival of Obligations*

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

18.07 *Controlling Law*

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

18.08 *Assignment of Contract*

- A. Unless expressly agreed to elsewhere in the Contract, no assignment by a party to this Contract of any rights under or interests in the Contract will be binding on the other party without the written consent of the party sought to be bound; and, specifically but without limitation, money that may become due and money that is 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.

18.09 *Successors and Assigns*

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

18.10 *Headings*

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

SPECIAL CONDITIONS

STANDARD SPECIFICATION REFERENCE

Unless otherwise stated, all work on this project shall be governed by the "Standard Specifications for Water and Sewer Main Construction in Illinois," latest edition. Any reference to the specifications of the Illinois Department of Transportation (IDOT) included herein shall mean the latest copy of the Standard Specifications for Road and Bridge Construction prepared by the State of Illinois Department of Transportation. Any work relative to this project not covered by specifications, the special provisions or the plan documents shall be covered by the above-mentioned Standard Specifications.

UTILITIES

The Contractor shall be responsible for notifying all utilities prior to any excavation. Locations of utilities shown on these plans are approximate and shall be verified by the Contractor prior to any excavation with no additional compensation.

INSURANCE

The **minimum** limits of the Contractor's Liability Insurance as indicated in the Standard General Conditions, Article 6.03 – Contractor's Insurance, shall be as follows:

- A. Claims under workers' compensation, disability benefits, and other similar employee benefit acts, the limits should be the Statutory Limits.
- B. Claims for damages because of bodily injury, occupational sickness or disease, or death of Contractor's employees, the **minimum** limits should be \$1,000,000.
- C. Claims for damages because of bodily injury, occupational sickness or disease, or death of any person other than Contractor's employees, the **minimum** limits should be \$1,000,000.
- D. Claims for damages insured by reasonably available personal injury liability coverage which are sustained by any person as a result of an offense directly or indirectly related to the employment of such person by the Contractor or by any other person for any other reason, the **minimum** limits should be \$1,000,000.
- E. 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, the **minimum** limits should be \$1,000,000.
- F. 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, the **minimum** limits should be \$1,000,000.

In addition to the above coverages, the Contractor shall carry an umbrella/Excess Liability policy in the amount of **not less than** \$2,000,000 which should include Employer's Liability Coverage.

The Contractor shall extend insurance to the Owner and Engineer for the liability coverages listed above, by endorsement as **additional primary and non contributory insureds**. A copy of the endorsement which adds the additional insureds to the policy shall also be provided as well as any **Waivers of Subrogation** endorsements for the General Liability and Worker's Compensation policies.

Regarding Commercial General Liability Insurance, Products/Completed Operations Coverage shall be maintained and evidence of continuation provided to the Owner and each other additional insured for **three years** after final payment.

BUILDER'S RISK INSURANCE

- The Contractor will not be required to provide Builder's Risk Insurance for this project. (Standard unless otherwise noted below.)
- ~~Per Article 6.04 Paragraph A of the General Conditions, the **Contractor** shall purchase and maintain Builder's Risk Insurance upon the Work on a completed value basis, in the amount of the full insurable replacement cost thereof. Any deductible will be the responsibility of the Contractor.~~

VENUE OF LAWSUITS

The parties of this Contract agree that if any dispute arising from the pursuit of said Contract requires the filing of a lawsuit, venue of such lawsuit shall be in the Circuit Court of Grundy County, Illinois. This shall include any cause of action arising out of performance or non-performance of anything required under this contract or any injury suffered by or caused by any party, employee, agent, subcontractor or any other person arising out of the work or conduct required to be performed under this contract.

SUBSTANCE ABUSE PREVENTION PROGRAM

Before the Contractor and any subcontractor commences work, the Contractor and any subcontractor shall have in place a written Substance Abuse Prevention Program for the prevention of substance abuse among its employees which meets or exceeds the requirements in Public Act 95-0635 as enacted by the Illinois General Assembly or shall have a collective bargaining agreement in effect dealing with the subject matter of Public Act 95-0635.

The Contractor and any subcontractor shall file with a public body: a copy of the substance abuse prevention program along with a cover letter certifying that their program meets the requirements of the Act, or a letter certifying that the Contractor or a subcontractor has a collective bargaining agreement in effect dealing with the subject matter of this Act.

The apparent low Bidder, upon notification of contract award by the Owner, shall submit the required documents with the executed contract documents and insurance certificates. The

Contractor is responsible for obtaining all appropriate documentation from their subcontractors and submitting to the Engineer.

PREVAILING WAGE RATES

All wages paid by the Contractor and each subcontractor shall be in compliance with the Davis-Bacon Act as defined by the United States Department of Labor. The Contractor shall be responsible to notify each subcontractor of the wage rates set forth in this contract and any revisions thereto. If the Department of Labor revises the wage rates, the revised rate as provided by the public body shall apply to this contract and the Contractor will not be allowed additional compensation on account of said revisions.

The Contractor and each subcontractor shall make and keep, for a period of not less than 3 years, records of all laborers, mechanics, and other workers employed by them on the project; the records shall include each worker's name, address, telephone number when available, social security number, classification or classifications, the hourly wages paid in each period, the number of hours worked each day, and the starting and ending times of work each day.

The Contractor and each subcontractor shall submit monthly, in person, by mail, or electronically, a certified payroll to the public body in charge of the project. The certified payroll shall consist of a complete copy of the records. The certified payroll shall be accompanied by a statement signed by the contractor or subcontractor which avers that:

- (i) such records are true and accurate;
- (ii) the hourly rate paid to each worker is not less than the general prevailing rate of hourly wages required; and
- (iii) the contractor or subcontractor is aware that filing a certified payroll that he or she knows to be false is a Class B misdemeanor.

Upon 2 business days' notice, the Contractor and each subcontractor shall make available for inspection the records to the public body in charge of the project, its officers and agents, and to the Director of Labor and his deputies and agents at all reasonable hours at a location within this State. The Contractor and each subcontractor shall permit his/her employees to be interviewed on the job, during working hours, by compliance investigators of the Department of Labor.

EMPLOYMENT OF ILLINOIS WORKERS ON PUBLIC WORKS

If at the time this Contract is executed, or if during the term of this Contract, there is excessive unemployment in Illinois as defined in the Illinois Workers on Public Works Act, 30 ILCS 570-0.01 *et seq.*, as two consecutive months of unemployment exceeding 5%, the Contractor agrees to employ Illinois laborers. An "Illinois laborer" is defined as any person who has resided in Illinois for at least thirty (30) days and intends to become or remain an Illinois resident.

OCCUPATIONAL SAFETY & HEALTH ADMINISTRATION RULES & REGULATIONS

All work described herein and as shown on the accompanying plan sheets shall comply in all respects to pertinent articles of the current edition of the State and Federal Governments' rules and regulations concerning occupational safety and health standards.

Within Section 1926.652(a), OSHA requires that every jobsite with excavations must have a "Competent Person" present to evaluate the potential for hazards to employees. It shall be the responsibility of the Contractor to provide the required "Competent Person" as defined below.

He must ensure that every trench 5' or more in depth has a protective system. He must ensure that every trench less than 5' undergoes an inspection to determine whether a collapse hazard to employees exists. If a collapse hazard is detected, an appropriate protective system must be used.

A "Competent Person" is defined as one who is capable of identifying existing and predictable hazards in the surroundings, or working conditions which are unsanitary, hazardous or dangerous to employees and who has the authorization to take prompt corrective measures to eliminate them.

"Competent Person" responsibilities:

- Understand the standards and any and all data provided
- Select proper protective system based on soil type
- Recognize and reclassify soil after changing conditions
- Conduct air test for hazard atmospheres
- Design structural ramps
- Locate underground installations/utilities
- Monitor water removal equipment
- Perform inspections prior to work daily
- Inspect after each hazard-increasing event
- Responsible for ensuring OSHA compliance

"General Decision Number: IL20240013 01/12/2024

Superseded General Decision Number: IL20230013

State: Illinois

Construction Types: Heavy and Highway

Counties: Ford, Grundy, Iroquois, Kankakee, La Salle, Livingston, Marshall, McLean, Putnam and Woodford Counties in Illinois.

HEAVY AND HIGHWAY CONSTRUCTION PROJECTS (does not include landscape projects for GRUNDY COUNTY).

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

If the contract is entered into on or after January 30, 2022, or the contract is renewed or extended (e.g., an option is exercised) on or after January 30, 2022:	. Executive Order 14026 generally applies to the contract. . The contractor must pay all covered workers at least \$17.20 per hour (or the applicable wage rate listed on this wage determination, if it is higher) for all hours spent performing on the contract in 2024.
If the contract was awarded on or between January 1, 2015 and January 29, 2022, and the contract is not renewed or extended on or after January 30, 2022:	. Executive Order 13658 generally applies to the contract. . The contractor must pay all covered workers at least \$12.90 per hour (or the applicable wage rate listed on this wage determination, if it is higher) for all hours spent performing on that contract in 2024.

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

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

Modification Number	Publication Date
0	01/05/2024
1	01/12/2024

CARP0174-001 05/01/2022

LASALLE, MARSHALL, and PUTNAM COUNTIES

	Rates	Fringes
CARPENTER.....	\$ 38.00	34.72

CARP0237-010 05/01/2021

WOODFORD COUNTY

	Rates	Fringes
CARPENTER.....	\$ 37.06	31.16
PILEDRIVERMAN.....	\$ 37.06	31.16

CARP0237-016 05/01/2021

LIVINGSTON, McLEAN, AND FORD COUNTIES

	Rates	Fringes
CARPENTER.....	\$ 37.06	31.16
PILEDRIVERMAN.....	\$ 37.06	31.16

CARP0555-013 06/01/2020

GRUNDY COUNTY

	Rates	Fringes
CARPENTER.....	\$ 49.76	35.87

CARP0555-015 05/01/2022

IROQUOIS AND KANKAKEE COUNTIES

	Rates	Fringes
CARPENTER.....	\$ 42.65	38.96

ELEC0009-001 05/28/2023

GRUNDY and KANKAKEE COUNTIES

	Rates	Fringes
Line Construction		
Groundman.....	\$ 46.92	60.91%
Lineman and Equipment		
Operator.....	\$ 60.15	60.91%

ELEC0034-001 06/01/2022

PEORIA DIVISION - MARSHALL (Area West of Bell Plain & Roberts TWPS) AND WOODFORD (Area West of Kansas, Linn, Palestine & Roanoke TWPS) COUNTIES

Rates	Fringes
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ELECTRICIAN.....\$ 39.50 24.28

ELEC0051-001 03/06/2023

FORD, IROQUOIS, LASALLE, LIVINGSTON, MCLEAN, MARSHALL, PUTNAM,
and WOODFORD COUNTIES

Rates Fringes

Line Construction

Groundman/Equipment
Operator (All crawler type
equipment larger than D-4,
15 ton crane or larger).....\$ 52.63 32.5%+7.00
Groundman/Truck Driver.....\$ 39.92 32.5%+7.00
Lineman and Substation
Technician.....\$ 58.58 32.5%+7.00

ELEC0176-001 06/01/2023

Rates Fringes

ELECTRICIAN

Grundy County.....\$ 52.00 45.01
LaSalle County.....\$ 51.60 45.00
Putnam County.....\$ 50.45 44.96

ELEC0176-004 06/01/2023

FORD (Remainder), IROQUOIS (Excluding Artesia, Pegeon Grove,
Loda, Fountain Creek, Lovejoy & Prairie Green TWPS), LA SALLE
(Deer Park, Eden, La Salle, Peru, Utica, & Vermilion) KANKAKEE,
& PUTNAM (Granville, Hennipin & Senachwine TWPS) COUNTIES

Rates Fringes

ELECTRICIAN

Ford, Iroquois, and Putnam
Counties.....\$ 50.45 44.96
Kankakee and LaSalle
Counties.....\$ 51.60 45.00

ELEC0197-002 12/01/2023

MCLEAN (Remainder) and WOODFORD (Palestine, El Paso, & Kansas
TWPS) COUNTIES

Rates Fringes

ELECTRICIAN.....\$ 42.98 23.01

ELEC0538-001 06/01/2023

IROQUOIS COUNTY (Fountain Creek, Lovejoy, and Prairie Green
TWPS)

Rates Fringes

ELECTRICIAN.....\$ 39.09 24.37

FORD (South of Benton TWP), IROQUOIS (Artesia, Pegeon Grove, & Loda TWPS), LA SALLE (Southeastern part), LIVINGSTON, McLEAN (Cropsey, Anchor, Cheney Grove, & Belleflower TWPS), MARSHALL (Roberts, Evans, Bell, Plain, & Bennington TWPS), PUTNAM (Magnolia TWP), and WOODFORD (Linn, Clayton, Minonk, Roanoke, Green, & Panola TWPS) COUNTIES

	Rates	Fringes
ELECTRICIAN.....	\$ 45.56	20.97

* ENGI0150-007 06/01/2022

GRUNDY, KANKAKEE, LA SALLE, LIVINGSTON, AND PUTNAM (East and south of the Illinois River) COUNTIES

	Rates	Fringes
OPERATOR: Power Equipment		
Group 1.....	\$ 53.30	46.00
Group 2.....	\$ 52.75	46.00
Group 3.....	\$ 50.70	46.00
Group 4.....	\$ 49.30	46.00
Group 5.....	\$ 48.10	46.00

POWER EQUIPMENT OPERATOR CLASSIFICATIONS

GROUP 1: Asphalt Plant*; Asphalt Heater and Planer combination; Asphalt Heater Scarfire*; Asphalt Spreader; Autograder; ABG Paver*; Backhoes with Caisson Attachment*; Belt Loader*; Caisson Rigs*; Car Dumper, Central Redi-Mix Plant*; Combination Backhoe Front End Loader Machine (1 cu yd or over Backhoe bucket with attachments); Concrete Breaker (truck mounted)*; Concrete Conveyor; Concrete Paver over 27E cu ft*; Concrete Placer*; Concrete Tube Float; Cranes, all attachments*; Cranes, Hammerhead, Linden, Peco and machines of a like nature*; Creter Crane; Crusher, stone etc.; All Derricks; Derrick Boats; Derricks, traveling*; Dredges*; Field Mechanic Welder; Formless Curb and Gutter Machine; Gradall and machines of a like nature; Grader, Elevating; Grader, Motor Grader, Motor Patrol, Auto Patrol, Form Grader, Pull Grader, Subgrader; Guard Rail Post Driver mounted*; Hoists, one, two, and three Drum; Hydraulic Backhoes; Locomotive, all Mucking Machine; Pile Drivers and Skid Rig*; Pre-Stress Machine; Pump Cretes Dual Ram (Requires frequent lubrication and water)*; Rock/Track Tamper; Rock Drill truck mounted; Roto Mill Grinder, 36" and over*; Roto Mill Grinder, less than 36"; Slip- Form Paver*; Soil Test Drill Rig, truck mounted*; Straddle Buggies; Hydraulic Telescoping Form (tunnel); Tractor Drawn Belt Loader*; Tractor Drawn Belt Loader with attached Pusher (two engines); Tractor with boom; Tractaire with attachments; Raised or Blind Hoe Drill (Tunnel & Shaft)*; Trenching Machine; Truck Mounted Concrete Pump with boom; Underground Boring and/or Mining Machines 5 ft in diameter and over tunnel, etc.*; Underground Boring and/or Mining Machines under 5 ft; Wheel Excavator* & Widener (Apsco)

GROUP 2: Batch Plant; Bituminous Mixer; Boiler and Throttle Valve; Bulldozer; Car Loader Trailing Conveyors; Combination Backhoe Front End Loader Machine, less than 1

cu yd Backhoe Bucket with attachments; Compressor and Throttle Valve; Compressor, common receiver (3); Concrete Breaker or Hydro Hammer; Concrete Grinding Machine; Concrete Mixer or Paver 7S series to and including 27 cu ft; Concrete Spreader; Concrete Curing Machine, Burlap Machine; Belting Machine and Sealing Machine; Concrete Wheel Saw; Conveyor Muck Cars (Haglund or similar type); all Drills; Finishing Machine-Concrete; Greaser Engineer; Highlift Shovels or Front End Loader; Hoist-Sewer Dragging Machine; Hydraulic Boom Trucks, all attachments; Hydro-Blaster requires two operators (one Group 4); Hydraulic Boom Trucks (All attachments); Locomotives, Dinky; Off-Road Hauling Units (including articulating); Laser Screed; Pump Cretes, Squeeze Cretes-Screw Type pumps, Gypsum Bulker and Pump; Rock Drill-Crawler or Skid*; Rock Drill-Truck Mounted*; Roller Asphalt; Rotary Snow Plows; Rototiller, Seaman, etc. self-propelled; Scoops-Tractor Drawn; Self-propelled Compactor; Spreader-Chip-Stone etc; Scraper; Scraper-Prime Mover in Tandem regardless of size (add \$1.00 to to Group 2 hourly rate for each hour and for each machine attached thereto); Tank Car Heater; Tractors, Push, pulling Sheeps Foot, Disc, Compactor, etc; Tug Boats

GROUP 3: Boilers; Brooms, all power propelled; Cement Supply Tender; Compressor, Common Receiver (2); Concrete Mixer, two bag and over; Conveyor, Portable; Farm type Tractors used for mowing, seeding, etc; Fireman on Boilers; Forklift Trucks; Grouting Machines; Hoists, Automatic; Hoists, all Elevators; Hoists, Tugger single Drum; Jeep Diggers; Low Boys; Pipe Jacking Machines; Post-Hole Digger; Power Saw, Concrete, Power Driven; Pug Mills; Rollers, other than asphalt; Seed and Straw Blower; Steam Generators; Stump Machine; Winch Trucks with A-Frame; Work Boats; Tamper-Form motor driven

GROUP 4: Air compressor - Small 250 and under (1 to 5 not to exceed a total of 300 ft); Air Compressor - Large over 250; Combination - Small Equipment Operator; Generators - Small 50 kw and under; Generators - Large, over 50 kw; Heaters, Mechanical; Hydraulic power unit (Pile Driving, Extracting or Drilling); Hydro-Blaster requires two operators (one Group 2); Light Plants All (1 to 5); Pumps, over 3" (1 to 3, not to exceed a total of 300 ft); Tractaire; Welding Machines (2 through 5); Winches, 4 small electric drill winches

GROUP 5: Bobcats (All); Brick Forklifts; Directional Boring Machine Locator; Oilers

*Equipment requires an Oiler

 ENGI0649-004 04/01/2023

McLEAN, MARSHALL, PUTNAM (West of the Illinois River), and WOODFORD COUNTIES

	Rates	Fringes
OPERATOR: Power Equipment		
Group 1.....	\$ 45.13	39.35+A
Group 2.....	\$ 41.71	39.35+A
Group 3.....	\$ 36.09	39.35+A

POWER EQUIPMENT OPERATOR CLASSIFICATIONS

GROUP 1: Cranes: Overhead Cranes; Hydro Crane; Shovels; Crane type Backfiller; Tower Cranes-Mobile, Crawler, Stationary; Derricks, Hoist (3 drum); Draglines; Drott Yumbo & similar types considered as Cranes; 360 Degrees Swing Excavator, Backhoe; Derrick Boats; Pile Driver and Skid Rigs; Clam Shell; Locomotive Cranes; Road Pavers (Single Drum, Dual Drum, Tri Batchter); Motor Patrol & Power Blades (Dunmore, Elevating & similar types); Mechanics; Central Concrete Mixing Plant Operator; Asphalt Batch Plant Operator and Plant Engineer; Gradall; Caisson Rigs; Skimmer Scoop, Koehring Scooper; Dredges (all types); Hoptoe; All Cherry Pickers; Work Boat; Ross Carrier; Helicopter; Dozer; Tournadozer; Tournapulls (all & similar types); Concrete and all recycle machines, Multiple Unit Earth Movers; 75 cents per hour for each scoop over one; Scoops (all sizes); Pushcats; Endloaders (all types); Asphalt Surfacing Machine; Slip Form Paver; Rock Crusher; Material Crusher (outside pits and quarries); Screening Plants (outside pits and quarries); Tunnel Boring Machine; Heavy Equipment Greaser (Top Greaser on Spread); CMI, Auto Grade, CMI Belt Placer (3 track & similar types); Side Booms; Starting Engineer on Pipeline or Construction (eleven 11 pieces or more); Asphalt Heater & Planer Combination; Wheel Tractors with Dozer, Hoe or End Loader attachments; CAT Earthwork Compactors and similar types; Blaw Knox Spreader & similar types; Trench Machines; Pump Crete, Belt Crete, Squeeze Crete, Screw Type Pumps & Gypsum; Creter Crane; Concrete Pump Truck; Formless Finishing Machines; Flaherty Spreader or similar types; Screedman on Laydown Machine; Vermeer Concrete Saw; Laser Screed; Span Saw; Dredge Leverman; Dredge Engineer; Lull or similar type; Hydro-Boom Truck; Guard Rail Machine.

GROUP 2: Bulker & Pump; Power Launches; Boring Machine & Pipe Jacking Machine; Dinkeys; Carts, powered haul unit for a boring machine; P-H one Pass Soil Cement Machines and similar types: Wheel Tractor; Back Fillers; Euclid Loader; Fork LIfts; Jeep with Ditching Machines or other attachments; Tuneluger; Automatic Cement & Gravel Batching Plants; Mobile Drills Soil Testing and similar types); Pugmill with Pump; All 1 and 2 Drum Hoists; De-watering Systems; Straw Blower; Hydro Seeder; Bump Grinders, Self Propelled; Assistant Heavy Equipment Greaser; Apsco Spreader Tractors (Track-Type w/o Power Units pulling Rollers); Rollers on Asphalt, Brick, or Macadam; Concrete Breakers; Concrete Spreaders; Cement Strippers; Cement Finishing Machines & CMI Texture & Reel Curing Machines; Vibro-Tampers & similar types self-propelled; Mechanical Bull-Floats; Self-Propelled Concrete Saw; Truck Mounted Power Saws; Curb Cutters; Mixers over 3 bags to 27E; Winch & Boom Trucks; Tractor pulling Power Blade or Elevating Grader; Porter Rex Rail; Clary Screed; Mule pulling Rollers; Pugmill w/o Pump; Barber Greene or similar Loaders; Track Type Tractor with power unit attached; Fireman; Spray Machine on paving; Curb Machine; Paved Ditch Machine; Power Broom; Self-Propelled Sweepers; Self-Propelled Conveyors; Power Subgrader; Oil Distributor; Straight Tractor; Truck Crane Oiler; Truck Type Oilers; Directional Boring Machine; Horizontal Directional Drill; Articulating End Dump Vehicles; Starting Engineer (6 to 10 pieces).

GROUP 3: Straight Framed Truck and Truck Mounted Vac Unit,

Starting Engineer (3 to 5 pieces); Trac Air Machine w/o attachments; Rollers, 5 tons & under on earth & gravel; Form Grader; Bulk Cement Plant; Oilers.

- Escalated Rate on Crane, Derrick Booms, and Tower Cranes: Additional \$1.00 per hour over scale when Crane or Derrick is positioned 50 ft. or more above adjacent ground level or water level. \$.05 per hour, per foot, over 90 feet including jib. \$0.02 per hour, per ton - over 50-ton capacity.

- Operating engineers who operate Lattice Boom Crawler Cranes, Lattice Boom Truck Cranes, Telescopic Boom Cranes less than 17.5 Tons, Tower Cranes, Overhead Cranes and have been Certified by the National Commission for the Certification of Crane Operators on the equipment they operate shall receive \$1.60 per hour over scale.

A. On designated Hazardous Waste jobs, operators shall receive:
Level A add \$4.00 to the appropriate group rate; Levels B and C add \$3.00 to the appropriate group rate; and Level D add \$2.00 to the appropriate group rate.

ENGI0841-002 04/01/2023

FORD and IROQUOIS COUNTIES

	Rates	Fringes
OPERATOR: Power Equipment		
GROUP 1.....	\$ 45.15	26.00
GROUP 2.....	\$ 30.05	26.00

POWER EQUIPMENT OPERATOR CLASSIFICATIONS

GROUP 1: Power Cranes, Draglines, Derricks, Shovels, Gradalls, Mechanics, Tractor Highlift, Tournadozer, Concrete Mixers with Skip, Tournamixer, Two-Drum Machine, One-Drum Hoist with Tower or Boom, Cableways, Tower Machines, Motor Patrol, Boom Tractor, Boom or Winch Truck, Winch or Hydraulic Boom Truck, Truck Crane, Tournapull, Tractor Operating Scoops, Bulldozer, Push Tractor, Asphalt Planer, Finishing Machine on Asphalt, Large Rollers on Earth, Rollers on Asphalt Mix, Ross Carrier or Similar Machine, Gravel Processing Machine, Asphalt Plant Engineer, Paver Operator, Farm Tractor with Half Yard Bucket and/or Backhoe Attachments, Dredge Engineer, or Dredge Operator, Central Mix Plant Engineer, CMI or Similar Type Machine, Truck or Skid Mounted Concrete Pump, Tower Crane, Engine or Rock Crusher Plant, Concrete Plant Engineer, Ditching Machine with Dual Attachment, Tractor Mounted Loaders, Cherry Picker, Hydro Crane, Standard or Dinkey Locomotives, Scoopmobiles, Euclid Loader, Soil Cement Machine, Back Filler, Elevating Machine, Power Blade, Drilling Machines Including Well Testing, Caissons, Shaft or Any Similar Type Drilling Machines, Motor Driven Paint Machine, Pipe Cleaning Machine, Pipe Wrapping Machine, Pipe Bending Machine, Apsco Paver, Boring Machine, (Head Equipment Greaser), Barber- Greene Loaders, Formless Paver, (Well Point System), Concrete Spreader, Hydra Ax, Span Saw and Similar Types, Marine Scoops, Brush Mulcher, Brush Burner, Mesh Placer, Tree Mover, Helicopter Crew (3), Piledriver - Skid or Crawler, Stump Remover, Root Rake, Tug Boat

Operator, Refrigerating Machine, Freezing Operator, Chair Cart-Self Propelled, Hydra Seeder, Straw Blower, Power Sub Grader, Bull Float, Finishing Machine, Self-Propelled Pavement Breaker (Backhoe Attached), Lull (or Similar Type Machine), Two Air Compressors, Compressors Hooked in Manifold, Overhead Crane, Chip Spreader, Mud Cat, Sull-Air Fork Lifts (Except When Used For Landscaping Work), Soil Stabilazer (Seaman Tiller, Bo Mag, Rago Gator and Similar Types or Equipment), Tube Float, Spray Machine, Curing Machine, Concrete or Asphalt Milling Machine, Snooper Truck Operator.

GROUP 2: Concrete Mixers Without Skips, Rock Crusher, Ditching Machine Under 6', Curbing Machine, one Drum Machines without Tower or Boom, Air Tugger, Self-Propelled Concrete Saw, Machine- Mounted Post Hole Digger, Two to Four Generators, Water Pumps, or Welding Machines, within 400 ft., Air Compressor 600 cu. ft. and Under, Rollers on Aggregate and Seal Coat Surfaces, Fork Lifts (When Used For Landscaping Work, Concrete and Blacktop Curb Machine, Farm Tractor with less than Half Yard Bucket, One Water Pump, Oilers, Air Valves or Steam Valves, One Welding Machine, Truck Jack, Mud Jack, Gunnite Machine, House Elevators when used for Hoisting Material, Engine Tenders, Wagon Drill, Flex Plane, Conveyor, Siphons and Pulsometer, Switchman, Fireman on Paint Pots, Fireman on Asphalt Plants, Distributor Operators on Trucks, Tampers, Self- Propelled Power Broom, Striping Machine (Motor Driven), Form Tamper, Bulk Cement Plant Equipment Greaser, Deck Hands, Truck Crane Oiler-Driver, Cement Blimps, Form Grader, Temporary Heat, Throttle Valve, Farm Tractor, Super Sucker (and Similar Type of Equipment).

 IRON0112-002 05/01/2023

LIVINGSTON, MARSHALL (Southwestern corner), MCLEAN (Western Half), and WOODFORD COUNTIES

	Rates	Fringes
IRONWORKER.....	\$ 42.31	32.79

 IRON0380-005 05/01/2023

FORD and MCLEAN (Eastern Half) COUNTIES

	Rates	Fringes
IRONWORKER.....	\$ 36.08	29.00

 IRON0444-001 06/01/2022

GRUNDY COUNTY

	Rates	Fringes
IRONWORKER.....	\$ 47.80	42.50

 IRON0444-003 06/01/2022

La Salle, Marshall (Except the Southwestern Part), and Putnman Counties

	Rates	Fringes
IRONWORKER.....	\$ 45.50	38.90

 IRON0444-005 06/01/2022

Kankabee County

	Rates	Fringes
IRONWORKER.....	\$ 46.00	39.30

 LABO0075-003 06/01/2022

GRUNDY COUNTY

	Rates	Fringes
LABORER		
GROUP 1.....	\$ 47.40	33.16
GROUP 2.....	\$ 47.75	33.16
GROUP 3.....	\$ 47.48	33.16
GROUP 4.....	\$ 47.63	33.16
GROUP 5.....	\$ 47.60	33.16
GROUP 6.....	\$ 47.75	33.16
GROUP 7.....	\$ 47.60	33.16

LABORER CLASSIFICATIONS

GROUP 1 - Mortar mixers; Scaffolds; Sewer and trench work (ground level down to 8 feet); Catch basin and manhole diggers, mesh handling on road to work, Cement and mineral filler handler, concrete puddlers, Batch dumpers (cemt & asphalt); Vibrator operator; Sand and Stone wheelers to mixer (handler); Concrete wheelers; Airtamping hammermen; Concrete & paving breakers; Rock drillers/ Jackhammermen; Chipping hammermen; Asphalt; laborer; Chain and power saws; Pit men; Fencing laborers; Mason tender (mortar and brick wheeler); Kettlemen & tarmen, tank cleaners; Scaffold, staging laborers; Pot Firemen (tarmen); Heaters tender for any purpose; Water pumps (portable water pumps shall be tended by laborers if the employer determines tending is required); Rip rap; Handling of slab steel road forms in any manner (except road form setting); Setting center strips, Contraction and expansion joints (road work); Unloading and handling of lumber, brick, transite materials, cast iron water pipe, reinforced concrete rods, sewer and drain tile railroad tiles and all other creosoted materials, paving blocks and concrete forms; Handling of insulation of any type, all work involving the unloading of materials, fixtures, or furnishing, whether crated or uncrated; all mortar and composition mixers of sewer work; track laborers; Chimney and silo laborers working at a height of 1 to 48 feet; All laborers working on swing, suspended, or any type or make of scaffolding 1 to 48 feet; All laborers working inside a sphere or any type or make of tank; Working inside a sphere or any type or make of tank from bottom to a height of 48 feet; Form Strippers (any type); Mechanical or motorized buggies, for concrete or masons Use of skid steer loads or any other machinery which replaces the wheelbarrow or buggy; Handling multiple concrete duct or any other type of pipe used in public utility work unless otherwise specified herein; Snapping of wall ties and removal of rods, drilling of anchor bolt

holes; Concrete or asphalt clipper type saws and self-propelled saws; Shoulder and grade laborers; All hydraulic electric and air or any other type of tools; Grouting and caulking; Cleaning lumber, Nail pulling, Deck hand; Dredgehand; shore laborer; Bankmen on Floating Plant; Tool and material checkers; signalmen and Flagmen on all construction work defined herein; Cleaning of debris; Removal of trees; Concrete curing, temporary concrete protection regardless of manner or materials used; Laborers on Apsco; Janitorial; Wrecking and demolition laborers

GROUP 2 - Sewer and drain pipelayers and multiple concrete duct or any other type of pipe used on public utility work (ground level to 8 feet); Pumpcrete pipehandlers;

GROUP 3 - Asphalt rakers; Hod Carriers; Plasterer Laborers; Gunnite laborers, Slab for setters on roads, highways, streets, airports runaways, and radii (any type of form) stringline men for all aforementioned work; Wage and tower drillers on land and floating plant used on dredging; Asphalt gunners and plug men (undercoating on road work); Mortar pump laborers; Plaster pump laborer

GROUP 4 - Tunnel miners, and all laborers inside tunnel; air blown pipemen, torchmen (burners); Mortaring men on sewer and drain pipe (the applying of mortar and composition mixes), all bottom men on sewer work-all sewer and drain pipelayers-multiple concrete duct or any other type of pipe used on public utility work-8 feet or more below ground level, and all other sewer and trench laborers 8 feet or more below ground level regardless of excavation area; All labor work inside cofferdam; Use of a 10 foot or more drill steel for hand held drills; Caisson laborers ground level down 15 feet; All air tools 8 feet or more below ground level; All laborers working on swining-suspended on any type or make of scaffold, 48 feet to 100 feet; All chimney and silo laborers working at a height of 48 to 100 feet; All tamping hammers over 150 lbs.; All laborers working inside of a sphere or any type or make of tank at a height of 48 feet to 100 feet; all hydraulic, electric and air tools or any other type 8 feet or more below ground level; Vibrators-any type-8 feet or more below ground level

GROUP 5 - Gunnite nozzle men; Caisson laborers and all tamping hammers from 150 lbs and over; from 15 feet below ground level down to 50 feet

GROUP 6 - All underground cavern laborers; Caisson laborers 50 feet or more below ground level; Laborers working under radio active conditions (suiting up); Blasting men (Powdermen)

GROUP 7 - Dosimeter (any device) used for monitoring nuclear exposure; Asbestos abatement worker; Toxic and hazardous waste removal laborer

LAB00362-001 05/01/2023

MCLEAN COUNTY

	Rates	Fringes
LABORER		
GROUP 1.....	\$ 36.12	29.09

GROUP 2.....\$ 37.12 29.09

LABORER CLASSIFICATIONS

GROUP 1 - All classifications not listed below

GROUP 2 - Asbestos Abatement Worker and Hazardous Waste Worker; Lead Base Paint Worker; Dynamite Man

LAB00393-001 05/01/2022

BUREAU, LA SALLE, and PUTNAM COUNTIES

	Rates	Fringes
LABORER		
Group 1.....	\$ 34.11	30.07
Group 2.....	\$ 34.31	30.07
Group 3.....	\$ 34.51	30.07
Group 4.....	\$ 35.11	30.07
Group 5.....	\$ 36.11	30.07

LABORER CLASSIFICATIONS

GROUP 1: UNSKILLED - All classifications not listed below

GROUP 2: SEMI-SKILLED - Handling of materials treated with oil, creosote, asphalt and/or foreign material harmful to skin or clothing; Track laborers; Cement handlers; Chloride handlers; Unloading and laborers with Steel Workers and Re-bars; Concrete Workers (wet); Batch Dumpers; Mason Tenders; Kettle and Tar Men; Tank Cleaners; Plastic Installers; Scaffold Workers; Motorized buggies or motorized ubit used for wet concrete or handling of building materials; Laborers with de-watering systems; Sewer workers plus depth; Vibrator Operators; Motor Mixer Operators; Cement Silica, clay, fly ash, lime and plasters, handlers (bulk or bag); Cofferdam workers plus depth; Concrete paving, placing, cutting and tying of reinforcing; Deck hand, dredge hand and shore laborers; Backmen on floating plant; Asphalt workers with machine and layers; Grade checker; Power tools; Driving all stakes, stringlines for all machinery; Setting and building of manholes and catch basins; Stripping of all concrete forms except paving forms; All concrete paving and slope walls, placing, cutting and tying of reinforcing (re-bars and wire mesh)

GROUP 3: SKILLED - Mason Tenders; Caisson Workers plus depth; Gunnite Nozzle Men; Lead Man on Sewer Work; Welders, Cutters, Burners & Torchmen; Chain Saw Operators; Paving Breaker, Jackhammer & Drill Operators; Layout Man and/or tile layer; Steel Form Setters (Street & Hwy); Air Tamping hammerman; Signal man on Crane; Concrete Saw Operator; Screenman on Asphalt Pavers; Front End Man on Chip Spreader; Laborers tending masons with hot materials or where foreign materials are used; Multiple Concrete duct-leadman; Luteman; Asphalt Raker; Curb Asphalt Machine Operator; Ready mix scalemen, permanent, portable or temporary plant; Laborers handling masterplate or similar materials; Laser Beam Operator; Coring Machine Operator; Plasterer Tenders; Underpinning and Shoring of Building; Material selector when working with firebrick or castable materials; Fire Watch; Signalling of all power equipment; Tree Topper or Trimmer

GROUP 4: Dynamite man

GROUP 5: Asbestos Abatement Worker and Hazardous Waste Worker

LAB00751-002 05/01/2020

FORD, IROQUOIS, and KANKAKEE COUNTIES

	Rates	Fringes
LABORER		
Group 1.....	\$ 38.49	31.12
Group 2.....	\$ 39.49	31.12

LABORER CLASSIFICATIONS

GROUP 1: UNSKILLED; SEMI-SKILLED - Handling of materials treated with oil, creosote, asphalt and/or foreign material harmful to skin or clothing; Track laborers; Cement handlers; Chloride handlers; Unloading and laborers with Steel Workers and Re-bars; Concrete Workers (wet); Batch Dumpers; Mason Tenders; Kettle and Tar Men; Tank Cleaners; Plastic Installers; Scaffold Workers; Motorized buggies or motorized unit used for wet concrete or handling of building materials; Laborers with de-watering systems; Sewer workers plus depth; Vibrator Operators; Motor Mixer Operators; Cement Silica, clay, fly ash, lime and plasters, handlers (bulk or bag); Cofferdam workers plus depth; Concrete paving, placing, cutting and tying of reinforcing; Deck hand, dredge hand and shore laborers; Bankmen on floating plant; Asphalt workers with machine and layers; Grade checker; Power tools; Driving all stakes, stringlines for all machinery; Setting and building of manholes and catch basins; Stripping of all concrete forms except paving forms; All concrete paving and slope walls, placing, cutting and tying of reinforcing (re-bars and wire mesh); SKILLED - Caisson Workers plus depth; Gunnite Nozzle Men; Lead Man on Sewer Work; Welders, Cutters, Burners & Torchmen; Chain Saw Operators; Paving Breaker, Jackhammer & Drill Operators; Layout Man and/or tile layer; Steel Form Setters (Street & Hwy); Air Tamping hammerman; Signal man on Crane; Concrete Saw Operator; Screenman on Asphalt Pavers; Front End Man on Chip Spreader; Laborers tending masons with hot materials or where foreign materials are used; Multiple Concrete duct-leadman; Luteman; Asphalt Raker; Curb Asphalt Machine Operator; Ready mix scalemen, permanent, portable or temporary plant; Laborers handling masterplate or similar materials; Laser Beam Operator; Coring Machine Operator; Plasterer Tenders; Underpinning and Shoring of Building; Material selector when working with firebrick or castable materials; Fire Watch; Signalling of all power equipment; Tree Topper or Trimmer

GROUP 2: Dynamite man; Asbestos Abatement Worker and Hazardous Waste Worker

LAB00996-001 05/01/2023

LIVINGSTON, MARSHALL, AND WOODFORD COUNTIES

Rates	Fringes
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LABORER		
GROUP 1.....	\$ 37.87	27.34
GROUP 2.....	\$ 38.87	27.34

LABORER CLASSIFICATIONS

GROUP 1: All classifications not listed below

GROUP 2: Dynamite Man; Asbestos Abatement Worker and
Hazardous Waste Worker; and Lead Base Paint Worker

PAIN0014-005 06/01/2022

GRUNDY COUNTY

	Rates	Fringes
PAINTER.....	\$ 50.30	31.07

PAIN0030-010 06/01/2023

BUREAU, FORD, HANCOCK, LA SALLE, LIVINGSTON, MCDONOUGH, MCLEAN,
PUTNAM AND STARK COUNTIES

	Rates	Fringes
PAINTER Brush, Roller, Pressure Roller, Spray, Airless Spray, Sandblasting, Taper, Drywall Taper/Finisher, Structural Steel, and Bridges.....	\$ 40.00	26.90

PAIN0157-001 06/01/2023

FULTON, MARSHALL, MASON, PEORIA, SCHUYLER, TAZEWELL AND
WOODFORD COUNTIES

	Rates	Fringes
PAINTER Brush, Spray, Pressure Roller, Sandblasting, Bridges, & New Structural Steel Work.....	\$ 40.00	26.90

PLAS0011-003 06/01/2023

LASALLE & PUTNAM COUNTIES

	Rates	Fringes
CEMENT MASON/CONCRETE FINISHER...	\$ 40.50	33.54

PLAS0011-011 06/01/2023

IROQUOIS AND KANKAKEE COUNTIES

	Rates	Fringes
CEMENT MASON/CONCRETE FINISHER...	\$ 46.00	37.04

PLAS0018-010 05/01/2017

MARSHALL and WOODFORD (North and West of Routes 116 and 117)
COUNTIES

	Rates	Fringes
CEMENT MASON/CONCRETE FINISHER...	\$ 32.11	25.52

PLAS0018-018 05/01/2017

LIVINGSTON (Southern Part), MCLEAN, and WOODFORD (South of
Route 116) COUNTIES

	Rates	Fringes
CEMENT MASON/CONCRETE FINISHER...	\$ 33.46	22.22

PLAS0018-024 05/01/2017

LIVINGSTON (Northern Part) COUNTY

	Rates	Fringes
CEMENT MASON/CONCRETE FINISHER...	\$ 32.11	25.52

PLAS0143-006 05/01/2015

FORD COUNTY

	Rates	Fringes
CEMENT MASON/CONCRETE FINISHER...	\$ 31.51	17.50

TEAM0026-003 05/01/2020

FORD (Elliot, Gibson City, Harpster, Melvin, Paxton, Roberts &
Sibley), IROQUOIS (Fountain Creek, Lovejoy, Milford, Pigeon
Grove, Prairie Green & Stockland),MCLEAN (South of a straight
line from where Route 24 intersects the Woodford County line in
a Southeast direction to the South Southwest corner of
Livingston County) COUNTIES

	Rates	Fringes
TRUCK DRIVER		
Group 1.....	\$ 38.93	20.39
Group 2.....	\$ 39.50	20.39
Group 3.....	\$ 39.77	20.39
Group 4.....	\$ 40.14	20.39
Group 5.....	\$ 41.21	20.39

CLASSIFICATIONS:

GROUP 1: Drivers on 2 axles hauling less than 9 tons; air
compressor & welding machines and brooms, including those
pulled by separate units; Truck Driver Helper, warehouse
employees; Mechanic Helpers; greasers and tiremen; pick-up
trucks when hauling material, tools, or workers to and from
and on the job site; and forklifts up to 6,000 lb capacity.

GROUP 2: 2 or 3 axles hauling more than 9 tons but hauling less than 16 tons; A-frame winch trucks; hydrolift trucks; Vactor Trucks or similar equipment when used for transportation purposes; Forklift over 6,000 lb.capacity; winch trucks; and four axle combination units.

GROUP 3: 2, 3 or 4 Axles hauling 16 tons or more; 5-Axles or more combination units; drivers on water pulls; articulated dump trucks; mechanics and working forepersons.

GROUP 4: Low Boy and Oil Distributors.

GROUP 5: Drivers who require special protective clothing while employed on hazardous waste work.

TEAM0050-005 05/01/2020

MARSHALL AND WOODFORD COUNTIES

	Rates	Fringes
TRUCK DRIVER		
Group 1.....	\$ 39.04	20.63
Group 2.....	\$ 39.60	20.63
Group 3.....	\$ 39.91	20.63
Group 4.....	\$ 40.25	20.63
Group 5.....	\$ 41.33	20.63

CLASSIFICATIONS:

GROUP 1: Drivers on 2 axles hauling less than 9 tons; air compressor & welding machines and brooms, including those pulled by separate units; Truck Driver Helper, warehouse employees; Mechanic Helpers; greasers and tiremen; pick-up trucks when hauling material, tools, or workers to and from and on the job site; and forklifts up to 6,000 lb capacity.

GROUP 2: 2 or 3 axles hauling more than 9 tons but hauling less than 16 tons; A-frame winch trucks; hydrolift trucks; Vactor Trucks or similar equipment when used for transportation purposes; Forklift over 6,000 lb.capacity; winch trucks; and four axle combination units.

GROUP 3: 2, 3 or 4 Axles hauling 16 tons or more; 5-Axles or more combination units; drivers on water pulls; articulated dump trucks; mechanics and working forepersons.

GROUP 4: Low Boy and Oil Distributors.

GROUP 5: Drivers who require special protective clothing while employed on hazardous waste work.

* TEAM0179-006 06/01/2019

FORD (North section the of the County North of a line from the Southeastern corner of Livingston County straight East to the Ford-Irquois County Line), GRUNDY, LIVINGSTON (Avoca, Belle Prairie, Broughton, Charlotte, Chatsworth, Dwight, Eppards Point, Esmen, Fayette, Forrest, Germanville, Indian Grove, Nebraska, Odell, Owega, Pike, Pleasant Ridge, Pontiac, Rooks Creek, Round Grove, Saunemin, Sullivan, Union, & Waldo), MCLEAN (North of a straight line starting at the intersection of McLean-Woodford Counties line & Route 24 in a Southeastern

direction to the South Southwest corner of Livingston County), and WOODFORD (Northeast corner east of Route 51/251 & North of Route 24) COUNTIES

	Rates	Fringes
TRUCK DRIVER		
2 or 3 Axle Trucks.....	\$ 39.20	0.25+a
4 Axle Trucks.....	\$ 39.35	0.25+a
5 Axle Trucks.....	\$ 39.55	0.25+a
6 Axle Trucks.....	\$ 39.75	0.25+a
All Lowboy Trucks.....	\$ 39.75	0.25+a

FOOTNOTES:

a. \$829.20 per week.

An additional \$.20 per axle shall be paid for all vehicles with more than six (6) axles.

CLASSIFICATIONS:

Group 1 - Frame Truck when used for transportation purposes; Air Compressor and Welding Machines, including those pulled by cars, pick-up trucks and tractors; Ambulances; Articulated Dumps; Batch Gate Lockers; Batch Hopperman; Car and Truck Washers; Carry Alls; Forl Lifts and Hoisters; Helpers; Mechanics Helpers and Greasers; Oil Distributors, two-man operation; Pavement Breakers; Pole Trailer, up to 40 feet; Pothole Repair Trucks; Power Mower Tractors; Quick Change Barrier; Self-Propelled Chip Spreader; Shipping and Receiving Clerks and Checkers; Skipman; Slurry Trucks, two-man operation; Slurry Trucks, Conveyor Operated - 2 or 3 man operation; Teamsters; Unskilled Dumpmen; Warehousemen and Dockmen; Truck Drivers hauling warning lights, barricades, and portable toilets on the job site

Group 2 - Dispatcher; Dump Crets and Adgetators under 7 yards; Dumpsters, Track Trucks, Euclids, Hug Bottom Dump Turnapulls or Turnatrailers when pulling other than self-loading equipment or similar equipment under 16 cubic yards; Mixer Trucks under 7 yards; Ready-Mix Plant Hopper Operator; Winch Trucks, 2 Axles

Group 3 - Dump Crets and Adgetators, 7 yards and over; Dumpsters, Track Trucks, Euclids, Hug Bottom Dump Turnapulls or Turnatrailers when pulling other than self-loading equipment or similar equipment over 16 cubic yards; Explosives and/or Fission Material Trucks; Mixer Trucks 7 yards or over; Mobile Cranes while in transit; Oil Distributors, one-man operation; Pole Trailer, over 40 feet; Pole and Expandable Trailers hauling material over 50 feet long; Slurry Trucks, one-man operation; Winch Trucks, 3 axles or more; Mechanic - *Truck Welder and *Truck Painter*These classifications shall only apply in areas where and when it has been a past area practice; Asphalt Plant Operators in areas where it has been past practice

Group 4 - Dual-purpose vehicels, such as mounted crane tucks with hoist and accessories; Foreman; Master Mechanic; Self-loading equipment like P.B. and trucks with scoops on the front

KANKAKEE AND IROQUOIS (All of Iroquois except the townships of Milford, Stockland, Loda, Pigeon Grove, Fountain Creek, Lovejoy, and Prairie Green) COUNTIES

	Rates	Fringes
TRUCK DRIVER		
2 or 3 axles.....	\$ 39.20	0.25+a
4 axles.....	\$ 39.35	0.25+a
5 axles.....	\$ 39.55	0.25+a
6 axles.....	\$ 39.75	0.25+a
All Lowboy Trucks.....	\$ 39.75	0.25+a

FOOTNOTES:

a. \$829.20 per week.

An additional \$.20 per axle shall be paid for all vehicles with more than six (6) axles.

CLASSIFICATIONS:

Group 1 - Frame Truck when used for transportation purposes; Air Compressor and Welding Machines, including those pulled by cars, pick-up trucks and tractors; Ambulances; Articulated Dumps; Batch Gate Lockers; Batch Hopperman; Car and Truck Washers; Carry Alls; Forl Lifts and Hoisters; Helpers; Mechanics Helpers and Greasers; Oil Distributors, two-man operation; Pavement Breakers; Pole Trailer, up to 40 feet; Pothole Repair Trucks; Power Mower Tractors; Quick Change Barrier; Self-Propelled Chip Spreader; Shipping and Receiving Clerks and Checkers; Skipman; Slurry Trucks, two-man operation; Slurry Trucks, Conveyor Operated - 2 or 3 man operation; Teamsters; Unskilled Dumpmen; Warehousemen and Dockmen; Truck Drivers hauling warning lights, barricades, and portable toilets on the job site

Group 2 - Dispatcher; Dump Crets and Adgetators under 7 yards; Dumpsters, Track Trucks, Euclids, Hug Bottom Dump Turnapulls or Turnatrailers when pulling other than self-loading equipment or similar equipment under 16 cubic yards; Mixer Trucks under 7 yards; Ready-Mix Plant Hopper Operator; Winch Trucks, 2 Axles

Group 3 - Dump Crets and Adgetators, 7 yards and over; Dumpsters, Track Trucks, Euclids, Hug Bottom Dump Turnapulls or Turnatrailers when pulling other than self-loading equipment or similar equipment over 16 cubic yards; Explosives and/or Fission Material Trucks; Mixer Trucks 7 yards or over; Mobile Cranes while in transit; Oil Distributors, one-man operation; Pole Trailer, over 40 feet; Pole and Expandable Trailers hauling material over 50 feet long; Slurry Trucks, one-man operation; Winch Trucks, 3 axles or more; Mechanic - *Truck Welder and *Truck Painter*These classifications shall only apply in areas where and when it has been a past area practice; Asphalt Plant Operators in areas where it has been past practice

Group 4 - Dual-purpose vehicels, such as mounted crane tucks with hoist and accessories; Foreman; Master Mechanic; Self-loading equipment like P.B. and trucks with scoops on the front

TEAM0722-004 05/01/2020

LASALLE, LIVINGSTON (all of the Livingston except Amity, Avoca, Belle Prairie, Broughton, Charlotte, Chatsworth, Dwight, Eppards Point, Esmen, Fayette, Flanagan, Forrest, Germansville, Indian Grove, Nebraska Township, Nevada, Newton, Odell, Oswego, Pike, Pleasant Ridge, Pontiac, Rooks Creek, Round Grove, Saunemin, Sullivan, Sunbury, Union & Waldo), PUTNAM COUNTIES

	Rates	Fringes
TRUCK DRIVER		
Group 1.....	\$ 38.93	20.39
Group 2.....	\$ 39.50	20.39
Group 3.....	\$ 39.77	20.39
Group 4.....	\$ 40.14	20.39
Group 5.....	\$ 41.21	20.39

CLASSIFICATIONS:

GROUP 1: Drivers on 2 axles hauling less than 9 tons; air compressor & welding machines and brooms, including those pulled by separate units; Truck Driver Helper, warehouse employees; Mechanic Helpers; greasers and tiremen; pick-up trucks when hauling material, tools, or workers to and from and on the job site; and forklifts up to 6,000 lb capacity.

GROUP 2: 2 or 3 axles hauling more than 9 tons but hauling less than 16 tons; A-frame winch trucks; hydrolift trucks; Vactor Trucks or similar equipment when used for transportation purposes; Forklift over 6,000 lb.capacity; winch trucks; and four axle combination units.

GROUP 3: 2, 3 or 4 Axles hauling 16 tons or more; 5-Axles or more combination units; drivers on water pulls; articulated dump trucks; mechanics and working forepersons.

GROUP 4: Low Boy and Oil Distributors.

GROUP 5: Drivers who require special protective clothing while employed on hazardous waste work.

TEAM0731-003 04/01/2023

GRUNDY and KANKAKEE COUNTIES

	Rates	Fringes
Traffic Control Device Monitor		
TRAFFIC SAFETY WORKER:		
Primary duties include but are not limited to the delivery, maintenance and pick-up of traffic control devices, the set-up and installation of traffic signs, pavement markings, barricades, crash barrels and glare screens, traffic control surveillance, the repair and maintenance trucks, cars, arrow		

boards, message signs,
barricade and sign
fabrication equipment.....\$ 40.10 20.95

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

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

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

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

Union Rate Identifiers

A four letter classification abbreviation identifier enclosed
in dotted lines beginning with characters other than ""SU"" or
""UAVG"" denotes that the union classification and rate were
prevailing for that classification in the survey. Example:
PLUM0198-005 07/01/2014. PLUM is an abbreviation identifier of
the union which prevailed in the survey for this
classification, which in this example would be Plumbers. 0198
indicates the local union number or district council number
where applicable, i.e., Plumbers Local 0198. The next number,
005 in the example, is an internal number used in processing
the wage determination. 07/01/2014 is the effective date of the
most current negotiated rate, which in this example is July 1,
2014.

Union prevailing wage rates are updated to reflect all rate
changes in the collective bargaining agreement (CBA) governing

this classification and rate.

Survey Rate Identifiers

Classifications listed under the ""SU"" identifier indicate that no one rate prevailed for this classification in the survey and the published rate is derived by computing a weighted average rate based on all the rates reported in the survey for that classification. As this weighted average rate includes all rates reported in the survey, it may include both union and non-union rates. Example: SULA2012-007 5/13/2014. SU indicates the rates are survey rates based on a weighted average calculation of rates and are not majority rates. LA indicates the State of Louisiana. 2012 is the year of survey on which these classifications and rates are based. The next number, 007 in the example, is an internal number used in producing the wage determination. 5/13/2014 indicates the survey completion date for the classifications and rates under that identifier.

Survey wage rates are not updated and remain in effect until a new survey is conducted.

Union Average Rate Identifiers

Classification(s) listed under the UAVG identifier indicate that no single majority rate prevailed for those classifications; however, 100% of the data reported for the classifications was union data. EXAMPLE: UAVG-OH-0010 08/29/2014. UAVG indicates that the rate is a weighted union average rate. OH indicates the state. The next number, 0010 in the example, is an internal number used in producing the wage determination. 08/29/2014 indicates the survey completion date for the classifications and rates under that identifier.

A UAVG rate will be updated once a year, usually in January of each year, to reflect a weighted average of the current negotiated/CBA rate of the union locals from which the rate is based.

WAGE DETERMINATION APPEALS PROCESS

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

- * an existing published wage determination
- * a survey underlying a wage determination
- * a Wage and Hour Division letter setting forth a position on a wage determination matter
- * a conformance (additional classification and rate) ruling

On survey related matters, initial contact, including requests for summaries of surveys, should be with the Wage and Hour National Office because National Office has responsibility for the Davis-Bacon survey program. If the response from this initial contact is not satisfactory, then the process described in 2.) and 3.) should be followed.

With regard to any other matter not yet ripe for the formal process described here, initial contact should be with the Branch of Construction Wage Determinations. Write to:

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

2.) If the answer to the question in 1.) is yes, then an interested party (those affected by the action) can request review and reconsideration from the Wage and Hour Administrator (See 29 CFR Part 1.8 and 29 CFR Part 7). Write to:

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

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

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

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

4.) All decisions by the Administrative Review Board are final.

=====

END OF GENERAL DECISION"

BID BOND

KNOW ALL MEN BY THESE PRESENTS, that we, the undersigned, _____
 _____ as Principal, and
 _____ as Surety, are hereby held and
 firmly bound unto Village of Diamond as Owner in the penal sum of
 _____ for the payment of which, well
 and truly to be made, we hereby jointly and severally bind ourselves, successors and assigns.

Signed, this _____ day of _____, _____.

The Condition of the above obligation is such that whereas the Principal has submitted to
Village of Diamond a certain BID, attached hereto and hereby made a
 part hereof to enter into a contract in writing for Water Main Improvements (Various Locations)
School, Skinner & Perona Streets

NOW, THEREFORE,

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

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

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

_____(L.S.)
Principal

Surety

By: _____

IMPORTANT - Surety companies executing BONDS must appear on the Treasury Department's most current list (Circular 570 as amended) and be authorized to transact business in the state where the project is located.

AGREEMENT

THIS AGREEMENT, made this _____ day of _____, _____, by and between _____, hereinafter called "OWNER" and _____ doing business as (an individual) or (a partnership) or (a corporation) hereinafter called "CONTRACTOR".

WITNESSETH: That for and in consideration of the payments and agreements hereinafter mentioned:

1. The CONTRACTOR will commence and complete the construction of: _____

2. The CONTRACTOR will furnish all of the material, supplies, tools, equipment, labor and other services necessary for the construction and completion of the PROJECT described herein.

3. The CONTRACTOR shall commence the work required by the Contract Documents within _____ calendar days after the NOTICE TO PROCEED, substantially complete the PROJECT by _____ (or _____ consecutive calendar days thereafter), and fully complete the PROJECT by _____ (or _____ consecutive calendar days thereafter) unless the period for completion is extended otherwise by the CONTRACT DOCUMENTS.

4. The CONTRACTOR agrees to perform all of the WORK described in the CONTRACT DOCUMENTS and comply with the terms therein for the sum of \$ _____, or as shown in the BID schedule.

5. The term "CONTRACT DOCUMENTS" means and includes the following:
- (A) Advertisement for BIDS
 - (B) Information for BIDDERS
 - (C) BID
 - (D) BID BOND

- (E) Agreement
- (F) Performance BOND
- (G) Payment BOND
- (H) NOTICE OF AWARD
- (I) NOTICE TO PROCEED
- (J) CHANGE ORDER
- (K) DRAWINGS prepared by Chamlin & Associates, Inc. numbered 1 through _____, and dated _____.
- (L) SPECIFICATIONS prepared or issued by Chamlin & Associates, Inc., dated _____
- (M) ADDENDA:
 - No. _____, dated _____, _____
 - No. _____, dated _____, _____
 - No. _____, dated _____, _____

6. The OWNER will pay to the CONTRACTOR in the manner and at such times, such amounts as required by the CONTRACT DOCUMENTS

7. The Contractor shall not discriminate on the basis of race, color, national origin or sex in the performance of this contract. The Contractor shall carry out applicable requirements of 40 CFR Part 33 in the award and administration of contracts awarded under EPA financial assistance agreements. Failure by the Contractor to carry out these requirements is a material breach of this contract which may result in the termination of this contract or other legally available remedies.

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

ADDITIONAL LANGUAGE REQUIRED BY IEPA FOR GRANT-FUNDED PROJECTS

Lobbying

Article XI from Intergovernmental Grant Agreement

11.1 Improper Influence. Grantee certifies that no Grant Funds have been paid or will be paid by or on behalf of Grantee to any person for influencing or attempting to influence an officer or employee of any government agency, a member of Congress or Illinois General Assembly, an officer or employee of Congress or Illinois General Assembly, or an employee of a member of Congress or Illinois General Assembly in connection with the awarding of any agreement, the making of any grant, the making of any loan, the entering into of any cooperative agreement, or the extension, continuation, renewal, amendment or modification of any agreement, grant, loan or cooperative agreement. 31 USC 1352. Additionally, Grantee certifies that it has filed the required certification under the Byrd Anti-Lobbying Amendment (31 USC 1352), if applicable.

11.2 Federal Form LLL. If any funds, other than federally-appropriated funds, were paid or will be paid to any person for influencing or attempting to influence any of the above persons in connection with this Agreement, the undersigned must also complete and submit Federal Form LLL, Disclosure of Lobbying Activities Form, in accordance with its instructions.

11.3 Lobbying Costs. Grantee certifies that it is in compliance with the restrictions on lobbying set forth in 2 CFR 200.450. For any Indirect Costs associated with this Agreement, total lobbying costs shall be separately identified in the Program Budget, and thereafter treated as other Unallowable Costs.

11.4 Procurement Lobbying. Grantee warrants and certifies that it and, to the best of its knowledge, its sub-grantees have complied and will comply with Executive Order No. 1 (2007) (EO 1-2007). EO 1-2007 generally prohibits Grantees and subcontractors from hiring the then-serving Governor's family members to lobby procurement activities of the State, or any other unit of government in Illinois including local governments, if that procurement may result in a contract valued at over \$25,000. This prohibition also applies to hiring for that same purpose any former State employee who had a procurement authority at any time during the one-year period preceding the procurement lobbying activity.

11.5 Subawards. Grantee must include the language of Article XI - Lobbying in the award documents for any subawards made pursuant to this Award at all tiers. All sub-awardees are also subject to certification and disclosure. Pursuant to Appendix II(I) 2 CFR Part 200, Grantee shall forward all disclosure by contractors regarding this certification to Grantor.

11.6 Certification. This certification is a material representation of fact upon which reliance was placed to enter into this transaction and is a prerequisite for this transaction, pursuant to 31 USC 1352. Any person who fails to file the required certifications shall be

subject to a civil penalty of not less than \$10,000, and not more than \$100,000, for each such failure.

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

OWNER:

By:

Signature

(Please Type)

Name:

Title:

Address:

(SEAL)

ATTEST:

Signature

Name: _____

Title: _____

CONTRACTOR:

By:

Signature

(Please Print)

Name:

Title:

Address:

(SEAL)

ATTEST:

Signature

Name: _____

Title: _____

ATTACHMENT TO AGREEMENT

1. It is understood that work under this contract shall be performed in accordance with the "Standard General Conditions of the Construction Contract" enclosed herein.
2. **Payment Procedures.** CONTRACTOR shall submit Applications for Payment in accordance with Article 15 of the General Conditions. Application for Payment will be processed by ENGINEER as provided in the General Conditions.
 - 2.1 *Progress Payments; Retainage.* OWNER shall make progress payments on account of the Contract Price on the basis of the CONTRACTOR's Applications for Payment as recommended by the ENGINEER, on or about the 1st day of each month during construction as provided in paragraphs 2.1.1 and 2.1.2 below. All such payments will be measured by the schedule of values established in paragraph 2.03 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.
 - 2.1.1 Prior to Substantial Completion, progress payments 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 shall determine, or OWNER may withhold, in accordance with Article 15 of the General Conditions.

 90 % of Work completed (with the balance being retainage). If Work has been 49% completed as determined by ENGINEER, and if the character and progress of the Work have been satisfactory to OWNER and ENGINEER, OWNER, on recommendation of the ENGINEER, may determine that as long as the character and progress of the Work completed, in which case the remaining progress payments prior to Substantial Completion will be in an amount equal to 100% of the Work completed.

 90 % (with the balance being retainage) of materials and equipment not incorporated in the Work (but delivered, suitably stored and accompanied by documentation satisfactory to OWNER as provided in paragraph 15.01 of the General Conditions).

2.1.2 Upon 50% Completion, in an amount sufficient to increase total payments to CONTRACTOR to 95 % of the Contract Price (with the balance being retainage), less such amounts as ENGINEER shall determine, or OWNER may withhold, in accordance with Article 15 of the General Conditions.

2.2 *Final Payment.* Upon final completion and acceptance of the Work in accordance with Article 15 of the General Conditions, OWNER shall pay the remainder of the Contract Price as recommended by ENGINEER as provided in said Article 15.

PERFORMANCE BOND

KNOW ALL MEN BY THESE PRESENTS: that

(Name of Corporation)

(Address of Corporation)

a _____ hereinafter called Principal and
(Corporation, Partnership, or Individual)

(Name of Surety)

(Address of Surety)

hereinafter called Surety, are held and firmly bound unto

(Name of Owner)

(Address of Owner)

hereinafter called OWNER, in the penal sum of _____ \$ _____

in lawful money of the United States, for the payment of which sum well and truly be made, we bind ourselves, successors, and assigns, jointly and severally, firmly by these presents.

THE CONDITION OF THIS OBLIGATION is such that whereas, the Principal entered into a certain contract with the OWNER, dated the _____ day of _____, _____, a copy of which is hereto attached and made a part hereof for the construction of:

NOW, THEREFORE, if the Principal shall well, truly and faithfully perform its duties, all the undertakings, covenants, terms, conditions, and agreements of said contract during the original term thereof, and any extensions thereof which may be granted by the OWNER, with or without notice to the Surety and during the one year guaranty period, and if he shall satisfy all claims and demands incurred under such contract, and shall fully indemnify and save harmless the OWNER from all costs and damages which it may suffer by reason of failure to do so, and shall reimburse and repay the OWNER for all outlay and expense which the OWNER may incur in making good any default, then this obligation shall be void; otherwise to remain in full force and effect.

PROVIDED, FURTHER, that the said surety, for value received hereby stipulates and agrees that no change, extension of time, alteration or addition to the terms of the contract or to WORK to be performed thereunder or the SPECIFICATIONS accompanying the same shall in any wise affect its obligation on this BOND, and it does hereby waive notice of any such change, extension of time, alteration or addition to the terms of the contract or to the WORK or to the SPECIFICATIONS.

PROVIDED, FURTHER, that no final settlement between the OWNER and the CONTRACTOR shall abridge the right of any beneficiary hereunder, whose claim may be unsatisfied.

IN WITNESS WHEREOF, this instrument is executed in Counterparts, each one of which shall be deemed an original, this the _____ of _____, _____.

ATTEST:

By: _____

(SEAL)

ATTEST:

By: _____

(SEAL)

NOTE: Date of BOND must not be prior to date of Contract.
If CONTRACTOR is Partnership, all partners should execute BOND.

IMPORTANT: Surety companies executing BONDS must appear on the Treasury Department's most current list (Circular 570 as amended) and be authorized to transact business in the state where the PROJECT is located.

PAYMENT BOND

KNOW ALL MEN BY THESE PRESENTS: that

(Name of Corporation)

(Address of Corporation)

a _____ hereinafter called Principal and
(Corporation, Partnership, or Individual)

(Name of Surety)

(Address of Surety)

hereinafter called Surety, are held and firmly bound unto

(Name of Owner)

(Address of Owner)

hereinafter called OWNER, in the penal sum of _____
\$ _____

in lawful money of the United States, for the payment of which sum well and truly be made, we bind ourselves, successors, and assigns, jointly and severally, firmly by these presents.

THE CONDITION OF THIS OBLIGATION is such that whereas, the Principal entered into a certain contract with the OWNER, dated the _____ day of _____, _____, a copy of which is hereto attached and made a part hereof for the construction of:

NOW, THEREFORE, if the Principal shall promptly make payment to all persons, firms, SUBCONTRACTORS, and corporations furnishing materials for or performing labor in the prosecution of the WORK provided for in such contract, and any authorized extension or modification thereof, including all amounts due for materials, lubricants, oil, gasoline, coal and coke, repairs on machinery, equipment and tools, consumed or used in connection with the construction of such WORK, and all insurance premiums on said WORK, and for all labor, performed in such WORK whether by SUBCONTRACTOR or otherwise, then this obligation shall be void; otherwise to remain in full force and effect.

PROVIDED, FURTHER, that the said Surety, for value received hereby stipulates and agrees that no change, extension of time, alteration or addition to the terms of the contract or to WORK to be performed thereunder or the SPECIFICATIONS accompanying the same shall in any wise affect its obligation on this BOND, and it does hereby waive notice of any such change, extension of time, alteration or addition to the terms of the contract or to the WORK or to the SPECIFICATIONS.

PROVIDED, FURTHER, that no final settlement between the OWNER and the CONTRACTOR shall abridge the right of any beneficiary hereunder, whose claim may be unsatisfied.

IN WITNESS WHEREOF, this instrument is executed in Counterparts, each one of which shall be deemed an original, this the _____ of _____, _____.

ATTEST:

By: _____

(SEAL)

ATTEST:

By: _____

(SEAL)

NOTE: Date of BOND must not be prior to date of Contract.
If CONTRACTOR is Partnership, all partners should execute BOND.

IMPORTANT: Surety companies executing BONDS must appear on the Treasury Department's most current list (Circular 570 as amended) and be authorized to transact business in the state where the PROJECT is located.

NOTICE OF AWARD

To: _____

Project Description: _____

The OWNER has considered the BID submitted by you for the above-described WORK, in response to its Advertisement for Bids, dated _____ and Information for Bidders.

You are hereby notified that your BID will be accepted for items in the amount of \$ _____.

You are required by the Information for Bidders to execute the Agreement and furnish the required CONTRACTOR's Performance BOND, Payment BOND and certificates of insurance within ten (10) calendar days from the date of this Notice to you.

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

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

Dated this _____ day of _____, _____

OWNER

By: _____

Title: _____

ACCEPTANCE OF NOTICE

Receipt of the above NOTICE OF AWARD is hereby acknowledged,

by _____,

this the _____ day of _____, 20 _____.

By _____

Title _____

NOTICE TO PROCEED

To: _____ Date: _____
 _____ Project: _____

Project Description: _____

You are hereby notified to commence WORK in accordance with the Agreement dated _____, _____, on or before _____, _____, and you are to complete the WORK within _____ consecutive calendar days thereafter.

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

 OWNER
 By: _____
 Title: _____

ACCEPTANCE OF NOTICE

Receipt of the above NOTICE TO PROCEED is hereby acknowledged,

by _____,
 this the _____ day of _____, 20 _____.

By _____
 Title _____

**NOTICE OF REQUIREMENT FOR AFFIRMATIVE ACTION TO ENSURE EQUAL
EMPLOYMENT OPPORTUNITY
(EXECUTIVE ORDER 11246)**

1. The Offeror's or Bidder's attention is called to the "Equal Opportunity Clause" and the "Standard Federal Equal Employment Opportunity Construction Contract Specifications" set forth herein.
2. The goals and timetables for minority and female participation, expressed in percentage terms for the Contractor's aggregate workforce in each trade on all construction work in the covered area, are as follows:

Timetables	Goals for minority participation for each trade	Goals for female participation in each trade
	Insert goals for* each year 18.4%	Insert goals for* each year 6.9%

These goals are applicable to all the Contractor's construction work (whether or not it is Federal or federally assisted) performed in the covered area.

The Contractor's compliance with the Executive Order and the regulations in 41 CFR Part 60-4 shall be based on its implementation of the Equal Opportunity Clause, specific affirmative action obligations required by the specifications set forth in 41 CFR 60-4.3(a), and its efforts to meet the goals established for the geographical area where the contract resulting from this solicitation is to be performed. The hours of minority and female employment and training must be substantially uniform throughout the length of the contract, and in each trade, and the contractor shall make a good faith effort to employ minorities and women evenly on each of its projects. The transfer of minority or female employees or trainees from Contractor to Contractor or from project to project for the sole purpose of meeting the Contractor's goals shall be a violation of the contract, the Executive Order and the regulations in 41 CFR 60-4. Compliance with the goals will be measured against the total work hours performed.

3. The Contractor shall provide written notification to the Director of the Office of Federal Contract Compliance Programs within 10 working days of award of any construction subcontract in excess of \$10,000 at any tier for construction work under the contract resulting from this solicitation. The notification shall list the name, address and telephone number of the subcontractor; employer identification number; estimated dollar amount of the subcontract; estimated starting and completion dates of the subcontract; and the geographical area in which the contract is to be performed.
4. As used in this Notice, and in the contract resulting from this solicitation, the "covered area" is portions of Skinner Street, School Street and Perona Court, as depicted on the Drawings.

*goals and timetables published from time to time by the Director, Office of Federal Contract Compliance Programs (OFCCP)

**Insert description of the geographical areas where the contract is to be performed giving the state, county and city, if any.

**CONSTRUCTION CONTRACTORS AFFIRMATIVE ACTION REQUIREMENTS
GOALS FOR MINORITY PARTICIPATION**

(As published in the Friday, October 3, 1980 Federal Register)

FEMALE PARTICIPATION= 6.9% STATEWIDE

<u>County</u>	<u>Percent</u>	<u>County</u>	<u>Percent</u>	<u>County</u>	<u>Percent</u>
Adams	3.1	Jasper	11.4	Randolph	11.4
Alexander	11.4	Jefferson	11.4	Richland	11.4
Bond	11.4	Jersey	11.4	Rock Island	4.6
Boone	6.3	Jo Davis	0.5	Saline	3.5
Brown	3.1	Johnson	11.4	Sangamon	4.5
Bureau	18.4	Kane	19.6	Schuyler	3.3
Calhoun	11.4	Kankakee	9.1	Scott	4
Carroll	3.4	Kendall	18.4	Shelby	4
Cass	4	Knox	3.3	Stark	3.3
Champaign	7.8	Lake	19.6	St. Clair	14.7
Christian	4	La Salle	18.4	Stephenson	4.6
Clark	2.5	Lawrence	3.5	Tazwell	4.4
Clay	11.4	Lee	4.6	Union	11.4
Clinton	14.7	Livingston	18.4	Vermilion	4.8
Coles	4.8	Logan	4	Wabash	3.5
Cook	19.6	Macon	7.6	Warren	3.3
Crawford	2.5	Macoupin	11.4	Washington	11.4
Cumberland	4.8	Madison	14.7	Wayne	11.4
De Kalb	18.4	Marion	11.4	White	3.5
De Witt	4	Marshall	3.3	Whiteside	3.4
Douglas	4.8	Mason	3.3	Will	20.9
Du Page	19.6	Massac	5.2	Williamson	11.4
Edgar	4.8	McDonough	3.3	Winnebago	6.3
Edwards	3.5	McHenry	19.6	Woodford	4.4
Effingham	11.4	McLean	2.5		
Fayette	11.4	Menard	4.5		
Ford	4.8	Mercer	3.4		
Franklin	11.4	Monroe	14.7		
Fulton	3.3	Montgomery	11.4		
Gallatin	3.5	Morgan	4		
Greene	11.4	Moultrie	4		
Grundy	18.4	Ogle	4.6		
Hamilton	3.5	Peoria	4.4		
Hancock	3.4	Perry	11.4		
Hardin	5.2	Piatt	4.8		
Henderson	3.4	Pike	3.1		
Henry	4.6	Pope	5.2		
Iroquois	18.4	Pulaski	11.4		
Jackson	11.4	Putnam	18.4		

41 CFR 60

60-4.1 Scope and Application.

This part applies to all contractors and subcontractors that hold any Federal or federally assisted construction contract in excess of \$10,000. The regulations in this part are applicable to all of a construction contractor's or subcontractor's construction employees who are engaged in on site construction including those construction employees who work on a non-Federal or non-federally assisted construction site. This part also establishes procedures, which all Federal contracting officers and all applicants, as applicable, shall follow in soliciting for and awarding Federal or federally assisted construction contracts. Procedures also are established which administering agencies shall follow in making any grant, contract, loan, insurance, or guarantee involving federally assisted construction which is not exempt from the requirements of Executive Order 11246, as amended. In addition, this part applies to construction work performed by construction contractors and subcontractors for Federal non-construction contractors and subcontractors if the construction work is necessary in whole or in part to the performance of a non-construction contract or subcontract.

[43 FR 49254, OCT. 20, 1978; 43 FR 51404, NOV. 3, 1978]

60-4.2 Solicitations.

(a) All Federal contracting officers and all applicants shall include the notice set forth in paragraph (d) of this section and the Standard Federal Equal Employment Opportunity Construction Contract Specifications set forth in § 60-4.3 of this part in all solicitations for offers and bids on all Federal and federally assisted construction contracts or subcontracts to be performed in geographical areas designated by the Director pursuant to § 60-4.6 of the part. Administering agencies shall require the inclusion of the notice set forth in paragraph (d) of this section and the specifications set forth in § 60-4.3 of this part as a condition of any grant, contract, subcontract, loan, insurance or guarantee involving federally assisted construction covered by this Part 60-4.

(b) All non-construction contractors covered by Executive Order 11246 and the implementing regulations shall include the notice in paragraph (d) of this section in all construction agreements, which are necessary in whole or in part to the performance of the covered non-construction contract.

(c) Contracting officers, applicants and non-construction contractors shall give written notice to the Director within 10 working days of award of a contract subject to these provisions. The notification shall include the name, address, and telephone number of the contractor; employer identification number; dollar amount of the contract, estimated starting and completion dates of the contract; the contract number; and geographical area in which the contract is to be performed.

(d) The following notice shall be included in, and shall be a part of, all solicitations for offers and bids on all Federal and federally assisted construction contracts or subcontracts in excess of \$10,000 to be performed in geographical areas designated by the Director pursuant to § 60-4.6 of this part (see 41 CFR 60-4.2(a)):

Notice of Requirement for Affirmative Action to Ensure Equal Employment Opportunity (Executive Order 11246)

1. The Offeror or Bidder's attention is called to the "Equal Opportunity Clause" and the "Standard Federal Equal Employment Specifications" set forth herein.
2. The goals and timetables for minority and female participation, expressed in percentage terms for the Contractor's aggregate workforce in each trade on all construction work in the covered area, are as follows:

Time- tables	Goals for minority participation for each trade	Goals for female participation in each trade
	Insert goals for each year.	Insert goals for each year.

These goals are applicable to all the Contractor's construction work (whether or not it is Federal or federally assisted) performed in the covered area. If the contractor performs construction work in a geographical area located outside of the covered area, it shall apply the goals established for such geographical area where the work is actually performed. With regard to this second area, the contractor also is subject to the goals for both its federally involved and non-federally involved construction.

The Contractor's compliance with the Executive Order and the regulations in 41 CFR Part 60-4 shall be based on its implementation of the Equal Opportunity Clause, specific affirmative action obligations required by the specifications set forth in 41 CFR 60-4.3(a), and its efforts to meet the goals. The hours of minority and female employment and training must be substantially uniform throughout the length of the contract, and in each trade, and the contractor shall make a good faith effort to employ minorities and women evenly on each of its projects. The transfer of minority or female employees or trainees from Contractor to Contractor or from project to project for the sole purpose of meeting the Contractor's goals shall be a violation of the contract, the Executive Order and the regulations in 41 CFR Part 60-4. Compliance with the goals will be measured against the total work hours performed.

3. The Contractor shall provide written notification to the Director of the Office of Federal Contract Compliance Programs within 10 working days of award of any construction subcontract in excess of \$10,000 at any tier for construction work under the contract resulting from this solicitation. The notification shall list the name, address and telephone number of the subcontractor; employer identification number of the subcontractor; estimated dollar amount of the subcontract; estimated starting and completion dates of the subcontract; and the geographical area in which the subcontract is to be performed.

4. As used in this Notice, and in the contract resulting from this solicitation, the "covered area" is (insert description of the geographical areas where the contract is to be performed giving the state, county, and city, if any).

[43 FR 49254, OCT. 20, 1978; 43 FR 51401, NOV. 3, 1978, AS AMENDED AT 45 FR 65977, OCT. 3, 1980]

60-4.3 Equal Opportunity Clauses.

(a) The equal opportunity clause published at 41 CFR 60-1.4(a) of this chapter is required to be included in, and is part of, all nonexempt Federal contracts and subcontracts, including construction contracts and subcontracts. The equal opportunity clause published at 41 CFR 60-1.4(b) is required to be included in, and is a part of, all nonexempt federally assisted construction contracts and subcontracts. In addition to the clauses described above, all Federal contracting officers, all applicants and all non-construction contractors, as applicable, shall include the specifications set forth in this section in all Federal and federally assisted construction contracts in excess of \$10,000 to be performed in geographical areas designated by the Director pursuant to § 60-4.6 of this part and in construction subcontracts in excess of \$10,000 necessary in whole or in part to the performance of non-construction Federal contracts and subcontracts covered under the Executive order.

Standard Federal Equal Employment Opportunity Construction Contract Specifications (Executive Order 11246)

1. As used in these specifications:

a. "Covered area," means the geographical area described in the solicitation from which this contract resulted:

b. "Director" means Director, Office of Federal Contract Compliance Programs, United States Department of Labor, or any person to whom the Director delegates authority;

c. "Employer identification number" means the Federal Social Security number used on the Employer's Quarterly Federal Tax Return, U.S. Treasury Department Form 941.

d. "Minority" includes:

(i) Black (all persons having origins in any of the Black African racial groups not of Hispanic origin);

(ii) Hispanic (all persons of Mexican, Puerto Rican, Cuban, Central or South American or other Spanish Culture or origin, regardless of race);

(iii) Asian and Pacific Islander (all persons having origins in any of the original peoples of the Far East, Southeast Asia, the Indian Subcontinent, or the Pacific Islands); and

(iv) American Indian or Alaskan Native (all persons having origins in any of the original peoples of North America and maintaining identifiable tribal affiliations through membership and participation or community identification).

2. Whenever the Contractor, or any Subcontractor at any tier, subcontracts a portion of the work involving any construction trade, it shall physically include in each subcontract in excess of \$10,000 the provisions of these specifications and the Notice which contains the applicable goals for minority and female participation and which is set forth in the solicitations from which this contract resulted.

3. If the Contractor is participating (pursuant to 41 CFR 60-4.5) in a Hometown Plan approved by the U.S. Department of Labor in the covered area either individually or through an association, its affirmative action obligations on all work in the Plan area (including goals and timetables) shall be in accordance with that Plan for those trades which have unions participating in the Plan. Contractors must be able to demonstrate their participation in and compliance with the provisions of any such Hometown Plan. Each Contractor or Subcontractor participating in an approved Plan is individually required to comply with its obligations under the EEO clause, and to make a good faith effort to achieve each goal under the Plan in each trade in which it has employees. The overall good faith performance by other Contractors or Subcontractors toward a goal in an approved Plan does not excuse any covered Contractor or Subcontractor's failure to take good faith efforts to achieve the Plan goals and timetables.

4. The Contractor shall implement the specific affirmative action standards provided in paragraphs 7 a through p of these specifications. The goals set forth in the solicitation from which this contract resulted are expressed as percentages of the total hours of employment and training of minority and female utilization the Contractor should reasonably be able to achieve in each construction trade in which it has employees in the covered area. Covered Construction contractors performing construction work in geographical areas where they do not have a Federal or federally assisted construction contract shall apply the minority and female goals established for the geographical area where the work is being performed. Goals are published periodically in the Federal Register in notice form, and such notices may be obtained from any Office of Federal Contract Compliance Programs office or from Federal procurement contracting officers. The Contractor is expected to make substantially uniform progress in meeting its goals in each craft during the period specified.

5. Neither the provisions of any collective bargaining agreement, nor the failure by a union with whom the Contractor has a collective bargaining agreement, to refer either minorities or women shall excuse the Contractor's obligations under these specifications, Executive Order 11246, nor the regulations promulgated pursuant thereto.

6. In order for the nonworking training hours of apprentices and trainees to be counted in meeting the goals, the Contractor must employ such apprentices and trainees during the training period, and the Contractor must have made a commitment to employ the apprentices and trainees at the completion of their training, subject to the availability of employment opportunities. Trainees must be trained pursuant to training programs approved by the U.S. Department of Labor.

7. The Contractor shall take specific affirmative action to ensure equal employment opportunity. The evaluation of the Contractor's compliance with these specifications shall be based upon its effort to achieve maximum results from its actions. The Contractor shall document these efforts fully, and shall implement affirmative action steps at least as extensive as the following:

- a.** Ensure and maintain a working environment free of harassment, intimidation, and coercion at all sites, and in all facilities at which the Contractor's employees are assigned to work. The Contractor, where possible, will assign two or more women to each construction project. The Contractor shall specifically ensure that all foremen, superintendents, and other on-site supervisory personnel are aware of and carry out the Contractor's obligation to maintain such a working environment, with specific attention to minority or female individuals working at such sites or in such facilities.
- b.** Establish and maintain a current list of minority and female recruitment sources, provide written notification to minority and female recruitment sources and to community organizations when the Contractor or its unions have employment opportunities available, and maintain a record of the organizations' responses.
- c.** Maintain a current file of the names, addresses and telephone numbers of each minority and female off-the-street applicant and minority or female referral from a union, a recruitment source or community organization and of what action was taken with respect to each such individual. If such individual was sent to the union hiring hall for referral and was not referred back to the Contractor by the union or, if referred, not employed by the Contractor, this shall be documented in the file with the reason; therefore, along with whatever additional actions the Contractor may have taken.
- d.** Provide immediate written notification to the Director when the union or unions with which the Contractor has a collective bargaining agreement has not referred to the Contractor a minority person or woman sent by the Contractor, or when the Contractor has other information that the union referral process has impeded the Contractor's efforts to meet its obligations.
- e.** Develop on-the-job training opportunities and/or participate in training programs for the area which expressly include minorities and women, including upgrading programs and apprenticeship and trainee programs relevant to the Contractor's employment needs, especially those programs funded or approved by the Department of Labor. The Contractor shall provide notice of these programs to the sources compiled under 7b above.
- f.** Disseminate the Contractor's EEO policy by providing notice of the policy to unions and training programs and requesting their cooperation in assisting the Contractor in meeting its EEO obligations; by including it in any policy manual and collective bargaining agreement; by publicizing it in the company newspaper, annual report, etc.; by specific review of the policy with all management personnel and with all minority and female employees at least once a year; and by posting the company EEO policy on bulletin boards accessible to all employees at each location where construction work is performed.
- g.** Review, at least annually, the company's EEO policy and affirmative action obligations under these specifications with all employees having any responsibility for hiring, assignment, layoff, termination, or other employment decisions including specific review of these items with onsite supervisory personnel such as Superintendents, General Foremen, etc., prior to the initiation of construction work at any job site. A written record shall be made and maintained identifying the time and place of these meetings, persons attending, subject matter discussed, and disposition of the subject matter.

h. Disseminate the Contractor's EEO policy externally by including it in any advertising in the news media, specifically including minority and female news media, and providing written notification to and discussing the Contractor's EEO policy with other Contractors and Subcontractors with whom the Contractor does or anticipates doing business.

i. Direct its recruitment efforts, both oral and written, to minority, female and community organizations, to schools with minority and female students and to minority and female recruitment and training organizations serving the Contractor's recruitment area and employment needs. Not later than one month prior to the date for the acceptance of applications for apprenticeship or other training by any recruitment source, the Contractor shall send written notification to organizations such as the above, describing the openings, screening procedures, and tests to be used in the selection process.

j. Encourage present minority and female employees to recruit other minority persons and women and, where reasonable, provide after school, summer and vacation employment to minority and female youth both on the site and in other areas of a contractor's work force.

k. Validate all tests and other selection requirements where there is an obligation to do so under 41 CFR Part 60-3.

l. Conduct, at least annually, an inventory and evaluation at least of all minority and female personnel for promotional opportunities and encourage these employees to seek or to prepare for, through appropriate training, etc., such opportunities.

m. Ensure that seniority practices, job classifications, work assignments and other personnel practices, do not have a discriminatory effect by continually monitoring all personnel and employment related activities to ensure that the EEO policy and the Contractor's obligations under these specifications are being carried out.

n. Ensure that all facilities and company activities are non-segregated except that separate or single-user toilet and necessary changing facilities shall be provided to assure privacy between the sexes.

o. Document and maintain a record of all solicitations of offers for subcontracts from minority and female construction contractors and suppliers, including circulation of solicitations to minority and female contractor associations and other business associations.

p. Conduct a review, at least annually, of all supervisors' adherence to and performance under the Contractor's EEO policies and affirmative action obligations.

8. Contractors are encouraged to participate in voluntary associations, which assist in fulfilling one or more of their affirmative action obligations (7a through p). The efforts of a contractor association, joint contractor-union, contractor-community, or other similar group of which the contractor is a member and participant, may be asserted as fulfilling any one or more of its obligations under 7a through p of these Specifications provided that the contractor actively participates in the group, makes every effort to assure that the group has a positive impact on the employment of minorities and women in the industry, ensures that the concrete benefits of the program are reflected in the Contractor's minority and female workforce participation, makes a good faith effort to meet its individual goals and timetables, and can provide access to

documentation which demonstrates the effectiveness of actions taken on behalf of the Contractor. The obligation to comply, however, is the Contractor's and failure of such a group to fulfill an obligation shall not be a defense for the Contractor's noncompliance.

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

10. The Contractor shall not use the goals and timetables or affirmative action standards to discriminate against any person because of race, color, religion, sex, or national origin.

11. The Contractor shall not enter into any Subcontract with any person or firm debarred from Government contracts pursuant to Executive Order 11246.

12. The Contractor shall carry out such sanctions and penalties for violation of these specifications and of the Equal Opportunity Clause, including suspension, termination and cancellation of existing subcontracts as may be imposed or ordered pursuant to Executive Order 11246, as amended, and its implementing regulations, by the Office of Federal Contract Compliance Programs. Any Contractor who fails to carry out such sanctions and penalties shall be in violation of these specifications and Executive Order 11246, as amended.

13. The Contractor, in fulfilling its obligations under these specifications, shall implement specific affirmative action steps, at least as extensive as those standards prescribed in paragraph 7 of these specifications, so as to achieve maximum results from its efforts to ensure equal employment opportunity. If the Contractor fails to comply with the requirements of the Executive Order, the implementing regulations, or these specifications, the Director shall proceed in accordance with 41 CFR 60-4.8.

14. The Contractor shall designate a responsible official to monitor all employment related activity to ensure that the company EEO policy is being carried out, to submit reports relating to the provisions hereof as may be required by the Government and to keep records. Records shall at least include for each employee the name, address, telephone numbers, construction trade, union affiliation if any, employee identification number when assigned, social security number, race, sex, status (e.g., mechanic, apprentice trainee, helper, or laborer), dates of changes in status, hours worked per week in the indicated trade, rate of pay, and locations at which the work was performed. Records shall be maintained in an easily understandable and retrievable form; however, to the degree that existing records satisfy this requirement, contractors shall not be required to maintain separate records.

15. Nothing herein provided shall be construed as a limitation upon the application of other laws, which establish different standards of compliance or upon the application of requirements for the hiring of local or other area residents (e.g., those under the Public Works Employment Act of 1977 and the Community Development Block Grant Program).

(b) The notice set forth in 41 CFR 60-4.2 and the specifications set forth in 41 CFR 60-4.3 replace the New Form for Federal Equal Employment Opportunity Bid Conditions for Federal and Federally Assisted Construction published at 41 FR 32482 and commonly known as the Model Federal EEO Bid Conditions, and the New Form shall not be used after the regulations in 41 CFR Part 60-4 become effective.

[43 FR 49254, OCT. 20, 1978; 43 FR 51401, NOV. 3, 1978, AS AMENDED AT 45 FR 65978, OCT. 3, 1980]

60-4.4 Affirmative Action Requirements.

(a) To implement the affirmative action requirements of Executive Order 11246 in the construction industry, the Office of Federal Contract Compliance Programs previously has approved affirmative action programs commonly referred to as "Hometown Plans," has promulgated affirmative action plans referred to as "Imposed Plans" and has approved "Special Bid Conditions" for high impact projects constructed in areas not covered by a Hometown or an Imposed Plan. All solicitations for construction contracts made after the effective date of the regulations in this part shall include the notice specified in § 60-4.2 of this part and the specifications in § 60-4.3 of this part in lieu of the Hometown and Imposed Plans including the Philadelphia Plan and Special Bid Conditions. Until the Director has issued an order pursuant to § 60-4.6 of this part establishing goals and timetables for minorities in the appropriate geographical areas or for a project covered by Special Bid Conditions, the goals and timetables for minorities to be inserted in the Notice required by 41 CFR 60-4.2 shall be the goals and timetables contained in the Hometown Plan, Imposed Plan or Special Bid Conditions presently covering the respective geographical area or project involved.

(b) Signatories to a Hometown Plan (including heavy highway affirmative action plans) shall have 45 days from the effective date of the regulations in this part to submit under such a Plan (for the director's approval) goals and timetables for women and to include female representation on the Hometown Plan Administrative Committee. Such goals for female representation shall be at least as high as the goals established for female representation in the notice issued pursuant to 41 CFR 60-4.6. Failure of the signatories, within the 45-day period, to include female representation and to submit goals for women or a new plan, as appropriate, shall result in an automatic termination of the Office of Federal Contract Compliance Program's approval of the Hometown Plan. At any time, the Office of Federal Contract Compliance Programs terminates or withdraws its approval of a Hometown Plan, or when the plan expires and another plan is not approved, the contractors signatory to the plan shall be covered automatically by the specifications set forth in § 60-4.3 of this part and by the goals and timetables established for that geographical area pursuant to § 60-4.6 of this part.

60-4.5 Hometown Plans

(a) A contractor participating, either individually or through an association, in an approved Hometown Plan (including heavy highway affirmative action plans) shall comply with its affirmative action obligations under Executive Order 11246 by complying with its obligations under the plan: *Provided*, That each contractor or subcontractor participating in an approved plan is individually required to comply with the equal opportunity clause set forth in 41 CFR 60-1.4; to make a good faith effort to achieve the goals for each trade participating in the plan in which it has employees; and that the overall good performance by other contractors or subcontractors

toward a goal in an approved plan does not excuse any covered contractor's or subcontractor's failure to take good faith efforts to achieve the plan's goals and timetables. If a contractor is not participating in an approved Hometown Plan it shall comply with the specifications set forth in § 60-4.3 of this part and with the goals and timetables for the appropriate area as listed in the notice required by 41 CFR 60-4.2 with regard to that trade. For the purposes of this part 60-4, a contractor is not participating in a Hometown Plan for a particular trade if it:

- (1) Ceases to be signatory to a Hometown Plan covering that trade;
 - (2) Is signatory to a Hometown Plan for that trade but is not party to a collective bargaining agreement for that trade;
 - (3) Is signatory to a Hometown Plan for that trade but is party to a collective bargaining agreement with labor organizations, which are not or cease to be signatories to the same Hometown Plan for that trade;
 - (4) Is signatory to a Hometown Plan for that trade but is party to a collective bargaining agreement with a labor organization for that trade but the two have not jointly executed a specific commitment to minority and female goals and timetables and incorporated the commitment in the Hometown Plan for that trade;
 - (5) Is participating in a Hometown Plan for that trade which is no longer acceptable to the Office of Federal Contract Compliance Programs;
 - (6) Is signatory to a Hometown Plan for that trade but is party to a collective bargaining agreement with a labor organization for that trade and the labor organization and the contractor have failed to make a good faith effort to comply with their obligations under the Hometown Plan for that trade.
- (b) Contractors participating in Hometown Plans must be able to demonstrate their participation and document their compliance with the provision of the Hometown Plan.

[43 FR 49254, OCT. 20, 1978; 43 FR 51401, NOV. 3, 1978]

60-4.6 Goals and Timetables.

The Director, from time to time, shall issue goals and timetables for minority and female utilization, which shall be based on appropriate workforce, demographic, or other relevant data and which shall cover construction projects or construction contracts performed in specific geographical areas. The goals, which shall be applicable to each construction trade in a covered contractor's or subcontractor's entire workforce which is working in the area covered by the goals and timetables, shall be published as notices in the Federal Register, and shall be inserted by the contracting officers and applicants, as applicable, in the Notice required by 41 CFR 60-4.2. Covered construction contractors performing construction work in geographical areas where they do not have a Federal or federally assisted construction contract shall apply the minority and female goals established for the geographical area where the work is being performed.

[45 FR 65978, OCT. 3, 1980]

60-4.7 Effect on Other Regulations.

The regulations in this part are in addition to the regulations contained in this chapter, which apply to construction contractors and subcontractors generally. See particularly, 41 CFR 60-1.4 (a), (b), (c), (d), and (e); 60-1.5; 60-1.7; 60-1.8; 60-1.26; 60-1.29; 60-1.30; 60-1.32; 60-1.41; 60-1.42; 60-1.43; and 41 CFR Part 60-3; Part 60-20; Part 60-30; Part 60-40; and Part 60-50.

60-4.8 Show Cause Notice.

If an investigation or compliance review reveals that a construction contractor or subcontractor has violated the Executive order, any contract clause, specifications or the regulations in this chapter and if administrative enforcement is contemplated, the Director shall issue to the contractor or subcontractor a notice to show cause which shall contain the items specified in paragraphs (i) through (iv) of 41 CFR 60-2.2(c)(1). If the contractor does not show good cause within 30 days, or in the alternative, fails to enter an acceptable conciliation agreement which includes where appropriate, make up goals and timetables, back pay, and seniority relief for affected class members, the OFCCP shall follow the procedure in 41 CFR 60-1.26(b): *Provided*, That where a conciliation agreement has been violated, no show cause notice is required prior to the initiation of enforcement proceedings.

[43 FR 49254, OCT. 20, 1978; 43 FR 51401, NOV. 3, 1978]

60-4.9 Incorporation by Operation of the Order.

By operation of the order, the equal opportunity clause contained in § 60-1.4, the Notice of Requirement for Affirmative Action to Ensure Equal Employment Opportunity (Executive Order 11246) contained in § 60-4.2, and the Standard Federal Equal Employment Opportunity Construction Contract Specifications (Executive Order 11246) contained in § 60-4.3 shall be deemed to be a part of every solicitation or of every contract and subcontract, as appropriate, required by the order and the regulations in this chapter to include such clauses whether or not they are physically incorporated in such solicitation or contract and whether or not the contract is written.

U.S. ENVIRONMENTAL PROTECTION AGENCY

CERTIFICATION OF NONSEGREGATED FACILITIES

(Applicable to federally assisted construction contracts and related subcontracts exceeding \$10,000 that are not exempt from the Equal Opportunity clause.)

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

Signature

Date

Name and Title of Signer

(Please type)

Firm Name

NOTE: The penalty for making false statements in offers is prescribed in 18 U.S.C. 1001.

**NOTICE TO LABOR UNIONS OR OTHER ORGANIZATIONS OF WORKERS
NONDISCRIMINATION IN EMPLOYMENT**

To: _____
(Name of union or organization of workers)

The undersigned currently holds contract(s) with _____
(name of applicant)

involving funds or credit of the U.S. Government or (a) subcontract(s) with a prime contractor holding such contract(s).

You are advised that under the provisions of the above contracts(s) or subcontract(s) and in accordance with Executive Order 11246, as amended, dated September 24, 1965, as amended, the undersigned is obliged not to discriminate against any employee or applicant for employment because of race, color, creed or national origin. This obligation not to discriminate in employment includes, but is not limited to, the following:

HIRING, PLACEMENT, UPGRADING, TRANSFER OR DEMOTION, RECRUITMENT, ADVERTISING, OR SOLICITATION FOR EMPLOYMENT, TRAINING DURING EMPLOYMENT, RATES OF PAY OR OTHER FORMS OF COMPENSATION, SELECTION FOR TRAINING INCLUDING APPRENTICESHIP, LAYOFF OR TERMINATION.

This notice is furnished you pursuant to the provisions of the above contract(s) or subcontracts(s) and Executive Order 11246, as amended.

Copies of this notice will be posted by the undersigned in conspicuous places available to employees or applicants for employment.

(Contractor or Subcontractor)

(Date)

EPA Project Control #: _____

United States Environmental Protection Agency
Washington, DC 20460

Certification Regarding Debarment, Suspension and Other Responsibility Matters

The prospective participant to the best of its knowledge and belief that it and its principles:

- (a) Are not presently debarred, suspended, proposed for debarment, declared ineligible, or voluntarily excluded from covered transactions by any Federal department or agency;
- (b) Have not within a three year period preceding this proposal been convicted of or had a civil judgment rendered against them for commission of fraud or a criminal offense in connection with obtaining, attempting to obtain, or performing a public (Federal, State or local) transaction or contract under a public transaction; violation of Federal or State antitrust statutes or commission of embezzlement, theft, forgery, bribery, falsification or destruction of records, making false statements, or receiving stolen property.
- (c) Are not presently indicted for or otherwise criminally or civilly charged by a government entity (Federal, State or local) with commission of any of the offenses enumerated in paragraph (1) (b) of this certification; and
- (d) Have not within a three-year period preceding this application/proposal had one or more public transactions (Federal, State or local) terminated for cause or default.

I understand that a false statement on this certification may be grounds for rejection of this proposal or termination of the award. In addition, under 18 USC Sec. 1001, a false statement may result in fine of up to \$10,000 or imprisonment for up to 5 years, or both.

(Typed Name & Title of Authorized Representative)

(Signature of Authorized Representative) (Date)

I am unable to certify the above statements. My explanation is attached.

Instructions

Under Executive Order 12549 an individual or organization debarred or excluded from participation in Federal assistance or benefit programs may not receive any assistance award under a Federal program, or a sub-agreement thereunder for \$25,000 or more.

Accordingly, each prospective recipient of an EPA grant, loan, or cooperative agreement and any contract or sub-agreement participant thereunder must complete the attached certification or provide an explanation why they cannot. For further details, see 40 CFR 32.510, Participants' responsibilities, in the attached regulation.

Where to Submit

The prospective EPA grant, loan, or cooperative agreement recipient must return the signed certification or explanation with its application to the appropriate EPA Headquarters or Regional office, as required in the application instructions.

A prospective prime contractor must submit a completed certification or explanation to the individual or organization awarding the contract.

Each prospective subcontractor must submit a completed certification or explanation to the prime contractor for the project.

How to Obtain Forms:

EPA includes the certification form, instructions, and a copy of its implementing regulation (40 CFR Part 32) in each application kit. Applicants may reproduce these materials as needed and provide them to their prospective prime contractor, who, in turn, may reproduce and provide them to prospective subcontractors.

Additional copies/assistance may be requested from:

Compliance Branch
Grants Administration Division (PM-216F)
U.S. Environmental Protection Agency
401 M Street, SW
Washington DC 20460
(Telephone: 202-475-8025)

Bidder Certification
In Compliance with Article 33E-11 to the
"Criminal Code of 2012"

I _____, do hereby certify that:
Name

1. I am _____ of the _____
Position Firm
and have authority to execute this certification on behalf of the firm

2. This firm is not barred from bidding on this contract due to a either a Bid-rigging or Bid Rotating violation as set forth in Article 33E-11 to the "Illinois Criminal Code of 2012 [720 ILCS 5/33E-11]."

Name of Firm _____

Signature _____

Title _____

Date _____

Corporate Seal (where appropriate)

On this _____ day of _____ 20____, before me appeared (Name)

_____ to me personally known, who, being duly sworn, did execute the foregoing affidavit, and did state that he or she was properly authorized by (Name of Firm) _____ to execute the affidavit and did so as his or her free act and deed.

Notary Public _____ Commission Expires _____

Notary Seal

**Bidder Certification Regarding the Use of
Iron, Steel, Manufactured Products, and Construction Materials produced in the United States
(Build America, Buy America Act)**

I _____, do hereby certify that:

Name

1. I am _____ (title) of the _____ (company, partnership, etc.) and have authority to execute this certification on behalf of the firm.
2. I am aware that all iron, steel, manufactured products, and construction materials used for this project must be produced in the United States per the federal Build America, Buy America Act (BABA) signed by President Biden on November 15, 2021. Pub. L No. 117-58, §§ 70901-52.
3. I understand the term "iron and steel products" refers to the following products made primarily of iron or steel: lined or unlined pipes and fittings manhole covers and other municipal castings, hydrants, tanks, flanges, pipe clamps and restraints, valves, structural steel, reinforced precast concrete, and construction materials.
4. I understand that all manufactured products used in the project must be produced in the United States. This means the manufactured product was manufactured in the United States, and the cost of the components of the manufactured product that are mined, produced, or manufactured in the United States is greater than 55 percent of the total cost of all components of the manufactured product.
5. I acknowledge that all construction materials for this project must be manufactured in the United States. This means all manufacturing processes for the construction materials occurred in the United States.
6. I am aware that this requirement applies to all portions of the project that are subcontracted.

Signature _____

Date _____

Corporate Seal (where appropriate)

Requirements Specific to Buy America, Build America Act (BABA)

On November 15, 2021, President Biden signed into law the Infrastructure Investment and Jobs Act (“IIJA”), Pub. L. No. 117-58, which includes the Build America, Buy America Act (“BABA”). The purpose of BABA is to ensure that federally funded infrastructure projects only utilize iron, steel, manufactured products, and construction materials produced in the United States. The requirement to use products produced in the United States applies to all projects for the construction, alteration, maintenance, or repair of publicly owned treatment works (POTW) or public water systems.

Guidance is available on USEPA’s website: <https://www.epa.gov/cwsrf/build-america-buy-america-baba>. Waivers from the requirements are available under certain circumstances. BABA requires the following:

1. All iron and steel used in the project are produced in the United States. This means all manufacturing processes, from the initial melting stage through the application of coatings, occurred in the United States.
2. All manufactured products used in the project are produced in the United States. This means the manufactured product was manufactured in the United States, and the cost of the components of the manufactured product that are mined, produced, or manufactured in the United States is greater than 55 percent of the total cost of all components of the manufactured product, unless another standard for determining the minimum amount of domestic content of the manufactured product has been established under applicable law or regulation.
3. All construction materials are manufactured in the United States. This means that all manufacturing processes for the construction material occurred in the United States.

BABA only applies to items that are consumed in, incorporated into, or affixed to an infrastructure project. It does not apply to tools, equipment, and supplies, such as temporary scaffolding, brought to the construction site and removed at project completion. BABA does not apply to equipment and furnishings, such as movable chairs, desks, and portable computer equipment, that are used at or within the finished infrastructure project but are not an integral part of or permanently affixed to the structure. BABA requirements apply to an entire infrastructure project, even if it is funded by both Federal and non-Federal funds under one or more awards.

Construction Materials includes an article, material, or supply that consists primarily of:

- non-ferrous metals;
- plastic and polymer-based products including polyvinylchloride, composite building materials, and polymers used in fiber optic cables;
- glass including optic glass;
- lumber; or
- drywall.

Construction Materials does NOT include items made primarily of iron or steel; manufactured products; cement and cementitious materials; aggregates such as stone, sand, or gravel; or aggregate binding agents or additives.

Requirements Specific to Iron and Steel

The existing American Iron and Steel (AIS) Requirements will continue as part of BABA. An iron or steel product is one of the items listed below and is made primarily of iron or steel that is permanently incorporated into the public water system or treatment works.

- Pipes (lined or unlined) and pipe fittings
- Pipe clamps and restraints
- Valves
- Structural steel
- Manhole Covers and other municipal castings such as valves boxes, drainage grates, bollards, etc.
- Construction materials such as trusses, wire, grating, wire, ductwork, fence tubing, wall panels, etc.
- Hydrants
- Flanges
- Tanks
- Reinforced precast concrete

For one of the listed iron or steel products to be considered subject to the BABA requirements, it must be made of greater than 50% iron or steel, measured by the material costs. "Steel" means an alloy that includes at least 50 percent iron, between .02 and 2 percent carbon, and may include other elements. Metallic elements such as chromium, nickel, molybdenum, manganese, and silicon may be added during the melting of steel for the purpose of enhancing properties such as corrosion resistance, hardness, or strength. The definition of steel covers carbon steel, alloy steel, stainless steel, tool steel and other specialty steels.

Recordkeeping and Documenting the Country of Origin for Iron, Steel, Manufactured Products, & Construction Materials used in Grant Funded Projects

Grant recipients with assistance from their general contractor must be able to verify that products used in their projects comply with the BABA requirements. USEPA recommends grant recipients use a "Step Certification" process to ensure that producers adhere to the BABA requirements. Step certification is a process under which each handler (supplier, fabricator, manufacturer, etc.) of the iron, steel, manufactured products, or construction materials certifies that their step in the process was domestically performed. Each time a step in the manufacturing process takes place, the manufacturer delivers its work along with a certification of its origin.

A certification can be quite simple if it includes the name of the manufacturer, the location of the manufacturing facility (not company headquarters), a description of the product or item being delivered, and a signature by a manufacturer's responsible party. Certification could be achieved by other methods such as requiring the final manufacturer, who delivers the products to the worksite, to provide certification that all manufacturing processes occurred in the US. While this type of certification is easier and acceptable, it may not provide the same degree of assurance and additional documentation may be needed. USEPA auditors recommend keeping records of when and where the products were

delivered. Records from the manufacturer should refer to specific items such as pipes, valves, meters. Try to avoid records containing broad statements such as, "All products delivered were USA made".

Regardless of the method, documents regarding the country of origin for all covered items should be collected and maintained by the grant recipients. Having a good paper trail is invaluable during an inspection or audit.

Sample Certification Letter

Below is a sample step certification letter for BABA compliance. The completed letter is provided to the construction contractor or grant recipient by the supplier, fabricator, manufacturer, etc. of covered products. Documentation must be provided on company letterhead.

Company Letterhead
Date
Company Name Company Address City, State, Zip
Subject: Build America, Buy America Act Step Certification for Project (Identify Project Here xxx)
I, (company representative), certify that the (melting, bending, coating, galvanizing, cutting, etc.) process for (manufacturing or fabricating) the following products and/or materials shipped or provided for the subject project are in full compliance with the federal Build America, Buy America Act requirements as required by USEPA's federal procurement guidelines.
Item, Products, and/or Materials: 1. XXX 2. XXX 3. XXX
Such process took place at the following location (City and State must be included):
If any of the above compliance statements change while providing material for this project, we will immediately notify the prime contractor and the engineer.
Signed by Company Representative
Name Clearly Typed

SECTION 01 1000 - SUMMARY

PART 1 GENERAL

1.1 SUMMARY

- A. Section Includes:
 - 1. Contract description.
 - 2. Contractor's use of Site.
 - 3. Specification conventions.
 - 4. Work by Owner

1.2 CONTRACT DESCRIPTION

- A. The Village of Diamond is requesting proposals for the installation of 4", 6", and 8" PVC watermain, service line hook-ups, hydrants, valves and associated materials for the Water Main Improvements on School, Skinner and Perona Streets. All EPA permit requirements must be met.
- B. Completed and ready for final payment shall be defined as completion of all work of this Contract.
- C. Additional limitations on times for performing the work are contained in the Project Drawings.
- D. Contractor shall pay to Owner as liquidated damages \$250 per calendar day for not complying with either the substantial completion date or the final completion date.
- E. Perform Work of the Contract in accordance with the General Conditions and Supplementary Conditions.

1.3 CONTRACTOR'S USE OF SITE AND PREMISES

- A. Limit use of site and premises to allow:
 - 1. Access by emergency vehicles and school buses.
 - 2. Access by private property owners to property and driveways.
- B. Emergency Vehicle and School Bus Access During Construction: The Contractor should do his due diligence in providing adequate emergency vehicle and school bus access during the construction of the project. If emergency vehicle and school bus access cannot be maintained, as approved by the Engineer and Owner, it shall be the Contractor's sole responsibility to notify the Police Department, Fire Department, Public Works Department, EMS, and the School District(s) of the construction status and the location of any limited access or street closures.
- C. Construction Operations: Limited to areas noted on Drawings. The Owner shall have final say on the use of the Village streets for construction related traffic. Construction operations should be limited to weekdays from 7:00 A.M. to 5:00 P.M. except where specifically required otherwise on the drawings or when authorized in writing by the Owner.

- D. Utility Outages and Shutdown: No utility customer shall be out of service for more than four (4) hours unless approved by the Owner and Engineer in writing. Utility outages cannot begin prior to 8:00 A.M. and cannot extend beyond 5:00 P.M. Prior to performing a utility outage, the Contractor shall notify the customers in the affected area by placing a notification on their door a minimum of 48 hours prior to the outage.
- E. Residential and Commercial Access: At the end of each day, the Contractor shall have progressed the work to a point where each resident or business adjacent to the work will have full access to their driveway and property. Temporary aggregate ramps shall be constructed as needed to maintain access. This provision shall not apply when concrete placement operations or concrete curing at or adjacent to a particular driveway make providing access impossible. All work to provide resident access as described above shall be included in the Lump Sum price for traffic control. During trenching operations for water main, storm sewer, or sanitary sewer, when the final HMA or PCC surface will not be placed the same day as the excavation, trenches that would otherwise impede residents from accessing their driveway(s) or property shall be filled flush with existing pavement with temporary aggregate surface (CA-6). Non-compliance with these provisions will result in a deduction of \$500 per day that the non-compliance continues from the amount the Owner would otherwise owe Contractor for work performed.

1.4 SPECIFICATION CONVENTIONS

- A. These Specifications are written in imperative mood and streamlined form. This imperative language is directed to the Contractor unless specifically noted otherwise. The words "shall be" are included by inference where a colon (:) is used within sentences or phrases.
- B. In addition to these Specifications, the following documents shall be considered standard specifications for this project:
 - 1. Illinois Department of Transportation's "Standard Specifications for Road and Bridge Construction," adopted January 1, 2022, and "Supplemental Specifications and Recurring Special Provisions," current edition. These two (2) documents shall herein be referred to as the "Roadway Specifications."
 - 2. Illinois Society of Professional Engineers' "Standard Specifications for Water and Sewer Construction in Illinois," 8th Edition, adopted in 2020. This document shall herein be referred to as the "Water and Sewer Specifications."
- C. In case of conflict between the above-referenced "Standard Specifications" and the Drawings and Specifications for this project, the Drawings and Specifications for this project will govern.

1.5 WORK BY OWNER

- A. The Village of Diamond's (Owner's) Public Works Department shall be responsible for opening and closing any water main valves in the Owner's water system during construction of the project. The Contractor is to notify the Public Works Department, with appropriate lead time, prior to the necessity for valve operations. The Contractor shall not operate a water main valve unless an emergency requires the operation.

PART 2 PRODUCTS - Not Used

PART 3 EXECUTION - Not Used

END OF SECTION

SECTION 01 2000 - PRICE AND PAYMENT PROCEDURES

PART 1 GENERAL

1.1 SECTION INCLUDES

- A. Applications for Payment.
- B. Change procedures.
- C. Defect assessment.
- D. Unit prices.
- E. Re-stocking fees and leftover materials.
- F. Material allowances.

1.2 APPLICATIONS FOR PAYMENT

- A. Submit three copies of each application on AIA Form G702 – Application and Certificate of Payment and AIA G703 - Continuation Sheet for G702. The Contractor's electronic media driven form may be substituted for the AIA Forms; however, the Contractor's form shall be approved by the Owner and Engineer prior to the first payment.
- B. Content and Format: Utilize Schedule of Values for listing items in Application for Payment. Revise schedule to list approved Change Orders, with each Application for Payment.
- C. Payment period: Submit at intervals as agreed to in the Pre-Construction Meeting.
- D. Submit with transmittal letter as specified for Submittals in Section 01 3300 – Submittal Procedures.
- E. Submit partial waivers of lien from each supplier and subcontractor in addition to the Contractor's with each payment application.
- F. Substantiating Data: When Engineer requires substantiating information, submit data justifying dollar amounts in question. Include the following with Application for Payment:
 - 1. Partial release of liens from major subcontractors and vendors.
 - 2. Affidavits attesting to off-site stored products. Affidavits shall include product invoices and insurance certificate.

1.3 CHANGE PROCEDURES

- A. Submittals: Submit name of individual authorized to receive change documents, and be responsible for informing others in Contractor's employ or Subcontractors of changes to the Work.

- B. The Engineer will advise of minor changes in the Work not involving adjustment to Contract Sum/Price or Contract Time by issuing supplemental instructions. Supplemental instructions may be provided in the field and shall be documented by all parties. The Contractor and Engineer's project manager shall be responsible for documenting these items via e-mail, facsimile, or other written means.
- C. The Engineer may issue a Proposal Request including a detailed description of proposed change with supplementary or revised Drawings and specifications or a change in Contract Time for executing the change. Contractor will prepare and submit estimate within two (2) days (maximum). The Contractor shall not begin the construction of the change in the work until the price has been preliminarily accepted by the Engineer and Owner in writing.
- D. Contractor may propose changes by submitting a request for change to Engineer, describing proposed change and its full effect on the Work. Include a statement describing reason for the change, and effect on Contract Sum/Price and Contract Time with full documentation. The Contractor shall not begin the construction of the change in the work until the price has been preliminarily accepted by the Engineer and Owner in writing.
- E. Stipulated Sum/Price Change Order: Based on Proposal Request and Contractor's fixed price quotation or Contractor's request for Change Order as approved by Engineer.
- F. Time and Material/Force Account Change Order: Submit itemized account and supporting data after completion of change, within time limits indicated in Conditions of the Contract. Engineer will determine change allowable in Contract Sum/Price and Contract Time as provided in Contract Documents.
 - 1. Time and Material/Force Account Change Orders shall ONLY BE ACCEPTED IN EMERGENCY SITUATIONS where a price for the work cannot be obtained prior to performing the work.
 - 2. When such a scenario takes place, the Contractor shall notify the Engineer immediately for assessment of the proposed change and approval of the Contractor's desire to begin billing under a time and material basis.
 - 3. If the Contractor does not notify the Engineer for an assessment prior to beginning Work that the Contractor feels is time and material worthy, the Work and associated payment WILL NOT BE APPROVED.
- G. Maintain detailed records of work done on Time and Material/Force Account basis. Provide full information required for evaluation of proposed changes, and to substantiate costs for changes in the Work.
- H. Document each quotation for change in cost or time with sufficient data to allow evaluation of quotation.
- I. Execution of Change Orders: Engineer will issue Change Orders for signatures of parties as provided in Conditions of the Contract.
- J. Correlation of Contractor Submittals:
 - 1. Promptly revise Schedule of Values and Application for Payment forms to record each authorized Change Order as separate line item and adjust Contract Sum/Price.

2. Promptly revise progress schedules to reflect change in Contract Time, revise sub-schedules to adjust times for other items of work affected by the change, and resubmit.
3. Promptly enter changes in Project Record Documents.

1.4 DEFECT ASSESSMENT

- A. Replace the Work, or portions of the Work, not conforming to specified requirements.
- B. If, in the opinion of the Engineer, it is not practical to remove and replace the Work, the Engineer will direct appropriate remedy or adjust payment:
 1. The defective Work may remain, but unit sum/price will be adjusted to new sum/price at discretion of Engineer and Owner.
 2. Defective Work will be partially repaired to instructions of Engineer, and unit sum/price will be adjusted to new sum/price at discretion of Engineer and Owner.
- C. Individual specification sections may modify these options or may identify specific formula or percentage sum/price reduction.
- D. Authority of Engineer to assess defects and identify payment adjustments is final.
- E. Non-Payment For Rejected Products: Payment will not be made for rejected products for any of the following:
 1. Products wasted or disposed of in a manner that is not acceptable.
 2. Products determined as unacceptable before or after placement.
 3. Products not completely unloaded from transporting vehicle.
 4. Products placed beyond lines and levels of required Work.
 5. Products remaining on hand after completion of the Work.
 6. Loading, hauling, and disposing of rejected products.

1.5 UNIT PRICES

- A. Authority: Measurement methods are delineated in individual specification sections.
- B. Measurement methods delineated in individual specification sections complement criteria of this section. In event of conflict, requirements of individual specification section govern.
- C. The Contractor shall take measurements and compute quantities. Engineer will verify measurements and quantities.
- D. Unit Quantities: Quantities and measurements indicated in Bid Form are for contract purposes only. Quantities and measurements supplied or placed in the Work shall determine payment.
 1. When actual Work requires more or fewer quantities than those quantities indicated, provide required quantities at unit sum/prices contracted.
 2. When actual Work requires 25 percent or greater change in quantity than those quantities indicated, Owner or Contractor may claim for Contract Price adjustment.
- E. Payment Includes: Full compensation for required labor, products, tools, equipment, plant and facilities, transportation, services and incidentals; erection, application or installation of item of the Work; overhead and profit.

- E. Final payment for Work governed by unit prices will be made on basis of actual measurements and quantities accepted by Engineer multiplied by unit sum/price for Work incorporated in or made necessary by the Work.
- G. Measurement Of Quantities:
 - 1. Weigh Scales: Inspected, tested and certified by the State of Illinois within the past year.
 - 2. Platform Scales: Of sufficient size and capacity to accommodate conveying vehicle.
 - 3. Metering Devices: Inspected, tested and certified by an authorized representative of the device manufacturer within the past year.
 - 4. Measurement by Volume: Measured by cubic dimension using mean length, width and height or thickness.
 - 5. Measurement by Area: Measured by square dimension using mean length and width or radius.
 - 6. Linear Measurement: Measured by linear dimension, at item centerline or mean chord.
 - 7. Stipulated Sum/Price Measurement: Items measured by weight, volume, area, or linear means or combination, as appropriate, as completed item or unit of the Work.

1.6 RE-STOCKING FEES AND LEFTOVER MATERIALS

- A. Any leftover materials not used in the Work at the completion of the project shall be removed from the site by the Contractor at no additional cost to the Owner.
- B. If specific materials/products are to be returned to the material/product supplier, the Contractor shall be responsible for the payment of any re-stocking fee associated with the return of the item. In no case shall the Owner be required to reimburse the Contractor for re-stocking fees nor shall the Owner be required to reimburse the Contractor for excess materials which cannot be returned to the material/product supplier.

1.7 MATERIAL ALLOWANCES

- A. The Owner, at its discretion, will allow payment for materials prior to their incorporation into the work in accordance with Article 109.07(b) of the Roadway Specifications and the following:
 - 1. Material allowances will only be considered for the following products:
 - a. Precast concrete products including pipe and structures.
 - b. PVC pipe.
 - c. Pipe fittings of 4" or larger nominal diameter.
 - d. Reinforcing steel.
 - e. Frames and grates for structures.
 - 2. The amount of the material allowance shall be limited to the actual material and shipping costs charged to the Contractor.
 - 3. Materials shall be present on the work site at the time of the request for a material allowance. Materials shall be stored in a manner acceptable to the Engineer and Owner.
 - 4. Contractor shall submit a copy of the invoice from the supplier/producer to justify the requested amount of the material allowance.

PART 2 PRODUCTS - Not Used

PART 3 EXECUTION - Not Used

END OF SECTION

SECTION 01 2500 - SUBSTITUTION PROCEDURES

PART 1 GENERAL

1.1 SECTION INCLUDES

- A. Quality assurance.
- B. Product substitution procedures.

1.2 QUALITY ASSURANCE

- A. Contract is based on products and standards established in Contract Documents without consideration of proposed substitutions.
- B. Products specified define standard of quality, type, function, dimension, appearance, and performance required.
- C. Substitution Proposals: Permitted for specified products except where specified otherwise. Do not substitute products unless substitution has been accepted and approved in writing by Owner.

1.3 PRODUCT SUBSTITUTION PROCEDURES

- A. Engineer will consider requests for substitutions only within 15 days after issuance of Notice of Award.
- B. Substitutions may be considered when a product becomes unavailable through no fault of Contractor.
- C. Document each request with complete data, substantiating compliance of proposed substitution with Contract Documents, including:
 - 1. Manufacturer's name and address, product, trade name, model, or catalog number, performance and test data, and reference standards.
 - 2. Itemized point-by-point comparison of proposed substitution with specified product, listing variations in quality, performance, and other pertinent characteristics.
 - 3. Reference to Article and Paragraph numbers in Specification Section.
 - 4. Cost data comparing proposed substitution with specified product and amount of net change to Contract Sum.
 - 5. Changes required in other Work.
 - 6. Availability of maintenance service and source of replacement parts as applicable.
 - 7. Certified test data to show compliance with performance characteristics specified.
 - 8. Samples when applicable or requested.
 - 9. Other information as necessary to assist Engineer's evaluation.
- D. A request constitutes a representation that Bidder/Contractor:
 - 1. Has investigated proposed product and determined that it meets or exceeds quality level of specified product.
 - 2. Will provide same warranty for substitution as for specified product.

3. Will coordinate installation and make changes to other Work that may be required for the Work to be complete with no additional cost to Owner.
 4. Waives claims for additional costs or time extension that may subsequently become apparent.
 5. Will coordinate installation of the accepted substitute, making such changes as may be required for the Work to be complete in all respects.
 6. Will reimburse Owner and Engineer for review or redesign services associated with reapproval by authorities having jurisdiction.
- 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 Contract Documents.
- F. Substitution Submittal Procedure:
1. Submit three copies of requests for substitutions for consideration. Limit each request to one proposed substitution.
 2. Submit Shop Drawings, Product Data, and certified test results attesting to proposed product equivalence. Burden of proof is on proposer.
 3. Engineer will notify Contractor in writing of decision to accept or reject request.

PART 2 PRODUCTS - Not Used

PART 3 EXECUTION - Not Used

END OF SECTION

SECTION 01 3000 - ADMINISTRATIVE REQUIREMENTS

PART 1 GENERAL

1.1 SECTION INCLUDES

- A. Coordination and Project conditions.
- B. Field engineering.
- C. Preconstruction meeting.

1.2 COORDINATION AND PROJECT CONDITIONS

- A. Coordinate scheduling, submittals, and Work of various Sections of Project Manual to ensure efficient and orderly sequence of installation of interdependent construction elements, with provisions for accommodating items installed later.
- B. Coordinate completion and clean-up of Work of separate sections in preparation for Substantial Completion.
- C. After Substantial Completion, coordinate access to site for correction of defective Work and Work not in accordance with Contract Documents, to minimize disruption of completed, satisfactory work.

1.3 FIELD ENGINEERING

- A. The Owner shall employ a land surveyor and field engineer (the Engineer). The Contractor shall notify the Engineer a minimum of 7 days prior to the start of the work.
- B. The Owner's land surveyor will provide a limited amount of construction layout staking for the project which will consist of the following:
 - 1. Marked location for each water main valve or fitting. Connection points to existing water mains will not be marked.
 - 2. Marked locations for limits of water main casing pipe.
- C. Each stake or mark scheduled to be provided by the Owner as described in item B. above will be provided one time only. Should a stake or mark be damaged, disturbed, or destroyed during the course of construction by the Contractor or their Subcontractor(s), Contractor shall reimburse Owner for the direct costs related to replacement of the stake or mark.
- D. Any additional construction layout needed by the Contractor to complete the work beyond that described in item B. above, shall be provided by the Contractor at the Contractor's expense. At the Contractor's request, an electronic copy of the project plan in AutoCAD .dwg format will be provided to the Contractor for their use in completing additional layout work.
- E. When construction layout/stakeout is required, the Contractor shall notify the Engineer a minimum of 2 days prior to the required layout. Requests made for staking/layout with less than

2 days advanced notice may not be accommodated and any delay in the Contract time or increase in Contractor's expenses shall be the sole responsibility of the Contractor.

- F. At the Pre-Construction Meeting, the Contractor will be provided a single point of contact for requests related to construction layout staking. The Contractor must direct all construction layout staking requests through this single point of contact. The Owner will not be responsible for delays to the Contractor if requests are made to any other person.
- G. Locate and protect survey control and reference points. Promptly notify Engineer of discrepancies discovered.
- H. Control datum for survey is that shown on Drawings.
- I. Verify set-backs and easements; confirm drawing dimensions and elevations.
- J. Maintain complete and accurate log of control and survey points as Work progresses.
- K. Protect survey control points prior to starting site work; preserve permanent reference points during construction.
- L. Promptly report to Engineer loss or destruction of reference points or relocation required because of changes in grade or other reasons.
- M. Replace dislocated survey control points based on original survey control. Make no changes without prior written notice to Engineer.

1.4 PRECONSTRUCTION MEETING

- A. Engineer will schedule and preside over meeting after Notice of Award.
- B. Attendance Required: Engineer, Owner and Resident Project Representative, appropriate governmental agency representatives, Construction Manager, major Subcontractors, and Contractor.
- C. Prior to the meeting: Contractor shall provide Owner and Engineer with a list of any proposed changes to the list of subcontractors, list of proposed products, and a progress schedule.
- D. Minimum Agenda:
 - 1. Review of list of Subcontractors, list of products, and Progress Schedule.
 - 2. Designation of personnel representing parties in Contract.
 - 3. Communication procedures.
 - 4. Procedures and processing of requests for interpretations, field decisions, field orders, submittals, substitutions, Applications for Payments, proposal request, Change Orders, and Contract closeout procedures.
 - 5. Scheduling.
 - 6. Critical Work sequencing.
 - 7. Use of premises by Owner and Contractor.
 - 8. Safety, security and housekeeping procedures.

- E. Engineer: Record minutes and distribute copies to participants within two days after meeting, with copies to Contractor, Owner, and those affected by decisions made.

1.5 PROGRESS MEETINGS

- A. Schedule and administer meetings throughout progress of the Work at maximum monthly intervals.
- B. Engineer will make arrangements for meetings, prepare agenda with copies for participants, and preside over meetings.
- C. Attendance Required: Contractor's Job Superintendent, major subcontractors and suppliers, Owner and Engineer, as appropriate to agenda topics for each meeting.
- D. Agenda:
 - 1. Review minutes of previous meetings.
 - 2. Review of Work progress.
 - 3. Field observations, problems, and decisions.
 - 4. Identification of problems impeding planned progress.
 - 5. Review of submittals schedule and status of submittals.
 - 6. Review of off-site fabrication and delivery schedules.
 - 7. Maintenance of Progress Schedule.
 - 8. Corrective measures to regain projected schedules.
 - 9. Planned progress during succeeding work period.
 - 10. Coordination of projected progress.
 - 11. Maintenance of quality and work standards.
 - 12. Effect of proposed changes on Progress Schedule and coordination.
 - 13. Other business relating to Work.
- E. Engineer: Record minutes and distribute copies within two days after meeting to participants, with one copy to Contractor, Owner, and those affected by decisions made.

PART 2 PRODUCTS - Not Used

PART 3 EXECUTION – Not Used

END OF SECTION

SECTION 01 3300 - SUBMITTAL PROCEDURES

PART 1 GENERAL

1.1 SECTION INCLUDES

- A. Definitions.
- B. Submittal procedures.
- C. Proposed product list.
- D. Product data.
- E. Shop Drawings.
- F. Test reports.
- G. Certificates.
- H. Manufacturer's instructions.
- I. Manufacturer's field reports.
- J. Erection Drawings.
- K. Contractor review.
- L. Engineer review.
- M. Construction progress schedules.
- N. Construction photographs and video.

1.2 DEFINITIONS

- A. Action Submittals: Written and graphic information and physical samples that require Engineer's and Contractor's responsive action.
- B. Informational Submittals: Written and graphic information and physical Samples that do not require Engineer's and Contractor's responsive action. Submittals may be rejected for not complying with requirements.

1.3 SUBMITTAL PROCEDURES

- A. Transmit each submittal to Engineer.
- B. Sequentially number transmittal forms. Mark revised submittals with original number and sequential alphabetic suffix.

- C. Identify: Project, Contractor, Subcontractor and supplier, pertinent Drawing and detail number, and Specification Section number appropriate to submittal.
- 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 according to requirements of the Work and Contract Documents.
- E. Schedule submittals to expedite Project, and submit electronic submittals via email as PDF electronic files. Coordinate submission of related items.
- F. For each submittal for review, allow 15 days excluding delivery time to and from Contractor.
- G. Identify variations in Contract Documents and product or system limitations that may be detrimental to successful performance of completed Work.
- H. Allow space on submittals for Contractor and Engineer review stamps.
- I. When revised for resubmission, identify changes made since previous submission.
- J. Distribute copies of reviewed submittals as appropriate. Instruct parties to promptly report inability to comply with requirements.
- K. Submittals not requested will not be recognized nor processed.
- L. Incomplete Submittals: Engineer will not review. Complete submittals for each item are required. Delays resulting from incomplete submittals are not the responsibility of Engineer.

1.4 PROPOSED PRODUCT LIST

- A. Within 15 days after date of Notice to Proceed, submit list of major products proposed for use, with name of manufacturer, trade name, and model number of each product.
- B. For products specified only by reference standards, indicate manufacturer, trade name, model or catalog designation, and reference standards.

1.5 PRODUCT DATA

- A. Product Data: Action Submittal: Submit to Engineer for review for assessing conformance with information given and design concept expressed in Contract Documents.
- B. Submit electronic submittals via email as PDF electronic files to Engineer, or as opaque copies (number required by Contractor, plus three copies Engineer will retain).
- C. Mark each copy to identify applicable products, models, options, and other data. Supplement manufacturers' standard data to provide information specific to this Project.
- D. Indicate product utility and electrical characteristics, utility connection requirements, and location of utility outlets for service for functional equipment and appliances.

E. After review, produce copies and distribute.

1.6 SHOP DRAWINGS

- A. Shop Drawings: Action Submittal: Submit to Engineer for assessing conformance with information given and design concept expressed in Contract Documents.
- B. Indicate special utility and electrical characteristics, utility connection requirements, and location of utility outlets for service for functional equipment and appliances.
- C. When required by individual Specification Sections, provide Shop Drawings signed and sealed by a professional Engineer responsible for designing components shown on Shop Drawings.
 - 1. Include signed and sealed calculations to support design.
 - 2. Submit Shop Drawings and calculations in form suitable for submission to and approval by authorities having jurisdiction.
 - 3. Make revisions and provide additional information when required by authorities having jurisdiction.
- D. Submit electronic submittals via email as PDF electronic files to Engineer, or as opaque copies (number required by Contractor, plus three copies Engineer will retain).
- E. After review, produce copies and distribute.

1.7 TEST REPORTS

- A. Informational Submittal: Submit reports for Engineer's knowledge as Contract administrator or for Owner.
- B. Submit test reports for information for assessing conformance with information given and design concept expressed in Contract Documents.

1.8 CERTIFICATES

- A. Informational Submittal: Submit certification by 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.

1.9 MANUFACTURER'S INSTRUCTIONS

- A. Informational Submittal: Submit manufacturer's installation instructions for Engineer's knowledge as Contract administrator or for Owner.
- B. Submit printed instructions for delivery, storage, assembly, installation, startup, adjusting, and finishing, to Engineer in quantities specified for Product Data.

- C. Indicate special procedures, perimeter conditions requiring special attention, and special environmental criteria required for application or installation.

1.10 MANUFACTURER'S FIELD REPORTS

- A. Informational Submittal: Submit reports for Engineer's knowledge as Contract administrator or for Owner.
- B. Submit report within 7 days of observation to Engineer for information.
- C. Submit reports for information for assessing conformance with information given and design concept expressed in Contract Documents.

1.11 ERECTION DRAWINGS

- A. Informational Submittal: Submit Drawings for Engineer's knowledge as Contract administrator or for Owner.
- B. Submit Drawings for information assessing conformance with information given and design concept expressed in Contract Documents.
- C. Data indicating inappropriate or unacceptable Work may be subject to action by Engineer or Owner.

1.12 CONTRACTOR REVIEW

- A. Review for compliance with Contract Documents and approve submittals before transmitting to Engineer.
- B. Contractor: Responsible for:
 - 1. Determination and verification of materials including manufacturer's catalog numbers.
 - 2. Determination and verification of field measurements and field construction criteria.
 - 3. Checking and coordinating information in submittal with requirements of Work and of Contract Documents.
 - 4. Determination of accuracy and completeness of dimensions and quantities.
 - 5. Confirmation and coordination of dimensions and field conditions at Site.
 - 6. Construction means, techniques, sequences, and procedures.
 - 7. Safety precautions.
 - 8. Coordination and performance of Work of all trades.
- C. Stamp, sign or initial, and date each submittal to certify compliance with requirements of Contract Documents.
- D. Do not fabricate products or begin Work for which submittals are required until approved submittals have been received from Engineer.

1.13 ENGINEER REVIEW

- A. Do not make "mass submittals" to Engineer. "Mass submittals" are defined as six or more submittals or items in one day or 20 or more submittals or items in one week. If "mass submittals" are received, Engineer's review time stated above will be extended as necessary to perform proper review. Engineer will review "mass submittals" based on priority determined by Engineer after consultation with Owner and Contractor.
- B. Informational submittals and other similar data are for Engineer's information, do not require Engineer's responsive action, and will not be reviewed or returned with comment.
- C. Submittals made by Contractor that are not required by Contract Documents may be returned without action.
- D. Submittal approval does not authorize changes to Contract requirements unless accompanied by letter of acceptance and/or Change Order.
- E. Owner may withhold monies due to Contractor to cover additional costs beyond the second submittal review.

1.14 CONSTRUCTION PROGRESS SCHEDULES

- A. Submit initial schedules within 20 days after date of Owner-Contractor Agreement. After review, resubmit required revised data within ten (10) days.
- B. Submit revised Progress Schedules with each Application for Payment.
- C. Distribute copies of reviewed schedules to Project site file, subcontractors, suppliers, and other concerned parties.
- D. Instruct recipients to promptly report, in writing, problems anticipated by projections indicated in schedules.
- E. Submit computer generated horizontal bar chart with separate line for each major portion of Work or operation, 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 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. Submit separate schedule of submittal dates for shop drawings, product data, and samples, and dates reviewed submittals will be required from Engineer. Indicate decision dates for selection of finishes.
- I. Revisions To Schedules:
 - 1. Indicate progress of each activity to date of submittal, and projected completion date of each activity.

2. Identify activities modified since previous submittal, major changes in scope, and other identifiable changes.
3. Prepare narrative report to define problem areas, anticipated delays, and impact on schedule. Report corrective action taken, or proposed, and its effect including effect of changes on schedules of separate contractors.

1.15 CONSTRUCTION PHOTOGRAPHS AND VIDEO

- A. Prior to the beginning of the Work, the Contractor and Engineer shall perform a walkthrough during which pre-construction photos shall be taken and video shall be recorded. The associated film/files created during this walkthrough shall be shared between the Owner, Engineer, and Contractor. The purpose of this walkthrough is for the purpose of protecting all parties and is MANDATORY.

PART 2 PRODUCTS - Not Used

PART 3 EXECUTION - Not Used

END OF SECTION

SECTION 01 4000 - QUALITY REQUIREMENTS

PART 1 GENERAL

1.1 SECTION INCLUDES

- A. Quality control.
- B. Tolerances.
- C. References.
- D. Labeling.
- E. Testing and inspection services.
- F. Manufacturers' field services.
- G. Examination.
- H. Preparation.

1.2 QUALITY CONTROL

- A. Monitor quality control over suppliers, manufacturers, products, services, Site conditions, and workmanship, to produce Work of specified quality.
- B. Comply with manufacturers' instructions, including each step in sequence.
- C. When manufacturers' instructions conflict with Contract Documents, request clarification from Engineer before proceeding.
- D. Comply with specified standards as the minimum quality for the Work except where more stringent tolerances, codes, or specified requirements indicate higher standards or more precise workmanship.
- E. Perform Work using persons qualified to produce required and specified quality.
- F. Supervise performance of Work in such manner and by such means to ensure that Work, whether completed or in progress, will not be subjected to harmful, dangerous, damaging, or otherwise deleterious exposure during construction period.
- G. Verify field measurements are as indicated on Shop Drawings or as instructed by manufacturer.
- H. Secure products in place with positive anchorage devices designed and sized to withstand stresses, vibration, physical distortion, or disfigurement.

1.3 TOLERANCES

- A. Monitor fabrication and installation tolerance control of products to produce acceptable Work. Do not permit tolerances to accumulate.
- B. Comply with manufacturers' recommended tolerances and tolerance requirements in reference standards. When such tolerances conflict with Contract Documents, request clarification from Engineer before proceeding.

1.4 REFERENCES

- A. For products or workmanship specified by association, trade, or other consensus standards, comply with requirements of standard except when more rigid requirements are specified or are required by applicable codes.
- B. Conform to reference standard by date of issue current as of date of Contract Documents except where specific date is established by code.
- C. Obtain copies of standards and maintain on Site when required by product Specification Sections.
- D. When requirements of indicated reference standards conflict with Contract Documents, request clarification from Engineer before proceeding.
- E. Neither contractual relationships, duties, or responsibilities of parties in Contract nor those of Engineer shall be altered from Contract Documents by mention or inference in reference documents.

1.5 LABELING

- A. Attach label from agency approved by authorities having jurisdiction for products, assemblies, and systems required to be labeled by applicable codes.
- B. Label Information: Include manufacturer's or fabricator's identification, approved agency identification, and the following information, as applicable, on each label:
 - 1. Model number.
 - 2. Serial number.
 - 3. Performance characteristics.
- C. Manufacturer's Nameplates, Trademarks, Logos, and Other Identifying Marks on Products: Not allowed on surfaces exposed to view in public areas, interior or exterior.

1.6 TESTING AND INSPECTION SERVICES

- A. Owner will employ and pay for specified services of an independent firm to perform testing and inspection (excluding water main testing, sampling and lab analysis).
- B. Independent firm will perform tests, inspections, and other services specified in individual Specification Sections and as required by the Engineer and Owner.
 - 1. Laboratory: Authorized to operate in the State of Illinois.

- C. Reports shall be submitted by independent firm to Engineer and Contractor, indicating observations and results of tests and compliance or noncompliance with Contract Documents.
- D. 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 48 hours before expected time for operations requiring services.
 - 2. Make arrangements with independent firm and pay for additional Samples and tests required for Contractor's use.
- E. Employment of testing agency or laboratory shall not relieve Contractor of obligation to perform Work according to requirements of Contract Documents.
- F. Retesting or re-inspection required because of nonconformance with specified or indicated requirements shall be performed by same independent firm on instructions from Engineer. Payment for retesting or re-inspection will be charged to Contractor by deducting testing charges from Contract Sum/Price.
- G. Agency Responsibilities:
 - 1. Test Samples of mixes submitted by Contractor.
 - 2. Provide qualified personnel at Site. Cooperate with Engineer and Contractor in performance of services.
 - 3. Perform indicated sampling and testing of products according to specified standards.
 - 4. Ascertain compliance of materials and mixes with requirements of Contract Documents.
 - 5. Promptly notify Engineer and Contractor of observed irregularities or nonconformance of Work or products.
 - 6. Perform additional tests required by Engineer.
 - 7. Attend preconstruction meetings and progress meetings.
- H. Agency Reports: After each test, promptly submit 2 copies of report to Engineer and Contractor. When requested by Engineer, provide interpretation of test results.
- I. Limits on Testing Authority:
 - 1. Agency or laboratory may not release, revoke, alter, or enlarge on requirements of Contract Documents.
 - 2. Agency or laboratory may not approve or accept any portion of the Work.
 - 3. Agency or laboratory may not assume duties of Contractor.
 - 4. Agency or laboratory has no authority to stop the Work.

1.7 MANUFACTURER'S FIELD SERVICES

- A. When specified in individual specification Sections, require material or product suppliers or manufacturers to provide qualified staff personnel to observe Site conditions, conditions of surfaces and installation, quality of workmanship, startup of equipment, testing, adjusting, and balancing of equipment, and commissioning as applicable, and to initiate instructions when necessary.
- B. Report observations and Site decisions or instructions given to applicators or installers that are supplemental or contrary to manufacturer's written instructions.

PART 2 PRODUCTS - Not Used

PART 3 EXECUTION

3.1 EXAMINATION

- A. Verify existing site conditions and substrate are acceptable for subsequent Work. Beginning new Work means acceptance of existing conditions.
- B. Verify 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.

END OF SECTION

SECTION 01 5000 - TEMPORARY FACILITIES AND CONTROLS

PART 1 GENERAL

1.1 SECTION INCLUDES

- A. Temporary Utilities:
 - 1. Temporary electricity.
 - 2. Temporary lighting for construction purposes.
 - 3. Temporary water service.
 - 4. Temporary sanitary facilities.
 - 5. Temporary ventilation.

- B. Construction Facilities:
 - 1. Field offices and sheds.
 - 2. Vehicular access.
 - 3. Parking.
 - 4. Progress cleaning and waste removal.
 - 5. Traffic regulation.
 - 6. Material storage.

- C. Temporary Controls:
 - 1. Barriers.
 - 2. Enclosures and fencing.
 - 3. Security.
 - 4. Water control.
 - 5. Dust control.
 - 6. Erosion and sediment control.
 - 7. Noise control.
 - 8. Pest control
 - 9. Pollution control.

- D. Removal of utilities, facilities, and controls.

~~1.2 TEMPORARY ELECTRICITY~~

- ~~A. Provide and pay for power service required from utility source or from Contractor's supplied power generation equipment, as needed for construction operation.~~

- ~~B. Provide or pay for all necessary feeders, wiring, or cords required to operate the required equipment.~~

- ~~C. Provide, maintain, and pay for electrical service to optional field office at time of project mobilization.~~

~~1.3 TEMPORARY LIGHTING FOR CONSTRUCTION PURPOSES~~

- ~~A. Provide and maintain lighting for construction operations.~~

- ~~B. Provide and maintain 1 watt/sq ft lighting to exterior staging and storage areas and portions of site required after dark for security purposes.~~
- ~~C. Maintain lighting and provide routine repairs.~~
- D. Provide lighted flagger stations in accordance with Article 701.13 of the Roadway Specifications.

1.4 TEMPORARY WATER SERVICE

- A. Provide and pay for suitable quality water service as needed to maintain specified conditions for construction operations.
- B. The use of the existing water distribution system and fire hydrants is not acceptable when water is required for Contractor's use.
- C. Provide temporary water service connections to residences where indicated on the plans.

1.5 TEMPORARY SANITARY FACILITIES

- A. Provide, pay for, and maintain sanitary facilities and enclosures for use by construction personnel. Existing facility use is not permitted. Provide facilities at time of Project mobilization.

~~1.6 TEMPORARY VENTILATION~~

- ~~A. Ventilate enclosed areas to achieve curing of materials, to dissipate humidity, and to prevent accumulation of dust, fumes, vapors or gases.~~

~~1.7 FIELD OFFICES AND SHEDS~~

- ~~A. The Contractor shall provide a field office as required for his Work. The use of a field office and any associated utility costs are the Contractor's option and are not required as a part of the Contract, and any costs associated with these items shall be considered incidental to the Contract.~~
- ~~B. Preparation: Fill and grade site for temporary structures sloped for drainage away from structures.~~
- ~~C. Removal: At completion of Work remove buildings, foundations, utility services, and debris. Restore areas.~~

1.8 VEHICULAR ACCESS

- A. In such locations where paved vehicular access cannot be provided, the Contractor, at his own cost, shall construct temporary all-weather access roads from public thoroughfares to serve construction areas, of width and load bearing capacity to accommodate unimpeded traffic for construction purposes.
- B. Construct temporary bridges and culverts to span low areas and allow unimpeded drainage.

- C. Location of Contractor required paved vehicular access shall be approved by the Engineer and Owner prior to installation.
- D. Provide and maintain access to fire hydrants and control valves free of obstructions.
- E. Provide means of removing mud from vehicle wheels before entering streets.
- F. Provide detours for streets under construction as necessary for unimpeded traffic flow. Additional signage or construction materials required to provide the necessary detours shall be incidental to the project.
- G. The use of existing on-site roads for construction traffic is not prohibited; however, the use may be limited at certain times of the year and depend on existing pavement conditions in certain areas. The Owner and Engineer reserve the right to restrict the use of heavy construction traffic on certain streets during the Work.
- H. Damage to streets, curbs, sidewalks, etc. due to construction activity/vehicles will be repaired by the Contractor at no additional cost to the Owner.
- I. AT NO TIME shall construction traffic be allowed to use private driveways for any purpose. If the Engineer observes construction traffic using a private driveway, the Contractor will be required to remove and replace the driveway at his own cost regardless of condition, NO EXCEPTIONS.

1.9 PARKING

- A. Use of existing parking facilities by construction personnel is permitted in Owner's property/parking areas. The Contractor will be responsible for obtaining the permission of the property owner for the use of any private parking facilities.
- B. Locate as approved by the Engineer and Owner.
- C. When site space is not adequate, provide additional off-site parking.
- D. Use of approved existing on-site streets used for construction traffic is permitted.
- E. Do not allow heavy vehicles or construction equipment in parking areas.
- F. Permanent Pavements and Parking Facilities:
 - 1. Bases for permanent roads and parking areas may be used for construction traffic.
 - 2. Avoid traffic loading beyond paving design capacity. Tracked vehicles not allowed.
 - 3. Use of approved permanent parking structures is permitted.
- G. Maintenance:
 - 1. Maintain traffic and parking areas in sound condition free of excavated material, construction equipment, products, mud, snow, and ice.
 - 2. Maintain existing and permanent paved areas used for construction; promptly repair breaks, potholes, low areas, standing water, and other deficiencies, to maintain paving and drainage in original, or specified, condition.

- H. Removal, Repair:
 - 1. Remove temporary materials and construction at Substantial Completion.
 - 2. Remove underground work and compacted materials to depth of 2 feet; fill and grade site as specified.
 - 3. Repair existing and permanent facilities damaged by use, to original or specified condition.
- I. Mud from Site Vehicles: Provide means of removing mud from vehicle wheels before entering streets.
- J. Temporary parking as described shall be incidental to the Contract.

1.10 PROGRESS CLEANING AND WASTE REMOVAL

- A. Maintain areas free of waste materials, debris, and rubbish. Maintain site in clean and orderly condition.
- B. Collect and remove waste materials, debris, and rubbish from site weekly and dispose off-site.
- C. The Contractor will be required to provide daily site cleaning of all streets, sidewalks, and driveways impacted by construction activities. The Contractor shall have a mechanical power broom on-site to perform street sweeping at the conclusion of each working day. The Contractor shall also provide a water truck as necessary to wet the pavement prior to sweeping to provide dust control.

1.11 TRAFFIC REGULATION

- A. All traffic control for this project shall conform to the Illinois Department of Transportation "Highway Standards", the Manual on Uniform Traffic Control Devices, current edition, and current Illinois Department of Transportation policies.
- B. All work associated with Traffic Control including providing, installing, and removing traffic control devices and equipment described here-in or on the Drawings or Highway Standards shall be included in the Contract Lump Sum price for Traffic Control.
- C. Signs, Signals, and Devices:
 - 1. Post Mounted and Wall Mounted Traffic Control and Informational Signs: As outlined in IDOT Highway Standard 720006 and as described in Article 701 of the Roadway Specifications.
 - 2. Traffic Cones, Flexible Delineators, Drums, Flares, Lights, and Arrow Boards: As outlined in IDOT Highway Standard 701901 and as described in Article 701 of the Roadway Specifications.
 - 3. Flagperson Equipment: As outlined in IDOT Highway Standard 701901 and Article 701 of the Roadway Specifications.
 - 4. Temporary Concrete Barrier: As outlined in IDOT Highway Standard 704001 and Article 704 of the Roadway Specifications.
- D. Flag Persons: Provide trained and equipped flag persons to regulate traffic when construction operations or traffic encroach on public traffic lanes.

- E. Flares and Lights:
1. Use flares and lights during hours of low visibility to delineate traffic lanes and to guide traffic.
 2. When Flaggers will be used to regulated traffic outside daylight hours, lighted flagger stations shall be provided in accordance with Article 701.13 of the Roadway Specifications. Balloon-Type lights shall be used for the flagger stations.
- F. Haul Routes:
1. Consult with the Owner and Engineer, establish public thoroughfares to be used for haul routes and site access.
 2. Confine construction traffic to designated haul routes.
 3. Provide traffic control at critical areas of haul routes to regulate traffic, to minimize interference with public traffic.
- G. Traffic Signs and Signals:
1. Provide signs at approaches to site and on site, at crossroads, detours, parking areas, and elsewhere as needed to direct construction and affected public traffic.
 2. Provide, operate, and maintain traffic control signals to direct and maintain orderly flow of traffic in areas under Contractor's control, and areas affected by Contractor's operations.
 3. Sign supports shall be provided to meet the placement and mounting height requirements of the Illinois Manual on Uniform Traffic Control Devices and Highway Standard 720006-04.
 4. Sign panels shall satisfy the requirements of Article 1091 of the Roadway Specifications and the following:
 - a. Per Section 1091.03(a) of the Roadway Specifications, "Only suppliers whose products have been tested and approved in the Department's periodic Sheeting Study will be eligible to supply materials." The sign supplier shall provide a certification that they are approved to supply sign materials by IDOT.
 - b. Per Section 1091.01 of the Roadway Specifications, "The sign face material shall be in accordance with the Department's Fabrication of Highway Signs Policy." The sign supplier shall provide a certification that the products are in accordance with this policy.
 - c. Per Section 1091.03(a)(3) of the Roadway Specifications, the retroreflective sheeting shall have a coefficient of retroreflection in accordance with Type A, Type AA, Type AP, Type AZ, or Type ZZ. The sign supplier shall submit a certification stating which Type the signs meet. Any of the 5 Types will be considered satisfactory.
 5. Relocate as Work progresses, to maintain effective traffic control.
- H. Removal:
1. Remove equipment and devices when no longer required.
 2. Repair damage caused by installation.
 3. Remove post settings to depth of two (2) feet.
 4. Signs shall be in accordance with the Illinois Manual on Uniform Traffic Control Devices.
 5. The sign panel base material shall be sheet aluminum in accordance with Article 1090 of the Roadway Specifications.

1.12 BARRIERS

- A. Provide barriers to prevent unauthorized entry to construction areas, to allow for Owner's use of site, and to protect existing facilities and adjacent properties from damage from construction operations.

- B. Provide protection for plants designated to remain. Replace damaged plants.
- C. Protect non-owned vehicular traffic, stored materials, site, and structures from damage.
- D. Provide barricades and barriers as outlined in IDOT Highway Standards 701901 and 704001 for Public Right-Of-Way.

1.13 ENCLOSURES AND FENCING

- A. Construction; Contractor's option of the following:
 - 1. Commercial grade chain link fence.
 - 2. Plastic construction netting.
 - 3. Solid wood fence, painted.
- B. At the end of the construction day, the Contractor will be required to enclose the active construction site (specifically any open excavations) with, at a minimum, plastic construction netting (i.e. snow fence). The use of a combination of cones, barrels, barricades, caution tape, etc. as the primary enclosure method is not acceptable. Some form of fencing MUST be installed.

1.14 SECURITY

- A. Security Program:
 - 1. Protect Work, existing premises, and Owner's operations from theft, vandalism, and unauthorized entry.
- B. Entry Control:
 - 1. Restrict entrance of persons and vehicles into Project site and existing facilities.
 - 2. Allow entrance only to authorized persons.

1.15 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. Provide silt fence and/or water barriers as needed to protect site from soil erosion.

1.16 DUST CONTROL

- A. Execute Work by methods to minimize raising dust from construction operations.
- B. Provide positive means to prevent air-borne dust from dispersing into the atmosphere.

1.17 EROSION AND SEDIMENT CONTROL

- A. Plan and execute construction by methods to control surface drainage from cuts and fills, from borrow and waste disposal areas. Prevent erosion and sedimentation.

- B. Minimize surface area of bare soil exposed at one time.
- C. Implement and comply with the Stormwater Pollution Prevention Plan as prepared by the Engineer and notarized by the Owner and Contractor.
- D. Provide temporary measures including berms, dikes, drains, and other devices to prevent water flow.
- E. Construct fill and waste areas by selective placement to avoid erosive surface silts or clays.
- F. Periodically inspect earthwork to detect evidence of erosion and sedimentation; promptly apply corrective measures.

1.18 NOISE CONTROL

- A. Provide methods, means, and facilities to minimize noise from rock breaking/removal operations and noise produced by construction operations.

1.19 POLLUTION CONTROL

- A. Provide methods, means, and facilities to prevent contamination of soil, water, and atmosphere from discharge of noxious, toxic substances, and pollutants produced by construction operations.
- B. Comply with pollution and environmental control requirements of the Illinois Environmental Protection Agency.
- C. The Contractor will be required to strictly adhere to the Engineer's prepared Storm Water Pollution Prevent Plan (SWPPP). It will be the Contractor's responsibility upon the start of construction to properly complete all tasks associated with the SWPPP.

1.20 REMOVAL OF UTILITIES, FACILITIES, AND CONTROLS

- A. Remove temporary utilities, equipment, facilities, and materials prior to Final Application for Payment inspection.
- B. Remove underground installations to minimum depth of 2 feet. Grade site as indicated on Drawings.
- C. Clean and repair damage caused by installation or use of temporary work.
- D. Restore existing and permanent facilities used during construction to original condition. Restore permanent facilities used during construction to specified condition.

PART 2 PRODUCTS - Not Used

PART 3 EXECUTION - Not Used

END OF SECTION

SECTION 01 6000 - PRODUCT REQUIREMENTS

PART 1 GENERAL

1.1 SECTION INCLUDES

- A. Products.
- B. Product delivery requirements.
- C. Product storage and handling requirements.
- D. Product options.

1.2 PRODUCTS

- A. At minimum, comply with specified requirements and reference standards.
- B. Specified products define standard of quality, type, function, dimension, appearance, and performance required.
- C. Furnish products of qualified manufacturers that are suitable for intended use. Furnish products of each type by single manufacturer unless specified otherwise. Confirm that manufacturer's production capacity can provide sufficient product, on time, to meet Project requirements.

1.3 PRODUCT DELIVERY REQUIREMENTS

- A. Transport and handle products according to manufacturer's instructions.
- B. Promptly inspect shipments to ensure products comply with requirements, quantities are correct, and products are undamaged.
- C. Provide equipment and personnel to handle products; use methods to prevent soiling, disfigurement, or damage.

1.4 PRODUCT STORAGE AND HANDLING REQUIREMENTS

- A. Store and protect products according to manufacturer's instructions.
- B. Store products with seals and labels intact and legible.
- C. Store sensitive products in weathertight, climate-controlled enclosures in an environment suitable to product.
- D. For exterior storage of fabricated products, place products on sloped supports aboveground.
- E. Provide secure, insured 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. UV damaged piping will be rejected by the Engineer.
- G. Store loose granular materials on solid flat surfaces in well-drained area. Prevent mixing with foreign matter.
- H. Provide equipment and personnel to store products; use methods to prevent soiling, disfigurement, or damage.
- I. Arrange storage of products to permit access for inspection. Periodically inspect to verify products are undamaged and are maintained in acceptable condition.

1.5 PRODUCT OPTIONS

- A. Products Specified by Reference Standards or by Description Only: Products complying with specified reference standards or description.
- B. Products Specified by Naming One or More Manufacturers: Products of one of manufacturers named and complying with Specifications; no options or substitutions allowed.
- C. Products Specified by Naming One or More Manufacturers with Provision for Substitutions: Submit Request for Substitution for any manufacturer not named, according to Section 01 2500 - Substitution Procedures.

PART 2 PRODUCTS - Not Used

PART 3 EXECUTION - Not Used

END OF SECTION

SECTION 01 7000 - EXECUTION AND CLOSEOUT REQUIREMENTS

PART 1 GENERAL

1.1 SECTION INCLUDES

- A. Closeout procedures.
- B. Final cleaning.
- C. Testing, adjusting, and balancing.
- D. Protecting installed construction.
- E. Project record documents.
- F. Product warranties and product bonds.
- G. Maintenance service.

1.2 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. Submit final Application for Payment identifying total adjusted Contract Sum, previous payments, and sum remaining due.

1.3 FINAL CLEANING

- A. Execute final cleaning prior to final project assessment.
- B. Clean debris from streets, sidewalks, curb and gutter, lawns, and drainage systems.
- C. Clean site; sweep paved areas, rake clean landscaped surfaces.
- D. Remove waste and surplus materials, rubbish, and construction facilities from site.

1.4 TESTING, ADJUSTING AND BALANCING

- A. The Contractor shall provide and pay for the required independent firm or manufacturer's representatives required to perform testing, adjusting, and balancing specified in individual product Sections.
- B. Reports will be submitted by independent firm/manufacturer's representative to Engineer indicating observations and results of tests and indicating compliance or non-compliance with requirements of Contract Documents.

1.5 PROTECTING INSTALLED CONSTRUCTION

- 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.
- C. Prohibit traffic from landscaped areas.

1.6 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 instruction 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, not less than weekly.
- 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 horizontal and vertical locations of underground utilities and appurtenances, referenced to permanent surface improvements.
 - 2. Field changes of dimension and detail.
 - 3. Details not on original Contract drawings.
- G. Submit documents to Engineer with claim for final Application for Payment.

1.7 PRODUCT WARRANTIES AND PRODUCT BONDS

- A. Obtain warranties and bonds executed in duplicate by responsible subcontractors, suppliers, and manufacturers, within ten days after completion of applicable item of work.
- B. Execute and assemble transferable warranty documents and bonds from subcontractors, suppliers, and manufacturers.

- C. Verify documents are in proper form, contain full information, and are notarized.
- D. Co-execute submittals when required.
- E. Include Table of Contents and assemble in three D side ring binder with durable plastic cover.
- F. Submit prior to final Application for Payment.
- G. Time of Submittals:
 - 1. For equipment or component parts of equipment put into service during construction with Owner's permission, submit documents within ten days after acceptance.
 - 2. Make other submittals within ten days after Date of Substantial Completion, prior to final Application for Payment.
 - 3. For items of Work for which acceptance is delayed beyond Date of Substantial Completion, submit within ten days after acceptance, listing date of acceptance as beginning of warranty or bond period.

1.8 MAINTENANCE SERVICE

- A. Furnish service and maintenance of components indicated in specification sections during warranty period.
- B. Examine system components at frequency consistent with reliable operation. Clean, adjust, and lubricate as required.
- C. Include systematic examination, adjustment, and lubrication of components. Repair or replace parts whenever required. Use parts produced by manufacturer of original component.
- D. Do not assign or transfer maintenance service to agent or Subcontractor without prior written consent of Owner.

PART 2 PRODUCTS - Not Used

PART 3 EXECUTION - Not Used

END OF SECTION

SECTION 31 2317 - TRENCHING

PART 1 GENERAL

1.1 SUMMARY

A. Section Includes:

1. Excavating trenches for utilities.
2. Compacted fill from top of utility bedding to subgrade elevations.
3. Backfilling and compaction.

1.2 UNIT PRICE – MEASUREMENT AND PAYMENT

A. Trenching: Trenching and the pavement saw cutting, loading, removal, and disposal of trenched materials and pavements shall be incidental to the utility conduit installed. All costs, including purchase, rental, installation, relocation, and removal associated with protection and stabilization of trenches including all costs of shoring, sheeting, piling, plates, etc., shall be incidental to the utility conduit installed.

B. Trench Backfill:

1. Basis of Measurement: Trench repair shall be paid for by the linear foot as described in this section. The vertical dimension for payment shall be as shown on the Typical Trench Detail on the Plans. The maximum width of trench repair for which payment shall be made shall be 3' plus the outside diameter of the pipe when the depth of trench from existing surface to pipe invert is greater than 5'. The maximum width for payment of trench repair shall be 2' plus the outside diameter of the pipe when the depth of trench from existing surface to pipe invert is less than or equal to 5'. Trench repair up to 3" beyond the outside wall of a manhole, inlet or other structure shall be considered incidental to the cost of the structure. Therefore, the maximum length of trench repair eligible for payment for a pipe installation between 2 structures shall be the distance between outside walls of the structures measured along the conduit minus 6". No payment shall be made for trench repair installed outside the maximum lengths, widths, and depths described above. The inability of the Contractor's trench shoring, bracing, or box to stabilize the sides of the trench shall not be grounds for payment of additional quantity of trench repair.
2. Basis of Payment: Includes furnishing pavement saw cutting, loading, removal and disposal of waste materials (see Plans -Typical Trench Detail), stockpiling, scarifying substrate surface, placing where required, and compacting.
3. Trench backfill shall be incidental to other pay items.
4. Over Excavation: Payment is not made for over excavated work or for replacement materials.

1.3 DEFINITIONS

A. Utility: Any buried pipe, duct, conduit, or cable.

1.4 SUBMITTALS

A. Section 01 3300 - Submittal Procedures: Requirements for submittals.

- B. Excavation Protection Plan: Describe sheeting, shoring, and bracing materials and installation required to protect excavations and adjacent structures and property; include structural calculations to support plan.
- C. Samples: Submit, in air-tight containers, a ten (10) lb. sample of each type of fill to Engineer. Provide gradation reports and Illinois Department of Transportation MISTIC reports of all aggregate types specified.
- D. Materials Source: Submit name of imported fill materials suppliers.
- E. Manufacturer's Certificate: Certify Products meet or exceed specified requirements.

1.5 QUALITY ASSURANCE

- A. Perform Work in accordance with these Specifications, the Roadway Specifications, the Water and Sewer Specifications, and the Manufacturer's recommendations.
- B. Maintain one copy of each document on site.

1.6 QUALIFICATIONS

- A. Prepare excavation protection plan under direct supervision of Structural Engineer experienced in design of this Work and licensed in the State of Illinois.

1.7 FIELD MEASUREMENTS

- A. Verify field measurements prior to fabrication.

1.8 COORDINATION

- A. Section 01 3000 - Administrative Requirements: Coordination and project conditions.
- B. Verify Work associated with lower elevation utilities is complete before placing higher elevation utilities.

PART 2 PRODUCTS

2.1 FILL MATERIALS

- A. Trench backfill, bedding and haunching for sanitary or storm sewer installation (if required): The Contractor shall choose one of the following materials for bedding, haunching, and initial backfill. A combination of materials shall not be permitted. Note that minimum compaction requirements vary depending on the material selected. Minimum compaction requirements are outlined later in this section.
 - 1. CA-7 coarse aggregate per Section 1004 of the Roadway Specifications. Aggregate shall be crushed, washed, angular, limestone with 6% max deleterious material. IDOT gradation CA-11 meeting the requirements above for CA-7 will be considered equal.

2. CA-6 coarse aggregate per Section 1004 of the Roadway Specifications. Aggregate shall be crushed limestone with 6% max deleterious material.
 3. FA-6 fine aggregate per Section 1003 of the Roadway Specifications. The fine aggregate shall be sand per Section 1003.01(a)(1) of the Roadway Specifications:
- B. Trench backfill, bedding and haunching for water main installation (if required):
1. Material shall be CA-7 coarse aggregate per Section 1004 of the Roadway Specification. Aggregate shall be crushed, washed, angular, limestone with 6% max deleterious material. IDOT gradation CA-11 meeting the requirements above for CA-7 will be considered equal.
- C. Granular fill/backfill: CA-6 coarse aggregate per Section 1004 of the Roadway Specifications. Aggregate for granular fill shall be crushed limestone with 6% max deleterious material.
- D. Earth backfill: Excavated material with no rocks over 4 inches in diameter, frozen earth, or foreign (organic) material.
- E. Flowable fill: Controlled Low Strength Material (CLSM) per Section 1019 of the Roadway Specifications.

PART 3 EXECUTION

3.1 LINES AND GRADES

- A. Lay pipes to lines and grades indicated on Drawings.
1. Engineer reserves right to make changes in lines, grades, and depths of utilities when changes are required for Project conditions.
- B. Use laser-beam instrument with qualified operator to establish lines and grades.

3.2 PREPARATION

- A. Call JULIE before performing Work.
1. Request underground utilities to be located and marked within and surrounding construction areas.
- B. Identify required lines, levels, contours, and datum locations.
- C. Protect plant life, lawns, rock outcropping, stairways, landscape retaining walls, and other features remaining as portion of final landscaping.
- D. Protect bench marks, existing structures, fences, sidewalks, paving, and curbs from excavating equipment and vehicular traffic.
- E. Maintain and protect above and below grade utilities indicated to remain.
- F. Establish temporary traffic control when trenching is performed in public right-of-way. Relocate controls and reroute traffic as required during progress of Work. Please refer to the Drawings and Section 01 5000 – Temporary Facilities and Controls for further traffic regulation requirements.

3.3 TRENCHING

- A. Remove lumped subsoil, boulders, and rock up of 1.2 cubic yard, measured by volume. Remove rock according to Section 31 2318 – Rock Removal.
- B. Perform excavation within 24 inches of existing utilities in accordance with utility's requirements.
- C. Do not advance open trench more than 50 feet ahead of installed pipe, and no more than that which can be backfilled before the end of the working day.
- D. Cut trenches to minimum width indicated on Drawings, and sufficiently wide to enable installation and allow inspection. Remove water or materials that interfere with Work.
- E. Excavate bottom of trenches maximum two (2) feet wider than outside diameter of pipe when a trench box is not required and three (3) feet wider when a trench box is used. Please refer to the Typical Trench Detail in the Drawings.
- F. Excavate trenches to depth indicated on Drawings. Provide uniform and continuous bearing and support for bedding material and pipe.
- G. Do not interfere with 45 degree bearing splay of foundations.
- II. When Project conditions permit, slope side walls of excavation starting two (2) feet above top of the pipe. When side walls cannot be sloped, provide sheeting and shoring to protect excavation as specified in this section and as required by OSHA.
- I. When subsurface materials at bottom of trench are loose or soft, notify Engineer, and request instructions.
- J. Cut out soft areas of subgrade not capable of compaction in place. Backfill with structural backfill and compact to density equal to or greater than requirements for subsequent backfill material.
- K. Trim excavation. Hand trim for bell and spigot pipe joints. Remove loose matter.
- L. Correct over excavated areas with compacted backfill as directed by the Engineer.
- M. Stockpile subsoil (to be reused) in area designated on site and protect from erosion.
- N. Remove excess subsoil not intended for reuse, from site.

3.4 SHEETING AND SHORING

- A. Sheet, shore, and brace excavations to prevent danger to persons, structures, adjacent traffic and adjacent properties and to prevent caving, erosion, and loss of surrounding subsoil.
- B. Support trenches more than five (5) feet deep excavated through unstable, loose, or soft material. Provide sheeting, shoring, bracing, or other protection to maintain stability of excavation.

- C. Design sheeting and shoring to be removed at completion of excavation work.
- D. Repair damage caused by failure of the sheeting, shoring, or bracing and for settlement of filled excavations or adjacent soil at no additional cost to the Owner.
- E. Repair damage to new and existing Work from settlement, water or earth pressure or other causes resulting from inadequate sheeting, shoring, or bracing at no additional cost to the Owner.

3.5 BACKFILLING

- A. Backfill trenches to contours and elevations with unfrozen fill materials.
- B. Systematically backfill to allow maximum time for natural settlement. Do not backfill over porous, wet, frozen, or spongy subgrade surfaces.
- C. Place fill material in continuous layers and compact in accordance with schedule at end of this section.
- D. Employ placement method that does not disturb or damage utilities in trench.
- E. Maintain optimum moisture content of fill materials to attain required compaction density.
- F. Do not leave more than ten (10) feet of trench open at end of working day.
- G. Protect open trench to prevent danger to Owner and the public. Refer to Section 01 5000-Temporary Facilities and Controls for work site protection requirements.

3.6 FIELD QUALITY CONTROL

- A. Section 01 4000 - Quality Requirements: Field inspecting, testing, adjusting, and balancing.
- B. Perform laboratory material tests in accordance with ASTM D1557 or ASTM D698.
- C. Perform in place compaction tests in accordance with the following:
 - 1. Density Tests: ASTM D2922.
 - 2. Moisture Tests: ASTM D3017.
- D. When tests indicate Work does not meet specified requirements, remove Work, replace, compact, and retest.
- E. Frequency of Tests: The frequency of the tests will be at the discretion of the Engineer and Owner depending on site observations.

3.7 PROTECTION OF FINISHED WORK

- A. Section 01 7000 - Execution Requirements: Protecting finished work.
- B. Reshape and re-compact fills subjected to vehicular traffic during construction.

3.8 SCHEDULE

- A. Rigid and Non-Rigid Utility Conduits Under Pavement, per Trench Detail:
 - 1. Fill Type: Bedding, Haunching, Trench Backfill, and Granular Fill.
 - 2. Fill Depth: Place 4" of bedding beneath conduit. Place haunching above the bedding to the spring line of the conduit. Place trench backfill above the haunching to the bottom of the proposed pavement base. Place granular fill above the trench backfill to the bottom of the proposed pavement.

- B. Rigid Utility Conduits Under Grass or Landscaped Areas, per Trench Detail:
 - 1. Fill Type: Bedding, Haunching, and Subsoil Fill.
 - 2. Fill Depth: Place 4" of bedding beneath conduit. Place haunching above the bedding to the spring line of the conduit. Place subsoil fill above the haunching to 6" below finish grade.

- C. Non-Rigid Utility Conduits Grass or Landscaped Areas, per Trench Detail:
 - 1. Fill Type: Bedding, Haunching, Initial Backfill, per Trench Detail.
 - 2. Fill Depth: Place 4" of bedding beneath conduit. Place haunching above the bedding to the spring line of the conduit. Place initial backfill (use trench backfill material) above the haunching to 1 foot above the crown of the conduit. Place subsoil fill above the initial backfill to 6" below finish grade.

- D. Methods of Compaction:
 - 1. Fill under grass areas and landscaped areas:
 - a. Method: Fill in maximum 12 inch compacted lifts. Compact uniformly to 90 percent of maximum density. Water jetting will not be allowed as a method of compaction. Mechanical compaction shall be performed using one of the following:
 - 1) Hoe-mounted plate compactor.
 - 2) Vibratory sheeps foot trench roller.
 - 3) "Jumping Jack" style compactor.
 - 4) Large diesel powered plate compactor.
 - 2. Fill under asphalt or concrete paving:
 - a. Method: Compact uniformly to 95 percent of maximum density. Meeting the maximum lift thickness of (a), (b), and (c) below will not relieve Contractor's responsibility to compact fill to 95 percent of maximum density. Water jetting will not be allowed as a method of compaction. Methods of compaction shall depend on the fill material used as follows:
 - 1) CA-7 coarse aggregate shall be mechanically compacted in maximum 4' lifts by either:
 - a) Hoe-mounted plate compactor.
 - b) Large diesel powered plate compactor.
 - 2) CA-6 coarse aggregate when used as backfill within a trench and FA-6 fine aggregate shall be mechanically compacted by either:
 - a) Hoe-mounted plate compactor using maximum 2' lifts.
 - b) "Jumping Jack" style compactor using maximum 12" lifts.
 - c) Large diesel powered plate compactor using maximum 12" lifts.
 - b. CA-6 coarse aggregate when used as a base beneath pavement or curb and gutter or sidewalk shall be mechanically compacted according to Section 32 1123 – Aggregate Base and Surface Course.

3.9 PAY ITEM DESCRIPTION

A. TRENCH REPAIR-GRASS AREAS

1. After pipe, either water main or water service has been properly embedded, excavated material free of rock 3" or larger, frozen material or large roots, may be placed in trench and compacted as described elsewhere in this Section.
2. After sub-soil is placed and compacted to within 6" of finished grade, provide 6" of fertile topsoil, lightly compacted, over trench and any area damaged by construction.
3. Within two (2) weeks of the installation of pipe, within any given area, seed or sod shall be applied with fertilizer and mulch.
4. Seed, sod, fertilizer and mulch shall be as described in Section 32 9219 - Seeding.

B. TRENCH REPAIR – GRASS AREAS SPECIAL

1. This work pertains to trench repair in grass areas with part of the trench within 2' of the edge of shoulders, curbs, walkways, or drives.
2. After pipe has been properly embedded, place and compact final backfill to within 12" of finished grade.
3. After final backfill is placed and compacted, place and compact subsoil to within 6" of finished grade, provide 6" of fertile topsoil, lightly compacted, over trench and any other grass areas damaged by construction.
4. Within two (2) weeks of the installation of pipe, within any given area, seed or sod shall be applied with fertilizer and mulch.
5. Seed, sod, fertilizer, and mulch shall be as described in Section 32 9219 - Seeding.
6. Repair any other surface type damaged by construction.

C. TRENCH REPAIR-SIDEWALKS AND DRIVES

1. This work pertains to any HMA, concrete or aggregate surfaced shoulders, walkways, drives.
2. After pipe, either water main or water service, has been properly embedded, provide final backfill as described in 2.1 of this Section and compact as described elsewhere in this Section.
3. Should any part of the trench be within 2' of the edge of the shoulder, walkway or drive surface, final backfill will be required.
4. After final backfill is placed and compacted, provide aggregate base course to a compacted final thickness of 6" minimum or aggregate surface course to a final compacted thickness of 6" minimum.
5. All drives and sidewalks shall be re-opened by the end of each work day.
6. As a minimum, the final repair shall be made using the same type of surface and thickness as removed or damaged during excavation.

D. TRENCH REPAIR-ROADWAY

1. This work pertains to any roadway surface, including curb or curb & gutter.
2. After pipe, either water main or water service, has been properly embedded, provide final backfill as described in 2.1.A of this Section and compact as described elsewhere in this Section.
3. Should any part of the trench be within 2' of the edge of the bituminous surface, final backfill will be required.

4. After final backfill is placed and compacted, place and compact Aggregate Base Course, Type B to a final thickness of 8".
5. Unless noted otherwise on plans, as a minimum, provide 2-1/2" Hot Mix Asphalt (HMA) Binder Course and 1-1/2" Hot Mix Asphalt (HMA) Surface Course, Mix "C," N50. Bituminous Materials Prime Coat (MC-30) will be required over aggregate base and may be required (RC-70) over binder course. The application rates shall be in accordance with the pertinent articles of the "Roadway Specifications." HMA mixes shall be IL-9.5.
6. Should, on the plans, P.C.C. Patch be required, provide the same aggregate base course as noted above and provide a Class B Patch per I.D.O.T. Standard 442101-7. In no case shall the patch thickness be less than 6".
7. If, at the option of the Contractor, the placement of the bituminous concrete will not be performed until all road crossings have been made, the Contractor shall place additional aggregate base course flush with roadway surface at no additional cost. The Contractor shall be responsible for maintaining the temporary patch. The Contractor shall also maintain a stock pile of aggregate base course material which can be used by the Owner or Village to patch crossings in the event dangerous pot holes occur during the night or weekend when Contractor is not on site. The Contractor shall pay for time and material, should no stockpile be made available, for any work performed by Owner repairing pot holes.
8. Until bituminous concrete is placed, the Contractor shall provide a "BUMP AHEAD" sign in each direction at each crossing.

E. TRENCH REPAIR-AGRICULTURAL

1. This work pertains to trench repair and area restoration across what is currently farmed land. After the installation of the water main, this land will no longer be farmed.
2. After pipe, either water main or water service has been properly embedded, excavated material free of rock 3" or larger, frozen material or large roots, may be placed in trench and compacted as described elsewhere in this Section.
3. After sub-soil is placed and compacted to within 6" of finished grade, provide 6" of fertile topsoil, lightly compacted, over trench and any area damaged by construction.
4. After trench and area damaged by construction has been repaired, scarify ground from top of ditch slope to a point 40' west of water main trench. Remove all rocks and stones larger than 2". After area has been prepared, apply temporary seeding in accordance with Illinois Urban Manual Code 965.

END OF SECTION

SECTION 31 2318 - ROCK REMOVAL

PART 1 GENERAL

1.1 SUMMARY

- A. Section Includes:
 - 1. Removing identified and discovered rock during excavation.
 - 2. Expansive tools to assist rock removal.

1.2 MEASUREMENT AND PAYMENT

- A. Rock, as defined below, is not expected to be encountered during trenching on this project. In the event that rock is encountered, payment for rock removal will be made on a time and expense basis for the equipment and personnel required to remove a sufficient volume of rock to permit installation of the utilities described on the Drawings.
- B. Notification – As a condition of obtaining any payment for rock excavation, the Contractor shall notify the Engineer immediately when he/she believes rock meeting the definition of this section has been encountered and must be removed. The Engineer shall be provided full access to the length, width, and depth where rock removal occurs so as to obtain an in-place measurement of the rock excavation prior to backfilling.

1.3 DEFINITIONS

- A. Rock is defined as solid mineral material with volume that cannot be removed with a 1.2 cu. yd. capacity excavator without the use of continuous blasting, drilling, or a hydraulic breaker. Concrete, asphalt, brick, or frozen earth shall not be considered rock for the purposes of this project. Should rock, as defined herein, be encountered, the Contractor shall immediately notify the Engineer and request further instructions. When larger capacity excavators are used, and such an excavator is capable of removing the material, the Contractor will have the option of performing a demonstration, at no additional cost, using a smaller machine with at least a 1.2 cu. yd. bucket which is standard for said smaller excavator in an attempt to prove that said smaller excavator cannot remove the material. The Engineer's decision as to whether the smaller machine is "capable" of removing the material as a result of the demonstration will be final. The Contractor will not be expected to use any excavator in such a way that would cause damage to the machine.

1.4 SUBMITTALS

- A. Survey Report: Conditions of buildings near locations of rock removal.

1.5 PROJECT CONDITIONS

- A. Conduct survey and document conditions of buildings near locations of rock removal, prior to rock removal, and photograph existing conditions identifying existing irregularities.

- B. Advise owners of adjacent buildings or structures in writing, prior to rock removal. Explain planned rock removal procedures.

1.6 SCHEDULING

- A. Schedule Work to avoid disruption to occupied buildings nearby.

PART 2 PRODUCTS – Not Used

PART 3 EXECUTION

3.1 EXAMINATION

- A. Verify Site conditions and note subsurface irregularities affecting Work of this Section.

3.2 PREPARATION

- A. Identify required lines, levels, contours, and datum.

3.3 ROCK REMOVAL BY MECHANICAL METHOD

- A. Excavate and remove rock by mechanical method.
 - 1. Drill holes and use expansive tools, wedges, or mechanical disintegration compound to fracture rock.
- B. Cut away rock at bottom of excavation to form level bearing.
- C. Remove shaled layers to provide sound and unshattered base for pipe bedding.
- D. In utility trenches, excavate to 4 inches below bottom of pipe and 24 inches wider than pipe diameter.
- E. Remove excavated materials from Site.
- F. Correct unauthorized rock removal according to backfilling and compacting requirements of Section 31 2317 – Trenching.
- G. Use of explosives will not be permitted as a method of rock removal.

3.4 FIELD QUALITY CONTROL

- A. Request visual inspection of foundation bearing surfaces by Engineer.

END OF SECTION

SECTION 31 2319 - DEWATERING

PART 1 GENERAL

1.1 SUMMARY

- A. Section Includes:
 - 1. Dewatering system.
 - 2. Surface water control system.
 - 3. System operation and maintenance.
 - 4. Water disposal.

1.2 UNIT PRICE – MEASUREMENT AND PAYMENT

- A. Dewatering shall be incidental to the Contract and shall be included in the Contractor's Bid for the Work.

1.3 DEFINITIONS

- A. Dewatering includes the following:
 - 1. Lowering of ground water table and intercepting horizontal water seepage to prevent ground water from entering excavations and trenches.
 - 2. Reducing piezometric pressure within strata to prevent failure or heaving of excavations and trenches.
 - 3. Disposing of removed water.
- B. Surface Water Control: Removal of surface water within open excavations and prevention of surface water from reaching open excavations and trenches.

1.4 SYSTEM DESCRIPTION

- A. Provide dewatering and surface water control systems to permit Work to be completed on dry and stable subgrade.
- B. Furnish standby equipment stored at Project site and ready for immediate use upon failure of dewatering equipment. This shall include standby diesel generator for backup power and pumps that are critical to the dewatering system.

1.5 PERFORMANCE REQUIREMENTS

- A. Design dewatering systems to:
 - 1. Lower water table within areas of excavation to minimum one (1) foot below bottom of excavation to permit Work to be completed on dry and stable subgrade.
 - 2. Relieve hydrostatic pressures in confined water bearing strata below excavation to eliminate risk of uplift or other instability of excavation.
 - 3. Prevent damage to adjacent properties, buildings, structures, utilities, and facilities from construction operations.
 - 4. Prevent loss of fines, quick condition, or softening of foundation subgrade.

5. Maintain stability of sides and bottoms of excavations and trenches.

B. Design surface water control systems to:

1. Collect and remove surface water and seepage entering excavation.

1.6 SUBMITTALS

A. Section 01 3300 – Submittal Procedures: Requirements for submittals.

B. Shop Drawings:

1. Indicate dewatering system layout, well depths, well screen lengths, dewatering pump locations, pipe sizes and capacities, grades, filter sand gradations, surface water control devices, valves, and water disposal method and location.

2. Indicate primary and standby power system location and capacity.

3. Indicate layout and depth of monitoring wells, piezometers and flow measuring devices for system performance measurement.

4. Include detailed description of dewatering system installation procedures and maintenance of equipment.

5. Include description of emergency procedures to follow when problems arise.

C. Product Data: Submit data for each of the following:

1. Dewatering Pumps: Indicate sizes, capacities, priming method, motor characteristics.

2. Pumping equipment for control of surface water within excavation.

D. Design Data: Signed and sealed by professional engineer.

1. Indicate design values, analyses, and calculations to support design.

2. Include description and profile of geology, soil, and groundwater conditions.

E. Field Reports: Test and monitoring reports as specified in Field Quality Control article.

1.7 CLOSEOUT SUBMITTALS

A. Section 01 7000 – Execution and Closeout Requirements: Requirements for submittals.

B. Project Record Documents: Record actual locations and depths of capped wells and piping abandoned in place.

1.8 QUALITY ASSURANCE

A. Comply with authorities having jurisdiction (County Health Department and the Illinois Environmental Protection Agency) for the following:

1. Water discharge and disposal from pumping operations.

B. Obtain and keep on-site a copy of the Storm Water Pollution Prevention Plan (SWPPP) approved by the Illinois EPA under the National Pollutant Discharge Elimination System (NPDES) for stormwater discharge from construction sites.

1.9 QUALIFICATIONS

- A. Installer: Company specializing in performing work of this Section with minimum of 15 years documented experience and responsible for design, operation, and maintenance of dewatering system.
 - 1. Assume sole responsibility for dewatering and surface water control systems and for loss or damage resulting from partial or complete failure of protective measures and settlement or resultant damage caused by ground water control operations.

1.10 SEQUENCING

- A. Section 01 1000 – Summary: Requirements for sequencing.
- B. Sequence work to obtain required permits before start of dewatering operations.
- C. Sequence work to install and test monitoring systems minimum 7 days before testing and operating dewatering systems.
- D. Sequence work to install and test dewatering and surface water control systems minimum 7 days before starting excavation and trenching.

1.11 COORDINATION

- A. Section 01 3000 – Administrative Requirements: Requirements for coordination.
- B. Coordinate work to permit the following construction operations to be completed on dry stable substrate.
 - 1. Trenching for utilities specified in Section 31 2317 – Trenching.

PART 2 PRODUCTS

2.1 DEWATERING EQUIPMENT

- A. Select dewatering equipment to meet specified performance requirements.

PART 3 EXECUTION

3.1 EXAMINATION

- A. Section 01 3000 – Administrative Requirements: Verification of existing conditions before starting work.
- B. Call JULIE not less than three working days before performing Work.
 - 1. Request underground utilities to be located and marked within and surrounding construction areas.
- C. Employ licensed land surveyor to provide following documentation:

- l. Survey existing adjacent buildings, structures, and improvements for position and elevation of principal elements before and after completion of dewatering operations.

3.2 PREPARATION

- A. Protect existing adjacent buildings, structures, and improvements from damage caused by dewatering operations.

3.3 DEWATERING SYSTEM

- A. Locate system components to allow continuous dewatering operations without interfering with installation of permanent Work and existing public rights-of-way, sidewalks, and adjacent buildings, structures, and improvements.
- B. Contractor shall furnish, operate and maintain all dewatering equipment including providing electrical service to operate the equipment.

3.4 SURFACE WATER CONTROL SYSTEM

- A. Provide ditches, berms, and other devices to divert and drain surface water from excavation area as specified in Section 31 2500 – Erosion and Sedimentation Controls.
- B. Divert surface water and seepage water within excavation areas into sumps and pump water into storm drains. Discharge water into storm sewer system unless water is contaminated or has high turbidity. Contaminated water or water with high turbidity shall be disposed of per the requirements of the SWPPP.
- C. Control and remove unanticipated water seepage into excavation.

3.5 SYSTEM OPERATION AND MAINTENANCE

- A. Operate dewatering system continuously until backfilling is complete.
- B. Modify dewatering and surface water control systems when operation causes or threatens to cause damage to new construction, existing site improvements, adjacent property, or adjacent water wells.

3.6 WATER DISPOSAL

- A. Discharge water into storm sewer unless water is contaminated or has high turbidity. Contaminated water or water high in turbidity shall be disposed of per the project SWPPP.

3.7 SYSTEM REMOVAL

- A. Remove dewatering and surface water control systems after dewatering operations are discontinued.
- B. Repair damage caused by dewatering and surface water controls systems or resulting from failure of systems to protect property.

3.8 FIELD QUALITY CONTROL

- A. Section 01 4000 – Quality Requirements: Field inspecting, testing, adjusting, and balancing.
- B. Monitor ground water discharge for sand content. Maximum permitted sand content 5 parts per million.
- C. Monitor groundwater discharge for contamination while performing pumping in vicinity of potentially contaminated soil.
- D. Survey existing adjacent buildings, structures, and improvements to detect movement in comparison to original elevations during dewatering operations.
 - 1. Notify Engineer immediately of measured movement.

END OF SECTION

SECTION 31 2500 - EROSION AND SEDIMENTATION CONTROLS

PART 1 GENERAL

1.1 SUMMARY

- A. Section Includes:
1. Silt fence.
 2. Dewatering.
 3. Dust control.
 4. Temporary concrete washout facility.
 5. Inlet protection – paved areas.
 6. Inlet protection – fabric drop.
 7. Sump pit.
 8. Erosion control blanket.
 9. Site stabilization.
 10. Field quality control.
 11. Cleaning.
 12. Protection.
 13. All equipment, practices, inspections, maintenance, and recordkeeping required by the project ILR10 Storm Water Pollution Prevention Plan (SWPPP).
 14. Ditch check (manufactured).
 15. Stabilized construction entrance.

1.2 UNIT PRICE – MEASUREMENT AND PAYMENT

- A. Erosion and sedimentation controls shall be paid at the Lump Sum Price for Erosion Control.

1.3 SUBMITTALS

- A. Section 01 3300 – Submittal Procedures: Requirements for submittals.
- B. Product Data: Submit data on proposed method of inlet protection.

1.4 CLOSEOUT SUBMITTALS

- A. Section 01 7000 – Execution and Closeout Requirements: Requirements for submittals.

1.5 QUALITY ASSURANCE

- A. Perform Work in accordance with requirements of all related Sections.
- B. Perform Work in accordance with the Illinois Urban Manual.
- C. Maintain one copy of each document on site.

1.6 PRE-INSTALLATION MEETINGS

- A. Section 01 3000 – Administrative Requirements: Pre-installation meeting.
- B. Convene minimum one week prior to commencing work of this Section.

1.7 ENVIRONMENTAL REQUIREMENTS.

- A. Section 01 6000 – Product Requirements: Environmental conditions affecting products on site.

PART 2 PRODUCTS

2.1 SILT FENCE

- A. Geotextile Fabric: Shall be a woven type with fabrics formed by the uniform and regular interweaving of the threads or yarns in two directions. Woven fabrics shall be manufactured from silt-tap or monofilament yarn formed into a uniform pattern with distinct and measureable openings, retaining their position relative to each other. The edges of the fabric shall be selvaged or otherwise finished to prevent the outer yarn from unraveling. Products shall meet the requirements of the Illinois Urban Manual, Section 592, Table 1, Class I.
- B. Stakes: Stakes shall be wood stakes with a cross sectional dimensions of 1.5 inches x 1.5 inches and an overall length of 48 inches.

2.2 INLET PROTECTION IN PAVED AREAS

- A. Compost Filter Sock:
 - 1. Mesh Tube: Shall be a high-density polyethylene (HDPE), expandable, tubular, photodegradable, 3 to 5 mil, 3/8 inch knitted mesh netting fabric sock of 12 inches or 18 inches diameter, as required.
 - 2. Wood Stakes: Shall have cross section dimensions of 2 inches x 2 inches and an overall length of 16 to 18 inches.
 - 3. Compost: Compost shall be produced at an IEPA registered composting facility. The compost shall have no glass or metal shards present. Any plastic or other man made material shall be no larger than ¼ inch and sieved out to be less than one (1) percent of the total dry weight. Compost shall be coarse compost in accordance with the U.S. Composting Council's Test Methods for Examining of Composting and Compost (TMECC) and Material Specification 805-Compost of the Illinois Urban Manual.
- B. Drop-In Collector: Shall be provided with a rigid metal or PVC support system, lifting handles, and a geotextile sediment bag. For collectors installed on curb inlets, an appropriate protective cover shall be provided over the openings in the curb boxes to prevent bypassing of the filter bag. Drop-In Collectors shall be KriStar T-Bag Series, Dandy Products Dandy Curb Sack, ACF Environmental Grate Master, or Engineer Approved Equal.

2.3 DUST CONTROL

- A. Calcium Chloride: Meeting the requirements of Section 1013.01 of the Roadway Specifications.

2.4 EROSION CONTROL BLANKET

- A. Excelsior Blanket: Excelsior blanket shall meet all requirements of Section 1081.10(a) of the Roadway Specifications.
- B. Staples: Staples for pinning erosion control blankets shall be “U” shaped wire of at least No. 11 gauge. The staples legs shall be a minimum length of six (6) inches with a one (1) inch crown. In sandy soils, the minimum leg length shall be nine (9) inches.

PART 3 EXECUTION

3.1 EXAMINATION

- A. Section 01 3000 – Administrative Requirements: Verification of existing conditions before starting work.
- B. Verify compacted subgrade granular base, stabilized soil is acceptable and ready to support devices and imposed loads.
- C. Verify gradients and elevations are correct.

3.2 SILT FENCE

- A. In accordance with Standard Drawing IL-620 and Code 920 of the Illinois Urban Manual.

3.3 DEWATERING

- A. In accordance with Code 813 of the Illinois Urban Manual.

3.4 DUST CONTROL

- A. In accordance with Code 825 of the Illinois Urban Manual.
- B. If water is used to control dust, the Contractor shall apply as needed or as directed by the Engineer or Owner.

3.5 TEMPORARY CONCRETE WASHOUT FACILITY

- A. In accordance with Code 954 and Standard Drawing IUM-654ET of the Illinois Urban Manual.

3.6 INLET PROTECTION – PAVED AREAS

- A. Inlet protection shall be installed at all proposed and existing inlets to receive runoff from the construction site, no exceptions. The Contractor shall have his option of installing compost filter socks or drop-in sediment collectors. Inlet protection shall be installed per the details on the Drawings and the manufacturer’s recommendations. Inlet protection shall be installed per the requirements of Section 861 of the Illinois Urban Manual.

3.7 SUMP PIT

- A. In accordance with Standard Drawing IL-650 and Code 950 of the Illinois Urban Manual.

3.8 EROSION CONTROL BLANKET

- A. Erosion control blanket shall be installed on any disturbed slope steeper than 4:1 to be re-seeded.
- B. Erosion control blanket shall be installed per the requirements of Section 251 of the Roadway Specifications.

3.9 SITE STABILIZATION

- A. Incorporate erosion control devices indicated on the Drawings or described herein into the Project at the earliest practicable time.
- B. Construct, stabilize and activate erosion controls before site disturbance within tributary areas of those controls.
- C. Stockpile and waste pile heights shall not exceed 35 feet. Slope stockpile sides at 2:1 or flatter.
- D. Stabilize any disturbed area of affected erosion control devices on which activity has ceased and which will remain exposed for more than 20 days.
 - 1. During non-germinating periods, apply mulch at recommended rates.
 - 2. Stabilize disturbed areas which are not at finished grade and which will be disturbed within one year in accordance with Section 32 9219 – Seeding at 50 percent of permanent application rate with no topsoil.
 - 3. Stabilize disturbed areas which are either at finished grade or will not be disturbed within one year in accordance with Section 32 9219 – Seeding.
- E. Stabilize diversion channels, sediment traps, and stockpiles immediately.

3.10 DITCH CHECK (MANUFACTURED)

- A. In accordance with Standard Drawing IUM 514 and Code 814 of the Illinois Urban Manual.

3.11 STABILIZED CONSTRUCTION ENTRANCE

- A. In accordance with Standard Drawing IL-630 and Code 930 of the Illinois Urban Manual.

3.12 FIELD QUALITY CONTROL

- A. Section 01 4000 – Quality Requirements and Section 01 7000 – Execution Requirements: Field inspecting, testing, adjusting and balancing.
- B. Inspect erosion control devices per Storm Water Pollution Prevention Plan (SWPPP). Make necessary repairs to ensure erosion and sediment controls are in good working order.

3.13 CLEANING

- A. Section 01 7000 – Execution Requirements: Requirements for cleaning.
- B. When sediment accumulation in sedimentation structures has reached a point one-third depth of sediment structure or device, remove and dispose of sediment.
- C. Do not damage structure or device during cleaning operations.
- D. Do not permit sediment to erode into construction or site areas or natural waterways.
- E. Clean channels when depth of sediment reaches approximately one half channel depth.

3.14 PROTECTION

- A. Section 01 7000 – Execution Requirements: Requirements for protecting finished Work.

3.15 POLLUTION CONTROL

- A. Provide methods, means, and facilities to prevent contamination of soil, water, and atmosphere from discharge of noxious, toxic substances, and pollutants produced by construction operations.

3.16 STORM WATER POLLUTION PREVENTION PLAN (SWPPP)

- A. Contractor shall execute and keep one copy on site of the project SWPPP.
- B. Contractor shall be responsible for all equipment, practices, inspections, maintenance, and recordkeeping required by the project ILR10 SWPPP.

END OF SECTION

SECTION 32 1123 - AGGREGATE BASE AND SURFACE COURSE

PART 1 GENERAL

1.1 SUMMARY

- A. Section Includes:
1. Aggregate subbase.
 2. Aggregate base course.
 3. Aggregate surface courses.

1.2 UNIT PRICE – MEASUREMENT AND PAYMENT

- A. Aggregate Base and Surface Course:
1. Basis of Measurement: Unless used for trench repair, aggregate will be measured for payment in tons.
 2. Basis of Payment: Includes supplying fill material, stockpiling, scarifying substrate surface, preparing the subgrade, placing where required, adding water as needed and compacting.
 3. Maximum Payment: No payment will be made for aggregate course in excess of 108% of Adjusted Plan Quantity.
 4. Definitions:
 - a. Adjusted Plan Quantity – Area designated on the Drawings or specified by the Engineer in the field to receive aggregate base course (sq. yd.) x specified aggregate thickness (ft.)/3 x 2.05 tons/cu. yd.
 5. An adjustment in pay quantity for excess moisture in Type A aggregate in accordance with Article 311.08 of the Roadway Specification will be made.
- B. Aggregate Subbase Course:
1. In the event that areas of soft material require over-excavation and subbase material, this work will be paid for as extra work in accordance with the change procedures outlined in Section 01 2000 – Price and Payment Procedures.

1.3 SUBMITTALS

- A. Section 01 3300 – Submittal Procedures: Requirements for submittals.
- B. Materials Source: Submit name of aggregate materials suppliers.
- C. Manufacturer's Certificate: Aggregates must be IDOT certified.
- D. Gradation Report: Submit gradation report confirming aggregates meet IDOT criteria.

1.4 QUALITY ASSURANCE

- A. Furnish each aggregate material from single source throughout the Work.
- B. Perform Work in accordance with these Specifications and the Roadway Specifications.
- C. Maintain one copy of each document on site.

PART 2 PRODUCT

2.1 AGGREGATE MATERIALS

- A. Coarse Aggregate for Subbase Courses: CA-2 coarse aggregate per Section 1004 of the Roadway Specifications. Aggregate to be used for subbase course shall be crushed limestone with 6% max deleterious material. "Breaker rock" is an acceptable alternative.
- B. Coarse Aggregate for Base and Surface Courses: CA-6 coarse aggregate per Section 1004 of the Roadway Specifications. Aggregate to be used for base and surface courses shall be crushed limestone with 6% max deleterious material.

2.2 EXAMINATION

- A. Section 01 3000 – Administrative Requirements: Verification of existing conditions before starting work.
- B. Verify compacted substrate is dry and ready to support paving and imposed loads.
 - 1. Proof roll substrate with a loaded tandem with a minimum of two perpendicular passes to identify soft spots.
 - 2. Remove soft substrate and replace with CA-2 coarse aggregate, compact and retest.
- C. Verify substrate has been inspected, gradients and elevations are correct.

2.3 PREPARATION

- A. Correct irregularities in substrate gradient and elevation by scarifying, reshaping, and re-compacting.
- B. Do not place fill on soft, muddy, or frozen surfaces.
- C. Prepare subgrade in accordance with Section 351.04 of the Roadway Specifications.

2.4 AGGREGATE PLACEMENT

- A. Place aggregate in equal thickness layers to total compacted thickness as indicated on Drawings.
 - 1. Maximum Layer Compacted Thickness: 8 inches.
 - 2. Minimum Layer Compacted Thickness: 3 inches.
- B. Roller compact aggregate to 100 percent maximum density in accordance with the AASHTO T99 Method C/ASTM D698,
- C. Level and contour surfaces to elevations, profiles, and gradients indicated.
- D. Add small quantities of fine aggregate to coarse aggregate when required to assist compaction.
- E. Maintain optimum moisture content of fill materials to attain specified compaction density.
- F. Use mechanical tamping equipment in areas inaccessible to compaction equipment.

- G. Comply with the requirements of Articles 311, 351, and 402 of the Roadway Specifications. All aggregate subbase, base, and surface courses shall be Type B.

2.5 DUST CONTROL

- A. The Contractor shall provide a water truck as needed and apply water to disturbed areas as needed for dust control before, during, and after placement of aggregate base courses until such time that the aggregate is covered with pavement.

2.6 TOLERANCES

- A. Section 01 4000 – Quality Requirements: Tolerances.
- B. Maximum Variation From Flat Surface: 1/4 inch measured with 10 foot straight edge.
- C. Maximum Variation From Thickness: 1/4 inch.
- D. Maximum Variation From Elevation: 1/4 inch.

2.7 FIELD QUALITY CONTROL

- A. Section 01 4000 – Quality Requirements: Field inspecting, testing, adjusting, and balancing.
- B. Compaction testing will be performed in accordance with AASHTO T310.
- C. When tests indicate Work does not meet specified requirements, remove Work, replace and retest.
- D. Frequency of Tests: One test for every 1,000 square yards of each layer of compacted aggregate.

2.8 COMPACTION

- A. Roller compact all aggregate to a minimum of 100 percent maximum density in accordance with the AASHTO T99 Method C/ASTM D698, unless otherwise indicated on the Drawings or in these Specifications.

END OF SECTION

SECTION 32 1216 - ASPHALT PAVING

PART 1 GENERAL

1.1 SUMMARY

- A. Section Includes:
1. HMA surface removal.
 2. Bituminous prime coat.
 3. Asphalt materials.
 4. Asphalt paving binder course and surface course, including asphalt paving overlay for existing paving.
 5. Pavement markings.

1.2 UNIT PRICE - MEASUREMENT AND PAYMENT

- A. Pay Limits:
1. Trench Repair Areas: Pay limits are indicated on the Drawings and defined based on the maximum trench width as provided by the Typical Trench Detail found in the Drawings. Additional material required due to poor soil conditions or to meet safety requirements shall be provided by the Contractor and no additional compensation will be provided. Damage caused by the Contractor related to construction activities outside of the indicated pay limits shall be repaired at the Contractor's expense.
- B. Bituminous Materials (Tack Coat and Prime Coat):
1. Basis of Measurement: By linear foot of trench repair.
 2. Basis of Payment: Includes furnishing and applying a tack coat of bituminous asphalt onto the existing pavement surface or aggregate base course after milling and prior to installation of the leveling binder or HMA base course.
- C. Hot-Mixed Asphalt (HMA) Leveling Binder (Machine Method), HMA Base Course, HMA Surface Course, Incidental HMA Surface:
1. Basis of Measurement: By linear foot of trench repair.
 2. Basis of Payment: Includes the furnishing, installation, and compacting of HMA to the thickness indicated.
 3. Maximum Payment: No payment will be made in excess of 103% of the Adjusted Plan Quantity.

1.3 SUBMITTALS

- A. Section 01 3300 - Submittal Procedures: Requirements for submittals.
- B. Product Data:
1. Submit product information for asphalt and aggregate materials.
 2. Submit mix design with laboratory test results supporting design.
- C. Manufacturer's Certificate: Certify Products meet or exceed specified requirements.

1.4 QUALITY ASSURANCE

- A. Mixing Plant; Certified by the Illinois Department of Transportation's Bureau of Materials and Physical Research.
- B. Obtain materials from same source throughout.
- C. Perform Work in accordance with these Specifications and the Roadway Specifications.
- D. Maintain one copy of each document on site.

1.5 QUALIFICATIONS

- A. Installer: Company specializing in performing work of this section with minimum 10 years documented experience. The Contractor shall be Prequalified by the Illinois Department of Transportation for installing HMA Plant Mix and shall maintain this prequalification throughout the project.

1.6 ENVIRONMENTAL REQUIREMENTS

- A. Section 01 6000 - Product Requirements; Environmental conditions affecting products on site.
- B. Do not place asphalt mixtures between November 1st and May 1st unless approved in writing by the Engineer.
- C. Do not place asphalt binder course unless the ambient air is 40 degrees F in the shade and the forecast is for rising temperatures. Do not place asphalt surface course unless the ambient air is a minimum of 45 degrees F in the shade and the forecast is for rising temperatures. Do not place asphalt mixtures if the surface is wet or frozen.
- D. Asphalt mixtures shall be delivered to the site at a temperature of 250 to 350 degrees F, and shall be placed, at the exit of the paver, at a minimum of 250 degrees F.
- E. Do not apply pavement markings when the air temperature is less than 55°F.

PART 2 PRODUCTS

2.1 ASPHALT MATERIALS

- A. Asphalt Binder (Surface and Binder Course): AASHTO M320; performance grade PG 64-22.
- B. Asphalt Binder: Shall be in accordance with Article 1032 of the Roadway Specifications.
- C. Prime for Aggregate Surfaces: MC-30, in accordance with Article 1032 of the Roadway Specifications.
- D. Prime Coat and Tack Coat: SS-1, in accordance with Article 1032 of the Roadway Specifications.

- E. Reclaimed Asphalt Pavement (RAP/FRAP) and Reclaimed Asphalt Shingles (RAS): Processed material obtained by milling or full depth removal of existing asphalt paving or the processing and grinding of asphalt shingles. Use of RAP or RAS shall be in accordance with the IDOT BDE Special Provision for Reclaimed Asphalt Pavement (RAP) and Reclaimed Asphalt Shingles (RAS) with the exception that maximum RAP/FRAP or RAS content by weight shall be 15% for binder course and 10% for surface course.

2.2 AGGREGATE MATERIALS

- A. Coarse Aggregate: In accordance with Articles 1004 and 1030 of the Roadway Specifications
- B. Fine Aggregate: In accordance with Articles 1003 and 1030 of the Roadway Specifications.

2.3 HMA MIXES

- A. Use dry material to avoid foaming. Mix uniformly.
- B. Hot-Mix Asphalt Paving Mixtures: Designed in accordance with Article 1030 of the Roadway Specifications and Illinois Department of Transportation Standards
 1. Base Course: IL 19.0, Maximum 15% RAP/RAS.
 2. Leveling Binder Course: IL 9.5, Maximum 15% RAP/RAS.
 3. Surface Course and Incidental HMA Surface: IL 9.5, N50, Mix C, Maximum 10% RAP/RAS.

2.4 THERMOPLASTIC PAVEMENT MARKINGS

- A. Materials for thermoplastic pavement markings shall be in accordance with Article 1095.01 of the Roadway Specifications.

2.5 SOURCE QUALITY CONTROL

- A. Section 01 4000 - Quality Requirements: Testing, inspection and analysis requirements.
- B. Submit proposed mix design of each class of mix for review prior to beginning of Work.
- C. Test samples in accordance with Illinois Department of Transportation QC/QA procedures.

PART 3 EXECUTION

3.1 EXAMINATION

- A. Section 01 3000 - Administrative Requirements: Verification of existing conditions before starting work.
- B. Verify utilities indicated under paving are installed with excavations and trenches backfilled and compacted.
- C. Verify compacted granular base is dry and ready to support paving and imposed loads.

1. Proof roll base with a loaded tandem dump truck in minimum two perpendicular passes to identify soft spots.
 2. Remove soft subbase and base and replace with compacted CA-2 coarse aggregate as specified in Section 32 1123 – Aggregate Base and Surface Course.
- D. Verify gradients and elevations of base are correct.
- E. Verify inlet and manhole frames and water valves boxes are installed in correct position and elevation. If adjustments are needed for Water Valve Boxes or Sanitary Manhole Frames, make required adjustments as described elsewhere in this section. No payment will be made for adjustment of frames or grates on storm manholes or inlets installed as a part of this project or for adjustment of water valve boxes installed as a part of this project. Adjustment of storm sewer castings to match finished pavement, curb & gutter, or sidewalk will be considered incidental to the cost of the underlying structure. Adjustment of water valve boxes to match finished pavement, curb and gutter, or sidewalk will be considered incidental to the valve and box pay item.

3.2 SUBBASE AND BASE COURSE

- A. Aggregate Base and Subbase Course: Install as specified in Section 32 1123 – Aggregate Base and Surface Course.

3.3 EXISTING PAVEMENT

- A. The cross sections of the existing pavement are not known. Pavement depths may vary from two (2) to three (3) inches to 14 inches depending on the materials present.
- B. Saw cutting for this project shall be incidental in all cases. Prior to the paving, the Contractor will be required to saw cut the pavement adjacent to the trench to provide a clean, straight line for the proposed pavement to match. The Engineer shall have final say in the location of the edge to ensure that all construction related defects will be removed and to ensure that the line is straight, no exceptions.
- C. Clean existing paving to remove foreign material, excess joint sealant and crack filler from paving surface.
- D. Repair surface defects in existing paving to provide uniform surface to receive new paving.

3.4 BITUMINOUS MATERIALS – PRIME COAT

- A. Apply prime coat in accordance with Sections 403 and 406 of the Roadway Specifications.
- B. Apply prime coat on aggregate base at uniform rate of 0.375 gal./sq. yd.
- C. Apply prime coat to milled HMA surfaces at a rate of 0.08 gal./sq. yd.
- D. Use clean sand to blot excess primer.

3.5 BITUMINOUS MATERIALS - TACK COAT

- A. Apply tack coat in accordance with Sections 403 and 406 of the Roadway Specifications.
- B. Apply tack coat between binder and surface course at a rate of 0.05 gal./sq. yd.
- C. Coat surfaces of manhole and drainage structure frames with oil to prevent bond with asphalt paving. Do not coat these surfaces with prime coat or tack coat.

3.6 ASPHALT PAVING

- A. Install Work in accordance with Article 406 of the Roadway Specifications.
- B. Place asphalt within 24 hours of applying primer or tack coat.
- C. Place base course, leveling binder course, and temporary and final surface course to the compacted thickness indicated on Drawings.
- D. Place surface course within 24 hours of placing and compacting leveling binder course. When leveling binder course is placed more than 24 hours before placing surface course, or when dirt or debris has been tracked onto the leveling binder course, clean surface and apply tack coat before placing surface course.
- E. Compact paving by rolling to specified density. Do not displace or extrude paving from position. Hand compact in areas inaccessible to rolling equipment.
- F. Perform rolling with consecutive passes to achieve even and smooth finish without roller marks.
- G. Until the final surface is installed and accepted in all locations, the Contractor shall be responsible for maintaining any exposed aggregate surfaces. The Contractor shall provide a 24-hour contact that the Engineer or Owner may contact to notify of potholes and other aggregate surface issues. Within 48 hours of notification, the Contractor will be required to address the issue. Maintenance of exposed aggregate surfaces shall be incidental to the Contract.
- H. A minimum of one vibratory roller meeting the requirements of Section 1101.01(g) of the Roadway Specifications will be required for compaction of the HMA binder and surface courses. An additional vibratory finishing roller will also be required to be used during the HMA placement operation.

3.7 PAVEMENT MARKINGS

- A. Install work in accordance with Article 780 of the Roadway Specifications.
- B. Pavement and marking layout shall be in accordance with the details on the Plans.

3.8 ERECTION TOLERANCES

- A. Section 01 4000 - Quality Requirements: Tolerances.

- B. Flatness: Maximum variation of 1/4 inch measured with 10 foot straight edge.
- C. Scheduled Compacted Thickness: Within 1/4 inch.
- D. Variation from Indicated Elevation: Within 1/2 inch.

3.9 FIELD QUALITY CONTROL

- A. Section 01 4000 - Quality Requirements: Field inspecting, testing, adjusting, and balancing.
- B. Asphalt Paving Mix Temperature: Measure temperature at time of placement.

3.10 PROTECTION OF FINISHED WORK

- A. Section 01 7000 - Execution Requirements: Requirements for protecting finished Work.
- B. Immediately after placement, protect paving from mechanical injury for two (2) hours or until surface temperature is less than 140 degrees F.

END OF SECTION

SECTION 32 1313 – PORTLAND CEMENT CONCRETE PAVEMENT

PART 1 GENERAL

1.1 SUMMARY

A. Section Includes:

1. Concrete paving for:
 - a. Concrete sidewalks.
 - b. Concrete curbs and gutters.
 - c. Concrete driveways.
 - d. Class B patch.
2. Protective coat.
3. Removal of existing pavements, sidewalk and curb.

1.2 UNIT PRICE – MEASUREMENT AND PAYMENT

A. Portland Cement Concrete (PCC) Patch (Class B Patch):

1. Basis of Measurement: By the square yard of the thickness specified.
2. Basis of Payment: Includes providing and installing dowel bars and joint filler, saw cutting, providing, pouring, and finishing the concrete pavement to the lines, grades and thickness specified, and cold weather concrete protection.

1.3 SUBMITTALS

A. Section 01 3300 - Submittal Procedures: Requirements for submittals.

B. Product Data:

1. Submit data on concrete materials, detectable warnings, joint filler, dowel bars, admixtures, and curing compounds.

C. Design Data:

1. Submit concrete mix design for each concrete strength. Submit separate mix designs when admixtures are required for the following:
 - a. Hot and cold weather concrete work.
2. Identify mix ingredients and proportions, including admixtures.
3. Identify chloride content of admixtures and whether or not chloride was added during manufacture.

D. Tickets:

1. For each load of concrete delivered to the job site, provide Engineer one (1) copy of a ticket containing the following minimum information:
2. Quantity of concrete delivered in cubic yards.
3. Date and time batched.
4. Design and actual water to cement ratio.
5. Design and actual weights batched of: water, cementitious materials, coarse aggregate, fine aggregate.
6. Quantity of each admixture used.

7. Mix design number – to match Owner approved mix design.

1.4 QUALITY ASSURANCE

- A. Perform Work in accordance with ACI 301 and the listed State of Illinois Standards.
- B. Obtain cementitious materials from same source throughout.
- C. Maintain one copy of each document on site.

1.5 QUALIFICATIONS

- A. Manufacturer: Certified by the Illinois Department of Transportation prior to and during the Work of this Section.
- B. Installer: Company specializing in performing work of this section with 10 years documented experience.

1.6 ENVIRONMENTAL REQUIREMENTS

- A. Section 01 6000 - Product Requirements: Environmental conditions affecting products on site.
- B. Do not place concrete unless air temperature is 35 degrees F and rising, and concrete placement shall stop when the falling temperature reaches 40 degrees F. Do not place concrete on soft or frozen surfaces.

PART 2 PRODUCTS

2.1 FORM MATERIALS

- A. Form Materials: Conform to ACI 301.
- B. Wood or steel form material, profiled to suit conditions.
- C. Joint Filler: AASHTO M153/ASTM D1752; Type II cork or Type III self-expanding cork.

2.2 REINFORCING

- A. Deformed Reinforcing: ASTM A706; 60 ksi yield strength, steel bars, epoxy coated.
- B. Welded Plain Wire Fabric: ASTM A1064; in flat sheets, unfinished.
- C. Dowels: AASHTO M227/ 70-80 ksi yield strength, smooth steel bars; cut to length indicated on Drawings, square ends with burrs removed; epoxy coated.
- D. Tie Wire: Minimum 16 gage, annealed type.
- E. Reinforcement Materials: Provide in accordance with Section 1006 of the Roadway Specifications or as modified by A through D above.

2.3 CONCRETE MATERIALS

- A. Concrete Materials: Provide in accordance with Article 1020 of the Roadway Specifications.

2.4 ACCESSORIES

- A. Curing Compound: AASHTO M148/ASTM C309, Type 1D, Class B.
- B. Joint Sealers:
 - 1. Class B Patch, Curb and Gutter: ASTM D6690, Type II; hot applied type.
 - 2. PCC Sidewalk Expansion Joints: Polyurethane joint sealant per Article 1050.04 of the Roadway Specifications. Color: Light gray.
- C. Detectable Warning Strip: Detectable warning strips shall be the cast-in-place replaceable type as manufactured by Access Products, Inc. or Engineer approved equal. The color of the warning strip shall be red and shall conform to Section 424.09 of the Roadway Specifications.
- D. Chemical Adhesive: Chemical adhesive for anchoring dowel bars into existing concrete shall meet the requirements of Section 1027 of the Roadway Specifications.
- E. Protective Coat: As specified in Section 1023.01 of the Roadway Specifications.

2.5 CONCRETE MIX - BY PERFORMANCE CRITERIA

- A. Mix and deliver concrete in accordance with Article 1020 of the Roadway Specifications.
- B. Select proportions for concrete in accordance with Article 1020 of the Roadway Specifications.
- C. Provide concrete to the following criteria:
 - 1. Concrete mix for sidewalk, curb, combination curb and gutter, and driveway pavements shall be Class SI in accordance with Article 1020 of the Roadway Specifications.
 - 2. Concrete mix for Class B Patch shall be class PP-3 per Article 1020 of the Roadway Specifications.
- D. Use accelerating admixtures in cold weather only when approved by the Engineer in writing. Use of admixtures will not relax cold weather placement requirements.
- E. Use calcium chloride only when approved by the Engineer in writing. Admixtures containing calcium chloride will not be permitted when dowel bars or other reinforcing will be present in the finished concrete.
- F. Use set retarding admixtures during hot weather only when approved by the Engineer in writing.

2.6 FABRICATION

- A. Fabricate reinforcing in accordance with the listed State of Illinois Standards.

2.7 SHOP FINISHING - REINFORCING

- A. Epoxy Coated Finish for Steel Bars: ASTM A775, and Article 1006.10(a)(2) of the Roadway Specifications.
- B. Epoxy Coated Finish for Steel Wire: Class A using ASTM A884.

2.8 SOURCE QUALITY CONTROL AND TESTS

- A. Section 01 4000 - Quality Requirements: Testing and Inspection Services: Provide mix design for each concrete mix to be used.
- B. Submit proposed mix design of each class of concrete prior to commencement of Work.
- C. Tests on cement, aggregates, and mixes will be performed to ensure conformance with specified requirements.
- D. Test samples in accordance with Illinois Department of Transportation QC/QA requirements.

PART 3 EXECUTION

3.1 EXAMINATION

- A. Section 01 3000 - Administrative Requirements: Verification of existing conditions before starting work.
- B. Verify compacted subgrade and granular base is dry and ready to support paving and imposed loads.
 - 1. Proof roll subgrade and granular base with a loaded tandem dump truck in minimum two perpendicular passes to identify soft spots.
 - 2. Remove soft subgrade and base and replace with compacted fill as specified in Section 32 1123 – Aggregate Base and Surface Course.
- C. Verify gradients and elevations of base are correct.

3.2 SUBGRADE AND BASE COURSE

- A. Prepare subgrade and base course in accordance with Section 32 1123 – Aggregate Base and Surface Course.

3.3 PREPARATION

- A. Moisten substrate to minimize absorption of water from fresh concrete.
- B. Coat surfaces of manhole and inlet frames with oil to prevent bond with concrete paving.
- C. Notify Engineer minimum 24 hours prior to commencement of concreting operations.

3.4 FORMING

- A. Place and secure forms and screeds to correct location, dimension, profile, and gradient.
- B. Assemble formwork to permit easy stripping and dismantling without damaging concrete.

3.5 REINFORCING

- A. Place and install reinforcement and dowel bars for Class B Patch as indicated in Illinois Department of Transportation Highway Standard 442101, and as required by Section 442 of the Roadway Specifications.
 - 1. Dowel bars installed in drilled holes shall use a chemical adhesive per Section 2.4.D of this Section.
- B. Place and install reinforcement and dowel bars for curb and concrete curb and gutter as indicated in Illinois Department of Transportation Highway Standard 606001 and the portions of Section 442.06(a)(2) of the Roadway Specifications applicable to dowel bar installation.
 - 1. Dowel bars with expansion joint filler will be required at all areas where curb and combination curb and gutter are to be removed and replaced to allow for trenching.
 - 2. The dowel bars shall be provided whenever existing curb and combination curb and gutter is to be tied into proposed and to tie proposed combination curb and gutter to existing or proposed PCC base course.
 - 3. Dowel bars shall be incidental to the curb or combination curb and gutter pay item.
- C. At PCC driveways, dowel bars and expansion joint filler shall be provided to tie the new concrete driveway pavement into the existing. No. 4 dowel bars, 24" long, epoxy grouted into the existing pavement, shall be provided at 18-inch centers and shall be installed at the mid-height of the pavement.
- D. Interrupt reinforcing at expansion joints.
- E. Place dowels and reinforcing to achieve paving and curb alignment as detailed.

3.6 PLACING CONCRETE

- A. Combination Concrete Curb and Gutter:
 - 1. Place concrete for combination curb and gutter in accordance with Section 606 of the Roadway Specifications.
 - 2. Place concrete for combination curb and gutter using the slip form technique whenever possible.
 - 3. Unless noted otherwise on the Drawings, all combination curb and gutter for this project shall be Type B-6.18 as outlined on Highway Standard 606001.
 - 4. Additional pavement removal required to accomplish curb and gutter installation shall be incidental.
 - 5. Any excavation outside of the gutter or curb face must be filled with concrete prior to placing the HMA surface course. The additional material shall be considered incidental.
 - 6. Depressed curb adjacent to sidewalk ramps shall be per the "Depressed Curb Adjacent to Curb Ramp Accessible to the Disabled" detail on Highway Standard 606001. Provide linear

transition from depressed curb to full height curb over a distance as indicated on the Drawings or as indicated in the Engineer in the field.

7. Prior to placing concrete for curb and gutter adjacent to sidewalk ramps, the Contractor shall ensure that the requirements of the applicable Highway Standards for Curb Ramps for Sidewalks (424001, 424006, 424011, and 424021) will be met. The curb height shall be varied as needed to match proposed adjacent sidewalk ramps or as indicated by the Engineer in the field.
8. Any additional fill material required to correct over-excavation or to prepare the subgrade to the required grade for curb installation shall be CA-6 coarse aggregate compacted to the satisfaction of the Engineer. Furnishing, placing, and compacting said fill material will be considered incidental to the applicable curb replacement pay item.

B. Concrete Sidewalk:

1. Place concrete for sidewalks in accordance with Section 424 of the Roadway Specifications.
2. The intersection detail sheets included in the Drawings provide some guidance on elevations for the curb and gutter and sidewalk to be removed and replaced in the construction zone. The Contractor shall be responsible for identifying any field modifications required to the spot elevations as required to meet the requirements of the ADA ramp requirements and Highway Standards.
3. For PCC sidewalk removal and replacement, 4" Highway Standards 424001, 424006, 424011, and 424021 shall apply. It shall ultimately be the Contractor's responsibility to determine how the requirements of the Highway Standards are to be met. The Engineer will assist only with interpreting the intent of the intersection detail grading plans as applicable to each individual ramp. Construction of the ramps may need to utilize a combination of the methods shown on the Highway Standards and grading plans depending on actual field conditions.
4. Any additional fill material beyond the 4" of aggregate base included in Plan Quantities for under PCC sidewalk required to correct over-excavation or to prepare the subgrade to the required grade for sidewalk installation shall be CA-6 coarse aggregate compacted to the satisfaction of the Engineer. Furnishing, placing, and compacting said fill material will be considered incidental to the applicable sidewalk pay item.

C. PCC Driveway Pavement:

1. Place concrete for driveway pavements in accordance with the Drawings and Section 423 of the Roadway Specifications.

D. Ensure reinforcing, inserts, embedded parts, and formed joints are not disturbed during concrete placement.

E. Place concrete continuously over the full width of the panel and between predetermined construction joints. Do not break or interrupt successive pours such that cold joints occur.

3.7 JOINTS

- A. Place expansion joints in driveways, sidewalks, and curb and gutter according to Section 423, 424, and 606 of the Roadway Specifications and drawing details. Align pavement, curb, gutter, and sidewalk joints.

- B. Place joint filler between paving components and other appurtenances. Recess top of filler $\frac{1}{4}$ inch for sealant installation.
- C. Provide scored or sawn joints as directed by the Engineer and as required by the Roadway Specifications.
- D. Saw cut contraction joints $\frac{3}{16}$ inch wide at an optimum time after finishing, maximum 24 hours. Cut $\frac{1}{3}$ into depth of slab.
- E. Seal PCC sidewalk expansion joints with polyurethane joint sealant in accordance with Section 420 of the Roadway Specifications.

3.8 FINISHING

- A. Class B Patch: Type B per Section 420 of the Roadway Specifications.
- B. Sidewalk: Light broom perpendicular to the direction of traffic, and trowel joint edges.
- C. Curbs and Gutters: Light broom perpendicular to the direction of traffic.
- D. Driveway Pavements: Light broom parallel to the direction of traffic.
- E. Place curing compound on exposed concrete surfaces immediately after finishing unless protective coat will be applied.

3.9 CURING AND PROTECTION

- A. Immediately after placement, protect concrete from premature drying, excessively hot or cold temperatures, and mechanical injury. Curing and protection methods shall be according to Section 1020.13 of the Roadway Specifications. Note that a membrane curing compound shall not be used when protective coat is to be applied.
- B. Maintain concrete with minimal moisture loss at relatively constant temperature for period necessary for hydration of cement and hardening of concrete.
- C. For any concrete placed between November 1st and April 15th, or when directed by the Engineer, two (2) applications of protective coat shall be applied in accordance with Section 420.18 of the Roadway Specifications. Protective coat will be paid for at the Contract Unit Price per square yard. The area measured for payment will be the area covered by a single application only, even though a second application must be applied.
- D. Protect concrete from rain by covering with plastic in such a way that plastic or objects holding down plastic do not mar concrete surface. Rain damaged concrete surfaces shall be removed and replaced at Contractor's expense.
- E. Do not permit pedestrian or vehicular traffic over paving until 75 percent design strength of concrete has been achieved.

- F. Protect concrete pavements from marring and staining. Do not permit asphalt paving equipment or prime trucks to leave any markings on concrete pavements. Do not permit skid loaders or other equipment with rubber tracks or tires to leave marks on concrete pavements. Contractor will be required to remove any such unsightly markings prior to final payment.

3.10 ERECTION TOLERANCES

- A. Section 01 400 – Quality requirements: Tolerances.
- B. Maximum Variation of Surface Flatness: $\frac{1}{4}$ inch in 10 ft.
- C. Maximum Variation from True Position: $\frac{1}{4}$ inch.

3.11 FIELD QUALITY CONTROL

- A. Section 01 4000 – Quality Requirements: Field inspecting, testing, adjusting, and balancing.
- B. Inspect reinforcing placement for size, spacing, location, support.
- C. Engineer will take cylinders and perform slump and air entrainment tests in accordance with ACI 301 and Illinois Department of Transportation QC/QA procedures. Contractor shall provide Engineer full access to the mix prior to beginning concrete placement in order to perform necessary tests.
- D. If testing indicates mix does not meet requirements of this section, the Contractor shall perform corrective action or replace mix and allow Engineer to retest prior to placing concrete.
- E. Maintain records of placed concrete items. Record date, location of pour, quantity, air temperature, and test samples taken.

END OF SECTION

SECTION 32 9119 - LANDSCAPE GRADING

PART 1 GENERAL

1.1 SUMMARY

- A. Section Includes:
1. Final grade topsoil for finish landscaping.

1.2 UNIT PRICE – MEASUREMENT AND PAYMENT

- A. Basis of Measurement: All work described in this Section included in pay item: Trench Repair; Grass, Special, or Agricultural.
- B. Basis of Payment: Includes excavating existing topsoil or supplying topsoil materials, stockpiling, preparing and scarifying substrate surface, placing where required and rolling.

PART 2 PRODUCTS

2.1 MATERIAL

- A. Topsoil: Topsoil material shall be fertile agricultural soil, typical for locality, capable of sustaining vigorous plant growth, taken from drained site, free of subsoil, clay or impurities, plants, weeds and roots and shall be approved by the Engineer and in accordance with Section 211 of the Roadway Specifications.

PART 3 EXECUTION

3.1 EXAMINATION

- A. Section 01 3000 – Administrative Requirements: Verification of existing conditions before starting work.
- B. Verify trench backfilling has been inspected.
- C. Verify substrate base has been contoured and compacted.

3.2 PREPARATION

- A. Protect landscaping and other features remaining as final Work.
- B. Protect existing structures, fences, sidewalks, utilities, paving, etc.

3.3 SUBSTRATE PREPARATION

- A. Eliminate uneven areas and low spots, place and compact subsoil to 6” below required finished grade in areas to be seeded and to 4” below required grade.

- B. Remove debris, roots, branches, stones, in excess of 1 inch in size. Remove contaminated subsoil.
- C. Scarify surface to depth of 3 inches where topsoil is scheduled. Scarify in areas where equipment used for hauling and spreading topsoil has compacted subsoil.

3.4 PLACING TOPSOIL

- A. Place topsoil in areas where seeding is required to nominal depth of 6 inches. Place topsoil during dry weather.
- B. Fine grade topsoil to eliminate rough or low areas. Maintain profiles and contour of subgrade.
- C. Remove roots, weeds, rocks, and foreign material while spreading.
- D. Manually spread topsoil close to plants, buildings and landscaping features to prevent damage.
- E. Lightly roll placed topsoil.
- F. Remove surplus subsoil and topsoil from Site.
- G. Lightly compact placed topsoil.
- H. Leave stockpile area and Site clean and raked, ready to receive landscaping.

3.5 TOLERANCES

- A. Top of Topsoil: Plus or minus 1/2 inch.

3.6 PROTECTION OF INSTALLED WORK

- A. Prohibit construction traffic over topsoil.

3.7 SCHEDULES

- A. Compacted topsoil thicknesses:
 - 1. Seeded Grass Areas: 6 inches.

END OF SECTION

SECTION 32 9219 - SEEDING

PART 1 GENERAL

1.1 SUMMARY

- A. Section Includes:
 - 1. Fertilizing.
 - 2. Seeding.
 - 3. Hydroseeding.
 - 4. Mulching.
 - 5. Maintenance.

1.2 UNIT PRICE – MEASUREMENT AND PAYMENT

- A. Landscape Repair:
 - 1. Basis of measurement: This work is described in Trench Repair; Grass, Special, or Agricultural.
 - 2. Basis of Payment: For all existing or proposed grassed areas disturbed during the course of work on this project: Includes supplying, installing, and compacting backfill overtop utility conduit; placing and compacting subsoil fill where required; supplying and placing topsoil, fertilizer, mulch, seeding, watering and maintenance for specified time limit.
 - 3. Erosion control blanket shall be included in the contract lump sum price for Erosion Control.

1.3 DEFINITIONS

- A. Weeds: Vegetative species other than specified species to be established in given area.
- B. Disturbed Area: Any area within or near the project limits which incurs a visible loss of vegetative cover as a result of the work of this Contract, whether caused by Contractor, subcontractors, Engineer, Village Personnel, or the actions of pedestrians or motorists maneuvering around the worksite for any reason. Also includes any existing paved areas scheduled to be removed and replaced with grass.

1.4 SUBMITTALS

- A. Section 01 3300 – Submittal Procedures: Requirements for submittals.
- B. Product Data: Submit data for seed mix, fertilizer, mulch, erosion control blanket, and other accessories.

1.5 CLOSEOUT SUBMITTALS

- A. Section 01 7000 – Execution and Closeout Requirements: Requirements for submittals.
- B. Operation and Maintenance Data: Include maintenance instructions, cutting method and maximum grass height; types, application frequency, and recommended coverage of fertilizer.

1.6 QUALITY ASSURANCE

- A. Provide seed mixture in containers showing percentage of seed mix, germination percentage, inert matter percentage, weed percentage, year of production, net weight, date of packaging, and location of packaging.
- B. Perform Work according to these Specifications and the Roadway Specifications.

1.7 DELIVERY, STORAGE, AND HANDLING

- A. Section 01 6000 – Product Requirements: Product storage and handling requirements.
- B. Deliver grass seed mixture in sealed containers. Seed in damaged packaging is not acceptable.
- C. Deliver fertilizer in waterproof bags showing weight, chemical analysis, and name of manufacturer.

1.8 MAINTENANCE SERVICE

- A. Maintain seeded areas immediately after placement until grass is well established and exhibits vigorous growing condition.
- B. Engineer shall be the sole judge as to when the maintenance service period is concluded. Work of this Contract will not be deemed complete and ready for Final Payment until the maintenance service period is concluded.

PART 2 PRODUCTS

2.1 SEED MIXTURE

- A. Furnish seeding materials in accordance with Sections 250 and 1081.04 of the Roadway Specifications. Seed mixture shall be Class 1 Lawn Mixture.

2.2 ACCESSORIES

- A. Mulching Material:
 - 1. Furnish materials in accordance with Sections 251 and 1081.06 of the Roadway Specifications. Mulch shall be applied using Method 2, Procedure 2, or use erosion control blanket per Section 2.2.D.
 - 2. Straw shall be: Oat or wheat straw, free from weeds, foreign material detrimental to plant life, and dry. Hay or chopped cornstalks are not acceptable.
 - 3. Hydraulic mulch shall be virgin or recycled wood cellulose fiber, chip form, free of growth or germination inhibiting ingredients.
- B. Fertilizer:
 - 1. Furnish materials in accordance with Section 250 and 1081.08 of the Roadway Specifications.

2. Commercial grade; recommended for grass; to the following proportions: 1/3 nitrogen fertilizer nutrients, 1/3 phosphorus fertilizer nutrients; and 1/3 potassium fertilizer nutrients.
- C. Water: Clean, fresh and free of substances or matter capable of inhibiting vigorous growth of grass.
- D. Erosion Control Blanket:
1. Furnish materials in accordance with Section 251 and 1081.10(a) of the Roadway Specifications with the exception that the excelsior blanket shall not have a plastic mesh netting.
 2. Erosion fabric shall be American Excelsior Company's Curlex Net Free or Engineer approved equal.
 3. Refer to Section 31 2500 – Erosion and Sedimentation Controls.

2.3 SOURCE QUALITY CONTROL

- A. Section 01 4000 – Quality Requirements: Testing, inspection and analysis requirements.
- B. Provide recommendation for fertilizer application rates for specified seed mix as result of testing.
- C. Testing is not required when recent tests and certificates are available for imported topsoil. Submit these test results to testing laboratory. Indicate, by test results, information necessary to determine suitability.

PART 3 EXECUTION

3.1 EXAMINATION

- A. Section 01 3000 – Administrative Requirements: Verification of existing conditions before starting work.
- B. Verify prepared soil base is ready to receive Work of this Section.

3.2 FERTILIZING

- A. Apply fertilizer at application rate of 270 lb/acre (90 lb/acre of each fertilizer nutrient).
- B. Apply after smooth raking of topsoil and prior to roller compaction.
- C. Do not apply fertilizer at same time or with same machine used to apply seed.
- D. Mix fertilizer thoroughly into upper 2 inches of topsoil.
- E. Lightly water soil to aid dissipation of fertilizer. Irrigate top level of soil uniformly.

3.3 SEEDING

- A. Apply seed at rates specified in Section 250 of the Roadway Specifications. Place seed evenly in two intersecting directions. Rake in lightly.
- B. Do not seed areas in excess of that which can be mulched on same day.
- C. Planting Season: April through October. Seed shall not be placed between June 15th and August 31st without Engineer's approval.
- D. Do not sow immediately following rain, when ground is too dry, or when winds are over 12 mph.
- E. Roll seeded area with roller not exceeding 112 lb/linear ft.
- F. Immediately following seeding and compacting, apply mulch in accordance with Section 251 of the Roadway Specifications.
- G. Mulch shall be applied using Method 2, Procedure 2 or use erosion control blanket per Section 2.2.D.
- H. Apply water with fine spray immediately after each area has been mulched. Saturate to 4 inches of soil.
- I. Maintain clear of shrubs and trees.

3.4 SEED PROTECTION

- A. Cover seeded slopes where grade is 4 to 1 or greater and ditch slopes and bottoms with erosion control blanket. Roll fabric onto slopes without stretching or pulling. Mulch will not be required in areas where erosion control blanket is placed.
- B. Lay fabric smoothly on surface, bury top end of each section in 6 inch deep excavated topsoil trench. Overlap edges and ends of adjacent rolls minimum 12 inches. Backfill trench and rake smooth, level with adjacent soil.
- C. Secure outside edges and overlaps at 36 inch intervals with stakes or staples.
- D. Lightly dress slopes with topsoil to ensure close contact between fabric and soil.
- E. At sides of ditches, lay fabric laps in direction of water flow. Lap ends and edges minimum 6 inches.

3.5 MAINTENANCE SERVICE

- A. Water to prevent grass and soil from drying out.
- B. Roll surface to remove minor depressions or irregularities.

- C. Control growth of weeds. Apply herbicides. Remedy damage resulting from improper use of herbicides.
- D. Immediately reseed areas showing bare spots.
- E. Repair washouts or gullies.
- F. Protect seeded areas with warning signs during maintenance period.

END OF SECTION

SECTION 33 1113 – WATER MAINS

PART 1 GENERAL

1.1 DESCRIPTION

- A. Work included: Provide water mains where shown on the Drawings, as specified herein, and as needed for a complete and proper installation, including, but not necessarily limited to:
1. Distribution main and connection to existing lines.
 2. Necessary valves, fittings and appurtenances.

1.2 UNIT PRICE – MEASUREMENT AND PAYMENT

- A. Water Main Pipe:
1. Basis of Measurement: By the linear foot.
 2. Basis of Payment: Includes excavation, hand trimming, bedding, pipe, initial backfill, concrete thrust restraints, reconnection to utility water source, accessories, testing and disinfection.
- B. Fittings:
1. Basis of Measurement: By each, complete fitting.
 2. Basis of Payment: Includes excavation, fittings, restrained (Mega-Lug) glands, accessories, testing, disinfection, bedding, thrust blocking, and initial backfill.
 3. In several locations on the Drawings, the use of rolled fittings is indicated. The rolled fittings are such that the Contractor shall rotate the fittings to provide the proper alignment needed to use the minimum number of fittings for the installation. If the Contractor requires additional fittings to complete the installation as noted, these fittings shall be provided by the Contractor at no additional cost to the Owner.
- C. Water Service Complete:
1. Basis of Measurement: By each, complete installation.
 2. Basis of Payment: Includes excavation, providing and installing service saddles, corporation stops, curb stops, curb boxes, water service lines, and surface restoration.
- D. Valve and Box:
1. Basis of Measurement: By each, complete unit.
 2. Basis of Payment: Includes excavation, valve; valve box, bedding, haunching and initial backfill; restrained (Mega-Lug) glands; thrust blocking; accessories; testing; and disinfection.
- E. Fire Hydrant:
1. Basis of Measurement: By each, complete unit.
 2. Basis of Payment: Includes excavation; hydrant; bedding, haunching, and initial backfill; restrained (Mega-Lug) glands; anchor couplings; gravel drain; thrust blocking; accessories; and testing.
- F. Tapping Sleeve:
1. Basis of Measurement: By each, complete unit.

2. Basis of Payment: Includes Excavation: Tapping sleeve; bedding, haunching, and initial backfill; testing; and disinfection.

G. Water Main Sewer Crossing

1. Basis of Measurement: By each complete installation.
2. Includes all work as described in Part 3.4 of this Section.

1.3 QUALITY ASSURANCE

- A. Use adequate numbers of skilled workmen who are thoroughly trained and experienced in the necessary crafts and who are completely familiar with the specified requirements and the methods needed for proper performance of the work of this Section.
- B. Codes and regulations:
 1. In addition to complying with the specified requirements, comply with the pertinent regulations of the Water & Sewer Specifications.

1.4 SUBMITTALS

- A. Comply with the pertinent provisions of Section 01 3300 – Submittals.
- B. Product data: Within 15 calendar days after the Contractor has received the Owner's "Notice to Proceed", submit:
 1. Materials list of items proposed to be provided under this Section.
 2. Manufacturers' specifications, catalog cuts, and other data needed to prove compliance with the specified requirements. All material to be used shall be clearly marked and differentiated from any materials not to be used if on the same catalog sheet.
 3. Shop drawings and other data as required indicating method of installing and attaching equipment, except where such details are fully shown on the drawings.
- C. Prior to start up of project, submit for approval a plan for the flushing, testing and disinfection of all new water mains.
- D. Disinfection certificate:
 1. Upon completion of water line disinfection in accordance with Article 41-2.15 A thru I of the Water & Sewer Specifications, deliver to the Engineer two (2) copies of an acceptable "Certificate of Performance" for that activity.

1.5 PRODUCT HANDLING

- A. Piping and fittings shall be stored according to manufacturer's limitations of stacking, and exposure to sunlight and weather.
- B. Stacked piping shall be covered with a heavy vinyl tarp, firmly tied into place. Piping shall be fully supported off the ground.
- C. Do not stack other materials on top of stored piping and conduit.

- D. The ends of carrier piping and conduit shall be securely covered, such that moisture, dirt, animals and vermin cannot gain entrance.
- E. Do not place pipe or other water main materials on private property or in areas obstructing pedestrian or vehicular traffic.
- F. Block individual or stockpiled pipe lengths to prevent movement.

PART 2 PRODUCTS

2.1 WATER PIPING

- A. Polyvinyl Chloride (PVC): AWWA C900 and AWWA C905
 - 1. Pipe Class: DR 18, Class 235.
 - 2. Joints: Push-on type with PVC flexible elastomeric seals conforming to ASTM D3139 and ASTM F477. Solvent-cement couplings are not permitted.
 - 3. Fittings: Ductile iron, AWWA C153, mechanical joint, pressure rated for 350 psi.
 - a. Coating and lining:
 - 1) Bituminous Coating: AWWA C110
 - 2) Cement Mortar Lining: AWWA C104, single thickness.
 - 4. Restrained Glands: Mega-lug type glands as manufactured by EBAA Iron or equal. All mechanical joints shall have restrained glands.
 - 5. Pipe installed within casing pipes shall be provided with restrained joints.
 - a. The restrained joint system shall be one of the following:
 - 1) North American Specialty Products: Certa-Lok C900/905 RJ.
 - 2) North American Specialty Products: Certa-Lok C900/RJIB.
 - 3) JM Eagle: Eagle Loc 900.
 - 4) Diamond Plastics: Diamond Lok
- B. Water main quality casing pipe and water main quality sewer pipe shall meet the requirements of the above section with the exception that DR 25, Class 165 shall be permitted.
- C. Water service pipe shall be a minimum of 1" and shall be Type "K" copper tubing. Copper tubing shall be sized as necessary with appropriate adapters and fittings to reconnect to existing services.

2.2 VALVE AND BOX

- A. Valves:
 - 1. 12" and smaller shall be resilient wedge gate valves with non-rising stem conforming to AWWA C509 or AWWA C515. Inlet and outlet shall be mechanical joints conforming to AWWA C111. The valves shall be "left" open.
 - a. Manufacturers:
 - 1) Clow Model F-6100.
 - 2) Substitutions: Substitutions not permitted.
- B. Valve Box: Shall be Clow cast/ductile iron, 5-1/4" inside diameter, two (2) piece, screw-type adjustable, with cast iron lid marked "WATER". Valve boxes shall be provided with a rubber

leveling/centering gland to be placed in the bottom of valve box to ensure the operating nut is centered in the valve box.

2.3 FIRE HYDRANTS

- A. Three (3) Nozzle Fire Hydrant: AWWA C502, mechanical joint inlet, 5-1/2' bury, 5-1/4" main valve opening, two (2) 2-1/2" hose nozzles and one (1) 4-1/2" steamer nozzle. Threads shall be National Standard pipe threads.
 - 1. Manufacturers:
 - a. Clow "Medallion".
 - b. Substitutions: Substitutions not permitted.

2.4 WATER SERVICE FITTINGS

- A. Service saddle shall be ROMAC Model 202NS, or approved equal, being nylon coated ductile iron having double stainless steel straps, bolts and nuts.
- B. Corporation stop shall be low lead brass constructed and shall conform to AWWA C-800. Corporation stop shall be A. Y. McDonald Model 74701Q or approved equal.
- C. Curb stop shall be low lead brass constructed and shall conform to AWWA C-800. Curb stop shall be a Minneapolis Pattern, Model 76104Q as manufactured by A. Y. McDonald or approved equal.
- D. Curb stop box shall be a 1-1/4" Minneapolis Pattern A.Y. McDonald Model 5615A or approved equal.

2.5 TAPPING SLEEVES AND VALVES

- A. TAPPING Sleeves shall be of all stainless steel construction with mechanical joint adapter outlet suitable for cast, ductile iron pipe. It shall be the Contractor's responsibility to verify the actual pipe type and outside diameter. The tapping sleeve shall be manufactured by the following approved manufacturer:
 - 1. Ford Meter Box Company
 - 2. Substitutions: As approved by Engineer.
- B. Gate Valve with mechanical joint ends for tapping sleeve shall meet the requirements for valves outlined in Section 2.1.A.

2.6 UNDERGROUND PIPE MARKERS

- A. Plastic Ribbon Tape: Bright colored, continuously printed, minimum 6 inches wide by 4 mil thick, manufactured for direct burial service. Caution tape shall be marked "CAUTION WATER MAIN BELOW".
- B. Trace Wire: #8 AWG solid core copper. Attach wire to top of pipe with heavy duty fiber reinforced adhesive tape. Wire shall be installed outside of valve box.

2.7 BACKFILL MATERIALS

- A. As per the requirements of Section 31 2317-Trenching, Subsection 2.1.B of the specifications.

2.8 ACCESSORIES

- A. Concrete for Thrust Restraints:
 - 1. Poured-in-place concrete shall be Class SI concrete meeting the requirements of Section 1020 of the roadway Specifications. Fitting shall be wrapped with Visqueen before concrete placed.
 - 2. Pre-cast concrete blocks shall be of the type designed for burial service and for use as thrust restraint.
- B. Steel rods, bolt, lugs and brackets: ASTM A36/A36M or ASTM A307 carbon steel.
- C. Casing Spacers: Casing spacer shall be a two-piece shell and made from T-304 stainless steel of a minimum 14 gauge thickness. Shell sections shall be lined with a 0.090" thick, ribbed PVC extrusion. Runners shall be ultra-high molecular weight polyethylene to provide a low coefficient of friction. Runners shall be mechanically bolted to the riser. Risers shall be made of 10 gauge T-304 stainless steel. All risers shall be MIG welded to the shell. Casing spacers shall be Model CCS as manufactured by Cascade Waterworks Manufacturing, or Engineer approved equal.
- D. Casing End Seals: Casing end seals shall be pull-over type construction and made from Neoprene with T-304 stainless steel bands for securing the ends of the end seal to the casing pipe and carrier pipe. Casing end seals shall be Model CCES as manufactured by Cascade Waterworks Manufacturing or Engineer approved equal.

PART 3 EXECUTION

3.1 PREPARATION

- A. Pre-Construction Site Photos:
 - 1. Take photographs along centerline of proposed pipe trench; minimum one photograph for each 50 feet of pipe trench.
 - 2. Show mail boxes, curbing, lawns, driveways, signs, culverts, and other existing site features.
 - 3. Include project description, date taken and sequential number on back of each photograph or with electronic submittal.
- B. Cut pipe ends square, ream pipe and tube ends to full pipe diameter, remove burrs. Use only equipment specifically designed for pipe cutting. The use of chisels or hand saws will not be permitted. Grind edges smooth with beveled end for push-on connections.
- C. Remove scale and dirt on inside and outside before assembly.
- D. Prepare pipe connections to equipment with flanges or unions.

3.2 BEDDING

- A. Excavate pipe trench in accordance with Section 31 2317 - Trenching for Work of this Section. Hand trim excavation for accurate placement of pipe to elevations indicated on Drawings.
- B. Dewater excavations to maintain dry conditions and preserve final grades at bottom of excavation.
- C. Provide sheeting and shoring in accordance with Section 31 2317 - Trenching.
- D. Place bedding material at trench bottom, level fill materials in one continuous layer not exceeding 4 inches compacted depth; compact to 95 percent.

3.3 INSTALLATION - PIPE

- A. Install all pipe, fittings, valves and other related items as shown on the plans or mentioned in these specifications and reconnect all service connections in strict accordance with manufacturer's specifications and recommendations.
- B. Provide thrust blocking to prevent movement of lines under pressure at bends, tee, caps, and hydrants. Thrust blocks shall be Portland Cement Concrete, a minimum of twelve (12) inches thick, and shall be a minimum of 1/4 cubic yard in volume, placed between solid ground and the fittings, shall be anchored in such a manner that pipe and fitting joints will be accessible for repairs.
- C. All bends of 11-1/4 degrees or greater, and all tees shall be thrust protected to prevent movement of the lines under pressure as shown on the plans. Where unstable soil or backfill conditions exist, it may be necessary to install thrust blocking at deflected sections as well as at fittings. If required by the Engineer, deflection blocking shall be installed at a point approximately one-fifth of the pipe length each side of the coupling. Couplings shall not be blocked. See AWWA Manual M-17.
- D. Where conditions prevent the use of concrete thrust blocks, tied joints or restrained joints of a type approved by the Engineer shall be used.
- E. Refer to the details in the Drawings for proper placement of thrust blocking. Thrust blocks shall be allowed to set for one hour before backfilling.
- F. Warning/locator tape shall be laid in the trench between 24 and 30 inches below final grade. Install trace wire continuous over top of pipe. Tracer wire shall be attached to the top of the water main pipe via tape or other adhesive. Tracer wire shall pass through casing pipes. Extend tracer wire to surface at valve box locations.
- G. Unless otherwise instructed, all existing valves, valve boxes, blow-off assemblies and hydrants to be removed shall be delivered to the Owner.
- H. It shall be the Contractor's responsibility to notify any water customers, the Owner, Fire Department and Engineer, 48 hours in advance of any shut-downs or boil orders. This requirement applies to the reconnection of service lines and main lines. Shut-downs will only be

allowed to begin after 8:00 a.m. and cannot extend beyond 5:00 p.m. Contractor shall notify affected utility customers of the outage by placing a notification on their door or in their mailbox.

- I. It shall be the Contractor's responsibility to notify the Fire Department and the Owner of any fire hydrants that will be taken out of service during construction. Any fire hydrant, either new or existing that is not in service, shall be marked, labeled or covered in accordance with the Fire Department and/or Owner's recommended standards.
- J. Without prior written approval from the Owner, the maximum allowed time for any shut down shall be 4 hours.
- K. The use of "Hydra-Stop" line stopping method of shutting down a specific area shall only be allowed with the Owner's approval. Should the Contractor use this method without written approval from the Owner, the cost of this operation shall be the sole responsibility of the Contractor.
- L. Maintain 10 ft. horizontal separation and 18" vertical separation of water main from sewer piping in accordance with the Water and Sewer Specifications.
- M. Install pipe to indicated elevation within tolerance of 5/8 inches.
- N. Prevent foreign material from entering pipe during placement.
- O. Close pipe openings with watertight plugs during work stoppages.
- P. Install access fittings or whips to permit flushing, removal of air pockets, and disinfection of water system.
- Q. Establish elevations of buried piping with not less than 4.5 feet of cover. Measure depth of cover from final surface grade to top of pipe barrel.
- R. The Village of Diamond's (Owner's) Public Works Department shall be responsible for opening and shutting any water main valves in the Owner's water system during the construction of the Project. The Contractor is to notify the Public Works Department, with appropriate lead time, prior to the necessity for the valve operations. The Contractor should not operate a water main valve unless an emergency requires the operation.
- S. Casing pipe shall be so constructed as to prevent leakage of any substance from the casing throughout its length except at ends. Casing shall be so installed as to prevent the formation of a waterway under the roadways, with an even bearing throughout its length, and shall slope to one end (except for longitudinal occupancy).
- T. Ends of casing pipe shall be sealed with neoprene end seal and secured to pipes with stainless clamping bands.
- U. The Contractor shall be responsible for sizing the casing pipe at each location unless a size is specified on the Drawings.

3.4 SEWER CROSSING

A. When a storm or sanitary sewer line will pass under the water main with less than 18" of separation between the top of the sewer pipe and the bottom of the water main, the Contractor shall have the following options:

1. Encase the water main with water main quality casing to a point 10' horizontally on each side of the sewer as shown in Standard Drawing No. 22 in the Water and Sewer Specifications. Furnishing and installing the casing pipe, spacers, and end seals shall be included in the unit price per each for sewer crossing.

OR

2. Replace the sewer line with water main quality pipe of the same inside diameter to a point 10' horizontally on each side of the water main. Furnishing and installing the sewer replacement pipe and Fernco couplings at each end shall be included in the unit price per each for sewer crossing. The subsequent additional surface restoration work that would be required shall be paid at the contract unit price for the applicable repair type.

B. When a storm or sanitary sewer line will pass over the water main with a minimum 18" of separation between the top of the water main and the bottom of the sewer pipe, the Contractor shall have the following options:

1. Encase the water main with water main quality casing to a point 10' horizontally on each side of the sewer as shown in Standard Drawing No. 23 in the Water and Sewer Specifications. This option is only available when the 18" vertical separation can be maintained between the top of the casing pipe and the bottom of the sewer pipe. Furnishing and installing the casing pipe, spacers, and end seals shall be included in the unit price per each for sewer crossing.

OR

2. Replace the sewer line with water main quality pipe of the same inside diameter to a point 10' horizontally on each side of the water main. Furnishing and installing the sewer replacement pipe and Fernco couplings at each end shall be included in the unit price per each for sewer crossing. The subsequent additional surface restoration work that would be required shall be paid at the contract unit price for the applicable repair type.

C. When a storm or sanitary sewer line will be in direct conflict with the water main or would pass over the water main but with less than 18" minimum vertical separation between the top of the water main and the bottom of the sewer pipe, the Contractor shall lower the water main either with fittings or by deflecting the pipe so that a minimum of 18" vertical separation is provided. The cost of furnishing and installing fittings to lower the water main, if required, shall be paid for at the contract unit price per each. The Contractor shall have the following options to protect the water main below the sewer:

1. Encase the water main with water main quality casing to a point 10' horizontally on each side of the sewer as shown in Standard Drawing No. 23 in the Water and Sewer Specifications. This option is only available when the 18" vertical separation can be maintained between the top of the casing pipe and the bottom of the sewer pipe. Furnishing

and installing the casing pipe, spacers, and end seals shall be included in the unit price per each for sewer crossing.

OR

2. Replace the sewer line with water main quality pipe of the same inside diameter to a point 10' horizontally on each side of the water main. Furnishing and installing the sewer replacement pipe and Fernco couplings at each end shall be included in the unit price per each for sewer crossing. The subsequent additional surface restoration work that would be required shall be paid at the contract unit price for the applicable repair type.

3.5 INSTALLATION – VALVES

- A. Install valves in accordance with the Shop Drawings and the manufacturer's recommendations.
- B. All valves shall be installed with restrained glands on the inlet and outlet and shall have a minimum of one (1) square foot as measured looking top down, of thrust restraint installed below the valve.

3.6 INSTALLATION – HYDRANTS

- A. Install hydrants in accordance with the Shop Drawings and the manufacturer's recommendations.
- B. All fire hydrants shall be installed with an anchor coupling between the tee and the isolation valve in addition to restrained glands installed at each mechanical joint fitting.
- C. A minimum of 1 cubic yard of coarse stone shall be installed at the barrel drain of the hydrant as shown in the detail on the Drawings. Concrete thrust blocking shall be provided at the hydrant as shown on the Drawing details. Coarse stone and thrust blocking shall be considered incidental to the hydrant.

3.7 BACKFILLING

- A. Backfill around sides and top of pipe in accordance with Section 31 2317 – Trenching.

3.8 DISINFECTION OF WATER MAINS

- A. The Owner will operate any existing valves required to complete the flushing and disinfection. A minimum of 24 hours' notice must be given the Owner prior to beginning this process.
- B. The Contractor will be responsible for the main being flushed and disinfected. Any additional service/main taps (whips), fittings, valves, etc., required for flushing, removing air pockets, disinfection, and testing shall be incidental to the water main. The Contractor shall be responsible for taking all water samples and delivery to the testing laboratory. The costs of testing shall be paid for by the Contractor. The Contractor shall take turbidity samples prior to starting the disinfection process. The Contractor will collect bacteriological samples, record chlorine levels and deliver them to the specified laboratory directed by the Engineer by 2:00 P.M., Monday through Thursday.

- I. As a minimum the Contractor shall collect bacteriological samples at the ends of runs and at 1,200 foot intervals along the water main. The locations of sampling points shall be as directed by the Engineer.
- C. The mains shall be flushed prior to disinfection in accordance with Section 41-2.15A of the "Water and Sewer Specifications" and disinfected in accordance with Section 41-2.15B through I.
- D. After final flushing and before pipeline is connected to the existing system or placed in service, employ an approved independent laboratory to test samples and issue a bacteriological report. Minimum report contents include:
 1. Date issued, project name, and testing laboratory name, address, and telephone number.
 2. Time and date of water sample collection.
 3. Name of person collecting samples.
 4. Test locations.
 5. Initial and 24 hour disinfectant residuals in ppm for each outlet tested.
 6. Coliform bacteria test results for each outlet tested.
 7. Certify water conforms, or fails to conform, to bacterial standards of the Illinois Environmental Protection Agency.

3.9 TESTING

- A. Pressure and Leakage Testing – Unless approved otherwise, the leakage testing shall be performed according to Article 41-2.14, parts A, B & C of the "Water and Sewer Specifications."
- B. Provide personnel and equipment, and arrange for and pay the cost of, all required tests and inspections required. The pressure gauge supplied for the test shall read up to 120 psi and shall have tick marks at intervals of not more than 2 psi. The pressure test will not be permitted to begin if the gauge does not meet the requirements of this section.
- C. Where test shows materials or workmanship to be deficient, replace or repair as necessary, and repeat the tests until the specified standards are achieved.
- D. The Owner will operate any existing valves required to complete the pressure testing. A minimum of 24 hours' notice must be given to the Owner prior to beginning this process.

END OF SECTION