

SPECIFICATIONS

HENRY COUNTY WATER DISTRICT NO. 2

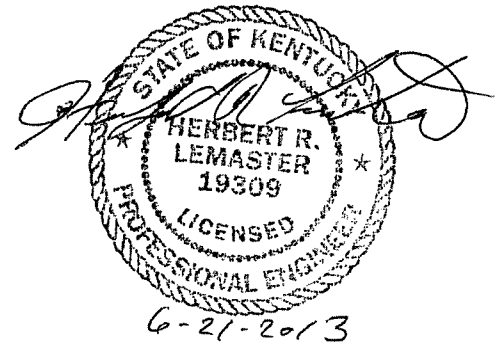
Morton Ridge Main Upgrade

***KY DOW Loan DWL13041
KIA Loan F13-039***

prepared by

***Tetra Tech, Inc.
800 Corporate Drive
Lexington, Kentucky 40503***

July 2013



Tetra Tech Project No. 200-11521-13001



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DIVISION 00

**BIDDING REQUIREMENTS, CONTRACT FORMS, AND CONDITIONS
OF THE CONTRACT**

SECTION 00030

ADVERTISEMENT FOR BIDS

Henry County Water District No. 2
Owner
8955 Main Street, P.O. Box 219
Address
Campbellsburg, Kentucky 40011

Sealed BIDS for construction of the Morton Ridge Main Upgrade Project which consists of the installation of approximately 22,000 feet of 20-inch D.I. Water Main will be received at the office of Henry County Water District No. 2, 8955 Main Street, Campbellsburg, Kentucky 40011 until 10:00 a.m. (local time), on August 30, 2013.

All proposals which have been submitted in accordance with the Instruction to Bidders will then be publicly opened and read aloud at the office of Henry County Water District No. 2.

A MANDATORY Pre-Bid Meeting will be at the District Office at 10 a.m. August 20, 2013.

The CONTRACT DOCUMENTS may be viewed at the following locations:

Henry County Water District No. 2 – 8955 Main Street, Campbellsburg, Kentucky 40011
Tetra Tech, Inc. – 800 Corporate Drive, Suite 200, Lexington, Kentucky 40503
F.W. Dodge/AGC McGraw–Hill Construction Planroom – www.dodge.construction.com
Reed Construction Data Planroom – www.reedconstructiondata.com
Builders Exchange – 2300 Meadow Drive, Louisville, Kentucky 40213

Copies of CONTRACT DOCUMENTS may be obtained from Lynn Imaging, 328 Old Vine Street, Lexington, Kentucky, 40507 (859-255-1021) upon payment of the following non-refundable fee (including shipping and handling). Plans may be purchased on-line through www.lynnimaging.com. Excerpts of Drawings and/or pertinent Specifications will not be furnished to interested parties, only complete sets. The price for a set of Drawings/Specifications is \$250.00.

The award of CONTRACT will be made to the lowest, responsive, responsible BIDDER. All BIDDERS must attend the Pre-bid Conference (see Section 00200, Article 5).

Advertisement for Bids
00030-1

Each bidder must deposit with his/her bid security in the amount, form, and subject to the conditions provided in the Information for Bidders.

No BIDDER may withdrawal his Bid within sixty (60) consecutive calendar days after the actual date of the opening thereof.

BIDDER must comply with Title VI of the Civil Rights Act of 1964, the Anti-Kickback Act, and the Contract Work Hours Standard Act.

BIDDER must comply with the President's Executive Order No. 11246, as amended, which prohibits discrimination in employment regarding race, creed, color, sex, or national origin.

BIDDER must supply a certification of prior work under Executive Order No. 11246 (Equal Employment Opportunity) as amended.

BIDDER shall comply with 41 CFR 60-4 in regard to affirmative action, to ensure equal opportunity to females and minorities and will apply the timetables and goal set forth in 41 CFR 60-4.

BIDDER shall make positive efforts to use small, minority, women owned, and disadvantaged businesses to fulfill requirements of this Contract.

BIDDER shall refer to Section 00810 of Specifications for MBE/WBE goals and minority and women participation goals.

Attention of BIDDERS is particularly called to the requirements as to conditions of employment to be observed and minimum wage rates to be paid under the Contract, Section 3, Segregated Facility, Section 109 and E.O. 11246 and Title VI. Minority bidders are encouraged to bid.

This Contract is being funded in part with a KIA FADWSRF loan. BIDDER shall comply with all requirements as set forth in the Specifications.

The OWNER reserves the right to waive any bidding informalities and refuse or reject any/or all Bids for any reason, or for no reason whatsoever.

Advertisement for Bids
00030-2

Technical questions concerning interpretation of the Plans and Specifications for the Morton Ridge Main Upgrade Project should be addressed to Mr. Tom Green or Mr. Herb Lemaster Tetra Tech, Inc., at 800 Corporate Drive, Suite 200, Lexington, Kentucky, 40503, telephone 859-223-8000.

August 8, 2013

DATE

Jimmie Simpson

HCWD CHIEF OPERATING OFFICER

- END OF SECTION -

Advertisement for Bids
00030-3

SECTION 00200

INSTRUCTIONS TO BIDDERS

PART 1 - GENERAL

ARTICLE 1 - DEFINED TERMS

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

ARTICLE 2 - COPIES OF BIDDING DOCUMENTS

- 2.01 Complete sets of the Bidding Documents in the number and for the deposit sum, if any, stated in the Advertisement or Invitation to Bid may be obtained from the Issuing Office.
- 2.02 Complete sets of Bidding Documents must be used in preparing Bids; neither OWNER nor ENGINEER assumes any responsibility for errors or misinterpretations resulting from the use of incomplete sets of Bidding Documents.
- 2.03 OWNER and ENGINEER in making copies of Bidding Documents available on the above terms do so only for the purpose of obtaining Bids for the Work and do not confer a license or grant for any other use.

ARTICLE 3 - QUALIFICATIONS OF BIDDERS

- 3.01 To demonstrate Bidder's qualifications to perform the Work, within five (5) days of OWNER's request Bidder shall submit written evidence such as financial data, previous experience, present commitments, and other such data as may be called for below or in the supplementary conditions.
- A. Certification and representations as may be required by the following Commonwealth of Kentucky agencies:

1. Division of Water
2. Division of Labor
3. Revenue Cabinet
4. Kentucky Infrastructure Authority

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

4.01 Subsurface and Physical Conditions

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

4.02 Underground Facilities

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

4.03 Hazardous Environmental Condition

- A. The Supplementary Conditions identify those reports and drawings, if any, relating to a Hazardous Environmental Condition identified at the Site, if any, that ENGINEER has used in preparing the Bidding Documents.
- B. Copies of reports and drawings referenced in paragraph 4.03.A will be made available by OWNER to any Bidder on request. Those reports and drawings are not

part of the Contract Documents, but the "technical data" contained therein upon which Bidder is entitled to rely as provided in paragraph 4.06 of the General Conditions has been identified and established in paragraph 4.06 of the Supplementary Conditions. Bidder is responsible for any interpretation or conclusion Bidder draws from any "technical data" or any other data, interpretations, opinions, or information contained in such reports or shown or indicated in such drawings.

- 4.04 Provisions concerning responsibilities for the adequacy of data furnished to prospective Bidders with respect to subsurface conditions, other physical conditions and Underground Facilities, and possible changes in the Bidding Documents due to differing or unanticipated conditions appear in Paragraphs 4.02, 4.03, and 4.04 of the General Conditions. Provisions concerning responsibilities for the adequacy of data furnished to prospective Bidders with respect to a Hazardous Environmental Condition at the Site, if any, and possible changes in the Contract Documents due to any Hazardous Environmental Condition uncovered or revealed at the Site which was not shown or indicated in the Drawings or Specifications or identified in the Contract Documents to be within the scope of the Work appear in paragraph 4.06 of the General Conditions.
- 4.05 On request, OWNER will provide each Bidder access to the site to conduct such examinations, investigations, explorations, tests, and studies as each Bidder deems necessary for submission of a Bid. Bidder shall fill all holes and clean up and restore the Site to its former condition upon completion of such explorations, investigations, tests, and studies.
- 4.06 Reference is made to Article 7 of the Supplementary Conditions for the identification of the general nature of other work that is to be performed at the site by OWNER or others (such as utilities and other prime contractors) that relates to the Work for which a Bid is to be submitted. On request, OWNER will provide to each Bidder for examination access to or copies of Contract Documents (other than portions thereof related to price) for such work.
- 4.07 It is the responsibility of each Bidder before submitting a Bid to:
- A. Examine and carefully study the Bidding Documents, including any Addenda and the other related data identified in the Bidding Documents;
 - B. Visit the Site and become familiar with and satisfy Bidder as to the general, local, and Site conditions that may affect cost, progress, and performance of the Work;
 - C. Become familiar with and satisfy Bidder as to all federal, state, and local Laws and Regulations that may affect cost, progress, or performance of the Work;
 - D. Carefully study all reports of explorations and tests of subsurface conditions at or contiguous to the Site and all drawings of physical conditions in or relating to existing surface or subsurface structures at or contiguous to the Site (except Underground Facilities) which have been identified in the Supplementary Conditions as provided in paragraph 4.02 of the General Conditions, and carefully study all reports and drawings of a Hazardous Environmental Condition, if any, at

the Site which have been identified in the Supplementary Conditions as provided in paragraph 4.06 of the General Conditions;

- E. Obtain and carefully study (or assume responsibility for doing so) all additional or supplementary examinations, investigations, explorations, tests, studies, and data concerning conditions (surface, subsurface, and Underground Facilities) at or contiguous to the Site which may affect cost, progress, or performance of the Work or which relate to any aspect of the means, methods, techniques, sequences, and procedures of construction expressly required by the Bidding Documents, and safety precautions and programs incident thereto;
 - F. Agree at the time of submitting its Bid that no further examinations, investigations, explorations, test, studies, or data are necessary for the determination of its Bid for performance of the Work at the price bid and within the times and in accordance with the other terms and conditions of the Bidding Documents;
 - G. Become aware of the general nature of the work to be performed by OWNER and others at the Site that relates to the Work as indicated in the Bidding Documents;
 - H. Correlate the information known to Bidder, information and observations obtained from visits to the Site, reports and drawings identified in the Bidding Documents, and all additional examinations, investigations, explorations, tests, studies, and data with the Bidding Documents;
 - I. Promptly give ENGINEER written notice of all conflicts, errors, ambiguities, or discrepancies that Bidder discovers in the Bidding Documents and confirm that the written resolution thereof by ENGINEER is acceptable to Bidder; and
 - J. Determine that the Bidding Documents are generally sufficient to indicate and convey understanding of all terms and conditions for the performance of the Work.
- 4.08 The submission of a Bid will constitute an incontrovertible representation by Bidder that Bidder has complied with every requirement of this Article 4, that without exception the Bid is premised upon performing and furnishing the Work required by the Bidding Documents and applying the specific means, methods, techniques, sequences, and procedures of construction that may be shown or indicated or expressly required by the Bidding Documents, that Bidder has given ENGINEER written notice of all conflicts, errors, ambiguities, and discrepancies that Bidder has discovered in the Bidding Documents and the written resolutions thereof by ENGINEER are acceptable to Bidder, and that the Bidding Documents are generally sufficient to indicate and convey understanding of all terms and conditions for performing and furnishing the Work.

ARTICLE 5 - PRE-BID CONFERENCE

- 5.01 A mandatory pre-bid conference will be held at 10 a.m. August 20, 2013 at the offices of Henry County Water District No. 2. Representatives of OWNER and ENGINEER will be present to discuss the Project. Bidders are required to attend and participate in the

conference. Bids will not be accepted from bidders who did not have a representative at the pre-bid conference. ENGINEER will transmit to all prospective Bidders of record such Addenda as ENGINEER considers necessary in response to questions arising at the conference. Oral statements may not be relied upon and will not be binding or legally effective.

ARTICLE 6 - SITE AND OTHER AREAS

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

ARTICLE 7 - INTERPRETATIONS AND ADDENDA

- 7.01 All questions about the meaning or intent of the Bidding Documents are to be submitted to ENGINEER in writing. Interpretations or clarifications considered necessary by ENGINEER in response to such questions will be issued by Addenda mailed or delivered to all parties recorded by ENGINEER as having received the Bidding Documents. Questions received less than ten days prior to the date for opening of Bids may not be answered. Only questions answered by Addenda will be binding. Oral and other interpretations or clarifications will be without legal effect.
- 7.02 Addenda may be issued to clarify, correct, or change the Bidding Documents as deemed advisable by OWNER or ENGINEER.
- 7.03 Failure of any bidder to receive any such addendum or interpretation shall not relieve such bidder from any obligation under his/her bid as submitted. All addendums issued shall become part of the Contract Documents.

ARTICLE 8 - BID SECURITY

- 8.01 A Bid must be accompanied by Bid security made payable to OWNER in an amount of five percent (5%) of Bidder's maximum Bid price and in the form of a certified or bank check or a Bid Bond [on the form attached] issued by a surety meeting the requirements of paragraphs 5.01 and 5.02 of the General Conditions.
- 8.02 The Bid security of Successful Bidder will be retained until such Bidder has executed the Contract Documents, furnished the required contract security and met the other conditions of the Notice of Award, whereupon the Bid security will be returned. If the Successful Bidder fails to execute and deliver the Contract Documents and furnish the required contract security within 15 days after the Notice of Award, OWNER may annul the Notice of Award and the Bid security of that Bidder will be forfeited. The Bid security of other

Bidders whom OWNER believes to have a reasonable chance of receiving the award may be retained by OWNER until the earlier of the seven days after the Effective Date of the Agreement or 91 days after the Bid opening, whereupon Bid security furnished by such Bidders will be returned.

- 8.03 Bid security of other Bidders whom OWNER believes do not have a reasonable chance of receiving the award will be returned within seven days after the Bid opening.

ARTICLE 9 - CONTRACT TIMES

- 9.01 The number of days within which, or the dates by which, the Work is to be (a) Substantially Completed and (b) also completed and ready for final payment are set forth in the Agreement.

ARTICLE 10 - LIQUIDATED DAMAGES

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

ARTICLE 11 - SUBSTITUTE AND "OR-EQUAL" ITEMS

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

ARTICLE 12 - SUBCONTRACTORS, SUPPLIERS, AND OTHERS

- 12.01 If the Supplementary Conditions require the identity of certain Subcontractors, Suppliers, individuals, or entities to be submitted to OWNER in advance of a specified date prior to the Effective Date of the Agreement, the apparent Successful Bidder, and any other Bidder so requested, shall within five days after Bid opening, submit to OWNER a list of all such Subcontractors, Suppliers, individuals, or entities proposed for those portions of the Work for which such identification is required. Such list shall be accompanied by an experience statement with pertinent information regarding similar projects and other evidence of qualification for each such Subcontractor, Supplier, individual, or entity if requested by OWNER. If OWNER or ENGINEER, after due investigation, has reasonable objection to any proposed Subcontractor, Supplier, individual, or entity, OWNER may, before the Notice of Award is given, request apparent Successful Bidder to submit a substitute, without an increase in the Bid.

- 12.02 If apparent Successful Bidder declines to make any such substitution, OWNER may award the Contract to the next lowest Bidder that proposes to use acceptable Subcontractors, Suppliers, individuals, or entities. Declining to make requested substitutions will not constitute grounds for forfeiture of the Bid security of any Bidder. Any Subcontractor, Supplier, individual, or entity so listed and against which OWNER or ENGINEER makes no written objection prior to the giving of the Notice of Award will be deemed acceptable to OWNER and ENGINEER subject to revocation of such acceptance after the Effective Date of the Agreement as provided in Paragraph 6.06 of the General Conditions.
- 12.03 CONTRACTOR shall not be required to employ any Subcontractor, Supplier, individual, or entity against whom CONTRACTOR has reasonable objection.

ARTICLE 13 – PREPARATION OF BID

- 13.01 The Bid form is included with the Bidding Documents. Additional copies may be obtained from the ENGINEER.
- 13.02 All blanks on the Bid form shall be completed by printing in ink or by typewriter and the Bid signed. A Bid price shall be indicated for each unit price item listed therein, or the words "No Bid," "No Change," or "Not Applicable" entered.
- 13.03 A Bid by a corporation shall be executed in the corporate name by the president or a vice-president or other corporate officer accompanied by evidence of authority to sign. The corporate seal shall be affixed and attested by the secretary or an assistant secretary. The corporate address and state of incorporation shall be shown below the signature.
- 13.04 A Bid by a partnership shall be executed in the partnership name and signed by a partner (whose title must appear under the signature), accompanied by evidence of authority to sign. The official address of the partnership shall be shown below the signature.
- 13.05 A Bid by a limited liability company shall be executed in the name of the firm by a member and accompanied by evidence of authority to sign. The state of formation of the firm and the official address of the firm must be shown below the signature.
- 13.06 A Bid by an individual shall show the Bidder's name and official address.
- 13.07 A Bid by a joint venture shall be executed by each joint venturer in the manner indicated on the Bid form. The official address of the joint venture must be shown below the signature.
- 13.08 All names must be typed or printed in black ink below the signatures.
- 13.09 The Bid shall contain an acknowledgement of receipt of all Addenda, the numbers of which shall be filled on the Bid Form.
- 13.10 The address and telephone number for communications regarding the Bid shall be shown.

- 13.11 The Bid shall contain evidence of Bidder's authority and qualification to do business in the state where the Project is located, or covenant to obtain such qualification prior to award of the Contract. Bidder's state contractor license number for the state of the Project, if any, shall also be shown on the Bid form.

ARTICLE 14 - BASIS OF BID; EVALUATION OF BIDS

14.01 Unit Price

- A. Bidders shall submit a Bid on a unit price basis for each item of Work listed in the Bid schedule.
- B. The total of all estimated prices will be determined as the sum of the products of the estimated quantity of each item and the unit price Bid for the item. The final quantities and Contract Price will be determined in accordance with paragraph 11.03 of the General Conditions.
- C. Discrepancies between the multiplication of units of Work and unit prices will be resolved in favor the unit prices. Discrepancies between the indicated sum of any column of figures and the correct sum thereof will be resolved in favor of the correct sum. Discrepancies between words and figures will be resolved in favor of the words.

14.02 The Bid price shall include such amounts as the Bidder deems proper for overhead and profit on account of cash allowances, if any, named in the Contract Documents as provided in paragraph 11.02 of the General Conditions.

14.03 Each BIDDER agrees to waive any claim it has or may have against the OWNER, the ARCHITECT/ENGINEER, and their respective employees, arising out of or in connection with the administration, evaluation, or recommendation of any bid.

ARTICLE 15 - SUBMITTAL OF BID

15.01 Each prospective Bidder is furnished one copy of the Bidding Documents with one separate unbound copy each of the Bid form, and, if required, the Bid Bond. The unbound copy of the Bid form is to be completed and submitted with the Bid security and the following data:

- A. Section 00420 – Supplements to Bid Form (filled in and executed)

15.02 A Bid shall be submitted no later than the date and time prescribed and at the place indicated in the advertisement or invitation to Bid and shall be enclosed in an opaque sealed envelope plainly marked with the Project title (and, if applicable, the designated portion of the Project for which the Bid is submitted), and name and address of Bidder, and shall be accompanied by the Bid security and other required documents. If a Bid is sent by mail or other delivery system, the sealed envelope containing the Bid shall be enclosed in a separate envelope plainly marked on the outside with the notation "BID ENCLOSED: MORTON

RIDGE MAIN UPGRADE PROJECT.” A mailed Bid shall be addressed to Henry County Water District No. 2, 8955 Main Street, P.O. Box 219, Campbellsburg, Kentucky 40011.

ARTICLE 16 - MODIFICATION AND WITHDRAWAL OF BIDS

- 16.01 A Bid may be modified or withdrawn by an appropriate document duly executed in the manner that a Bid must be executed and delivered to the place where Bids are to be submitted prior to the date and time for the opening of Bids.
- 16.02 If within 24 hours after Bids are opened and any Bidder files a duly signed written notice with OWNER and promptly thereafter demonstrates to the reasonable satisfaction of OWNER that there was a material and substantial mistake in the preparation of its Bid, that Bidder may withdraw its Bid, and the Bid security will be returned. Thereafter, if the Work is rebid, that Bidder will be disqualified from further bidding on the Work.

ARTICLE 17 - OPENING OF BIDS

- 17.01 Bids will be opened at the time and place indicated in the advertisement or invitation to Bid and, unless obviously non-responsive, read aloud publicly. An abstract of the amounts of the base Bids and major alternates, if any, will be made available to Bidders after the opening of Bids.

ARTICLE 18 - BIDS TO REMAIN SUBJECT TO ACCEPTANCE

- 18.01 All Bids will remain subject to acceptance for the period of time stated in the Bid form, but OWNER may, in its sole discretion, release any Bid and return the Bid security prior to the end of this period.

ARTICLE 19 – EVALUATION OF BIDS AND AWARD OF CONTRACT

- 19.01 OWNER reserves the right to reject any or all Bids, including without limitation, nonconforming, nonresponsive, unbalanced, or conditional Bids. OWNER further reserves the right to reject the Bid of any Bidder whom it finds, after reasonable inquiry and evaluation, to be non-responsible. OWNER may also reject the Bid of any Bidder if OWNER believes that it would not be in the best interest of the Project to make an award to that Bidder. OWNER also reserves the right to waive all informalities not involving price, time, or changes in the Work and to negotiate contract terms with the Successful Bidder.
- 19.02 More than one Bid for the same Work from an individual or entity under the same or different names will not be considered. Reasonable grounds for believing that any Bidder has an interest in more than one Bid for the Work may be cause for disqualification of that Bidder and the rejection of all Bids in which that Bidder has an interest.

- 19.03 In evaluating Bids, Owner will consider whether or not the Bids comply with the prescribed requirements, and such alternates, unit prices and other data, as may be requested in the Bid Form or prior to the Notice of Award.
- 19.04 In evaluating Bidders, Owner will consider the qualifications of Bidders and may consider the qualifications and experience of Subcontractors, Suppliers, and other individuals or entities proposed for those portions of the Work for which the identity of Subcontractors, Suppliers, and other individuals or entities must be submitted as provided in the Supplementary Conditions.
- 19.05 OWNER may conduct such investigations as Owner deems necessary to establish the responsibility, qualifications, and financial ability of Bidders, proposed Subcontractors, Suppliers, individuals, or entities to perform the Work in accordance with the Contract Documents.
- 19.06 If the Contract is to be awarded, OWNER will award the Contract to the Bidder whose Bid is in the best interests of the Project.

ARTICLE 20 - CONTRACT SECURITY AND INSURANCE

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

ARTICLE 21 - SIGNING OF AGREEMENT

- 21.01 When OWNER gives a Notice of Award to the Successful Bidder, it shall be accompanied by the required number of unsigned counterparts of the Agreement with the other Contract Documents which are identified in the Agreement as attached thereto. Within 15 days thereafter, Successful Bidder shall sign and deliver the required number of counterparts of the Agreement and attached documents to OWNER. Within ten days thereafter, OWNER shall deliver one fully signed counterpart to Successful Bidder with a complete set of the Drawings with appropriate identification.

ARTICLE 22 – SALES AND USE TAXES

- 22.01 If OWNER is exempt from state sales and use taxes on materials and equipment to be incorporated in the Work, it will be so noted in paragraph 6.10 of the Supplementary Conditions.

ARTICLE 23 - RETAINAGE

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

ARTICLE 24 – INSURANCE REQUIREMENTS

24.01 Insurance Requirements set forth in the Supplementary Conditions.

ARTICLE 25 – ALLOWANCES

25.01 Allowances, if any, are set forth in Section 01020.

ARTICLE 26 – WORK SEQUENCE

26.01 Work Sequence required of CONTRACTOR is set forth in Section 01015.

ARTICLE 27 – GENERAL CONTRACTORS

27.01 The General Contractor must perform at least 50% of the work under the Contract.

ARTICLE 28 – WORKING HOURS

28.01 All work done on site shall be performed within the working hours of 7 a.m. to 6 p.m. (local time) and shall occur on regular five 8-hour or four 10-hour days. For all unapproved hours-worked in excess of 40 hours per week, the CONTRACTOR shall compensate Owner for the costs of extra inspection services at the rate of \$60.00 per excess hour.

ARTICLE 29 – FIELD SERVICES

29.01 Requirements for field offices are set forth in Section 01590.

ARTICLE 30 – QUALITY CONTROL

30.01 Quality Control requirements are set forth in Section 01400.

ARTICLE 31 – WAGE RATES

31.01 BIDDER shall refer to Section 00890 regarding wage rates, if applicable, for the project.

ARTICLE 32 – OTHER SUPPLEMENTARY CONDITIONS

32.01 Other Supplementary Conditions of the Contract are set forth in Section 08000; Supplementary Conditions.

ARTICLE 33 – MISCELLANEOUS

33.01 These specifications contain General Conditions, Supplementary conditions, and requirements from various funding agencies. If these conditions or requirements are in conflict with one another the most stringent shall apply

- END OF SECTION -

SECTION 00250

PRE-BID CONFERENCES

PART 1 - GENERAL

1.01 PRE-BID CONFERENCES

A mandatory pre-bid conference will be held on August 20, 2013 at 10 a.m. in the offices of the Henry County Water District No. 2. No bids will be accepted from Bidders who did not have a representative at the pre-bid conference.

- END OF SECTION -

SECTION 00350

PROJECT FINANCIAL INFORMATION

PART 1 - GENERAL

1.01 PROJECT FINANCING

- A. The Morton Ridge Main Upgrade Project will be financed by a KIA FADWSRF loan and Henry County Water District No. 2.

- B. In the event the total cost of this construction and appurtenant WORKS should exceed the amount of money available, the OWNER in making an AWARD OF CONTRACT to the successful BIDDER or BIDDERS, may reject certain items of WORK or reduce the quantities of BID ITEMS so as to award a CONTRACT within the limits of available funds. In making an AWARD OF CONTRACT to the successful BIDDER or BIDDERS, no CONTRACTOR will be allowed any claim for loss of any anticipated profits involving any items of WORK that have been reduced or eliminated by the OWNER. The successful BIDDER or BIDDERS will be determined before consideration of reductions or additions to the original BID.

- END OF SECTION -

SECTION 00410

BID FORM

ARTICLE 1 – BID RECIPIENT

1.01 This Bid is submitted to:

*Henry County Water District No. 2
8955 Main Street, P O Box 219
Campbellsburg, Kentucky 40011*

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

ARTICLE 2 – BIDDER’S ACKNOWLEDGEMENTS

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

ARTICLE 3 – BIDDER’S REPRESENTATIONS

3.01 In submitting this Bid, Bidder represents that:

A. Bidder has examined and carefully studied the Bidding Documents, and any data and reference items identified in the Bidding Documents, and hereby acknowledges receipt of the following Addenda:

| <u>Addendum No.</u> | <u>Addendum, Date</u> |
|---------------------|-----------------------|
| | |
| | |
| | |
| | |

B. Bidder has visited the Site, conducted a thorough, alert visual examination of the Site and adjacent areas, and become familiar with and satisfied itself as to the general, local, and Site conditions that may affect cost, progress, and performance of the Work.

- C. Bidder is familiar with and has satisfied itself as to all Laws and Regulations that may affect cost, progress, and performance of the Work.
- D. Bidder has carefully studied all: (1) reports of explorations and tests of subsurface conditions at or adjacent to the Site and all drawings of physical conditions relating to existing surface or subsurface structures at the Site that have been identified in the Supplementary Conditions, especially with respect to Technical Data in such reports and drawings, and (2) reports and drawings relating to Hazardous Environmental Conditions, if any, at or adjacent to the Site that have been identified in the Supplementary Conditions, especially with respect to Technical Data in such reports and drawings.
- E. Bidder has considered the information known to Bidder itself; information commonly known to contractors doing business in the locality of the Site; information and observations obtained from visits to the Site; the Bidding Documents; and any Site-related reports and drawings identified in the Bidding Documents, with respect to the effect of such information, observations, and documents on (1) the cost, progress, and performance of the Work; (2) the means, methods, techniques, sequences, and procedures of construction to be employed by Bidder; and (3) Bidder's safety precautions and programs.
- F. Bidder agrees, based on the information and observations referred to in the preceding paragraph, that no further examinations, investigations, explorations, tests, studies, or data are necessary for the determination of this Bid for performance of the Work at the price bid and within the times required, and in accordance with the other terms and conditions of the Bidding Documents.
- G. Bidder is aware of the general nature of work to be performed by Owner and others at the Site that relates to the Work as indicated in the Bidding Documents.
- H. Bidder has given Engineer written notice of all conflicts, errors, ambiguities, or discrepancies that Bidder has discovered in the Bidding Documents, and confirms that the written resolution thereof by Engineer is acceptable to Bidder.
- I. The Bidding Documents are generally sufficient to indicate and convey understanding of all terms and conditions for the performance and furnishing of the Work.
- J. The submission of this Bid constitutes an incontrovertible representation by Bidder that Bidder has complied with every requirement of this Article, and that without exception the Bid and all prices in the Bid are premised upon performing and furnishing the Work required by the Bidding Documents.

ARTICLE 4 – BIDDER'S CERTIFICATION

4.01 Bidder certifies that:

- A. This Bid is genuine and not made in the interest of or on behalf of any undisclosed individual or entity and is not submitted in conformity with any collusive agreement or rules of any group, association, organization, or corporation;

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

ARTICLE 5 – BASIS OF BID

- 5.01 Bidder will complete the Work in accordance with the Contract Documents for the following price(s):

| Item No. | Description | Unit | Estimated Quantity | Bid Unit Price | Bid Price |
|--|--|------|--------------------|----------------|-----------|
| 1 | Mobilization (max. 2% of Total Bid) | LS | 1 | | |
| 2 | General Conditions (max. 2% of Total Bid) | LS | 1 | | |
| 3 | Demobilization (min. 1% of Total Bid) | LS | 1 | | |
| 4 | 20" DI Water Line (CI 250) | LF | 21,980 | | |
| 5 | DI Fittings (CI 250 and 350) w/ PE Tube Wrap | LB | 33,000 | | |
| 6 | 20" Butterfly Valve (CI 250) | EA | 2 | | |
| 7 | 2" Combination Air/Vacuum Valve | EA | 1 | | |
| 8 | 18" Tapping Sleeve and Valve | EA | 1 | | |
| 9 | 12" Tapping Sleeve and Valve | EA | 1 | | |
| 10 | 8" Blow-off Valve | EA | 2 | | |
| 11 | 32"x0.438" Stl. Casing Pipe, Open Cut Roadway, Blacktop-Concrete Driveway, Gas Line Crossing | LF | 390 | | |
| 12 | 32"x0.438" Stl. Casing Pipe, Bore & Jack Roadway | LF | 100 | | |
| 13 | Channel Lining, Class III | TON | 150 | | |
| 14 | Concrete Cap | LF | 60 | | |
| 15 | Crushed Stone (DGA) Surface Replacement 12" thick | LF | 800 | | |
| 16 | Bituminous Road Surface Replacement, 2" Thick with Concrete Base | LF | 165 | | |
| 17 | Bituminous Road Surface Replacement, Road Aprons- 2" Thick | LF | 150 | | |
| 18 | Concrete Surface Replacement, 8" Thick | LF | 40 | | |
| 19 | Tie-in To Existing Line | EA | 2 | | |
| Total of All Unit Price Bid Items | | | | | |

Bidder acknowledges that (1) each Bid Unit Price includes an amount considered by Bidder to be adequate to cover Contractor's overhead and profit for each separately identified item, and (2) estimated quantities are not guaranteed, and are solely for the

purpose of comparison of Bids, and final payment for all unit price Bid items will be based on actual quantities, determined as provided in the Contract Documents.

Total of Lump Sum and Unit Price Bids = Total Bid Price \$ _____

ARTICLE 6 – TIME OF COMPLETION

- 6.01 Bidder agrees that the Work will be substantially complete within 120 calendar days after the date when the Contract Times commence to run as provided in Paragraph 2.03 of the General Conditions, and will be completed and ready for final payment in accordance with Paragraph 14.07 of the General Conditions within 150 calendar days after the date when the Contract Times commence to run.
- 6.02 Bidder accepts the provisions of the Agreement as to liquidated damages.

ARTICLE 7 – ATTACHMENTS TO THIS BID

- 7.01 The following documents are submitted with and made a condition of this Bid:
 - A. Required Bid security in the form of _____(fill in);
 - B. Section 00420 – Supplements to BID Form;
 - C. Evidence of authority to do business in the state of the Project; or a written covenant to obtain such license within the time for acceptance of Bids;
 - D. Required Bidder Qualification Statement with supporting data; IF applicable.

ARTICLE 8 – DEFINED TERMS

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

ARTICLE 9 – BID SUBMITTAL

BIDDER: *[Indicate correct name of bidding entity]*

By:

[Signature] _____

[Printed name] _____

(If Bidder is a corporation, a limited liability company, a partnership, or a joint venture, attach evidence of authority to sign.)

Attest:

[Signature] _____

[Printed name] _____

Title: _____

Submittal Date: _____

Address for giving notices:

Telephone Number: _____

Fax Number: _____

Contact Name and e-mail address: _____

Bidder's License No.: _____

(where applicable)

- END OF SECTION -

SECTION 00420

SUPPLEMENTS TO BID FORM

PART 1 - GENERAL

1.01 BIDDER'S QUALIFICATIONS

- A. The required names and addresses of all persons interested in the foregoing Bid, as PRINCIPALS, are as follows:

- B. The requested statement of work of a similar character to that included in the proposed Contract and references to enable the OWNER to judge the BIDDER'S experience, skill, and business standing are as follows: (Provide a minimum of three similar projects with current contact information)

(Add supplementary pages if necessary)

- C. BIDDER'S Federal Identification Number:

1.02 SUBCONTRACTORS

Proposed subcontractors are listed below for each branch of work included in the proposed CONTRACT. (All subcontractors are subject to the approval of the OWNER. Failure to submit a completed list may be cause for rejection of the Bid.)

| Branch of Work | Name and Address of Subcontractor |
|----------------|-----------------------------------|
| 1. | |
| 2. | |
| 3. | |
| 4. | |
| 5. | |
| 6. | |

(Add supplemental pages if necessary)

1.03 LIST OF PROPOSED MANUFACTURERS

The following list of proposed manufacturers must be submitted within twenty (20) minutes following the opening of Bid. The OWNER reserves the right to reject any proposed manufacturer that is not listed in the Bid Documents; however, after the OWNER has accepted the BIDDER'S proposed manufacturers (including modifications), the BIDDER (Contractor) cannot change any manufacturer without processing a formal change order that is justifiable and acceptable to the OWNER. The "list" may be submitted at the same time the Bid is submitted but will not be considered a part of the Bid.

| Material (Equipment) | Name and Address of Material Manufacturer |
|-----------------------------------|---|
| 1. Ductile Iron Pipe and Fittings | |
| 2. Crushed Stone | |
| 3. Concrete | |
| 4. Valves | |
| 5. Casing Pipe | |
| 6. | |
| 7. | |
| 8. | |
| 9. | |
| 10. | |

- END OF SECTION -

Supplements to Bid Form
00420-3

SECTION 00430

BID BOND

Any singular reference to Bidder, Surety, Owner, or other party shall be considered plural where applicable and any addresses are to be used for giving required notice.

BIDDER (Name and Address):

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

OWNER (Name and Address):

BID

Bid Due Date: _____

Project (Brief Description Including Location):

BOND

Bond Number: _____

Date: (Not later than Bid due date): _____

Penal Sum: _____ (Words) _____ (Figures)

Surety and Bidder, intending to be legally bound hereby, subject to the terms printed on the reverse side hereof, do each cause this Bid Bond to be duly executed on its behalf by its authorized officer, agent, or representative.

BIDDER

SURETY

(Seal)
Bidder's Name and Corporate Seal

(Seal)
Surety's Name and Corporate Seal

By: _____
Signature and Title

By: _____
Signature and Title
(Attach Power of Attorney)

Attest: _____
Signature and Title

Attest: _____
Signature and Title

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

- END OF SECTION -

SECTION 00521

AGREEMENT FORMS

THIS AGREEMENT is by and between Henry County Water District No. 2 ("Owner") and _____ ("Contractor").

Owner and Contractor, in consideration of the mutual covenants hereinafter set forth, agree as follows:

ARTICLE 1 – WORK

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

Morton Ridge Main Upgrade Project, which includes the installation of approximately 22,000 feet of 20-inch D.I. water main and all necessary appurtenances and connections.

ARTICLE 2 – THE PROJECT

2.01 The Project for which the Work under the Contract Documents may be the whole or only a part is generally described as follows:

Morton Ridge Main Upgrade Project, which includes the installation of approximately 22,000 feet of 20-inch D.I. water main and all necessary appurtenances and connections.

ARTICLE 3 – ENGINEER

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

ARTICLE 4 – CONTRACT TIMES

4.01 *Time of the Essence*

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

4.02 *Days to Achieve Substantial Completion and Final Payment*

A. The Work will be substantially completed within 120 days after the date when the Contract Times commence to run as provided in Paragraph 2.03 of the General Conditions, and completed and ready for final payment in accordance with Paragraph 14.07 of the General Conditions within 150 days after the date when the Contract Times commence to run.

4.03 *Liquidated Damages*

- A. Contractor and Owner recognize that time is of the essence of this Agreement and that Owner will suffer financial loss if the Work is not completed within the times specified in Paragraph 4.02 above, plus any extensions thereof allowed in accordance with Article 12 of the General Conditions. The parties also recognize the delays, expense, and difficulties involved in proving in a legal or arbitration proceeding the actual loss suffered by Owner if the Work is not completed on time. Accordingly, instead of requiring any such proof, Owner and Contractor agree that as liquidated damages for delay (but not as a penalty), Contractor shall pay Owner \$500.00 for each day that expires after the time specified in Paragraph 4.02 for Substantial Completion until the Work is substantially complete. After Substantial Completion, if Contractor shall neglect, refuse, or fail to complete the remaining Work within the Contract Time or any proper extension thereof granted by Owner, Contractor shall pay Owner \$500.00 for each day that expires after the time specified in Paragraph 4.02 for completion and readiness for final payment until the Work is completed and ready for final payment.

ARTICLE 5 – CONTRACT PRICE

- 5.01 Owner shall pay Contractor for completion of the Work in accordance with the Contract Documents an amount in current funds equal to the sum of the amounts determined pursuant to Paragraph 5.01.A below:

- A. For all Unit Price Work, an amount equal to the sum of the established unit price for each separately identified item of Unit Price Work times the estimated quantity of that item as indicated in this paragraph 5.01.B:

As provided in Paragraph 11.03 of the General Conditions, estimated quantities are not guaranteed, and determinations of actual quantities and classifications are to be made by Engineer as provided in Paragraph 9.07 of the General Conditions. Unit prices have been computed as provided in Paragraph 11.03 of the General Conditions.

UNIT PRICE WORK

| Item No. | Description | Unit | Estimated Quantity | Bid Unit Price | Bid Price |
|-----------------|---|-------------|---------------------------|-----------------------|------------------|
| 1 | Mobilization (max. 2% of Total Bid) | LS | 1 | | |
| 2 | General Conditions (max. 2% of Total Bid) | LS | 1 | | |
| 3 | Demobilization (min. 1% of Total Bid) | LS | 1 | | |
| 4 | 20" DI Water Line (CI 250) | LF | 21,980 | | |
| 5 | DI Fittings (CI 250 and 350) w/ PE Tube Wrap | LB | 33,000 | | |
| 6 | 20" Butterfly Valve (CI 250) | EA | 2 | | |
| 7 | 2" Combination Air/Vacuum Valve | EA | 1 | | |
| 8 | 18" Tapping Sleeve and Valve | EA | 1 | | |
| 9 | 12" Tapping Sleeve and Valve | EA | 1 | | |
| 10 | 8" Blow-off Valve | EA | 2 | | |
| 11 | 32"x0.438" Stl. Casing Pipe, Open Cut Roadway, Blacktop -Concrete Driveway, Gas Line Crossing | LF | 390 | | |
| 12 | 32"x0.438" Stl. Casing Pipe, Bore & Jack Roadway | LF | 100 | | |
| 13 | Channel Lining, Class III | TON | 150 | | |
| 14 | Concrete Cap | LF | 60 | | |
| 15 | Crushed Stone (DGA) Surface Replacement 12" thick | LF | 800 | | |
| 16 | Bituminous Road Surface Replacement, 2" Thick with Concrete Base | LF | 165 | | |
| 17 | Bituminous Road Surface Replacement, Road Aprons- 2" Thick | LF | 150 | | |
| 18 | Concrete Surface Replacement, 8" Thick | LF | 40 | | |
| 19 | Tie-in To Existing Line | EA | 2 | | |

ESTIMATED TOTAL OF ALL UNIT PRICE WORK

(_____)

(use words)

\$(_____)

(figure)

3. any Contractor interpretation of or conclusion drawn from any "technical data" or any such other data, interpretations, opinions or information.
- C. Contractor shall not be responsible for any Hazardous Environmental Condition uncovered or revealed at the Site which was not shown or indicated in Drawings or Specifications or identified in the Contract Documents to be within the scope of the Work. Contractor shall be responsible for a Hazardous Environmental Condition created with any materials brought to the Site by Contractor, Subcontractors, Suppliers, or anyone else for whom Contractor is responsible.
 - D. If Contractor encounters a Hazardous Environmental Condition or if Contractor or anyone for whom Contractor is responsible creates a Hazardous Environmental Condition, Contractor shall immediately: (i) secure or otherwise isolate such condition; (ii) stop all Work in connection with such condition and in any area affected thereby (except in an emergency as required by Paragraph 6.16.A); and (iii) notify Owner and Engineer (and promptly thereafter confirm such notice in writing). Owner shall promptly consult with Engineer concerning the necessity for Owner to retain a qualified expert to evaluate such condition or take corrective action, if any.
 - E. Contractor shall not be required to resume Work in connection with such condition or in any affected area until after Owner has obtained any required permits related thereto and delivered to Contractor written notice: (i) specifying that such condition and any affected area is or has been rendered safe for the resumption of Work; or (ii) specifying any special conditions under which such Work may be resumed safely. If Owner and Contractor cannot agree as to entitlement to or on the amount or extent, if any, of any adjustment in Contract Price or Contract Times, or both, as a result of such Work stoppage or such special conditions under which Work is agreed to be resumed by Contractor, either party may make a Claim therefor as provided in Paragraph 10.05.
 - F. If after receipt of such written notice Contractor does not agree to resume such Work based on a reasonable belief it is unsafe, or does not agree to resume such Work under such special conditions, then Owner may order the portion of the Work that is in the area affected by such condition to be deleted from the Work. If Owner and Contractor cannot agree as to entitlement to or on the amount or extent, if any, of an adjustment in Contract Price or Contract Times as a result of deleting such portion of the Work, then either party may make a Claim therefor as provided in Paragraph 10.05. Owner may have such deleted portion of the Work performed by Owner's own forces or others in accordance with Article 7.
 - G. To the fullest extent permitted by Laws and Regulations, Owner shall indemnify and hold harmless Contractor, Subcontractors, and Engineer, and the officers, directors, partners, employees, agents, consultants, and subcontractors of each and any of them from and against all claims, costs, losses, and damages (including but not limited to all fees and charges of engineers, architects, attorneys, and other professionals and all court or arbitration or other dispute resolution costs) arising out of or relating to a Hazardous Environmental Condition, provided that such Hazardous Environmental Condition: (i) was not shown or indicated in the Drawings or Specifications or identified in the Contract Documents to be included within the scope of the Work, and (ii) was not created by Contractor or by anyone for whom Contractor is responsible. Nothing in this Paragraph 4.06.G shall obligate Owner to indemnify any individual or entity from and against the consequences of that individual's or entity's own negligence.
 - H. To the fullest extent permitted by Laws and Regulations, Contractor shall indemnify and hold harmless Owner and Engineer, and the officers, directors, partners, employees, agents, consultants, and subcontractors of each and any of them from and against all claims, costs, losses, and damages (including but not limited to all fees and charges of engineers, architects, attorneys, and other professionals and all court or arbitration or other dispute resolution costs) arising out of or relating to a Hazardous Environmental Condition created by Contractor or by anyone for whom Contractor is responsible. Nothing in this Paragraph 4.06. H shall obligate Contractor to indemnify any individual or entity from and against the consequences of that individual's or entity's own negligence.
 - I. The provisions of Paragraphs 4.02, 4.03, and 4.04 do not apply to a Hazardous Environmental Condition uncovered or revealed at the Site.

ARTICLE 6 – PAYMENT PROCEDURES

6.01 *Submittal and Processing of Payments*

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

6.02 *Progress Payments; Retainage*

- A. Owner shall make progress payments on account of the Contract Price on the basis of Contractor's Applications for Payment when payment is received from funding agencies during performance of the Work as provided in Paragraphs 6.02.A.1 and 6.02.A.2 below. All such payments will be measured by the schedule of values established as provided in Paragraph 2.07.A of the General Conditions (and in the case of Unit Price Work based on the number of units completed) or, in the event there is no schedule of values, as provided in the General Requirements:
 1. Prior to Substantial Completion, progress payments will be made in an amount equal to the percentage indicated below but, in each case, less the aggregate of payments previously made and less such amounts as Engineer may determine or Owner may withhold, including but not limited to liquidated damages, in accordance with Paragraph 14.02 of the General Conditions:
 - a. 90 percent of Work completed (with the balance being retainage); and
 - b. 90 percent of cost of materials and equipment not incorporated in the Work (with the balance being retainage).
 2. Upon Substantial Completion, Owner shall pay an amount sufficient to increase total payments to Contractor to 90 percent of the Work completed, less such amounts as Engineer shall determine in accordance with Paragraph 14.02.B.5 of the General Conditions.

6.03 *Final Payment*

- A. Upon receipt of the final Application for Payment accompanied by Engineer's recommendation of payment in accordance with Paragraph 14.07 of the General Conditions, Owner shall pay Contractor as provided in Paragraph 14.07 of the General Conditions the remainder of the Contract Price as recommended by Engineer as provided in said Paragraph 14.07, less any sum Owner is entitled to set off against Engineer's recommendation, including but not limited to liquidated damages.

ARTICLE 7 – INTEREST

7.01 All moneys not paid when due as provided in Article 14 of the General Conditions shall bear interest at the maximum legal rate.

ARTICLE 8 – CONTRACTOR’S REPRESENTATIONS

8.01 In order to induce Owner to enter into this Agreement Contractor makes the following representations:

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

- I. Contractor has given Engineer written notice of all conflicts, errors, ambiguities, or discrepancies that Contractor has discovered in the Contract Documents, and the written resolution thereof by Engineer is acceptable to Contractor.
- J. The Contract Documents are generally sufficient to indicate and convey understanding of all terms and conditions for performance and furnishing of the Work.

ARTICLE 9 – CONTRACT DOCUMENTS

9.01 *Contents*

A. The Contract Documents consist of the following:

- 1. This Agreement (pages 1 to _____, inclusive).
- 2. Performance bond (pages _____ to _____, inclusive).
- 3. Payment bond (pages _____ to _____, inclusive).
- 4. Other bonds.
 - a. Warranty bond (pages _____ to _____, inclusive).
- 5. General Conditions (pages _____ to _____, inclusive).
- 6. Supplementary Conditions (pages _____ to _____, inclusive).
- 7. Specifications as listed in the table of contents of the Project Manual.
- 8. Drawings consisting of _____ sheets with each sheet bearing the following general title:
_____.
- 9. Addenda (numbers _____ to _____, inclusive).
- 10. Exhibits to this Agreement (enumerated as follows):
 - a. Contractor's Bid (pages _____ to _____, inclusive).
 - b. Documentation submitted by Contractor prior to Notice of Award (pages _____ to _____, inclusive).
 - c. _____.
- 11. The following which may be delivered or issued on or after the Effective Date of the Agreement and are not attached hereto:
 - a. Notice to Proceed (pages _____ to _____, inclusive).
 - b. Work Change Directives.
 - c. Change Order(s).

- B. The documents listed in Paragraph 9.01.A are attached to this Agreement (except as expressly noted otherwise above).
- C. There are no Contract Documents other than those listed above in this Article 9.
- D. The Contract Documents may only be amended, modified, or supplemented as provided in Paragraph 3.04 of the General Conditions.

ARTICLE 10 – MISCELLANEOUS

10.01 Terms

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

10.02 Assignment of Contract

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

10.03 Successors and Assigns

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

10.04 Severability

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

IN WITNESS WHEREOF, Owner and Contractor have signed this Agreement in four copies. One counterpart each has been delivered to Owner, Contractor, Engineer, and Agency. All portions of the Contract Documents have been signed, initialed, or identified by Owner and Contractor or identified by Engineer on their behalf.

This Agreement is dated _____. This Agreement shall not be effective unless and until Agency's designated representative concurs.

OWNER:

CONTRACTOR

By: _____

By: _____

Title: _____

Title: _____

[CORPORATE SEAL]

[CORPORATE SEAL]

Attest: _____

Attest: _____

Title: _____

Title: _____

Address for giving notices:

Address for giving notices:

Agent for service of process:

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

Agency Concurrence:

As lender or insurer of funds to defray the costs of this Contract, and without liability for any payments thereunder, the Agency hereby concurs in the form, content, and execution of this Agreement.

Agency

By: _____

Date: _____

Title: _____

- END OF SECTION -

SECTION 00550

NOTICE TO PROCEED

| | |
|-------------|-----------------------------|
| Owner: | Owner's Contract No.: |
| Contractor: | Contractor's Project No.: |
| Engineer: | Engineer's Project No.: |
| Project: | Contract Name: |
| | Effective Date of Contract: |

TO CONTRACTOR:

Owner hereby notifies Contractor that the Contract Times under the above Contract will commence to run on [_____, 20__]. *[see Paragraph 4.01 of the General Conditions]*

On that date, Contractor shall start performing its obligations under the Contract Documents. No Work shall be done at the Site prior to such date. In accordance with the Agreement, [the date of Substantial Completion is _____, and the date of readiness for final payment is _____] *or* [the number of days to achieve Substantial Completion is _____, and the number of days to achieve readiness for final payment is _____].

Before starting any Work at the Site, Contractor must comply with the following:
Paragraph 2.01.B of the General Conditions provides that you and Owner must each deliver to the other (with copies to Engineer and other identified additional insureds) certificates of insurance which is required to purchase and maintain in accordance with the Contract Documents.

Owner:

Authorized Signature

By:

Title:

Date Issued:

Copy: Engineer

- END OF SECTION -

SECTION 00610

PERFORMANCE BOND

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

CONTRACTOR (Name and address):

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

OWNER (Name and Address):

Henry County Water District No. 2
8955 Main Street
P.O. Box 219
Campbellsburg, Kentucky 40011

CONTRACT

Date:

Amount:

Description (Name and Location): Morton Ridge Main Upgrade Project

BOND

Date (Not earlier than Contract Date):

Amount:

Modifications to this Bond Form:

Surety and Contractor, intending to be legally bound hereby, subject to the terms printed on the reverse side hereof, do each cause this Performance Bond to be duly executed on its behalf by its authorized officer, agent, or representative.

CONTRACTOR AS PRINCIPAL

Company: _____ (Corp. Seal)

Signature: _____

Name and Title:

SURETY

Company: _____ (Corp. Seal)

Signature: _____

Name and Title:

(Attach Power of Attorney)

Attest: _____

Signature and Title

(Space is provided below for signatures of additional parties, if required.)

CONTRACTOR AS PRINCIPAL

Company: _____ (Corp. Seal)

Signature: _____

Name and Title:

SURETY

Company: _____ (Corp. Seal)

Signature: _____

Name and Title:

Attest: _____

Signature and Title

EJCDC No. C-610 (2002 Edition)

Originally prepared through the joint efforts of the Engineers Joint Contract Documents Committee, and endorsed by the Associated General Contractors of America, and the Construction Specifications Institute.

1. The CONTRACTOR and the Surety, jointly and severally, bind themselves, their heirs, executors, administrators, successors, and assigns to the Owner for the performance of the Contract which is incorporated herein by reference.
2. If the CONTRACTOR performs the Contract, the Surety and the CONTRACTOR have no obligation under this bond except to participate in conferences as provided in paragraph 3.1.
3. If there is no OWNER Default, the Surety's obligation under this Bond shall arise after:
 - 3.1 The OWNER has notified the CONTRACTOR and the Surety at the addresses described in paragraph 10 below, that the OWNER is considering declaring a CONTRACTOR Default and has requested and attempted to arrange a conference with the CONTRACTOR and the Surety, to be held not later than fifteen (15) days after receipt of such notice, to discuss methods of performing the contract. If the OWNER, the CONTRACTOR, and the Surety agree, the CONTRACTOR shall be allowed a reasonable time to perform the Contract, but such an agreement shall not waive the OWNER's right, if any, subsequently to declare a CONTRACTOR Default; and
 - 3.2 The OWNER has declared a CONTRACTOR Default and formally terminated the CONTRACTOR's right to complete the Contract. Such CONTRACTOR Default shall not be declared earlier than twenty (20) days after the CONTRACTOR and the Surety have received notice as provided in paragraph 3.1; and
 - 3.3 The OWNER has agreed to pay the Balance of the Contract Price to:
 - 3.3.1 The Surety in accordance with the terms of the Contract;
 - 3.3.2 Another contractor selected pursuant to paragraph 4.3 to perform the Contract.
4. When the OWNER has satisfied the conditions of paragraph 3, the Surety shall promptly, and at the Surety's expense, take one of the following actions:
 - 4.1 Arrange for the CONTRACTOR, with consent of the OWNER, to perform and complete the Contract; or
 - 4.2 Undertake to perform and complete the Contract itself, through its agents or through independent contractors; or
 - 4.3 Obtain bids or negotiated proposals from qualified contractors acceptable to the OWNER for a contract for performance and completion of the Contract, arrange for a contract to be prepared for execution by the OWNER and the contractor selected with the OWNER's concurrence, to be secured with performance and payment bonds executed by a qualified surety equivalent to the bonds issued on the contract, and pay to the OWNER the amount of damages as described in paragraph 6 in excess of the Balance of the Contract Price incurred by the OWNER resulting from the CONTRACTOR Default; or
 - 4.4 Waive its right to perform and complete, arrange for completion, or obtain a new contractor and with reasonable promptness under the circumstances;
 - 4.4.1 After investigation, determine the amount for which it may be liable to the OWNER and, as soon as practicable after the amount is determined, tender payment therefor to the OWNER; or
 - 4.4.2 Deny liability in whole or in part and notify the OWNER citing reasons therefor.
5. If the Surety does not proceed as provided in paragraph 4 with reasonable promptness, the Surety shall be deemed to be in default on this Bond fifteen (15) days after receipt of an additional written notice from the OWNER to the Surety demanding that the Surety perform its obligations under this Bond, and the OWNER shall be entitled to enforce any remedy available to the OWNER. If the Surety proceeds as provided in paragraph 4.4, and the OWNER refuses the payment tendered, or the Surety has denied liability, in whole or in part, without further notice the OWNER shall be entitled to enforce any remedy available to the OWNER.
6. After the OWNER has terminated the CONTRACTOR's right to complete the Contract, and if the Surety elects to act under paragraph 4.1, 4.2, or 4.3 above, then the responsibilities of the Surety to the OWNER shall not be greater than those of the CONTRACTOR under the Contract, and the responsibilities of the OWNER to the Surety shall not be greater than those of the OWNER under the contract. To a limit of the amount of this Bond, but subject to commitment by the OWNER of the Balance of the Contract Price to mitigation of costs and damages on the Contract, the Surety is obligated without duplication for:
 - 6.1 The responsibilities of the CONTRACTOR for correction of defective Work and completion of the Contract;
 - 6.2 Additional legal, design, professional, and delay costs resulting from the CONTRACTOR's Default, and resulting from the actions or failure to act of the Surety under paragraph 4; and
 - 6.3 Liquidated damages, or if no liquidated damages are specified in the Contract, actual damages caused by delayed performance or non-performance of the Contractor.
7. The Surety shall not be liable to the OWNER or others for obligations of the CONTRACTOR that are unrelated to the Contract, and the Balance of the Contract Price shall not be reduced or set off on account of any such unrelated obligations. No right of action shall accrue on this Bond to any person or entity other than the OWNER or its heirs, executors, administrators, or successors.
8. The Surety hereby waives notice of any change, including changes of time, to the Contract or to related subcontracts, purchase orders, and other obligations.
9. Any proceeding, legal or equitable, under this Bond may be instituted in any court of competent jurisdiction in the location in which the Work or part of the Work is located and shall be instituted within two (2) years after CONTRACTOR Default or within two (2) years after the CONTRACTOR ceased working, or within two (2) years after the Surety refuses or fails to perform its obligations under this Bond, whichever occurs first. If the provisions of this paragraph are void or prohibited by law, the minimum period of limitation available to sureties as a defense in the jurisdiction of the suit shall be applicable.
10. Notice to the Surety, the OWNER, or the CONTRACTOR shall be mailed or delivered to the address shown on the signature page.
11. When this Bond has been furnished to comply with a statutory or other legal requirement in the location where the Contract was to be performed, any provision in this Bond conflicting with said statutory or legal requirement shall be deemed deleted here from and provisions conforming to such statutory or other legal requirement shall be deemed incorporated herein. The intent is that this Bond shall be construed as a statutory bond and not as a common law bond.
12. Definitions.
 - 12.1 Balance of the Contract Price: The total amount payable by the OWNER to the CONTRACTOR under the Contract after all proper adjustments have been made, including allowance to the CONTRACTOR of any amounts received or to be received by the OWNER in settlement of insurance or other Claims for damages to which the CONTRACTOR is entitled, reduced by all valid and proper payments made to or on behalf of the CONTRACTOR under the Contract.
 - 12.2 Contract: The agreement between the OWNER and the CONTRACTOR identified on the signature page, including all Contract Documents and changes thereto.
 - 12.3 CONTRACTOR Default: Failure of the CONTRACTOR, which has neither been remedied nor waived, to perform or otherwise to comply with the terms of the Contract.
 - 12.4 OWNER Default: Failure of the OWNER, which has neither been remedied nor waived, to pay the CONTRACTOR as required by the Contract or to perform and complete or comply with the other terms thereof.

(FOR INFORMATION ONLY – Name, Address and Telephone)
 AGENT or BROKER: OWNER'S REPRESENTATIVE (Engineer or other party):

SECTION 00615

PAYMENT BOND

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

CONTRACTOR (Name and Address):

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

OWNER (Name and Address):

Henry County Water District No. 2
8955 Main Street
P.O. Box 219
Campbellsburg, Kentucky 40011

CONTRACT

Date:

Amount:

Description (Name and Location): Morton Ridge Main Upgrade Project

BOND

Date (Not earlier than Construction Contract Date):

Amount:

Modifications to this Bond Form:

Surety and Contractor, intending to be legally bound hereby, subject to the terms printed on the reverse side hereof, do each cause this Payment Bond to be duly executed on its behalf by its authorized officer, agent, or representative.

CONTRACTOR AS PRINCIPAL

Company: _____ (Corp. Seal)

Signature: _____

Name and Title:

SURETY

Company: _____ (Corp. Seal)

Signature: _____

Name and Title:

(Attach Power of Attorney)

Attest: _____

Signature and Title

CONTRACTOR AS PRINCIPAL

Company: _____ (Corp. Seal)

Signature: _____

Name and Title:

SURETY

Company: _____ (Corp. Seal)

Signature: _____

Name and Title:

Attest: _____

Signature and Title

EJCDC No. C-615 (2002 Edition)

Originally prepared through the joint efforts of the Engineers Joint Contract Documents Committee, and endorsed by the Associated General Contractors of America, and the Construction Specifications Institute.

Payment Bond
00615-1

1. The Contractor and the Surety, jointly and severally, bind themselves, their heirs, executors, administrators, successors, and assigns to the OWNER to pay for labor, materials, and equipment furnished for use in the performance of the Contract which is incorporated herein by reference.
2. With respect to the OWNER, this obligation shall be null and void if the Contractor:
 - 2.1 Promptly makes payment, directly or indirectly, for all sums due Claimants, and
 - 2.2 Defends, indemnifies, and holds harmless the OWNER from all claims, demands, liens, or suits by any person or entity who furnished labor, materials, or equipment for use in the performance of the Contract, provided the OWNER has promptly notified the CONTRACTOR and the Surety (at the addresses described in Paragraph 12) of any claims, demands, liens, or suits and tendered defense of such claims, demands, liens, or suits to the CONTRACTOR and the Surety, and provided there is no Owner Default.
3. With respect to Claimants, this obligation shall be null and void if the Contractor promptly makes payment, directly or indirectly, for all sums due.
4. The Surety shall have no obligation to Claimants under this Bond until:
 - 4.1 Claimants who are employed by or have a direct contract with the CONTRACTOR have given notice to the Surety (at the addresses described in Paragraph 12) and sent a copy, or notice thereof, to the OWNER, stating that a claim is being made under this Bond and, with substantial accuracy, the amount of the claim.
 - 4.2 Claimants who do not have a direct contract with the CONTRACTOR:
 1. Have furnished written notice to the CONTRACTOR and sent a copy, or notice thereof, to the OWNER, within ninety (90) days after having last performed labor or last furnished materials or equipment included in the claim stating, with substantial accuracy, the amount of the claim and the name of the party to whom the materials were furnished or supplied, or for whom the labor was done or performed; and
 2. Have either received a rejection, in whole or in part, from the CONTRACTOR, or not received within thirty (30) days of furnishing the above notice any communication from the CONTRACTOR by which the CONTRACTOR has indicated the claim will be paid directly or indirectly; and
 3. Not having been paid within the above thirty (30) days, have sent a written notice to the Surety and sent a copy, or notice thereof, to the OWNER, stating that a claim is being made under this Bond and enclosing a copy of the previous written notice furnished to the CONTRACTOR.
5. If a notice required by Paragraph 4 is given by the OWNER to the CONTRACTOR or to the Surety, that is sufficient compliance.
6. When the Claimant has satisfied the conditions of Paragraph 4, the Surety shall promptly, and at the Surety's expense, take the following actions:
 - 6.1 Send an answer to the Claimant, with a copy to the OWNER, within forty-five (45) days after receipt of the claim, stating the amounts that are undisputed and that basis for challenging any amounts that are disputed.
 - 6.2 Pay or arrange for payment of any undisputed amounts.
7. The Surety's total obligation shall not exceed the amount of this Bond, and the amount of this Bond shall be credited for any payments made in good faith by the Surety.
8. Amounts owed by the OWNER to the CONTRACTOR under the Contract shall be used for the performance of the Contract and to satisfy claims, if any, under any Performance Bond. By the CONTRACTOR furnishing and the OWNER accepting this Bond, they agree that all funds earned by the CONTRACTOR in the performance of the Contract are dedicated to satisfy obligations of the CONTRACTOR and the Surety under this Bond, subject to the OWNER's priority to use the funds for the completion of the Work.
9. The Surety shall not be liable to the OWNER, Claimants, or others for obligations of the CONTRACTOR that are unrelated to the Contract. The OWNER shall not be liable for payment of any costs or expenses of any Claimant under this Bond, and shall have under this Bond no obligations to make payments to, give notices on behalf of, or otherwise have obligations to Claimants under this Bond.
10. The Surety hereby waives notice of any change, including changes of time, to the Contract or to related subcontracts, purchase orders, and other obligations.
11. No suit or action shall be commenced by a Claimant under this Bond other than in a court of competent jurisdiction in the location in which the Work or part of the Work is located, or after the expiration of one (1) year from the date (1) on which the Claimant gave the notice required by paragraph 4.1 or paragraph 4.2.3, or (2) on which the last labor or service was performed by anyone or the last materials or equipment were furnished by anyone under the Construction Contract, whichever of (1) or (2) first occurs. If the provisions of this paragraph are void or prohibited by law, the minimum period of limitation available to sureties as a defense in the jurisdiction of the suit shall be applicable.
12. Notice to the Surety, the OWNER, or the CONTRACTOR shall be mailed or delivered to the addresses shown on the signature page. Actual receipt of notice by Surety, the OWNER, or the CONTRACTOR, however accomplished, shall be sufficient compliance as of the date received at the address shown on the signature page.
13. When this Bond has been furnished to comply with a statutory or other legal requirement in the location where the Contract was to be performed, any provision in the Bond conflicting with said statutory or legal requirement shall be deemed deleted herefrom and provisions conforming to such statutory or other legal requirement shall be deemed incorporated herein. The intent is that this Bond shall be construed as a statutory bond and not as a common law bond.
14. Upon request by any person or entity appearing to be a potential beneficiary of this Bond, the CONTRACTOR shall promptly furnish a copy of this Bond or shall permit a copy to be made.
15. Definitions.
 - 15.1 Claimant: An individual or entity having a direct contract with the CONTRACTOR, or with a subcontractor of the CONTRACTOR, to furnish labor, materials, or equipment for use in the performance of the Contract. The intent of this Bond shall be to include, without limitation in the terms "labor, materials, or equipment", that part of water, gas, power, light, heat, oil, gasoline, telephone service, or rental equipment used in the Contract, architectural and engineering services required for performance of the Work of the CONTRACTOR and the CONTRACTOR's subcontractors, and all other items for which a mechanic's lien may be asserted in the jurisdiction where the labor, materials, or equipment were furnished.
 - 15.2 Contract: The agreement between the OWNER and the CONTRACTOR identified on the signature page, including all Contract Documents and changes thereto.
 - 15.3 Owner Default: Failure of the Owner, which has neither been remedied nor waived, to pay the CONTRACTOR as required by the Contract, or to perform and complete or comply with the other terms thereof.

(FOR INFORMATION ONLY - Name, Address and Telephone)
 AGENCY or BROKER: OWNER'S REPRESENTATIVE (Engineer or other party):

Payment Bond
 00615-2

June 25, 2013

SECTION 00618

WARRANTY BOND

KNOW ALL MEN BY THESE PRESENTS, that _____, as Contractor, hereinafter called "Principal," and _____, a corporation, organized and existing under the laws of the State of _____, with principal offices at _____, as Surety, hereinafter called "Surety," are held and firmly bound unto the _____ as Obligee, hereinafter called "Obligee," in the amount of _____ Dollars (\$_____), for the payment of which, well and truly to be made, we hereby jointly and severally bind ourselves, our heirs, executors, administrators, successors and assigns firmly by these presents. The warranty bond shall be in the amount of ten percent (10%) of the final construction cost amount (based on contractor's final pay request).

WHEREAS, the Principal has dedicated _____, hereinafter called the "Project," to Obligee, and Obligee has accepted said Project on _____, 20_____.

NOW, THEREFORE, THE CONDITION OF THE ABOVE OBLIGATION IS SUCH that, if the Principal shall well and faithfully do and perform the required maintenance and shall indemnify and save harmless the Obligee against all claims, loss or damage, and expenses of reconstruction or additional work required to restore the Project to its acceptable condition within a period of one (1) year from the date of acceptance by Obligee of the Project, then this obligation shall be void; otherwise, it shall remain in full force and effect.

No right of action shall accrue on this Bond to or for the use of any person or corporation other than the Obligee named herein or the heirs, executors, administrators, successors, or assigns of the Obligee.

Should any proceedings be necessary to enforce this Bond, such sum as the Court may determine to be reasonable shall be allowed to Obligee as attorney's fees, in addition to other sums found due.

In the event that any actions or proceedings are initiated with respect to this Bond, the parties agree that the venue thereof shall be _____ County, State of _____.

IN TESTIMONY WHEREOF, said Principal has signed this instrument at _____, in person or by agent duly thereunder authorized, and said Surety has caused its name to be hereunto signed by its duly authorized agent and its corporate seal hereto affixed, this _____ day of _____, 20_____.

CONTRACTOR AS PRINCIPAL
Company: _____ (Corp. Seal)

Signature: _____
Name and Title: _____

SURETY
Company: _____ (Corp. Seal)

Signature: _____
Name and Title: _____

ATTORNEY-IN-FACT
Company: _____ (Corp. Seal)

Signature: _____
Name and Title: _____

- END OF SECTION-

Warranty Bond
00618-1

SECTION 00620

CERTIFICATES OF COMPLIANCE

PART 1 - GENERAL

1.01 CERTIFICATE OF OWNER'S ATTORNEY.

I, the undersigned, _____, the duly authorized and acting legal representative
of _____, do hereby certify as follows:

I have examined the attached contract(s) and performance and payment bond(s) and the manner of execution thereof, and I am of the opinion that each of the aforesaid agreements are adequate and has been duly executed by the proper parties thereto acting through their duly authorized representatives; that said representatives have full power and authority to execute said agreements on behalf of the respective parties named thereon; and that the foregoing agreements constitute valid and legally binding obligations upon the parties executing the same in accordance with terms, conditions, and provisions thereof.

Date _____

- END OF SECTION -

SECTION 00630

SWORN STATEMENT FOR FINAL PAYMENT

COMMONWEALTH OF KENTUCKY)
) ss
COUNTY OF HENRY)

Affiant, _____, being duly sworn, deposes and states that he is _____ of _____, the Contractor with Henry County Water District No. 2 (Client) for Morton Ridge Main Upgrade Project (Project), and that he is duly authorized to make this affidavit on behalf of said Contractor and that he has positive knowledge of the facts herein stated.

Affiant states that the Work contracted for under said Contract has been fully completed, and that all materials furnished to said Contractor and used in said work have been fully paid for.

Affiant states that all labor employed upon said work has been fully paid for.

Affiant further states that all labor and material used in the prosecution of the Work under said Contract has been fully paid for and all subcontractors, employees, and furnishers of machines, equipment, tools, material and labor have each and all been paid in full.

IN TESTIMONY WHEREOF, I have hereunto affixed my signature at _____ COUNTY, KENTUCKY this _____ day of _____, 2013.

Subscribed and sworn to before me this _____ day of _____, 2013.

My commission expires _____, 20____.

Notary Public, _____ County, Kentucky

- END OF SECTION -

Sworn Statement for Final Payment
00630-1

SECTION 00710
GENERAL CONDITIONS

This document has important legal consequences; consultation with an attorney is encouraged with respect to its use or modification. This document should be adapted to the particular circumstances of the contemplated Project and the Controlling Law.

**SECTION 00710
STANDARD GENERAL CONDITIONS
OF THE CONSTRUCTION CONTRACT
FUNDING AGENCY EDITION**

Prepared by

ENGINEERS JOINT CONTRACT DOCUMENTS COMMITTEE

and

Issued and Published Jointly By



PROFESSIONAL ENGINEERS IN PRIVATE PRACTICE
a practice division of the
NATIONAL SOCIETY OF PROFESSIONAL ENGINEERS

AMERICAN COUNCIL OF ENGINEERING COMPANIES

AMERICAN SOCIETY OF CIVIL ENGINEERS

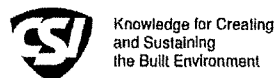
This document has been approved and endorsed by

The Associated General Contractors of America



and the

Construction Specification Institute



These General Conditions have been prepared for use with the Suggested Forms of Agreement Between Owner and Contractor Funding Agency Edition No. C-521 (2002 Edition). Their provisions are interrelated and a change in one may necessitate a change in the other. Comments concerning their usage are contained in the EJCDC Construction Documents, General and Instructions (No. C-001, 2002 Edition). For guidance in the preparation of Supplementary Conditions, see Guide to the Preparation of Supplementary Conditions (No. C-800, 2002 Edition).

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GENERAL CONDITIONS

ARTICLE 1 – DEFINITIONS AND TERMINOLOGY

1.01 *Defined Terms*

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

14. *Contract Price* – The moneys payable by Owner to Contractor for completion of the Work in accordance with the Contract Documents as stated in the Agreement (subject to the provisions of Paragraph 11.03 in the case of Unit Price Work).
15. *Contract Times* – The number of days or the dates stated in the Agreement to: (i) achieve Milestones, if any, (ii) achieve Substantial Completion; and (iii) complete the Work so that it is ready for final payment as evidenced by Engineer's written recommendation of final payment.
16. *Contractor* – The individual or entity with whom Owner has entered into the Agreement.
17. *Cost of the Work* – See Paragraph 11.01.A for definition.
18. *Drawings* – That part of the Contract Documents prepared or approved by Engineer which graphically shows the scope, extent, and character of the Work to be performed by Contractor. Shop Drawings and other Contractor submittals are not Drawings as so defined.
19. *Effective Date of the Agreement* – The date indicated in the Agreement on which it becomes effective, but if no such date is indicated, it means the date on which the Agreement is signed and delivered by the last of the two parties to sign and deliver.
20. *Engineer* – The individual or entity named as such in the Agreement.
21. *Field Order* – A written order issued by Engineer which requires minor changes in the Work but which does not involve a change in the Contract Price or the Contract Times.
22. *General Requirements* – Sections of Division 1 of the Specifications. The General Requirements pertain to all sections of the Specifications.
23. *Hazardous Environmental Condition* – The presence at the Site of Asbestos, PCBs, Petroleum, Hazardous Waste, or Radioactive Material in such quantities or circumstances that may present a substantial danger to persons or property exposed thereto in connection with the Work.
24. *Hazardous Waste* – The term Hazardous Waste shall have the meaning provided in Section 1004 of the Solid Waste Disposal Act (42 USC Section 6903) as amended from time to time.
25. *Laws and Regulations; Laws or Regulations* – Any and all applicable laws, rules, regulations, ordinances, codes, and orders of any and all governmental bodies, agencies, authorities, and courts having jurisdiction.
26. *Liens* – Charges, security interests, or encumbrances upon Project funds, real property, or personal property.
27. *Milestone* – A principal event specified in the Contract Documents relating to an intermediate completion date or time prior to Substantial Completion of all the Work.
28. *Notice of Award* – The written notice by Owner to the Successful Bidder stating that upon timely compliance by the Successful Bidder with the conditions precedent listed therein, Owner will sign and deliver the Agreement.
29. *Notice to Proceed* – A written notice given by Owner to Contractor fixing the date on which the Contract Times will commence to run and on which Contractor shall start to perform the Work under the Contract Documents.
30. *Owner* – The individual or entity with whom Contractor has entered into the Agreement and for whom the Work is to be performed.
31. *PCBs* – Polychlorinated biphenyls.

32. *Petroleum* – Petroleum, including crude oil or any fraction thereof which is liquid at standard conditions of temperature and pressure (60 degrees Fahrenheit and 14.7 pounds per square inch absolute), such as oil, petroleum, fuel oil, oil sludge, oil refuse, gasoline, kerosene, and oil mixed with other non-Hazardous Waste and crude oils.
33. *Progress Schedule* – A schedule, prepared and maintained by Contractor, describing the sequence and duration of the activities comprising the Contractor’s plan to accomplish the Work within the Contract Times.
34. *Project* – The total construction of which the Work to be performed under the Contract Documents may be the whole, or a part.
35. *Project Manual* – The bound documentary information prepared for bidding and constructing the Work. A listing of the contents of the Project Manual, which may be bound in one or more volumes, is contained in the table(s) of contents.
36. *Radioactive Material* – Source, special nuclear, or byproduct material as defined by the Atomic Energy Act of 1954 (42 USC Section 2011 et seq.) as amended from time to time.
37. *Related Entity* – An officer, director, partner, employee, agent, consultant, or subcontractor.
38. *Resident Project Representative* – The authorized representative of Engineer who may be assigned to the Site or any part thereof.
39. *Samples* – Physical examples of materials, equipment, or workmanship that are representative of some portion of the Work and which establish the standards by which such portion of the Work will be judged.
40. *Schedule of Submittals* – A schedule, prepared and maintained by Contractor, of required submittals and the time requirements to support scheduled performance of related construction activities.
41. *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.
42. *Shop Drawings* – All drawings, diagrams, illustrations, schedules, and other data or information which are specifically prepared or assembled by or for Contractor and submitted by Contractor to illustrate some portion of the Work.
43. *Site* – Lands or areas indicated in the Contract Documents as being furnished by Owner upon which the Work is to be performed, including rights-of-way and easements for access thereto, and such other lands furnished by Owner which are designated for the use of Contractor.
44. *Specifications* – That part of the Contract Documents consisting of written requirements for materials, equipment, systems, standards and workmanship as applied to the Work, and certain administrative requirements and procedural matters applicable thereto.
45. *Subcontractor* – An individual or entity having a direct contract with Contractor or with any other Subcontractor for the performance of a part of the Work at the Site.
46. *Substantial Completion* – The time at which the Work (or a specified part thereof) has progressed to the point where, in the opinion of Engineer, the Work (or a specified part thereof) is sufficiently complete, in accordance with the Contract Documents, so that the Work (or a specified part thereof) can be utilized for the purposes for which it is intended. The terms “substantially complete” and “substantially completed” as applied to all or part of the Work refer to Substantial Completion thereof.
47. *Successful Bidder* – The Bidder submitting a responsive Bid to whom Owner makes an award.

48. *Supplementary Conditions* – That part of the Contract Documents which amends or supplements these General Conditions.
49. *Supplier* – A manufacturer, fabricator, supplier, distributor, materialman, or vendor having a direct contract with Contractor or with any Subcontractor to furnish materials or equipment to be incorporated in the Work by Contractor or any Subcontractor.
50. *Underground Facilities* – All underground pipelines, conduits, ducts, cables, wires, manholes, vaults, tanks, tunnels, or other such facilities or attachments, and any encasements containing such facilities, including those that convey electricity, gases, steam, liquid petroleum products, telephone or other communications, cable television, water, wastewater, storm water, other liquids or chemicals, or traffic or other control systems.
51. *Unit Price Work* – Work to be paid for on the basis of unit prices.
52. *Work* – The entire construction or the various separately identifiable parts thereof required to be provided under the Contract Documents. Work includes and is the result of performing or providing all labor, services, and documentation necessary to produce such construction, and furnishing, installing, and incorporating all materials and equipment into such construction, all as required by the Contract Documents.
53. *Work Change Directive* – A written statement to Contractor issued on or after the Effective Date of the Agreement and signed by Owner and Agency upon recommendation of the Engineer ordering an addition, deletion, or revision in the Work, or responding to differing or unforeseen subsurface or physical conditions under which the Work is to be performed or to emergencies. A Work Change Directive will not change the Contract Price or the Contract Times but is evidence that the parties expect that the change ordered or documented by a Work Change Directive will be incorporated in a subsequently issued Change Order following negotiations by the parties as to its effect, if any, on the Contract Price or Contract Times.

1.02 *Terminology*

- A. The following words or terms are not defined but, when used in the Bidding Requirements or Contract Documents, have the following meaning.
- B. *Intent of Certain Terms or Adjectives*
 1. The Contract Documents include the terms “as allowed,” “as approved,” “as ordered,” “as directed” or terms of like effect or import to authorize an exercise of professional judgment by Engineer. In addition, the adjectives “reasonable,” “suitable,” “acceptable,” “proper,” “satisfactory,” or adjectives of like effect or import are used to describe an action or determination of Engineer as to the Work. It is intended that such exercise of professional judgment, action or determination will be solely to evaluate, in general, the Work for compliance with the requirements of and information in the Contract Documents and conformance with the design concept of the completed Project as a functioning whole as shown or indicated in the Contract Documents (unless there is a specific statement indicating otherwise). The use of any such term or adjective is not intended to and shall not be effective to assign to Engineer any duty or authority to supervise or direct the performance of the Work or any duty or authority to undertake responsibility contrary to the provisions of Paragraph 9.09 or any other provision of the Contract Documents.
- C. *Day*
 1. The word “day” means a calendar day of 24 hours measured from midnight to the next midnight.

D. *Defective*

1. The word “defective,” when modifying the word “Work,” refers to Work that is unsatisfactory, faulty, or deficient in that it:
 - a. does not conform to the Contract Documents, or
 - b. does not meet the requirements of any applicable inspection, reference standard, test, or approval referred to in the Contract Documents, or
 - c. has been damaged prior to Engineer’s recommendation of final payment (unless responsibility for the protection thereof has been assumed by Owner at Substantial Completion in accordance with Paragraph 14.04 or 14.05).

E. *Furnish, Install, Perform, Provide*

1. The word “furnish,” when used in connection with services, materials, or equipment, shall mean to supply and deliver said services, materials, or equipment to the Site (or some other specified location) ready for use or installation and in usable or operable condition.
2. The word “install,” when used in connection with services, materials, or equipment, shall mean to put into use or place in final position said services, materials, or equipment complete and ready for intended use.
3. The words “perform” or “provide,” when used in connection with services, materials, or equipment, shall mean to furnish and install said services, materials, or equipment complete and ready for intended use.
4. When “furnish,” “install,” “perform,” or “provide” is not used in connection with services, materials, or equipment in a context clearly requiring an obligation of Contractor, “provide” is implied.

- F. Unless stated otherwise in the Contract Documents, words or phrases which have a well-known technical or construction industry or trade meaning are used in the Contract Documents in accordance with such recognized meaning.

ARTICLE 2 – PRELIMINARY MATTERS

2.01 *Delivery of Bonds and Evidence of Insurance*

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

2.02 *Copies of Documents*

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

2.03 *Commencement of Contract Times; Notice to Proceed*

- A. The Contract Times will commence to run on the thirtieth day after the Effective Date of the Agreement or, if a Notice to Proceed is given, on the day indicated in the Notice to Proceed. A Notice to Proceed may be given at any time within 30 days after the Effective Date of the Agreement.

2.04 *Starting the Work*

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

2.05 *Before Starting Construction*

- A. *Preliminary Schedules:* Within 10 days after the Effective Date of the Agreement (unless otherwise specified in the General Requirements), Contractor shall submit to Engineer for timely review:
1. a preliminary Progress Schedule;
 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.

2.06 *Preconstruction Conference*

- A. Before any Work at the Site is started, a conference attended by Owner, Contractor, Engineer, Agency, and others as appropriate will be held to establish a working understanding among the parties as to the Work and to discuss the schedules referred to in Paragraph 2.05.A, procedures for handling Shop Drawings and other submittals, processing Applications for Payment, and maintaining required records.

2.07 *Initial 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 for acceptability to Engineer as provided below the schedules submitted in accordance with Paragraph 2.05.A. Contractor shall have an additional 10 days to make corrections and adjustments and to complete and resubmit the schedules. No progress payment shall 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 component parts of the Work.

ARTICLE 3 – CONTRACT DOCUMENTS: INTENT, AMENDING, REUSE

3.01 *Intent*

- A. The Contract Documents are complementary; what is required by one is as binding as if required by all.
- B. It is the intent of the Contract Documents to describe a functionally complete Project (or part thereof) to be constructed in accordance with the Contract Documents. Any labor, documentation, services, materials, or equipment that may reasonably be inferred from the Contract Documents or from prevailing custom or trade usage

as being required to produce the intended result will be provided whether or not specifically called for at no additional cost to Owner.

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

3.02 *Reference Standards*

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

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

3.03 *Reporting and Resolving Discrepancies*

A. *Reporting Discrepancies*

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

B. *Resolving Discrepancies*

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

3.04 *Amending and Supplementing Contract Documents*

- A. The Contract Documents may be amended to provide for additions, deletions, and revisions in the Work or to modify the terms and conditions thereof by either a Change Order or a Work Change Directive.
- B. The requirements of the Contract Documents may be supplemented, and minor variations and deviations in the Work may be authorized, by one or more of the following ways:
 - 1. A Field Order;
 - 2. Engineer's approval of a Shop Drawing or Sample; (Subject to the provisions of Paragraph 6.17.D.3) or
 - 3. Engineer's written interpretation or clarification.

3.05 *Reuse of Documents*

- A. Contractor and any Subcontractor or Supplier shall not:
 - 1. have or acquire any title to or ownership rights in any of the Drawings, Specifications, or other documents (or copies of any thereof) prepared by or bearing the seal of Engineer or Engineer's consultants, including electronic media editions; or
 - 2. reuse any of 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 adaption by Engineer.
- B. The prohibition of this Paragraph 3.05 will survive final payment, or termination of the Contract. Nothing herein shall preclude Contractor from retaining copies of the Contract Documents for record purposes.

3.06 *Electronic Data*

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

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

4.01 *Availability of Lands*

- A. Owner shall furnish the Site. Owner shall notify Contractor of any encumbrances or restrictions not of general application but specifically related to use of the Site with which Contractor must comply in performing the Work. Owner will obtain in a timely manner and pay for easements for permanent structures or permanent changes in existing facilities. If Contractor and Owner are unable to agree on entitlement to or on the amount or extent, if any,

of any adjustment in the Contract Price or Contract Times, or both, as a result of any delay in Owner's furnishing the Site or a part thereof, Contractor may make a Claim therefor as provided in Paragraph 10.05.

- B. Upon reasonable written request, Owner shall furnish Contractor with a current statement of record legal title and legal description of the lands upon which the Work is to be performed and Owner's interest therein as necessary for giving notice of or filing a mechanic's or construction lien against such lands in accordance with applicable Laws and Regulations.
- C. Contractor shall provide for all additional lands and access thereto that may be required for temporary construction facilities or storage of materials and equipment.

4.02 *Subsurface and Physical Conditions*

A. *Reports and Drawings:* The Supplementary Conditions identify:

- 1. those reports of explorations and tests of subsurface conditions at or contiguous to the Site that Engineer has used in preparing the Contract Documents; and
- 2. those drawings of physical conditions in or relating to existing surface or subsurface structures at or contiguous to the Site (except Underground Facilities) that Engineer has used in preparing the Contract Documents.

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

- 1. the completeness of such reports and drawings for Contractor's purposes, including, but not limited to, any aspects of the means, methods, techniques, sequences, and procedures of construction to be employed by Contractor, and safety precautions and programs incident thereto; or
- 2. other data, interpretations, opinions, and information contained in such reports or shown or indicated in such drawings; or
- 3. any Contractor interpretation of or conclusion drawn from any "technical data" or any such other data, interpretations, opinions, or information.

4.03 *Differing Subsurface or Physical Conditions*

A. *Notice:* If Contractor believes that any subsurface or physical condition at or contiguous to the Site that is uncovered or revealed either:

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

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

such condition or perform any Work in connection therewith (except as aforesaid) until receipt of written order to do so.

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

C. *Possible Price and Times Adjustments*

1. The Contract Price or the Contract Times, or both, will be equitably adjusted to the extent that the existence of such differing subsurface or physical condition causes an increase or decrease in Contractor's cost of, or time required for, performance of the Work; subject, however, to the following:
 - a. such condition must meet any one or more of the categories described in Paragraph 4.03.A; and
 - b. with respect to Work that is paid for on a Unit Price Basis, any adjustment in Contract Price will be subject to the provisions of Paragraphs 9.07 and 11.03.
2. Contractor shall not be entitled to any adjustment in the Contract Price or Contract Times if:
 - a. Contractor knew of the existence of such conditions at the time Contractor made a final commitment to Owner with respect to Contract Price and Contract Times by the submission of a Bid or becoming bound under a negotiated contract; or
 - b. the existence of such condition could reasonably have been discovered or revealed as a result of any examination, investigation, exploration, test, or study of the Site and contiguous areas required by the Bidding Requirements or Contract Documents to be conducted by or for Contractor prior to Contractor's making such final commitment; or
 - c. Contractor failed to give the written notice as required by Paragraph 4.03.A.
3. If Owner and Contractor are unable to agree on entitlement to or on the amount or extent, if any, of any adjustment in the Contract Price or Contract Times, or both, a Claim may be made therefor as provided in Paragraph 10.05. However, Owner and Engineer, and any of their Related Entities shall not be liable to Contractor for any claims, costs, losses, or damages (including but not limited to all fees and charges of engineers, architects, attorneys, and other professionals and all court or arbitration or other dispute resolution costs) sustained by Contractor on or in connection with any other project or anticipated project.

4.04 *Underground Facilities*

- A. *Shown or Indicated:* The information and data shown or indicated in the Contract Documents with respect to existing Underground Facilities at or contiguous to the Site is based on information and data furnished to Owner or Engineer by the owners of such Underground Facilities, including Owner, or by others. Unless it is otherwise expressly provided in the Supplementary Conditions:
1. Owner and Engineer shall not be responsible for the accuracy or completeness of any such information or data; and
 2. the cost of all of the following will be included in the Contract Price, and Contractor shall have full responsibility for:
 - a. reviewing and checking all such information and data,
 - b. locating all Underground Facilities shown or indicated in the Contract Documents,

- c. coordination of the Work with the owners of such Underground Facilities, including Owner, during construction, and
- d. the safety and protection of all such Underground Facilities and repairing any damage thereto resulting from the Work.

B. *Not Shown or Indicated*

1. If an Underground Facility is uncovered or revealed at or contiguous to the Site which was not shown or indicated, or not shown or indicated with reasonable accuracy in the Contract Documents, Contractor shall, promptly after becoming aware thereof and before further disturbing conditions affected thereby or performing any Work in connection therewith (except in an emergency as required by Paragraph 6.16.A), identify the owner of such Underground Facility and give written notice to that owner and to Owner and Engineer. Engineer will promptly review the Underground Facility and determine the extent, if any, to which a change is required in the Contract Documents to reflect and document the consequences of the existence or location of the Underground Facility. During such time, Contractor shall be responsible for the safety and protection of such Underground Facility.
2. If Engineer concludes that a change in the Contract Documents is required, a Work Change Directive or a Change Order will be issued to reflect and document such consequences. An equitable adjustment shall be made in the Contract Price or Contract Times, or both, to the extent that they are attributable to the existence or location of any Underground Facility that was not shown or indicated or not shown or indicated with reasonable accuracy in the Contract Documents and that Contractor did not know of and could not reasonably have been expected to be aware of or to have anticipated. If Owner and Contractor are unable to agree on entitlement to or on the amount or extent, if any, of any such adjustment in Contract Price or Contract Times, Owner or Contractor may make a Claim therefor as provided in Paragraph 10.05.

4.05 *Reference Points*

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

4.06 *Hazardous Environmental Condition at Site*

- A. *Reports and Drawings:* Reference is made to the Supplementary Conditions for the identification of those reports and drawings relating to a Hazardous Environmental Condition identified at the Site, if any, that have been utilized by the Engineer in the preparation of the Contract Documents.
- B. *Limited Reliance by Contractor on Technical Data Authorized:* Contractor may rely upon the general accuracy of the "technical data" contained in such reports and drawings, but such reports and drawings are not Contract Documents. Such "technical data" is identified in the Supplementary Conditions. Except for such reliance on such "technical data," Contractor may not rely upon or make any claim against Owner or Engineer, or any of their Related Entities with respect to:
1. the completeness of such reports and drawings for Contractor's purposes, including, but not limited to, any aspects of the means, methods, techniques, sequences and procedures of construction to be employed by Contractor and safety precautions and programs incident thereto; or
 2. other data, interpretations, opinions and information contained in such reports or shown or indicated in such drawings; or

ARTICLE 5 – BONDS AND INSURANCE

5.01 *Performance, Payment, and Other Bonds*

- A. Contractor shall furnish performance and payment bonds, each in an amount at least equal to the Contract Price as security for the faithful performance and payment of all of Contractor's obligations under the Contract Documents. These bonds shall remain in effect until one year after the date when final payment becomes due or until completion of the correction period specified in Paragraph 13.07, whichever is later, except as provided otherwise by Laws or Regulations or by the Contract Documents. Contractor shall also furnish such other bonds as are required by the Contract Documents.
- B. All bonds shall be in the form prescribed by the Contract Documents except as provided otherwise by Laws or Regulations, and shall be executed by such sureties as are named in the current list of "Companies Holding Certificates of Authority as Acceptable Sureties on Federal Bonds and as Acceptable Reinsuring Companies" as published in Circular 570 (amended) by the Financial Management Service, Surety Bond Branch, U.S. Department of the Treasury. All bonds signed by an agent must be accompanied by a certified copy of the agent's authority to act.
- C. If the surety on any bond furnished by Contractor is declared bankrupt or becomes insolvent or its right to do business is terminated in any state where any part of the Project is located or it ceases to meet the requirements of Paragraph 5.01.B, Contractor shall promptly notify Owner and Engineer and shall, within 20 days after the event giving rise to such notification, provide another bond and surety, both of which shall comply with the requirements of Paragraphs 5.01.B and 5.02.

5.02 *Licensed Sureties and Insurers*

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

5.03 *Certificates of Insurance*

- A. Contractor shall deliver to Owner, with copies to each additional insured identified in the Supplementary Conditions, certificates of insurance (and other evidence of insurance requested by Owner or any other additional insured) which Contractor is required to purchase and maintain.
- B. Owner shall deliver to Contractor, with copies to each additional insured identified in the Supplementary Conditions, certificates of insurance (and other evidence of insurance requested by Contractor or any other additional insured) which Owner is required to purchase and maintain.

5.04 *Contractor's Liability Insurance*

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

3. claims for damages because of bodily injury, sickness or disease, or death of any person other than Contractor's employees;
4. claims for damages insured by reasonably available personal injury liability coverage which are sustained:
 - a. by any person as a result of an offense directly or indirectly related to the employment of such person by Contractor, or
 - b. by any other person for any other reason;
5. claims for damages, other than to the Work itself, because of injury to or destruction of tangible property wherever located, including loss of use resulting therefrom; and
6. claims for damages because of bodily injury or death of any person or property damage arising out of the ownership, maintenance or use of any motor vehicle.

B. The policies of insurance required by this Paragraph 5.04 shall:

1. with respect to insurance required by Paragraphs 5.04.A.3 through 5.04.A.6 inclusive, include as additional insureds (subject to any customary exclusion regarding professional liability) Owner and Engineer, and any other individuals or entities identified in the Supplementary Conditions, all of whom shall be listed as additional insureds, and include coverage for the respective officers, directors, partners, employees, agents, consultants and subcontractors of each and any of all such additional insureds, and the insurance afforded to these additional insureds shall provide primary coverage for all claims covered thereby;
2. include at least the specific coverages and be written for not less than the limits of liability provided in the Supplementary Conditions or required by Laws or Regulations, whichever is greater;
3. include completed operations insurance;
4. include contractual liability insurance covering Contractor's indemnity obligations under Paragraphs 6.11 and 6.20;
5. contain a provision or endorsement that the coverage afforded will not be canceled, materially changed or renewal refused until at least 30 days prior written notice has been given to Owner and Contractor and to each other additional insured identified in the Supplementary Conditions to whom a certificate of insurance has been issued (and the certificates of insurance furnished by the Contractor pursuant to Paragraph 5.03 will so provide);
6. remain in effect at least until final payment and at all times thereafter when Contractor may be correcting, removing, or replacing defective Work in accordance with Paragraph 13.07; and
7. with respect to completed operations insurance, and any insurance coverage written on a claims-made basis, remain in effect for at least two years after final payment.
 - a. Contractor shall furnish Owner and each other additional insured identified in the Supplementary Conditions, to whom a certificate of insurance has been issued, evidence satisfactory to Owner and any such additional insured of continuation of such insurance at final payment and one year thereafter.

5.05 *Owner's Liability Insurance*

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

5.06 *Property Insurance*

- A. Unless otherwise provided in the Supplementary Conditions, Contractor shall purchase and maintain property insurance upon the Work at the Site in the amount of the full replacement cost thereof (Contractor shall be responsible for any deductible or self-insured retention.). This insurance shall:
1. include the interests of Owner, Contractor, Subcontractors, and Engineer, and any other individuals or entities identified in the Supplementary Conditions, and the officers, directors, partners, employees, agents, consultants and subcontractors of any of them, each of whom is deemed to have an insurable interest and shall be listed as an insured or additional insured;
 2. be written on a Builder's Risk "all-risk" or open peril or special causes of loss policy form that shall at least include insurance for physical loss or damage to the Work, temporary buildings, falsework, and materials and equipment in transit, and shall insure against at least the following perils or causes of loss: fire, lightning, extended coverage, theft, vandalism and malicious mischief, earthquake, collapse, debris removal, demolition occasioned by enforcement of Laws and Regulations, water damage (other than caused by flood), and such other perils or causes of loss as may be specifically required by the Supplementary Conditions;
 3. include expenses incurred in the repair or replacement of any insured property (including but not limited to fees and charges of engineers and architects);
 4. cover materials and equipment stored at the Site or at another location that was agreed to in writing by Owner prior to being incorporated in the Work, provided that such materials and equipment have been included in an Application for Payment recommended by Engineer;
 5. allow for partial utilization of the Work by Owner;
 6. include testing and startup; and
 7. be maintained in effect until final payment is made unless otherwise agreed to in writing by Owner, Contractor, and Engineer with 30 days written notice to each other additional insured to whom a certificate of insurance has been issued.
- B. Contractor shall purchase and maintain such boiler and machinery insurance or additional property insurance as may be required by the Supplementary Conditions or Laws and Regulations which will include the interests of Owner, Contractor, Subcontractors, and Engineer, and any other individuals or entities identified in the Supplementary Conditions, and the officers, directors, partners, employees, agents, consultants and subcontractors of each and any of them, each of whom is deemed to have an insurable interest and shall be listed as an insured or additional insured.
- C. All the policies of insurance (and the certificates or other evidence thereof) required to be purchased and maintained in accordance with Paragraph 5.06 will contain a provision or endorsement that the coverage afforded will not be canceled or materially changed or renewal refused until at least 30 days prior written notice has been given to Owner and Contractor and to each other additional insured to whom a certificate of insurance has been issued and will contain waiver provisions in accordance with Paragraph 5.07.
- D. Owner shall not be responsible for purchasing and maintaining any property insurance specified in this Paragraph 5.06 to protect the interests of Contractor, Subcontractors, or others in the Work to the extent of any deductible amounts that are identified in the Supplementary Conditions. The risk of loss within such identified deductible amount will be borne by Contractor, Subcontractors, or others suffering any such loss, and if any of them wishes property insurance coverage within the limits of such amounts, each may purchase and maintain it at the purchaser's own expense.

5.07 *Waiver of Rights*

- A. Owner and Contractor intend that all policies purchased in accordance with Paragraph 5.06 will protect Owner, Contractor, Subcontractors, and Engineer, and all other individuals or entities identified in the Supplementary Conditions to be listed as insureds or additional insureds (and the officers, directors, partners, employees, agents, consultants and subcontractors of each and any of them) in such policies and will provide primary coverage for all losses and damages caused by the perils or causes of loss covered thereby. All such policies shall contain provisions to the effect that in the event of payment of any loss or damage the insurers will have no rights of recovery against any of the insureds or additional insureds thereunder. Owner and Contractor waive all rights against each other and their respective officers, directors, partners, employees, agents, consultants and subcontractors of each and any of them for all losses and damages caused by, arising out of or resulting from any of the perils or causes of loss covered by such policies and any other property insurance applicable to the Work; and, in addition, waive all such rights against Subcontractors, and Engineer, and all other individuals or entities identified in the Supplementary Conditions to be listed as insured or additional insured (and the officers, directors, partners, employees, agents, consultants and subcontractors of each and any of them) under such policies for losses and damages so caused. None of the above waivers shall extend to the rights that any party making such waiver may have to the proceeds of insurance held by Contractor as trustee or otherwise payable under any policy so issued.
- B. Owner waives all rights against Contractor, Subcontractors, and Engineer, and the officers, directors, partners, employees, agents, consultants and subcontractors of each and any of them for:
 - 1. loss due to business interruption, loss of use, or other consequential loss extending beyond direct physical loss or damage to Owner's property or the Work caused by, arising out of, or resulting from fire or other perils whether or not insured by Owner; and
 - 2. loss or damage to the completed Project or part thereof caused by, arising out of, or resulting from fire or other insured peril or cause of loss covered by any property insurance maintained on the completed Project or part thereof by Owner during partial utilization pursuant to Paragraph 14.05, after Substantial Completion pursuant to Paragraph 14.04, or after final payment pursuant to Paragraph 14.07.
- C. Any insurance policy maintained by Owner covering any loss, damage or consequential loss referred to in Paragraph 5.07.B shall contain provisions to the effect that in the event of payment of any such loss, damage, or consequential loss, the insurers will have no rights of recovery against Contractor, Subcontractors, or Engineer, and the officers, directors, partners, employees, agents, consultants and subcontractors of each and any of them.

5.08 *Receipt and Application of Insurance Proceeds*

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

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

- A. If either Owner or Contractor has any objection to the coverage afforded by or other provisions of the bonds or insurance required to be purchased and maintained by the other party in accordance with Article 5 on the basis of

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

5.10 *Partial Utilization, Acknowledgment of Property Insurer*

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

ARTICLE 6 – CONTRACTOR'S RESPONSIBILITIES

6.01 *Supervision and Superintendence*

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

6.02 *Labor; Working Hours*

- A. Contractor shall provide competent, suitably qualified personnel to survey and lay out the Work and perform construction as required by the Contract Documents. Contractor shall at all times maintain good discipline and order at the Site.
- B. Except as otherwise required for the safety or protection of persons or the Work or property at the Site or adjacent thereto, and except as otherwise stated in the Contract Documents, all Work at the Site shall be performed during regular working hours. Contractor will not permit the performance of Work on a Saturday, Sunday, or any legal holiday without Owner's written consent (which will not be unreasonably withheld) given after prior written notice to Engineer.

6.03 *Services, Materials, and Equipment*

- A. Unless otherwise specified in the Contract Documents, Contractor shall provide and assume full responsibility for all services, materials, equipment, labor, transportation, construction equipment and machinery, tools, appliances, fuel, power, light, heat, telephone, water, sanitary facilities, temporary facilities, and all other facilities and incidentals necessary for the performance, testing, start-up, and completion of the Work.

- B. All materials and equipment incorporated into the Work shall be as specified or, if not specified, shall be of good quality and new, except as otherwise provided in the Contract Documents. All special warranties and guarantees required by the Specifications shall expressly run to the benefit of Owner. If required by Engineer, Contractor shall furnish satisfactory evidence (including reports of required tests) as to the source, kind, and quality of materials and equipment.
- C. All materials and equipment shall be stored, applied, installed, connected, erected, protected, used, cleaned, and conditioned in accordance with instructions of the applicable Supplier, except as otherwise may be provided in the Contract Documents.

6.04 *Progress Schedule*

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

6.05 *Substitutes and "Or-Equals"*

- A. Whenever an item of material or equipment is specified or described in the Contract Documents by using the name of a proprietary item or the name of a particular Supplier, the specification or description is intended to establish the type, function, appearance, and quality required. Unless the specification or description contains or is followed by words reading that no like, equivalent, or "or-equal" item or no substitution is permitted, other items of material or equipment or material or equipment of other Suppliers may be submitted to Engineer for review under the circumstances described below.
 - 1. *"Or-Equal" Items:* If in Engineer's sole discretion an item of material or equipment proposed by Contractor is functionally equal to that named and sufficiently similar so that no change in related Work will be required, it may be considered by Engineer as an "or-equal" item, in which case review and approval of the proposed item may, in Engineer's sole discretion, be accomplished without compliance with some or all of the requirements for approval of proposed substitute items. For the purposes of this Paragraph 6.05.A.1, a proposed item of material or equipment will be considered functionally equal to an item so named if:
 - a. in the exercise of reasonable judgment Engineer determines that:
 - 1) it is at least equal in materials of construction, quality, durability, appearance, strength, and design characteristics;
 - 2) it will reliably perform at least equally well the function and achieve the results imposed by the design concept of the completed Project as a functioning whole;
 - 3) it has a proven record of performance and availability of responsive service; and
 - b. Contractor certifies that, if approved and incorporated into the Work:
 - 1) there will be no increase in cost to the Owner or increase in Contract Times, and
 - 2) it will conform substantially to the detailed requirements of the item named in the Contract Documents.

2. Substitute Items

- a. If in Engineer's sole discretion an item of material or equipment proposed by Contractor does not qualify as an "or-equal" item under Paragraph 6.05.A.1, it will be considered a proposed substitute item.
 - b. Contractor shall submit sufficient information as provided below to allow Engineer to determine that the item of material or equipment proposed is essentially equivalent to that named and an acceptable substitute therefor. Requests for review of proposed substitute items of material or equipment will not be accepted by Engineer from anyone other than Contractor.
 - c. The procedure requirements for review by Engineer will be as set forth in Paragraph 6.05.A.2.d, as supplemented in the General Requirements and as Engineer may decide is appropriate under the circumstances.
 - d. Contractor shall make written application to Engineer for review of a proposed substitute item of material or equipment that Contractor seeks to furnish or use. The application:
 - 1) shall certify that the proposed substitute item will:
 - a) will perform adequately the functions and achieve the results called for by the general design,
 - b) be similar in substance to that specified, and
 - c) be suited to the same use as that specified;
 - 2) will state:
 - a) the extent, if any, to which the use of the proposed substitute item will prejudice Contractor's achievement of Substantial Completion on time;
 - b) whether or not use of the proposed substitute item in the Work will require a change in any of the Contract Documents (or in the provisions of any other direct contract with Owner for other work on the Project) to adapt the design to the proposed substitute item; and
 - c) whether or not incorporation or use of the proposed substitute item in connection with the Work is subject to payment of any license fee or royalty;
 - 3) will identify:
 - a) all variations of the proposed substitute item from that specified, and
 - b) available engineering, sales, maintenance, repair, and replacement services;
 - 4) and shall contain an itemized estimate of all costs or credits that will result directly or indirectly from use of such substitute item, including costs of redesign and claims of other contractors affected by any resulting change.
- B. *Substitute Construction Methods or Procedures:* If a specific means, method, technique, sequence, or procedure of construction is expressly required by the Contract Documents, Contractor may furnish or utilize a substitute means, method, technique, sequence, or procedure of construction approved by Engineer. Contractor shall submit sufficient information to allow Engineer, in Engineer's sole discretion, to determine that the substitute proposed is equivalent to that expressly called for by the Contract Documents. The requirements for review by Engineer will be similar to those provided in Paragraph 6.05.A.2.

- C. *Engineer's Evaluation:* Engineer will be allowed a reasonable time within which to evaluate each proposal or submittal made pursuant to Paragraphs 6.05.A and 6.05.B. Engineer may require Contractor to furnish additional data about the proposed substitute item. Engineer will be the sole judge of acceptability. No "or equal" or substitute will be ordered, installed or utilized until Engineer's review is complete, which will be evidenced by either a Change Order for a substitute or an approved Shop Drawing for an "or equal." Engineer will advise Contractor in writing of any negative determination.
- D. *Special Guarantee:* Owner may require Contractor to furnish at Contractor's expense a special performance guarantee or other surety with respect to any substitute.
- E. *Engineer's Cost Reimbursement:* Engineer will record Engineer's costs in evaluating a substitute proposed or submitted by Contractor pursuant to Paragraphs 6.05.A.2 and 6.05.B. Whether or not Engineer approves a substitute item so proposed or submitted by Contractor, Contractor shall reimburse Owner for the charges of Engineer for evaluating each such proposed substitute. Contractor shall also reimburse Owner for the charges of Engineer for making changes in the Contract Documents (or in the provisions of any other direct contract with Owner) resulting from the acceptance of each proposed substitute.
- F. *Contractor's Expense:* Contractor shall provide all data in support of any proposed substitute or "or-equal" at Contractor's expense.

6.06 *Concerning Subcontractors, Suppliers, and Others*

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

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

6.07 *Patent Fees and Royalties*

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

6.08 *Permits*

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

6.09 *Laws and Regulations*

- A. Contractor shall give all notices required by and shall comply with all Laws and Regulations applicable to the performance of the Work. Except where otherwise expressly required by applicable Laws and Regulations, neither Owner nor Engineer shall be responsible for monitoring Contractor's compliance with any Laws or Regulations.
- B. If Contractor performs any Work knowing or having reason to know that it is contrary to Laws or Regulations, Contractor shall bear all claims, costs, losses, and damages (including but not limited to all fees and charges of engineers, architects, attorneys, and other professionals and all court or arbitration or other dispute resolution costs) arising out of or relating to such Work. However, it shall not be Contractor's primary responsibility to make certain

that the Specifications and Drawings are in accordance with Laws and Regulations, but this shall not relieve Contractor of Contractor's obligations under Paragraph 3.03.

- C. Changes in Laws or Regulations not known at the time of opening of Bids (or, on the Effective Date of the Agreement if there were no Bids) having an effect on the cost or time of performance of the Work shall be the subject of an adjustment in Contract Price or Contract Times. If Owner and Contractor are unable to agree on entitlement to or on the amount or extent, if any, of any such adjustment, a Claim may be made therefor as provided in Paragraph 10.05.

6.10 *Taxes*

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

6.11 *Use of Site and Other Areas*

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

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

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

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

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

6.12 *Record Documents*

- A. Contractor shall maintain in a safe place at the Site one record copy of all Drawings, Specifications, Addenda, Change Orders, Work Change Directives, Field Orders, and written interpretations and clarifications in good order and annotated to show changes made during construction. These record documents together with all approved

Samples and a counterpart of all approved Shop Drawings will be available to Engineer for reference. Upon completion of the Work, these record documents, Samples, and Shop Drawings will be delivered to Engineer for Owner.

6.13 *Safety and Protection*

- A. Contractor shall be solely responsible for initiating, maintaining and supervising all safety precautions and programs in connection with the Work. Contractor shall take all necessary precautions for the safety of, and shall provide the necessary protection to prevent damage, injury or loss to:
 - 1. all persons on the Site or who may be affected by the Work;
 - 2. all the Work and materials and equipment to be incorporated therein, whether in storage on or off the Site; and
 - 3. other property at the Site or adjacent thereto, including trees, shrubs, lawns, walks, pavements, roadways, structures, utilities, and Underground Facilities not designated for removal, relocation, or replacement in the course of construction.
- B. Contractor shall comply with all applicable Laws and Regulations relating to the safety of persons or property, or to the protection of persons or property from damage, injury, or loss; and shall erect and maintain all necessary safeguards for such safety and protection. Contractor shall notify owners of adjacent property and of Underground Facilities and other utility owners when prosecution of the Work may affect them, and shall cooperate with them in the protection, removal, relocation, and replacement of their property.
- C. All damage, injury, or loss to any property referred to in Paragraph 6.13.A.2 or 6.13.A.3 caused, directly or indirectly, in whole or in part, by Contractor, any Subcontractor, Supplier, or any other individual or entity directly or indirectly employed by any of them to perform any of the Work, or anyone for whose acts any of them may be liable, shall be remedied by Contractor (except damage or loss attributable to the fault of Drawings or Specifications or to the acts or omissions of Owner or Engineer or , 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).
- D. Contractor's duties and responsibilities for safety and for protection of the Work shall continue until such time as all the Work is completed and Engineer has issued a notice to Owner and Contractor in accordance with Paragraph 14.07.B that the Work is acceptable (except as otherwise expressly provided in connection with Substantial Completion).

6.14 *Safety Representative*

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

6.15 *Hazard Communication Programs*

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

6.16 *Emergencies*

- A. In emergencies affecting the safety or protection of persons or the Work or property at the Site or adjacent thereto, Contractor is obligated to act to prevent threatened damage, injury, or loss. Contractor shall give Engineer prompt written notice if Contractor believes that any significant changes in the Work or variations from the Contract

Documents have been caused thereby or are required as a result thereof. If Engineer determines that a change in the Contract Documents is required because of the action taken by Contractor in response to such an emergency, a Work Change Directive or Change Order will be issued.

6.17 *Shop Drawings and Samples*

- A. Contractor shall submit Shop Drawings and Samples to Engineer for review and approval in accordance with the acceptable Schedule of Submittals (as required by Paragraph 2.07). Each submittal will be identified as Engineer may require.
1. *Shop Drawings*
 - a. Submit number of copies specified in the General Requirements.
 - b. Data shown on the Shop Drawings will be complete with respect to quantities, dimensions, specified performance and design criteria, materials, and similar data to show Engineer the services, materials, and equipment Contractor proposes to provide and to enable Engineer to review the information for the limited purposes required by Paragraph 6.17.D.
 2. *Samples*
 - a. Submit number of Samples specified in the Specifications.
 - b. Clearly identify each Sample as to material, Supplier, pertinent data such as catalog numbers, the use for which intended and other data as Engineer may require to enable Engineer to review the submittal for the limited purposes required by Paragraph 6.17.D.
- B. Where a Shop Drawing or Sample is required by the Contract Documents or the Schedule of Submittals, any related Work performed prior to Engineer's review and approval of the pertinent submittal will be at the sole expense and responsibility of Contractor.
- C. *Submittal Procedures*
1. Before submitting each Shop Drawing or Sample, Contractor shall have determined and verified:
 - a. all field measurements, quantities, dimensions, specified performance and design criteria, installation requirements, materials, catalog numbers, and similar information with respect thereto;
 - b. the suitability of all materials with respect to intended use, fabrication, shipping, handling, storage, assembly, and installation pertaining to the performance of the Work;
 - c. all information relative to Contractor's responsibilities for means, methods, techniques, sequences, and procedures of construction, and safety precautions and programs incident thereto; and
 - d. shall also have reviewed and coordinated each Shop Drawing or Sample with other Shop Drawings and Samples and with the requirements of the Work and the Contract Documents.
 2. Each submittal shall bear a stamp or specific written certification that Contractor has satisfied Contractor's obligations under the Contract Documents with respect to Contractor's review and approval of that submittal.
 3. With each submittal, Contractor shall give Engineer specific written notice of any variations, that the Shop Drawing or Sample may have from the requirements of the Contract Documents. This notice shall be both a written communication separate from the Shop Drawings or Sample submittal; and, in addition, by a specific notation made on each Shop Drawing or Sample submitted to Engineer for review and approval of each such variation.

D. *Engineer's Review*

1. Engineer will provide timely review of Shop Drawings and Samples in accordance with the Schedule of Submittals acceptable to Engineer. Engineer's review and approval will be only to determine if the items covered by the submittals will, after installation or incorporation in the Work, conform to the information given in the Contract Documents and be compatible with the design concept of the completed Project as a functioning whole as indicated by the Contract Documents.
2. Engineer's review and approval will not extend to means, methods, techniques, sequences, or procedures of construction (except where a particular means, method, technique, sequence, or procedure of construction is specifically and expressly called for by the Contract Documents) or to safety precautions or programs incident thereto. The review and approval of a separate item as such will not indicate approval of the assembly in which the item functions.
3. Engineer's review and approval shall not relieve Contractor from responsibility for any variation from the requirements of the Contract Documents unless Contractor has complied with the requirements of Paragraph 6.17.C.3 and Engineer has given written approval of each such variation by specific written notation thereof incorporated in or accompanying the Shop Drawing or Sample. Engineer's review and approval shall not relieve Contractor from responsibility for complying with the requirements of Paragraph 6.17.C.1.

E. *Resubmittal Procedures*

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

6.18 *Continuing the Work*

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

6.19 *Contractor's General Warranty and Guarantee*

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

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

6.20 *Indemnification*

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

6.21 *Delegation of Professional Design Services*

- A. Contractor will not be required to provide professional design services unless such services are specifically required by the Contract Documents for a portion of the Work or unless such services are required to carry out Contractor's responsibilities for construction means, methods, techniques, sequences and procedures. Contractor shall not be required to provide professional services in violation of applicable law.
- B. If professional design services or certifications by a design professional related to systems, materials or equipment are specifically required of Contractor by the Contract Documents, Owner and Engineer will specify all performance and design criteria that such services must satisfy. Contractor shall cause such services or certifications to be provided by a properly licensed professional, whose signature and seal shall appear on all drawings, calculations, specifications, certifications, Shop Drawings and other submittals prepared by such professional. Shop Drawings and other submittals related to the Work designed or certified by such professional, if prepared by others, shall bear such professional's written approval when submitted to Engineer.

- C. Owner and Engineer shall be entitled to rely upon the adequacy, accuracy and completeness of the services, certifications or approvals performed by such design professionals, provided Owner and Engineer have specified to Contractor all performance and design criteria that such services must satisfy.
- D. Pursuant to this Paragraph 6.21, Engineer's review and approval of design calculations and design drawings will be only for the limited purpose of checking for conformance with performance and design criteria given and the design concept expressed in the Contract Documents. Engineer's review and approval of Shop Drawings and other submittals (except design calculations and design drawings) will be only for the purpose stated in Paragraph 6.17.D.1.
- E. Contractor shall not be responsible for the adequacy of the performance or design criteria required by the Contract Documents.

ARTICLE 7 – OTHER WORK AT THE SITE

7.01 *Related Work at Site*

- A. Owner may perform other work related to the Project at the Site with Owner's employees, or via other direct contracts therefor, or have other work performed by utility owners. If such other work is not noted in the Contract Documents, then:
 - 1. written notice thereof will be given to Contractor prior to starting any such other work; and
 - 2. if Owner and Contractor are unable to agree on entitlement to or on the amount or extent, if any, of any adjustment in the Contract Price or Contract Times that should be allowed as a result of such other work, a Claim may be made therefor as provided in Paragraph 10.05.
- B. Contractor shall afford each other contractor who is a party to such a direct contract, each utility owner and Owner, if Owner is performing other work with Owner's employees, proper and safe access to the Site, a reasonable opportunity for the introduction and storage of materials and equipment and the execution of such other work, and shall properly coordinate the Work with theirs. Contractor shall do all cutting, fitting, and patching of the Work that may be required to properly connect or otherwise make its several parts come together and properly integrate with such other work. Contractor shall not endanger any work of others by cutting, excavating, or otherwise altering their work and will only cut or alter their work with the written consent of Engineer and the others whose work will be affected. The duties and responsibilities of Contractor under this Paragraph are for the benefit of such utility owners and other contractors to the extent that there are comparable provisions for the benefit of Contractor in said direct contracts between Owner and such utility owners and other contractors.
- C. If the proper execution or results of any part of Contractor's Work depends upon work performed by others under this Article 7, Contractor shall inspect such other work and promptly report to Engineer in writing any delays, defects, or deficiencies in such other work that render it unavailable or unsuitable for the proper execution and results of Contractor's Work. Contractor's failure to so report will constitute an acceptance of such other work as fit and proper for integration with Contractor's Work except for latent defects and deficiencies in such other work.

7.02 *Coordination*

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

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

7.03 *Legal Relationships*

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

ARTICLE 8 – OWNER'S RESPONSIBILITIES

8.01 *Communications to Contractor*

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

8.02 *Replacement of Engineer*

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

8.03 *Furnish Data*

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

8.04 *Pay When Due*

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

8.05 *Lands and Easements; Reports and Tests*

- A. Owner's duties in respect of providing lands and easements and providing engineering surveys to establish reference points are set forth in Paragraphs 4.01 and 4.05. Paragraph 4.02 refers to Owner's identifying and making available to Contractor copies of reports of explorations and tests of subsurface conditions and drawings of physical conditions in or relating to existing surface or subsurface structures at or contiguous to the Site that have been utilized by Engineer in preparing the Contract Documents.

8.06 *Insurance*

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

8.07 *Change Orders*

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

8.08 *Inspections, Tests, and Approvals*

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

8.09 *Limitations on Owner's Responsibilities*

- A. The Owner shall not supervise, direct, or have control or authority over, nor be responsible for, Contractor's means, methods, techniques, sequences, or procedures of construction, or the safety precautions and programs incident thereto, or for any failure of Contractor to comply with Laws and Regulations applicable to the performance of the Work. Owner will not be responsible for Contractor's failure to perform the Work in accordance with the Contract Documents.

8.10 *Undisclosed Hazardous Environmental Condition*

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

8.11 *Evidence of Financial Arrangements*

- A. If and to the extent Owner has agreed to furnish Contractor reasonable evidence that financial arrangements have been made to satisfy Owner's obligations under the Contract Documents, Owner's responsibility in respect thereof will be as set forth in the Supplementary Conditions.

ARTICLE 9 – ENGINEER'S STATUS DURING CONSTRUCTION

9.01 *Owner's Representative*

- A. Engineer will be Owner's representative during the construction period. The duties and responsibilities and the limitations of authority of Engineer as Owner's representative during construction are set forth in the Contract Documents and will not be changed without written consent of Owner and Engineer.

9.02 *Visits to Site*

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

9.03 *Project Representative*

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

9.04 *Authorized Variations in Work*

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

9.05 *Rejecting Defective Work*

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

9.06 *Shop Drawings, Change Orders and Payments*

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

9.07 *Determinations for Unit Price Work*

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

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

- A. Engineer will be the initial interpreter of the requirements of the Contract Documents and judge of the acceptability of the Work thereunder. All matters in question and other matters between Owner and Contractor arising prior to the date final payment is due relating to the acceptability of the Work, and the interpretation of the requirements of the Contract Documents pertaining to the performance of the Work, will be referred initially to Engineer in writing within 30 days of the event giving rise to the question.
- B. Engineer will, with reasonable promptness, render a written decision on the issue referred. If Owner or Contractor believe that any such decision entitles them to an adjustment in the Contract Price or Contract Times or both, a Claim may be made under Paragraph 10.05. The date of Engineer's decision shall be the date of the event giving rise to the issues referenced for the purposes of Paragraph 10.05.B.
- C. Engineer's written decision on the issue referred will be final and binding on Owner and Contractor, subject to the provisions of Paragraph 10.05.

- D. When functioning as interpreter and judge under this Paragraph 9.08, Engineer will not show partiality to Owner or Contractor and will not be liable in connection with any interpretation or decision rendered in good faith in such capacity.

9.09 *Limitations on Engineer's Authority and Responsibilities*

- A. Neither Engineer's authority or responsibility under this Article 9 or under any other provision of the Contract Documents nor any decision made by Engineer in good faith either to exercise or not exercise such authority or responsibility or the undertaking, exercise, or performance of any authority or responsibility by Engineer shall create, impose, or give rise to any duty in contract, tort, or otherwise owed by Engineer to Contractor, any Subcontractor, any Supplier, any other individual or entity, or to any surety for or employee or agent of any of them.
- B. Engineer will not supervise, direct, control, or have authority over or be responsible for Contractor's means, methods, techniques, sequences, or procedures of construction, or the safety precautions and programs incident thereto, or for any failure of Contractor to comply with Laws and Regulations applicable to the performance of the Work. Engineer will not be responsible for Contractor's failure to perform the Work in accordance with the Contract Documents.
- C. Engineer will not be responsible for the acts or omissions of Contractor or of any Subcontractor, any Supplier, or of any other individual or entity performing any of the Work.
- D. Engineer's review of the final Application for Payment and accompanying documentation and all maintenance and operating instructions, schedules, guarantees, bonds, certificates of inspection, tests and approvals, and other documentation required to be delivered by Paragraph 14.07.A will only be to determine generally that their content complies with the requirements of, and in the case of certificates of inspections, tests, and approvals that the results certified indicate compliance with the Contract Documents.
- E. The limitations upon authority and responsibility set forth in this Paragraph 9.09 shall also apply to the Resident Project Representative, if any, and assistants, if any.

ARTICLE 10 – CHANGES IN THE WORK; CLAIMS

10.01 *Authorized Changes in the Work*

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

10.02 *Unauthorized Changes in the Work*

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

10.03 *Execution of Change Orders*

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

10.04 *Notification to Surety*

- A. If notice 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) is required by the provisions of any bond to be given to a surety, the giving of any such notice will be Contractor's responsibility. The amount of each applicable bond will be adjusted to reflect the effect of any such change.

10.05 *Claims*

- A. *Engineer's Decision Required:* All Claims, except those waived pursuant to Paragraph 14.09, shall be referred to the Engineer for decision. A decision by Engineer shall be required as a condition precedent to any exercise by Owner or Contractor of any rights or remedies either may otherwise have under the Contract Documents or by Laws and Regulations in respect of such Claims.
- B. *Notice:* Written notice stating the general nature of each Claim shall be delivered by the claimant to Engineer and the other party to the Contract promptly (but in no event later than 30 days) after the start of the event giving rise thereto. The responsibility to substantiate a Claim shall rest with the party making the Claim. Notice of the amount or extent of the Claim, with supporting data shall be delivered to the Engineer and the other party to the Contract within 60 days after the start of such event (unless Engineer allows additional time for claimant to submit additional or more accurate data in support of such Claim). A Claim for an adjustment in Contract Price shall be prepared in accordance with the provisions of Paragraph 12.01.B. A Claim for an adjustment in Contract Time shall be prepared in accordance with the provisions of Paragraph 12.02.B. Each Claim shall be accompanied by claimant's written statement that the adjustment claimed is the entire adjustment to which the claimant believes it is entitled as a result of said event. The opposing party shall submit any response to Engineer and the claimant within 30 days after receipt of the claimant's last submittal (unless Engineer allows additional time).
- C. *Engineer's Action:* Engineer will review each Claim and, within 30 days after receipt of the last submittal of the claimant or the last submittal of the opposing party, if any, take one of the following actions in writing:
1. deny the Claim in whole or in part,
 2. approve the Claim, or
 3. notify the parties that the Engineer is unable to resolve the Claim if, in the Engineer's sole discretion, it would be inappropriate for the Engineer to do so. For purposes of further resolution of the Claim, such notice shall be deemed a denial.
- D. In the event that Engineer does not take action on a Claim within said 30 days, the Claim shall be deemed denied.

- E. Engineer's written action under Paragraph 10.05.C or denial pursuant to Paragraphs 10.05.C.3 or 10.05.D will be final and binding upon Owner and Contractor, unless Owner or Contractor invoke the dispute resolution procedure set forth in Article 16 within 30 days of such action or denial.
- F. No Claim for an adjustment in Contract Price or Contract Times will be valid if not submitted in accordance with this Paragraph 10.05.

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

11.01 *Cost of the Work*

- A. *Costs Included:* The term Cost of the Work means the sum of all costs, except those excluded in Paragraph 11.01.B, necessarily incurred and paid by Contractor in the proper performance of the Work. When the value of any Work covered by a Change Order or when a Claim for an adjustment in Contract Price is determined on the basis of Cost of the Work, the costs to be reimbursed to Contractor will be only those additional or incremental costs required because of the change in the Work or because of the event giving rise to the Claim. Except as otherwise may be agreed to in writing by Owner, such costs shall be in amounts no higher than those prevailing in the locality of the Project, shall include only the following items, and shall not include any of the costs itemized in Paragraph 11.01.B.
 - 1. Payroll costs for employees in the direct employ of Contractor in the performance of the Work under schedules of job classifications agreed upon by Owner and Contractor. Such employees shall include, without limitation, superintendents, foremen, and other personnel employed full time at the Site. Payroll costs for employees not employed full time on the Work shall be apportioned on the basis of their time spent on the Work. Payroll costs shall include, but not be limited to, salaries and wages plus the cost of fringe benefits, which shall include social security contributions, unemployment, excise, and payroll taxes, workers' compensation, health and retirement benefits, bonuses, sick leave, vacation and holiday pay applicable thereto. The expenses of performing Work outside of regular working hours, on Saturday, Sunday, or legal holidays, shall be included in the above to the extent authorized by Owner.
 - 2. Cost of all materials and equipment furnished and incorporated in the Work, including costs of transportation and storage thereof, and Suppliers' field services required in connection therewith. All cash discounts shall accrue to Contractor unless Owner deposits funds with Contractor with which to make payments, in which case the cash discounts shall accrue to Owner. All trade discounts, rebates and refunds and returns from sale of surplus materials and equipment shall accrue to Owner, and Contractor shall make provisions so that they may be obtained.
 - 3. Payments made by Contractor to Subcontractors for Work performed by Subcontractors. If required by Owner, Contractor shall obtain competitive bids from subcontractors acceptable to Owner and Contractor and shall deliver such bids to Owner, who will then determine, with the advice of Engineer, which bids, if any, will be acceptable. If any subcontract provides that the Subcontractor is to be paid on the basis of Cost of the Work plus a fee, the Subcontractor's Cost of the Work and fee shall be determined in the same manner as Contractor's Cost of the Work and fee as provided in this Paragraph 11.01.
 - 4. Costs of special consultants (including but not limited to Engineers, architects, testing laboratories, surveyors, attorneys, and accountants) employed for services specifically related to the Work.
 - 5. Supplemental costs including the following:
 - a. The proportion of necessary transportation, travel, and subsistence expenses of Contractor's employees incurred in discharge of duties connected with the Work.
 - b. Cost, including transportation and maintenance, of all materials, supplies, equipment, machinery, appliances, office, and temporary facilities at the Site, and hand tools not owned by the workers, which are

consumed in the performance of the Work, and cost, less market value, of such items used but not consumed which remain the property of Contractor.

- c. Rentals of all construction equipment and machinery, and the parts thereof whether rented from Contractor or others in accordance with rental agreements approved by Owner with the advice of Engineer, and the costs of transportation, loading, unloading, assembly, dismantling, and removal thereof. All such costs shall be in accordance with the terms of said rental agreements. The rental of any such equipment, machinery, or parts shall cease when the use thereof is no longer necessary for the Work.
- d. Sales, consumer, use, and other similar taxes related to the Work, and for which Contractor is liable, imposed by Laws and Regulations.
- e. Deposits lost for causes other than negligence of Contractor, any Subcontractor, or anyone directly or indirectly employed by any of them or for whose acts any of them may be liable, and royalty payments and fees for permits and licenses.
- f. Losses and damages (and related expenses) caused by damage to the Work, not compensated by insurance or otherwise, sustained by Contractor in connection with the performance of the Work (except losses and damages within the deductible amounts of property insurance established in accordance with Paragraph 5.06.D), provided such losses and damages have resulted from causes other than the negligence of Contractor, any Subcontractor, or anyone directly or indirectly employed by any of them or for whose acts any of them may be liable. Such losses shall include settlements made with the written consent and approval of Owner. No such losses, damages, and expenses shall be included in the Cost of the Work for the purpose of determining Contractor's fee.
- g. The cost of utilities, fuel, and sanitary facilities at the Site.
- h. Minor expenses such as telegrams, long distance telephone calls, telephone service at the Site, expressages, and similar petty cash items in connection with the Work.
- i. The costs of premiums for all bonds and insurance Contractor is required by the Contract Documents to purchase and maintain.

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

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

- C. **Contractor's Fee:** When all the Work is performed on the basis of cost-plus, Contractor's fee shall be determined as set forth in the Agreement. When the value of any Work covered by a Change Order or when a Claim for an adjustment in Contract Price is determined on the basis of Cost of the Work, Contractor's fee shall be determined as set forth in Paragraph 12.01.C.
- D. **Documentation:** Whenever the Cost of the Work for any purpose is to be determined pursuant to Paragraphs 11.01.A and 11.01.B, Contractor will establish and maintain records thereof in accordance with generally accepted accounting practices and submit in a form acceptable to Engineer an itemized cost breakdown together with supporting data.

11.02 Allowances

- A. It is understood that Contractor has included in the Contract Price all allowances so named in the Contract Documents and shall cause the Work so covered to be performed for such sums and by such persons or entities as may be acceptable to Owner and Engineer.
- B. **Cash Allowances**
 - 1. Contractor agrees that:
 - a. the cash allowances include the cost to Contractor (less any applicable trade discounts) of materials and equipment required by the allowances to be delivered at the Site, and all applicable taxes; and
 - b. Contractor's costs for unloading and handling on the Site, labor, installation, overhead, profit, and other expenses contemplated for the cash allowances have been included in the Contract Price and not in the allowances, and no demand for additional payment on account of any of the foregoing will be valid.
- C. **Contingency Allowance**
 - 1. Contractor agrees that a contingency allowance, if any, is for the sole use of Owner to cover unanticipated costs.
- D. Prior to final payment, an appropriate Change Order will be issued as recommended by Engineer to reflect actual amounts due Contractor on account of Work covered by allowances, and the Contract Price shall be correspondingly adjusted.

11.03 Unit Price Work

- A. Where the Contract Documents provide that all or part of the Work is to be Unit Price Work, initially the Contract Price will be deemed to include for all Unit Price Work an amount equal to the sum of the unit price for each separately identified item of Unit Price Work times the estimated quantity of each item as indicated in the Agreement.
- B. The estimated quantities of items of Unit Price Work are not guaranteed and are solely for the purpose of comparison of Bids and determining an initial Contract Price. Determinations of the actual quantities and classifications of Unit Price Work performed by Contractor will be made by Engineer subject to the provisions of Paragraph 9.07.
- C. Each unit price will be deemed to include an amount considered by Contractor to be adequate to cover Contractor's overhead and profit for each separately identified item.

- D. Owner or Contractor may make a Claim for an adjustment in the Contract Price in accordance with Paragraph 10.05 if:
1. the Bid price of a particular item of Unit Price Work amounts to more than 5 percent of the Contract Price and the variation in the quantity of that particular item of Unit Price Work performed by Contractor differs by more than 25 percent from the estimated quantity of such item indicated in the Agreement; and
 2. there is no corresponding adjustment with respect to any other item of Work; and
 3. Contractor believes that Contractor is entitled to an increase in Contract Price as a result of having incurred additional expense or Owner believes that Owner is entitled to a decrease in Contract Price and the parties are unable to agree as to the amount of any such increase or decrease.

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

12.01 *Change of Contract Price*

- A. The Contract Price may only be changed by a Change Order. Any Claim for an adjustment in the Contract Price shall be based on written notice submitted by the party making the Claim to the Engineer and the other party to the Contract in accordance with the provisions of Paragraph 10.05.
- B. The value of any Work covered by a Change Order or of any Claim for an adjustment in the Contract Price will be determined as follows:
1. where the Work involved is covered by unit prices contained in the Contract Documents, by application of such unit prices to the quantities of the items involved (subject to the provisions of Paragraph 11.03); or
 2. where the Work involved is not covered by unit prices contained in the Contract Documents, by a mutually agreed lump sum (which may include an allowance for overhead and profit not necessarily in accordance with Paragraph 12.01.C.2); or
 3. where the Work involved is not covered by unit prices contained in the Contract Documents and agreement to a lump sum is not reached under Paragraph 12.01.B.2, on the basis of the Cost of the Work (determined as provided in Paragraph 11.01) plus a Contractor's fee for overhead and profit (determined as provided in Paragraph 12.01.C).
- C. Contractor's Fee: The Contractor's fee for overhead and profit shall be determined as follows:
1. a mutually acceptable fixed fee; or
 2. if a fixed fee is not agreed upon, then a fee based on the following percentages of the various portions of the Cost of the Work:
 - a. for costs incurred under Paragraphs 11.01.A.1 and 11.01.A.2, the Contractor's fee shall be 15 percent;
 - b. for costs incurred under Paragraph 11.01.A.3, the Contractor's fee shall be five percent;
 - c. where one or more tiers of subcontracts are on the basis of Cost of the Work plus a fee and no fixed fee is agreed upon, the intent of Paragraph 12.01.C.2.a is that the Subcontractor who actually performs the Work, at whatever tier, will be paid a fee of 15 percent of the costs incurred by such Subcontractor under Paragraphs 11.01.A.1 and 11.01.A.2 and that any higher tier Subcontractor and Contractor will each be paid a fee of five percent of the amount paid to the next lower tier Subcontractor;
 - d. no fee shall be payable on the basis of costs itemized under Paragraphs 11.01.A.4, 11.01.A.5, and 11.01.B;

- e. the amount of credit to be allowed by Contractor to Owner for any change which results in a net decrease in cost will be the amount of the actual net decrease in cost plus a deduction in Contractor's fee by an amount equal to five percent of such net decrease; and
- f. when both additions and credits are involved in any one change, the adjustment in Contractor's fee shall be computed on the basis of the net change in accordance with Paragraphs 12.01.C.2.a through 12.01.C.2.e, inclusive.

12.02 *Change of Contract Times*

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

12.03 *Delays*

- A. Where Contractor is prevented from completing any part of the Work within the Contract Times due to delay beyond the control of Contractor, the Contract Times will be extended in an amount equal to the time lost due to such delay if a Claim is made therefor as provided in Paragraph 12.02.A. Delays beyond the control of Contractor shall include, but not be limited to, acts or neglect by Owner, acts or neglect of utility owners or other contractors performing other work as contemplated by Article 7, fires, floods, epidemics, abnormal weather conditions, or acts of God.
- B. If Owner, Engineer, or other contractors or utility owners performing other work for Owner as contemplated by Article 7, or anyone for whom Owner is responsible, delays, disrupts, or interferes with the performance or progress of the Work, then Contractor shall be entitled to an equitable adjustment in the Contract Price or the Contract Times, or both. Contractor's entitlement to an adjustment of the Contract Times is conditioned on such adjustment being essential to Contractor's ability to complete the Work within the Contract Times.
- C. If Contractor is delayed in the performance or progress of the Work by fire, flood, epidemic, abnormal weather conditions, acts of God, acts or failures to act of utility owners not under the control of Owner, or other causes not the fault of and beyond control of Owner and Contractor, then Contractor shall be entitled to an equitable adjustment in Contract Times, if such adjustment is essential to Contractor's ability to complete the Work within the Contract Times. Such an adjustment shall be Contractor's sole and exclusive remedy for the delays described in this Paragraph 12.03.B.
 - 1. delays caused by or within the control of Contractor; or
- D. Owner, Engineer and the Related Entities of each of them shall not be liable to Contractor for any claims, costs, losses, or damages (including but not limited to all fees and charges of Engineers, architects, attorneys, and other professionals and all court or arbitration or other dispute resolution costs) sustained by Contractor on or in connection with any other project or anticipated project.
- E. Contractor shall not be entitled to an adjustment in Contract Price or Contract Times for delays within the control of Contractor. Delays attributable to and within the control of a Subcontractor or Supplier shall be deemed to be delays within the control of Contractor.

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

13.01 *Notice of Defects*

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

13.02 *Access to Work*

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

13.03 *Tests and Inspections*

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

13.04 *Uncovering Work*

- A. If any Work is covered contrary to the written request of Engineer, it must, if requested by Engineer, be uncovered for Engineer's observation and replaced at Contractor's expense.

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

13.05 *Owner May Stop the Work*

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

13.06 *Correction or Removal of Defective Work*

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

13.07 *Correction Period*

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

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

13.08 *Acceptance of Defective Work*

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

13.09 *Owner May Correct Defective Work*

- A. If Contractor fails within a reasonable time after written notice from Engineer to correct defective Work or to remove and replace rejected Work as required by Engineer in accordance with Paragraph 13.06.A, or if Contractor fails to perform the Work in accordance with the Contract Documents, or if Contractor fails to comply with any other provision of the Contract Documents, Owner may, after seven days written notice to Contractor, correct or remedy any such deficiency.
- B. In exercising the rights and remedies under this Paragraph 13.09, Owner shall proceed expeditiously. In connection with such corrective or remedial action, Owner may exclude Contractor from all or part of the Site, take possession of all or part of the Work and suspend Contractor's services related thereto, take possession of Contractor's tools, appliances, construction equipment and machinery at the Site, and incorporate in the Work all materials and equipment stored at the Site or for which Owner has paid Contractor but which are stored elsewhere. Contractor shall allow Owner, Owner's representatives, agents and employees, Owner's other contractors, and Engineer and Engineer's consultants access to the Site to enable Owner to exercise the rights and remedies under this Paragraph.

- C. All claims, costs, losses, and damages (including but not limited to all fees and charges of engineers, architects, attorneys, and other professionals and all court or arbitration or other dispute resolution costs) incurred or sustained by Owner in exercising the rights and remedies under this Paragraph 13.09 will be charged against Contractor, and a Change Order will be issued incorporating the necessary revisions in the Contract Documents with respect to the Work; and Owner shall be entitled to an appropriate decrease in the Contract Price. If the parties are unable to agree as to the amount of the adjustment, Owner may make a Claim therefor as provided in Paragraph 10.05. Such claims, costs, losses and damages will include but not be limited to all costs of repair, or replacement of work of others destroyed or damaged by correction, removal, or replacement of Contractor's defective Work.
- D. Contractor shall not be allowed an extension of the Contract Times because of any delay in the performance of the Work attributable to the exercise by Owner of Owner's rights and remedies under this Paragraph 13.09.

ARTICLE 14 – PAYMENTS TO CONTRACTOR AND COMPLETION

14.01 *Schedule of Values*

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

14.02 *Progress Payments*

A. *Applications for Payments*

1. At least 20 days before the date established in the Agreement for each progress payment (but not more often than once a month), Contractor shall submit to Engineer for review an Application for Payment filled out and signed by Contractor covering the Work completed as of the date of the Application and accompanied by such supporting documentation as is required by the Contract Documents. If payment is requested on the basis of materials and equipment not incorporated in the Work but delivered and suitably stored at the Site or at another location agreed to in writing, the Application for Payment shall also be accompanied by a bill of sale, invoice, or other documentation warranting that Owner has received the materials and equipment free and clear of all Liens and evidence that the materials and equipment are covered by appropriate property insurance or other arrangements to protect Owner's interest therein, all of which must be satisfactory to Owner.
2. Beginning with the second Application for Payment, each Application shall include an affidavit of Contractor stating that all previous progress payments received on account of the Work have been applied on account to discharge Contractor's legitimate obligations associated with prior Applications for Payment.
3. The amount of retainage with respect to progress payments will be as stipulated in the Agreement.

B. *Review of Applications*

1. Engineer will, within 10 days after receipt of each Application for Payment, either indicate in writing a recommendation of payment and present the Application to Owner or return the Application to Contractor indicating in writing Engineer's reasons for refusing to recommend payment. In the latter case, Contractor may make the necessary corrections and resubmit the Application.
2. Engineer's recommendation of any payment requested in an Application for Payment will constitute a representation by Engineer to Owner, based on Engineer's observations on the Site 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, to the results of any subsequent tests called for in the Contract Documents, to a final determination of quantities and classifications for Unit Price Work under Paragraph 9.07, and to any other qualifications stated in the recommendation); and
 - c. the conditions precedent to Contractor's being entitled to such payment appear to have been fulfilled in so far as it is Engineer's responsibility to observe the Work.
3. By recommending any such payment Engineer will not thereby be deemed to have represented that:
- a. inspections made to check the quality or the quantity of the Work as it has been performed have been exhaustive, extended to every aspect of the Work in progress, or involved detailed inspections of the Work beyond the responsibilities specifically assigned to Engineer in the Contract Documents; or
 - b. that there may not be other matters or issues between the parties that might entitle Contractor to be paid additionally by Owner or entitle Owner to withhold payment to Contractor.
4. Neither Engineer's review of Contractor's Work for the purposes of recommending payments nor Engineer's recommendation of any payment, including final payment, will impose responsibility on Engineer:
- a. to supervise, direct, or control the Work, or
 - b. for the means, methods, techniques, sequences, or procedures of construction, or the safety precautions and programs incident thereto, or
 - c. for Contractor's failure to comply with Laws and Regulations applicable to Contractor's performance of the Work, or
 - d. to make any examination to ascertain how or for what purposes Contractor has used the moneys paid on account of the Contract Price, or
 - e. to determine that title to any of the Work, materials, or equipment has passed to Owner free and clear of any Liens.
5. Engineer may refuse to recommend the whole or any part of any payment if, in Engineer's opinion, it would be incorrect to make the representations to Owner stated in Paragraph 14.02.B.2. Engineer may also refuse to recommend any such payment or, because of subsequently discovered evidence or the results of subsequent inspections or tests, revise or revoke any such payment recommendation previously made, to such extent as may be necessary in Engineer's opinion to protect Owner from loss because:
- a. the Work is defective, or completed Work has been damaged, requiring correction or replacement;
 - b. the Contract Price has been reduced by Change Orders;
 - c. Owner has been required to correct defective Work or complete Work in accordance with Paragraph 13.09; or
 - d. Engineer has actual knowledge of the occurrence of any of the events enumerated in Paragraph 15.02.A.

C. Payment Becomes Due

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

D. *Reduction in Payment*

1. Owner may refuse to make payment of the full amount recommended by Engineer because:
 - a. claims have been made against Owner on account of Contractor's performance or furnishing of the Work;
 - b. Liens have been filed in connection with the Work, except where Contractor has delivered a specific bond satisfactory to Owner to secure the satisfaction and discharge of such Liens;
 - c. the Contractor's performance or furnishing of the Work is inconsistent with funding Agency requirements;
 - d. there are other items entitling Owner to a set-off against the amount recommended; or
 - e. Owner has actual knowledge of the occurrence of any of the events enumerated in Paragraphs 14.02.B.5.a through 14.02.B.5.c or Paragraph 15.02.A.
2. If Owner refuses to make payment of the full amount recommended by Engineer, Owner will give Contractor immediate written notice (with a copy to Engineer) stating the reasons for such action and promptly pay Contractor any amount remaining after deduction of the amount so withheld. Owner shall promptly pay Contractor the amount so withheld, or any adjustment thereto agreed to by Owner and Contractor, when Contractor corrects to Owner's satisfaction the reasons for such action.
3. If it is subsequently determined that Owner's refusal of payment was not justified, the amount wrongfully withheld shall be treated as an amount due as determined by Paragraph 14.02.C.1.

14.03 *Contractor's Warranty of Title*

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

14.04 *Substantial Completion*

- A. When Contractor considers the entire Work ready for its intended use Contractor shall notify Owner and Engineer in writing that the entire Work is substantially complete (except for items specifically listed by Contractor as incomplete) and request that Engineer issue a certificate of Substantial Completion.
- B. Promptly after Contractor's notification, Owner, Agency, Contractor, and Engineer shall make a prefinal inspection of the Work to determine the status of completion. If Engineer does not consider the Work substantially complete, Engineer will notify Contractor in writing giving the reasons therefor.
- C. If Engineer considers the Work substantially complete, Engineer will deliver to Owner a tentative certificate of Substantial Completion which shall fix the date of Substantial Completion. There shall be attached to the certificate a tentative list of items to be completed or corrected before final payment. Owner shall have seven days after receipt of the tentative certificate during which to make written objection to Engineer as to any provisions of the certificate or attached list. If, after considering such objections, Engineer concludes that the Work is not substantially complete, Engineer will within 14 days after submission of the tentative certificate to Owner notify Contractor in writing, stating the reasons therefor. If, after consideration of Owner's objections, Engineer considers the Work substantially complete, Engineer will within said 14 days execute and deliver to Owner and Contractor a definitive certificate of Substantial Completion (with a revised tentative list of items to be completed or corrected) reflecting such changes from the tentative certificate as Engineer believes justified after consideration of any objections from Owner.

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

14.05 *Partial Utilization*

- A. Prior to Substantial Completion of all the Work, Owner may use or occupy any substantially completed part of the Work which has specifically been identified in the Contract Documents, or which Owner, Engineer, and Contractor agree constitutes a separately functioning and usable part of the Work that can be used by Owner for its intended purpose without significant interference with Contractor's performance of the remainder of the Work, subject to the following conditions.
 - 1. Owner at any time may request Contractor in writing to permit Owner to use or occupy any such part of the Work which Owner believes to be ready for its intended use and substantially complete. If and when Contractor agrees that such part of the Work is substantially complete, Contractor will certify to Owner and Engineer that such part of the Work is substantially complete and request Engineer to issue a certificate of Substantial Completion for that part of the Work.
 - 2. Contractor at any time may notify Owner and Engineer in writing that Contractor considers any such part of the Work ready for its intended use and substantially complete and request Engineer to issue a certificate of Substantial Completion for that part of the Work.
 - 3. Within a reasonable time after either such request, Owner, Contractor, and Engineer shall make an inspection of that part of the Work to determine its status of completion. If Engineer does not consider that part of the Work to be substantially complete, Engineer will notify Owner and Contractor in writing giving the reasons therefor. If Engineer considers that part of the Work to be substantially complete, the provisions of Paragraph 14.04 will apply with respect to certification of Substantial Completion of that part of the Work and the division of responsibility in respect thereof and access thereto.
 - 4. No use or occupancy or separate operation of part of the Work may occur prior to compliance with the requirements of Paragraph 5.10 regarding property insurance.

14.06 *Final Inspection*

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

14.07 *Final Payment*

A. *Application for Payment*

- 1. After Contractor has, in the opinion of Engineer, satisfactorily completed all corrections identified during the final inspection and has delivered, in accordance with the Contract Documents, all maintenance and operating instructions, schedules, guarantees, bonds, certificates or other evidence of insurance certificates of inspection, marked-up record documents (as provided in Paragraph 6.12), and other documents, Contractor may make application for final payment following the procedure for progress payments.

2. The final Application for Payment shall be accompanied (except as previously delivered) by:
 - a. all documentation called for in the Contract Documents, including but not limited to the evidence of insurance required by Paragraph 5.04.B.7;
 - b. consent of the surety, if any, to final payment;
 - c. a list of all Claims against Owner that Contractor believes are unsettled; and
 - d. complete and legally effective releases or waivers (satisfactory to Owner) of all Lien rights arising out of or Liens filed in connection with the Work.
3. In lieu of the releases or waivers of Liens specified in Paragraph 14.07.A.2 and as approved by Owner, Contractor may furnish receipts or releases in full and an affidavit of Contractor that: (i) the releases and receipts include all labor, services, material, and equipment for which a Lien could be filed; and (ii) all payrolls, material and equipment bills, and other indebtedness connected with the Work for which Owner or Owner's property might in any way be responsible have been paid or otherwise satisfied. If any Subcontractor or Supplier fails to furnish such a release or receipt in full, Contractor may furnish a bond or other collateral satisfactory to Owner to indemnify Owner against any Lien.

B. Engineer's Review of Application and Acceptance

1. If, on the basis of Engineer's observation of the Work during construction and final inspection, and Engineer's review of the final Application for Payment and accompanying documentation as required by the Contract Documents, Engineer is satisfied that the Work has been completed and Contractor's other obligations under the Contract Documents have been fulfilled, Engineer will, within ten days after receipt of the final Application for Payment, indicate in writing Engineer's recommendation of payment and present the Application for Payment to Owner for payment. At the same time Engineer will also give written notice to Owner and Contractor that the Work is acceptable subject to the provisions of Paragraph 14.09. Otherwise, Engineer will return the Application for Payment to Contractor, indicating in writing the reasons for refusing to recommend final payment, in which case Contractor shall make the necessary corrections and resubmit the Application for Payment.

C. Payment Becomes Due

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

14.08 *Final Completion Delayed*

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

14.09 *Waiver of Claims*

A. The making and acceptance of final payment will constitute:

1. a waiver of all Claims by Owner against Contractor, except Claims arising from unsettled Liens, from defective Work appearing after final inspection pursuant to Paragraph 14.06, from failure to comply with the Contract Documents or the terms of any special guarantees specified therein, or from Contractor's continuing obligations under the Contract Documents; and
2. a waiver of all Claims by Contractor against Owner other than those previously made in accordance with the requirements herein and expressly acknowledged by Owner in writing as still unsettled.

ARTICLE 15 – SUSPENSION OF WORK AND TERMINATION

15.01 *Owner May Suspend Work*

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

15.02 *Owner May Terminate for Cause*

A. The occurrence of any one or more of the following events will justify termination for cause:

1. Contractor's persistent failure to perform the Work in accordance with the Contract Documents (including, but not limited to, failure to supply sufficient skilled workers or suitable materials or equipment or failure to adhere to the Progress Schedule established under Paragraph 2.07 as adjusted from time to time pursuant to Paragraph 6.04);
2. Contractor's disregard of Laws or Regulations of any public body having jurisdiction;
3. Contractor's disregard of the authority of Engineer; or
4. Contractor's violation in any substantial way of any provisions of the Contract Documents.

B. If one or more of the events identified in Paragraph 15.02.A occur, Owner may, after giving Contractor (and surety) seven days written notice of its intent to terminate the services of Contractor:

1. exclude Contractor from the Site, and take possession of the Work and of all Contractor's tools, appliances, construction equipment, and machinery at the Site, and use the same to the full extent they could be used by Contractor (without liability to Contractor for trespass or conversion),
2. incorporate in the Work all materials and equipment stored at the Site or for which Owner has paid Contractor but which are stored elsewhere, and
3. complete the Work as Owner may deem expedient.

C. If Owner proceeds as provided in Paragraph 15.02.B, Contractor shall not be entitled to receive any further payment until the Work is completed. If the unpaid balance of the Contract Price exceeds all claims, costs, losses, and damages (including but not limited to all fees and charges of engineers, architects, attorneys, and other professionals and all court or arbitration or other dispute resolution costs) sustained by Owner arising out of or relating to completing the Work, such excess will be paid to Contractor. If such claims, costs, losses, and damages exceed such unpaid balance, Contractor shall pay the difference to Owner. Such claims, costs, losses, and damages incurred by

Owner will be reviewed by Engineer as to their reasonableness and, when so approved by Engineer, incorporated in a Change Order. When exercising any rights or remedies under this Paragraph Owner shall not be required to obtain the lowest price for the Work performed.

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

15.03 *Owner May Terminate For Convenience*

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

15.04 *Contractor May Stop Work or Terminate*

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

ARTICLE 16 – DISPUTE RESOLUTION

16.01 *Methods and Procedures*

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

ARTICLE 17 – MISCELLANEOUS

17.01 *Giving Notice*

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

17.02 *Computation of Times*

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

17.03 *Cumulative Remedies*

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

17.04 *Survival of Obligations*

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

17.05 *Controlling Law*

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

17.06 *Headings*

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

ARTICLE 18 – FEDERAL REQUIREMENTS

18.01 *Agency Not a Party*

- A. This Contract is expected to be funded in part with funds provided by Agency. Neither Agency, nor any of its departments, entities, or employees is a party to this Contract.

18.02 *Contract Approval*

- A. Owner and Contractor will furnish Owner's attorney such evidence as required so that Owner's attorney can complete and execute the following "Certificate of Owner's Attorney" (Exhibit GC-A) before Owner submits the executed Contract Documents to Agency for approval.
- B. Concurrence by Agency in the award of the Contract is required before the Contract is effective.

18.03 *Conflict of Interest*

- A. Contractor may not knowingly contract with a supplier or manufacturer if the individual or entity who prepared the plans and specifications has a corporate or financial affiliation with the supplier or manufacturer.
- B. Owner's officers, employees, or agents shall not engage in the award or administration of this Contract if a conflict of interest, real or apparent, would be involved. Such a conflict would arise when: (i) the employee, officer or agent; (ii) any member of their immediate family; (iii) their partner or (iv) an organization that employs, or is about to employ, any of the above, has a financial interest in Contractor. Owner's officers, employees, or agents shall neither solicit nor accept gratuities, favors or anything of monetary value from Contractor or subcontractors.

18.04 *Gratuities*

- A. If Owner finds after a notice and hearing that Contractor, or any of Contractor's agents or representatives, offered or gave gratuities (in the form of entertainment, gifts, or otherwise) to any official, employee, or agent of Owner or Agency in an attempt to secure this Contract or favorable treatment in awarding, amending, or making any determinations related to the performance of this Contract, Owner may, by written notice to Contractor, terminate this Contract. Owner may also pursue other rights and remedies that the law or this Contract provides. However, the existence of the facts on which Owner bases such findings shall be an issue and may be reviewed in proceedings under the dispute resolution provisions of this Contract.
- B. In the event this Contract is terminated as provided in paragraph 18.04.A, Owner may pursue the same remedies against Contractor as it could pursue in the event of a breach of this Contract by Contractor. As a penalty, in addition to any other damages to which it may be entitled by law, Owner may pursue exemplary damages in an

amount (as determined by Owner) which shall not be less than three nor more than ten times the costs Contractor incurs in providing any such gratuities to any such officer or employee.

18.05 *Audit and Access to Records*

- A. For all negotiated contracts and negotiated modifications (except those of \$10,000 or less), Owner, Agency, the Comptroller General, or any of their duly authorized representatives, shall have access to any books, documents, papers, and records of the Contractor, which are pertinent to the Contract, for the purpose of making audits, examinations, excerpts and transcriptions. Contractor shall maintain all required records for three years after final payment is made and all other pending matters are closed.

18.06 *Small, Minority and Women's Businesses*

- A. If Contractor intends to let any subcontracts for a portion of the work, Contractor shall take affirmative steps to assure that small, minority and women's businesses are used when possible as sources of supplies, equipment, construction, and services. Affirmative steps shall consist of: (1) including qualified small, minority and women's businesses on solicitation lists; (2) assuring that small, minority and women's businesses are solicited whenever they are potential sources; (3) dividing total requirements when economically feasible, into small tasks or quantities to permit maximum participation of small, minority, and women's businesses; (4) establishing delivery schedules, where the requirements of the work permit, which will encourage participation by small, minority and women's businesses; (5) using the services and assistance of the Small Business Administration and the Minority Business Development Agency of the U.S. Department of Commerce; (6) requiring each party to a subcontract to take the affirmative steps of this section; and (7) Contractor is encouraged to procure goods and services from labor surplus area firms.

18.07 *Anti-Kickback*

- A. Contractor shall comply with the Copeland Anti-Kickback Act (18 USC 874 and 40 USC 276c) as supplemented by Department of Labor regulations (29 CFR Part 3, "Contractors and Subcontractors on Public Buildings or Public Works Financed in Whole or in Part by Loans or Grants of the United States"). The Act provides that Contractor or subcontractor shall be prohibited from inducing, by any means, any person employed in the construction, completion, or repair of public facilities, to give up any part of the compensation to which they are otherwise entitled. Owner shall report all suspected or reported violations to Agency.

18.08 *Clean Air and Pollution Control Acts*

- A. If this Contract exceeds \$100,000, Contractor shall comply with all applicable standards, orders or regulations issued pursuant to the Clean Air Act (42 USC 7401 *et seq.*) and the Federal Water Pollution Control Act as amended (33 USC 1251 *et seq.*). Contractor will report violations to the Agency and the Regional Office of the EPA.

18.09 *State Energy Policy*

- A. Contractor shall comply with the Energy Policy and Conservation Act (P.L. 94-163). Mandatory standards and policies relating to energy efficiency, contained in any applicable State Energy Conservation Plan, shall be utilized.

18.10 *Equal Opportunity Requirements*

- A. If this Contract exceeds \$10,000, Contractor shall comply with Executive Order 11246, "Equal Employment Opportunity," as amended by Executive Order 11375, "Amending Executive Order 11246 Relating to Equal Employment Opportunity," and as supplemented by regulations at 41 CFR part 60, "Office of Federal Contract Compliance Programs, Equal Employment Opportunity, Department of Labor."
- B. Contractor's compliance with Executive Order 11246 shall be based on its implementation of the Equal Opportunity Clause, specific affirmative active obligations required by the Standard Federal Equal Employment

Opportunity Construction Contract Specifications, as set forth in 41 CFR Part 60-4 and its efforts to meet the goals established for the geographical area where the Contract 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 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 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.

- C. 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 subcontract; estimated starting and completion dates of the subcontract; and the geographical area in which the Contract is to be performed.

18.11 *Restrictions on Lobbying*

- A. Contractor and each subcontractor shall comply with Restrictions on Lobbying (Public Law 101-121, Section 319) as supplemented by applicable Agency regulations. This Law applies to the recipients of contracts and subcontracts that exceed \$100,000 at any tier under a Federal loan that exceeds \$150,000 or a Federal grant that exceeds \$100,000. If applicable, Contractor must complete a certification form on lobbying activities related to a specific Federal loan or grant that is a funding source for this Contract. Each tier certifies to the tier above that it will not and has not used Federal appropriated funds to pay any person or organization for influencing or attempting to influence an officer or employee of any agency, a member of Congress, or an employee of a member of Congress in connection with obtaining any Federal contract, grant, or any other award covered by 31 USC 1352. Each tier shall disclose any lobbying with non-Federal funds that takes place in connection with obtaining any Federal award. Certifications and disclosures are forwarded from tier to tier up to the Owner. Necessary certification and disclosure forms shall be provided by Owner.

18.12 *Environmental Requirements*

- A. When constructing a project involving trenching and/or other related earth excavations, Contractor shall comply with the following environmental constraints:
 1. Wetlands – When disposing of excess, spoil, or other construction materials on public or private property, Contractor shall not fill in or otherwise convert wetlands.
 2. Floodplains – When disposing of excess, spoil, or other construction materials on public or private property, Contractor shall not fill in or otherwise convert 100 year floodplain areas delineated on the latest Federal Emergency Management Agency Floodplain Maps, or other appropriate maps, i.e., alluvial soils on NRCS Soil Survey Maps.
 3. Historic Preservation – Any excavation by Contractor that uncovers an historical or archaeological artifact shall be immediately reported to Owner and a representative of Agency. Construction shall be temporarily halted pending the notification process and further directions issued by Agency after consultation with the State Historic Preservation Officer (SHPO).
 4. Endangered Species – Contractor shall comply with the Endangered Species Act, which provides for the protection of endangered and/or threatened species and critical habitat. Should any evidence of the presence of endangered and/or threatened species or their critical habitat be brought to the attention of Contractor, Contractor will immediately report this evidence to Owner and a representative of Agency. Construction shall be temporarily halted pending the notification process and further directions issued by Agency after consultation with the U.S. Fish and Wildlife Service.

EXHIBIT GC-A

Certificate of Owner's Attorney

I, the undersigned, _____, the duly authorized and acting legal representative of _____, do hereby certify as follows:

I have examined the attached Contract(s) and performance and payment bond(s) and the manner of execution thereof, and I am of the opinion that each of the aforesaid agreements is adequate and has been duly executed by the proper parties thereto acting through their duly authorized representatives; that said representatives have full power and authority to execute said agreements on behalf of the respective parties named thereon; and that the foregoing agreements constitute valid and legally binding obligations upon the parties executing the same in accordance with the terms, conditions, and provisions thereof.

Date: _____

SECTION 00800

SUPPLEMENTARY CONDITIONS

SECTION 00800

SUPPLEMENTARY CONDITIONS

PART 1 - GENERAL

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|------|--|---|
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1.02 GENERAL

- A. These Supplementary Conditions amend or supplement the Standard General Conditions of the Construction Contract (EJCDC No.C-710, 2002 Edition) and other provisions of the Contract Documents as indicated in this section. All provisions which are not so amended or supplemented remain in full force and effect.
- B. This section is arranged in the same order as the paragraphs in the Standard General Conditions of the Construction Contract (EJCDC No. C-710, 2002 Edition), and the paragraphs herein bear comparable numbers to those of the General Conditions but with the prefix "SC".
- C. The terms used in these Supplementary Conditions which are defined in the Standard General Conditions of the Construction Contract (EJCDC No. C-710, 2002 Edition) have the meanings assigned to them in the General Conditions.

1.03 SUMMARY

A. SC-1.01. Defined Terms

Add the following paragraph immediately after paragraph 1.01.A.20 of the General Conditions:

1.01.A.20 ENGINEER'S Consultant(s), having contracted with the ENGINEER to furnish services as ENGINEER'S independent professional associate(s) or consultants(s) with respect to the Project, is/are identified as follows:

GRW Aerial Surveys

B. SC-2.02. Copies of Documents

Delete paragraph 2.02 of the General Conditions in its entirety and insert the following in its place:

2.02. OWNER shall furnish to CONTRACTOR two copies of the Contract Documents and up to five extra sets of Drawings and Specifications. Additional copies will be furnished, upon request, at the cost of reproduction.

C. SC-2.03. Commencement of Contract Times; Notice to Proceed

Add the following paragraph immediately after paragraph 2.03 of the General Conditions:

2.03.1 The schedule of events from the opening of bids to the date when the Contract Times begin may be adjusted due to funding agencies, regulatory agencies, and/or other factors beyond the control of the OWNER or ENGINEER.

D. SC-5.01. Performance, Payment, and Other Bonds

Add the following sentence immediately after the first sentence in paragraph 5.01.A:

Contractor shall furnish Warranty Bond in accordance with Section 00618.

E. SC-5.04. CONTRACTOR'S Liability Insurance

Delete the colon at the end of paragraph 5.04.A of the General Conditions, and replace it with a period. Add the following sentence at the end of paragraph 5.04.A of the General Conditions:

The limits of liability for the liability insurance required by Paragraph 5.04.A of the General Conditions shall provide coverage for not less than the following amounts or greater where required by law or regulations and the coverage under Paragraph 5.04.A as follows:

Delete paragraphs 5.04.A.1 and 5.04.A.2 of the General Conditions in their entirety and insert the following in their place:

5.04.A.1 Workers Compensation

| | |
|-------------------------|------------------|
| 1. State | <u>Statutory</u> |
| 2. Applicable Federal | <u>Statutory</u> |
| 3. Employer's Liability | <u>\$500,000</u> |

Delete paragraphs 5.04.A.3, 5.04.A.4, and 5.04.A.5 of the General Conditions in their entirety and insert the following in their place:

5.04.A.2 Comprehensive or Commercial General Liability, which shall also include completed operations and product liability coverage:

| | |
|--|--------------------|
| 1. General Aggregate | <u>\$2,000,000</u> |
| 2. Products-Completed Operations Aggregate | <u>\$1,000,000</u> |
| 3. Personal/Advertising Injury | <u>\$1,000,000</u> |
| 4. Each Occurrence: (Bodily Injury/Property Damage) | <u>\$1,000,000</u> |
| 5. Limit per Person Medical Expense | <u>\$1,000,000</u> |
| 6. Personal Injury Liability Coverage will Include Claims arising out of Employment. | |
| 7. Property Damage Liability Insurance will Provide Coverage for Explosion, Collapse and Underground Damage where applicable. | |
| 8. Property Damage Liability Insurance will Provide Coverage for Blasting Operations where applicable. | |
| 9. Excess Liability: | |
| General Aggregate | <u>\$5,000,000</u> |
| Each Occurrence | <u>\$5,000,000</u> |

Contractor shall, at their sole expense, carry and maintain in force throughout the entire time they are performing the work on the Texas Gas Permitted Facilities (Texas Gas Pipeline Crossing) a minimum of \$2 million per occurrence comprehensive general liability insurance, including contractual liability insurance, \$1 million per occurrence employer's liability insurance, statutory worker's

compensation insurance coverage and, where vehicles are used hereunder, \$2 million per occurrence comprehensive automobile liability insurance, unless otherwise agreed to in writing by Texas Gas. The above-mentioned insurance policies shall have Texas Gas, its parent and affiliated companies, named as additional insured, and all policies shall provide for waiver of all rights of subrogation against Texas Gas, its parent and affiliated companies. A certificate of insurance evidencing that the above-mentioned insurance requirements are in effect shall be presented to the Texas Gas Land Department prior to the beginning of any work addressed in this agreement.

Delete paragraph 5.04.A.6 of the General Conditions in its entirety and insert the following in its place:

5.04.A.3 Automobile Liability

1. Bodily Injury:

| | |
|---------------|--------------------|
| Each Person | <u>\$1,000,000</u> |
| Each Accident | <u>\$1,000,000</u> |

2. Property Damage:

| | |
|-----------------------|--------------------|
| Each Accident | <u>\$1,000,000</u> |
| or | |
| Combined Single Limit | <u>\$1,000,000</u> |

Delete paragraph 5.04.B.1 of the General Conditions in its entirety and insert the following in its place:

5.04.B.1 Liability Coverage for OWNER, ENGINEER, or ENGINEER'S CONSULTANT shall be provided by endorsement as additional insureds on CONTRACTOR'S Liability Policy. Additional insureds are listed as follows and shall be named in CONTRACTOR'S Liability Policy:

Henry County Water District No. 2
Tetra Tech, Inc.
GRW Aerial Surveys

Delete paragraph 5.04.B.2 of the General Conditions in its entirety and insert the following in its place:

5.04.B.2 Additional types and amounts of insurance required by the OWNER are listed as follows:

Delete paragraph 5.04.B.4 of the General Conditions in its entirety and insert the following in its place:

5.04.B.4 CONTRACTOR shall provide the following coverage for CONTRACTOR'S indemnity obligations under paragraphs 6.07, 6.11, and 6.20 of the General Conditions:

| | |
|--|--------------------|
| 1. General Aggregate | <u>\$2,000,000</u> |
| 2. Each Occurrence: (Bodily Injury and Property Damage) | <u>\$2,000,000</u> |

F. SC-5.06. Property Insurance

Delete the phrase "This insurance shall:" at the end of paragraph 5.06.A and add the following sentence at the end of paragraph 5.06.A of the General Conditions:

Builders Risk Property insurance to the full (100%) insurable value of the Work in accordance with Paragraph 5.06.A of the General Conditions will be provided by the CONTRACTOR and will be subject to the following deductible amounts \$ 250.00 in accordance with Paragraph 5.06.D of the General Conditions and shall:

Delete paragraph 5.06.A.1 of the General Conditions in its entirety and insert the following in its place:

5.06.A.1 include the interests of OWNER, CONTRACTOR, Subcontractor(s), ENGINEER, or ENGINEER'S CONSULTANT(S) deemed to have an insurable interest shall be provided by endorsement as additional insureds on CONTRACTOR'S Property Policy and listed as follows:

Henry County Water District No. 2
Tetra Tech Inc.
GRW Aerial Surveys

G. SC-6.06. Concerning Subcontractors, Suppliers, and Others

Add the following paragraph immediately after paragraph 6.06.B:

6.06.C CONTRACTOR shall list any Subcontractor, Supplier, or other person or organization planned to do Work as required in Section 00400 and within the time frame following bid opening as specified in said section.

Renumber paragraphs 6.06.C and 6.06.D of the General Conditions to 6.06.D and 6.06.E to maintain the numbering sequence between General Conditions and Special Conditions.

Add the following paragraph immediately after paragraph 6.06.E (formerly 6.06.D):

6.06.F OWNER or ENGINEER may furnish to any such Subcontractor, Supplier, or other person or organization, to the extent practicable, information about amounts paid to CONTRACTOR in accordance with CONTRACTOR'S application for payment on account of the particular Subcontractor's, Supplier's, or other person's or other organization's Work.

Renumber paragraphs 6.06.E, 6.06.F, and 6.06.G of the General Conditions to 6.06.G, 6.06.H, and 6.06.I to maintain the numbering sequence between the General Conditions and Special Conditions.

H. SC-6.08. Permits

Add the following paragraph immediately after paragraph 6.08.A:

6.08.B OWNER shall obtain and pay for the following permits:

Department of Highways Encroachment permit,
Division of Water Construction permit,
Texas Gas Encroachment permit,

All other permits and licenses required for construction shall be obtained and paid for by CONTRACTOR.

I. SC-6.09. Laws and Regulations

Add the following paragraph immediately after paragraph 6.09.C:

6.09.D The CONTRACTOR shall be in compliance with OSHA (P.L. 91-596) and the Contract Work Hours and Safety Standards Act (P.L. 91-54).

J. SC-6.19. CONTRACTOR's General Warranty and Guarantee

Add the following language to the end of the first sentence of paragraph 6.19.A:

for a period of one-year.

K. SC-7.02. Coordination

Delete paragraph 7.02.B in its entirety and insert the following in its place:

7.02.B CONTRACTOR shall be Construction Coordinator and shall have sole authority and responsibility in respect of such coordination.

L. SC-7.03. Separate CONTRACTOR Claims

Add the following paragraph immediately after paragraph 7.03.C:

7.03 Separate CONTRACTOR Claims

D. Should CONTRACTOR cause damage to the work or property of any separate contractor at the site, or should any claim arising out of CONTRACTOR'S performance of the Work at the site be made by any separate contractor against CONTRACTOR, OWNER, ENGINEER, ENGINEER'S Consultants, or any other person, CONTRACTOR shall promptly attempt to settle with such other contractor by agreement, or to otherwise resolve the dispute by arbitration or law. CONTRACTOR shall, to the fullest extent permitted by Laws and Regulations, indemnify and hold OWNER, ENGINEER, ENGINEER'S Consultants harmless from and against all claims, damages, losses and expenses (including, but not limited to, fees of engineers, architects, attorneys and other professionals and court and arbitration costs) arising directly, indirectly or consequentially out of any action, legal or equitable, brought by any separate contractor against OWNER, ENGINEER, or ENGINEER'S Consultants to the extent based on a claim arising out of CONTRACTOR'S performance of the Work. Should a separate contractor cause damage to the Work or property of CONTRACTOR or should the performance of Work by any other claim, CONTRACTOR shall not institute any action, legal or equitable, against OWNER, ENGINEER, or ENGINEER'S Consultants or permit any action against any of them to be maintained and continued in its name or for its benefit in any court or before any arbiter which seeks to impose liability on or to recover damages from OWNER, ENGINEER, or ENGINEER'S Consultants on account of any such damage or claim. If CONTRACTOR is delayed at any time in performing or furnishing Work by any act or neglect of a separate contractor and OWNER and CONTRACTOR are unable to agree as to the extent of any adjustment in Contract times attributable thereto, CONTRACTOR may make a claim for an extension of times in accordance with Article 12. An extension of the Contract times shall be CONTRACTOR'S exclusive remedy with respect to OWNER, ENGINEER, and ENGINEER'S Consultants for any delay, disruption, interference or hindrance caused by any separate contractor. This paragraph does not prevent recovery from OWNER, ENGINEER, or ENGINEER'S Consultant for activities that are their respective responsibilities.

M. SC-14.02. Progress Payments

Add the following language to the last sentence of Paragraph 14.02.C regarding Payment Becomes Due:

in the time frame of OWNER'S normal operating procedures for paying invoices or funding agencies' normal operating procedures for dispersing funds.

Add the following paragraphs immediately after paragraph 14.02.D.1.e regarding Reduction in Payment:

14.02.D.1.f CONTRACTOR'S failure to make payment to Subcontractors, Suppliers, Labor, other persons or other organizations, or

14.02.D.1.g additional compensation is required to pay ENGINEER because of CONTRACTOR delays or rejection of defective Work, or

14.02.D.1.h liability for liquidated damages has been incurred by CONTRACTOR, or

14.02.D.1.i failure to maintain current record documents in accordance with paragraph 6.12 of General Conditions.

N. SC-14.05. Partial Utilization

Add the following paragraph immediately after paragraph 14.05.A.4:

14.05.A.5 OWNER may at any time request CONTRACTOR in writing to permit OWNER to take over operation of any such part of the Work although it is not substantially complete. A copy of such request will be sent to ENGINEER and within a reasonable time thereafter OWNER, CONTRACTOR, and ENGINEER shall make an inspection of that part of the Work to determine its status of completion and will prepare a list of the items remaining to be completed or corrected thereon before final payment. If CONTRACTOR does not object in writing to OWNER and ENGINEER that such part of the Work is not ready for separate operation by OWNER, ENGINEER will finalize the list of items to be completed or corrected and will deliver such lists to OWNER and CONTRACTOR together with a written recommendation as to the division of responsibilities pending final payment between OWNER and CONTRACTOR with respect to security, operation, safety, maintenance, utilities, insurance, warranties and guarantees for that part of the Work which will become binding upon OWNER and CONTRACTOR at the time when OWNER takes over such operation (unless they shall have otherwise agreed in writing and so informed ENGINEER).

During such operation and prior to Substantial Completion of such part of the Work, OWNER shall allow CONTRACTOR reasonable access to complete or correct items on said list and to complete other related Work.

- END OF SECTION -

SECTION 00810
KENTUCKY INFRASTRUCTURE AUTHORITY
SUPPLEMENTAL GENERAL CONDITIONS

SECTION 00810

SUPPLEMENTAL GENERAL CONDITIONS

FOR

CLEAN WATER STATE REVOLVING FUND

DRINKING WATER STATE REVOLVING FUND

(Drinking Water and Wastewater)

Project Name: MORTON RIDGE MAIN UPGRADE

Project Number: 11521-13001

The attached instructions and regulations as listed below shall be incorporated into the Specifications and comprise Special Conditions.

| | <u>Attachment No.</u> |
|--|-----------------------|
| SRF Special Provisions | 1 |
| 40 CFR 31.36 (Procurement)-grants only | 2 |
| KRS Chapter 45A-Kentucky Model Procurement Code-loans only | 3 |
| Equal Employment Opportunity (EEO) Documents: | |
| Notice of Requirement for Affirmative Action | 4 |
| Contract Specifications (Executive Order 11246) | 5 |
| EEO Goals for Region 4 Economic Areas | 6 |
| Special Notice #1 - Check List of EEO Documentation | 7 |
| Employer Information Report EEO-1 (SF 100) | 8 |
| Labor Standards Provisions for Federally Assisted Construction, EPA Form 5720-4 | 9 |
| Certifications | |
| Debarment, Suspension and Other Responsibility Matters | 10 |
| Anti-lobbying | 11 |
| Region 4 Disadvantaged Business Enterprise (DBE) | 12 |
| Negotiated Rates as of October 1, 2010 | 13 |
| Bonds and Insurance | 14 |
| Outlay Management Schedule | 15 |
| Storm Water General Permit | 16 |
| Davis Bacon Requirements | 17 |
| Wage Rate Requirements under FY 2013 Appropriations | 18 |

SRF SPECIAL PROVISIONS

- (a) **Line crossings of all roads and streets shall be done in accordance with the Kentucky Transportation Cabinet requirements as may be set forth in the Special Conditions.**
- (b) **Construction is to be carried out so as to prevent by-passing of flows during construction unless a schedule has been approved by the State or EPA, whichever is applicable. Siltation and soil erosion must be minimized during construction. All construction projects with surface disturbance of more than 1 acre during the period of construction must have a KPDES Storm Water General Permit. The permit can be found at the following web address: <https://dep.gateway.ky.gov/eforms/default.aspx?FormID=7>.
If you have any questions regarding the completion of this form call the Surface Water Permits Branch at (502) 564-3410.**
- (c) **Restore disturbed areas to original or better condition.**
- (d) **Use of Chemicals: All chemicals used during project construction or furnished for project operation, whether herbicide, pesticide, disinfectant, polymer, reactant or of other classification, must show approval of either DOW or EPA. Use of all such chemicals and disposal of residues shall be in conformance with instructions on the manufacturer's label.**
- (e) **The construction of the project, including the letting of contracts in connection therewith, shall conform to the applicable requirements of state, territorial, and local laws and ordinances to the extent that such requirements do not conflict with Federal laws and this subchapter.**
- (f) **The owner shall provide and maintain competent and adequate supervision and inspection.**
- (g) **The Kentucky Infrastructure Authority and Kentucky Division of Water shall have access to the site and the project work at all times.**
- (h) **In the event Archaeological materials (arrowheads, stone tools, stone axes, prehistoric and historic pottery, bottles, foundations, Civil War artifacts, and other types of artifacts) are uncovered during the construction of this project, work is to immediately cease at the location and the Kentucky Heritage Council shall be contacted. The telephone number is (502) 564-7005. Construction shall commence at this location until a written release is received from the Kentucky Heritage Council. Failure to report a find could result in legal action.**
- (i) **This procurement will be subject to DOW Procurement Guidance including the Davis-Bacon Act.**
- (j) **Reasonable care shall be taken during construction to avoid damage to vegetation. Ornamental shrubbery and tree branches shall be temporarily tied back, where appropriate, to minimize damage. Trees which receive damage to branches shall be trimmed of those branches to improve the appearance of the tree. Tree trunks receiving damage from equipment shall be treated with a tree dressing.**
- (k) **No wastewater bypassing will occur during construction unless a schedule has been approved by the Kentucky Division of Water.**
- (l) **Change orders to the construction contract (if required) must be negotiated pursuant to DOW/KIA Procurement Guidance for Construction and Equipment Contracts.**

**TITLE 40--PROTECTION OF ENVIRONMENT
CHAPTER I--ENVIRONMENTAL PROTECTION AGENCY**

**PART 31--UNIFORM ADMINISTRATIVE REQUIREMENTS FOR GRANTS AND
COOPERATIVE AGREEMENTS TO STATE AND LOCAL GOVERNMENTS**

Subpart C--Post-Award Requirements

Sec. 31.36 Procurement.

(a) States. When procuring property and services under a grant, a State will follow the same policies and procedures it uses for procurements from its non-Federal funds. The State will ensure that every purchase order or other contract includes any clauses required by Federal statutes and executive orders and their implementing regulations. Other grantees and sub-grantees will follow paragraphs (b) through (i) in this section.

(b) Procurement standards. (1) Grantees and sub-grantees will use their own procurement procedures which reflect applicable State and local laws and regulations, provided that the procurements conform to applicable federal law, the standards identified in this section, and if applicable, Sec. 31.38.

(2) Grantees and sub-grantees will maintain a contract administration system which ensures that contractors perform in accordance with the terms, conditions, and specifications of their contracts or purchase orders.

(3) Grantees and sub-grantees will maintain a written code of standards of conduct governing the performance of their employees engaged in the award and administration of contracts. No employee, officer or agent of the grantee or sub-grantee shall participate in selection, or in the award or administration of a contract supported by Federal funds if a conflict of interest, real or apparent, would be involved. Such a conflict would arise when:

(i) The employee, officer or agent,

(ii) Any member of his immediate family,

(iii) His or her partner, or

(iv) An organization which employs, or is about to employ, any of the above, has a financial or other interest in the firm selected for award. The grantee's or sub-grantee's officers, employees or agents will neither solicit nor accept gratuities, favors or anything of monetary value from contractors, potential contractors, or parties to sub-agreements. Grantee and sub-grantees may set minimum rules where the financial interest is not substantial or the gift is an unsolicited item of nominal intrinsic value. To the extent permitted by State or local law or regulations, such standards or conduct will provide for penalties, sanctions, or other disciplinary actions for violations of such standards by the grantee's and sub-grantee's officers, employees, or agents, or by contractors or their agents. The awarding agency may in regulation provide additional prohibitions relative to real, apparent, or potential conflicts of interest.

(4) Grantee and sub-grantee procedures will provide for a review of proposed procurements to avoid purchase of unnecessary or duplicative items. Consideration should be given to consolidating or breaking out procurements to obtain a more economical purchase. Where appropriate, an analysis will be made of lease versus purchase alternatives, and any other appropriate analysis to determine the most economical approach.

(5) To foster greater economy and efficiency, grantees and sub-grantees are encouraged to enter into State and local intergovernmental agreements for procurement or use of common goods and services.

(6) Grantees and sub-grantees are encouraged to use Federal excess and surplus property in lieu of purchasing new equipment and property whenever such use is feasible and reduces project costs.

(7) Grantees and sub-grantees are encouraged to use value engineering clauses in contracts for construction projects of sufficient size to offer reasonable opportunities for cost reductions. Value engineering is a systematic and creative analysis of each contract item or task to ensure that its essential function is provided at the overall lower cost.

(8) Grantees and sub-grantees will make awards only to responsible contractors possessing the ability to perform successfully under the terms and conditions of a proposed procurement. Consideration will be given to such matters as contractor integrity, compliance with public policy, record of past performance, and financial and technical resources.

(9) Grantees and sub-grantees will maintain records sufficient to detail the significant history of procurement. These records will include, but are not necessarily limited to the following: rationale for the method of procurement, selection of contract type, contractor selection or rejection, and the basis for the contract price.

(10) Grantees and sub-grantees will use time and material type contracts only--

(i) After a determination that no other contract is suitable, and

(ii) If the contract includes a ceiling price that the contractor exceeds at its own risk.

(11) Grantees and sub-grantees alone will be responsible, in accordance with good administrative practice and sound business judgment, for the settlement of all contractual and administrative issues arising out of procurements. These issues include, but are not limited to source evaluation, protests, disputes, and claims. These standards do not relieve the grantee or sub-grantee of any contractual responsibilities under its contracts. Federal agencies will not substitute their judgment for that of the grantee or sub-grantee unless the matter is primarily a Federal concern. Violations of law will be referred to the local, State, or Federal authority having proper jurisdiction.

(12) Grantees and sub-grantees will have protest procedures to handle and resolve disputes relating to their procurements and shall in all instances disclose information regarding the protest to the awarding agency. A protestor must exhaust all administrative remedies with the grantee and sub-grantee before pursuing a protest with the Federal agency. Reviews of protests by the Federal agency will be limited to:

(i) Violations of Federal law or regulations and the standards of this section (violations of State or local law will be under the jurisdiction of State or local authorities) and

(ii) Violations of the grantee's or sub-grantee's protest procedures for failure to review a complaint or protest. Protests received by the Federal agency other than those specified above will be referred to the grantee or sub-grantee.

(c) Competition. (1) All procurement transactions will be conducted in a manner providing full and open competition consistent with the standards of Sec. 31.36. Some of the situations considered to be restrictive of competition include but are not limited to:

(i) Placing unreasonable requirements on firms in order for them to qualify to do business,

(ii) Requiring unnecessary experience and excessive bonding,

(iii) Noncompetitive pricing practices between firms or between affiliated companies,

(iv) Noncompetitive awards to consultants that are on retainer contracts,

(v) Organizational conflicts of interest,

(vi) Specifying only a "brand name" product instead of allowing "an equal" product to be offered and describing the performance of other relevant requirements of the procurement, and

(vii) Any arbitrary action in the procurement process.

(2) Grantees and sub-grantees will conduct procurements in a manner that prohibits the use of statutorily or administratively imposed in-State or local geographical preferences in the evaluation of bids or proposals, except in those cases where applicable Federal statutes expressly mandate or encourage geographic preference. Nothing in this section preempts State licensing laws. When contracting for architectural and engineering (A/E) services, geographic location may be a selection criteria provided its application leaves an appropriate number of qualified firms, given the nature and size of the project, to compete for the contract.

(3) Grantees will have written selection procedures for procurement transactions. These procedures will ensure that all solicitations:

(i) Incorporate a clear and accurate description of the technical requirements for the material, product, or service to be procured. Such description shall not, in competitive procurements, contain features, which unduly restrict competition. The description may include a statement of the qualitative nature of the material, product or service to be procured, and when necessary, shall set forth those minimum essential characteristics and standards to which it must conform if it is to satisfy its intended use. Detailed product specifications should be avoided if at all possible. When it is impractical or uneconomical to make a clear and accurate description of the technical requirements, a "brand name or equal" description may be used

as a means to define the performance or other salient requirements of a procurement. The specific features of the named brand which must be met by offerers shall be clearly stated; and

(ji) Identify all requirements which the offerers must fulfill and all other factors to be used in evaluating bids or proposals.

(4) Grantees and sub-grantees will ensure that all pre-qualified lists of persons, firms, or products which are used in acquiring goods and services are current and include enough qualified sources to ensure maximum open and free competition. Also, grantees and sub-grantees will not preclude potential bidders from qualifying during the solicitation period.

(5) Construction grants awarded under Title II of the Clean Water Act are subject to the following "Buy American" requirements in paragraphs (c)(5) (i)-(iii) of this section. Section 215 of the Clean Water Act requires that contractors give preference to the use of domestic material in the construction of EPA-funded treatment works.

(i) Contractors must use domestic construction materials in preference to nondomestic material if it is priced no more than 6 percent higher than the bid or offered price of the nondomestic material, including all costs of delivery to the construction site and any applicable duty, whether or not assessed. The grantee will normally base the computations on prices and costs in effect on the date of opening bids or proposals.

(ii) The award official may waive the Buy American provision based on factors the award official considers relevant, including:

(A) Such use is not in the public interest;

(B) The cost is unreasonable;

(C) The Agency's available resources are not sufficient to implement the provision, subject to the Deputy Administrator's concurrence;

(D) The articles, materials or supplies of the class or kind to be used or the articles, materials or supplies from which they are manufactured are not mined, produced or manufactured in the United States in sufficient and reasonably available commercial quantities or satisfactory quality for the particular project; or

(E) Application of this provision is contrary to multilateral government procurement agreements, subject to the Deputy Administrator's concurrence.

(iii) All bidding documents, subagreements, and, if appropriate, requests for proposals must contain the following "Buy American" provision: In accordance with section 215 of the Clean Water Act (33 U.S.C. 1251 et seq.) and implementing EPA regulations, the contractor agrees that preference will be given to domestic construction materials by the contractor, subcontractors, materialmen and suppliers in the performance of this subagreement.

(d) Methods of procurement to be followed--(1) Procurement by small purchase procedures. Small purchase procedures are those relatively simple and informal procurement methods for securing services, supplies, or other properties that do not cost more than the simplified acquisition threshold fixed at 41 U.S.C. 403(11) (currently set at \$100,000). If small purchase procedures are used, price or rate quotations shall be obtained from an adequate number of qualified sources.

(2) Procurement by sealed bids (formal advertising). Bids are publicly solicited and a firm-fixed-price contract (lump sum or unit price) is awarded to the responsible bidder whose bid, conforming with all the material terms and conditions of the invitation for bids, is the lowest in price. The sealed bid method is the preferred method for procuring construction, if the conditions in 31.36(d)(2)(i) apply.

(i) In order for sealed bidding to be feasible, the following conditions should be present:

(A) A complete, adequate, and realistic specification or purchase description is available;

(B) Two or more responsible bidders are willing and able to compete effectively and for the business; and

(C) The procurement lends itself to a firm fixed price contract and the selection of the successful bidder can be made principally on the basis of price.

(ii) If sealed bids are used, the following requirements apply:

(A) The invitation for bids will be publicly advertised and bids shall be solicited from an adequate number of known suppliers, providing them sufficient time prior to the date set for opening the bids;

(B) The invitation for bids, which will include any specifications and pertinent attachments, shall define the items or services in order for the bidder to properly respond;

(C) All bids will be publicly opened at the time and place prescribed in the invitation for bids;

(D) A firm fixed-price contract award will be made in writing to the lowest responsive and responsible bidder. Where specified in bidding documents, factors such as discounts, transportation cost, and life cycle costs shall be considered in determining which bid is lowest. Payment discounts will only be used to determine the low bid when prior experience indicates that such discounts are usually taken advantage of; and

(E) Any or all bids may be rejected if there is a sound documented reason.

(3) Procurement by competitive proposals. The technique of competitive proposals is normally conducted with more than one source submitting an offer, and either a fixed-price or cost-reimbursement type contract is awarded. It is generally used when conditions are not appropriate for the use of sealed bids. If this method is used, the following requirements apply:

(i) Requests for proposals will be publicized and identify all evaluation factors and their relative importance. Any response to publicized requests for proposals shall be honored to the maximum extent practical;

(ii) Proposals will be solicited from an adequate number of qualified sources;

(iii) Grantees and sub-grantees will have a method for conducting technical evaluations of the proposals received and for selecting awardees;

(iv) Awards will be made to the responsible firm whose proposal is most advantageous to the program, with price and other factors considered; and

(v) Grantees and sub-grantees may use competitive proposal procedures for qualifications-based procurement of architectural/engineering (A/E) professional services whereby competitors' qualifications are evaluated and the most qualified competitor is selected, subject to negotiation of fair and reasonable compensation. The method, where price is not used as a selection factor, can only be used in procurement of A/E professional services. It cannot be used to purchase other types of services though A/E firms are a potential source to perform the proposed effort.

(4) Procurement by noncompetitive proposals is procurement through solicitation of a proposal from only one source, or after solicitation of a number of sources, competition is determined inadequate.

(i) Procurement by noncompetitive proposals may be used only when the award of a contract is infeasible under small purchase procedures, sealed bids or competitive proposals and one of the following circumstances applies:

(A) The item is available only from a single source;

(B) The public exigency or emergency for the requirement will not permit a delay resulting from competitive solicitation;

(C) The awarding agency authorizes noncompetitive proposals; or

(D) After solicitation of a number of sources, competition is determined inadequate.

(ii) Cost analysis, i.e., verifying the proposed cost data, the projections of the data, and the evaluation of the specific elements of costs and profits, is required.

(iii) Grantees and sub-grantees may be required to submit the proposed procurement to the awarding agency for pre-award review in accordance with paragraph (g) of this section.

(e) Contracting with small and minority firms, women's business enterprise and labor surplus area firms.

(1) The grantee and sub-grantee will take all necessary affirmative steps to assure that minority firms, women's business enterprises, and labor surplus area firms are used when possible.

(2) Affirmative steps shall include:

(i) Placing qualified small and minority businesses and women's business enterprises on solicitation lists;

(ii) Assuring that small and minority businesses, and women's business enterprises are solicited whenever they are potential sources;

(iii) Dividing total requirements, when economically feasible, into smaller tasks or quantities to permit maximum participation by small and minority business, and women's business enterprises;

(iv) Establishing delivery schedules, where the requirement permits, which encourage participation by small and minority business, and women's business enterprises;

(v) Using the services and assistance of the Small Business Administration, and the Minority Business Development Agency of the Department of Commerce; and

(vi) Requiring the prime contractor, if subcontracts are to be let, to take the affirmative steps listed in paragraphs (e)(2) (i) through (v) of this section.

(f) Contract cost and price.

(1) Grantees and sub-grantees must perform a cost or price analysis in connection with every procurement action including contract modifications. The method and degree of analysis is dependent on the facts surrounding the particular procurement situation, but as a starting point, grantees must make independent estimates before receiving bids or proposals. A cost analysis must be performed when the offerer is required to submit the elements of his estimated cost, e.g., under professional, consulting, and architectural engineering services contracts. A cost analysis will be necessary when adequate price competition is lacking, and for sole source procurements, including contract modifications or change orders, unless price reasonableness can be established on the basis of a catalog or market price of a commercial product sold in substantial quantities to the general public or based on prices set by law or regulation. A price analysis will be used in all other instances to determine the reasonableness of the proposed contract price.

(2) Grantees and sub-grantees will negotiate profit as a separate element of the price for each contract in which there is no price competition and in all cases where cost analysis is performed. To establish a fair and reasonable profit, consideration will be given to the complexity of the work to be performed, the risk borne by the contractor, the contractor's investment, the amount of subcontracting, the quality of its record of past performance, and industry profit rates in the surrounding geographical area for similar work.

(3) Costs or prices based on estimated costs for contracts under grants will be allowable only to the extent that costs incurred or cost estimates included in negotiated prices are consistent with Federal cost principles (see Sec. 31.22). Grantees may reference their own cost principles that comply with the applicable Federal cost principles.

(4) The cost plus a percentage of cost and percentage of construction cost methods of contracting shall not be used.

(g) Awarding agency review.

(1) Grantees and sub-grantees must make available, upon request of the awarding agency, technical specifications on proposed procurements where the awarding agency believes such review is needed to ensure that the item and/or service specified is the one being proposed for purchase. This review generally will take place prior to the time the specification is incorporated into a solicitation document. However, if the grantee or sub-grantee desires to have the review accomplished after a solicitation has been developed, the awarding agency may still review the specifications, with such review usually limited to the technical aspects of the proposed purchase.

(2) Grantees and sub-grantees must on request make available for awarding agency pre-award review procurement documents, such as requests for proposals or invitations for bids, independent cost estimates, etc. when:

(i) A grantee's or sub-grantee's procurement procedures or operation fails to comply with the procurement standards in this section; or

(ii) The procurement is expected to exceed the simplified acquisition threshold and is to be awarded without competition or only one bid or offer is received in response to a solicitation; or

(iii) The procurement, which is expected to exceed the simplified acquisition threshold, specifies a "brand name" product; or

(iv) The proposed award is more than the simplified acquisition threshold and is to be awarded to other than the apparent low bidder under a sealed bid procurement; or

(v) A proposed contract modification changes the scope of a contract or increases the contract amount by more than the simplified acquisition threshold.

(3) A grantee or sub-grantee will be exempt from the pre-award review in paragraph (g)(2) of this section if the awarding agency determines that its procurement systems comply with the standards of this section.

(i) A grantee or sub-grantee may request that its procurement system be reviewed by the awarding agency to determine whether its system meets these standards in order for its system to be certified. Generally, these reviews shall occur where there is a continuous high-dollar funding, and third-party contracts are awarded on a regular basis.

(ii) A grantee or sub-grantee may self-certify its procurement system. Such self-certification shall not limit the awarding agency's right to survey the system. Under a self-certification procedure, awarding agencies may wish to rely on written assurances from the grantee or sub-grantee that it is complying with

these standards. A grantee or sub-grantee will cite specific procedures, regulations, standards, etc., as being in compliance with these requirements and have its system available for review.

(h) Bonding requirements. For construction or facility improvement contracts or subcontracts exceeding the simplified acquisition threshold, the awarding agency may accept the bonding policy and requirements of the grantee or sub-grantee provided the awarding agency has made a determination that the awarding agency's interest is adequately protected. If such a determination has not been made, the minimum requirements shall be as follows:

(1) A minimum bid guarantee from each bidder equivalent to five percent of the bid price. The "bid guarantee" shall consist of a firm commitment such as a bid bond, certified check, or other negotiable instrument accompanying a bid as assurance that the bidder will, upon acceptance of his bid, execute such contractual documents as may be required within the time specified.

(2) A performance bond on the part of the contractor for 100 percent of the contract price. A "performance bond" is one executed in connection with a contract to secure fulfillment of all the contractor's obligations under such contract.

(3) A payment bond on the part of the contractor for 100 percent of the contract price. A "payment bond" is one executed in connection with a contract to assure payment as required by law of all persons supplying labor and material in the execution of the work provided for in the contract.

(i) Contract provisions. A grantee's and sub-grantee's contracts must contain provisions in paragraph (i) of this section. Federal agencies are permitted to require changes, remedies, changed conditions, access and records retention, suspension of work, and other clauses approved by the Office of Federal Procurement Policy.

(1) Administrative, contractual, or legal remedies in instances where contractors violate or breach contract terms, and provide for such sanctions and penalties as may be appropriate. (Contracts more than the simplified acquisition threshold)

(2) Termination for cause and for convenience by the grantee or sub-grantee including the manner by which it will be effected and the basis for settlement. (All contracts in excess of \$10,000)

(3) Compliance with Executive Order 11246 of September 24, 1965, entitled "Equal Employment Opportunity," as amended by Executive Order 11375 of October 13, 1967, and as supplemented in Department of Labor regulations (41 CFR chapter 60). (All construction contracts awarded in excess of \$10,000 by grantees and their contractors or sub-grantees)

(4) Compliance with the Copeland "Anti-Kickback" Act (18 U.S.C. 874) as supplemented in Department of Labor regulations (29 CFR part 3). (All contracts and sub-grants for construction or repair)

(5) Compliance with the Davis-Bacon Act (40 U.S.C. 276a to 276a-7) as supplemented by Department of Labor regulations (29 CFR part 5). (Construction contracts in excess of \$2000 awarded by grantees and sub-grantees when required by Federal grant program legislation)

(6) Compliance with Sections 103 and 107 of the Contract Work Hours and Safety Standards Act (40 U.S.C. 327-330) as supplemented by Department of Labor regulations (29 CFR part 5). (Construction contracts awarded by grantees and sub-grantees in excess of \$2000, and in excess of \$2500 for other contracts which involve the employment of mechanics or laborers)

(7) Notice of awarding agency requirements and regulations pertaining to reporting.

(8) Notice of awarding agency requirements and regulations pertaining to patent rights with respect to any discovery or invention which arises or is developed in the course of or under such contract.

(9) Awarding agency requirements and regulations pertaining to copyrights and rights in data.

(10) Access by the grantee, the sub-grantee, the Federal grantor agency, the Comptroller General of the United States, or any of their duly authorized representatives to any books, documents, papers, and records of the contractor which are directly pertinent to that specific contract for the purpose of making audit, examination, excerpts, and transcriptions.

(11) Retention of all required records for three years after grantees or sub-grantees make final payments and all other pending matters are closed.

(12) Compliance with all applicable standards, orders, or requirements issued under section 306 of the Clean Air Act (42 U.S.C. 1857(h)), section 508 of the Clean Water Act (33 U.S.C. 1368), Executive Order 11738, and Environmental Protection Agency regulations (40 CFR part 15). (Contracts, subcontracts, and sub-grants of amounts in excess of \$100,000)

(13) Mandatory standards and policies relating to energy efficiency which are contained in the State energy conservation plan issued in compliance with the Energy Policy and Conservation Act (Pub. L. 94-163, 89 Stat. 871).

(j) Payment to consultants.

(1) EPA will limit its participation in the salary rate (excluding overhead) paid to individual consultants retained by grantees or by a grantee's contractors or subcontractors to the maximum daily rate for a GS-18. (Grantees may, however, pay consultants more than this amount). This limitation applies to consultation services of designated individuals with specialized skills who are paid at a daily or hourly rate. This rate does not include transportation and subsistence costs for travel performed; grantees will pay these in accordance with their normal travel reimbursement practices. (Pub. L. 99-591).

(2) Sub-agreements with firms for services which are awarded using the procurement requirements in this part are not affected by this limitation.

(k) Use of the same architect or engineer during construction.

(1) If the grantee is satisfied with the qualifications and performance of the architect or engineer who provided any or all of the facilities planning or design services for a waste-water treatment works project and wishes to retain that firm or individual during construction of the project, it may do so without further public notice and evaluation of qualifications, provided:

(i) The grantee received a facilities planning (Step 1) or design grant (Step 2), and selected the architect or engineer in accordance with EPA's procurement regulations in effect when EPA awarded the grant; or

(ii) The award official approves noncompetitive procurement under Sec. 31.36(d)(4) for reasons other than simply using the same individual or firm that provided facilities planning or design services for the project; or

(iii) The grantee attests that:

(A) The initial request for proposals clearly stated the possibility that the firm or individual selected could be awarded a sub-agreement for services during construction; and

(B) The firm or individual was selected for facilities planning or design services in accordance with procedures specified in this section.

(C) No employee, officer or agent of the grantee, any member of their immediate families, or their partners have financial or other interest in the firm selected for award; and

(D) None of the grantee's officers, employees or agents solicited or accepted gratuities, favors or anything of monetary value from contractors or other parties to sub-agreements.

(2) However, if the grantee uses the procedures in paragraph (k)(1) of this section to retain an architect or engineer, any Step 3 sub-agreements between the architect or engineer and the grantee must meet all of the other procurement provisions in Sec. 31.36.

[53 FR 8068 and 8087, Mar. 11, 1988, and amended at 53 FR 8075, Mar. 11, 1988; 60 FR 19639, 19644, Apr. 19, 1995; 66 FR 3794, Jan. 16, 2001]

KRS Chapter 45A
Kentucky Model Procurement Code

45A.075 Methods of awarding state contracts.

Except as otherwise authorized by law, all state contracts shall be awarded by:

- (1) Competitive sealed bidding, pursuant to KRS 45A.080; or
- (2) Competitive negotiation, pursuant to KRS 45A.085 and 45A.090 or 45A.180; or
- (3) Noncompetitive negotiation, pursuant to KRS 45A.095; or
- (4) Small purchase procedures, pursuant to KRS 45A.100.

Effective: June 24, 2003

History: Amended 2003 Ky. Acts ch. 98, sec. 4, effective June 24, 2003. -- Created 1978 Ky. Acts ch. 110, sec. 16, effective January 1, 1979.

45A.080 Competitive sealed bidding.

(1) Contracts exceeding the amount provided by KRS 45A.100 shall be awarded by competitive sealed bidding unless it is determined in writing that this method is not practicable. Factors to be considered in determining whether competitive sealed bidding is not practicable shall include:

- (a) Whether specifications can be prepared that permit award on the basis of best value; and
- (b) The available sources, the time and place of performance, and other relevant circumstances as are appropriate for the use of competitive sealed bidding.

(2) The invitation for bids shall state that awards shall be made on the basis of best value. In any contract which is awarded under an invitation to bid which requires delivery by a specified date and imposes a penalty for late delivery, if the delivery is late, the contractor shall be given the opportunity to present evidence that the cause of the delay was beyond his control. If it is the opinion of the purchasing officer that there is sufficient justification for delayed delivery, the purchasing officer may adjust or waive any penalty that is provided for in the contract.

(3) Adequate public notice of the invitation for bids shall be given a sufficient time prior to the date set forth for the opening of bids. The notice may include posting on the Internet or publication in a newspaper or newspapers of general circulation in the state as determined by the secretary of the Finance and Administration Cabinet not less than seven (7) days before the date set for the opening of the bids. The provisions of this subsection shall also apply to price contracts and purchase contracts of state institutions of higher education.

(4) Bids shall be opened publicly at the time and place designated in the invitation for bids. At the time the bids are opened, the purchasing agency shall announce the agency's engineer's estimate, if applicable, and make it a part of the agency records pertaining to the letting of any contract for which bids were received. Each bid, together with the name of the bidder and the agency's engineer's estimate, shall be recorded and be open to public inspection. Electronic bid opening and posting of the required information for public viewing shall satisfy the requirements of this subsection.

(5) The contract shall be awarded by written notice to the responsive and responsible bidder whose bid offers the best value.

(6) Correction or withdrawal of bids shall be allowed only to the extent permitted by regulations issued by the secretary.

Effective: July 14, 2000

History: Amended 2000 Ky. Acts ch. 509, sec. 1, effective July 14, 2000. -- Amended 1998 Ky. Acts ch. 120, sec. 10, effective July 15, 1998. -- Amended 1997 (1st Extra. Sess.) Ky. Acts ch. 4, sec. 27, effective May 30, 1997. -- Amended 1996 Ky. Acts ch. 60, sec. 2, effective July 15, 1996. -- Amended 1994 Ky. Acts ch. 278, sec. 1, effective July 15, 1994. -- Amended 1982 Ky. Acts ch. 282, sec. 1, effective July 15, 1982. -- Amended 1979 (1st Extra.

Sess.) Ky. Acts ch. 9, sec. 1, effective February 10, 1979. -- Created 1978 Ky. Acts ch. 110, sec. 17, effective January 1, 1979.

45A.085 Competitive negotiation.

(1) When, under administrative regulations promulgated by the secretary or under KRS 45A.180, the purchasing officer determines in writing that the use of competitive sealed bidding is not practicable, and except as provided in KRS 45A.095 and 45A.100, a contract may be awarded by competitive negotiation.

(2) Adequate public notice of the request for proposals shall be given in the same manner and circumstances as provided in KRS 45A.080(3).

(3) Contracts other than contracts for projects utilizing an alternative project delivery method under KRS 45A.180 may be competitively negotiated when it is determined in writing by the purchasing officer that the bids received by competitive sealed bidding either are unreasonable as to all or part of the requirements, or were not independently reached in open competition, and for which each competitive bidder has been notified of the intention to negotiate and is given reasonable opportunity to negotiate.

(4) Contracts for projects utilizing an alternative project delivery method shall be processed in accordance with KRS 45A.180.

(5) The request for proposals shall indicate the relative importance of price and other evaluation factors.

(6) Award shall be made to the responsible offerer whose proposal is determined in writing to be the most advantageous to the Commonwealth, taking into consideration price and the evaluation factors set forth in the request for proposals.

(7) Written or oral discussions shall be conducted with all responsible offerers who submit proposals determined in writing to be reasonably susceptible of being selected for award. Discussions shall not disclose any information derived from proposals submitted by competing offerers. Discussions need not be conducted:

(a) With respect to prices, where the prices are fixed by law or administrative regulation, except that consideration shall be given to competitive terms and conditions;

(b) Where time of delivery or performance will not permit discussions; or

(c) Where it can be clearly demonstrated and documented from the existence of adequate competition or prior experience with the particular supply, service, or construction item, that acceptance of an initial offer without discussion would result in fair and reasonable best value procurement, and the request for proposals notifies all offerers of the possibility that award may be made on the basis of the initial offers.

Effective: June 24, 2003

History: Amended 2003 Ky. Acts ch. 98, sec. 5, effective June 24, 2003. -- Amended 1997 (1st Extra. Sess.) Ky. Acts ch. 4, sec. 28, effective May 30, 1997. -- Amended 1979 (1st Extra. Sess.) Ky. Acts ch. 9, sec. 2, effective February 10, 1979. -- Created 1978 Ky. Acts ch. 110, sec. 18, effective January 1, 1979.

45A.090 Negotiation after competitive sealed bidding when all bids exceed available funds.

(1) In the event that all bids submitted pursuant to competitive sealed bidding under KRS 45A.080 result in bid prices in excess of the funds available for the purchase, and the chief purchasing officer determines in writing:

(a) That there are no additional funds available from any source so as to permit an award to the responsive and responsible bidder whose bid offers the best value; and

(b) The best interest of the state will not permit the delay attendant to a resolicitation under revised specifications, or for revised quantities, under competitive sealed bidding as provided in KRS 45A.080, then a negotiated award may be made as set forth in subsections (2) or (3) of this section.

(2) Where there is more than one (1) bidder, competitive negotiations pursuant to KRS 45A.085(3) shall be conducted with the three (3) (two (2) if there are only two (2)) bidders determined in writing to be the most responsive and responsible bidders, based on criteria contained in the bid invitation. Such competitive negotiations shall be conducted under the following restrictions:

(a) If discussions pertaining to the revision of the specifications or quantities are held with any potential offerer, all other potential offerers shall be afforded an opportunity to take part in such discussions; and

(b) A request for proposals, based upon revised specifications or quantities, shall be issued as promptly as possible, shall provide for an expeditious response to the revised requirements, and shall be awarded upon the basis of best value.

(3) Where, after competitive sealed bidding, it is determined in writing that there is only one (1) responsive and responsible bidder, a noncompetitive negotiated award may be made with such bidder in accordance with KRS 45A.095.

Effective: June 24, 2003

History: Amended 2003 Ky. Acts ch. 98, sec. 6, effective June 24, 2003. – Amended 1997 (1st Extra. Sess.) Ky. Acts ch. 4, sec. 29, effective May 30, 1997. – Created 1978 Ky. Acts ch. 110, sec. 19, effective January 1, 1979.

45A.095 Noncompetitive negotiation.

(1) A contract may be made by noncompetitive negotiation only for sole source purchases, or when competition is not feasible, as determined by the purchasing officer in writing prior to award, under administrative regulations promulgated by the secretary of the Finance and Administration Cabinet or the governing boards of universities operating under KRS Chapter 164A, or when emergency conditions exist. Sole source is a situation in which there is only one (1) known capable supplier of a commodity or service, occasioned by the unique nature of the requirement, the supplier, or market conditions. Insofar as it is practical, no less than three (3) suppliers shall be solicited to submit written or oral quotations whenever it is determined that competitive sealed bidding is not feasible. Award shall be made to the supplier offering the best value. The names of the suppliers submitting quotations and the date and amount of each quotation shall be placed in the procurement file and maintained as a public record. Competitive bids may not be required:

(a) For contractual services where no competition exists, such as telephone service, electrical energy, and other public utility services;

(b) Where rates are fixed by law or ordinance;

(c) For library books;

(d) For commercial items that are purchased for resale;

(e) For interests in real property;

(f) For visiting speakers, professors, expert witnesses, and performing artists;

(g) For personal service contracts executed pursuant to KRS 45A.690 to 45A.725; and

(h) For agricultural products in accordance with KRS 45A.645.

(2) The chief procurement officer, the head of a using agency, or a person authorized in writing as the designee of either officer may make or authorize others to make emergency procurements when an emergency condition exists.

(3) An emergency condition is a situation which creates a threat or impending threat to public health, welfare, or safety such as may arise by reason of fires, floods, tornadoes, other natural or man-caused disasters, epidemics, riots, enemy attack, sabotage, explosion, power failure, energy shortages, transportation emergencies, equipment failures, state or federal legislative mandates, or similar events. The existence of the emergency condition creates an immediate and serious need for services, construction, or items of tangible personal property that cannot be met through

normal procurement methods and the lack of which would seriously threaten the functioning of government, the preservation or protection of property, or the health or safety of any person.

(4) The Finance and Administration Cabinet may negotiate directly for the purchase of contractual services, supplies, materials, or equipment in bona fide emergencies regardless of estimated costs. The existence of the emergency shall be fully explained, in writing, by the head of the agency for which the purchase is to be made. The explanation shall be approved by the secretary of the Finance and Administration Cabinet and shall include the name of the vendor receiving the contract along with any other price quotations and a written determination for selection of the vendor receiving the contract. This information shall be filed with the record of all such purchases and made available to the public. Where practical, standard specifications shall be followed in making emergency purchases. In any event, every effort should be made to effect a competitively established price for purchases made by the state.

Effective: July 15, 2002

History: Amended 2002 Ky. Acts ch. 344, sec. 9, effective July 15, 2002. -- Amended 1997 (1st Extra. Sess.) Ky. Acts ch. 4, sec. 30, effective May 30, 1997. -- Amended 1990 Ky. Acts ch. 496, sec. 4, effective July 13, 1990. -- Created 1978 Ky. Acts ch. 110, sec. 20, effective January 1, 1979.

45A.100 Small purchases.

(1) Procurements may be made in accordance with small purchase administrative regulations promulgated by the secretary of the Finance and Administration Cabinet, pursuant to KRS Chapter 13A, as follows:

(a) Up to ten thousand dollars (\$10,000) per project for construction and one thousand dollars (\$1,000) for purchases by any state governmental body, except for those state administrative bodies specified in paragraph (b) of this subsection; and

(b) Up to forty thousand dollars (\$40,000) per project for construction or purchases by the Finance and Administration Cabinet, state institutions of higher education, and the legislative branch of government.

(2) Procurement requirements shall not be artificially divided so as to constitute a small purchase under this section. At least every two (2) years, the secretary shall review the prevailing costs of labor and materials and may make recommendations to the next regular session of the General Assembly for the revision of the then current maximum small purchase amount as justified by intervening changes in the cost of labor and materials.

(3) The secretary of the Finance and Administration Cabinet may grant to any state agency with a justifiable need a delegation of small purchasing authority, which exceeds the agency's small purchase limit, provided in subsection (1) of this section. Delegations of small purchasing authority shall be granted or revoked by the secretary of the Finance and Administration Cabinet, in accordance with administrative regulations promulgated by the cabinet pursuant to KRS Chapter 13A. These administrative regulations shall establish, at a minimum, the criteria for granting and revoking delegations of small purchasing authority, including the requesting agency's past compliance with purchasing regulations, the level of training of the agency's purchasing staff, and the extent to which the agency utilizes the Kentucky Automated Purchasing System. The administrative regulations may permit the secretary of the Finance and Administration Cabinet to delegate small purchase procurements up to the maximum amount specified in subsection (1)(b) of this section.

Effective: July 15, 2002

History: Amended 2002 Ky. Acts ch. 320, sec. 2, effective July 15, 2002. -- Amended 2000 Ky. Acts ch. 225, sec. 1, effective July 14, 2000. -- Amended 1996 Ky. Acts ch. 60, sec. 1, effective July 15, 1996. -- Amended 1994 Ky. Acts ch. 323, sec. 1, effective July 15, 1994. -- Amended 1990 Ky. Acts ch. 496, sec. 5, effective July 13, 1990. -- Amended 1986 Ky. Acts ch. 384, sec. 1, effective July 15, 1986. -- Amended 1984 Ky. Acts ch. 384, sec. 1, effective July 13, 1984. -- Amended 1982 Ky. Acts ch. 282, sec. 2, effective July 15, 1982. -- Amended 1980 Ky. Acts ch. 242, sec. 1, effective July 15, 1980; and ch. 250, sec. 19, effective April 9, 1980. -- Created 1978 Ky. Acts ch. 110, sec. 21, effective January 1, 1979.

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

The following excerpts are from 45 FR 65984 (October 3, 1980):

The minority and female goals apply to Federal and federally assisted construction contractors and subcontractors which have covered contracts. The goals are expressed as a percentage of the total hours worked by such a covered or subcontractor's entire onsite construction workforce, which is working on any construction site within a relevant area. The goal applies to each construction craft and trade in the contractor's entire workforce in the relevant area including those employees working on private non-federally involved projects.

Until further notice, the following goals for minority utilization in each construction craft and trade shall be included in all Federal or federally assisted construction contracts and subcontracts in excess of \$10,000 to be performed in the respective geographic area. The goals are applicable to each nonexempt contractor's total onsite construction workforce, regardless of whether or not part of that workforce is performing work on a Federal, federally assisted or non-federally related project, contract or subcontract.

Construction contractors which are participating in an approved Hometown Plan (see 41 CFR 60-4.5) are required to comply with the goals of the Hometown Plan with regard to construction work they perform in the area covered by the Hometown Plan. With regard to all their other covered construction work, such contractors are required to comply as follows:

- Goals for female participation in each trade.....6.9%
- Goals for minority participation in each trade.....Insert goals for each year
(see Attachment Number 6)

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 following excerpts are from 45 FR 65977 (October 3, 1980):

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 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; 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 (insert description of the geographical areas where the contract is to be performed giving the state, country, and city, if any).

**STANDARD FEDERAL EQUAL EMPLOYMENT OPPORTUNITY CONSTRUCTION
CONTRACT SPECIFICATIONS (EXECUTIVE ORDER 11246)**

EEO Specifications

Following is the standard language, which must be incorporated into 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 designated geographical areas:

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 Program, 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's or Subcontractor's failure to take a 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. The Contractor is expected to make substantially uniform progress toward its goals in each craft during the period specified.

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

6. In order for the non-working training hours of apprentices and trainees to be counted in meeting the goals, such apprentices and trainees must be employed by the contractor during the training period, and the Contractor must have made a commitment to employ the apprentices and trainees at the completion of their training, subject to the availability of employment opportunities. Trainees must be trained pursuant to training programs approved by the 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 actions steps at least as extensively 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 obligation.

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 complied under 7-b 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, lay-off, termination or other employment decisions including specific review of these items with on-site supervisory personnel such as Superintendents, General Foreman, 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 workforce.

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 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 EEO policy and the Contractor's obligations under these specifications are being carried out.

n. Ensure that all facilities and company activities are nonsegregated 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 supervisor's 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 actions obligations (7 a through p). The efforts of a contractor association, joint contractor-union, contractor-community, of 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 7 a 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 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 goal 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 for 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).

EEO Goals for Economic Areas in Region 4

Source: Appendix B-80 in 45 FR 65984 (October 3, 1980)

Kentucky:

| | |
|---|------|
| 056 Paducah, KY: | |
| Non-SMSA Counties | 5.2 |
| IL Hardin; IL Massac; IL Pope; KY Ballard; KY Caldwell; KY Calloway. KY Carlisle; KY Crittenden; KY Fulton; KY Graves; KY Hickman; KY Livingston; KY Lyon. KY McCracken; KY Marshall. | |
| 057 Louisville, KY: | |
| SMSA Counties: | |
| 4520 Louisville, KY-IN | 11.2 |
| IN Clark; IN Floyd; KY Bullitt; KY Jefferson; KY Oldham. | |
| Non-SMSA Counties | 9.6 |
| IN Crawford; IN Harrison; IN Jefferson; IN Orange; IN Scott; IN Washington; KY Breckinridge; KY Grayson; KY Hardin; KY Hart; KY Henry; KY Larue; KY Marion; KY Meade; KY Nelson; KY Shelby; KY Spencer; KY Trimble; KY Washington. | |
| 058 Lexington, KY | |
| SMSA Counties | |
| 4280 Lexington-Fayette, KY | 10.8 |
| KY Bourbon; KY Clark; KY Fayette; KY Jessamine; KY Scott; KY Woodford. | |
| Non-SMSA Counties | 7.0 |
| KY Adair KY Anderson; KY Bath; KY Boyle; KY Breathitt; KY Casey; KY Clay; KY Estill; KY Franklin- KY Garrard; KY Green; KY Harrison- KY Jackson; KY Knott; KY Lee; KY Leslie; KY Letcher; KY Lincoln; KY Madison; KY Magoffin; KY Meniffee; KY Mercer; KY Montgomery; KY Morgan. KY Nicholas; KY Owsley; KY Perry; KY Powell; KY Pulaski; KY Rockcastle; KY Russell; KY Taylor; KY Wolfe. | |

**CHECK LIST OF EEO DOCUMENTATION FOR BIDDERS
ON GRANT/LOAN CONSTRUCTION
(Required by Executive Order 11246 as amended)**

The low, responsive responsible bidder must forward the following items, in duplicate, to the owner no later than ten (10) days after bid opening. The owner shall have one (1) copy available for inspection by the Office of Federal Contracts Compliance within 14 days after the bid opening. The web site for the OFCC is http://www.dol.gov/esa/ofcp_org.htm.

1. Project Number. Project Location. Type of Construction.
2. Proof of registration with the Joint Reporting Commission. (See Attachment Number 8.)
3. Copy of Affirmative Action Plan of contractor. Indicate company official responsible for EEO.
4. List of current construction contracts, with dollar amount. List contracting Federal Agency, if applicable.
5. Statistics concerning company percent workforce, permanent and temporary, by sex, race, trade, handicapped, and age. 40 CFR Part 7.
6. List of employment sources for project in question. If union sources are utilized, indicate percentage of minority membership within the union crafts.
7. Anticipated employment needs for this project, by sex, race and trade, with estimate of minority participation in specific trades.
8. List of subcontractors (name, address and telephone) with dollar amount and duration of subcontract. Subcontractor contracts over \$10,000 must submit items 1- 8. The following information must be provided for all supplier contracts regardless of contract size: name of company, contact person, address, telephone number, dollar value of the contract, and a list of the materials to be supplied to the prime contractor.
9. List of any subcontract work yet to be committed with estimate of dollar amount and duration of contract.
10. Contract Price. Duration of prime contract.
11. DBE Documents - See special instructions regarding use of Minority, and Women Owned, and Small Businesses.

Employer Information Report EEO-1

Under the direction of the US Equal Employment Opportunity Commission, the Joint Reporting Committee is responsible for the full-length, multi-phase processing of employment statistics collected on the Employer Information Report EEO-1. This report, also termed Standard Form 100, details the sex and race/ethnic composition of an employer's work force by job category.

The Employer Information EEO-1 survey is conducted annually under the authority of Public Law 88-352, Title VII of the Civil Rights Act of 1964, as amended by the Equal Employment Opportunity Act of 1972. All employers with 15 or more employees are covered by Public Law 88-352 and are required to keep employment records as specified by Commission regulations. Based on the number of employees and federal contract activities, certain large employers are required to file an EEO-1 Report on an annual basis.

The EEO-1 Report must be filed by:

(A) All private employers who are: (1) subject to Title VII of the Civil Rights Act of 1964 (as amended by the Equal Employment Opportunity Act of 1972) with 100 or more employees EXCLUDING State and local governments, primary and secondary school systems, institutions of higher education, Indian tribes and tax-exempt private memberships clubs other than labor organizations; OR (2) subject to Title VII who have fewer than 100 employees if the company is owned or affiliated with another company, or there is centralized ownership, control or management (such as central control of personnel policies and labor relations) so that the group legally constitutes a single enterprise and the entire enterprise employs a total of 100 or more employees.

(B) All federal contractors (private employers), who: (1) are not exempt as provided for by 41 CFR 60-1.5, (2) have 50 or more employees, and (a) are prime contractors or first-tier subcontractors, and have a contract, subcontract, or purchase order amounting to \$50,000 or more; or (b) serve as depository of Government funds in any amount, or (c) is a financial institution which is an issuing or paying agent for U.S. Savings Bonds and Notes.

Only those establishments located in the District of Columbia and the 50 states are required to submit the EEO-1 Report. No Reports should be filed for establishments in Puerto Rico, the Virgin Islands or other American Protectorates.

When filing for the EEO-1 Report for the first time, go to the web site at:

<http://www.mimdms.com/jrc.html> and select "Filing for the first time" from the box labeled INFORMATION. File out the electronic questionnaire to enter your company into Joint Reporting Committee (JRC) system. Once you have completed the registration process, you will be contacted on how to proceed with the EEO-1 Report. If you have previously registered with the JRC, follow their instructions to update your information.

Labor Standards Provisions for Federally Assisted Construction

Labor standards provisions applicable to contracts covering federally financed and assisted construction (29 CFR 5.5, Contract Provisions and Related Matters) that apply to EPA Special Appropriations Projects grants are:

(a)(4)(iii) Equal employment opportunity. The utilization of apprentices, trainees and journeymen under this part shall be in conformity with the equal employment opportunity requirements of Executive Order 11246, as amended, and 29 CFR Part 30.

(a)(5) Compliance with Copeland Act requirements. The contractor shall comply with the requirements of 29 CFR Part 3, which are incorporated by reference in this contract.

(a)(6) Subcontracts. The contractor or subcontractor shall insert in any subcontracts the clauses contained in 29 CFR 5.5 (a) (1) through (10) and such other clauses as the U.S. Environmental Protection Agency may by appropriate instructions require, and also a clause requiring the subcontractors to include these clauses in any lower tier subcontracts. The prime contractor shall be responsible for the compliance by any subcontractor or lower tier subcontractor with all the contract clauses in 29 CFR 5.5.

(a)(7) Contract termination: debarment. A breach of the contract clauses in 29 CFR 5.5 may be grounds for termination of the contract, and debarment as a contractor and a subcontractor as provided in 29 CFR 5.12.

(b) Contractor Work Hours and Safety Standards Act. The Administrator, EPA shall cause or require the contracting officer to insert the following clauses set forth in paragraph (b)(1),(2),(3), and (4) of this section in full in any contract subject to the overtime provisions of the Contract Work Hours and Safety Standards Act. These clauses shall be inserted in addition to the clauses required by *Section 5.5(a) of this title. As used in this paragraph, the terms laborers and mechanics include watchmen and guards.

(1) Overtime requirements. No contractor or subcontractor contracting for any part of the contract work which may require or involve the employment of laborers or mechanics shall require or permit any such laborer or mechanic in any work week in which he or she is employed on such work to in excess of forty hours in such workweek unless such laborer or mechanic receives compensation at a rate not less than one and one-half times the basic rate of pay for all hours worked in excess of forty hours in such workweek.

(2) Violation; liability for unpaid wages; liquidated damages. In the event of any violation of the clause set forth in paragraph (b) (1) of this section the contractor and any subcontractor responsible therefore shall be liable for the unpaid wages. In addition, such contractor and subcontractor shall be liable to the United States (in the case of work done under contract for the District of Columbia or a territory, to such District or to such territory), for unliquidated damages. Such liquidated damages shall be computed with respect to each individual laborer or mechanic, including watchmen and guards, employed in violation of the clause set forth in paragraph (b)(1) of this section, in the sum of \$10 for each calendar day on which such individual was required or permitted to work in excess of the standard workweek of forty hours without payment of the overtime wages required by the clause set forth in paragraph (b)(1) of this section.

(3) Withholding for unpaid wages and liquidated damages. The U.S. Environmental Protection Agency shall upon its own action or upon written request of an authorized representative of the Department of Labor withhold or cause to be withheld, from any moneys payable on account of work performed by the contractor or subcontractor under any such contract or any other Federal contract with the same prime contractor, or any other Federally- assisted contract subject to the Contract Work Hours and Safety Standards Act, which is held by the same prime contractor, such liabilities of such contractor or subcontractor for unpaid wages and liquidated damages as provided in the clause set forth in paragraph (b) (2) of this section.

(4) Subcontracts. The contractor or subcontractor shall insert in any subcontracts the clauses set forth in paragraph (b)(1) through (4) of this section and also a clause requiring the subcontractors to include these clauses in any lower tier subcontracts. The prime contractor shall be responsible for compliance by any subcontractor or lower tier subcontractor with the clauses set forth in paragraphs (b)(1) through (4) of this section.

(c) In addition to the clauses contained in paragraph (b), in any contract subject only to the Contract Work Hours and Safety Standards Act and not to any of the other statutes cited in section 5.1, the Administrator of EPA shall cause or require the contracting officer to insert a clause requiring that the contractor or subcontractor shall maintain payrolls and basic payroll records during the course of the work and shall preserve them for a period of three years from the completion of the contract for all laborers and mechanics, including guards and watchmen, working on the contract. Such records shall contain the name and address of each such employee, social security number, correct classifications, hourly worked, deductions made, and actual wages paid. Further, the Administrator of EPA shall cause or require the contracting officer to insert in any such contract a clause providing that the records to be maintained under this paragraph shall be made available by the contractor or subcontractor for inspection, copying, or transcription by authorized representatives of the U.S. Environmental Protection Agency and the Department of Labor, and the contractor or subcontractor will permit such representatives to interview employees during working hours on the job. (Approved by the Office of Management and Budget under OMB control numbers 1215-0140 and 1215-0017.)

CERTIFICATIONS

Debarred Firms

All prime Construction Contractors shall certify that Subcontractors have not and will not be awarded to any firm that is currently on the EPA Master List of Debarred, Suspended and Voluntarily Excluded Persons in accordance with the provisions of 40 CFR 32.500(c). Debarment action is taken against a firm for noncompliance with Federal Law.

All bidders shall complete the attached certification (Attachment Number 10) and submit to the owner with the bid proposal.

Anti-lobbying Certification

All prime Construction Contractors must certify (Attachment Number 11) that no appropriated funds were or will be expended for the purpose of lobbying the Executive or Legislative Branches of the Federal Government or Federal Agency concerning this contract (contract in excess of \$100,000). If the Contractor has made or agreed to make payment to influence any member of Congress in regard to award of this contract, a Disclosure Form must be completed and submitted to the owner with the bid proposal.

All prime Contractors must require all Subcontractors to submit the certification, which must also be submitted to the owner.

**CERTIFICATION REGARDING DEBARMENT,
SUSPENSION AND OTHER RESPONSIBILITY MATTERS**

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

- (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 a 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 to the above statements. My explanation is attached.

CERTIFICATION REGARDING LOBBYING
Certification for Contracts, Grants,
Loans, and Cooperative Agreements

The undersigned certifies, to the best of his or her knowledge and belief, that:

(1) No Federal appropriated funds have been paid or will be paid, by or on behalf of the undersigned, to any person for influencing or attempting to influence an officer or employee of an agency, a Member of Congress, an officer or employee of Congress, or an employee of a Member of Congress in connection with the awarding of any Federal contract, the making of any Federal grant, the making of any Federal loan, the entering into of any cooperative agreement, and the extension, continuation, renewal, amendment, or modification of any Federal contract, grant, loan, or cooperative agreement.

(2) If any funds other than Federal appropriated funds have been paid or will be paid to any person for influencing or attempting to influence an officer or employee of any agency, a Member of Congress, an officer or employee of Congress, or an employee of a Member of Congress in connection with this Federal contract, grant, loan, or cooperative agreement, the undersigned shall complete and submit Standard Form-LLL, "Disclosure Form to Report Lobbying," in accordance with its instructions.

(3) The undersigned shall require that the language of this certification be included in the award documents for all sub-awards at all tiers (including subcontracts, sub-grants, and contracts under grants, loans, and cooperative agreements) and that all sub-recipients shall certify and disclose accordingly.

This certification is a material representation of fact upon which reliance was placed when this transaction was made or entered into. Submission of this certification is a prerequisite for making or entering into this transaction imposed by section 1352, title 31, U.S. Code. Any person who fails to file the required certification shall be subject to a civil penalty of not less than \$10,000 and not more than \$100,000 for each such failure.

Typed Name & Title of Authorized Representative

Signature of Authorized Representative

Date

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

EPA DISADVANTAGED BUSINESS ENTERPRISE PROGRAM

EPA's Disadvantaged Business Enterprise Program rule applies to contract procurement actions funded in part by EPA assistance agreements awarded after May 27, 2008. The rule is found at Federal regulation Title 40, Part 33. Specific responsibilities are highlighted below.

Grant recipient responsibilities:

- Conduct an Availability Analysis and negotiate fair share objectives with EPA (§33.411), or adopt the fair share objectives of the oversight state agency revolving loan fund for comparable infrastructure. (§33.405(b)(3)).
- Include the Appendix A term and condition in each contract with a primary contractor (§3.106). The term and condition is included in the EPA Region 4 contract specifications insert *FEDERAL REQUIREMENTS AND CONTRACT PROVISIONS FOR SPECIAL APPROPRIATION ACT PROJECTS US ENVIRONMENTAL PROTECTION AGENCY, Region III, June 2008*.
- Employ the six Good Faith Efforts during prime contractor procurement (§33.301).
- Require prime contractor to comply with the following prime contractor requirements of Title 40 Part 33:
 - To employ the six Good Faith Efforts steps in paragraphs (a) through (e) of §33.301 if the prime contractor awards subcontracts (§33.301(f)).
 - To provide EPA form 6100-2 – *DBE Subcontractor Participation Form* to all DBE subcontractors (§33.302(e)).
 - To submit EPA forms 6100-3 – *DBE Program Subcontractor Performance Form* and 6100-4 – *DBE Program Subcontractor Utilization Form* with bid package or proposal. (§33.302 (f) and (g)).
 - To pay its subcontractor for satisfactory performance no more than 30 days from the prime contractor's receipt of payment from the recipient (§33.302(a)).
 - To notify recipient in writing by its prime contractor prior to any termination of a DBE subcontractor for convenience by the prime contractor (§33.302(b)).
 - To employ the six good faith efforts described in §33.301 if soliciting a replacement subcontractor after a DBE subcontractor fails to complete work under the subcontract for any reason. (§33.302(c)).
 - To employ the six good faith efforts described in §33.301 even if the prime contractor has achieved its fair share objectives under subpart D of Part 33. (§33.302(d)).

- Semiannually complete and submit to Charles Hayes, EPA Region 4 DBE Coordinator EPA form 5700-52A summarizing DBE participation achieved during the previous six months (§33.502).
- Maintain records documenting its compliance with the requirements of Title 40 Part 33, including documentation of its, and its prime contractors', good faith efforts (§33.501(a)).

Prime Contractor Responsibilities:

- Employ the six Good Faith Efforts steps in paragraphs (a) through (e) of §33.301 if the prime contractor awards subcontracts (§33.301(f)).
- Provide EPA form number 6100-2 – *DBE Program Subcontractor Participation Form* and form number 6100-3 – *DBE Program Subcontractor Performance Form* to each DBE subcontractor prior to opening of the contractor's bid or proposal (§33.302(e) and (f)).
- Complete EPA form number 6100-4 – *DBE Program Subcontractor Utilization Form* (§33.302(g)).
- Submit to recipient with its bid package or proposal the completed EPA form number 6100-4, plus an EPA form number 6100-3 for each DBE subcontractor used in the contractor's bid or proposal (§33.302(f) and (g)).
- Pay subcontractors for satisfactory performance no more than 30 days from the prime contractor's receipt of payment from the recipient (§33.302(a)).
- Notify the recipient in writing prior to prime contractor termination of a DBE subcontractor for convenience (§33.302(b)).
- Employ the six good faith efforts described in §33.301 if soliciting a replacement subcontractor after a DBE subcontractor fails to complete work under the subcontract for any reason. (§33.302(c)).
- Employ the six good faith efforts described in §33.301 even if the prime contractor has achieved its fair share objectives under subpart D of Part 33. (§33.302(d)).
- Semiannually inform recipient of DBE participation achieved (§33.502).
- Maintain records documenting its compliance with the requirements of Title 40 Part 33, including documentation of its, and its prime contractors', good faith efforts (§33.501(a)).

Subcontractor Responsibilities:

- May submit EPA form 6100-2 – *DBE Subcontractor Participation Form* to Charles Hayes, EPA Region 4 DBE Coordinator (§33.302(e)).
- Must complete EPA form 6100-3 – *DBE Program Subcontractor Performance Form*, and submit it to the prime contractor soliciting services from the subcontractor prior to the opening of bids for the prime contract.

SPAP Requirements:

| Form | Requirement | Provided By: | Completed By: | Submitted To: |
|-----------------|--|-------------------|--------------------|---|
| EPA Form 6100-2 | Grant Recipients required to have prime contractors provide form to Subcontractors | Prime Contractors | DBE Subcontractors | EPA Region 4 DBE Coordinator Charles Hayes |
| EPA Form 6100-3 | Grant Recipients required to have prime contractors provide form to Subcontractors | Prime Contractors | DBE Subcontractors | Grant Recipients as part of a bid or proposal package |
| EPA Form 6100-4 | Grant Recipients required to have prime contractors complete the form | Grant Recipients | Prime Contractors | Grant Recipients as part of a bid or proposal package |

SRF Requirements:

| Form | Requirement | Provided By: | Completed By: | Submitted To: |
|----------------------|--|-------------------|--------------------|--|
| EPA Form 6100-2 | Recipients required to have prime contractors provide form to Subcontractors | Prime Contractors | DBE Subcontractors | DOW Project Administrator |
| EPA Form 6100-3 | Recipients required to have prime contractors provide form to Subcontractors | Prime Contractors | DBE Subcontractors | Dow Project Administrator w/ATA Package |
| EPA Form 6100-4 | Recipients required to have prime contractors complete the form | Recipients | Prime Contractors | DOW Project Administrator w/ATA Package |
| Pay Request DBE Form | Recipients required to have prime contractors complete the form | Recipients | Prime Contractors | DOW Project Administrator w/EACH PAYMENT |

DISADVANTAGED BUSINESS ENTERPRISE PARTICIPATION POLICY

PROJECT NAME: _____

BID DATE: _____

1. Name, address and telephone number of contact person on all DBE matters:

Prime Contractor's Name: _____
Contact Person: _____
Address: _____
Phone: _____
Cell Phone: _____
Email: _____
Total Contract Amount: _____

2. Total dollar amount/percent of contract of MBE participation: _____

3. Total dollar amount/percent of contract of WBE participation: _____

4. Are certifications* for each MBE/WBE/DBE subcontractor enclosed; if no, please explain: Yes No _____

5. Are MBE/WBE/DBE subcontracts or letters of intent signed by both parties enclosed; if no, please explain: Yes No _____

6. List of MBE Subcontractors:

Name: _____
Contact Person: _____
Address: _____
Phone: _____
Cell Phone: _____
Email: _____
Type of Contract: _____
Work to be Done: _____
Amount: _____

7. List of WBE Subcontractors:

Name: _____
Contact Person: _____
Address: _____
Phone: _____
Cell Phone: _____
Email: _____
Type of Contract: _____
Work to be Done: _____
Amount: _____

Attach Additional Sheets, If Necessary

*Self-certification: Self certification of MBE/WBE/DBE firms will NOT be accepted as a valid form of certification of MBE/WBE/DBE status.

8. **Information and documentation concerning efforts taken to comply with EPA's "six good faith efforts"**

- (i). Ensure DBE construction firms or material suppliers are made aware of contracting opportunities to the fullest extent practicable through outreach and recruitment activities; including placing DBEs on solicitation lists and soliciting them whenever they are potential sources. A good source for a list of DBEs is the Kentucky Transportation's website: <http://transportation.ky.gov/Civil-Rights-and-Small-Business-Development/Pages/Certified-DBE-Directory.aspx>.
- The prime contractor certifies that a bidders list (see example sheet below) of qualified vendors, including DBEs, was developed for current and future solicitations and that the list will be maintained. *Submit a copy of the list as documentation.*
- (ii). Make information on forthcoming opportunities available to DBEs and arrange time frames for contracts and establish delivery schedules, where the requirements permit, in a way that encourages and facilitates participation by DBEs in the competitive process; including, whenever possible, posting solicitation for bids or proposals for a sufficient amount of time as to receive a competitive bid or proposal pool.
- The prime contractor certifies that every opportunity was provided to a number of DBEs to encourage their participation in the competitive process and that an adequate amount of time was provided for response.
- a. List each DBE construction firm or material supplier to which a solicitation was attempted. *Submit copies of letters, emails, faxes, telecommunication logs, certified mail receipts, returned envelopes, certified mail return receipts, etc. as documentation.*
- Company name and phone number: _____
- Area of work expertise: _____
- Date of any follow-ups and person spoke to: _____
- b. Advertisements, if applicable: List each publication in which an announcement or notification was placed. *Submit a tear sheet of each announcement from each publication as documentation.*
- Name of publication: _____
- Date(s) of advertisement: _____
- Specific subcontract areas announced: _____
- c. Other, if applicable: List each notification method in which an announcement or outreach was used; list serve, public meeting, etc. *Submit applicable information to document effort.*
- Method of notification: _____
- Date(s) of notification: _____
- (iii). Consider in the contracting process whether firms competing for large contracts could subcontract with DBEs; including dividing total requirements, when economically feasible, into smaller tasks or quantities to permit maximum participation by DBEs in the competitive process.
- The prime contractor certifies that the project was broken into its basic elements (i.e., dirt hauling, landscaping, painting, pipe installation, material supplies, etc.) and that a determination was made whether it's economically feasible to bid the elements separately and that the analysis of this effort was documented with a short memo to the project file.

- (iv). Establishing delivery schedules, where the requirement permits, which encourage participation by small and minority business, and women’s business enterprises.
 - The prime contractor certifies that they established delivery schedules which would allow DBEs to participate in the projects.
- (v). Use the services and assistance of the Small Business Administration (SBA) and the Minority Business Development Agency (MBDA) of the U.S. Department of Commerce. The easiest way to utilize the services of SBA and MBDA is to visit their websites: www.sba.gov and www.mbda.gov and use the electronic tools available there or you may send the nearest SBA and MBDA office a certified letter that generally describes the solicitation, the dates it will be open, the types of vendors you are seeking and applicable SIC or NAIC codes if known. You may also use the services and assistance of the Kentucky Procurement Assistance Program (KPAP). The easiest way to utilize the services of KPAP is to send an email: ccd.kpap@ky.gov and provide information on forthcoming opportunities available to DBEs.
 - The prime contractor certifies that the assistance of the SBA, MBDA, and/or KPAP was utilized. *Submit pages printed off the SBA and MBDA websites which evidence efforts to register a solicitation on those sites or submit copies of the letter sent and certified mail receipt as documentation; submit copies of emails with KPAP as documentation.*
- (vi). If a subcontractor awards any subcontracts, require the subcontractor to take the steps in numbers (i) through (v) above.
 - The prime contractor certifies that subcontractors used for this project will be required to follow the steps of the “six good faith efforts” as listed above.

9. Signature and date:

To the best of my knowledge and belief, all “six good faith efforts” have been met and the information contained in this document is true and correct; the document has been duly authorized by the legal representative.

Signature

Print name and title

Date

BIDDER'S LIST FORM

OWNER: _____

LOAN NO: _____

PROJECT TITLE: _____

BID DATE: _____

Instructions:

- 1. This list must include all firms that were solicited for participation, bid on, or quoted for a prime contract or subcontracts under EPA assisted projects, included both DBE's and non DBE's.
- 2. SRF loan participants must keep the Bidder's List until the project period for the identified loan has ended and no funds are remaining.
- 3. This list must be submitted to DOW in the ATA Package. Contract Award Approval cannot be given until this form has been received by DOW.
- 4. The following information must be obtained from all prime and subcontractors. Please complete the form below:

| ENTITY'S NAME | MAILING ADDRESS | CONTACT PERSON | PHONE# | E-MAIL ADDRESS | M/WBE? |
|---------------|-----------------|----------------|--------|----------------|--------|
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REGION 4
DISADVANTAGED BUSINESS ENTERPRISE (DBE) NEGOTIATED RATES
(Subject to change - refer to grant award for specific fair share objectives)

KENTUCKY

| | |
|----------------------------------|-------------------------|
| Construction: (both programs) | 4.10% MBE and 4.60% WBE |
| Equipment: | 1.10% MBE and 1.20% WBE |
| Services: | 10.8% MBE and 18.6% WBE |
| Supplies:* | 3.40% MBE and 6.30% WBE |

BONDS AND INSURANCE

The minimum requirements shall be as follows:

Bonding requirements for contracts of \$100,000 or less are contained in 40 CFR 31.36(h).

Bond requirements for contracts in excess of \$100,000 are:

- Bid guarantee equivalent to five percent of the bid price. The bid guarantee shall consist of a firm commitment such as a certified check or bid bond submitted with the bid;
- Performance bond equal to 100 percent of the contract price, and valid for one year beyond acceptance of the completed project;
- Payment bond equal to 100 percent of the contract price. Bonds must be obtained from companies holding Certificates of Authority as acceptable sureties, issued by the U.S. Treasury.

Insurance requirements are contained in the General Conditions of the contract. In addition to the other required insurance, the owner or the contractor, as appropriate, must acquire any flood insurance made available by the Federal Emergency Management Agency as required by 44 CFR Parts 59-79, if construction will take place in a flood hazard area identified by the Federal Emergency Management Agency. The owner's requirements on Flood Insurance are contained in the Special Conditions Section of the Contracts Documents.

OUTLAY MANAGEMENT

The contractor must provide a contract progress schedule of percentage of work in place and costs against time; and a schedule of projected payments (cumulative) for construction and for the architectural/engineering contract when the contract is awarded. The payment schedule must be submitted, in a format similar to the attached sample, to the owner for forwarding to the State when the contract is awarded, and whenever actual payments on a project vary beyond -5 percent and +10 percent from the schedule, as determined by the grantee.

Contractor will be required to review each of these contract schedules during the month of June and to submit revised schedules, as necessary, no later than July 1st of each year.

THIS FORMAT IS A SAMPLE ONLY.

CONSTRUCTION AND OUTLAY SCHEDULE

Project No.: _____

Applicant: _____

Contract Identification: _____

Description of Contract: _____

(INSTRUCTIONS FOR USE ON REVERSE SIDE)

SCHEDULE I – CONSTRUCTION SCHEDULE

Date for Advertisement: _____

Date for Opening Bids: _____

Pre-Construction Conference Date: _____

Date of Contract Award: _____

Contract Period: _____ days. Projected Contract Completion Date: _____

Total Eligible Contract Amount: _____

Work Order Date: _____

Start Construction Date: _____

Contract Completed: _____

SCHEDULE II – CUMULATIVE OUTLAY SCHEDULE (55% EPA Share) – Projection
only for quarters that remain in the fiscal year (FY) plus cumulative
annual amount for the next FY.

| | |
|--|----------|
| Cum EPA Amount thru 1 st Qtr. Oct./Dec.: | \$ _____ |
| Cum EPA Amount thru 2 nd Qtr. Jan./Mar.: | \$ _____ |
| Cum EPA Amount thru 3 rd Qtr. Apr./June: | \$ _____ |
| Cum EPA Amount thru 4 th Qtr. July/Sept.: | \$ _____ |
| Cum EPA Amount for Next Fiscal Year: | \$ _____ |

INSTRUCTIONS (Construction and Outlay Schedules)

To insure timely achievement of the grant objectives the owner (grantee) must provide EPA with a grants activities schedule, contract construction schedules and corresponding payment outlay schedules for the grant and each contract under the grant. One copy of information similar to that showing the Construction and Outlay Schedule Form will be submitted for the grant schedule with the grant acceptance. A separate form will accompany each contract at time of contract award.

- A. The grant activities schedule shall depict the period from grant award through grant closeout and cover all major milestone date. The grant activities schedule shall include Schedule I information items as well as other appropriate items necessary to monitor the grant. Schedule II shall be filled out to estimate the cumulative (all construction and architectural/engineering contracts) payment schedule to be requested by the grantee from EPA during the grant period, and whenever actual outlays vary beyond -5% and +10% from the schedule.
- B. Individual contractor's construction schedules for each contract will be submitted to support the grant activities schedule. The Schedule I shall be submitted prior to date of advertisement of each contract and Schedule II along with the contractor's construction schedule shall be submitted seven (7) calendar days prior to the dates of the pre-construction conference. The contractor's construction schedule shall depict the contractor's plan for completing all contract requirements and show work placement in dollars versus contract time. Schedule II shall depict the contract payment outlay by month or quarter. The contract schedule will be coordinated with all parties at the pre-construction conference.

The grants activities schedule, contractor construction schedules, will be the basis for monitoring progress towards completion of the project. The schedules shall be maintained at the available for inspection and updated at least monthly. The schedules shall be revised to incorporate approved change orders as they occur.

All of the schedules will be submitted to the State Division of Water.

NOTICE OF INTENT

All construction projects with surface disturbance of more than 1 acre during the period of construction must have a KPDES Storm Water General Permit. The permit can be found at the following web address:
<https://dep.gateway.ky.gov/eForms/default.aspx?FormID=7>.

If you have any questions regarding the completion of this form call the Surface Water Permits Branch, at (502) 564-3410.

DAVIS BACON REQUIREMENTS

Federal Davis-Bacon rates are applicable for these funds. This determination applies only to the loan portion of this project. Please contact the other funding sources, if applicable, for their requirements pertaining to federal wage rates. You must contact the Kentucky Labor Cabinet for determination of applicable state wages.

(a) The Agency head shall cause or require the contracting officer to insert in full in any contract in excess of \$2,000 which is entered into for the actual construction, alteration and/or repair, including painting and decorating, of a public building or public work, or building or work financed in whole or in part from Federal funds or in accordance with guarantees of a Federal agency or financed from funds obtained by pledge of any contract of a Federal agency to make a loan, grant or annual contribution (except where a different meaning is expressly indicated), and which is subject to the labor standards provisions of any of the acts listed in §5.1, the following clauses (or any modifications thereof to meet the particular needs of the agency, Provided, That such modifications are first approved by the Department of Labor):

(1) Minimum wages. (i) All laborers and mechanics employed or working upon the site of the work (or under the United States Housing Act of 1937 or under the Housing Act of 1949 in the construction or development of the project), will be paid unconditionally and not less often than once a week, and without subsequent deduction or rebate on any account (except such payroll deductions as are permitted by regulations issued by the Secretary of Labor under the Copeland Act (29 CFR part 3)), the full amount of wages and bona fide fringe benefits (or cash equivalents thereof) due at time of payment computed at rates not less than those contained in the wage determination of the Secretary of Labor which is attached hereto and made a part hereof, regardless of any contractual relationship which may be alleged to exist between the contractor and such laborers and mechanics.

Contributions made or costs reasonably anticipated for bona fide fringe benefits under section 1(b)(2) of the Davis-Bacon Act on behalf of laborers or mechanics are considered wages paid to such laborers or mechanics, subject to the provisions of paragraph (a)(1)(iv) of this section; also, regular contributions made or costs incurred for more than a weekly period (but not less often than quarterly) under plans, funds, or programs which cover the particular weekly period, are deemed to be constructively made or incurred during such weekly period. Such laborers and mechanics shall be paid the appropriate wage rate and fringe benefits on the wage determination for the classification of work actually performed, without regard to skill, except as provided in §5.5(a)(4). Laborers or mechanics performing work in more than one classification may be compensated at the rate specified for each classification for the time actually worked therein: provided, that the employer's payroll records accurately set forth the time spent in each classification in which work is performed. The wage determination (including any additional classification and wage rates conformed under paragraph (a)(1)(ii) of this section) and the Davis-Bacon poster (WH-1321) shall be posted at all times by the contractor and its subcontractors at the site of the work in a prominent and accessible place where it can be easily seen by the workers.

(ii)(A) The contracting officer shall require that any class of laborers or mechanics, including helpers, which is not listed in the wage determination and which is to be employed under the contract shall be classified in conformance with the wage determination. The contracting officer shall approve an additional classification and wage rate and fringe benefits therefore only when the following criteria have been met:

(1) The work to be performed by the classification requested is not performed by a classification in the wage determination; and

(2) The classification is utilized in the area by the construction industry; and

(3) The proposed wage rate, including any bona fide fringe benefits, bears a reasonable relationship to the wage rates contained in the wage determination.

(B) If the contractor and the laborers and mechanics to be employed in the classification (if known), or their representatives, and the contracting officer agree on the classification and wage rate (including the amount designated for fringe benefits where appropriate), a report of the action taken shall be sent by the contracting officer to the Administrator of the Wage and Hour Division, Employment Standards Administration, U.S. Department of Labor, Washington, DC 20210. The Administrator, or an authorized representative, will

approve, modify, or disapprove every additional classification action within 30 days of receipt and so advise the contracting officer or will notify the contracting officer within the 30-day period that additional time is necessary.

(C) In the event the contractor, the laborers or mechanics to be employed in the classification or their representatives, and the contracting officer do not agree on the proposed classification and wage rate (including the amount designated for fringe benefits, where appropriate), the contracting officer shall refer the questions, including the views of all interested parties and the recommendation of the contracting officer, to the Administrator for determination. The Administrator, or an authorized representative, will issue a determination within 30 days of receipt and so advise the contracting officer or will notify the contracting officer within the 30-day period that additional time is necessary.

(D) The wage rate (including fringe benefits where appropriate) determined pursuant to paragraphs (a)(1)(ii) (B) or (C) of this section, shall be paid to all workers performing work in the classification under this contract from the first day on which work is performed in the classification.

(iii) Whenever the minimum wage rate prescribed in the contract for a class of laborers or mechanics includes a fringe benefit which is not expressed as an hourly rate, the contractor shall either pay the benefit as stated in the wage determination or shall pay another bona fide fringe benefit or an hourly cash equivalent thereof.

(iv) If the contractor does not make payments to a trustee or other third person, the contractor may consider as part of the wages of any laborer or mechanic the amount of any costs reasonably anticipated in providing bona fide fringe benefits under a plan or program, *Provided, That the Secretary of Labor has found, upon the written request of the contractor, that the applicable standards of the Davis-Bacon Act have been met.* The Secretary of Labor may require the contractor to set aside in a separate account assets for the meeting of obligations under the plan or program.

(2) Withholding. The (write in name of Federal Agency or the loan or grant recipient) shall upon its own action or upon written request of an authorized representative of the Department of Labor withhold or cause to be withheld from the contractor under this contract or any other Federal contract with the same prime contractor, or any other federally-assisted contract subject to Davis-Bacon prevailing wage requirements, which is held by the same prime contractor, so much of the accrued payments or advances as may be considered necessary to pay laborers and mechanics, including apprentices, trainees, and helpers, employed by the contractor or any subcontractor the full amount of wages required by the contract. In the event of failure to pay any laborer or mechanic, including any apprentice, trainee, or helper, employed or working on the site of the work (or under the United States Housing Act of 1937 or under the Housing Act of 1949 in the construction or development of the project), all or part of the wages required by the contract, the (Agency) may, after written notice to the contractor, sponsor, applicant, or owner, take such action as may be necessary to cause the suspension of any further payment, advance, or guarantee of funds until such violations have ceased.

(3) Payrolls and basic records. (i) Payrolls and basic records relating thereto shall be maintained by the contractor during the course of the work and preserved for a period of three years thereafter for all laborers and mechanics working at the site of the work (or under the United States Housing Act of 1937, or under the Housing Act of 1949, in the construction or development of the project). Such records shall contain the name, address, and social security number of each such worker, his or her correct classification, hourly rates of wages paid (including rates of contributions or costs anticipated for bona fide fringe benefits or cash equivalents thereof of the types described in section 1(b)(2)(B) of the Davis-Bacon Act), daily and weekly number of hours worked, deductions made and actual wages paid. Whenever the Secretary of Labor has found under 29 CFR 5.5(a)(1)(iv) that the wages of any laborer or mechanic include the amount of any costs reasonably anticipated in providing benefits under a plan or program described in section 1(b)(2)(B) of the Davis-Bacon Act, the contractor shall maintain records which show that the commitment to provide such benefits is enforceable, that the plan or program is financially responsible, and that the plan or program has been communicated in writing to the laborers or mechanics affected, and records which show the costs anticipated or the actual cost incurred in providing such benefits. Contractors employing apprentices or trainees under approved programs shall maintain written evidence of the registration of apprenticeship programs and certification of trainee programs, the registration of the apprentices and trainees, and the ratios and wage rates prescribed in the applicable programs.

(ii)(A) The contractor shall submit weekly for each week in which any contract work is performed a copy of all payrolls to the (write in name of appropriate federal agency) if the agency is a party to the contract, but if the agency is not such a party, the contractor will submit the payrolls to the applicant, sponsor, or owner, as the case may be, for transmission to the (write in name of agency). The payrolls submitted shall set out accurately and completely all of the information required to be maintained under 29 CFR 5.5(a)(3)(i), except that full social security numbers and home addresses shall not be included on weekly transmittals. Instead the payrolls shall only need to include an individually identifying number for each employee (e.g. , the last four digits of the employee's social security number). The required weekly payroll information may be submitted in any form desired. Optional Form WH-347 is available for this purpose from the Wage and Hour Division Web site at <http://www.dol.gov/esa/whd/forms/wh347instr.htm> or its successor site. The prime contractor is responsible for the submission of copies of payrolls by all subcontractors. Contractors and subcontractors shall maintain the full social security number and current address of each covered worker, and shall provide them upon request to the (write in name of appropriate federal agency) if the agency is a party to the contract, but if the agency is not such a party, the contractor will submit them to the applicant, sponsor, or owner, as the case may be, for transmission to the (write in name of agency), the contractor, or the Wage and Hour Division of the Department of Labor for purposes of an investigation or audit of compliance with prevailing wage requirements. It is not a violation of this section for a prime contractor to require a subcontractor to provide addresses and social security numbers to the prime contractor for its own records, without weekly submission to the sponsoring government agency (or the applicant, sponsor, or owner).

(B) Each payroll submitted shall be accompanied by a "Statement of Compliance," signed by the contractor or subcontractor or his or her agent who pays or supervises the payment of the persons employed under the contract and shall certify the following:

(1) That the payroll for the payroll period contains the information required to be provided under §5.5 (a)(3)(ii) of Regulations, 29 CFR part 5, the appropriate information is being maintained under §5.5 (a)(3)(i) of Regulations, 29 CFR part 5, and that such information is correct and complete;

(2) That each laborer or mechanic (including each helper, apprentice, and trainee) employed on the contract during the payroll period has been paid the full weekly wages earned, without rebate, either directly or indirectly, and that no deductions have been made either directly or indirectly from the full wages earned, other than permissible deductions as set forth in Regulations, 29 CFR part 3;

(3) That each laborer or mechanic has been paid not less than the applicable wage rates and fringe benefits or cash equivalents for the classification of work performed, as specified in the applicable wage determination incorporated into the contract.

(C) The weekly submission of a properly executed certification set forth on the reverse side of Optional Form WH-347 shall satisfy the requirement for submission of the "Statement of Compliance" required by paragraph (a)(3)(ii)(B) of this section.

(D) The falsification of any of the above certifications may subject the contractor or subcontractor to civil or criminal prosecution under section 1001 of title 18 and section 231 of title 31 of the United States Code.

(iii) The contractor or subcontractor shall make the records required under paragraph (a)(3)(i) of this section available for inspection, copying, or transcription by authorized representatives of the (write the name of the agency) or the Department of Labor, and shall permit such representatives to interview employees during working hours on the job. If the contractor or subcontractor fails to submit the required records or to make them available, the Federal agency may, after written notice to the contractor, sponsor, applicant, or owner, take such action as may be necessary to cause the suspension of any further payment, advance, or guarantee of funds. Furthermore, failure to submit the required records upon request or to make such records available may be grounds for debarment action pursuant to 29 CFR 5.12.

(4) Apprentices and trainees —(i) Apprentices. Apprentices will be permitted to work at less than the predetermined rate for the work they performed when they are employed pursuant to and individually registered in a bona fide apprenticeship program registered with the U.S. Department of Labor, Employment and Training Administration, Office of Apprenticeship Training, Employer and Labor Services, or with a State Apprenticeship Agency recognized by the Office, or if a person is employed in his or her first 90 days of probationary employment as an apprentice in such an apprenticeship program, who is not individually registered in the program, but who has been certified by the Office of Apprenticeship Training, Employer and Labor Services or a State Apprenticeship Agency (where appropriate) to be eligible for probationary

employment as an apprentice. The allowable ratio of apprentices to journeymen on the job site in any craft classification shall not be greater than the ratio permitted to the contractor as to the entire work force under the registered program. Any worker listed on a payroll at an apprentice wage rate, who is not registered or otherwise employed as stated above, shall be paid not less than the applicable wage rate on the wage determination for the classification of work actually performed. In addition, any apprentice performing work on the job site in excess of the ratio permitted under the registered program shall be paid not less than the applicable wage rate on the wage determination for the work actually performed. Where a contractor is performing construction on a project in a locality other than that in which its program is registered, the ratios and wage rates (expressed in percentages of the journeyman's hourly rate) specified in the contractor's or subcontractor's registered program shall be observed. Every apprentice must be paid at not less than the rate specified in the registered program for the apprentice's level of progress, expressed as a percentage of the journeymen hourly rate specified in the applicable wage determination. Apprentices shall be paid fringe benefits in accordance with the provisions of the apprenticeship program. If the apprenticeship program does not specify fringe benefits, apprentices must be paid the full amount of fringe benefits listed on the wage determination for the applicable classification. If the Administrator determines that a different practice prevails for the applicable apprentice classification, fringes shall be paid in accordance with that determination. In the event the Office of Apprenticeship Training, Employer and Labor Services, or a State Apprenticeship Agency recognized by the Office, withdraws approval of an apprenticeship program, the contractor will no longer be permitted to utilize apprentices at less than the applicable predetermined rate for the work performed until an acceptable program is approved.

(ii) Trainees. Except as provided in 29 CFR 5.16, trainees will not be permitted to work at less than the predetermined rate for the work performed unless they are employed pursuant to and individually registered in a program which has received prior approval, evidenced by formal certification by the U.S. Department of Labor, Employment and Training Administration. The ratio of trainees to journeymen on the job site shall not be greater than permitted under the plan approved by the Employment and Training Administration. Every trainee must be paid at not less than the rate specified in the approved program for the trainee's level of progress, expressed as a percentage of the journeyman hourly rate specified in the applicable wage determination. Trainees shall be paid fringe benefits in accordance with the provisions of the trainee program. If the trainee program does not mention fringe benefits, trainees shall be paid the full amount of fringe benefits listed on the wage determination unless the Administrator of the Wage and Hour Division determines that there is an apprenticeship program associated with the corresponding journeyman wage rate on the wage determination which provides for less than full fringe benefits for apprentices. Any employee listed on the payroll at a trainee rate who is not registered and participating in a training plan approved by the Employment and Training Administration shall be paid not less than the applicable wage rate on the wage determination for the classification of work actually performed. In addition, any trainee performing work on the job site in excess of the ratio permitted under the registered program shall be paid not less than the applicable wage rate on the wage determination for the work actually performed. In the event the Employment and Training Administration withdraws approval of a training program, the contractor will no longer be permitted to utilize trainees at less than the applicable predetermined rate for the work performed until an acceptable program is approved.

(iii) Equal employment opportunity. The utilization of apprentices, trainees and journeymen under this part shall be in conformity with the equal employment opportunity requirements of Executive Order 11246, as amended, and 29 CFR part 30.

(5) Compliance with Copeland Act requirements. The contractor shall comply with the requirements of 29 CFR part 3, which are incorporated by reference in this contract.

(6) Subcontracts. The contractor or subcontractor shall insert in any subcontracts the clauses contained in 29 CFR 5.5(a)(1) through (10) and such other clauses as the (write in the name of the Federal agency) may by appropriate instructions require, and also a clause requiring the subcontractors to include these clauses in any lower tier subcontracts. The prime contractor shall be responsible for the compliance by any subcontractor or lower tier subcontractor with all the contract clauses in 29 CFR 5.5.

(7) Contract termination: debarment. A breach of the contract clauses in 29 CFR 5.5 may be grounds for termination of the contract, and for debarment as a contractor and a subcontractor as provided in 29 CFR 5.12.

(8) Compliance with Davis-Bacon and Related Act requirements. All rulings and interpretations of the Davis-Bacon and Related Acts contained in 29 CFR parts 1, 3, and 5 are herein incorporated by reference in this contract.

(9) Disputes concerning labor standards. Disputes arising out of the labor standards provisions of this contract shall not be subject to the general disputes clause of this contract. Such disputes shall be resolved in accordance with the procedures of the Department of Labor set forth in 29 CFR parts 5, 6, and 7. Disputes within the meaning of this clause include disputes between the contractor (or any of its subcontractors) and the contracting agency, the U.S. Department of Labor, or the employees or their representatives.

(10) Certification of eligibility. (i) By entering into this contract, the contractor certifies that neither it (nor he or she) nor any person or firm who has an interest in the contractor's firm is a person or firm ineligible to be awarded Government contracts by virtue of section 3(a) of the Davis-Bacon Act or 29 CFR 5.12(a)(1).

(ii) No part of this contract shall be subcontracted to any person or firm ineligible for award of a Government contract by virtue of section 3(a) of the Davis-Bacon Act or 29 CFR 5.12(a)(1).

(iii) The penalty for making false statements is prescribed in the U.S. Criminal Code, 18 U.S.C. 1001.

(b) Contract Work Hours and Safety Standards Act. The Agency Head shall cause or require the contracting officer to insert the following clauses set forth in paragraphs (b)(1), (2), (3), and (4) of this section in full in any contract in an amount in excess of \$100,000 and subject to the overtime provisions of the Contract Work Hours and Safety Standards Act. These clauses shall be inserted in addition to the clauses required by §5.5(a) or 4.6 of part 4 of this title. As used in this paragraph, the terms laborers and mechanics include watchmen and guards.

(1) Overtime requirements. No contractor or subcontractor contracting for any part of the contract work which may require or involve the employment of laborers or mechanics shall require or permit any such laborer or mechanic in any workweek in which he or she is employed on such work to work in excess of forty hours in such workweek unless such laborer or mechanic receives compensation at a rate not less than one and one-half times the basic rate of pay for all hours worked in excess of forty hours in such workweek.

(2) Violation; liability for unpaid wages; liquidated damages. In the event of any violation of the clause set forth in paragraph (b)(1) of this section the contractor and any subcontractor responsible therefore shall be liable for the unpaid wages. In addition, such contractor and subcontractor shall be liable to the United States (in the case of work done under contract for the District of Columbia or a territory, to such District or to such territory), for liquidated damages. Such liquidated damages shall be computed with respect to each individual laborer or mechanic, including watchmen and guards, employed in violation of the clause set forth in paragraph (b)(1) of this section, in the sum of \$10 for each calendar day on which such individual was required or permitted to work in excess of the standard workweek of forty hours without payment of the overtime wages required by the clause set forth in paragraph (b)(1) of this section.

(3) Withholding for unpaid wages and liquidated damages. The (write in the name of the Federal agency or the loan or grant recipient) shall upon its own action or upon written request of an authorized representative of the Department of Labor withhold or cause to be withheld, from any moneys payable on account of work performed by the contractor or subcontractor under any such contract or any other Federal contract with the same prime contractor, or any other federally-assisted contract subject to the Contract Work Hours and Safety Standards Act, which is held by the same prime contractor, such sums as may be determined to be necessary to satisfy any liabilities of such contractor or subcontractor for unpaid wages and liquidated damages as provided in the clause set forth in paragraph (b)(2) of this section.

(4) Subcontracts. The contractor or subcontractor shall insert in any subcontracts the clauses set forth in paragraph (b)(1) through (4) of this section and also a clause requiring the subcontractors to include these clauses in any lower tier subcontracts. The prime contractor shall be responsible for compliance by any subcontractor or lower tier subcontractor with the clauses set forth in paragraphs (b)(1) through (4) of this section.

(c) In addition to the clauses contained in paragraph (b), in any contract subject only to the Contract Work Hours and Safety Standards Act and not to any of the other statutes cited in §5.1, the Agency Head shall cause or require the contracting officer to insert a clause requiring that the contractor or subcontractor shall maintain payrolls and basic payroll records during the course of the work and shall preserve them for a period of three years from the completion of the contract for all laborers and mechanics, including guards and watchmen, working on the contract. Such records shall contain the name and address of each such employee, social security number, correct classifications, hourly rates of wages paid, daily and weekly

number of hours worked, deductions made, and actual wages paid. Further, the Agency Head shall cause or require the contracting officer to insert in any such contract a clause providing that the records to be maintained under this paragraph shall be made available by the contractor or subcontractor for inspection, copying, or transcription by authorized representatives of the (write the name of agency) and the Department of Labor, and the contractor or subcontractor will permit such representatives to interview employees during working hours on the job.

5. Compliance Verification

(a) The subrecipient shall periodically interview, a sufficient number of employees entitled to DB prevailing wages (covered employees) to verify that contractors or subcontractors are paying the appropriate wage rates. As provided in 29 CFR 5.6(a)(6), all interviews must be conducted in confidence. The subrecipient must use Standard Form 1445 or equivalent documentation to memorialize the interviews. Copies of the SF 1445 are available from EPA on request.

(b) The subrecipient shall establish and follow an interview schedule based on its assessment of the risks of noncompliance with DB posed by contractors or subcontractors and the duration of the contract or subcontract. At a minimum, the subrecipient should conduct interviews with a representative group of covered employees within two weeks of each contractor or subcontractor's submission of its initial weekly payroll data and two weeks prior to the estimated completion date for the contract or subcontract. Subrecipients must conduct more frequent interviews if the initial interviews or other information indicates that there is a risk that the contractor or subcontractor is not complying with DB. Subrecipients shall immediately conduct necessary interviews in response to an alleged violation of the prevailing wage requirements. All interviews shall be conducted in confidence.

(c) The subrecipient shall conduct spot checks of a representative sample of weekly payroll data to verify that contractors or subcontractors are paying the appropriate wage rates. The subrecipient shall establish and follow a spot check schedule based on an assessment of the risks of noncompliance with DB posed by contractors or subcontractors and the duration of the contract or subcontract. At a minimum, if practicable, the subrecipient should spot check payroll data within two weeks of each contractor or subcontractor's submission of its initial payroll data and two weeks prior to the completion date of the contract or subcontract. Subrecipients must conduct more frequent spot checks if the initial spot check or other information indicates that there is a risk that the contractor or subcontractor is not complying with DB. In addition, during the examinations the subrecipient shall verify evidence of fringe benefit plans and payments there under by contractors and subcontractors who claim credit for fringe benefit contributions.

(d) The subrecipient shall periodically review contractors and subcontractors use of apprentices and trainees to verify registration and certification with respect to apprenticeship and training programs approved by either the U.S Department of Labor or a state, as appropriate, and that contractors and subcontractors are not using disproportionate numbers of, laborers, trainees and apprentices. These reviews shall be conducted in accordance with the schedules for spot checks and interviews described in Item 5(b) and (c) above.

(e) Subrecipients must immediately report potential violations of the DB prevailing wage requirements to the EPA DB contact listed above and to the appropriate DOL Wage and Hour District Office.

WAGE RATE REQUIREMENTS UNDER FY2013 APPROPRIATIONS

CWSRF: The recipient agrees to include in all agreements to provide assistance for the construction of treatment works carried out in whole or in part with such assistance made available by a State water pollution control revolving fund as authorized by title VI of the Federal Water Pollution Control Act (33 U.S.C. 1381 et seq.), or with such assistance made available under section 205(m) of that Act (33 U.S.C. 1285(m)), or both, a term and condition requiring compliance with the requirements of section 513 of that Act (33 U.S.C. 1372) in all procurement contracts and sub-grants, and require that loan recipients, procurement contractors and sub-grantees include such a term and condition in subcontracts and other lower tiered transactions. All contracts and subcontracts for the construction of treatment works carried out in whole or in part with assistance made available as stated herein shall insert in full in any contract in excess of \$2,000 the contract clauses as set forth below entitled "Wage Rate Requirements Under FY 2010 Appropriations." This term and condition applies to all agreements to provide assistance under the authorities referenced herein, whether in the form of a loan, bond purchase, grant, or any other vehicle to provide financing for a project, where such agreements are executed on or after October 30, 2009 and before October 1, 2010.

DWSRF: The recipient agrees to include in all agreements to provide assistance for any construction project carried out in whole or in part with such assistance made available by a drinking water treatment revolving loan fund as authorized by section 1452 of the Safe Drinking Water Act (42 U.S.C. 300j-12), a term and condition requiring compliance with the requirements of section 1450(e) of the Safe Drinking Water Act (42 U.S.C.300j-9(e)) in all procurement contracts and sub-grants, and require that loan recipients, procurement contractors and sub-grantees include such a term and condition in subcontracts and other lower tiered transactions. All contracts and subcontracts for any construction project carried out in whole or in part with assistance made available as stated herein shall insert in full in any contract in excess of \$2,000 the contract clauses as set forth below entitled "Wage Rate Requirements Under FY 2010 Appropriations." This term and condition applies to all agreements to provide assistance under the authorities referenced herein, whether in the form of a loan, bond purchase, grant, or any other vehicle to provide financing for a project, where such agreements are executed on or after October 30, 2009 and before October 1, 2010.

Wage Rate Requirements Under FY 2013 Appropriations Act

Preamble

With respect to the Clean Water and Safe Drinking Water State revolving Funds, EPA provides capitalization grants to each State which in turn provides subgrants or loans to eligible entities within the State. Typically, the subrecipients are municipal or other local governmental entities that manage the funds. For these types of recipients, the provisions set forth under Roman Numeral I, below, shall apply. Although EPA and the State remain responsible for ensuring subrecipients' compliance with the wage rate requirements set forth herein, those subrecipients shall have the primary responsibility to maintain payroll records as described in Section 3(ii)(A), below and for compliance as described in Section I-5.

Occasionally, the subrecipient may be a private for profit or not for profit entity. For these types of recipients, the provisions set forth in Roman Numeral II, below, shall apply. Although EPA and the State remain responsible for ensuring subrecipients' compliance with the wage rate requirements set forth herein, those subrecipients shall have the primary responsibility to maintain payroll records as described in Section II-3(ii)(A), below and for compliance as described in Section II-5.

I. Requirements under FY 2013 Appropriations Act For Subrecipients That Are Governmental Entities:

The following terms and conditions specify how recipients will assist EPA in meeting its Davis-Bacon (DB) responsibilities when DB applies to EPA awards of financial assistance under the FY 2013 Appropriations Act with respect to State recipients and subrecipients that are governmental entities. If a subrecipient has questions regarding when DB applies, obtaining the correct DB wage determinations, DB provisions, or compliance monitoring, it may contact the State recipient. If a State recipient needs guidance, the recipient may contact (**insert name or organizational unit Regional EPA DB contact**) for guidance. The recipient or subrecipient may also obtain additional guidance from DOL's web site at <http://www.dol.gov/esa/whd/recovery/>

1. Applicability of the Davis- Bacon (DB) prevailing wage requirements.

Under the FY 2013 Appropriations Act, DB prevailing wage requirements apply to the construction, alteration, and repair of treatment works carried out in whole or in part with assistance made available by a State water pollution control revolving fund and to any construction project carried out in whole or in part by assistance made available by a drinking water treatment revolving loan fund. If a subrecipient encounters a unique situation at a site that presents uncertainties regarding DB applicability, the subrecipient must discuss the situation with the recipient State before authorizing work on that site.

2. Obtaining Wage Determinations.

(a) Subrecipients shall obtain the wage determination for the locality in which a covered activity subject to DB will take place prior to issuing requests for bids, proposals, quotes or other methods for soliciting contracts (solicitation) for activities subject to DB. These wage determinations shall be incorporated into solicitations and any subsequent contracts. Prime contracts must contain a provision requiring that subcontractors follow the wage determination incorporated into the prime contract.

(i) While the solicitation remains open, the subrecipient shall monitor www.wdol.gov weekly to ensure that the wage determination contained in the solicitation remains current. The subrecipients shall amend the solicitation if DOL issues a modification more than 10 days prior to the closing date (i.e. bid opening) for the solicitation. If DOL modifies or supersedes the applicable wage determination less than 10 days prior to the closing date, the subrecipients may request a finding from the State recipient that there is not a reasonable time to notify interested contractors of the modification of the wage determination. The State recipient will provide a report of its findings to the subrecipient.

(ii) If the subrecipient does not award the contract within 90 days of the closure of the

solicitation, any modifications or supersedes DOL makes to the wage determination contained in the solicitation shall be effective unless the State recipient, at the request of the subrecipient, obtains an extension of the 90 day period from DOL pursuant to 29 CFR 1.6(c)(3)(iv). The subrecipient shall monitor www.wdol.gov on a weekly basis if it does not award the contract within 90 days of closure of the solicitation to ensure that wage determinations contained in the solicitation remain current.

(b) If the subrecipient carries out activity subject to DB by issuing a task order, work assignment or similar instrument to an existing contractor (ordering instrument) rather than by publishing a solicitation, the subrecipient shall insert the appropriate DOL wage determination from www.wdol.gov into the ordering instrument.

(c) Subrecipients shall review all subcontracts subject to DB entered into by prime contractors to verify that the prime contractor has required its subcontractors to include the applicable wage determinations.

(d) As provided in 29 CFR 1.6(f), DOL may issue a revised wage determination applicable to a subrecipient's contract after the award of a contract or the issuance of an ordering instrument if DOL determines that the subrecipient has failed to incorporate a wage determination or has used a wage determination that clearly does not apply to the contract or ordering instrument. If this occurs, the subrecipient shall either terminate the contract or ordering instrument and issue a revised solicitation or ordering instrument or incorporate DOL's wage determination retroactive to the beginning of the contract or ordering instrument by change order. The subrecipient's contractor must be compensated for any increases in wages resulting from the use of DOL's revised wage determination.

3. Contract and Subcontract provisions.

(a) The Recipient shall insure that the subrecipient(s) shall insert in full in any contract in excess of \$2,000 which is entered into for the actual construction, alteration and/or repair, including painting and decorating, of a treatment work under the CWSRF or a construction project under the DWSRF financed in whole or in part from Federal funds or in accordance with guarantees of a Federal agency or financed from funds obtained by pledge of any contract of a Federal agency to make a loan, grant or annual contribution (except where a different meaning is expressly indicated), and which is subject to the labor standards provisions of any of the acts listed in § 5.1 or the FY 2010 appropriation , the following clauses:

(1) Minimum wages.

(i) All laborers and mechanics employed or working upon the site of the work will be paid unconditionally and not less often than once a week, and without subsequent deduction or rebate on any account (except such payroll deductions as are permitted by regulations issued by the Secretary of Labor under the Copeland Act (29 CFR part 3)), the full amount of wages and bona fide fringe benefits (or cash equivalents thereof) due at time of payment computed at rates not less than those contained in the wage determination of the Secretary of Labor which is attached hereto and made a part hereof, regardless of any contractual relationship which may be alleged to exist between the contractor and such laborers and mechanics.

Contributions made or costs reasonably anticipated for bona fide fringe benefits under section 1(b)(2) of the Davis-Bacon Act on behalf of laborers or mechanics are considered wages paid to

such laborers or mechanics, subject to the provisions of paragraph (a)(1)(iv) of this section; also, regular contributions made or costs incurred for more than a weekly period (but not less often than quarterly) under plans, funds, or programs which cover the particular weekly period, are deemed to be constructively made or incurred during such weekly period. Such laborers and mechanics shall be paid the appropriate wage rate and fringe benefits on the wage determination for the classification of work actually performed, without regard to skill, except as provided in § 5.5(a)(4). Laborers or mechanics performing work in more than one classification may be compensated at the rate specified for each classification for the time actually worked therein: Provided, That the employer's payroll records accurately set forth the time spent in each classification in which work is performed. The wage determination (including any additional classification and wage rates conformed under paragraph (a)(1)(ii) of this section) and the Davis-Bacon poster (WH-1321) shall be posted at all times by the contractor and its subcontractors at the site of the work in a prominent and accessible place where it can be easily seen by the workers.

Subrecipients may obtain wage determinations from the U.S. Department of Labor's web site, www.dol.gov.

(ii)(A) The subrecipient(s), on behalf of EPA, shall require that any class of laborers or mechanics, including helpers, which is not listed in the wage determination and which is to be employed under the contract shall be classified in conformance with the wage determination. The State award official shall approve a request for an additional classification and wage rate and fringe benefits therefore only when the following criteria have been met:

- (1) The work to be performed by the classification requested is not performed by a classification in the wage determination; and
- (2) The classification is utilized in the area by the construction industry; and
- (3) The proposed wage rate, including any bona fide fringe benefits, bears a reasonable relationship to the wage rates contained in the wage determination.

(B) If the contractor and the laborers and mechanics to be employed in the classification (if known), or their representatives, and the subrecipient(s) agree on the classification and wage rate (including the amount designated for fringe benefits where appropriate), documentation of the action taken and the request, including the local wage determination shall be sent by the subrecipient (s) to the State award official. The State award official will transmit the request, to the Administrator of the Wage and Hour Division, Employment Standards Administration, U.S. Department of Labor, Washington, DC 20210 and to the EPA DB Regional Coordinator concurrently. The Administrator, or an authorized representative, will approve, modify, or disapprove every additional classification request within 30 days of receipt and so advise the State award official or will notify the State award official within the 30-day period that additional time is necessary.

(C) In the event the contractor, the laborers or mechanics to be employed in the classification or their representatives, and the subrecipient(s) do not agree on the proposed classification and wage rate (including the amount designated for fringe benefits, where appropriate), the award official shall refer the request and the local wage determination, including the views of all interested parties and the recommendation of the State award official, to the Administrator for determination. The request shall be sent to the EPA DB Regional Coordinator concurrently. The

Administrator, or an authorized representative, will issue a determination within 30 days of receipt of the request and so advise the contracting officer or will notify the contracting officer within the 30-day period that additional time is necessary.

(D) The wage rate (including fringe benefits where appropriate) determined pursuant to paragraphs (a)(1)(ii)(B) or (C) of this section, shall be paid to all workers performing work in the classification under this contract from the first day on which work is performed in the classification.

(iii) Whenever the minimum wage rate prescribed in the contract for a class of laborers or mechanics includes a fringe benefit which is not expressed as an hourly rate, the contractor shall either pay the benefit as stated in the wage determination or shall pay another bona fide fringe benefit or an hourly cash equivalent thereof.

(iv) If the contractor does not make payments to a trustee or other third person, the contractor may consider as part of the wages of any laborer or mechanic the amount of any costs reasonably anticipated in providing bona fide fringe benefits under a plan or program, Provided, That the Secretary of Labor has found, upon the written request of the contractor, that the applicable standards of the Davis-Bacon Act have been met. The Secretary of Labor may require the contractor to set aside in a separate account assets for the meeting of obligations under the plan or program.

(2) Withholding. The subrecipient(s), shall upon written request of the EPA Award Official or an authorized representative of the Department of Labor, withhold or cause to be withheld from the contractor under this contract or any other Federal contract with the same prime contractor, or any other federally-assisted contract subject to Davis-Bacon prevailing wage requirements, which is held by the same prime contractor, so much of the accrued payments or advances as may be considered necessary to pay laborers and mechanics, including apprentices, trainees, and helpers, employed by the contractor or any subcontractor the full amount of wages required by the contract. In the event of failure to pay any laborer or mechanic, including any apprentice, trainee, or helper, employed or working on the site of the work, all or part of the wages required by the contract, the (Agency) may, after written notice to the contractor, sponsor, applicant, or owner, take such action as may be necessary to cause the suspension of any further payment, advance, or guarantee of funds until such violations have ceased.

(3) Payrolls and basic records.

(i) Payrolls and basic records relating thereto shall be maintained by the contractor during the course of the work and preserved for a period of three years thereafter for all laborers and mechanics working at the site of the work. Such records shall contain the name, address, and social security number of each such worker, his or her correct classification, hourly rates of wages paid (including rates of contributions or costs anticipated for bona fide fringe benefits or cash equivalents thereof of the types described in section 1(b)(2)(B) of the Davis-Bacon Act), daily and weekly number of hours worked, deductions made and actual wages paid. Whenever the Secretary of Labor has found under 29 CFR 5.5(a)(1)(iv) that the wages of any laborer or mechanic include the amount of any costs reasonably anticipated in providing benefits under a plan or program described in section 1(b)(2)(B) of the Davis-Bacon Act, the contractor shall maintain records which show that the commitment to provide such benefits is enforceable, that the plan or program is financially responsible, and that the plan or program has been communicated in writing to the laborers or mechanics affected, and records which show the costs

anticipated or the actual cost incurred in providing such benefits. Contractors employing apprentices or trainees under approved programs shall maintain written evidence of the registration of apprenticeship programs and certification of trainee programs, the registration of the apprentices and trainees, and the ratios and wage rates prescribed in the applicable programs.

(ii)(A) The contractor shall submit weekly, for each week in which any contract work is performed, a copy of all payrolls to the subrecipient, that is, the entity that receives the sub-grant or loan from the State capitalization grant recipient. Such documentation shall be available on request of the State recipient or EPA. As to each payroll copy received, the subrecipient shall provide written confirmation in a form satisfactory to the State indicating whether or not the project is in compliance with the requirements of 29 CFR 5.5(a)(1) based on the most recent payroll copies for the specified week. The payrolls shall set out accurately and completely all of the information required to be maintained under 29 CFR 5.5(a)(3)(i), except that full social security numbers and home addresses shall not be included on the weekly payrolls. Instead the payrolls shall only need to include an individually identifying number for each employee (e.g., the last four digits of the employee's social security number). The required weekly payroll information may be submitted in any form desired. Optional Form WH-347 is available for this purpose from the Wage and Hour Division Web site at <http://www.dol.gov/csa/whd/forms/wh347instr.htm> or its successor site. The prime contractor is responsible for the submission of copies of payrolls by all subcontractors. Contractors and subcontractors shall maintain the full social security number and current address of each covered worker, and shall provide them upon request to the subrecipient(s) for transmission to the State or EPA if requested by EPA, the State, the contractor, or the Wage and Hour Division of the Department of Labor for purposes of an investigation or audit of compliance with prevailing wage requirements. It is not a violation of this section for a prime contractor to require a subcontractor to provide addresses and social security numbers to the prime contractor for its own records, without weekly submission to the subrecipient(s).

(B) Each payroll submitted shall be accompanied by a "Statement of Compliance," signed by the contractor or subcontractor or his or her agent who pays or supervises the payment of the persons employed under the contract and shall certify the following:

(1) That the payroll for the payroll period contains the information required to be provided under §5.5 (a)(3)(ii) of Regulations, 29 CFR part 5, the appropriate information is being maintained under §5.5 (a)(3)(i) of Regulations, 29 CFR part 5, and that such information is correct and complete;

(2) That each laborer or mechanic (including each helper, apprentice, and trainee) employed on the contract during the payroll period has been paid the full weekly wages earned, without rebate, either directly or indirectly, and that no deductions have been made either directly or indirectly from the full wages earned, other than permissible deductions as set forth in Regulations, 29 CFR part 3;

(3) That each laborer or mechanic has been paid not less than the applicable wage rates and fringe benefits or cash equivalents for the classification of work performed, as specified in the applicable wage determination incorporated into the contract.

(C) The weekly submission of a properly executed certification set forth on the reverse side of Optional Form WH-347 shall satisfy the requirement for submission of the "Statement of Compliance" required by paragraph (a)(3)(ii)(B) of this section.

(D) The falsification of any of the above certifications may subject the contractor or subcontractor to civil or criminal prosecution under section 1001 of title 18 and section 231 of title 31 of the United States Code.

(iii) The contractor or subcontractor shall make the records required under paragraph (a)(3)(i) of this section available for inspection, copying, or transcription by authorized representatives of the State, EPA or the Department of Labor, and shall permit such representatives to interview employees during working hours on the job. If the contractor or subcontractor fails to submit the required records or to make them available, the Federal agency or State may, after written notice to the contractor, sponsor, applicant, or owner, take such action as may be necessary to cause the suspension of any further payment, advance, or guarantee of funds. Furthermore, failure to submit the required records upon request or to make such records available may be grounds for debarment action pursuant to 29 CFR 5.12.

(4) Apprentices and trainees.

(i) Apprentices. Apprentices will be permitted to work at less than the predetermined rate for the work they performed when they are employed pursuant to and individually registered in a bona fide apprenticeship program registered with the U.S. Department of Labor, Employment and Training Administration, Office of Apprenticeship Training, Employer and Labor Services, or with a State Apprenticeship Agency recognized by the Office, or if a person is employed in his or her first 90 days of probationary employment as an apprentice in such an apprenticeship program, who is not individually registered in the program, but who has been certified by the Office of Apprenticeship Training, Employer and Labor Services or a State Apprenticeship Agency (where appropriate) to be eligible for probationary employment as an apprentice. The allowable ratio of apprentices to journeymen on the job site in any craft classification shall not be greater than the ratio permitted to the contractor as to the entire work force under the registered program. Any worker listed on a payroll at an apprentice wage rate, who is not registered or otherwise employed as stated above, shall be paid not less than the applicable wage rate on the wage determination for the classification of work actually performed. In addition, any apprentice performing work on the job site in excess of the ratio permitted under the registered program shall be paid not less than the applicable wage rate on the wage determination for the work actually performed. Where a contractor is performing construction on a project in a locality other than that in which its program is registered, the ratios and wage rates (expressed in percentages of the journeyman's hourly rate) specified in the contractor's or subcontractor's registered program shall be observed. Every apprentice must be paid at not less than the rate specified in the registered program for the apprentice's level of progress, expressed as a percentage of the journeymen hourly rate specified in the applicable wage determination. Apprentices shall be paid fringe benefits in accordance with the provisions of the apprenticeship program. If the apprenticeship program does not specify fringe benefits, apprentices must be paid the full amount of fringe benefits listed on the wage determination for the applicable classification. If the Administrator determines that a different practice prevails for the applicable apprentice classification, fringes shall be paid in accordance with that determination. In the event the Office of Apprenticeship Training, Employer and Labor Services, or a State Apprenticeship Agency recognized by the Office, withdraws approval of an apprenticeship program, the contractor will no longer be permitted to utilize apprentices at less than the applicable predetermined rate for the work performed until an acceptable program is approved.

(ii) Trainees. Except as provided in 29 CFR 5.16, trainees will not be permitted to work at less than the predetermined rate for the work performed unless they are employed pursuant to and individually registered in a program which has received prior approval, evidenced by formal certification by the U.S. Department of Labor, Employment and Training Administration. The ratio of trainees to journeymen on the job site shall not be greater than permitted under the plan approved by the Employment and Training Administration. Every trainee must be paid at not less than the rate specified in the approved program for the trainee's level of progress, expressed as a percentage of the journeyman hourly rate specified in the applicable wage determination. Trainees shall be paid fringe benefits in accordance with the provisions of the trainee program. If the trainee program does not mention fringe benefits, trainees shall be paid the full amount of fringe benefits listed on the wage determination unless the Administrator of the Wage and Hour Division determines that there is an apprenticeship program associated with the corresponding journeyman wage rate on the wage determination which provides for less than full fringe benefits for apprentices. Any employee listed on the payroll at a trainee rate who is not registered and participating in a training plan approved by the Employment and Training Administration shall be paid not less than the applicable wage rate on the wage determination for the classification of work actually performed. In addition, any trainee performing work on the job site in excess of the ratio permitted under the registered program shall be paid not less than the applicable wage rate on the wage determination for the work actually performed. In the event the Employment and Training Administration withdraws approval of a training program, the contractor will no longer be permitted to utilize trainees at less than the applicable predetermined rate for the work performed until an acceptable program is approved.

(iii) Equal employment opportunity. The utilization of apprentices, trainees and journeymen under this part shall be in conformity with the equal employment opportunity requirements of Executive Order 11246, as amended, and 29 CFR part 30.

(5) Compliance with Copeland Act requirements. The contractor shall comply with the requirements of 29 CFR part 3, which are incorporated by reference in this contract.

(6) Subcontracts. The contractor or subcontractor shall insert in any subcontracts the clauses contained in 29 CFR 5.5(a)(1) through (10) and such other clauses as the EPA determines may be appropriate, and also a clause requiring the subcontractors to include these clauses in any lower tier subcontracts. The prime contractor shall be responsible for the compliance by any subcontractor or lower tier subcontractor with all the contract clauses in 29 CFR 5.5.

(7) Contract termination; debarment. A breach of the contract clauses in 29 CFR 5.5 may be grounds for termination of the contract, and for debarment as a contractor and a subcontractor as provided in 29 CFR 5.12.

(8) Compliance with Davis-Bacon and Related Act requirements. All rulings and interpretations of the Davis-Bacon and Related Acts contained in 29 CFR parts 1, 3, and 5 are herein incorporated by reference in this contract.

(9) Disputes concerning labor standards. Disputes arising out of the labor standards provisions of this contract shall not be subject to the general disputes clause of this contract. Such disputes shall be resolved in accordance with the procedures of the Department of Labor set forth in 29 CFR parts 5, 6, and 7. Disputes within the meaning of this clause include disputes between the contractor (or any of its subcontractors) and Subrecipient(s), State, EPA, the U.S. Department of Labor, or the employees or their representatives.

(10) Certification of eligibility.

(i) By entering into this contract, the contractor certifies that neither it (nor he or she) nor any person or firm who has an interest in the contractor's firm is a person or firm ineligible to be awarded Government contracts by virtue of section 3(a) of the Davis-Bacon Act or 29 CFR 5.12(a)(1).

(ii) No part of this contract shall be subcontracted to any person or firm ineligible for award of a Government contract by virtue of section 3(a) of the Davis-Bacon Act or 29 CFR 5.12(a)(1).

(iii) The penalty for making false statements is prescribed in the U.S. Criminal Code, 18 U.S.C. 1001.

4. Contract Provision for Contracts in Excess of \$100,000.

(a) Contract Work Hours and Safety Standards Act. The subrecipient shall insert the following clauses set forth in paragraphs (a)(1), (2), (3), and (4) of this section in full in any contract in an amount in excess of \$100,000 and subject to the overtime provisions of the Contract Work Hours and Safety Standards Act. These clauses shall be inserted in addition to the clauses required by Item 3, above or 29 CFR 4.6. As used in this paragraph, the terms laborers and mechanics include watchmen and guards.

(1) Overtime requirements. No contractor or subcontractor contracting for any part of the contract work which may require or involve the employment of laborers or mechanics shall require or permit any such laborer or mechanic in any workweek in which he or she is employed on such work to work in excess of forty hours in such workweek unless such laborer or mechanic receives compensation at a rate not less than one and one-half times the basic rate of pay for all hours worked in excess of forty hours in such workweek.

(2) Violation; liability for unpaid wages; liquidated damages. In the event of any violation of the clause set forth in paragraph (a)(1) of this section the contractor and any subcontractor responsible therefore shall be liable for the unpaid wages. In addition, such contractor and subcontractor shall be liable to the United States (in the case of work done under contract for the District of Columbia or a territory, to such District or to such territory), for liquidated damages. Such liquidated damages shall be computed with respect to each individual laborer or mechanic, including watchmen and guards, employed in violation of the clause set forth in paragraph (a)(1) of this section, in the sum of \$10 for each calendar day on which such individual was required or permitted to work in excess of the standard workweek of forty hours without payment of the overtime wages required by the clause set forth in paragraph (a)(1) of this section.

(3) Withholding for unpaid wages and liquidated damages. The subrecipient, upon written request of the EPA Award Official or an authorized representative of the Department of Labor, shall withhold or cause to be withheld, from any moneys payable on account of work performed by the contractor or subcontractor under any such contract or any other Federal contract with the same prime contractor, or any other federally-assisted contract subject to the Contract Work Hours and Safety Standards Act, which is held by the same prime contractor, such sums as may be determined to be necessary to satisfy any liabilities of such contractor or subcontractor for unpaid wages and liquidated damages as provided in the clause set forth in paragraph (b)(2) of this section.

(4) Subcontracts. The contractor or subcontractor shall insert in any subcontracts the clauses set forth in paragraph (a)(1) through (4) of this section and also a clause requiring the subcontractors to include these clauses in any lower tier subcontracts. The prime contractor shall be responsible for compliance by any subcontractor or lower tier subcontractor with the clauses set forth in paragraphs (a)(1) through (4) of this section.

(b) In addition to the clauses contained in Item 3, above, in any contract subject only to the Contract Work Hours and Safety Standards Act and not to any of the other statutes cited in 29 CFR 5.1, the Subrecipient shall insert a clause requiring that the contractor or subcontractor shall maintain payrolls and basic payroll records during the course of the work and shall preserve them for a period of three years from the completion of the contract for all laborers and mechanics, including guards and watchmen, working on the contract. Such records shall contain the name and address of each such employee, social security number, correct classifications, hourly rates of wages paid, daily and weekly number of hours worked, deductions made, and actual wages paid. Further, the Subrecipient shall insert in any such contract a clause providing that the records to be maintained under this paragraph shall be made available by the contractor or subcontractor for inspection, copying, or transcription by authorized representatives of the (write the name of agency) and the Department of Labor, and the contractor or subcontractor will permit such representatives to interview employees during working hours on the job.

5. Compliance Verification.

(a) The subrecipient shall periodically interview a sufficient number of employees entitled to DB prevailing wages (covered employees) to verify that contractors or subcontractors are paying the appropriate wage rates. As provided in 29 CFR 5.6(a)(6), all interviews must be conducted in confidence. The subrecipient must use Standard Form 1445 (SF 1445) or equivalent documentation to memorialize the interviews. Copies of the SF 1445 are available from EPA on request.

(b) The subrecipient shall establish and follow an interview schedule based on its assessment of the risks of noncompliance with DB posed by contractors or subcontractors and the duration of the contract or subcontract. At a minimum, the subrecipient should conduct interviews with a representative group of covered employees within two weeks of each contractor or subcontractor's submission of its initial weekly payroll data and two weeks prior to the estimated completion date for the contract or subcontract. Subrecipients must conduct more frequent interviews if the initial interviews or other information indicates that there is a risk that the contractor or subcontractor is not complying with DB. Subrecipients shall immediately conduct necessary interviews in response to an alleged violation of the prevailing wage requirements. All interviews shall be conducted in confidence.

(c) The subrecipient shall periodically conduct spot checks of a representative sample of weekly payroll data to verify that contractors or subcontractors are paying the appropriate wage rates. The subrecipient shall establish and follow a spot check schedule based on its assessment of the risks of noncompliance with DB posed by contractors or subcontractors and the duration of the contract or subcontract. At a minimum, if practicable, the subrecipient should spot check payroll data within two weeks of each contractor or subcontractor's submission of its initial payroll data and two weeks prior to the completion date the contract or subcontract. Subrecipients must conduct more frequent spot checks if the initial spot check or other information indicates that there is a risk that the contractor or subcontractor is not complying with DB. In addition, during

the examinations the subrecipient shall verify evidence of fringe benefit plans and payments thereunder by contractors and subcontractors who claim credit for fringe benefit contributions.

(d) The subrecipient shall periodically review contractors and subcontractor's use of apprentices and trainees to verify registration and certification with respect to apprenticeship and training programs approved by either the U.S Department of Labor or a state, as appropriate, and that contractors and subcontractors are not using disproportionate numbers of, laborers, trainees and apprentices. These reviews shall be conducted in accordance with the schedules for spot checks and interviews described in Item 5(b) and (c) above.

(e) Subrecipients must immediately report potential violations of the DB prevailing wage requirements to the EPA DB contact listed above and to the appropriate DOL Wage and Hour District Office listed at <http://www.dol.gov/esa/contacts/whd/america2.htm>.

II. Requirements under FY 2013 Appropriations Act For Subrecipients That Are Not Governmental Entities

The following terms and conditions specify how recipients will assist EPA in meeting its DB responsibilities when DB applies to EPA awards of financial assistance under the FY2010 Appropriations Act with respect to subrecipients that are not governmental entities. If a subrecipient has questions regarding when DB applies, obtaining the correct DB wage determinations, DB provisions, or compliance monitoring, it may contact the State recipient for guidance. If a State recipient needs guidance, the recipient may contact **Grants, Finance and Cost Recovery Branch, Regional EPA DB contact at (404) 562-9278** for guidance. The recipient or subrecipient may also obtain additional guidance from DOL's web site.

Under these terms and conditions, the subrecipient must submit its proposed DB wage determinations to the State recipient for approval prior to including the wage determination in any solicitation, contract task orders, work assignments, or similar instruments to existing contractors.

1. Applicability of the Davis- Bacon (DB) prevailing wage requirements.

Under the FY 2013 Appropriation, Davis-Bacon prevailing wage requirements apply to the construction, alteration, and repair of treatment works carried out in whole or in part with assistance made available by a State water pollution control revolving fund and to any construction project carried out in whole or in part by assistance made available by a drinking water treatment revolving loan fund. If a subrecipient encounters a unique situation at a site that presents uncertainties regarding DB applicability, the subrecipient must discuss the situation with the recipient State before authorizing work on that site.

2. Obtaining Wage Determinations.

(a) Subrecipients must obtain proposed wage determinations for specific localities at www.wdol.gov. After the Subrecipient obtains its proposed wage determination, it must submit the wage determination to (insert contact information for State recipient DB point of contact for wage determination) for approval prior to inserting the wage determination into a solicitation, contract or issuing task orders, work assignments or similar instruments to existing contractors

(ordering instruments unless subsequently directed otherwise by the State recipient Award Official.

(b) Subrecipients shall obtain the wage determination for the locality in which a covered activity subject to DB will take place prior to issuing requests for bids, proposals, quotes or other methods for soliciting contracts (solicitation) for activities subject to DB. These wage determinations shall be incorporated into solicitations and any subsequent contracts. Prime contracts must contain a provision requiring that subcontractors follow the wage determination incorporated into the prime contract.

(i) While the solicitation remains open, the subrecipient shall monitor www.wdol.gov on a weekly basis to ensure that the wage determination contained in the solicitation remains current. The subrecipients shall amend the solicitation if DOL issues a modification more than 10 days prior to the closing date (i.e. bid opening) for the solicitation. If DOL modifies or supersedes the applicable wage determination less than 10 days prior to the closing date, the subrecipients may request a finding from the State recipient that there is not a reasonable time to notify interested contractors of the modification of the wage determination. The State recipient will provide a report of its findings to the subrecipient.

(ii) If the subrecipient does not award the contract within 90 days of the closure of the solicitation, any modifications or supersedes DOL makes to the wage determination contained in the solicitation shall be effective unless the State recipient, at the request of the subrecipient, obtains an extension of the 90 day period from DOL pursuant to 29 CFR 1.6(c)(3)(iv). The subrecipient shall monitor www.wdol.gov on a weekly basis if it does not award the contract within 90 days of closure of the solicitation to ensure that wage determinations contained in the solicitation remain current.

(c) If the subrecipient carries out activity subject to DB by issuing a task order, work assignment or similar instrument to an existing contractor (ordering instrument) rather than by publishing a solicitation, the subrecipient shall insert the appropriate DOL wage determination from www.wdol.gov into the ordering instrument.

(c) Subrecipients shall review all subcontracts subject to DB entered into by prime contractors to verify that the prime contractor has required its subcontractors to include the applicable wage determinations.

(d) As provided in 29 CFR 1.6(f), DOL may issue a revised wage determination applicable to a subrecipient's contract after the award of a contract or the issuance of an ordering instrument if DOL determines that the subrecipient has failed to incorporate a wage determination or has used a wage determination that clearly does not apply to the contract or ordering instrument. If this occurs, the subrecipient shall either terminate the contract or ordering instrument and issue a revised solicitation or ordering instrument or incorporate DOL's wage determination retroactive to the beginning of the contract or ordering instrument by change order. The subrecipient's contractor must be compensated for any increases in wages resulting from the use of DOL's revised wage determination.

3. Contract and Subcontract provisions.

(a) The Recipient shall insure that the subrecipient(s) shall insert in full in any contract in excess of \$2,000 which is entered into for the actual construction, alteration and/or repair, including

painting and decorating, of a treatment work under the CWSRF or a construction project under the DWSRF financed in whole or in part from Federal funds or in accordance with guarantees of a Federal agency or financed from funds obtained by pledge of any contract of a Federal agency to make a loan, grant or annual contribution (except where a different meaning is expressly indicated), and which is subject to the labor standards provisions of any of the acts listed in § 5.1 or the FY 2010 appropriation , the following clauses:

(1) Minimum wages.

(i) All laborers and mechanics employed or working upon the site of the work, will be paid unconditionally and not less often than once a week, and without subsequent deduction or rebate on any account (except such payroll deductions as are permitted by regulations issued by the Secretary of Labor under the Copeland Act (29 CFR part 3)), the full amount of wages and bona fide fringe benefits (or cash equivalents thereof) due at time of payment computed at rates not less than those contained in the wage determination of the Secretary of Labor which is attached hereto and made a part hereof, regardless of any contractual relationship which may be alleged to exist between the contractor and such laborers and mechanics.

Contributions made or costs reasonably anticipated for bona fide fringe benefits under section 1(b)(2) of the Davis-Bacon Act on behalf of laborers or mechanics are considered wages paid to such laborers or mechanics, subject to the provisions of paragraph (a)(1)(iv) of this section; also, regular contributions made or costs incurred for more than a weekly period (but not less often than quarterly) under plans, funds, or programs which cover the particular weekly period, are deemed to be constructively made or incurred during such weekly period. Such laborers and mechanics shall be paid the appropriate wage rate and fringe benefits on the wage determination for the classification of work actually performed, without regard to skill, except as provided in § 5.5(a)(4). Laborers or mechanics performing work in more than one classification may be compensated at the rate specified for each classification for the time actually worked therein: Provided, that the employer's payroll records accurately set forth the time spent in each classification in which work is performed. The wage determination (including any additional classification and wage rates conformed under paragraph (a)(1)(ii) of this section) and the Davis-Bacon poster (WH-1321) shall be posted at all times by the contractor and its subcontractors at the site of the work in a prominent and accessible place where it can be easily seen by the workers.

Subrecipients may obtain wage determinations from the U.S. Department of Labor's web site, www.dol.gov.

(ii)(A) The subrecipient(s), on behalf of EPA, shall require that any class of laborers or mechanics, including helpers, which is not listed in the wage determination and which is to be employed under the contract shall be classified in conformance with the wage determination. The State award official shall approve a request for an additional classification and wage rate and fringe benefits therefore only when the following criteria have been met:

(1) The work to be performed by the classification requested is not performed by a classification in the wage determination; and

(2) The classification is utilized in the area by the construction industry; and

(3) The proposed wage rate, including any bona fide fringe benefits, bears a reasonable relationship to the wage rates contained in the wage determination.

(B) If the contractor and the laborers and mechanics to be employed in the classification (if known), or their representatives, and the subrecipient(s) agree on the classification and wage rate (including the amount designated for fringe benefits where appropriate), documentation of the action taken and the request, including the local wage determination shall be sent by the subrecipient(s) to the State award official. The State award official will transmit the report, to the Administrator of the Wage and Hour Division, Employment Standards Administration, U.S. Department of Labor, Washington, DC 20210 and to the EPA DB Regional Coordinator concurrently. The Administrator, or an authorized representative, will approve, modify, or disapprove every additional classification request within 30 days of receipt and so advise the State award official or will notify the State award official within the 30-day period that additional time is necessary.

(C) In the event the contractor, the laborers or mechanics to be employed in the classification or their representatives, and the and the subrecipient(s) do not agree on the proposed classification and wage rate (including the amount designated for fringe benefits, where appropriate), the award official shall refer the request, and the local wage determination, including the views of all interested parties and the recommendation of the State award official, to the Administrator for determination. The request shall be sent to the EPA Regional Coordinator concurrently. The Administrator, or an authorized representative, will issue a determination within 30 days of receipt of the request and so advise the contracting officer or will notify the contracting officer within the 30-day period that additional time is necessary.

(D) The wage rate (including fringe benefits where appropriate) determined pursuant to paragraphs (a)(1)(ii)(B) or (C) of this section, shall be paid to all workers performing work in the classification under this contract from the first day on which work is performed in the classification.

(iii) Whenever the minimum wage rate prescribed in the contract for a class of laborers or mechanics includes a fringe benefit which is not expressed as an hourly rate, the contractor shall either pay the benefit as stated in the wage determination or shall pay another bona fide fringe benefit or an hourly cash equivalent thereof.

(iv) If the contractor does not make payments to a trustee or other third person, the contractor may consider as part of the wages of any laborer or mechanic the amount of any costs reasonably anticipated in providing bona fide fringe benefits under a plan or program, Provided, That the Secretary of Labor has found, upon the written request of the contractor, that the applicable standards of the Davis-Bacon Act have been met. The Secretary of Labor may require the contractor to set aside in a separate account assets for the meeting of obligations under the plan or program.

(2) Withholding. The subrecipient(s) shall upon written request of the EPA Award Official or an authorized representative of the Department of Labor, withhold or cause to be withheld from the contractor under this contract or any other Federal contract with the same prime contractor, or any other federally-assisted contract subject to Davis-Bacon prevailing wage requirements, which is held by the same prime contractor, so much of the accrued payments or advances as may be considered necessary to pay laborers and mechanics, including apprentices, trainees, and helpers, employed by the contractor or any subcontractor the full amount of wages required by

the contract. In the event of failure to pay any laborer or mechanic, including any apprentice, trainee, or helper, employed or working on the site of the work, all or part of the wages required by the contract, the (Agency) may, after written notice to the contractor, sponsor, applicant, or owner, take such action as may be necessary to cause the suspension of any further payment, advance, or guarantee of funds until such violations have ceased.

(3) Payrolls and basic records.

(i) Payrolls and basic records relating thereto shall be maintained by the contractor during the course of the work and preserved for a period of three years thereafter for all laborers and mechanics working at the site of the work. Such records shall contain the name, address, and social security number of each such worker, his or her correct classification, hourly rates of wages paid (including rates of contributions or costs anticipated for bona fide fringe benefits or cash equivalents thereof of the types described in section 1(b)(2)(B) of the Davis-Bacon Act), daily and weekly number of hours worked, deductions made and actual wages paid. Whenever the Secretary of Labor has found under 29 CFR 5.5(a)(1)(iv) that the wages of any laborer or mechanic include the amount of any costs reasonably anticipated in providing benefits under a plan or program described in section 1(b)(2)(B) of the Davis-Bacon Act, the contractor shall maintain records which show that the commitment to provide such benefits is enforceable, that the plan or program is financially responsible, and that the plan or program has been communicated in writing to the laborers or mechanics affected, and records which show the costs anticipated or the actual cost incurred in providing such benefits. Contractors employing apprentices or trainees under approved programs shall maintain written evidence of the registration of apprenticeship programs and certification of trainee programs, the registration of the apprentices and trainees, and the ratios and wage rates prescribed in the applicable programs.

(ii)(A) The contractor shall submit weekly, for each week in which any contract work is performed, a copy of all payrolls to the subrecipient, that is, the entity that receives the sub-grant or loan from the State capitalization grant recipient. Such documentation shall be available on request of the State recipient or EPA. As to each payroll copy received, the subrecipient shall provide written confirmation in a form satisfactory to the State indicating whether or not the project is in compliance with the requirements of 29 CFR 5.5(a)(1) based on the most recent payroll copies for the specified week. The payrolls shall set out accurately and completely all of the information required to be maintained under 29 CFR 5.5(a)(3)(i), except that full social security numbers and home addresses shall not be included on the weekly payrolls. Instead the payrolls shall only need to include an individually identifying number for each employee (e.g., the last four digits of the employee's social security number). The required weekly payroll information may be submitted in any form desired. Optional Form WH-347 is available for this purpose from the Wage and Hour Division Web site at <http://www.dol.gov/csa/whd/forms/wh347instr.htm> or its successor site. The prime contractor is responsible for the submission of copies of payrolls by all subcontractors. Contractors and subcontractors shall maintain the full social security number and current address of each covered worker, and shall provide them upon request to the subrecipient(s) for transmission to the State or EPA if requested by EPA, the State, the contractor, or the Wage and Hour Division of the Department of Labor for purposes of an investigation or audit of compliance with prevailing wage requirements. It is not a violation of this section for a prime contractor to require a subcontractor to provide addresses and social security numbers to the prime contractor for its own records, without weekly submission to the subrecipient(s).

(B) Each payroll submitted shall be accompanied by a "Statement of Compliance," signed by the contractor or subcontractor or his or her agent who pays or supervises the payment of the persons employed under the contract and shall certify the following:

(1) That the payroll for the payroll period contains the information required to be provided under § 5.5 (a)(3)(ii) of Regulations, 29 CFR part 5, the appropriate information is being maintained under § 5.5 (a)(3)(i) of Regulations, 29 CFR part 5, and that such information is correct and complete;

(2) That each laborer or mechanic (including each helper, apprentice, and trainee) employed on the contract during the payroll period has been paid the full weekly wages earned, without rebate, either directly or indirectly, and that no deductions have been made either directly or indirectly from the full wages earned, other than permissible deductions as set forth in Regulations, 29 CFR part 3;

(3) That each laborer or mechanic has been paid not less than the applicable wage rates and fringe benefits or cash equivalents for the classification of work performed, as specified in the applicable wage determination incorporated into the contract.

(C) The weekly submission of a properly executed certification set forth on the reverse side of Optional Form WH-347 shall satisfy the requirement for submission of the "Statement of Compliance" required by paragraph (a)(3)(ii)(B) of this section.

(D) The falsification of any of the above certifications may subject the contractor or subcontractor to civil or criminal prosecution under section 1001 of title 18 and section 231 of title 31 of the United States Code.

(iii) The contractor or subcontractor shall make the records required under paragraph (a)(3)(i) of this section available for inspection, copying, or transcription by authorized representatives of the State, EPA or the Department of Labor, and shall permit such representatives to interview employees during working hours on the job. If the contractor or subcontractor fails to submit the required records or to make them available, the Federal agency or State may, after written notice to the contractor, sponsor, applicant, or owner, take such action as may be necessary to cause the suspension of any further payment, advance, or guarantee of funds. Furthermore, failure to submit the required records upon request or to make such records available may be grounds for debarment action pursuant to 29 CFR 5.12.

(4) Apprentices and trainees.

(i) Apprentices. Apprentices will be permitted to work at less than the predetermined rate for the work they performed when they are employed pursuant to and individually registered in a bona fide apprenticeship program registered with the U.S. Department of Labor, Employment and Training Administration, Office of Apprenticeship Training, Employer and Labor Services, or with a State Apprenticeship Agency recognized by the Office, or if a person is employed in his or her first 90 days of probationary employment as an apprentice in such an apprenticeship program, who is not individually registered in the program, but who has been certified by the Office of Apprenticeship Training, Employer and Labor Services or a State Apprenticeship Agency (where appropriate) to be eligible for probationary employment as an apprentice. The allowable ratio of apprentices to journeymen on the job site in any craft classification shall not be greater than the ratio permitted to the contractor as to the entire work force under the registered

program. Any worker listed on a payroll at an apprentice wage rate, who is not registered or otherwise employed as stated above, shall be paid not less than the applicable wage rate on the wage determination for the classification of work actually performed. In addition, any apprentice performing work on the job site in excess of the ratio permitted under the registered program shall be paid not less than the applicable wage rate on the wage determination for the work actually performed. Where a contractor is performing construction on a project in a locality other than that in which its program is registered, the ratios and wage rates (expressed in percentages of the journeyman's hourly rate) specified in the contractor's or subcontractor's registered program shall be observed. Every apprentice must be paid at not less than the rate specified in the registered program for the apprentice's level of progress, expressed as a percentage of the journeymen hourly rate specified in the applicable wage determination. Apprentices shall be paid fringe benefits in accordance with the provisions of the apprenticeship program. If the apprenticeship program does not specify fringe benefits, apprentices must be paid the full amount of fringe benefits listed on the wage determination for the applicable classification. If the Administrator determines that a different practice prevails for the applicable apprentice classification, fringes shall be paid in accordance with that determination. In the event the Office of Apprenticeship Training, Employer and Labor Services, or a State Apprenticeship Agency recognized by the Office, withdraws approval of an apprenticeship program, the contractor will no longer be permitted to utilize apprentices at less than the applicable predetermined rate for the work performed until an acceptable program is approved.

(ii) Trainees. Except as provided in 29 CFR 5.16, trainees will not be permitted to work at less than the predetermined rate for the work performed unless they are employed pursuant to and individually registered in a program which has received prior approval, evidenced by formal certification by the U.S. Department of Labor, Employment and Training Administration. The ratio of trainees to journeymen on the job site shall not be greater than permitted under the plan approved by the Employment and Training Administration. Every trainee must be paid at not less than the rate specified in the approved program for the trainee's level of progress, expressed as a percentage of the journeyman hourly rate specified in the applicable wage determination. Trainees shall be paid fringe benefits in accordance with the provisions of the trainee program. If the trainee program does not mention fringe benefits, trainees shall be paid the full amount of fringe benefits listed on the wage determination unless the Administrator of the Wage and Hour Division determines that there is an apprenticeship program associated with the corresponding journeyman wage rate on the wage determination which provides for less than full fringe benefits for apprentices. Any employee listed on the payroll at a trainee rate who is not registered and participating in a training plan approved by the Employment and Training Administration shall be paid not less than the applicable wage rate on the wage determination for the classification of work actually performed. In addition, any trainee performing work on the job site in excess of the ratio permitted under the registered program shall be paid not less than the applicable wage rate on the wage determination for the work actually performed. In the event the Employment and Training Administration withdraws approval of a training program, the contractor will no longer be permitted to utilize trainees at less than the applicable predetermined rate for the work performed until an acceptable program is approved.

(iii) Equal employment opportunity. The utilization of apprentices, trainees and journeymen under this part shall be in conformity with the equal employment opportunity requirements of Executive Order 11246, as amended, and 29 CFR part 30.

(5) Compliance with Copeland Act requirements. The contractor shall comply with the requirements of 29 CFR part 3, which are incorporated by reference in this contract.

(6) Subcontracts. The contractor or subcontractor shall insert in any subcontracts the clauses contained in 29 CFR 5.5(a)(1) through (10) and such other clauses as the EPA determines may be appropriate, and also a clause requiring the subcontractors to include these clauses in any lower tier subcontracts. The prime contractor shall be responsible for the compliance by any subcontractor or lower tier subcontractor with all the contract clauses in 29 CFR 5.5.

(7) Contract termination: debarment. A breach of the contract clauses in 29 CFR 5.5 may be grounds for termination of the contract, and for debarment as a contractor and a subcontractor as provided in 29 CFR 5.12.

(8) Compliance with Davis-Bacon and Related Act requirements. All rulings and interpretations of the Davis-Bacon and Related Acts contained in 29 CFR parts 1, 3, and 5 are herein incorporated by reference in this contract.

(9) Disputes concerning labor standards. Disputes arising out of the labor standards provisions of this contract shall not be subject to the general disputes clause of this contract. Such disputes shall be resolved in accordance with the procedures of the Department of Labor set forth in 29 CFR parts 5, 6, and 7. Disputes within the meaning of this clause include disputes between the contractor (or any of its subcontractors) and Subrecipient(s), State, EPA, the U.S. Department of Labor, or the employees or their representatives.

(10) Certification of eligibility.

(i) By entering into this contract, the contractor certifies that neither it (nor he or she) nor any person or firm who has an interest in the contractor's firm is a person or firm ineligible to be awarded Government contracts by virtue of section 3(a) of the Davis-Bacon Act or 29 CFR 5.12(a)(1).

(ii) No part of this contract shall be subcontracted to any person or firm ineligible for award of a Government contract by virtue of section 3(a) of the Davis-Bacon Act or 29 CFR 5.12(a)(1).

(iii) The penalty for making false statements is prescribed in the U.S. Criminal Code, 18 U.S.C. 1001.

4. Contract Provision for Contracts in Excess of \$100,000.

(a) Contract Work Hours and Safety Standards Act. The subrecipient shall insert the following clauses set forth in paragraphs (a)(1), (2), (3), and (4) of this section in full in any contract in an amount in excess of \$100,000 and subject to the overtime provisions of the Contract Work Hours and Safety Standards Act. These clauses shall be inserted in addition to the clauses required by Item 3, above or 29 CFR 4.6. As used in this paragraph, the terms laborers and mechanics include watchmen and guards.

(1) Overtime requirements. No contractor or subcontractor contracting for any part of the contract work which may require or involve the employment of laborers or mechanics shall require or permit any such laborer or mechanic in any workweek in which he or she is employed on such work to work in excess of forty hours in such workweek unless such laborer or mechanic receives compensation at a rate not less than one and one-half times the basic rate of pay for all hours worked in excess of forty hours in such workweek.

(2) Violation; liability for unpaid wages; liquidated damages. In the event of any violation of the clause set forth in paragraph (b)(1) of this section the contractor and any subcontractor responsible therefore shall be liable for the unpaid wages. In addition, such contractor and subcontractor shall be liable to the United States (in the case of work done under contract for the District of Columbia or a territory, to such District or to such territory), for liquidated damages. Such liquidated damages shall be computed with respect to each individual laborer or mechanic, including watchmen and guards, employed in violation of the clause set forth in paragraph (b)(1) of this section, in the sum of \$10 for each calendar day on which such individual was required or permitted to work in excess of the standard workweek of forty hours without payment of the overtime wages required by the clause set forth in paragraph (b)(1) of this section.

(3) Withholding for unpaid wages and liquidated damages. The subrecipient shall upon the request of the EPA Award Official or an authorized representative of the Department of Labor, withhold or cause to be withheld, from any moneys payable on account of work performed by the contractor or subcontractor under any such contract or any other Federal contract with the same prime contractor, or any other federally-assisted contract subject to the Contract Work Hours and Safety Standards Act, which is held by the same prime contractor, such sums as may be determined to be necessary to satisfy any liabilities of such contractor or subcontractor for unpaid wages and liquidated damages as provided in the clause set forth in paragraph (b)(2) of this section.

(4) Subcontracts. The contractor or subcontractor shall insert in any subcontracts the clauses set forth in paragraph (b)(1) through (4) of this section and also a clause requiring the subcontractors to include these clauses in any lower tier subcontracts. The prime contractor shall be responsible for compliance by any subcontractor or lower tier subcontractor with the clauses set forth in paragraphs (b)(1) through (4) of this section.

(c) In addition to the clauses contained in Item 3, above, in any contract subject only to the Contract Work Hours and Safety Standards Act and not to any of the other statutes cited in 29 CFR 5.1, the Subrecipient shall insert a clause requiring that the contractor or subcontractor shall maintain payrolls and basic payroll records during the course of the work and shall preserve them for a period of three years from the completion of the contract for all laborers and mechanics, including guards and watchmen, working on the contract. Such records shall contain the name and address of each such employee, social security number, correct classifications, hourly rates of wages paid, daily and weekly number of hours worked, deductions made, and actual wages paid. Further, the Subrecipient shall insert in any such contract a clause providing that the records to be maintained under this paragraph shall be made available by the contractor or subcontractor for inspection, copying, or transcription by authorized representatives of the (write the name of agency) and the Department of Labor, and the contractor or subcontractor will permit such representatives to interview employees during working hours on the job.

5. Compliance Verification.

(a) The subrecipient shall periodically interview a sufficient number of employees entitled to DB prevailing wages (covered employees) to verify that contractors or subcontractors are paying the appropriate wage rates. As provided in 29 CFR 5.6(a)(6), all interviews must be conducted in confidence. The subrecipient must use Standard Form 1445 (SF 1445) or equivalent documentation to memorialize the interviews. Copies of the SF 1445 are available from EPA on request.

(b) The subrecipient shall establish and follow an interview schedule based on its assessment of the risks of noncompliance with DB posed by contractors or subcontractors and the duration of the contract or subcontract. At a minimum, the subrecipient should conduct interviews with a representative group of covered employees within two weeks of each contractor or subcontractor's submission of its initial weekly payroll data and two weeks prior to the estimated completion date for the contract or subcontract. Subrecipients must conduct more frequent interviews if the initial interviews or other information indicates that there is a risk that the contractor or subcontractor is not complying with DB. Subrecipients shall immediately conduct necessary interviews in response to an alleged violation of the prevailing wage requirements. All interviews shall be conducted in confidence.

(c) The subrecipient shall periodically conduct spot checks of a representative sample of weekly payroll data to verify that contractors or subcontractors are paying the appropriate wage rates. The subrecipient shall establish and follow a spot check schedule based on its assessment of the risks of noncompliance with DB posed by contractors or subcontractors and the duration of the contract or subcontract. At a minimum, if practicable the subrecipient should spot check payroll data within two weeks of each contractor or subcontractor's submission of its initial payroll data and two weeks prior to the completion date the contract or subcontract. Subrecipients must conduct more frequent spot checks if the initial spot check or other information indicates that there is a risk that the contractor or subcontractor is not complying with DB . In addition, during the examinations the subrecipient shall verify evidence of fringe benefit plans and payments thereunder by contractors and subcontractors who claim credit for fringe benefit contributions.

(d) The subrecipient shall periodically review contractors and subcontractors use of apprentices and trainees to verify registration and certification with respect to apprenticeship and training programs approved by either the U.S Department of Labor or a state, as appropriate, and that contractors and subcontractors are not using disproportionate numbers of, laborers, trainees and apprentices. These reviews shall be conducted in accordance with the schedules for spot checks and interviews described in Item 5(b) and (c) above.

(e) Subrecipients must immediately report potential violations of the DB prevailing wage requirements to the EPA DB contact listed above and to the appropriate DOL Wage and Hour District Office listed at <http://www.dol.gov/esa/contacts/whd/america2.htm> or it's successor site.

SECTION 00830

WAGE DETERMINATION SCHEDULE

PART I - GENERAL

1.01 SUMMARY

The CONTRACTOR shall conform to all provisions of the Kentucky Department of Labor, Latest Revisions, relative to wages and hours as they may apply to the Work to be accomplished under these Specifications.

In addition to the above, certain federal laws and regulations shall govern the Work and shall supplement or supplant the Kentucky Department of Labor Wage Decisions cited above, as the case may be.

1.02 WAGE RATES

State wages do apply and federal wages do not apply to this Project. The state wage rates follow in subsequent pages.

- END OF SECTION -



Steven L. Beshear
Governor

KENTUCKY LABOR CABINET
DEPARTMENT OF WORKPLACE STANDARDS
DIVISION OF EMPLOYMENT STANDARDS,
APPRENTICESHIP & MEDIATION
1047 US Hwy 127 S - Suite 4
Frankfort, Kentucky 40601
Phone: (502) 564-3534
Fax (502) 696-1897
www.labor.ky.gov

Mark S. Brown
Secretary

Michael Donta
Deputy Commissioner

May 9, 2013

Tom Green
Tetra Tech
800 Corporate Drive
Lexington KY 40503

Re: Henry Co Water District 2, Morton Ridge Main Upgrade

Advertising Date as Shown on Notification: July 1, 2013

Dear Tom Green:

This office is in receipt of your written notification on the above project as required by KRS 337.510 (1).

I am enclosing a copy of the current prevailing wage determination number CR 2-026, dated April 24, 2013 for TRIMBLE County. This schedule of wages shall be attached to and made a part of the specifications for the work, printed on the bidding blanks, and made a part of the contract for the construction of the public works between the public authority and the successful bidder or bidders.

The determination number assigned to this project is based upon the advertising date contained in your notification. There may be modifications to this wage determination prior to the advertising date indicated. In addition, if the contract is not awarded within 90 days of this advertising date or if the advertising date is modified, a different set of prevailing rates of wages may be applicable. It will be the responsibility of the public authority to contact this office and verify the correct schedule of the prevailing rates of wages for use on the project. Your project number is as follows: 112-H-00020-13-2, Heavy/Highway

Sincerely,

Michael Donta
Deputy Commissioner



KENTUCKY LABOR CABINET
PREVAILING WAGE DETERMINATION
CURRENT REVISION
LOCALITY 26

CARROLL, HENRY, OLDHAM & TRIMBLE COUNTIES

Determination No. CR 2-026 2013

PROJECT NO. 112-H-00020-13-2

Date of Determination: April 24, 2013

___ BLDG ___ x ___ HH

This schedule of the prevailing rate of wages for Carroll, Henry, Oldham & Trimble Counties have been determined in accordance with the provisions of KRS 337.505 to 337.550. This determination shall be referred to as Prevailing Wage Determination No. CR 2-026 2013.

Apprentices shall be permitted to work as such subject to Administrative Regulations adopted by the Commissioner of Workplace Standards. Copies of these regulations will be furnished upon request to any interested person.

Overtime is to be computed at not less than one and one-half (1 1/2) times the indicated BASE RATE for all hours worked in excess of eight (8) per day, and/or in excess of forty (40) per week. However, KRS 337.540 permits an employee and employer to agree, in writing, that the employee will be compensated at a straight time base rate for hours worked in excess of eight (8) hours in any one calendar day, but not more than ten (10) hours worked in any one calendar day, if such written agreement is prior to the over eight (8) hours in a calendar day actually being worked, or where provided for in a collective bargaining agreement. The fringe benefit rate is to be paid for each hour worked at a straight time rate for all hours worked.

Fringe benefit amounts are applicable for all hours worked except when otherwise noted. Welders will receive rate for craft in which welding is incidental.

NOTE: The type of construction shall be determined by applying the following definitions:

BUILDING CONSTRUCTION


Building construction is the construction of sheltered enclosures with walk-in access for the purpose of housing persons, machinery, equipment, or supplies. It includes all construction of such structures, the installation of utilities and the installation of equipment, both above and below grade level, as well as incidental grading, utilities and paving.

HIGHWAY CONSTRUCTION

Highway construction includes the construction, alteration or repair of roads, streets, highways, runways, taxiways, alleys, trails, paths, parking areas, and other similar projects not incidental to building or heavy construction. It includes all incidental construction in conjunction with the highway construction project.

HEAVY CONSTRUCTION

Heavy projects are those projects that are not properly classified as either "building" or "highway". For example, dredging projects, water and sewer line projects, dams, flood control projects, sewage treatment plants and facilities, and water treatment plants and facilities are considered heavy.



Michael Donta, Deputy Commissioner
Department of Workplace Standards
Kentucky Labor Cabinet

Determination No. CR 2-026 2013
April 24, 2013

ASBESTOS/INSULATION WORKERS:

CARROLL, HENRY, OLDHAM & TRIMBLE COUNTIES:
(Including Pipe Insulator & Pipe Wrapping):

BASE RATE \$24.67
FRINGE BENEFITS 11.08

Hazardous Material Handler ((Includes preparation, wetting, stripping, removal, scrapping, vacuuming, bagging and disposing of all insulation materials, whether they contain asbestos or not, from mechanical systems) :

BASE RATE \$19.35
FRINGE BENEFITS 10.35

BOILERMAKERS:

CARROLL, HENRY, OLDHAM & TRIMBLE COUNTIES:

BASE RATE \$35.79
FRINGE BENEFITS 16.71

BRICKLAYERS:

HENRY, OLDHAM & TRIMBLE COUNTIES:

BASE RATE \$24.11
FRINGE BENEFITS 10.07

BRICKLAYERS:

CARROLL COUNTY:

BASE RATE \$21.54
FRINGE BENEFITS 2.06

CARROLL, HENRY, OLDHAM & TRIMBLE COUNTIES:

Brick Refractory/Brick Placement Worker:

BASE RATE \$24.61
FRINGE BENEFITS 10.07

Tile Setters: BUILDING

BASE RATE \$22.64
FRINGE BENEFITS 6.10

Tile Finishers: BUILDING

BASE RATE \$15.42
FRINGE BENEFITS 5.42

CARPENTERS / BUILDING:

CARROLL, HENRY, OLDHAM & TRIMBLE COUNTIES:

Carpenters: (Includes acoustical ceiling installation, drywall hanging, batt & foam insulation, form work, metal stud installation, cabinet installation & soft floor (carpet), hardwood, resilient & vinyl installation:

BUILDING
BASE RATE \$22.70
FRINGE BENEFITS 14.09

CARROLL COUNTY:

Form Work Only: BUILDING

BASE RATE \$15.26
FRINGE BENEFITS 2.85

CARPENTERS / HEAVY/HIGHWAY:

CARROLL, HENRY, OLDHAM & TRIMBLE COUNTIES:

Carpenters: HEAVY & HIGHWAY

BASE RATE \$26.40
FRINGE BENEFITS 13.91

CARPENTERS / HEAVY/HIGHWAY: CONTINUED

CARROLL, HENRY, OLDHAM & TRIMBLE COUNTIES:

| | | | |
|----------------|-----------------|-----------------|---------|
| Piledrivermen: | HEAVY & HIGHWAY | BASE RATE | \$26.65 |
| | | FRINGE BENEFITS | 13.91 |
| Divers: | HEAVY & HIGHWAY | BASE RATE | \$39.98 |
| | | FRINGE BENEFITS | 13.91 |

CEMENT MASONS / CONCRETE FINISHER:

HENRY, OLDHAM & TRIMBLE COUNTIES:

BUILDING

| | |
|-----------------|---------|
| BASE RATE | \$21.00 |
| FRINGE BENEFITS | 9.80 |

CEMENT MASONS / CONCRETE FINISHER:

CARROLL COUNTY:

BUILDING

| | |
|-----------------|---------|
| BASE RATE | \$19.08 |
| FRINGE BENEFITS | 0.00 |

ELECTRICIANS:

CARROLL COUNTY:

| | |
|-----------------|---------|
| BASE RATE | \$29.32 |
| FRINGE BENEFITS | 13.78 |

ELECTRICIANS:

HENRY, OLDHAM & TRIMBLE COUNTIES:

| | |
|-----------------|---------|
| BASE RATE | \$24.26 |
| FRINGE BENEFITS | 6.61 |

LINE CONSTRUCTION:

CARROLL, HENRY, OLDHAM & TRIMBLE COUNTIES:

Cable Splicer:

| | |
|-----------------|---------|
| BASE RATE | \$32.19 |
| FRINGE BENEFITS | 11.88 |

Equipment Operator A: John Henry Rock Drill, D6 (or equivalent) and above, Trackhoe Digger, Cranes (greater than 25 tons and less than 45 tons)

| | |
|-----------------|---------|
| BASE RATE | \$28.81 |
| FRINGE BENEFITS | 11.13 |

Equipment Operator B: Cranes (6-25 tons), Backhoes, Road Tractor, Dozer up to D5, Pressure Digger-Wheeled or Tracked, all Tension Wire Stringing Equipment

| | |
|-----------------|---------|
| BASE RATE | \$25.42 |
| FRINGE BENEFITS | 10.38 |

Equipment Operator C: Trencher, Vibratory Compactor, Ground Rod Driver, Boom Truck (6 ton or below), Skid Steer Loaders:

| | |
|-----------------|---------|
| BASE RATE | \$20.33 |
| FRINGE BENEFITS | 9.25 |

Groundman

| | |
|-----------------|---------|
| BASE RATE | \$17.12 |
| FRINGE BENEFITS | 8.55 |

Lineman and Technician

| | |
|-----------------|---------|
| BASE RATE | \$29.36 |
| FRINGE BENEFITS | 11.25 |

Cranes 45 tons or larger paid 100% of journeyman lineman's rate.

ELEVATOR MECHANICS:

CARROLL, HENRY, OLDHAM & TRIMBLE COUNTIES:

| | |
|-----------------|---------|
| BASE RATE | \$36.94 |
| FRINGE BENEFITS | 20.035 |

GLAZIERS:

CARROLL COUNTY:

| | |
|-----------------|---------|
| BASE RATE | \$23.70 |
| FRINGE BENEFITS | 11.40 |

GLAZIERS:

HENRY, OLDHAM & TRIMBLE COUNTIES:

| | |
|-----------------|---------|
| BASE RATE | \$21.61 |
| FRINGE BENEFITS | 9.84 |

IRONWORKERS:

CARROLL COUNTY (55% Southwestern part of Carroll County)
 Reinforcing/Ornamental/Structural:

| | |
|-----------------|---------|
| BASE RATE | \$26.34 |
| FRINGE BENEFITS | 18.58 |

IRONWORKERS:

CARROLL COUNTY (45% Northeastern part of Carroll County)
 Ornamental; Structural:

| | |
|-----------------|---------|
| BASE RATE | \$24.80 |
| FRINGE BENEFITS | 18.10 |

CARROLL COUNTY (45% Northeastern part of Carroll County)
 Reinforcing:

| | |
|-----------------|---------|
| BASE RATE | \$26.34 |
| FRINGE BENEFITS | 18.58 |

IRONWORKERS:

HENRY, OLDHAM & TRIMBLE COUNTIES:
 Ornamental/Reinforcing/Structural:

| | |
|-----------------|---------|
| BASE RATE | \$26.34 |
| FRINGE BENEFITS | 18.58 |

LABORERS / BUILDING:

HENRY, OLDHAM & TRIMBLE COUNTIES:
 Common or General & Landscape Laborer:
 BUILDING

| | |
|-----------------|---------|
| BASE RATE | \$18.42 |
| FRINGE BENEFITS | 9.13 |

Grade Checker, Mason Tender-Brick, & Screw Operator:
 BUILDING

| | |
|-----------------|---------|
| BASE RATE | \$18.62 |
| FRINGE BENEFITS | 9.13 |

Fence Erection:

| | |
|-----------------|---------|
| BASE RATE | \$23.72 |
| FRINGE BENEFITS | 0.00 |

Mason Tender Brick (Hod)

| | |
|-----------------|---------|
| BASE RATE | \$21.83 |
| FRINGE BENEFITS | 0.00 |

Pipelayer:

| | |
|-----------------|---------|
| BASE RATE | \$16.87 |
| FRINGE BENEFITS | 8.03 |

Mason Tender-Cement/Concrete

| | |
|-----------------|---------|
| BASE RATE | \$14.45 |
| FRINGE BENEFITS | 0.00 |

LABORERS / BUILDING: CONTINUED

CARROLL COUNTY:

Grade Checker & Mason Tender-Brick, Mason Tender-Cement/Concrete:

| | |
|-----------------|---------|
| BASE RATE | \$18.62 |
| FRINGE BENEFITS | 9.13 |

Common or General:

| | |
|-----------------|---------|
| BASE RATE | \$15.07 |
| FRINGE BENEFITS | 4.78 |

Carpenter Tender:

| | |
|-----------------|---------|
| BASE RATE | \$11.55 |
| FRINGE BENEFITS | 0.00 |

LABORERS / HEAVY HIGHWAY:

CARROLL, HENRY, OLDHAM & TRIMBLE COUNTIES:

GROUP 1: Aging & Curing of Concrete; Asbestos Abatement Worker; Asphalt Plant; Asphalt; Batch Truck Dump; Carpenter Tender; Cement Mason Tender; Cleaning of Machines; Concrete; Demolition; Dredging; Environmental – Nuclear, Radiation, Toxic & Hazardous Waste – Level D; Flagperson; Grade Checker; Hand Digging & Hand Back Filling; Highway Marker Placer; Landscaping, Mesh Handler & Placer; Puddler; Railroad; Rip-rap & Grouter; Right-of-Way; Sign, Guard Rail & Fence Installer; Signal Person; Sound Barrier Installer; Storm & Sanitary Sewer; Swamper; Truck Spotter & Dumper; & Wrecking of Concrete Form:

| | | |
|-----------------|-----------------|---------|
| HEAVY & HIGHWAY | BASE RATE | \$21.61 |
| | FRINGE BENEFITS | 10.95 |

GROUP 2: Batter Board Man (Sanitary & Storm Sewer); Brickmason Tender; Mortar Mixer Operator; Scaffold Builder; Burner & Welder; Bushhammer; Chain Saw Operator; Concrete Saw Operator; Deckhand Scow Man; Dry Cement Handler; Environmental – Nuclear, Radiation, Toxic & Hazardous Waste – Level C; Forklift Operator for Masonry; Form Setter; Green Concrete Cutting; Hand Operated Grouter & Grinder Machine Operator; Jackhammer; Pavement Breaker; Paving Joint Machine; Pipelayer; Plastic Pipe Fusion; Power Driven Georgia Buggy & Wheel Barrow; Power Post Hole Digger; Precast Manhole Setter; Walk-Behind Tamper; Walk-Behind Trencher; Sand Blaster; Concrete Chipper; Surface Grinder; Vibrator Operator; & Wagon Driller:

| | | |
|-----------------|-----------------|---------|
| HEAVY & HIGHWAY | BASE RATE | \$21.86 |
| | FRINGE BENEFITS | 10.95 |

GROUP 3: Asphalt Luteman & Raker; Gunnite Nozzleman; Gunnite Operator & Mixer; Grout Pump Operator; Side Rail Setter; Rail Paved Ditch; Screw Operator; Tunnel (Free air); & Water Blaster:

| | | |
|-----------------|-----------------|---------|
| HEAVY & HIGHWAY | BASE RATE | \$21.91 |
| | FRINGE BENEFITS | 10.95 |

GROUP 4: Caisson Worker (Free Air); Cement Finisher; Environmental - Nuclear, Radiation, Toxic & Hazardous Waste - Levels A & B; Miner & Driller (Free Air); Tunnel Blaster; & Tunnel Mucker (Free Air); Directional & Horizontal Boring; Air Track Drillers (All Types); Powdermen & Blasters; Troxler & Concrete Tester if Laborer is Utilized:

| | | |
|-----------------|-----------------|---------|
| HEAVY & HIGHWAY | BASE RATE | \$22.51 |
| | FRINGE BENEFITS | 10.95 |

MILLWRIGHTS:

CARROLL, HENRY, OLDHAM & TRIMBLE COUNTIES:

| | |
|-----------------|---------|
| BASE RATE | \$24.18 |
| FRINGE BENEFITS | 15.64 |

OPERATING ENGINEERS / BUILDING:

CARROLL COUNTY:

Bobcat/skid loader, bulldozer, cherry picker, crane, forklift, grader/blade, trackhoe:

| | | |
|----------|-----------------|---------|
| BUILDING | BASE RATE | \$26.25 |
| | FRINGE BENEFITS | 13.40 |

| | | | |
|--------|----------|-----------------|---------|
| Oiler: | BUILDING | BASE RATE | \$21.11 |
| | | FRINGE BENEFITS | 13.40 |

***Crane with boom 150 feet and over, including Jib, shall receive \$.75 above Base Rate**

| | | | |
|-----------------------------|----------|-----------------|---------|
| Backhoe/Excavator/Trackhoe: | BUILDING | BASE RATE | \$22.33 |
| | | FRINGE BENEFITS | 7.72 |

| | | | |
|---------|----------|-----------------|---------|
| Loader: | BUILDING | BASE RATE | \$21.10 |
| | | FRINGE BENEFITS | 9.15 |

OPERATING ENGINEERS/BUILDING:

HENRY, OLDHAM & TRIMBLE COUNTIES:

GROUP 1: Concrete pump, elevating grader and all types of loaders, forklift (regardless of lift height) motor scraper, bulldozer, mechanic, power blade, motor grader, forklift (regardless of lift height & except when used for masonry construction), self contained core drill, rotary drill, kecal loader, hydrocrane, subgrader, backhoe, backhoe track, excavator, trackhoe:

| | | |
|----------|-----------------|---------|
| BUILDING | BASE RATE | \$26.25 |
| | FRINGE BENEFITS | 13.40 |

| | | | |
|--|----------|-----------------|---------|
| GROUP 2: Crane (including overhead, rough terrain, truck & tower), hoist (1 drum), hoisting engine (2 or more drums), hoist: | BUILDING | BASE RATE | \$27.28 |
| | | FRINGE BENEFITS | 13.40 |

| | | | |
|--|----------|-----------------|----------|
| GROUP 3: Form Grader, tractor (50 hp and over) farm tractor with attachments, except backhoe, highlift & endloader, elevator (when used for hoisting), hoisting engine (1 drum or buck hoist): | BUILDING | BASE RATE | \$ 22.67 |
| | | FRINGE BENEFITS | 13.40 |

| | | | |
|--|----------|-----------------|---------|
| GROUP 4: Tractor (under 50 hp), crane oiler: | BUILDING | BASE RATE | \$21.11 |
| | | FRINGE BENEFITS | 13.40 |

***Crane with boom 150 feet and over, including Jib, shall receive \$.75 above Base Rate**

| | | | |
|-----------|----------|-----------------|---------|
| COMPACTOR | BUILDING | BASE RATE | \$24.53 |
| | | FRINGE BENEFITS | 0.00 |

| | | | |
|----------|----------|-----------------|---------|
| HIGHLIFT | BUILDING | BASE RATE | \$25.00 |
| | | FRINGE BENEFITS | 0.00 |

| | | | |
|-------|----------|-----------------|---------|
| PAVER | BUILDING | BASE RATE | \$17.18 |
| | | FRINGE BENEFITS | 8.03 |

| | | | |
|--------|----------|-----------------|---------|
| ROLLER | BUILDING | BASE RATE | \$18.42 |
| | | FRINGE BENEFITS | 9.15 |

OPERATING ENGINEERS / HEAVY HIGHWAY:
 CARROLL, HENRY, OLDHAM & TRIMBLE COUNTIES:

GROUP 1: A-Frame Winch Truck; Auto Patrol; Backfiller; Batcher Plant; Bituminous Paver; Bituminous Transfer Machine; Boom Cat; Bulldozer; Mechanic; Cableway; Carry-all Scoop; Carry Deck Crane; Central Compressor Plant; Clamshell; Concrete Mixer (21 cu. ft. or Over); Concrete Paver; Truck-Mounted Concrete Pump; Core Drill; Crane; Crusher Plant; Derrick; Derrick Boat; Ditching & Trenching Machine; Dragline; Dredge Operator; Dredge Engineer; Elevating Grader & Loaders; Grade-All; Gurries; Heavy Equipment Robotics Operator/Mechanic; High Lift; Hoe-Type Machine; Hoist (Two or More Drums); Hoisting Engine (Two or More Drums); Horizontal Directional Drill Operator; Hydrocrane; Hyster; KeCal Loader; LeTourneau; Locomotive; Mechanic; Mechanically Operated Laser Screed; Mechanic Welder; Mucking Machine; Motor Scraper; Orangepeel Bucket; Piledriver; Power Blade; Pumpcrete; Push Dozer; Rock Spreader, attached to equipment; Rotary Drill; Roller (Bituminous); Scarifier; Scoopmobile; Shovel; Side Boom; Subgrader; Tailboom; Telescoping Type Forklift; Tow or Push Boat; Tower Crane (French, German & other types); Tractor Shovel; Truck Crane; Tunnel Mining Machines, including Moles, Shields or similar types of Tunnel Mining Equipment:

| | | |
|-----------------|-----------------|---------|
| HEAVY & HIGHWAY | *BASE RATE | \$27.35 |
| | FRINGE BENEFITS | 13.40 |

GROUP 2: Air Compressor (Over 900 cu. ft. per min.); Bituminous Mixer; Boom Type Tamping Machine; Bull Float; Concrete Mixer (Under 21 cu. ft); Dredge Engineer; Electric Vibrator; Compactor/Self-Propelled Compactor; Elevator (One Drum or Buck Hoist); Elevator (when used to Hoist Building Material); Finish Machine; Firemen & Hoist (One Drum); Flexplane; Forklift (Regardless of Lift Height); Form Grader; Joint Sealing Machine; Outboard Motor Boat; Power Sweeper (Riding Type); Roller (Rock); Ross Carrier; Skid Mounted or Trailer Mounted Concrete Pump; Skid Steer Machine with all Attachments; Switchman or Brakeman; Throttle Valve Person; Tractair & Road Widening Trencher; Tractor (50 HP or Over); Truck Crane Oiler; Tugger; Welding Machine; Well Points; & Whirley Oiler:

| | | |
|-----------------|-----------------|---------|
| HEAVY & HIGHWAY | *BASE RATE | \$24.87 |
| | FRINGE BENEFITS | 13.40 |

GROUP 3: All Off Road Material Handling Equipment, including Articulating Dump Trucks; Greaser on Grease Facilities servicing Heavy Equipment:

| | | |
|-----------------|-----------------|---------|
| HEAVY & HIGHWAY | *BASE RATE | \$25.26 |
| | FRINGE BENEFITS | 13.40 |

GROUP 4: Bituminous Distributor; Burlap & Curing Machine; Cement Gun; Concrete Saw; Conveyor; Deckhand Oiler; Grout Pump; Hydraulic Post Driver; Hydro Seeder; Mud Jack; Oiler; Paving Joint Machine; Power Form Handling Equipment; Pump; Roller (Earth); Steersman; Tamping Machine; Tractor (Under 50 HP); & Vibrator:

| | | |
|-----------------|-----------------|---------|
| HEAVY & HIGHWAY | *BASE RATE | \$24.60 |
| | FRINGE BENEFITS | 13.40 |

***Cranes with booms 150 ft. & over (including jib) and where the length of the boom in combination with the length of the piling leads equals or exceeds 150 ft. - \$1.00 over Group 1 rate.
 Employees assigned to work below ground level are to be paid 10% above basic wage rate.
 This does not apply to open cut work.**

PAINTERS / BUILDING:
 HENRY, OLDHAM & TRIMBLE COUNTIES:

| | | | |
|---------------------|----------|-----------------|---------|
| Brush/Spray/Roller: | BUILDING | BASE RATE | \$18.50 |
| | | FRINGE BENEFITS | 11.05 |

PAINTERS / BUILDING:

CARROLL COUNTY:

Brush & Roller Only: BUILDING

BASE RATE \$18.50
FRINGE BENEFITS 10.30

PAINTERS / BUILDING:

CARROLL, HENRY, OLDHAM & TRIMBLE COUNTIES:

Sign Painter & Erector: BUILDING

BASE RATE \$20.23
FRINGE BENEFITS 3.25

PAINTERS / HEAVY & HIGHWAY:

CARROLL, HENRY, OLDHAM & TRIMBLE COUNTIES:

Brush & Roller: HEAVY & HIGHWAY

BASE RATE \$18.50
FRINGE BENEFITS 10.30

Spray, Sandblast, Power Tools, Waterblast and Steam Cleaning:

HEAVY & HIGHWAY

BASE RATE \$19.50
FRINGE BENEFITS 10.30

PLUMBERS & PIPEFITTERS:

CARROLL COUNTY: (East of Dow Chemical)
(Including HVAC Pipe Installation)

BASE RATE \$29.30
FRINGE BENEFITS 16.59

PLUMBERS/PIPEFITTERS/STEAMFITTERS:

CARROLL (West of Dow Chemical), HENRY, OLDHAM & TRIMBLE COUNTIES:
(Including HVAC Pipe Installation)

BASE RATE \$32.00
FRINGE BENEFITS 16.17

PLUMBERS & PIPEFITTERS:

HENRY, OLDHAM & TRIMBLE COUNTIES:

BASE RATE \$32.00
FRINGE BENEFITS 16.17

ROOFERS

HENRY, OLDHAM & TRIMBLE COUNTIES:

(Including Built Up, Modified Bitumen, Rubber & Single Ply Roofs, Excluding Metal Roofs):

BASE RATE \$21.53
FRINGE BENEFITS 8.12

Shake & Shingle Roof:

BASE RATE \$19.31
FRINGE BENEFITS 6.25

ROOFERS

CARROLL COUNTY:

BASE RATE \$16.42
FRINGE BENEFITS 1.50

SHEETMETAL WORKERS

CARROLL, HENRY, OLDHAM & TRIMBLE COUNTIES:

(including metal roofs):

(Including HVAC duct & system installation)

BASE RATE \$28.66
FRINGE BENEFITS 17.46

SPRINKLER FITTERS:

CARROLL, HENRY, OLDHAM & TRIMBLE COUNTIES:
(Fire Sprinklers)

BASE RATE \$29.55
FRINGE BENEFITS 17.12

TRUCK DRIVERS / BUILDING:

CARROLL, HENRY, OLDHAM & TRIMBLE COUNTIES:
10 Yard Truck: BUILDING

BASE RATE \$16.27
FRINGE BENEFITS 1.50

Dump Truck: BUILDING

BASE RATE \$18.63
FRINGE BENEFITS 6.00

TRUCK DRIVERS / HEAVY HIGHWAY:

Mobile Batch Truck Tender: HEAVY & HIGHWAY

BASE RATE \$16.57
FRINGE BENEFITS 7.34

Greaser, Tire Changer, & Mechanic Tender:
HEAVY & HIGHWAY

BASE RATE \$16.68
FRINGE BENEFITS 7.34

Single Axle Dump, Flatbed, Semi-trailer or Pole Trailer when used to pull building materials and equipment,
Tandem Axle Dump, Distributor, Mixer, & Truck Mechanic:
HEAVY & HIGHWAY

BASE RATE \$16.86
FRINGE BENEFITS 7.34

Euclid & Other Heavy Earthmoving Equipment & Lowboy, Articulator Cat, 5-Axle Vehicle, Winch & A-Frame when
used in transporting materials, Ross Carrier, Forklift when used to transport building materials, & Pavement
Breaker: HEAVY & HIGHWAY

BASE RATE \$16.96
FRINGE BENEFITS 7.34

End of Document
CR 2-026 2013
April 24, 2013

SECTION 00890

PERMITS

PART 1 - GENERAL

1.01 SUMMARY

The CONTRACTOR shall conform to the requirements of the following permits which are provided herein:

- A. Kentucky Transportation Cabinet.
- B. Texas Gas Encroachment Agreement.

All other permits shall be obtained by the Contractor, including the Kentucky Division of Water KPDES General Permit.

- END OF SECTION -



TRANSPORTATION CABINET

Department of Highways District 5 Office
8310 Westport Road
Louisville, KY 40242-3042
(502) 210-5400

Steven L. Beshear
Governor

Mike Hancock
Secretary

June 6, 2013

Henry County Water District
P.O. Box 219
Campbellsburg, KY 40011
Attn: James Simpson

Permit #05-2013-00420

Your application for an encroachment permit has been approved by the Department of Highways. We are returning two (2) copies of the approved permit. One copy of the permit is for your record and files, the other is to be on the work site at all times. Failure to have this permit at the site could result in a stop-work order by the Department of Highways.

The "Manual on Uniform Traffic Control Devices" (MUTCD) is the accepted national standard for all traffic control. All traffic control measures used must be in compliance with the MUTCD.

Please contact this office prior to beginning the work and also when the work has been completed. Please see that work is done in strict conformity with the permit and any other applicable conditions (see form TC99-21 and any other attached documents, conditions, or specifications). The permit will be released when the permitted work and any necessary restoration has been completed.

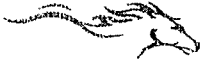
Please contact this office if you have any questions.

Sincerely,

Jason Richardson
District 5 Permits Supervisor
Traffic Engineering and Permits



An Equal Opportunity Employer M/F/D



Kentucky Transportation Cabinet
 Department of Highways
 Permits Branch

TC 99-1 (A)
 8/2012
 Page 1 of 4

APPLICATION FOR ENCROACHMENT PERMIT

| | | | |
|--|--|--|--|
| Permittee Information | | KYTC No. 05-2013-00430 | |
| Name HENRY Co. WATER DISTRICT #2 | | Permit Information | |
| Address 8955 MAIN STREET | | Address | |
| P.O. Box 219 | | City: BEDFORD | |
| City CAMPBELLBURG | | State: KY Zip: 40006 | |
| State KENTUCKY Zip 40011 | | County: TRIMBLE | |
| Phone# 502-532-6279 | | Route No.: KY 2868 #US42 Mile-Point: 0.963 | |
| Contact JAMES SIMPSON | | Longitude (X): -85.385289° | |
| Phone 502-532-6279 Cell 502-724-3387 | | Latitude (Y): 38.537279° | |
| Email JSIMPSON@HCWD#2.COM | | Information below to be filled out by KYTC | |
| Contact BARRY Woods | | <input type="checkbox"/> Air Right <input type="checkbox"/> Entrance | |
| Phone 502-532-6279 Cell | | <input checked="" type="checkbox"/> Utilities <input type="checkbox"/> Other: _____ | |
| Email | | <input checked="" type="checkbox"/> Left <input type="checkbox"/> Right <input checked="" type="checkbox"/> X-ing | |
| <div style="text-align: center;"> <p>RECEIVED</p> <p>JUN 03 2013</p> </div> | | Access: <input type="checkbox"/> Full <input type="checkbox"/> Partial <input checked="" type="checkbox"/> by Permit | |

General Description of Work: D-5
 Traffic & Permits

INSTALLING APPROX. 22,000' FEET OF 20 INCH DUCTILE IRON PIPE ON HWY. 3278 MORTON RIDGE ROAD AND U.S. HWY. 42. PROJECT WILL CONTAIN TWO (2) ROAD BORES WITH THE FIRST ONE AT THE INTERSECTION OF HWY. 3278 & KATINA LANE. THE SECOND ONE WILL BE ON HWY. 42 APPROX. .2 TENTHS OF A MILE WEST OF THE INTERSECTION OF NORVELL ROAD & HWY. 42. PROJECT WILL ALSO INVOLVE INSTALLING THE 20" WATER LINE ON STATE RIGHT-OF-WAY IN SOME AREAS ON EACH ROAD. SEE PLANS:

THE UNDERSIGNED PERMITTEE(S) (being duly authorized representative(s) or owner(s)) DO AGREE TO ALL TERMS AND CONDITIONS ON THE TC 99-1 (A)

5-30-13

Signature

Date

This is not a permit unless and until the permittee(s) receives an approved TC 99-1(B) from KYTC. This application will become void if not approved by the cancellation date. The cancellation date will be one year from the date the permittee submits their application.

SECTION 00911

ADDENDUM 1

ADDENDUM NO. 1
MORTON RIDGE MAIN UPGRADE
Henry County Water District No. 2
August 23, 2013

The attention of all contractors bidding the titled Contract is called to the following additions, deletions, and/or corrections to the Drawings and Specifications.

Any oral interpretation given of the meaning of the plans and specifications shall not be binding. Any and all binding interpretations and any supplemental instructions will be in the form of written Addenda.

SPECIFICATIONS

DIVISION 0 – BIDDING AND CONTRACT REQUIREMENTS

Section – 00250 Pre-Bid Conferences

AD1-1 Pre-Bid Conference

Attached is a list of Attendees to the Mandatory Pre-Bid Conference.

AD1-2 Pre-Bid Conference

Attached is a copy of the Pre-Bid Conference Meeting Notes.

Section – 00410 Bid Form

AD1-3 Article 5- Basis of Bid

Replace Unit Price Item No. 11 description with the following:

36" x0.469" Stl. Casing Pipe, Open Cut Roadway, Blacktop-Concrete Driveway, Gas Line Crossing

AD1-4 Article 5- Basis of Bid

Replace Unit Price Item No. 12 description with the following:

36" x0.469" Stl. Casing Pipe, Bore & Jack Roadway

AD1-5 Article 5- Basis of Bid

Add the following Unit Price line item to page 0410-4, Unit Prices:

20. Crushed Stone Bedding and Backfill \$ _____ per Ton

AD1-6 Article 7- Attachments to this Bid

Replace Article 7.01 C with the following paragraph:

“C. (not used)”

AD1-7 Article 7- Attachments to this Bid

Add the following Article 7.01 E

“E. Certification Regarding Debarment, Suspension, and Other Responsibility Matters (KIA Supplemental General Conditions, Attachment Number 10).”

AD1-8 Article 7- Attachments to this Bid

Add the following Article 7.01 F

“F. Certification Regarding Lobbying (KIA Supplemental General Conditions, Attachment Number 11)”

AD1-9 Bid Form

The BIDDER shall utilize the attached Bid Form (pages 0041-1 through 00410-6) for the submittal of Bid. Please note all changes documented in this addendum.

Section – 00830 Wage Determination Schedule

AD1-10 Replace Article 1.02 Wage Rates with the following:

“1.02 WAGE RATES

Federal and state wages wages do apply to this project. The contractor shall pay whichever rate is higher.”

AD1-11 Attached are current federal and state wages rates, which replace those in Section 00830.

DIVISION 1 – GENERAL REQUIREMENTS

Section – 01025 Measurement and Payment

AD1-12 Mobilization

Replace Article 2.01 A. with the following paragraph:

“A. Measurement shall be on the lump sum basis. In no case shall the lump sum unit price exceed two percent (2.0%) of the total Bid amount.”

AD1-13 General Conditions

Replace Article 2.02 A. with the following paragraph:

“A. Measurement shall be on the lump sum basis. In no case shall the lump sum unit price exceed two percent (2.0%) of the total Bid amount.”

AD1-14 Demobilization

Addendum No. 1
00911

Replace Article 2.03 A. with the following paragraph:

"A. Measurement shall be on the lump sum basis. In no case shall the lump sum unit price be less than one percent (1.0%) of the total Bid amount."

AD1-15 Water Lines

Replace Article 2.04 E. with the following paragraph:

"E. Full depth crushed stone (#9) up to the surface replacement course, is not included in this pay item and will be paid for separately."

AD1-16 2.20 Crushed Stone Bedding and Backfill

Add Article 2.20 as follows:

- A. Measurement shall be on the basis of tons of crushed stone used as pipe bedding and backfill according to delivery tickets of haul trucks. Additional crushed stone required to be installed due to excavation limits greater than the allowable trench widths will be considered incidental to this item and not considered for payment. In any areas which exceed maximum allowable trench width, payment for tonnage of stone will be reduced proportionate to the exceedance.
- B. This item includes all labor, material, equipment, and any necessary incidentals required to haul the crushed stone and place it for the pipe bedding and backfill as shown in the Drawings.
- C. Payment will be on the basis of unit price Bid per ton. In any areas which exceed maximum allowable trench width, payment for tonnage of stone will be reduced proportionate to the exceedance. All weigh tickets and delivery receipts must signed by the resident Project Representative.

Section – 02610 Pipe and Fittings

AD1-17 Replace Article 2.01, B, paragraphs 9 and 10 with the following paragraphs:

9. Restrained joint pipe and fittings using restraining gaskets shall be a boltless system equal to "Field-Lok" restraining gaskets as manufactured by U.S. Pipe & Foundry Company or approved equal.
10. Restrained joint pipe and fittings using a locking ring system shall be American Flex-Ring, U.S. Pipe TRFLEX, or Clow Tyton/Fastite shop or field systems, or approved equal.

DRAWINGS

AD1-18 Sheets 3-12

All references to casing pipe diameter and material in both planview and in cross-section shall be replaced with the following:

36" Steel Casing

AD1-19 Sheet 7

Replace the note "INSTALL CARV" with the note "INSTALL 2" CARV"

AD1-20 Sheet 14

In the "Rock Trench" detail of "Trenching, Bedding, and Backfill" replace the 6" vertical dimension of "Topsoil/Earth Suitable for Revegetation" with a 12" vertical dimension.

MISCELLANEOUS

AD1-21 Answers to Questions

Question: Can a 30" trencher be used?

Answer: Project specifications require a minimum trench width of 32" and a maximum of 44" for installation of 20" pipe.

Question: Do all materials need to be manufactured in the USA?

Answer: No, the Buy American provisions do not apply to this project.

Question: Will the resident Project Representative need to be present during clean-up?

Answer: Yes.

Question: What is the width of temporary construction easements?

Answer: Permanent easements are 20' wide and contain a provision for "ingress and egress over Grantor's adjacent lands" for the purpose of construction. This is an unspecified width, but the contractor will be required to disturb as little an area as possible, particularly where indicated on plans.

Question: Will limiting the contractor to 40 hours per week justify the possible extension of the contract time?

Answer: The contractor is not limited to 40 hours, except that he must pay employees overtime, and reimburse the addition expenses of the HCWD2 inspector at \$60 per hour.

Question: Is DBE information required to be submitted with the bid?

Answer: The low bidder will be expected to promptly provide this, along with other materials, after bids are certified. Required Bid Attachments are listed in Section 00410- Article 7.

Question: Are EPA forms referenced in Section 00810 required to be submitted with the bid?

Answer: The "Certification Regarding Debarment, Suspension, and Other Responsibility Matters" (KIA Supplemental General Conditions, Attachment Number 10) and the "Certification Regarding Lobbying" (KIA Supplemental General Conditions, Attachment

Addendum No. 1

00911

Number 11)" are required with Bid submittal. The low bidder will be expected to promptly provide the remainder of forms, along with other materials, after bids are certified.

Question: Is there a separate pay item for restraint joint pipe?

Answer: No, but associated fittings are paid for under Bid Item No. 5

Question: Can the construction corridor be test-drilled and/or probed?

Answer: Yes, but all activities must be coordinated in advance with Barry Woods of HCWD2 (502) 532-6279.

Question: Can nearby trees be removed in order to facilitate trenching?

Answer: The removal of trees can only be done with the full knowledge and consent of the property owner and the HCWD2 Project Representative. There will be no additional cost incurred to the HCWD2 as the result of such arrangements.

Question: What constitutes "evidence of authority to do business in the state" in Article 7 of Section 00410?

Answer: See revision to Article 7 per this addendum.

Question: Is it acceptable to use rock excavated by the trencher as backfill?

Answer: In all areas of rock excavation, crushed stone (#9) will be always used as pipe bedding and initial backfill to 12" above top of pipe. Select excavated rock can only be used as final backfill if such material is approved and directly observed by the Project Representative.

Question: Can an excavator and hoe-ram be used for the entire project.

Answer: No. A rock trencher is required in rock areas, except where accessibility is a problem and the Project Representative approves the use of a hoe-ram.

Question: Is the entire pipeline to be encased in polywrap or just the DI fittings?

Answer: All DI Fittings are to be encased. Polywrap of the entire project is not required.

Question: For vertical deflections is it acceptable to use the standard mechanical joint fittings with Mega-Lug or Grip Rings? Will these fittings require thrust blocks as indicated in standard details?

Answer: Fittings are to be installed per drawings and Specifications.

Question: What type of restraint joint is required inside casing pipe?

Answer: Section 02610, Article 2.01 lists several acceptable options.

Question: Are stainless steel tapping sleeves an option?

Answer: For bidding purposes, refer to Section 02642, Article 2.06.

Question: Can a product from a manufacturer not listed in the specifications be used?

Answer: Pre-approval of products prior to bidding will not be conducted. If the product meets the specified requirements and is equivalent to items listed, it is possible for them to be approved during shop drawing submittal review.

Question: What is the inlet size of the CARV?

Answer: The CARV is 2" as indicated on the Bid Form and in this addendum.

- END OF ADDENDUM NO. 1 -

August 20, 2013

MANDATORY PRE-BID CONFERENCE

Sign In Sheet

| Name | Title | Company | Phone # |
|-----------------|-------------|------------------------|----------------|
| Gary W Clifton | | Scott's R. Hel | 270-781-9988 |
| Paul Beckwith | V.P. | Howell Cotnam, Inc | 859-331-5457 |
| DAVID SPECHT | P.M. | AREA WIDE PROTECTIVE | 578-321-9889 |
| Darrell Elders | Trng | G F W | 606-784-2396 |
| Jon Stalker | Project Man | Infrastructure Systems | 812-865-3309 |
| John Applegate | Project Man | Pack's Inc | 606-784-4108 |
| Gary Goff | Mgr | Garney Co. | 615-350-7925 |
| MIKE WILEY | PM | HOWELL CONTRACTORS | 859-331-5457 |
| JASON DAVIS | PM | LAYNE HEAVY CIVIL | 812-865-3232 |
| Tim Alcorn | Supplier | Ferguson Waterworks | 502-541-0779 |
| ALLEN BRAUN | Pres. | BRAUN'S EXCAVATING | 859-626-3488 |
| Jon Melboan | Sales | Clow Pipe | 502-472-6688 |
| K. CARZENDE | Pres. | K. CARZENDE | 606-649-2328 |
| Tony Palanie JA | | B.P. Pipeline | 606-757-2055 |
| Cozy Platte | Buyer Man | MAC CONSTRUCTION | (812) 941-7875 |
| Darren Cleary | President | Cleary Const. | 270-488-1784 |
| JOE LARUCK | Sales | U L PIPE | 205-602-2215 |
| JOE SMITH | VP | SMITH CONTRACTORS | 502-839-4196 |
| BILL SAAL | Mgr | HD Supply | 502-558-8073 |
| William Kirby | Rep | Walker's mkr | 812-528-7503 |

**Morton Ridge Main Upgrade
Henry County Water District No. 2
Henry County, Kentucky**



**Invitation to Bid
Pre-Bid Conference Discussion and Review of Project
August 20, 2013**

1. The Bid Opening will be at the office of Henry County Water District No. 2, 8955 Main Street, Campbellsburg, Kentucky 40011 on August 30, 2013 at 10:00 a.m. Eastern Time.
2. This is a Mandatory Pre-Bid Meeting.
3. The sign-in sheet for the Mandatory Pre-Bid Meeting will be attached to an Addendum.
4. Plans are available online or call Lynn Imaging at (859) 255-1021. The cost is \$250 and is non-refundable.
5. Last date for the Addendum to be sent is August 23, 2013. The Contractors are requested to submit questions in writing to Tetra Tech, Inc. no later than noon on Thursday, August 29, 2013. Questions after this will not be addressed.
6. The project is being funded by Henry County Water District No. 2 and a KIA loan.
7. This is a Unit Price Bid. Bidders shall submit a Bid on a Unit price basis for each item of Work listed in the Bid Schedule (Section 00410). Discrepancies between the multiplication of units of Work and unit prices will be resolved in favor the unit prices. Discrepancies between the indicated sum of any column of figures and the correct sum thereof will be resolved in favor of the correct sum. Discrepancies between words and figures will be resolved in favor of the words.
8. Bid submittal includes Section 00410 Bid Form, Section 00420 Supplements to Bid Form, and a 5% bid bond. The submitted items shall indicate acknowledgement of all addenda; provide unit prices for all items of work; include a valid email address; provide a list of material and equipment; and list the proposed subcontractors list for this bid. The quantities shown on the bid form are estimated and are not warranted, but are listed for comparison of bid purposes only.
9. This project is not tax exempt.
10. State and Federal Prevailing wage rates do apply. These will be updated with addendum.
11. The major components of the project consist of:
 - a) The installation of approximately 22,000 lf of 20-inch ductile iron water pipe;
 - b) Installation of required valves and associated fittings for the water main;

- c) Installation of approximately 390 lf of open cut casing, and approximately 100 lf of bore and jack casing.;
 - d) Driveway replacement of various types;
12. The time of substantial completion is 120 calendar days. Liquidated damages are \$500 per day thereafter. Average/normal rainfall events are considered part of the 120 days. The time of final completion is 150 calendar days. Liquidated damages are \$500 per day thereafter.
 13. There will be a resident representative on site.
 14. The contractor is responsible for obtaining a KPDES stormwater permit and implementing the necessary sediment controls. No area of disturbed land is to be left unprotected for more than twenty (20) days after grading activity has ceased. These areas are to be restabilized using seeding, mulching or suitable means.
 15. The Contractor shall call BUD (811) prior to any excavation.
 16. All excavation is unclassified. The material encountered will be at the Contractor's risk.
 17. Blasting will not be allowed. A trenching machine must be used whenever practicable. A hoe ram may be used where inaccessible by trenching machine.
 18. All buried pipes shall have a minimum cover of 2-feet 6-inches, unless noted otherwise.
 19. All existing utilities are to be field-verified by Contractor before construction begins.
 20. The Contractor is responsible for safety at all times. No excavation shall remain open for more than four (4) calendar days. The contractor shall provide appropriate barricades, safety fences, and warning signs. No excavations shall be accessible to the general public at any time.
 21. The Contractor is responsible for maintenance of traffic in accordance with KYDOT requirements.
 22. The Contractor shall maintain public roads and all paved surfaces free from mud, dirt, or other debris. Contractor shall have on-site mechanical broom to keep these areas cleaned daily, as a minimum, or as needed.
 23. All work done on site shall be performed within the working hours of 7 a.m. to 6 p.m. (local time) and shall occur on regular five 8-hour or four 10-hour days. For all unapproved hours-worked in excess of 40 hours per week, the CONTRACTOR shall compensate Owner for the costs of extra inspection services at the rate of \$60.00 per excess hour.
 24. Project progress meetings will be held at the project site at a minimum of once monthly.
 25. The Contractor shall provide construction photographs. See Section 01380.

26. Contractor will warrant work for one year. Other warranties for the various products and services are noted in the specifications.
27. A project identification sign is required. See Section 01580.
28. Section 01590 describes the requirements for the resident representative's field office. The Contractor's field office shall be separate from the resident representative's.
29. The Engineer's opinion of probable cost for the project is approximately \$2,500,000 to \$2,800,000.

-END OF SECTION-

SECTION 00410

BID FORM

ARTICLE 1 – BID RECIPIENT

1.01 This Bid is submitted to:

*Henry County Water District No. 2
8955 Main Street, P O Box 219
Campbellsburg, Kentucky 40011*

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

ARTICLE 2 – BIDDER’S ACKNOWLEDGEMENTS

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

ARTICLE 3 – BIDDER’S REPRESENTATIONS

3.01 In submitting this Bid, Bidder represents that:

A. Bidder has examined and carefully studied the Bidding Documents, and any data and reference items identified in the Bidding Documents, and hereby acknowledges receipt of the following Addenda:

Addendum No.

Addendum, Date

| | |
|-------|-------|
| _____ | _____ |
| _____ | _____ |
| _____ | _____ |
| _____ | _____ |

B. Bidder has visited the Site, conducted a thorough, alert visual examination of the Site and adjacent areas, and become familiar with and satisfied itself as to the general, local, and Site conditions that may affect cost, progress, and performance of the Work.

- C. Bidder is familiar with and has satisfied itself as to all Laws and Regulations that may affect cost, progress, and performance of the Work.
- D. Bidder has carefully studied all: (1) reports of explorations and tests of subsurface conditions at or adjacent to the Site and all drawings of physical conditions relating to existing surface or subsurface structures at the Site that have been identified in the Supplementary Conditions, especially with respect to Technical Data in such reports and drawings, and (2) reports and drawings relating to Hazardous Environmental Conditions, if any, at or adjacent to the Site that have been identified in the Supplementary Conditions, especially with respect to Technical Data in such reports and drawings.
- E. Bidder has considered the information known to Bidder itself; information commonly known to contractors doing business in the locality of the Site; information and observations obtained from visits to the Site; the Bidding Documents; and any Site-related reports and drawings identified in the Bidding Documents, with respect to the effect of such information, observations, and documents on (1) the cost, progress, and performance of the Work; (2) the means, methods, techniques, sequences, and procedures of construction to be employed by Bidder; and (3) Bidder's safety precautions and programs.
- F. Bidder agrees, based on the information and observations referred to in the preceding paragraph, that no further examinations, investigations, explorations, tests, studies, or data are necessary for the determination of this Bid for performance of the Work at the price bid and within the times required, and in accordance with the other terms and conditions of the Bidding Documents.
- G. Bidder is aware of the general nature of work to be performed by Owner and others at the Site that relates to the Work as indicated in the Bidding Documents.
- H. Bidder has given Engineer written notice of all conflicts, errors, ambiguities, or discrepancies that Bidder has discovered in the Bidding Documents, and confirms that the written resolution thereof by Engineer is acceptable to Bidder.
- I. The Bidding Documents are generally sufficient to indicate and convey understanding of all terms and conditions for the performance and furnishing of the Work.
- J. The submission of this Bid constitutes an incontrovertible representation by Bidder that Bidder has complied with every requirement of this Article, and that without exception the Bid and all prices in the Bid are premised upon performing and furnishing the Work required by the Bidding Documents.

ARTICLE 4 – BIDDER'S CERTIFICATION

4.01 Bidder certifies that:

- A. This Bid is genuine and not made in the interest of or on behalf of any undisclosed individual or entity and is not submitted in conformity with any collusive agreement or rules of any group, association, organization, or corporation;

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

ARTICLE 5 – BASIS OF BID

5.01 Bidder will complete the Work in accordance with the Contract Documents for the following price(s):

| Item No. | Description | Unit | Estimated Quantity | Bid Unit Price | Bid Price |
|--|---|------|--------------------|----------------|-----------|
| 1 | Mobilization (max. 2% of Total Bid) | LS | 1 | | |
| 2 | General Conditions (max. 2% of Total Bid) | LS | 1 | | |
| 3 | Demobilization (min. 1% of Total Bid) | LS | 1 | | |
| 4 | 20" DI Water Line (CI 250) | LF | 21,980 | | |
| 5 | DI Fittings (CI 250 and 350) w/ PE Tube Wrap | LB | 33,000 | | |
| 6 | 20" Butterfly Valve (CI 250) | EA | 2 | | |
| 7 | 2" Combination Air/Vacuum Valve | EA | 1 | | |
| 8 | 18" Tapping Sleeve and Valve | EA | 1 | | |
| 9 | 12" Tapping Sleeve and Valve | EA | 1 | | |
| 10 | 8" Blow-off Valve | EA | 2 | | |
| 11 | 36"x0.469" Std. Casing Pipe, Open Cut Roadway, Blacktop -Concrete Driveway, Gas Line Crossing | LF | 390 | | |
| 12 | 36"x0.469" Std. Casing Pipe, Bore & Jack Roadway | LF | 100 | | |
| 13 | Channel Lining, Class III | TON | 150 | | |
| 14 | Concrete Cap | LF | 60 | | |
| 15 | Crushed Stone (DGA) Surface Replacement 12" thick | LF | 800 | | |
| 16 | Bituminous Road Surface Replacement, 2" Thick with Concrete Base | LF | 165 | | |
| 17 | Bituminous Road Surface Replacement, Road Aprons- 2" Thick | LF | 150 | | |
| 18 | Concrete Surface Replacement, 8" Thick | LF | 40 | | |
| 19 | Tie-in To Existing Line | EA | 2 | | |
| 20 | Crushed Stone Bedding and Backfill | TON | 12,000 | | |
| Total of All Unit Price Bid Items | | | | | |

Bidder acknowledges that (1) each Bid Unit Price includes an amount considered by Bidder to be adequate to cover Contractor's overhead and profit for each separately identified item, and (2) estimated quantities are not guaranteed, and are solely for the purpose of comparison of Bids, and final payment for all unit price Bid items will be based on actual quantities, determined as provided in the Contract Documents.

Total of Lump Sum and Unit Price Bids = Total Bid Price

\$ _____

ARTICLE 6 – TIME OF COMPLETION

- 6.01 Bidder agrees that the Work will be substantially complete within 120 calendar days after the date when the Contract Times commence to run as provided in Paragraph 2.03 of the General Conditions, and will be completed and ready for final payment in accordance with Paragraph 14.07 of the General Conditions within 150 calendar days after the date when the Contract Times commence to run.
- 6.02 Bidder accepts the provisions of the Agreement as to liquidated damages.

ARTICLE 7 – ATTACHMENTS TO THIS BID

- 7.01 The following documents are submitted with and made a condition of this Bid:
- A. Required Bid security in the form of _____ (fill in);
 - B. Section 00420 – Supplements to BID Form;
 - C. (not used)
 - D. Required Bidder Qualification Statement with supporting data; IF applicable.
 - E. Certification Regarding Debarment, Suspension, and Other Responsibility Matters (KIA Supplemental General Conditions, Attachment Number 10).
 - F. Certification Regarding Lobbying (KIA Supplemental General Conditions, Attachment Number 11)

ARTICLE 8 – DEFINED TERMS

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

ARTICLE 9 - BID SUBMITTAL

BIDDER: *[Indicate correct name of bidding entity]*

By:
[Signature]

[Printed name]
(If Bidder is a corporation, a limited liability company, a partnership, or a joint venture, attach evidence of authority to sign.)

Attest:
[Signature]

[Printed name]

Title: _____

Submittal Date: _____

Address for giving notices:

Telephone Number: _____

Fax Number: _____

Contact Name and e-mail address: _____

Bidder's License No.: _____
(where applicable)

- END OF SECTION -

FEDERAL WAGE DETERMINATIONS

STATE/COUNTY GWD INDEX 08/16/13 KY0

STATE OF KENTUCKY

NO MODIFICATIONS DURING PERIOD ENDING

August 16, 2013

KY GENERAL DECISION COUNTY INDEX - PUBLICATION DATE: 01/04/13

General Decision Number: KY130094 07/05/2013 KY94

Superseded General Decision Number: KY20120119

State: Kentucky

Construction Type: **Heavy**
Including Water and Sewer Line Construction

Counties: Bullitt, Henry, Jefferson, Meade, Nelson, Oldham,
Shelby, Spencer and Trimble Counties in Kentucky.

HEAVY CONSTRUCTION PROJECTS (including sewer/water
construction).

| Modification Number | Publication Date |
|---------------------|------------------|
| 0 | 01/04/2013 |
| 1 | 04/05/2013 |
| 2 | 04/26/2013 |
| 3 | 05/31/2013 |
| 4 | 06/07/2013 |
| 5 | 07/05/2013 |

CARP0549-006 04/01/2013

| | Rates | Fringes |
|-----------------------------------|----------|---------|
| CARPENTER (Includes Form Work)... | \$ 26.90 | 14.46 |

ELEC0369-020 05/29/2013

| | Rates | Fringes |
|------------------|----------|---------|
| ELECTRICIAN..... | \$ 29.48 | 14.37 |

* ENGI0181-008 07/01/2013

| | Rates | Fringes |
|---|-------|---------|
| POWER EQUIPMENT OPERATOR: Backhoe/Excavator/Trackhoe | | |

| | | |
|---------------------------------------|----------|-------|
| & Loader (Front End)..... | \$ 28.00 | 13.90 |
| Bobcat/Skid Loader & Forklift..... | \$ 25.45 | 13.90 |
| Crane..... | \$ 29.07 | 13.90 |
| Oiler & Roller..... | \$ 25.17 | 13.90 |

Operators on cranes with booms one hundred fifty feet (150) and over (including jib) shall receive one dollar (\$1.00) above rate

All crane operators operating cranes where the length of the boom in combination with the length of the piling leads equal or exceeds one hundred fifty (150) feet, shall receive one dollar (\$1.00) above the rate.

IRON0070-021 06/01/2013

| | Rates | Fringes |
|--|----------|---------|
| IRONWORKER Structural; Reinforcing..... | \$ 26.47 | 19.30 |

* LABO0576-018 07/01/2013

| | Rates | Fringes |
|-----------------------------------|----------|---------|
| LABORER Common or General..... | \$ 22.01 | 10.95 |

PLAS0692-029 06/01/2012

| | Rates | Fringes |
|-----------------------------------|----------|---------|
| CEMENT MASON/CONCRETE FINISHER... | \$ 21.00 | 9.80 |

PLUM0502-006 08/01/2012

| | Rates | Fringes |
|--------------|----------|---------|
| PLUMBER..... | \$ 32.00 | 16.17 |

SUKY2010-153 09/14/2010

| | Rates | Fringes |
|--------------------------|----------|---------|
| LABORER: Pipelayer..... | \$ 15.32 | 6.68 |
| OPERATOR: Bulldozer..... | \$ 26.07 | 5.94 |

TEAM0089-001 03/31/2013

| | Rates | Fringes |
|--------------------------------|----------|---------|
| TRUCK DRIVER (Dump Truck)..... | \$ 19.56 | 16.85 |

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

=====
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) (ii)).

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 union or non-union.

Union Identifiers

An identifier enclosed in dotted lines beginning with characters other than "SU" denotes that the union classification and rate have found to be prevailing for that classification. Example: PLUM0198-005 07/01/2011. The first four letters, PLUM, indicate the international union and the four-digit number, 0198, that follows indicates the local union number or district council number where applicable, i.e., Plumbers Local 0198. The next number, 005 in the example, is an internal number used in processing the wage determination. The date, 07/01/2011, following these characters is the effective date of the most current negotiated rate/collective bargaining agreement which would be July 1, 2011 in the above example.

Union prevailing wage rates will be updated to reflect any changes in the collective bargaining agreements governing the rates.

0000/9999: weighted union wage rates will be published annually each January.

Non-Union Identifiers

Classifications listed under an "SU" identifier were derived from survey data by computing average rates and are not union rates; however, the data used in computing these rates may include both union and non-union data. Example: SULA2004-007 5/13/2010. SU indicates the rates are not union majority rates, LA indicates the State of Louisiana; 2004 is the year of the survey; and 007 is an internal number used in producing the wage determination. A 1993 or later date, 5/13/2010, indicates the classifications and rates under that identifier were issued as a General Wage Determination on that date.

Survey wage rates will remain in effect and will not change until a new survey is conducted.

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 Regional Office for the area in which the survey was conducted because those Regional Offices have 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

<http://www.wdol.gov/wdol/scafiles/davisbacon/ky94.dvb> August 23, 2013



Steven L. Beshear
Governor

KENTUCKY LABOR CABINET
DEPARTMENT OF WORKPLACE STANDARDS
DIVISION OF EMPLOYMENT STANDARDS,
APPRENTICESHIP & MEDIATION
1047 US Hwy 127 S - Suite 4
Frankfort, Kentucky 40601
Phone: (502) 564-3534
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www.labor.ky.gov

Larry Roberts
Secretary

Anthony Russell
Commissioner

August 22, 2013

Tom Green
Tetra Tech
800 Corporate Drive
Lexington KY 40503

Re: Henry Co Water District 2, Morton Ridge Rd Water Main Upgrade (REVISED)

Advertising Date as Shown on Notification: August 10, 2013

Dear Tom Green:

This office is in receipt of your written notification on the above project as required by KRS 337.510 (1).

I am enclosing a copy of the current prevailing wage determination number CR 3-026, dated August 9, 2013 for TRIMBLE County. This schedule of wages shall be attached to and made a part of the specifications for the work, printed on the bidding blanks, and made a part of the contract for the construction of the public works between the public authority and the successful bidder or bidders.

The determination number assigned to this project is based upon the advertising date contained in your notification. There may be modifications to this wage determination prior to the advertising date indicated. In addition, if the contract is not awarded within 90 days of this advertising date or if the advertising date is modified, a different set of prevailing rates of wages may be applicable. It will be the responsibility of the public authority to contact this office and verify the correct schedule of the prevailing rates of wages for use on the project. Your project number is as follows: 112-H-00020-13-3, Heavy/Highway

Sincerely,

Anthony Russell
Commissioner



An Equal Opportunity Employer M/F/D

KENTUCKY LABOR CABINET
PREVAILING WAGE DETERMINATION
CURRENT REVISION
LOCALITY 26

CARROLL, HENRY, OLDHAM & TRIMBLE COUNTIES

Determination No. CR 3-026 2013

Date of Determination: August 9, 2013

PROJECT NO. 112-H-00020-13-2

___ BLDG ___ x ___ HH

This schedule of the prevailing rate of wages for Carroll, Henry, Oldham & Trimble Counties have been determined in accordance with the provisions of KRS 337.505 to 337.550. This determination shall be referred to as Prevailing Wage Determination No. CR 3-026 2013.

Apprentices shall be permitted to work as such subject to Administrative Regulations 803 KAR 1:010. Copies of these regulations will be furnished upon request to any interested person.

Overtime is to be computed at not less than one and one-half (1 1/2) times the indicated BASE RATE for all hours worked in excess of eight (8) per day, and/or in excess of forty (40) per week. However, KRS 337.540 permits an employee and employer to agree, in writing, that the employee will be compensated at a straight time base rate for hours worked in excess of eight (8) hours in any one calendar day, but not more than ten (10) hours worked in any one calendar day, if such written agreement is prior to the over eight (8) hours in a calendar day actually being worked, or where provided for in a collective bargaining agreement. The fringe benefit rate is to be paid for each hour worked at a straight time rate for all hours worked.

Fringe benefit amounts are applicable for all hours worked except when otherwise noted. Welders will receive rate for craft in which welding is incidental.

NOTE: The type of construction shall be determined by applying the following definitions:

BUILDING CONSTRUCTION


Building construction is the construction of sheltered enclosures with walk-in access for the purpose of housing persons, machinery, equipment, or supplies. It includes all construction of such structures, the installation of utilities and the installation of equipment, both above and below grade level, as well as incidental grading, utilities and paving.

HIGHWAY CONSTRUCTION

Highway construction includes the construction, alteration or repair of roads, streets, highways, runways, taxiways, alleys, trails, paths, parking areas, and other similar projects not incidental to building or heavy construction. It includes all incidental construction in conjunction with the highway construction project.

HEAVY CONSTRUCTION

Heavy projects are those projects that are not properly classified as either "building" or "highway". For example, dredging projects, water and sewer line projects, dams, flood control projects, sewage treatment plants and facilities, and water treatment plants and facilities are considered heavy.



Anthony Russell, Commissioner
Department of Workplace Standards
Kentucky Labor Cabinet

Determination No. CR 3-026 2013
August 9, 2013

ASBESTOS/INSULATION WORKERS:
CARROLL, HENRY, OLDHAM & TRIMBLE COUNTIES:
(Including Pipe Insulator & Pipe Wrapping):

BASE RATE \$24.67
FRINGE BENEFITS 11.08

Hazardous Material Handler ((Includes preparation, wetting, stripping, removal, scrapping, vacuuming, bagging and disposing of all insulation materials, whether they contain asbestos or not, from mechanical systems) :

BASE RATE \$19.35
FRINGE BENEFITS 10.35

BOILERMAKERS:
CARROLL, HENRY, OLDHAM & TRIMBLE COUNTIES:

BASE RATE \$35.79
FRINGE BENEFITS 16.71

BRICKLAYERS:
HENRY, OLDHAM & TRIMBLE COUNTIES:

BASE RATE \$24.11
FRINGE BENEFITS 10.07

BRICKLAYERS:
CARROLL COUNTY:

BASE RATE \$21.54
FRINGE BENEFITS 2.06

CARROLL, HENRY, OLDHAM & TRIMBLE COUNTIES:
Brick Refractory/Brick Placement Worker:

BASE RATE \$24.61
FRINGE BENEFITS 10.07

Tile Setters: BUILDING

BASE RATE \$22.64
FRINGE BENEFITS 6.10

Tile Finishers: BUILDING

BASE RATE \$15.42
FRINGE BENEFITS 5.42

CARPENTERS / BUILDING:
CARROLL, HENRY, OLDHAM & TRIMBLE COUNTIES:

Carpenters: (Includes acoustical ceiling installation, drywall hanging, batt & foam insulation, form work, metal stud installation, cabinet installation & soft floor (carpet), hardwood, resilient & vinyl installation:

BUILDING
BASE RATE \$22.90
FRINGE BENEFITS 14.39

CARROLL COUNTY:
Form Work Only: BUILDING

BASE RATE \$15.26
FRINGE BENEFITS 2.85

CARPENTERS / HEAVY/HIGHWAY:
CARROLL, HENRY, OLDHAM & TRIMBLE COUNTIES:
Carpenters: HEAVY & HIGHWAY

BASE RATE \$26.90
FRINGE BENEFITS 14.46

CARPENTERS / HEAVY/HIGHWAY: CONTINUED
 CARROLL, HENRY, OLDHAM & TRIMBLE COUNTIES:
 Piledrivermen: HEAVY & HIGHWAY

BASE RATE \$27.15
 FRINGE BENEFITS 14.46

Divers: HEAVY & HIGHWAY

BASE RATE \$40.73
 FRINGE BENEFITS 14.46

CEMENT MASONS / CONCRETE FINISHER:
 HENRY, OLDHAM & TRIMBLE COUNTIES:
 BUILDING

BASE RATE \$21.00
 FRINGE BENEFITS 9.80

CEMENT MASONS / CONCRETE FINISHER:
 CARROLL COUNTY: BUILDING

BASE RATE \$19.08
 FRINGE BENEFITS 0.00

ELECTRICIANS:
 CARROLL COUNTY:

BASE RATE \$29.48
 FRINGE BENEFITS 14.37

ELECTRICIANS:
 HENRY, OLDHAM & TRIMBLE COUNTIES:

BASE RATE \$24.26
 FRINGE BENEFITS 6.61

LINE CONSTRUCTION:
 CARROLL, HENRY, OLDHAM & TRIMBLE COUNTIES:
 Cable Splicer:

BASE RATE \$32.19
 FRINGE BENEFITS 11.88

Equipment Operator A: John Henry Rock Drill, D6 (or equivalent) and above, Trackhoe Digger, Cranes (greater than 25 tons and less than 45 tons)

BASE RATE \$28.81
 FRINGE BENEFITS 11.13

Equipment Operator B: Cranes (6-25 tons), Backhoes, Road Tractor, Dozer up to D5, Pressure Digger-Wheeled or Tracked, all Tension Wire Stringing Equipment

BASE RATE \$25.42
 FRINGE BENEFITS 10.38

Equipment Operator C: Trencher, Vibratory Compactor, Ground Rod Driver, Boom Truck (6 ton or below), Skid Steer Loaders:

BASE RATE \$20.33
 FRINGE BENEFITS 9.25

Groundman

BASE RATE \$17.12
 FRINGE BENEFITS 8.55

Lineman and Technician

BASE RATE \$29.36
 FRINGE BENEFITS 11.25

Cranes 45 tons or larger paid 100% of journeyman lineman's rate.

ELEVATOR MECHANICS:

CARROLL, HENRY, OLDHAM & TRIMBLE COUNTIES:

BASE RATE \$36.94
FRINGE BENEFITS 20.035

GLAZIERS:

CARROLL COUNTY:

BASE RATE \$23.70
FRINGE BENEFITS 11.40

GLAZIERS:

HENRY, OLDHAM & TRIMBLE COUNTIES:

BASE RATE \$21.61
FRINGE BENEFITS 9.84

IRONWORKERS:

CARROLL COUNTY (55% Southwestern part of Carroll County)
Reinforcing/Ornamental/Structural:

BASE RATE \$26.47
FRINGE BENEFITS 19.30

IRONWORKERS:

CARROLL COUNTY (45% Northeastern part of Carroll County)
Ornamental; Structural:

BASE RATE \$25.00
FRINGE BENEFITS 18.40

CARROLL COUNTY (45% Northeastern part of Carroll County)
Reinforcing:

BASE RATE \$26.47
FRINGE BENEFITS 19.30

IRONWORKERS:

HENRY, OLDHAM & TRIMBLE COUNTIES:
Ornamental/Reinforcing/Structural:

BASE RATE \$26.47
FRINGE BENEFITS 19.30

LABORERS / BUILDING:

HENRY, OLDHAM & TRIMBLE COUNTIES:
Common or General & Landscape Laborer:
BUILDING

BASE RATE \$18.57
FRINGE BENEFITS 9.13

Grade Checker, Mason Tender-Brick, & Screw Operator:
BUILDING

BASE RATE \$18.77
FRINGE BENEFITS 9.13

Fence Erection:

BASE RATE \$23.72
FRINGE BENEFITS 0.00

Mason Tender Brick (Hod)

BASE RATE \$21.83
FRINGE BENEFITS 0.00

Pipelayer:

BASE RATE \$16.87
FRINGE BENEFITS 8.03

Mason Tender-Cement/Concrete

BASE RATE \$14.45
FRINGE BENEFITS 0.00

LABORERS / BUILDING: CONTINUED

CARROLL COUNTY:

Grade Checker & Mason Tender-Brick, Mason Tender-Cement/Concrete:

BASE RATE \$18.77
FRINGE BENEFITS 9.13

Common or General:

BASE RATE \$15.07
FRINGE BENEFITS 4.78

Carpenter Tender:

BASE RATE \$11.55
FRINGE BENEFITS 0.00

LABORERS / HEAVY HIGHWAY:

CARROLL, HENRY, OLDHAM & TRIMBLE COUNTIES:

GROUP 1: Aging & Curing of Concrete; Asbestos Abatement Worker; Asphalt Plant; Asphalt; Batch Truck Dump; Carpenter Tender; Cement Mason Tender; Cleaning of Machines; Concrete; Demolition; Dredging; Environmental - Nuclear, Radiation, Toxic & Hazardous Waste - Level D; Flagperson; Grade Checker; Hand Digging & Hand Back Filling; Highway Marker Placer; Landscaping, Mesh Handler & Placer; Puddler; Railroad; Rip-rap & Grouter; Right-of-Way; Sign, Guard Rail & Fence Installer; Signal Person; Sound Barrier Installer; Storm & Sanitary Sewer; Swamper; Truck Spotter & Dumper; & Wrecking of Concrete Form:

HEAVY & HIGHWAY

BASE RATE \$22.01
FRINGE BENEFITS 10.95

GROUP 2: Batter Board Man (Sanitary & Storm Sewer); Brickmason Tender; Mortar Mixer Operator; Scaffold Builder; Burner & Welder; Bushhammer; Chain Saw Operator; Concrete Saw Operator; Deckhand Scow Man; Dry Cement Handler; Environmental - Nuclear, Radiation, Toxic & Hazardous Waste - Level C; Forklift Operator for Masonry; Form Setter; Green Concrete Cutting; Hand Operated Grouter & Grinder Machine Operator; Jackhammer; Pavement Breaker; Paving Joint Machine; Pipelayer; Plastic Pipe Fusion; Power Driven Georgia Buggy & Wheel Barrow; Power Post Hole Digger; Precast Manhole Setter; Walk-Behind Tamper; Walk-Behind Trencher; Sand Blaster; Concrete Chipper; Surface Grinder; Vibrator Operator; & Wagon Driller:

HEAVY & HIGHWAY

BASE RATE \$22.26
FRINGE BENEFITS 10.95

GROUP 3: Asphalt Luteman & Raker; Gunnite Nozzleman; Gunnite Operator & Mixer; Grout Pump Operator; Side Rail Setter; Rail Paved Ditch; Screw Operator; Tunnel (Free air); & Water Blaster:

HEAVY & HIGHWAY

BASE RATE \$22.31
FRINGE BENEFITS 10.95

GROUP 4: Caisson Worker (Free Air); Cement Finisher; Environmental - Nuclear, Radiation, Toxic & Hazardous Waste - Levels A & B; Miner & Driller (Free Air); Tunnel Blaster; & Tunnel Mucker (Free Air); Directional & Horizontal Boring; Air Track Drillers (All Types); Powdermen & Blasters; Troxler & Concrete Tester if Laborer is Utilized:

HEAVY & HIGHWAY

BASE RATE \$22.91
FRINGE BENEFITS 10.95

MILLWRIGHTS:

CARROLL, HENRY, OLDHAM & TRIMBLE COUNTIES:

BASE RATE \$24.18
FRINGE BENEFITS 15.64

OPERATING ENGINEERS / BUILDING:

CARROLL COUNTY:

Bobcat/skid loader, bulldozer, cherry picker, crane, forklift, grader/blade, trackhoe:

| | | |
|----------|-----------------|---------|
| BUILDING | BASE RATE | \$26.85 |
| | FRINGE BENEFITS | 13.90 |

| | | | |
|--------|----------|-----------------|---------|
| Oiler: | BUILDING | BASE RATE | \$21.57 |
| | | FRINGE BENEFITS | 13.90 |

***Crane with boom 150 feet and over, including Jib, shall receive \$.75 above Base Rate**

| | | | |
|-----------------------------|----------|-----------------|---------|
| Backhoe/Excavator/Trackhoe: | BUILDING | BASE RATE | \$22.33 |
| | | FRINGE BENEFITS | 7.72 |

| | | | |
|---------|----------|-----------------|---------|
| Loader: | BUILDING | BASE RATE | \$21.10 |
| | | FRINGE BENEFITS | 9.15 |

OPERATING ENGINEERS/BUILDING:

HENRY, OLDHAM & TRIMBLE COUNTIES:

GROUP 1: Concrete pump, elevating grader and all types of loaders, forklift (regardless of lift height) motor scraper, bulldozer, mechanic, power blade, motor grader, forklift (regardless of lift height & except when used for masonry construction), self contained core drill, rotary drill, kecal loader, hydrocrane, subgrader, backhoe, backhoe track, excavator, trackhoe:

| | | |
|----------|-----------------|---------|
| BUILDING | BASE RATE | \$26.85 |
| | FRINGE BENEFITS | 13.90 |

GROUP 2: Crane (including overhead, rough terrain, truck & tower), hoist (1 drum), hoisting engine (2 or more drums), hoist:

| | | |
|----------|-----------------|---------|
| BUILDING | BASE RATE | \$27.91 |
| | FRINGE BENEFITS | 13.90 |

GROUP 3: Form Grader, tractor (50 hp and over) farm tractor with attachments, except backhoe, highlift & endloader, elevator (when used for hoisting), hoisting engine (1 drum or buck hoist):

| | | |
|----------|-----------------|----------|
| BUILDING | BASE RATE | \$ 23.17 |
| | FRINGE BENEFITS | 13.90 |

GROUP 4: Tractor (under 50 hp), crane oiler:

| | | |
|----------|-----------------|---------|
| BUILDING | BASE RATE | \$21.57 |
| | FRINGE BENEFITS | 13.90 |

***Crane with boom 150 feet and over, including Jib, shall receive \$.75 above Base Rate**

| | | | |
|-----------|----------|-----------------|---------|
| COMPACTOR | BUILDING | BASE RATE | \$24.53 |
| | | FRINGE BENEFITS | 0.00 |

| | | | |
|----------|----------|-----------------|---------|
| HIGHLIFT | BUILDING | BASE RATE | \$25.00 |
| | | FRINGE BENEFITS | 0.00 |

| | | | |
|-------|----------|-----------------|---------|
| PAVER | BUILDING | BASE RATE | \$17.18 |
| | | FRINGE BENEFITS | 8.03 |

| | | | |
|--------|----------|-----------------|---------|
| ROLLER | BUILDING | BASE RATE | \$18.42 |
| | | FRINGE BENEFITS | 9.15 |



OPERATING ENGINEERS / HEAVY HIGHWAY:
 CARROLL, HENRY, OLDHAM & TRIMBLE COUNTIES:

GROUP 1: A-Frame Winch Truck; Auto Patrol; Backfiller; Batcher Plant; Bituminous Paver; Bituminous Transfer Machine; Boom Cat; Bulldozer; Mechanic; Cableway; Carry-all Scoop; Carry Deck Crane; Central Compressor Plant; Clamshell; Concrete Mixer (21 cu. ft. or Over); Concrete Paver; Truck-Mounted Concrete Pump; Core Drill; Crane; Crusher Plant; Derrick; Derrick Boat; Ditching & Trenching Machine; Dragline; Dredge Operator; Dredge Engineer; Elevating Grader & Loaders; Grade-All; Gurries; Heavy Equipment Robotics Operator/Mechanic; High Lift; Hoe-Type Machine; Hoist (Two or More Drums); Hoisting Engine (Two or More Drums); Horizontal Directional Drill Operator; Hydrocrane; Hyster; KeCal Loader; LeTourneau; Locomotive; Mechanic; Mechanically Operated Laser Screed; Mechanic Welder; Mucking Machine; Motor Scraper; Orangepeel Bucket; Piledriver; Power Blade; Pumpcrete; Push Dozer; Rock Spreader, attached to equipment; Rotary Drill; Roller (Bituminous); Scarifier; Scoopmobile; Shovel; Side Boom; Subgrader; Tailboom; Telescoping Type Forklift; Tow or Push Boat; Tower Crane (French, German & other types); Tractor Shovel; Truck Crane; Tunnel Mining Machines, including Moles, Shields or similar types of Tunnel Mining Equipment:

| | | |
|-----------------|-----------------|---------|
| HEAVY & HIGHWAY | *BASE RATE | \$28.00 |
| | FRINGE BENEFITS | 13.90 |

GROUP 2: Air Compressor (Over 900 cu. ft. per min.); Bituminous Mixer; Boom Type Tamping Machine; Bull Float; Concrete Mixer (Under 21 cu. ft.); Dredge Engineer; Electric Vibrator; Compactor/Self-Propelled Compactor; Elevator (One Drum or Buck Hoist); Elevator (when used to Hoist Building Material); Finish Machine; Firemen & Hoist (One Drum); Flexplane; Forklift (Regardless of Lift Height); Form Grader; Joint Sealing Machine; Outboard Motor Boat; Power Sweeper (Riding Type); Roller (Rock); Ross Carrier; Skid Mounted or Trailer Mounted Concrete Pump; Skid Steer Machine with all Attachments; Switchman or Brakeman; Throttle Valve Person; Tractair & Road Widening Trencher; Tractor (50 HP or Over); Truck Crane Oiler; Tugger; Welding Machine; Well Points; & Whirley Oiler:

| | | |
|-----------------|-----------------|---------|
| HEAVY & HIGHWAY | *BASE RATE | \$25.45 |
| | FRINGE BENEFITS | 13.90 |

GROUP 3: All Off Road Material Handling Equipment, including Articulating Dump Trucks; Greaser on Grease Facilities servicing Heavy Equipment:

| | | |
|-----------------|-----------------|---------|
| HEAVY & HIGHWAY | *BASE RATE | \$25.85 |
| | FRINGE BENEFITS | 13.90 |

GROUP 4: Bituminous Distributor; Burlap & Curing Machine; Cement Gun; Concrete Saw; Conveyor; Deckhand Oiler; Grout Pump; Hydraulic Post Driver; Hydro Seeder; Mud Jack; Oiler; Paving Joint Machine; Power Form Handling Equipment; Pump; Roller (Earth); Steersman; Tamping Machine; Tractor (Under 50 HP); & Vibrator:

| | | |
|-----------------|-----------------|---------|
| HEAVY & HIGHWAY | *BASE RATE | \$25.17 |
| | FRINGE BENEFITS | 13.90 |

*Cranes with booms 150 ft. & over (including jib) and where the length of the boom in combination with the length of the piling leads equals or exceeds 150 ft. - \$1.00 over Group 1 rate.

Employees assigned to work below ground level are to be paid 10% above basic wage rate.

This does not apply to open cut work.

PAINTERS / BUILDING:
 HENRY, OLDHAM & TRIMBLE COUNTIES:

| | | | |
|---------------------|----------|-----------------|---------|
| Brush/Spray/Roller: | BUILDING | BASE RATE | \$18.50 |
| | | FRINGE BENEFITS | 11.05 |

PAINTERS / BUILDING:

CARROLL COUNTY:

Brush & Roller Only: BUILDING

BASE RATE \$18.50
FRINGE BENEFITS 10.30

PAINTERS / BUILDING:

CARROLL, HENRY, OLDHAM & TRIMBLE COUNTIES:

Sign Painter & Erector: BUILDING

BASE RATE \$20.23
FRINGE BENEFITS 3.25

PAINTERS / HEAVY & HIGHWAY:

CARROLL, HENRY, OLDHAM & TRIMBLE COUNTIES:

Brush & Roller: HEAVY & HIGHWAY

BASE RATE \$18.50
FRINGE BENEFITS 10.30

Spray, Sandblast, Power Tools, Waterblast and Steam Cleaning:

HEAVY & HIGHWAY

BASE RATE \$19.50
FRINGE BENEFITS 10.30

PLUMBERS & PIPEFITTERS:

CARROLL COUNTY: (East of Dow Chemical)
(Including HVAC Pipe Installation)

BASE RATE \$29.60
FRINGE BENEFITS 17.09

PLUMBERS/PIPEFITTERS/STEAMFITTERS:

CARROLL (West of Dow Chemical), HENRY, OLDHAM & TRIMBLE COUNTIES:
(Including HVAC Pipe Installation)

BASE RATE \$32.00
FRINGE BENEFITS 16.17

PLUMBERS & PIPEFITTERS:

HENRY, OLDHAM & TRIMBLE COUNTIES:

BASE RATE \$32.00
FRINGE BENEFITS 16.17

ROOFERS

HENRY, OLDHAM & TRIMBLE COUNTIES:

(Including Built Up, Modified Bitumen, Rubber & Single Ply Roofs, Excluding Metal Roofs):

BASE RATE \$21.53
FRINGE BENEFITS 8.12

Shake & Shingle Roof:

BASE RATE \$19.31
FRINGE BENEFITS 6.25

ROOFERS

CARROLL COUNTY:

BASE RATE \$16.42
FRINGE BENEFITS 1.50

SHEETMETAL WORKERS

CARROLL, HENRY, OLDHAM & TRIMBLE COUNTIES:

(including metal roofs):
(Including HVAC duct & system installation)

BASE RATE \$28.66
FRINGE BENEFITS 17.46

SPRINKLER FITTERS:

CARROLL, HENRY, OLDHAM & TRIMBLE COUNTIES:
(Fire Sprinklers)

BASE RATE \$30.14
FRINGE BENEFITS 17.12

TRUCK DRIVERS / BUILDING:

CARROLL, HENRY, OLDHAM & TRIMBLE COUNTIES:
10 Yard Truck: BUILDING

BASE RATE \$16.27
FRINGE BENEFITS 1.50

Dump Truck: BUILDING

BASE RATE \$18.63
FRINGE BENEFITS 6.00

TRUCK DRIVERS / HEAVY HIGHWAY:

Mobile Batch Truck Tender: HEAVY & HIGHWAY

BASE RATE \$16.57
FRINGE BENEFITS 7.34

Greaser, Tire Changer, & Mechanic Tender:
HEAVY & HIGHWAY

BASE RATE \$16.68
FRINGE BENEFITS 7.34

Single Axle Dump, Flatbed, Semi-trailer or Pole Trailer when used to pull building materials and equipment,
Tandem Axle Dump, Distributor, Mixer, & Truck Mechanic:
HEAVY & HIGHWAY

BASE RATE \$16.86
FRINGE BENEFITS 7.34

Euclid & Other Heavy Earthmoving Equipment & Lowboy, Articulator Cat, 5-Axle Vehicle, Winch & A-Frame when
used in transporting materials, Ross Carrier, Forklift when used to transport building materials, & Pavement
Breaker:
HEAVY & HIGHWAY

BASE RATE \$16.96
FRINGE BENEFITS 7.34

End of Document
CR 3-026 2013
August 9, 2013

DIVISION 01
GENERAL REQUIREMENTS

SECTION 01010

SUMMARY OF WORK

PART 1 - GENERAL

1.01 SCOPE OF WORK

- A. These Specifications and the accompanying Drawings describe the Work to be done and materials to be furnished for the Morton Ridge Main Upgrade project.
- B. Major Work items in this Contract include:
 - 1. Installation of 20" class 250 ductile iron main, approximately 22,000 L.F.
 - 2. Revegetation and erosion control.

1.02 CONTINUOUS OPERATIONS

The existing system must be maintained in continuous operation in such a manner that it meets all local, state, and federal requirements. The Contractor is responsible not to deactivate, demolish, or interfere with any system until a temporary or new permanent-like system has been installed and is operational. The Contractor is responsible for payment of all fines resulting from any action or inaction on his part or the part of his subcontractors during performance of the Work that is illegal.

1.03 PERMITS

Obtain any permits related or required by the Work in this Contract.

1.04 CODES

Comply with applicable codes and regulations of authorities having jurisdiction. Submit copies of inspection reports, notices, citations, and similar communication to the Owner.

1.05 EXISTING CONDITIONS AND DIMENSIONS

- A. The Work in this Contract will primarily be performed in or around existing facilities of which a portion must remain functional. This Contractor must maintain the required items and/or systems functional without additional effort by the Owner's personnel and at no extra costs to the Owner.
- B. The Contractor is responsible for verifying all existing conditions, elevations, dimensions, etc., and providing his finished Work to facilitate existing conditions.

- END OF SECTION -

Summary of Work
01010-1

SECTION 01015
WORK SEQUENCE

PART 1 - GENERAL

1.01 WORK INCLUDED

The Contractor shall conform to all miscellaneous requirements as contained in the Contract.

1.02 RELATED REQUIREMENTS

- A. General Conditions
- B. Section 01010 - Summary of Work
- C. Section 01040 - Coordination

PART 2 - PRODUCTS

2.01 MATERIALS

The Contractor shall comply with the Specifications for type of Work to be done.

PART 3 - EXECUTION

3.01 SEQUENCE OF CONSTRUCTION OPERATIONS

The Contractor shall submit to the Engineer for review and acceptance a complete schedule (progress chart) of his proposed sequence of construction operations prior to commencement of Work. However, the Engineer shall not accept a construction schedule that fails to utilize the entire time allocated for the construction of the project. The Contractor shall schedule the various construction activities to complete the project throughout the entire allotted time period. This schedule requirement in no way prevents the Contractor from completing the project in a shorter time frame than scheduled. The construction schedule along with a cost breakdown schedule shall be submitted and approved by the Owner prior to the submittal of the first partial payment request in accordance with the general conditions. A revised construction schedule shall be submitted to the Owner with each pay request. This revised schedule must be approved by the Owner prior to payment.

3.02 SPECIAL WORK SEQUENCE CONDITIONS

- A. Construction of Morton Ridge Main Upgrade project shall occur in the following order unless approved otherwise by the Engineer.

Work Sequence
01015-1

- Construction sequence shall be at the Contractor's discretion in accordance with related Specifications. Construction sequence is to be agreed upon mutually with Owner and Engineer prior to commencement of work.
 - Contractor shall maintain cleaning schedule and revegetation per Specifications.
- B. Any existing access road or structure damaged during construction activities shall be repaired or corrected, to match original, by the Contractor at his expense.

- END OF SECTION -

Work Sequence
01015-2

SECTION 01025

MEASUREMENT AND PAYMENT

PART 1 – GENERAL

1.01 GENERAL REQUIREMENTS

- A. This section identifies the method of measurement and payment for the various construction items listed in the Bid form of these Specifications.
- B. The following measurement and payment may include description for more items than those shown on the Bid form. It is the intent of this section to provide a measurement and payment description for each item on the Bid form. If none is available, a request should be made to the Engineer for a clarification prior to Bid.
- C. The unit price Bid for each of the items of the Bid form shall include the cost of all the labor, materials, and equipment necessary to install these items at the location shown on the Drawings and in accordance with the details shown on the Drawings or Specified. In addition, the cost shall include all construction necessary to complete the installation which is not covered by other items of the Bid form and shall be considered incidental to and included in those pay items.

1.02 PROGRESS AND PAYMENT SCHEDULES (Also see Section 00710)

- A. The Contractor shall prepare and submit to the Engineer, for approval, a construction schedule which depicts the Contractor's plan for completing the Contract requirements and show Work placement in dollars versus Contract time in accordance with Section 00710, Article 2. The Contractor's construction schedule must be approved by the Engineer before any payments will be made on this Contract.
- B. The Contractor shall prepare and submit to the Engineer, for approval, an estimated payment schedule which depicts the Contractor's cost for completing the Contract requirements and show by major unit of the Project Work the Contractor's dollar value for the material and the labor (two separate amounts) to be used as a basis for the monthly payments in accordance with Section 00710, Article 2. The Contractor's payment schedule must be approved by the Engineer before any payments will be made on this Contract.
- C. The Engineer's decision as to sufficiency and completeness of the Contractor's construction and payment schedule will be final.
- D. The Contractor must make current, to the satisfaction of the Engineer, the construction and payment schedules each time he requests a payment on this Contract.

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- E. The Contractor's construction and payment schedules must be maintained at the construction site and be available for inspection, and shall be revised to incorporate approved change orders as they occur.
- F. When the Contractor requests a payment on this contract, it must be on the approved Application for Payment and be current. Further, the current payment and construction schedules (both updated and revised) shall be submitted for review and approval by the Engineer before monthly payments will be made by the Owner. The Contractor shall submit six (6) current copies of each (Application for Payment and construction schedule) when requesting payment.

1.03 CONDITIONS FOR PAYMENT (Also see Sections 00710, 00800, and 00810)

- A. The Owner will make payments for acceptable Work in place and materials properly stored on-site. The value of payment shall be as established on the approved construction schedule and Application for Payment, EXCEPT the Owner will retain ten percent (10%) of the Work in place and a percentage as hereinafter listed for items properly stored or untested. Quantities on plans and bid form are approximate. Final payment shall only be made for actual totals of quantities installed.
- B. No payment will be made for stored materials unless an invoice from the supplier is attached to the pay request. Furthermore, no payment for stored materials will be made if the value of the stored materials does not exceed \$1,000.00.
- C. Allowable Payments
 - 1. Equipment and Lump Sum Items: Payment for equipment and lump sum items will be based on the percent complete (as approved by the Engineer) at end of period for application for payment. Payment for equipment and lump sum items installed shall be limited to ninety percent (90%) of their scheduled value until they are ready for operation, have been certified by manufacturer, and accepted by the Engineer. Ninety percent (90%) payment shall be contingent on proper on-site storage and proper routine maintenance as recommended by manufacturer or Engineer.
 - 2. Pipeline and Unit Price Items: Payment for pipeline and unit price items will be based on the following percentages of the unit price Bid:
 - a. Eighty percent (80%) will be paid on completion of trenching, pipe installation, backfilling, rough (preliminary) clean-up, and testing.
 - b. Ten Percent (10%) will be paid on the completion of final cleanup and surface restoration.
 - c. Ten percent (10%) will be paid on completion of sterilization and certified sterilization reports submitted to the Engineer.

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Retainage, as called for in other portions of these Specifications, will be deducted from earnings determined by applying above percentages. No payment will be made for pipeline and unit price items until they have been tested and accepted by the Engineer.

D. Water Costs

Costs to the Owner of all water from the existing distribution system or other approved sources used in the process of testing, sterilizing, and flushing pipe shall be borne by the Owner. Water costs due to incorrect construction, taps, breaks, etc., caused by Contractor shall be borne by the Contractor.

E. The Owner may reduce the percent of retainage once the Project has achieved satisfactory progress and is at the fifty percent (50%) construction status. The dollar amount of retainage for work-in-place will not be reduced but will remain constant following the fifty percent (50%) constructed status. The retainage on the equipment items shall be determined as defined hereinbefore.

F. Additionally, the Owner may reinstate the retainage to a full ten percent (10%) of the scheduled value of work-in-place and material items should the Owner, at its discretion, determine that the Contractor is not making satisfactory progress or there is other specific cause for such withholding.

1.04 CLAIMS FOR EXTRA WORK (Also see Section 00710)

A. If the Contractor claims that any instructions by Drawings or otherwise involve extra cost, he shall give the Engineer written notice of said claim within ten (10) days after the receipt of such instructions, and in any event before proceeding to execute the Work, stating clearly and in detail the basis of his claim or claims. No such claim shall be valid unless so made.

B. Claims for additional compensation for extra Work, due to alleged errors in spot elevations, contour lines or bench marks, will not be recognized unless accompanied by certified survey data, made prior to the time the original ground was disturbed, clearly showing that errors exist which resulted, or would result, in handling more material or performing more Work than would be reasonably estimated from the Drawings and topographical maps issued.

C. Any discrepancies which may be discovered between actual conditions and those represented by the topographical maps and Drawings shall at once be reported to the Engineer, and Work shall not proceed, except at the Contractor's risk, until written instructions have been received by him from the Engineer.

D. If, on the basis of the available evidence, the Engineer determines that an adjustment of the Contract Price or time is justifiable, the procedure shall then be as stated in Section 00710.

- E. By execution of this Contract, the Contractor warrants that he has visited the site of the proposed Work and fully acquainted himself with the conditions of there existing relating to construction and labor, and that he fully understands the facilities, difficulties and restrictions attending the execution of the Work under this Contract. The Contractor further warrants that he has thoroughly examined and is familiar with the Drawings, Specifications, and all other documents comprising the Contract. The Contractor further warrants that, by execution of this Contract, his failure during bidding on this contract to receive or examine any form, instrument, document, or to visit the site and acquaint himself with existing conditions, in no way relieves him from any obligation under this Contract, and the Contractor, based on facts regarding which he should have been on notice as a result thereof.

1.05 DETERMINATION OF THE VALUE OF EXTRA (ADDITIONAL) OR OMITTED WORK (Also see Section 00710)

- A. The value of extra (additional) or omitted Work shall be determined in one or more of the following ways:
 - 1. On the basis of the actual cost of all the items of labor (including on-the-job supervision), materials and use of equipment plus a maximum of fifteen percent (15%) which shall cover the Contractor's and Subcontractor's general supervision, overhead and profit. The cost of labor shall include required insurance, taxes, and fringe benefits. Equipment costs shall be based on current rental rates in the areas where the Work is being performed, but in no case shall such costs be greater than the current rates published by the Associated Equipment Distributors, Chicago, Illinois.
 - 2. By estimate and acceptance in a lump sum.
 - 3. By unit prices named in the Contract or subsequently agreed upon.
- B. Provided, however, that the cost or estimated cost of all extra (additional) Work shall be determined in advance of authorization by the Engineer and approved by the Owner.
- C. All extra (additional) Work shall be executed under the conditions of the original Contract. Any claim for extension of time shall be adjusted according to the proportionate increase or decrease in the final total cost of the Work unless negotiated on another basis.
- D. Except for over-runs in Contract unit price items, no extra (additional) Work shall be done except upon a written Change Order from the Engineer, and no claim on the part of the Contractor for pay for extra (additional) Work shall be recognized unless so ordered in writing by the Engineer.

1.06 DETERMINATION OF THE VALUE OF WORK ITEM OVERRUN / UNDERRUN

- A. The Engineer reserves the right to make, in writing, changes in quantities and alterations in the Work when necessary to complete the project satisfactorily, at any time and without invalidating the Contract or releasing the surety.
- B. The Engineer will use the following formulas to determine the adjusted unit prices when either an underrun or overrun of more than twenty-five percent (25%) occurs in the quantity of the item constructed.

The excessive underrun of an item is defined as seventy-five percent (75%) of the original Contract quantity of the item minus the final quantity of the item. The excessive overrun of an item is defined as the final quantity of the item minus one hundred twenty-five (125%) of the original Contract quantity of the item.

Excessive Underrun Formula

$$NP = OP + \frac{(EU \times 0.25 \times OP)}{FQCI}$$

Excessive Overrun Formula

$$NP = OP - \frac{(EO \times 0.25 \times OP)}{FQCI}$$

Where: NP = New Unit Price
OP = Original Unit Price Bid by Contractor
EU = Excessive Underrun
EO = Excessive Overrun
FQCI = Final Quantity Contract Item

When the Contractor submits a completed Bid Proposal, the Contractor agrees to accept payment for excessive underruns or excessive overruns in the quantities of these items according to the appropriate formula. The Contractor further agrees that the formulas provide full and complete compensation for the excessive underrun or excessive overrun quantities including any and all unreimbursed expenses, loss of expected reimbursement, loss of anticipated profits, delay, inefficiency, and all other costs.

1.07 CONTRACTOR REIMBURSEMENT TO OWNER FOR OVERTIME

The Owner shall deduct from Contractor's earnings the engineering and inspection costs associated with Contractor working overtime. Overtime will be defined as working more than 40 hours per week, or beyond the 8-hour day for 5-day work week, or beyond the 10-hour day for 4-day work week. The Engineer shall charge the Owner a premium of twenty-five percent (25%) for resident inspection overtime.

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PART 2 - PRODUCTS

2.01 MOBILIZATION

- A. Measurement shall be on the lump sum basis. In no case shall the lump sum unit price exceed one (2.0%) of the total Bid amount.
- B. This item includes all costs incurred for moving equipment onto the Project area and any pertinent costs related thereto.
- C. Payment will be on the basis of the unit price Bid for the item.

2.02 GENERAL CONDITIONS

- A. Measurement shall be on the lump sum basis. In no case shall the lump sum unit price exceed one percent (2.0%) of the total Bid amount.
- B. This item includes insurance, Performance, Payment and Warranty bonds, establishing and providing temporary utilities, setting up field offices, erosion control, and any other items required under bidding requirements, Contract forms, and conditions of the Contract.
- C. Payment will be on the basis of the unit price Bid for the item.

2.03 DEMOBILIZATION

- A. Measurement shall be on the lump sum basis. In no case shall the lump sum unit price exceed one percent (1.0%) of the total Bid amount.
- B. This item includes all costs incurred for removing equipment and materials from the Project area and any pertinent costs related thereto.
- C. Payment will be on the basis of the unit price Bid for the item.

2.04 WATER LINES

- A. Measurement shall be on the basis of lineal foot along the centerline of the pipe (excluding fittings and valves) and based on nominal laying length (i.e. 18'-0", 20'-0") of pipe joints and spool pieces per manufacturer's literature. Odd lengths (i.e. 1", 1.5") will not be counted in payment. Measurement of pipe length shall be verified by Engineer through actual field measurements and delivery tickets.
- B. No difference in payment will be made for the bell end of push-on joint or restrained joint pipe. No difference in payment between the spigot end of the push-on joint or restrained joint pipe will be made under this pay item either. Payment for the restraint locking ring, restraining gasket, or grip ring will be made under the pay item for fittings.

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- C. Work under these items includes, but is not limited to trenching, bedding, backfilling, solid rock removal, pipe, line markers where indicated, polyethylene tube wrapping where required, unpaved surface restoration, repair or replacement of fences, hauling of bedding and waste material, disposal of waste material, pressure testing, line sterilization, cleanup, seeding, and any Work included in the Contract not covered by other items on the Bid form. No pay item for extra trench depth has been set up. Contractor shall include the cost if additional depth areas in the lineal foot pipe price.
- D. All excavation, including rock, is unclassified and is included in this pay item and will not be paid for separately.
- E. Full depth crushed stone (#9) up to the surface replacement course, where required in traffic or other areas, is included in this pay item and will not be paid for separately.
- F. Fittings are not included in this pay item and will be paid for separately.
- G. Payment will be on the basis of unit price Bid per lineal foot.

2.05 DI FITTINGS

- A. Measurement shall be on a per pound basis.
- B. This item includes trenching, backfilling, solid rock removal, push-on or mechanical joint (MJ) fittings, tees, plugs, restraints, forming thrust blocks, concrete thrust blocks, rebar, pipe straps, nuts, bolts, gaskets, pressure testing, line sterilization, and any Work included in the Contract not covered by other items on the Bid form. The unit weight for payment will be based solely on weight of the fittings per manufacturer's literature. The unit weight will not include the weight of the nuts, bolts, gaskets, etc.
- C. This item includes payment for the mechanical restraint of the fitting such as 1-foot long anchor pipe, locking ring, restraining gasket, or grip ring.
- D. All excavation, including rock, is unclassified and is included in this pay item and will not be paid for separately.
- E. Polyethylene tube wrapping (4-mil HDPE or 8-mil LDPE per AWWA C105) is included in this pay item and will not be paid for separately.
- F. Payment will be on the basis of unit price Bid per pound.
- G. No payment for fittings shall be made if indicated field alignment is within allowable pipe deflection.

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2.06 BUTTERFLY VALVES

- A. Measurement shall be on a per unit basis.
- B. This item includes excavation, backfill, valve, gear operator, valve box, concrete block, top, concrete pad, and all other appurtenances necessary to complete installation as detailed on the Drawings.
- C. Payment will be on the basis of the unit price Bid for each size item.

2.07 COMBINATION AIR/VACUUM RELEASE VALVE

- A. Measurement shall be on a per unit basis of each item installed.
- B. This item includes excavation, backfill, extra depth trench, tapping sleeve, corporation stop, combination air/vacuum valve, polyethylene extra depth meter box, crushed stone, piping, stainless steel pipe support, and all other appurtenances necessary to complete the installation as detailed on the Drawings.
- C. Payment will be on the basis of the unit price Bid for each item.

2.08 18" TAPPING VALVES AND SLEEVE

- A. Measurement shall be on a per unit basis.
- B. This item includes excavation, backfill, tapping sleeve, tapping valve, valve box, concrete pad, making tap of water main, concrete thrust blocking, and all other appurtenances necessary to complete installation as detailed on the Drawings.
- C. Payment will be on the basis of the unit price Bid for each size item.

2.09 12" TAPPING VALVES AND SLEEVE

- A. Measurement shall be on a per unit basis.
- B. This item includes excavation, backfill, tapping sleeve, tapping valve, valve box, concrete pad, making tap of water main, concrete thrust blocking, and all other appurtenances necessary to complete installation as detailed on the Drawings.
- C. Payment will be on the basis of the unit price Bid for each size item.

2.10 BLOW-OFF VALVE

- A. Measurement shall be on a per unit basis.
- B. This item includes excavation, backfill, concrete blocking, crushed stone drainage, pipe, gate valve, and all other appurtenances necessary to complete installation as detailed on the Drawings.
- C. Payment will be on the basis of the unit price Bid for each item.

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2.11 CASING PIPE – OPEN CUT INSTALLATION

- A. Measurement shall be on the basis of lineal feet along the centerline of the casing pipe.
- B. Open Cut Installation
This item includes furnishing casing pipe in sizes and material specified, joining casing pipe, sawing of pavement, excavation and removal of any rock, placement of casing pipe, installing the carrier pipe with restrained joints and pipe insulators to prevent movement of the carrier pipe, cathodic test leads where indicated, sealing of ends with molded casing seals, backfilling with crushed stone, and all other appurtenances as detailed on the Drawings.
- C. Payment
Payment will be on the basis of unit price Bid per lineal foot. Payment of this item does not include the cost of the carrier pipe or paved surface replacement.

2.12 CASING PIPE – BORE AND JACK INSTALLATION

- A. Measurement shall be on the basis of lineal feet along the centerline of the casing pipe.
- B. Bore and Jack Installations
This item includes furnishing casing pipe in sizes and material specified, joining casing pipe, excavation and backfill of the bore pit, boring the hole, jacking the casing pipe into place, installing the carrier pipe with restrained joints and pipe insulators to prevent movement of the carrier pipe, sealing of the ends with molded casing seals and all other appurtenances not covered by other sections of these Specifications and detailed on the Drawings.
- C. Payment
Payment will be on the basis of unit price Bid per lineal foot. Payment of this item does not include the cost of the carrier pipe or paved surface replacement.

2.13 CHANNEL LINING, CLASS III

- A. Measurement shall be on per ton basis. Weigh tickets shall be required and deliveries must be approved by Owner's field representative.
- B. This item shall include all labor, material, equipment, rock, non-woven geotextile underlining, and appurtenances to complete installation in accordance with the details shown on the Drawings.
- C. Payment will be on the basis of unit price Bid per ton.

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2.14 CONCRETE CAP

- A. Measurement shall be on the basis of lineal foot along the centerline of concrete cap.
- B. This item shall include all labor, material, equipment, concrete, and appurtenances to complete installation in accordance with the details shown on the Drawings. Average cross-sectional dimensions are 4' wide x 1' thick.
- C. Payment will be on the basis of unit price Bid per lineal foot. Payment of this item does not include the cost of the carrier pipe.

2.15 CRUSHED STONE SURFACE REPLACEMENT

- A. Measurement shall be on the basis of lineal foot along the centerline of carrier pipe.
- B. This item includes the crushed stone (D.G.A. and #2 stone), equipment, and labor necessary to restore the surfaces of gravel roads, driveways, city streets, shoulders, parking areas or any other areas subject to traffic to their original conditions. Depth of application shall be 12 inches over the entire excavated area and shall include roller compaction to ninety-five percent (95%) STANDARD PROCTOR DENSITY. Width of replacement shall be up to six (6) feet wide.
- C. Payment will be on the basis of unit price Bid per lineal foot.

2.16 BITUMINOUS SURFACE REPLACEMENT WITH CONCRETE BASE

- A. Measurement shall be on the basis of lineal foot along the centerline of carrier pipe.
- B. This item includes the bituminous pavement, crushed stone or concrete base, labor, and equipment necessary to level the base and to place the asphalt surface to the depths indicated on the Drawings to restore the areas subject to traffic to their original conditions. Width of replacement shall be up to six (6) feet wide.
- C. Payment will be on the basis of unit price Bid per lineal foot.

2.17 BITUMINOUS SURFACE REPLACEMENT

- A. Measurement shall be on the basis of lineal foot along the centerline of carrier pipe.
- B. This item includes the bituminous pavement, crushed stone, labor, and equipment necessary to level the base and to place the asphalt surface to the depths indicated on the Drawings to restore the areas subject to traffic to their original conditions. Width of replacement shall be up to six (6) feet wide.
- C. Payment will be on the basis of unit price Bid per lineal foot.

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2.18 CONCRETE SURFACE REPLACEMENT

- A. Measurement shall be on the basis of lineal foot along the centerline of carrier pipe.
- B. This item includes the concrete pavement, crushed stone, wire mesh reinforcement, labor, and equipment necessary to install concrete to the depths indicated on the Drawings to restore the areas subject to traffic to their original conditions. Width of replacement shall be up to six (6) feet wide.
- C. Payment will be on the basis of unit Bid per lineal foot.

2.19 TIE-IN TO EXISTING LINE

- A. Measurement shall be on a per unit basis.
- B. This item includes excavation, backfill, cutting existing pipe, blocking, couplings, restoration, cleanup, coordination with Owner, and all other appurtenances necessary to complete the installation as detailed on the Drawings.
- C. Payment will be on the basis of the unit price Bid for the item.

- END OF SECTION -

SECTION 01040

COORDINATION

PART 1 - GENERAL

1.01 WORK INCLUDED

- A. The Contractor shall coordinate the Work of all trades and subcontractors engaged on the Work, and the Contractor shall have final responsibility in regards to the schedule, workmanship, and completeness of each and all parts of the Work.
- B. All trades and subcontractors shall be made to cooperate with each other and with others as they may be involved in the installation of Work which adjoins, incorporates, precedes or follows the Work of another. It shall be the Contractor's responsibility to point out areas of cooperation prior to execution of subcontract agreements and the assignment of the parts of the Work. Each trade and subcontractor shall be made responsible to the Owner, for furnishing embedded items, giving directions for doing all cutting and fitting, making all provisions for accommodating the Work, and for protecting, patching, repairing, and cleaning as required to satisfactorily perform the Work.
- C. The Contractor shall be responsible for all cutting, digging, and other action of his subcontractors and workmen. Where such action impairs the safety or function of any structure or component of the project, the Contractor shall make such repairs, alterations, and additions, in the opinion of the Engineer, to bring said structure or component back to its original design condition at no additional cost to the Owner.
- D. Each subcontractor is expected to be familiar with the general requirements and all sections of the detailed Specifications for all other trades and to study all Drawings applicable to this Work. Each Contractor shall consult with the Engineer if conflicts exist on the Drawings.
- E. No extra compensation will be allowed to cover the cost of removing piping, conduits, etc., or equipment found encroaching on space required by others.

- END OF SECTION -

SECTION 01045

CUTTING AND PATCHING

PART 1 - GENERAL

1.01 WORK INCLUDED

- A. Provide cutting and patching work to properly complete the Work of the project for connecting to existing water lines and structures.
- B. Do not cut and patch in a manner that would result in a failure of the Work to perform as intended, decreased energy performance, increased maintenance, decreased-operational life, or decreased safety.

PART 2 - PRODUCTS

2.01 MATERIALS

Match existing materials for cutting and patching work with new materials conforming to project requirements.

PART 3 - EXECUTION

3.01 INSTALLATION

- A. Inspect conditions prior to Work to identify scope and type of Work required. Protect adjacent Work. Notify Owner of Work requiring interruption to building services or Owner's operations.
- B. Perform Work with workmen skilled in the trades involved. Prepare sample area of each type of Work for approval.
- C. Cutting: Use cutting tools, not chopping tools. Make neat holes. Minimize damage to adjacent Work. Check for concealed utilities and structure before cutting.
- D. Patching: Make patches, seams, and joints durable and inconspicuous. Comply with tolerances for new Work.
- E. Clean Work area and areas affected by cutting and patching operations.

- END OF SECTION -

Cutting and Patching
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SECTION 01050

SURVEYING

PART 1 – GENERAL

1.01 SUMMARY

This section of the specifications includes requirements for surveying, field engineering, and record documents.

1.02 CONTRACTOR'S SURVEYOR

Contractor is required to use an individual skilled in the practice of surveying to provide surveying services as required for layout and construction of the project as indicated on the Drawings and specified herein. As deemed appropriate by the Contractor, its surveyor shall:

- A. Determine existing conditions and features,
- B. Generate cut sheets,
- C. Provide construction control points,
- D. Provide construction stake out,
- E. Provide necessary information and documentation for construction quality assurance,
- F. Provide information and documentation for final Record Drawings (as-builts),
- G. Maintain and update a set of project record documents, and
- H. Other information required to execute the work in accordance with the Drawings, Specifications, and Contract.

1.03 OWNER'S SURVEYOR

The Owner's surveyor will perform the following:

- A. Provide survey control information,
- B. Verify the work as the OWNER deems necessary for construction quality assurance, and
- C. Verify surveys for measurement and payment for the work.

Any requested construction points which will indicate both horizontal and vertical points of key construction elements shall be provided by the Engineer.

1.04 DEFINITIONS

- A. Existing Features: Existing features may include, but are not limited to the following:
 - 1. Access Roads
 - 2. Storm Water Basins
 - 3. Storm Water Channels
 - 4. Buried Piping
 - 5. Utilities
- B. Independent Surveyor: A surveyor employed by an organization that is Independent from the Contractor and acceptable to the Owner.
- C. Record Documents: See Article 3.04 of this specification.

1.05 SUBMITTALS

- A. Within 14 days before commencing work, the Contractor shall submit qualifications of Contractor's surveyor in accordance with Section 01300 - Submittals. Submit surveyor's name, State license number (if applicable), experience, and qualifications to the Owner or Owner's Representative:
- B. **Project Record Documents:** Upon Substantial Completion of the Work, deliver survey record documents to Owner. Final payment will not be made until Owner receives satisfactory record documents. Accompany record documents with transmittal form containing:
 - 1. Date.
 - 2. Project title and number.
 - 3. Contractor's name and address.
 - 4. Title and number of each record document.
 - 5. Certification that each document as submitted is complete and accurate.
 - 6. Signature of Contractor and certification by Contractor's Surveyor.

1.06 SITE CONDITIONS

- A. **Existing Features:** Contractor is required to field verify the location of existing features. Owner record drawings are available to the Contractor. The existence and location of features are not guaranteed. Before beginning site work, investigate and verify the existence and location of underground utilities and existing features. Owner and Owner's representatives take no responsibility for the accuracy of these record drawings implied or otherwise.

- B. **Field Verification:** Prior to construction, verify the location of existing features at points of connection or tie-in to the Work.
- C. **Field Conditions and Measurements:** The Contractor shall base all measurements, both horizontal and vertical, from established benchmarks. The Contractor shall be responsible for field verification of all dimensions and conditions at the job site.
- D. **Discrepancies:** Should the Contractor discover any discrepancy between actual conditions and those indicated which prevent following good practice or the intent of the Drawings and Specifications, he shall notify Owner in writing and request clarification and instructions on how to proceed. The Contractor shall not proceed with his work until he has received the same from Owner.
- E. **No Additional Payment:** No claims shall be made for extra payment or extensions of Contract completion time if the Contractor fails to notify the Owner of any discrepancy before proceeding with the aspect of the Work.

PART 2 – PRODUCTS

2.01 GLOBAL POSITIONING SYSTEM

The Contractor shall establish temporary bench marks with a global positioning system (GPS).

PART 3 – EXECUTION

3.01 QUALIFICATIONS OF CONTRACTOR'S SURVEYOR

The Contractor shall use an individual skilled in the practice of surveying.

3.02 FIELD SURVEY WORK

- A. **Control Points:** Engineer will identify existing project control points, if any, at the site for the Contractor.
- B. **Benchmarks:** Establish and maintain a minimum of two permanent benchmarks on the site, referenced to data established by survey control points. Record benchmark locations, with horizontal and vertical data, on Project Record Documents. Do not change or relocate benchmarks or control points without prior written approval by the Owner. Promptly report lost or destroyed reference points or requirements to relocate reference points because of necessary changes in grades or locations.
- C. **Site Improvements:** Work from lines and levels established by benchmarks and markers to set lines and levels as needed to properly locate each element of the Project. Locate and lay out site improvements, including stakes for slopes, grading, fill and topsoil placement, utility slopes and invert elevations by instrumentation and

similar appropriate means. Calculate and measure required dimensions within indicated or recognized tolerances. Do not scale Drawings to determine dimensions.

- D. **Relocation of Existing Utilities:** Furnish information necessary to adjust, move or relocate existing features, structures, utility poles, lines, services or other appurtenances located in, or affected by construction. Coordinate with local authorities having jurisdiction.
- E. **Surveyor's Log:** Keep neat legible notes of all measurements and calculations made by him while surveying and laying out the work. Maintain a surveyor's log of control and other survey work. Make this log available for reference.

3.03 TOLERANCES

- A. **Positive Drainage:** Provide positive drainage for surface towards permanent drainage ways. All areas shall be graded to the minimum slopes indicated. No ponding areas are permitted. Positive drainage shall be maintained on all gravity sewer lines. Other tolerances for specific items of work are listed where applicable.

3.04 RECORD DOCUMENTS

Contractor shall provide documents as follows:

- A. **General:** Do not use record documents for construction purposes. Protect record documentation from deterioration and loss in a secure, fire-resistive location; provide access to record documents for the Owner's reference during normal working hours. Backup electronic documents at least once per week.
- B. **Recording**
 - 1. Label and file record documents and samples in accordance with Specification Section number listings in Table of Contents of this Invitation for Bids/Project Manual. Label each document "PROJECT RECORD" in neat, large, printed letters.
 - 2. Preparation of project record documents shall be by personnel skilled as a draftsman competent to prepare the required drawings.
 - 3. Record and update daily record information from field notes, on set of blue line prints, and copy of Invitation for Bids/Project Manual.
 - 4. Record information concurrently (daily) with construction progress. Do not conceal work until required information is recorded.
 - 5. Record deviations from required lines and levels, and advise Owner when deviations that exceed indicated or recognized tolerances are detected. On Project Record Drawings, record deviations that are accepted and not corrected.
- C. **Record Drawings:** Maintain a clean, undamaged set of blue or black line white-prints of Contract Drawings and Shop Drawings. Mark the set to show the actual

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installation where the installation varies substantially from the work as originally shown. Mark whichever drawing is most capable of showing conditions fully and accurately; where Shop Drawings are used, record a cross-reference at the corresponding location on the Contract Drawings. Give particular attention to concealed elements that would be difficult to measure and record at a later date.

Mark record sets with red erasable pencil. Mark new information that is important to the OWNER, but was not shown on Contract Drawings or Shop Drawings. Note related Change Order numbers where applicable. Organize record drawing sheets into manageable sets, bind with durable paper cover sheets, and print suitable titles, dates and other identification on the cover of each set. 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. Measured locations of appurtenances concealed in construction, referenced to visible and accessible features of construction.
3. Field changes (dimensions and detail).
4. Changes by Modifications made by Owner.
5. Details not on original Contract Drawings.
6. References to related Shop Drawings and Modifications.
7. Depths of various elements of the Work in relation to datum.

D. **Record Specifications:** Maintain one complete copy of the Project Manual, including addenda and one copy of other written construction documents such as Change Orders and Field Order issued in printed form during construction. Mark these documents to show substantial variations in actual work performed in comparison with the text of the Specifications, Change Order, and Field Order. Give particular attention to substitutions, selection of options and similar information on elements that are concealed or cannot otherwise be readily discerned later by direct observation. Note related record drawing information and product data. Legibly mark up each Section to record:

1. Manufacturer, trade name, catalog number, and supplier of each product and item of equipment actually installed.
2. Changes made by Change Order or Field Order.
3. Other matters not originally specified.

E. **Record Product Data:** Maintain one copy of each approved Product Data submittal. Mark these documents to show significant variations in actual work performed in comparison with information submitted. Include variations in products delivered to the site, and from the manufacturer's installation instructions and recommendations. Give particular attention to concealed products and portions of the work that cannot

be otherwise be readily discerned later by direct observation. Note related Change Orders and mark-up of record drawings and Specifications.

Upon completion of mark-up, submit complete set of record Product Data to the Owner for Owner's records.

- F. **Record Sample Submittal:** Record Sample Submittal: Immediately prior to the date or dates of Substantial Completion, the Contractor will meet at the site with Owner and the Owner's personnel to determine which of the submitted samples that have been maintained during progress of the work are to be transmitted to Owner for record purposes. Comply with delivery to Owner sample storage area.
- G. **As-Built Survey:** Survey final location and elevation of all pipes, wells, sumps, and valves. Buried pipes shall be surveyed at a minimum of every 50 feet, plus at all tees, fittings, and at all breaks or changes in grade. Contractor shall determine as-built length and slope of all pipes installed under this Contract. Contractor shall provide final topographic mapping showing breaks in grade, swales, berms, ditches, and the extent of construction activities. The topographic mapping shall be on 1-foot vertical intervals. Provide as-built coordinates of all surveyed points to Engineer in an acceptable electronic format for use in preparing as-built drawings.
- H. **Miscellaneous Record Submittals:** Refer to other Specification Sections for requirements of miscellaneous record keeping and submittals in connection with actual performance of the work. Immediately prior to the date or dates of substantial completion, complete miscellaneous records and place in good order, properly identified and bound or filed, ready for continued use and reference. Submit to the Engineer for the Owner's records. Miscellaneous record submittals include but are not limited to:
 - 1. Field Test Records
 - 2. Inspection Certificates
 - 3. Manufacturer's Certificates
 - 4. Manufacturer's Warrantees
- I. All as-built survey information and record documents shall be provided to the Engineer within 30 days of Substantial Completion of the Work by the Contractor.

3.05 INSPECTION

Verify locations of survey control points and existing features prior to starting work. Promptly notify Engineer of any discrepancies.

3.06 SURVEYING FOR RECORD DRAWINGS

Final measurement shall be submitted to and verified by the Engineer. Drawings and as-built calculations shall be checked and certified by the Contractor's Surveyor. In the event of any

disagreements, the Owner's Surveyor or an Independent Surveyor may be hired by the Owner to provide supplemental information on final pay quantities to the Engineer.

- END OF SECTION -

Surveying
01050-7

SECTION 01092

ABBREVIATIONS

PART 1 - GENERAL

1.01 SUMMARY

Where any of the following abbreviations are used in the Contract Documents, they shall have the meaning set forth as follows.

1.02 QUALITY ASSURANCE

- A. For products or workmanship specified by association, trade or federal standards, comply with requirements of the standard, except when more rigid requirements are specified or are required by applicable codes.
- B. The date of the standard is that in effect as of the Bid date, or date of Owner-Contractor Agreement when there are no Bids, except when a specific date is specified.
- C. When required by individual Specifications section, obtain copy of standard. Maintain a copy at job site during submittals, planning, and progress of the specific work, until substantial completion.

1.03 ABBREVIATIONS

| | |
|--------|---|
| ACI | American Concrete Institute |
| AFBMA | Anti-Friction Bearing Manufacturers Association |
| AGMA | American Gear Manufacturers Association |
| IEEE | Institute of Electrical and Electronics Engineers, Inc. |
| AISC | American Institute of Steel Construction |
| ANS | American National Standard |
| ANSI | American National Standards Institute |
| API | American Petroleum Institute |
| ASCE | American Society of Civil Engineers |
| ASHRAE | American Society of Heating, Refrigerating and Air Conditioning Engineers |
| ASME | American Society of Mechanical Engineers |

Abbreviations
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| | |
|-------------|--|
| ASTM | American Society for Testing and Materials |
| AWPA | American Wood-Preservers' Association |
| AWWA | American Water Works Association |
| CTS | Copper Tubing Size |
| DI | Ductile Iron Pipe |
| IBR | Institute of Boiler and Radiator Manufacturers |
| ID | Inside Diameter |
| IPS | Iron Pipe Size |
| NBS | National Bureau of Standards |
| NEC | National Electrical Code; latest edition |
| NEMA | National Electrical Manufacturers Association |
| NFPA | National Fire Protection Association |
| OD | Outside Diameter |
| SMACNA | Sheet Metal and Air Conditioning Contractors National Association, Inc. |
| Fed. Spec. | Federal Specifications issued by the Federal Supply Service of the General Services Administration, Washington, DC |
| 125-lb. ANS | American National Standard for Cast-Iron Pipe |
| 250-lb. ANS | Flanges and Flanged Fittings, Designation B16.1-1975, for the appropriate class |
| AWG | American or Brown and Sharpe Wire Gage |
| NPT | National Pipe Thread |
| Stl. WG | U.S. Steel Wire, Washburn and Moen, American Steel and Wire or Roebling Gage |
| UL | Underwriters' Laboratories |

- END OF SECTION -

Abbreviations
01092-2

SECTION 01200
PROJECT MEETINGS

PART 1 - GENERAL

1.01 PRECONSTRUCTION CONFERENCES

- A. Prior to commencing the Work, a preconstruction conference will be held at the job site and representatives of the following organizations shall have at least one representative in attendance:

Owner, Engineer, Contractor, major subcontractors and representatives of the appropriate state and federal agencies as they choose.

- B. The preconstruction conference will be for the purpose of reviewing procedures to be followed concerning the orderly flow of required paperwork; coordination of the various parties involved with the project, review of Shop Drawing submittals, Contract time, liquidated damages, payment estimates, Change Orders, and other items of interest to the parties involved.

1.02 MONTHLY PROGRESS MEETING

Monthly progress meetings will be held. The Contractor's project manager and field foreman shall attend these meetings. Representatives of the Owner, Engineer, and appropriate state and federal agencies will be in attendance as they choose.

- END OF SECTION -

SECTION 01300

SUBMITTALS

PART 1 - GENERAL

1.01 WORK INCLUDED

Shop drawings, descriptive literature, product data and samples (when samples are specifically requested) for all manufactured or fabricated items shall be submitted by the Contractor to the Engineer for examination and review in the form and in the manner required by the Engineer. All submittals shall be furnished in at least six (6) copies and shall be checked and reviewed by the Contractor before submission to the Engineer. The Contractor shall mark or stamp the submittal "approved" along with the Contractor's business name, reviewer signature, and date reviewed prior to submitting to the Engineer. The review of the Drawings by the Engineer shall not be construed as a complete check, but will indicate only that the general method of construction and detailing is satisfactory. Review of such Drawings will not relieve the Contractor of the responsibility for any errors which may exist as the Contractor shall be responsible for the dimensions and design of adequate connections, details, and satisfactory construction of all Work.

1.02 RELATED SECTIONS

General Conditions

1.03 DEFINITIONS

The term "submittals" shall mean Shop Drawings, manufacturer's drawings, catalog sheets, brochures, descriptive literature, diagrams, schedules, calculations, material lists, performance charts, test reports, office and field samples, and items of similar nature which are normally submitted for the Engineer's review for conformance with the design concept and compliance with the Contract Documents.

1.04 GENERAL CONDITIONS

- A. Review by the Engineer of Shop Drawings or submittals of material and equipment shall not relieve the Contractor from the responsibilities of furnishing same of proper dimension, size, quality, quantity, materials and all performance characteristics to efficiently perform the requirements and intent of the Contract Documents. Review shall not relieve the Contractor from responsibility for errors of any kind on the Shop Drawings. Review is intended only to assure conformance with the design concept of the project and compliance with the information given in the Contract Documents.
- B. Review of Shop Drawings shall not be construed as releasing the Contractor from the responsibility of complying with the Specifications.

Submittals
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- C. The Engineer will review the first and second submittal of a Shop Drawing for a particular item at no cost to the Contractor. Review of the third and any subsequent submittals shall be at the Contractor's expense. The expense shall be at a rate of \$150.00 per hour of review time. Payment will be deducted from the Contract, when final payment of the Contract is paid.

1.05 GENERAL REQUIREMENTS FOR SUBMITTALS

A. Shop Drawings

- 1. Shop Drawings shall be prepared by a qualified detailer. Details shall be identified by reference to sheet and detail numbers shown on Contract Drawings. Where applicable, show fabrication, layout, setting, and erection details.
- 2. Shop Drawings are defined as original Drawings prepared by the Contractor, subcontractors, suppliers, or distributors performing Work under this Contract. Shop Drawings illustrate some portion of the Work and show fabrication, layout, setting, or erection details of equipment, materials, and components. The Contractor shall, except as otherwise noted, have prepared the number of review copies required for his distribution plus two (2) which will be retained by the Engineer. Shop Drawings shall be folded to an approximate size of 8-1/2" x 11" and in such manner that the title block will be located in the lower right-hand corner of the exposed surface.

- B. Product data shall include manufacturer's standard schematic drawings modified to delete information which is not applicable to the project, and shall be supplemented to provide additional information applicable to the project. Each copy of descriptive literature shall be clearly marked to identify pertinent information as it applies to the project.

- C. Where samples are required, they shall be adequate to illustrate materials, equipment, or workmanship, and to establish standards by which completed Work is judged. Provide sufficient size and quantity to clearly illustrate functional characteristics of product and material, with integrally related parts and attachment devices, along with a full range of color samples.

- D. All submittals shall be referenced to the applicable item, section and division of the Specifications, and to the applicable Drawing(s) or Drawing schedule(s).

- E. The Contractor shall review and check submittals, and shall indicate his review by initials and date.

- F. If the submittals deviate from the Contract Drawings and/or Specifications, the Contractor shall advise the Engineer, in letter of transmittals of the deviation and the reasons therefore. All changes shall be clearly marked on the submittal with a bold red mark. Any additional costs for modifications shall be borne by the Contractor.

Submittals
01300-2

- G. In the event the Engineer does not specifically reject the use of material or equipment at variance to that which is shown on the Drawings or specified, the Contractor shall, at no additional expense to the Owner, and using methods reviewed by the Engineer, make any changes to structures, piping controls, electrical work, mechanical work, etc., that may be necessary to accommodate this equipment or material. Should equipment other than that on which design Drawings are based be accepted by the Engineer, Shop Drawings shall be submitted detailing all modification Work and equipment changes made necessary by the substituted item.
- H. Additional information on particular items, such as special Drawings, schedules, calculations, performance curves, and material details, shall be provided when specifically requested in the technical Specifications.
- I. Submittals for all electrically operated items (including instrumentation and controls) shall include complete wiring diagrams showing leads, runs, number of wires, wire size, color coding, all terminations and connections, and coordination with related equipment.
- J. Equipment Shop Drawings shall indicate all factory or shop paint coatings applied by suppliers, manufacturers, and fabricators; the Contractor shall be responsible for insuring the compatibility of such coatings with the field-applied paint products and systems.
- K. Fastener specifications of manufacturer shall be indicated on equipment Shop Drawings.
- L. Where manufacturers' brand names are given in the Specifications for building and construction materials and products, such as grout, bonding compounds, curing compounds, masonry cleaners, waterproofing solutions, and similar products; the Contractor shall submit names and descriptive literature of such materials and products he proposes to use in this Contract.
- M. No material shall be fabricated or shipped unless the applicable Drawings or submittals have been reviewed by the Engineer and returned to the Contractor.
- N. All bulletins, brochures, instructions, parts lists, and warranties packaged with and accompanying materials and products delivered to and installed in the project shall be saved and transmitted to the Owner through the Engineer.

1.06 CONTRACTOR RESPONSIBILITIES

- A. Verify field measurements, field construction criteria, catalog numbers and similar data.
- B. Coordinate each submittal with requirements of Work and of Contract Documents.
- C. Notify Engineer, in writing at time of submission, of deviations in submittals from requirements of Contract Documents.

Submittals
01300-3

- D. Begin no Work, and have no material or products fabricated or shipped which require submittal review until return of submittals with Engineer's stamp and initials or signature indicating review.

- END OF SECTION -

Submittals
01300-4

SECTION 01380

CONSTRUCTION PHOTOGRAPHS/VIDEO

PART 1 - GENERAL

1.01 WORK INCLUDED

Provide monthly photographs of the construction throughout the progress of the Work. Provide Video of construction prior to commencement of work, monthly progress, and completion of work.

1.02 RELATED WORK

- A. Section 00710 - General Conditions
- B. Section 01700 - Contract Closeout

1.03 PHOTOGRAPHY

- A. Provide monthly photographs (two sets) of the construction throughout progress of the Work. Provide twenty-four (24) views of Work each month or more as may be necessary to clearly show any new Work.
- B. Take the photographs at the beginning, during, and completion of each element of construction listed below:
 - 1. Unclassified excavation.
 - 2. Trenching.
 - 3. Pipe installation.
 - 4. Installation of all fittings.
 - 5. Disinfection.
 - 6. All other aspects of construction.

1.04 PRINTS

- A. Color: two (2) prints of each view, bound into separate sets.
- B. Paper: single weight, neutral black image tone, white base.
- C. Finish: matte.
- D. Size: 3" x 5". Mount with binder tabs.

- E. Label each print on back. List project name and Contract number, orientation of view, date and time of view, work being performed, location of work, and Contractor's name.

1.05 DIGITAL PHOTOGRAPHS

All photographs shall be digital. Digital photographs of all views shall be provided on compact disc (CD) or digital video disc (DVD) to the Owner. The CD or DVD shall be included monthly along with the two sets of prints. Digital pictures shall be time and date stamped one labeled the same as prints.

1.06 DIGITAL VIDEO

- A. All video shall be digital. Digital video shall be provided on a compact disc (CD) or digital video disc (DVD) to the Owner. The CD or DVD shall be included monthly with the digital photographs. Digital video shall be time and date stamped.
- B. Initial video shall be completed prior to the arrival of any equipment for construction facilities. The video shall include all existing structures, visible utilities, parking lots, and access roads. Record any existing damage to the facilities.
- C. Final video shall be completed once all equipment and construction facilities have been removed from the sites. The video shall include all items listed above plus all new modifications or alternations.
- D. All video shall provide correct exposure and focus, high resolution and sharpness, maximum depth of field.

1.07 TECHNIQUE

- A. All views shall provide factual presentation of the Work progress.
- B. All photographs shall provide correct exposure and focus, high resolution and sharpness, maximum depth of field, and minimum distortion.

1.08 VIEWS

The photographs shall be from varied views that show the most representative sample of the Work progress.

1.09 SUBMITTALS

Submit prints and CD or DVD at the monthly progress meetings unless specifically requested sooner by the Owner or Engineer.

- END OF SECTION -

SECTION 01400

QUALITY CONTROL

PART 1 - GENERAL

1.01 WORK INCLUDED

- A. Work of all crafts and trades shall be laid out to lines and elevations as established by the Contractor from the Drawings or from instructions by the Engineer.
- B. Unless otherwise shown, all Work shall be plumb and level, in straight lines and true planes, parallel or square to the established lines and levels. The Work shall be accurately measured and fitted to tolerance as established by the best practices of the crafts and trades involved, and shall be as required to fit all parts of the Work carefully and neatly together.
- C. All equipment, materials, and articles incorporated into the Work shall be new and of comparable quality as specified. All workmanship shall be first-class and shall be performed by mechanics skilled and regularly employed in their respective trades.
- D. The Contractor shall determine that the equipment he proposes to furnish can be brought into the facility and installed in the space available. Equipment shall be installed so that all parts are readily accessible for inspection and maintenance.

1.02 TESTING SERVICES

- A. Tests, inspections, and certifications of materials, equipment, subcontractors or completed Work, as required by the various sections of the Specifications shall be provided by the Contractor and all costs shall be included in the Contract price.
- B. The Contractor shall submit to the Owner the name of testing laboratory to be employed.
- C. Contractor shall deliver written notice to the Engineer at least two (2) work days in advance of any inspections or tests to be made at the project site. All inspections or tests to be conducted in the field shall be done in the presence of the Owner or his representative.
- D. Certifications by independent testing laboratories may be by properly attested copies of the data including scientific procedures and results of tests.

1.03 CONCRETE TESTING

Contractor shall have a minimum of four (4) concrete cylinders taken for every 25 c.y. of concrete or discreet concrete delivery should the amount be less than 25 c.y. even though placement may be at multiple locations. Cylinders shall be submitted to independent laboratory for testing of strength by breaking at 7 days, 14 days, and 28 days. Additional cylinders may be taken as deemed necessary by ENGINEER and all costs shall be borne by CONTRACTOR. Cylinders shall be cured on-site in same condition as poured concrete.

1.04 CONTRACTOR'S QUALITY CONTROL

Comply with industry standards except when more restrictive tolerances or specified requirements indicate more rigid standards or more precise workmanship.

- END OF SECTION -

SECTION 01450

SERVICES OF MANUFACTURER'S REPRESENTATIVE

PART 1 - GENERAL

1.01 GENERAL

The Contractor shall comply with the manufacturer's instructions pertaining to shipping, handling, storing, installing, startup, and operation.

1.02 MANUFACTURER'S SERVICES

A. General

The Contractor shall provide a qualified service representative from each company manufacturing or supplying certain equipment to perform the duties herein described and as required by the various sections of the Specifications. All costs shall be included in the Contract price.

1. The service representative shall notify the Engineer each time he intends to be at the project site, and define the purpose of this visit. There will be no acknowledgment by the Owner of on-site visits by the service representative unless such visits are properly logged by the Engineer.

B. Supervision of Installation

Supervision of the workers and advice to the Owner shall be provided to ensure that proper procedures are followed during equipment installation.

C. Equipment Check-Out

1. After installation of the listed equipment has been completed and the equipment is presumably ready for operation, but before it is operated by others, the representative shall inspect, operate, test, and adjust the equipment. The inspection shall include, but shall not be limited to, the following points as applicable:
 - a. Soundness (without cracked or otherwise damaged parts).
 - b. Completeness in all details as specified.
 - c. Correctness of setting alignment, and relative arrangement of various parts.
 - d. Adequacy and correctness of packing, sealing, and lubricants.
2. The operation, testing, and adjustment shall be as required to prove that the equipment has been installed properly and is capable of satisfactory

Services of Manufacturer's Representative
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operation under the conditions specified. On completion of his Work, the manufacturer's or supplier's representative shall submit in triplicate to the Engineer a complete signed report of the result of his inspection, operation, adjustments, and tests. The report shall include detailed descriptions of the points inspected, tests, and adjustments made, quantitative results obtained, if such are specified, and suggestions for precautions to be taken to ensure proper maintenance. The report also shall include a certificate that the equipment conforms to the requirements of the Contract and is ready for permanent operation and that nothing in the installation will render the manufacturer's warranty null and void.

D. Field Acceptance Tests

After the Engineer has reviewed the reports from the manufacturer's representatives, the Contractor shall make arrangements to have the manufacturer's representatives present when the field acceptance tests are made.

E. Pre-Startup Operator Training

Provision of classroom and hands-on training to maintenance personnel in the operation and maintenance of the equipment prior to placing the equipment in full operation.

F. Post-startup Services

Provision of assistance to the Owner in the calibration, turning, and troubleshooting, plus any additional training that may be required during the year after the equipment is accepted by the Owner.

- END OF SECTION -

SECTION 01510

TEMPORARY UTILITIES

PART 1 - GENERAL

1.01 DESCRIPTION

- A. The Contractor shall maintain strict supervision of use of temporary utility services.
 - 1. Enforce compliance with applicable standards.
 - 2. Enforce safety practices.
 - 3. Prevent abuse of services.
 - 4. Utility charges: Contractor shall be responsible for paying for all utilities utilized during construction.

1.02 REQUIREMENTS OF REGULATORY AGENCIES

- A. Obtain and pay for all permits as required by governing authorities.
- B. Obtain and pay for temporary easements required across property other than that of Owner.
- C. Comply with applicable codes.

1.03 REMOVAL

- A. Completely remove temporary materials, equipment, and offices upon completion of construction.
- B. Repair damage caused by installation and restore to specified or original condition.

1.04 TEMPORARY ELECTRICITY

Electrical service for construction needs and for lighting and heating the Work area shall be provided by the Contractor.

1.05 TEMPORARY TELEPHONE SERVICE

- A. Furnish and install temporary telephone service for construction needs throughout construction periods.
- B. Pay costs for temporary telephone service, including installation, maintenance, and removal.
- C. Pay service costs for all local telephone service.

Temporary Utilities
01510-1

- D. Pay costs of toll charges related to construction of the project.
- E. Do not use Owner's existing telephone system.

1.06 TEMPORARY WATER

Cost to the Owner of all water from the existing distribution system or other approved sources used in the process of testing, sterilizing, and flushing pipe shall be borne by the Owner. Water costs due to incorrect construction, taps, breaks, etc., caused by the Contractor shall be borne by the Contractor.

- END OF SECTION -

SECTION 01530

BARRIERS

PART 1 - GENERAL

1.01 WORK INCLUDED

- A. The Contractor shall provide all temporary barriers in conformance with local, state, and federal codes.
- B. The Contractor is responsible for safety at all times on the project site. The Contractor shall provide appropriate barricades, safety fences, and warning signs. No open excavations shall be accessible to the general public at any time.

- END OF SECTION -

SECTION 01540

SECURITY

PART 1 - GENERAL

1.01 WORK INCLUDED

- A. The project area has to remain safely accessible to Owner's personnel; however, the Contractor shall provide any non-interfering security he deems necessary to protect his Work, equipment, etc.
- B. Provide an adequate system to secure the project area at all times, especially during non-construction periods; the Contractor shall be solely responsible for taking proper security measures.

1.02 COSTS

Contractor shall pay for all costs for protection and security systems.

- END OF SECTION -

SECTION 01545

PROTECTION OF WORK AND PROPERTY

PART 1 - GENERAL

1.01 REQUIREMENTS INCLUDED

Protection for products (including Owner-provided products) after installation and existing property.

1.02 RELATED REQUIREMENTS

Division 1 - General Requirements

PART 2 - PRODUCTS (Not Used)

PART 3 - EXECUTION

3.01 PROTECTION AFTER INSTALLATION

- A. Project installed products and control traffic in immediate area to prevent damage from subsequent operations.
- B. Provide protective coverings at walls, projections, corners, and jambs, sills and soffits of openings in and adjacent to traffic areas.
- C. Protect finished floors and stairs from dirt, wear, and damage:
 - 1. Secure heavy sheet goods or similar protective materials in place, in areas subject to foot traffic.
 - 2. Lay planking or similar rigid materials in place, in areas subject to movement of heavy objects.
 - 3. Lay planking or similar rigid materials in place in areas where storage of products will occur.
- D. Protect waterproofed and roofed surfaces:
 - 1. Restrict use of surfaces for traffic of any kind, and for storage of products.
 - 2. When an activity is mandatory, obtain recommendations for protection of surfaces from installer or manufacturer. Install protection and remove on completion of activity. Restrict use of adjacent unprotected areas.
- E. Restrict traffic of any kind across planted lawn and landscape areas.

- END OF SECTION -

Protection of Work and Property
01545-1

SECTION 01560

TEMPORARY CONTROLS

PART 1 - GENERAL

1.01 REQUIREMENTS INCLUDED

- A. Dust control.
- B. Erosion and sediment control.
- C. Surface drainage.

1.02 RELATED REQUIREMENTS

Section 01510 – Temporary Utilities
Section 01563 – Storm Water Pollution Prevention Plan
Section 01565 – Erosion and Sediment Control

PART 2 - PRODUCTS (Not Used)

PART 3 - EXECUTION

3.01 DUST 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. Execute Work by methods to minimize raising dust from construction operations. Provide positive means to prevent airborne dust from dispersing into atmosphere.
- C. Minimize amount of bare soil exposed at one time.
- D. Provide temporary measures such as berms, dikes, drains, hay bales, gabions, etc., so as to minimize siltation due to runoff.
- E. Periodically inspect earthwork to detect evidence of erosion and sedimentation; promptly apply corrective measures.

3.02 SURFACE RUNOFF CONTROL

- A. Provide temporary control of surface runoff from adjacent property until proposed storm drainage is complete and in service.
- B. Direct surface water flow away from any open trenches.

- END OF SECTION -

Temporary Controls
01560-1

SECTION 01563

STORM WATER POLLUTION PREVENTION PLAN

PART 1 - GENERAL

1.01 SUMMARY

The Contractor shall furnish all labor, equipment, materials, and routine maintenance for the construction of temporary erosion and sediment control measures in accordance with the Drawings and Specifications, or as otherwise directed by the Engineer.

The Contractor shall install and maintain any and all erosion and sediment control measures necessitated by project changes or alterations made by the Engineer, or by the Contractor. These changes and alterations must comply with the Drawings and Specifications and any applicable local and state ordinances and laws.

1.02 SUBMITTALS

- A. The General Contractor is responsible for submitting a Notice of Intent (NOI-SWCA) to be covered under a General Permit by the Kentucky Division of Water (KDOW).
- B. For the purposes of the NOI-SWCA, the General Contractor will be considered the "Operator".
- C. Prior to contract award the Engineer will fill out the initial NOI-SWCA form, using data specific to the project and the site, *but leaving blank the corporate information identifying the Contractor/Operator*. The Engineer will save this partially-populated form on a KDOW server by selecting: "Save for Future Retrieval". This will generate a randomly-selected "eForm Transaction ID" number. For _____ (*this project*) that number is: _____
- D. A minimum of 7 days prior to beginning work, The Contractor shall electronically submit the NOI-SWCA by accessing the following KDOW website: <https://dep.gateway.ky.gov/eForms/default.aspx?FormID=7> , and entering the "eForm transaction ID" (above). This will retrieve the initial NOI-SWCA form, partially-populated.
- E. The Contractor shall complete the form inserting data Specific to the Contractor/Operator. Then:
1. Save a copy of the NOI-SWCA.
 2. Send a copy of the NOI-SWCA to the Engineer.
 3. Submit the NOI-SWCA by selecting: "Submit Final Version to DEP".
- F. KDOW will review the NOI-SWCA, and respond to the Contractor, generally

within 7 calendar days. If the NOI-SWCA is properly completed and KDOW has no issues with the project, this response should be in the form of an approval. The Contractor is not allowed to begin work on the project until this approval is received. (Note: The Contractor must save the Permit Number to be used when submitting the Notice of Termination.)

- G. At the completion of the project, and when all erosion control features are removed from the project site (or are directed in writing by the Owner to be left in place), the Contractor shall submit a Notice of Termination (NOT-SW) to KDOW. The Contractor shall electronically submit the NOT-SW by accessing the following KDOW website:
<https://dep.gateway.ky.gov/eforms/default.aspx?FormID=5>.
- H. The Contractor shall select a blank eForm from Option A, and populate the necessary information. They shall reference the project with the Permit Number provided by KDOW (above). Then:
1. Send a copy of the NOT-SW to the Engineer.
 2. Submit the NOT-SW by selecting: "Submit Final Version to DEP".

1.03 COMPLIANCE

- A. The Contractor shall comply with the Stormwater Pollution Prevention Plans (SWPPP) as outlined in the Drawings.
- B. During the project the Contractor shall keep a copy of the NOI-SWCA and the SWPPP on the jobsite, available for review by the Owner, Agency, and state inspectors and regulatory officers.
- C. During the project the Contractor shall keep a Maintenance Log on the jobsite, in a 3-ring binder, and shall record the dates and intensity of significant rain events, how each BMP responded to each rain event, and the method used to maintain, clean out, repair, and/or replace any impacted BMP. A copy of a typical Maintenance Log is included in this Section.
- D. BMP's shall be inspected weekly (at a minimum) and after any significant rain event (>0.5"). The Contractor shall take corrective action for proper maintenance of each BMP.

PART 2 - PRODUCTS

2.01 GENERAL

The materials used for sediment and erosion control shall meet the requirements set forth in other parts of the Drawings and Specifications.

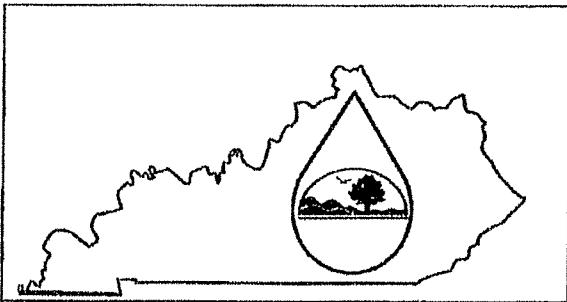
PART 3 - EXECUTION

3.01 GENERAL

- A. All sediment and erosion control devices shall be installed prior to beginning site clearing and grubbing and/or excavation/construction.
- B. The Contractor shall monitor and maintain all sediment and erosion control measures throughout the construction period.
 - 1. Sediment and erosion control measures shall be inspected weekly and after each storm event exceeding 0.5 inches of precipitation.
 - 2. Accumulations of silt or other material obstructions that reduce their effectiveness shall be removed.
 - 3. The Contractor shall promptly make any required repairs to insure all measures continue to function properly for the duration of the project. Maintenance is incidental to the cost of the project.
- C. The Contractor shall indemnify and hold harmless the Owner for any penalties imposed against the Owner by any local or state agency for the failure of any erosion and sediment control measures.
- D. The Contractor shall promptly correct any erosion and sediment control deficiencies identified by the Engineer or other local or State agency. If the Contractor fails to correct these deficiencies within 24 hours of notification, the Owner may make any required corrections and assess the cost of this work to the Contractor.
- E. During the project the Contractor shall undertake intermediate grading measures to insure the site drains properly and in a manner that silt and erosion will be directed to the appropriate BMP's. Repairs to specific areas of the site subject to more severe erosion shall be repaired as directed by the Engineer.
- F. If any waste/borrow areas or project access routes not defined on the Drawings and Specifications are used, the Contractor shall be responsible for the installation and maintenance of all erosion and sediment control measures required for those areas and shall coordinate with the appropriate property owners involved. The Contractor shall be responsible for the cost for all work related to erosion control, permitting, and re-grading of these areas.

- END OF SECTION -

FORM NOI-SWCA



KENTUCKY POLLUTION DISCHARGE ELIMINATION SYSTEM (KPDES)

Notice of Intent (NOI) for coverage of Storm Water Discharges Associated with Construction Activities Under the KPDES Storm Water General Permit KYR100000

This is an application for:

- New construction activity.
- Modification of coverage for additional area in same watershed.
- Modification of coverage for additional area in different watershed.

If Modification is checked, state reason for Modification:

| | | | | | | | | | | |
|----------------|--------------------------|---|---|---|---|---|--|--|--|--|
| For Agency Use | Permit No. (Leave Blank) | K | Y | R | 1 | 0 | | | | |
| For Agency Use | AI ID (Leave Blank) | | | | | | | | | |

SECTION I – FACILITY OPERATOR INFORMATION

| | | | |
|--------------------|---------|---|--|
| Operator Name(s):* | | Phone:* | |
| Mailing Address:* | | Status of Owner/Operator: <input type="checkbox"/> Private <input type="checkbox"/> State <input type="checkbox"/> Federal <input type="checkbox"/> Public (other than state or federal) | |
| City:* | State:* | Zip Code:* | |

SECTION II – FACILITY/SITE LOCATION INFORMATION

| | | |
|------------------------------|-------------------------------|------------|
| Name of Project:* | Physical Address:* | City:* |
| State:* | Zip Code:* | County:* |
| Latitude (decimal degrees):* | Longitude (decimal degrees):* | SIC Code:* |

SECTION III – SITE ACTIVITY INFORMATION

For single projects provide the following information

| | | | |
|------------------------------------|---|-------------|------------------|
| Total Number of acres in project:* | Total Number of acres to be disturbed:* | Start date: | Completion date: |
|------------------------------------|---|-------------|------------------|

For common plans of development projects provide the following information

| | | |
|--|---|---------------------------------|
| Total Number of acres in project:* | Number of individual lots in development: | Number of lots to be developed: |
| Total acreage intended to be disturbed:* | Number of acres intended to be disturbed at any one time: | |
| Start date: | Completion date: | List Contractors: |

SECTION IV – DISCHARGE TO A WATER BODY

| | |
|--|---|
| Name of Receiving Water:* | Anticipated number of discharge points: |
| Location of anticipated discharge points: Latitude (decimal degrees):* | Longitude (decimal degrees):* |
| Receiving Water Body Stream Use Designation | <input type="checkbox"/> Cold Water Aquatic Habitat <input type="checkbox"/> Domestic Water Supply <input type="checkbox"/> Outstanding State Resource Water <input type="checkbox"/> Secondary Contact Recreation <input type="checkbox"/> Primary Contact Recreation <input type="checkbox"/> Warm Water Aquatic Habitat |
| Antidegradation Categorization | <input type="checkbox"/> Outstanding National Resource Water <input type="checkbox"/> Exceptional Water <input type="checkbox"/> High Quality Water <input type="checkbox"/> Impaired Water |
| Name of Receiving Water:* | Anticipated number of discharge points: |
| Location of anticipated discharge points: Latitude (decimal degrees):* | Longitude (decimal degrees):* |
| Receiving Water Body Stream Use Designation | <input type="checkbox"/> Cold Water Aquatic Habitat <input type="checkbox"/> Domestic Water Supply <input type="checkbox"/> Outstanding State Resource Water <input type="checkbox"/> Secondary Contact Recreation <input type="checkbox"/> Primary Contact Recreation <input type="checkbox"/> Warm Water Aquatic Habitat |
| Antidegradation Categorization | <input type="checkbox"/> Outstanding National Resource Water <input type="checkbox"/> Exceptional Water <input type="checkbox"/> High Quality Water <input type="checkbox"/> Impaired Water |

FORM NOI-SWCA

| | | | |
|--|--|---|-------------------------------|
| SECTION V – DISCHARGE TO AN MS4 | | | |
| Name of MS4: | | Date of application /notification to the MS4 for construction site coverage: | |
| Number of discharge points: | Location of each discharge point: Latitude (decimal degrees):* | | Longitude (decimal degrees):* |
| SECTION VI – CONSTRUCTION ACTIVITIES IN OR ALONG A WATER BODY | | | |
| Will the project require construction activities in a water body or the riparian zone: <input type="checkbox"/> Yes <input type="checkbox"/> No | | | |
| If yes, describe scope of activity: | | | |
| Is a Clean Water Act 404 permit required: <input type="checkbox"/> Yes <input type="checkbox"/> No | | Is a Clean Water Act 401 Water Quality Certification required: <input type="checkbox"/> Yes <input type="checkbox"/> No | |
| SECTION VII – NOI PREPARER INFORMATION | | | |
| First Name:* | Last Name:* | Phone :* | eMail Address:* |
| Mailing Address:* | City:* | State:* | Zip Code:* |
| SECTION VIII – ATTACHMENTS | | | |
| Attach a full size color USGS 7½-minute quadrangle map with the facility site clearly marked. USGS maps may be obtained from the University of Kentucky, Mines and Minerals Bldg. Room 106, Lexington, Kentucky 40506. Phone number (859) 257-3896. | | | |
| SECTION IX – CERTIFICATION | | | |
| I certify under penalty of law that this document and all attachments were prepared under my direction or supervision in accordance with a system designed to assure that qualified personnel properly gather and evaluate the information submitted. Based on my inquiry of the person or persons who manage the system, or those persons directly responsible for gathering the information submitted is, to the best of my knowledge and belief, true, accurate, and complete. I am aware that there are significant penalties for submitting false information, including the possibility of fine and imprisonment for knowing violations. | | | |
| Signature:* | | First Name:* | Last Name:* |
| Phone:* | eMail Address: | | Date:* |

This completed application form and attachments should be sent to: SWP Branch, Division of Water, 200 Fair Oaks, Frankfort, Kentucky 40601. Questions should be directed to: SWP Branch, Operational Permits Section at (502) 564-3410.

KENTUCKY POLLUTANT DISCHARGE ELIMINATION SYSTEM FORM NOI-SWCA – INSTRUCTIONS

WHO MUST FILE A NOTICE OF INTENT (NOI) FORM

Federal law at 40 CFR Part 122 prohibits point source discharges of stormwater associated with industrial activity to a water body of the Commonwealth of Kentucky without a Kentucky Pollutant Discharge Elimination System (KPDES) permit. The operator of an industrial activity that has such a storm water discharge must submit a NOI to obtain coverage under the KPDES Storm Water General Permit. If you have questions about whether you need a permit under the KPDES Storm Water program, or if you need information as to whether a particular program is administered by the state agency, call the **Storm Water Contact, Operational Permits Section, Kentucky Division of Water at (502) 564-3410.**

WHERE TO FILE NOI FORM

NOIs must be sent to the following address or submitted in on-line at <https://dep.gateway.ky.gov/eForms/Default.aspx?FormID=3>:

Operational Permits Section
SWP Branch, Division of Water
200 Fair Oaks Lane
Frankfort, KY 40601

Electronic NOI-SWCAs are to be submitted a minimum of seven (7) working days prior to commencement of construction related activities. Paper NOI-SWCAs are to be submitted a minimum of thirty (30) working days prior to commencement of construction related activities.

COMPLETING THE FORM

Enter information in the appropriate areas only. (*) denotes a required field. Enter N/A (Not Applicable) for fields that are required but do not apply to your submission. If you have any questions regarding the completion of this form call the **Storm Water Contact, Operational Permits Section, at (502) 564-3410.**

SECTION I – FACILITY OPERATOR INFORMATION

Operator Name(s): Enter the name or names of all operators applying for coverage under KYR10 using this NOI.

Mailing Address, City, State, and Zip Code: Provide the mailing address of the primary operator

Phone No.: Provide the telephone numbers of the person who is responsible for the operation.

Status of Owner/Operator: Select the appropriate legal status of the operator of the facility from the dropdown list.

Federal
Public (other than federal or state)
State
Private

SECTION II – FACILITY/SITE LOCATION INFORMATION

Name of Project: Provide the name of the project.

Physical Address, City, State, Zip Code and County: Provide the physical address of the project.

Latitude/Longitude: Provide the general site latitude and longitude of the operation.

SIC Code: Enter the Standard Industrial Code for the project

SECTION III – SITE ACTIVITY INFORMATION

For single projects provide the following information:

Total number of acres in project: Indicate the total acreage of the project including both disturbed and undisturbed areas.

Total number of acres to be disturbed: Indicate the total number of acres of the project to be disturbed.

Anticipated start date: Indicate the approximate date of when construction activities will begin.

Anticipated completion date: Indicated the approximate date of when final stabilization will be achieved.

For common plans of development provide the following information:

Total number of acres in project: Indicate the total acreage of the project including both disturbed and undisturbed areas.

Number of individual lots in development, if applicable: Indicate the number of individual lots or unit in the common plan of development

Number of lots to be developed: Indicate the number of lots that you intend to develop.

Total acreage of lots intended to develop: Indicate the total acreage of the lots you intend to develop

Total acreage intended to disturb: Indicate the total acreage of the lots you intend to disturb

Number of acres intended to disturb at any one time: Indicate the maximum number of acres to be disturbed at any one time.

Anticipated start date: Indicate the approximate date of when construction activities will begin.

Anticipated completion date: Indicated the approximate date of when final stabilization will be achieved.

List of contractors: Provide the names of all known contractors that will be working on site.

KENTUCKY POLLUTANT DISCHARGE ELIMINATION SYSTEM FORM NOI-SWCA – INSTRUCTIONS

SECTION IV – IF THE PERMITTED SITE DISCHARGES TO A WATER BODY THE FOLLOWING INFORMATION IS REQUIRED

Name of Receiving Water: Provide the names of the each water body receiving discharges from the site. Provide only official USGS names do not provide local names

Anticipated number of discharge points: Indicate the number of discharge points to each receiving water body.

Location of anticipated discharge points: Provide the latitude and longitude of each discharge point. Add points as necessary.

Receiving Water Body Stream Use Designation: Check all appropriate boxes

Antidegradation Categorization: Select from the drop down box one of the following:

Outstanding National Resource Water
Exceptional Water
High Quality Water
Impaired Water

SECTION V – IF THE PERMITTED SITE DISCHARGES TO A MS4 THE FOLLOWING INFORMATION IS REQUIRED

Name of MS4: Provide the name of the MS4 to which the activity will discharge

Number of discharge points to the MS4: Indicate the number of discharge points

Location of each discharge point: Provide the latitude and longitude of each discharge point. Add points as necessary

Date of application/notification to the MS4 for construction site permit coverage: Indicate the date the MS4 has or will be notified.

SECTION VI – CONSTRUCTION ACTIVITIES IN OR ALONG A WATER BODY

Will the project require construction activities in a water body or the riparian zone: Select Yes or No from the drop down box.

If Yes, describe scope of activity: Provide a brief description of the activity (ies) that will take place in the water body or the riparian zone.

Is a Clean Water Act 404 permit required: Select Yes or No from the drop down box.

Is a Clean Water Act 401 Water Quality Certification required: Select Yes or No from the drop down box.

SECTION VII – NOI PREPARER INFORMATION

Provide the name, mailing address, telephone number and eMail address of the person preparing the NOI.

SECTION VIII –Attachments

Attach a USGS topographic map indicating the location of the activity and the proposed discharge points.

SECTION IX – CERTIFICATION

Provide the name, mailing address, telephone number and eMail address of the person who is responsible for the activity

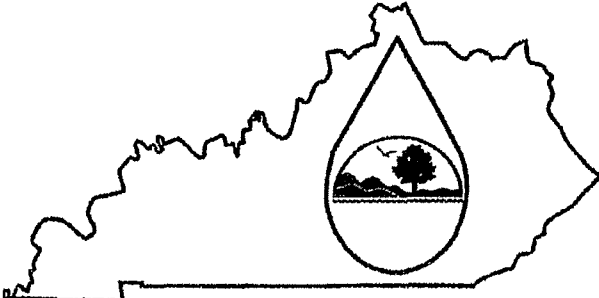
Signature: Provide full name of the responsibility party. This will constitute a signature.

The NOI must be signed as follows:

Corporation: by a principal executive officer of at least the level of vice president

Partnership or sole proprietorship: by a general partner or the proprietor respectively

KPDES FORM NOT-SW

| | |
|---|--|
|  | <p style="text-align: center;">Kentucky Pollutant Discharge Elimination System (KPDES)</p> <p style="text-align: center;">NOTICE OF TERMINATION (NOT) of Coverage Under the KPDES General Permit for Storm Water Discharges Associated with Industrial Activity</p> |
|---|--|

Submission of this Notice of Termination constitutes notice that the party identified in Section II of this form is no longer authorized to discharge storm water associated with industrial activity under the KPDES program.

ALL NECESSARY INFORMATION MUST BE PROVIDED ON THIS FORM.
(Please see instructions on back before completing this form.)

| |
|--|
| I. PERMIT INFORMATION |
| KPDES Storm Water General Permit Number: |
| Check here if you are no longer the Operator of the Facility: <input type="checkbox"/> |
| Check here if the Storm Water Discharge is Being Terminated: <input type="checkbox"/> |
| II. FACILITY OPERATOR INFORMATION |
| Name: |
| Address: |
| City/State/Zip Code: |
| Telephone Number: |
| III. FACILITY/SITE LOCATION INFORMATION |
| Name: |
| Address: |
| City/State/Zip Code: |

Certification: I certify under penalty of law that all storm water discharges associated with industrial activity from the identified facility that are authorized by a KPDES general permit have been eliminated or that I am no longer the operator of the facility or construction site. I understand that by submitting this Notice of Termination, I am no longer authorized to discharge storm water associated with industrial activity under this general permit, and that discharging pollutants in storm water associated with industrial activity of waters of the Commonwealth is unlawful under the Clean Water Act and Kentucky Regulations where the discharge is not authorized by a KPDES permit. I also understand that the submittal of this Notice of Termination does not release an operator from liability for any violations of this permit or the Kentucky Revised Statutes.

| | |
|----------------------|-------|
| NAME (Print or Type) | TITLE |
| SIGNATURE | DATE |

INSTRUCTIONS
NOTICE OF TERMINATION (NOT) OF COVERAGE UNDER THE KPDES GENERAL PERMIT
FOR STORM WATER DISCHARGES ASSOCIATED WITH INDUSTRIAL ACTIVITY

Who May File a Notice of Termination (NOT) Form

Permittees who are presently covered under the Kentucky Pollutant Discharge Elimination System (KPDES) General Permit for Storm Water Discharges Associated with Industrial Activity may submit a Notice of Termination (NOT) form when their facilities no longer have any storm water discharges associated with industrial activity as defined in the storm water regulations at 40 CFR 122.26 (b)(14), or when they are no longer the operator of the facilities.

For construction activities, elimination of all storm water discharges associated with industrial activity occurs when disturbed soils at the construction site have been finally stabilized and temporary erosion and sediment control measures have been removed or will be removed at an appropriate time, or that all storm water discharges associated with industrial activity from the construction site that are authorized by a KPDES general permit have otherwise been eliminated. Final stabilization means that all soil-disturbing activities at the site have been completed, and that a uniform perennial vegetative cover with a density of 70% of the cover for unpaved areas and areas not covered by permanent structures has been established, or equivalent permanent stabilization measures (such as the use of riprap, gabions, or geotextiles) have been employed.

Where to File NOT Form

Send this form to the following address:

Section Supervisor
Inventory & Data Management Section
KPDES Branch, Division of Water
14 Reilly Road, Frankfort Office Park
Frankfort, KY 40601

Completing the Form

Type or print legibly in the appropriate areas and according to the instructions given for each section. If you have questions about this form, call the Storm Water Contact, Industrial Section, at (502) 564-3410.

Section I - Permit Information

Enter the existing KPDES Storm Water General Permit number assigned to the facility or site identified in Section III. If you do not know the permit number, call the Storm Water Contact, Industrial Section at (502) 564-3410.

Indicate your reason for submitting this Notice of Termination by checking the appropriate box:

If there has been a change of operator and you are no longer the operator of the facility or site identified in Section III, check the corresponding box.

If all storm water discharges at the facility or site identified in Section III have been terminated, check the corresponding box.

Section II - Facility Operator Information

Give the legal name of the person, firm, public organization, or any other entity that operates the facility or site described in this application. The name of the operator may or may not be the same name as the facility. The operator of the facility is the legal entity which controls the facility's operation, rather than the plant or site manager. Do not use a colloquial name. Enter the complete address and telephone number of the operator.

Section III - Facility/Site Location Information

Enter the facility's or site's official or legal name and complete address, including city, state and ZIP code. If the facility lacks a street address, indicate the state, the latitude and longitude of the facility to the nearest 15 seconds, or the quarter, section, township, and range (to the nearest quarter section) of the approximate center of the site.

Section IV - Certification

Federal statutes provide for severe penalties for submitting false information on this application form. Federal regulations require this application to be signed as follows:

For a corporation: by a responsible corporate officer, which means: (i) president, secretary, treasurer, or vice-president of the corporation in charge of a principal business function, or any other person who performs similar policy or decision making functions, or (ii) the manager of one or more manufacturing, production or operating facilities employing more than 250 persons or having gross annual sales or expenditures exceeding \$25 million (in second-quarter 1980 dollars), if authority to sign documents has been assigned or delegated to the manager in accordance with corporate procedures;

For a partnership or sole proprietorship: by a general partner or the proprietor; or

For a municipality, State, Federal, or other public facility: by either a principal executive

SECTION 01565

EROSION AND SEDIMENT CONTROL

PART 1 - GENERAL

1.01 WORK INCLUDED

- A. The Contractor shall not employ any construction method that violates a rule, regulation, guideline, or procedure established by federal, state, or local agencies having jurisdiction over the environment effect of construction.
- B. In addition to those measures described in the SWPPP, Section 01563, the Contractor shall take all measures necessary to control soil erosion resulting from construction operations, shall prevent the flow of sediment from the construction site, and shall contain construction materials (including excavation and backfill) within his protected working area so as to prevent damage to the adjacent wetlands and water courses.
- C. Pollutants such as chemicals, fuels, lubricants, bitumen, raw sewage, and other harmful waste shall not be discharged into or alongside of any body of water or into natural or man-made channels leading thereto.

PART 2 - PRODUCTS

2.01 MATERIALS

Filter fabric for sediment traps shall be of suitable materials acceptable to the Engineer. Silt fence shall meet the requirements of Section 02275. Rock check dams shall be constructed from Class I riprap.

PART 3 - EXECUTION

3.01 METHODS OF CONSTRUCTION

- A. The Contractor shall use any of the acceptable methods necessary to control soil erosion and prevent the flow of sediment to the maximum extent possible. These methods shall include, but not be limited to, the use of water diversion structures, diversion ditches, and settling basins.
- B. Construction operations shall be restricted to the areas of Work indicated on the Drawings and to the area that must be entered for the construction of temporary or permanent facilities. The Engineer has the authority to limit the surface area of erodible earth material exposed by clearing and grubbing, excavation, trenching, borrow, and fill operations and to direct the Contractor to provide immediate permanent or temporary pollution control measures to prevent contamination of

wetlands and adjacent watercourses. Such Work may involve the construction of temporary berms, dikes, dams, sediment basins, slope drains, and use of temporary mulches, mats, or other control devices or methods as necessary to control erosion.

- C. Excavated soil material shall not be placed adjacent to wetlands or watercourses in a manner that will cause it to be washed away by high water or runoff. Earth berms or diversions shall be constructed to intercept and divert runoff water away from critical areas. Diversion outlets shall be stable or shall be stabilized by means acceptable to the Engineer. If for any reason construction materials are washed away during the course of construction, the Contractor shall remove those materials from the fouled areas as directed by the Engineer.
- D. For Work within easements or rights-of-way, all materials used in construction such as excavation, backfill, roadway, and pipe bedding and equipment shall be kept within the limits of these easements or rights-of-way.
- E. The Contractor shall not pump silt-laden water from trenches or other excavation into wetlands, or adjacent watercourses. Instead, silt-laden water from his excavations shall be discharged within areas surrounded by sediment control measures or into sediment traps or ensure that only sediment-free water is returned to the watercourses. Damage to vegetation by excessive watering or silt accumulation in the discharge area shall be avoided.
- F. Prohibited construction procedures include, but are not limited to, the following:
 - 1. Dumping of spoil material into any streams, wetlands, surface waters, or unspecified locations.
 - 2. Indiscriminate, arbitrary, or capricious operation of equipment in wetlands or surface waters.
 - 3. Pumping of silt-laden water from trenches or excavations into surface waters, or wetlands.
 - 4. Damaging vegetation adjacent to or outside of the construction area limits.
 - 5. Disposal of trees, brush, debris, paints, chemicals, asphalt products, concrete curing compounds, fuels, lubricants, insecticides, washwater from concrete trucks or hydroseeders, or any other pollutant in wetlands, surface waters, or unspecified locations.
 - 6. Permanent or unauthorized alteration of the flow line of any stream.
- G. Any temporary working roadways required shall be clean fill approved by the Engineer. In the event fill is used, the Contractor shall take every precaution to prevent the fill from mixing with native materials of the site. All such foreign fill materials shall be removed from the site following construction.

3.02 EROSION CHECKS

The Contractor shall furnish and install erosion checks surrounding the base of all deposits of stored excavated material outside of the disturbed area, and where indicated by the Engineer. Checks surrounding stored material shall be located approximately 6 feet from that material. Checks shall be installed as shown on the Drawings.

- END OF SECTION -

SECTION 01570

TRAFFIC REGULATION

PART 1 - GENERAL

1.01 WORK INCLUDED

- A. Construction parking control.
- B. Flagmen.
- C. Flares and lights.
- D. Haul routes.
- E. Removal.

1.02 RELATED SECTIONS

- A. Section 00710 - General Conditions
- B. Section 01530 - Barriers

PART 2 - PRODUCTS

2.01 SIGNS AND DEVICES

- A. Traffic Cones and Drums, Flares and Lights: as approved by federal, state, and local jurisdictions.
- B. Flagman Equipment: as required by federal, state, and local jurisdictions.

PART 3 - EXECUTION

3.01 CONSTRUCTION PARKING CONTROL

- A. Control vehicular parking to prevent interference with public traffic and parking, access by emergency vehicles and Owner's operations.
- B. Monitor parking of construction personnel's vehicles in existing facilities. Maintain vehicular access to and through parking areas.
- C. Prevent parking on or adjacent to access roads or in non-designated areas.

3.02 TRAFFIC CONTROL

- A. Whenever and wherever, in the Engineer's opinion, traffic is sufficiently congested or public safety is endangered, Contractor shall furnish uniformed officers to direct traffic and to keep traffic off the highway area affected by construction operations.
- B. Contractor shall abide by county and state regulations governing utility construction Work.
- C. Traffic control shall be provided according to the Kentucky Department of Highways Manual on Uniform Traffic Control Devices for Streets and Highways.

3.03 FLAGMEN

Provide trained and equipped flagmen to regulate traffic when construction operations or traffic encroach on public traffic lanes.

3.04 FLARES AND LIGHTS

Use flares and lights during hours of low visibility to delineate traffic lanes and to guide traffic.

3.05 HAUL ROUTES

- A. Consult with authorities, establish public thoroughfares to be used for haul routes and site access.
- B. Confine construction traffic to designated haul routes.
- C. Provide traffic control at critical areas of haul routes to regulate traffic and minimize interference with public traffic.

3.06 REMOVAL

Remove equipment and devices when no longer required.

- END OF SECTION -

SECTION 01580

PROJECT IDENTIFICATION AND SIGNS

PART 1 - GENERAL

1.01 SCOPE OF WORK

The Contractor shall provide signs near the site of the Work. The sign shall set forth the description of the Work and the names of the Owner, Engineer, and Contractor.

1.02 RELATED SECTIONS

Section 00710 - General Conditions.

PART 2 - PRODUCTS

2.01 IDENTIFICATION SIGN (4' x 8')

- A. Basic design shall be as required by the Engineer per the attached Drawing.
- B. Colors shall be as selected by the Engineer.
- C. Number Required: three (3)

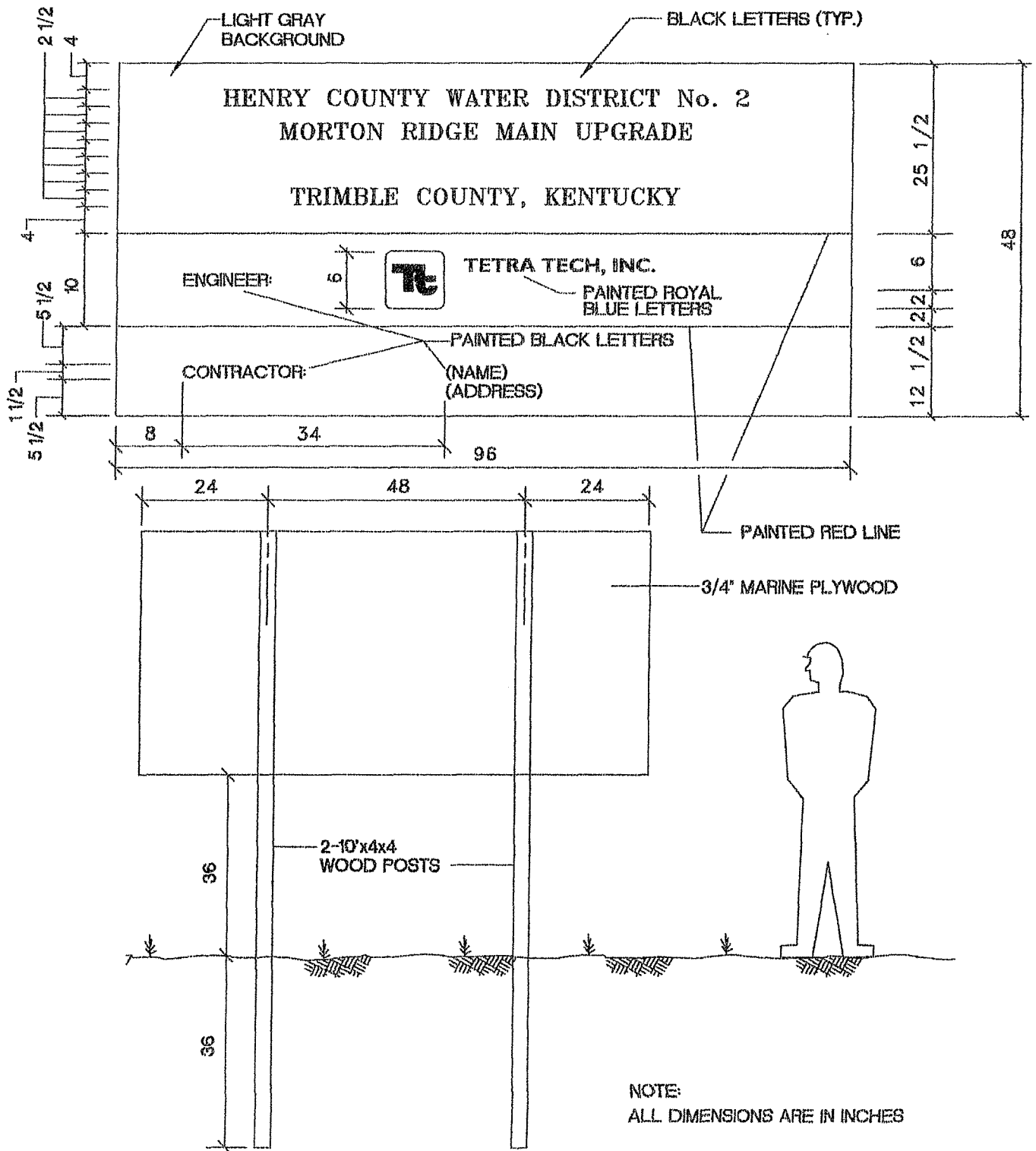
PART 3 - EXECUTION

3.01 INSTALLATIONS

Signs shall be installed at locations specified by the Engineer.

3.02 MAINTENANCE

The signs shall be maintained in good condition until the completion of the project.



CONSTRUCTION SIGN DETAIL

NOT TO SCALE

SECTION 01590

FIELD OFFICES AND SHEDS

PART 1 - GENERAL

1.01 CONTRACTOR'S FIELD OFFICE

Contractor shall establish and maintain a field office on this project and have available at the office a responsible representative who can officially receive communications from the Engineer. The Contractor shall have one (1) complete, up-to-date set of Drawings, Specifications, and Contract Documents (including all Addenda and Change Orders) in this office at all times, available for reference at any time. The office shall be provided with telephone service, toilet facilities, light, air conditioning, and heat; the cost of which shall be borne by the Contractor. Notices, instructions, orders, directions, or other communications from the Engineer, left at this office, shall be considered as received by the Contractor. Contractor shall pay for all permits that may be required. Contractor shall remove field office and storage facilities upon Final Completion, unless otherwise directed by Owner or Engineer.

1.02 RESIDENT REPRESENTATIVE'S FIELD OFFICE

- A. Contractor shall establish and maintain a separate field office trailer (400 square feet of floor space minimum) for the resident representative on this project. The office shall be provided with telephone service, toilet facilities, light, air conditioning, and heat; the cost of which shall be borne by the Contractor. The Contractor shall provide:
1. One (1) plan table approximately 3' x 5' with smooth top and appropriate swivel chair.
 2. Two (2) additional chairs.
 3. Electric lights and outlets as directed.
 4. One (1) desk for general office use with appropriate chair.
 5. One (1) plan rack.
 6. Two (2) four-drawer letter-size metal filing cabinets with a lock.
 7. One (1) trash can (25 gallon).
 8. One (1) OSHA approved first aid kit.
 9. Fire extinguishers and smoke detectors as required by the State and Local building code.
 10. Provide connection to internet service provider with monthly fee paid by Contractor. Internet service shall be via broadband (including DSL) if available in area.

11. Twelve (12) folding chairs and a folding table capable of seating eight (8) people comfortably.
- B. Contractor shall broom and mop field office at least once per week.
- C. Contractor shall provide continuous maintenance of office and services. Maintenance shall be for the duration of the Contract.
- D. Contractor shall remove office upon Final Completion, unless otherwise directed by Owner or Engineer.
- E. Contractor shall pay for all permits that may be required.

- END OF SECTION -

SECTION 01600

MATERIAL AND EQUIPMENT

PART 1 - GENERAL

1.01 STORAGE OF MATERIALS AND EQUIPMENT

All excavated materials and equipment to be incorporated in the Work shall be placed so as not to injure any part of the Work or existing facilities and so that free access can be had at all times to all parts of the Work and to all public utility installations in the vicinity of the Work. Materials and equipment shall be kept neatly piled and compactly stored in such locations as will cause a minimum of inconvenience to public travel and adjoining owners, tenants, and occupants.

1.02 HANDLING AND DISTRIBUTION

- A. The Contractor shall handle, haul, and distribute all materials and all surplus materials on the different portions of the Work, as necessary or required; shall provide suitable and adequate storage room for materials and equipment during the progress of the Work, and be responsible for the protection, loss of, or damage to materials and equipment furnished by him, until the final completion and acceptance of the Work.
- B. Storage and demurrage charges by transportation companies and vendors shall be borne by the Contractor.

1.03 MATERIALS, SAMPLES, INSPECTION

- A. Unless otherwise expressly provided on the Drawings or in any of the other Contract Documents, only new materials and equipment shall be incorporated in the Work. All materials and equipment furnished by the Contractor to be incorporated in the Work shall be subject to the inspection of the Engineer. No material shall be processed or fabricated for the Work or delivered to the Work site without prior concurrence of the Engineer.
- B. As soon as possible after execution of the Agreement, the Contractor shall submit to the Engineer the names and addresses of the manufacturers and suppliers of all materials and equipment he proposes to incorporate into the Work. When shop and working Drawings are required as specified below, the Contractor shall submit prior to the submission of such Drawings, data in sufficient detail to enable the Engineer to determine whether the manufacturer and/or the supplier have the ability to furnish a product meeting the Specification. As requested, the Contractor shall also submit data relating to the materials and equipment he proposes to incorporate into the Work in sufficient detail to enable the Engineer to identify and evaluate the particular product and to determine whether it conforms to the Contract requirements. Such data shall be submitted in a manner similar to that specified for submission of shop and working Drawings.

Material and Equipment
01600-1

- C. Facilities and labor for the storage, handling, and inspection of all materials and equipment shall be furnished by the Contractor. Defective materials and equipment shall be removed immediately from the site of the Work.
- D. If the Engineer so requires, either prior to or after commencement of the Work, the Contractor shall submit samples of materials for such special tests as the Engineer deems necessary to demonstrate that they conform to the Specifications. Such samples, including concrete test cylinders, shall be furnished, taken, stored, packed, and shipped by the Contractor as directed. The Contractor shall furnish suitable molds for making concrete test cylinders. Except as otherwise expressly specified, the Owner shall make arrangements for, and pay for, the tests.
- E. All samples shall be packed so as to reach their destination in good condition, and shall be labeled to indicate the material represented, the name of the building or work and location for which the material is intended, and the name of the Contractor submitting the sample. To ensure consideration of samples, the Contractor shall notify the Engineer by letter that the samples have been shipped and shall properly describe the samples in the letter. The letter of notification shall be sent separate from and should not be enclosed with the samples.
- F. The Contractor shall submit data and samples, or place his orders, sufficiently early to permit consideration, inspection, and testing before the materials and equipment are needed for incorporation in the Work. The consequences of his failure to do so shall be the Contractor's sole responsibility.
- G. When required, the Contractor shall furnish to the Engineer triplicate sworn copies of manufacturer's shop or mill tests (or reports from independent testing laboratories) relative to materials, equipment performance ratings, and concrete data.
- H. After review of the samples, data, etc., the materials and equipment used on the Work shall in all respects conform therewith.

- END OF SECTION -

SECTION 01615

STORAGE

PART 1 - GENERAL

1.01 REQUIREMENTS INCLUDED

- A. General Storage
- B. Enclosed Storage
- C. Exterior Storage
- D. Maintenance of Storage

1.02 RELATED REQUIREMENTS

Division 1 - General Requirements

PART 2 - PRODUCTS (Not Used)

PART 3 - EXECUTION

3.01 GENERAL STORAGE

- A. Store products, immediately on delivery, in accordance with manufacturer's instructions, with seals and labels intact. Protect until installed.
- B. Arrange storage in a manner to provide access for maintenance of stored items and for inspection.

3.02 ENCLOSED STORAGE

- A. Store products, subject to damage by the elements, in substantial weather-tight enclosures.
- B. Maintain temperature and humidity within ranges stated in manufacturer's instructions.
- C. Provide humidity control and ventilation for sensitive products as required by manufacturer's instructions.
- D. Store unpacked and loose products on shelves, in bins, or in neat groups of like items.

Storage
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3.03 EXTERIOR STORAGE

- A. Provide substantial platforms, blocking, or skids, to support fabricated products above ground; slope to provide drainage. Protect products from soiling and staining.
- B. For products subject to discoloration or deterioration from exposure to the elements, cover with impervious sheet material. Provide ventilation to avoid condensation.
- C. Store loose granular materials on clean, solid surfaces such as pavement, or on rigid sheet materials, to prevent erosion and ponding of water.
- D. Provide surface drainage to prevent erosion and ponding of water.
- E. Prevent mixing of refuse or chemically injurious materials.

3.04 MAINTENANCE OF STORAGE

- A. Regularly inspect stored products on a scheduled basis. Maintain a log of inspections, make available to Engineer on request.
- B. Verify that storage facilities comply with manufacturer's product storage requirements.
- C. Verify that manufacturer required environmental conditions are maintained continually.
- D. Verify that surfaces of products exposed to the elements are not adversely affected; that any weathering of finishes is acceptable under requirements of Contract Documents.

3.05 MAINTENANCE OF EQUIPMENT STORAGE

- A. For mechanical and electrical equipment in long-term storage, provide manufacturer's service instructions to accompany each item, with notice of enclosed instructions shown on exterior of package.
- B. Service equipment on a regularly scheduled basis, in accordance with the manufacturer's recommendations, maintaining a log of services; submit as a record document.

- END OF SECTION -

SECTION 01700
CONTRACT CLOSEOUT

PART 1 - GENERAL

1.01 RELATED REQUIREMENTS

- A. Section 01710 – Cleaning/Final Cleaning
- B. Section 01720 - Project Record Documents

1.02 SUBSTANTIAL COMPLETION

- A. Contractor shall submit written certification to Engineer that project is substantially complete and includes a list of major items to be completed or corrected.
- B. Engineer will make an inspection within fourteen (14) days after receipt of certification, together with the Owner's representative.
- C. Should Engineer consider that work is substantially complete:
 - 1. Engineer will prepare and issue a certificate of substantial completion, containing:
 - a. Date of substantial completion.
 - b. Contractor's list of items to be completed or corrected, verified, and amended by Engineer.
 - c. The time within which Contractor shall complete or correct work of listed items.
 - 2. Contractor shall complete work listed for completion or correction, within designated time.
- D. Should Engineer consider that work is not substantially complete:
 - 1. He shall immediately notify Contractor, in writing, stating reasons.
 - 2. Contractor shall complete work, and send second written notice to Engineer, certifying that project, or designated portion of project is substantially complete.
 - 3. Engineer will re-review work.

1.03 FINAL INSPECTION

- A. Contractor shall submit written certification that:
 - 1. Contract Documents have been reviewed.
 - 2. Project has been inspected for compliance with Contract Documents.
 - 3. Work has been completed in accordance with Contract Documents.
 - 4. Equipment and systems have been tested in presence of Owner's representative and are operational.
 - 5. Project is completed and ready for final inspection.
- B. Engineer will make final on-site observation/review within fourteen (14) days after receipt of certification.
- C. Should Engineer consider that work is finally complete in accordance with requirements of Contract Documents, he shall request Contractor to make Contract closeout submittals.
- D. Should Engineer consider that work is not finally complete:
 - 1. He shall notify Contractor, in writing, stating reasons.
 - 2. Contractor shall take immediate steps to remedy the stated deficiencies, and send second written notice to Engineer certifying that work is complete.
 - 3. Engineer will re-review the work.

1.04 FINAL CLEANING UP

The work will not be considered as completed and final payment made until all final cleaning up has been done by the Contractor in a manner satisfactory to the Engineer. See Section 01710 for detailed requirements.

1.05 CLOSEOUT SUBMITTALS

- A. Project Record Documents: in accordance with Section 01720.
- B. Operation and Maintenance Data: in accordance with particular technical specifications and Section 01730.
- C. Guarantees, Warranties, and Bonds: in accordance with particular technical specifications and Section 01740.

1.06 INSTRUCTION

Instruct Owner's personnel in operation of all systems, mechanical, electrical, and other equipment.

1.07 FINAL APPLICATION FOR PAYMENT

Contractor shall submit final applications in accordance with requirements of general conditions.

1.08 FINAL CERTIFICATE FOR PAYMENT

- A. Engineer will issue final certificate in accordance with provisions of general conditions.
- B. Should final completion be materially delayed through no fault of Contractor, Engineer may issue a semi-final certificate for payment.

- END OF SECTION -

SECTION 01710

CLEANING/FINAL CLEANING

PART 1 - GENERAL

1.01 WORK INCLUDED

- A. On a continuous basis, maintain premises free from accumulations of waste, debris, and rubbish, caused by operations.
- B. At completion of work, remove waste materials, rubbish, tools, equipment, machinery, and surplus materials, and clean all sight-exposed surfaces; leave project clean and ready for occupancy.

1.02 RELATED REQUIREMENTS

- A. Section 01045 - Cutting and Patching
- B. Section 01700 - Contract Closeout
- C. Cleaning for Specific Products or Work: Specification section for that work.

1.03 SAFETY REQUIREMENTS

- A. Hazards Control
 - 1. Store volatile wastes in covered metal containers, and remove from premises daily.
 - 2. Prevent accumulation of wastes which create hazardous conditions.
 - 3. Provide adequate ventilation during use of volatile or noxious substances.
- B. Conduct cleaning and disposal operations to comply with local ordinances and anti-pollution laws.
 - 1. Do not burn or bury rubbish and waste materials on project site without written permission from the Owner.
 - 2. Do not dispose of volatile wastes such as mineral spirits, oil, or paint thinner in storm or sanitary drains.
 - 3. Do not dispose of wastes into streams or waterways.

PART 2 - PRODUCTS

2.01 MATERIALS

Use only cleaning materials recommended by manufacturer of surface to be cleaned.

PART 3 - EXECUTION

3.01 DURING CONSTRUCTION

- A. Execute cleaning to ensure that building, grounds, and public properties are maintained free from accumulations of waste materials and rubbish.
- B. Maintain public roads and all paved surfaces free from mud, dirt or other debris. Contractor shall have on-site mechanical broom to keep these areas cleaned daily (minimum) or as needed.
- C. Wet down dry materials and rubbish to allay dust and prevent blowing dust.
- D. At reasonable intervals during progress of work, clean site and public properties, and dispose of waste materials, debris, and rubbish.
- E. Provide on-site containers for collection of waste materials, debris, and rubbish.
- F. Remove waste materials, debris, and rubbish from site and legally dispose of at public or private dumping areas off Owner's property.
- G. Handle materials in a controlled manner with as few handlings as possible; do not drop or throw materials from heights.
- H. The Contractor shall thoroughly clean all materials and equipment installed.

3.02 FINAL CLEANING

- A. This work consists of the final site clean-up prior to Contractor demobilization. Subsequent to completion of the work, the Contractor shall clean up the entire site to remove all loose trash, debris, and vestiges of his work. The Contractor shall clean up all areas he has worked or used for staging and/or storage. A site walkover shall be conducted by the Engineer and Contractor. All trash, debris, and other materials shall be removed so to leave the site in a better condition than existing prior to commencement of the work.
- B. Employ experienced workmen, or professional cleaners as needed, for final cleaning.
- C. In preparation for substantial completion, conduct final inspection of sight-exposed interior and exterior surface, and of concealed spaces.

Cleaning/Final Cleaning
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- D. Repair, patch, and touch up marred surfaces to specified finish, to match adjacent surfaces.
- E. Broom clean paved surfaces; rake clean other surfaces of grounds.
- F. Maintain cleaning until project, or portion thereof, is occupied by Owner.
- G. The Contractor shall restore or replace existing property or structures as promptly and practicable as work progresses.

- END OF SECTION -

Cleaning/Final Cleaning
01710-3

SECTION 01720

PROJECT RECORD DOCUMENTS

PART 1 - GENERAL

1.01 RELATED SECTIONS

- A. General Conditions
- B. Section 01050 – Surveying
- B. Section 01300 – Submittals

1.02 MAINTENANCE OF DOCUMENTS

- A. Maintain at job site, one copy of:
 - 1. Contract Drawings;
 - 2. Specifications;
 - 3. Addenda;
 - 4. Reviewed Shop Drawings;
 - 5. Change Orders; and
 - 6. Other modifications to Contract.
- B. Store documents in approved location, apart from documents used for construction.
- C. Provide files and racks for storage of documents.
- D. Maintain documents in clean, dry, legible condition.
- E. Do not use record documents for construction purposes.
- F. Make documents available at all times for inspection by Engineer and Owner.

1.03 MARKING DEVICES

Provide colored pencil or felt-tip marking pen for all marking.

1.04 RECORDING

- A. Label each document "PROJECT RECORD" in 2-inch high printed letters.
- B. Keep record documents current.

- C. Do not permanently conceal any work until required information has been recorded.
- D. Contract Drawings: legibly mark to record actual construction:
 - 1. Horizontal and vertical location of underground utilities and appurtenances referenced to permanent surface improvements.
 - 2. Location of internal utilities and appurtenances concealed in construction referenced to visible and accessible features of structure.
 - 3. Field changes of dimension and detail.
 - 4. Changes made by Change Order or field order.
 - 5. Details not on original Contract Drawings.
- E. Specifications and Addenda: legibly mark up each section to record:
 - 1. Manufacturer, trade name, catalog number, and supplier of each product and item of equipment actually installed.
 - 2. Changes made by Change Order or field order.
 - 3. Other matters not originally specified.
- F. Shop Drawings: Maintain as record documents; legibly annotate Shop Drawings to record changes made after review.

1.05 SUBMITTAL

- A. At completion of project, deliver record documents to Engineer.
- B. Accompany submittal with transmittal letter, in duplicate, containing:
 - 1. Date;
 - 2. Project title and Contract number;
 - 3. Contractor's name and address;
 - 4. Title and sheet number of each record document;
 - 5. Certification that each document as submitted is complete and accurate; and
 - 6. Signature of Contractor or his authorized representative.

- END OF SECTION -

Project Record Documents
01720-2

SECTION 01730

OPERATION AND MAINTENANCE DATA

PART 1 - GENERAL

1.01 WORK INCLUDED

- A. Compile product data and related information appropriate for Owner's maintenance and operation of equipment furnished under the Contract. Prepare operation and maintenance data as specified.
- B. Instruct Owner's personnel in the maintenance and operation of equipment and systems.
- C. In addition to maintenance and operations data, the manufacturer's printed recommended installation practice shall also be included. If not part of the operations and maintenance manual, separate written installation instructions shall be provided, serving to assist the Contractor in equipment installation.

1.02 RELATED REQUIREMENTS

- A. Section 01300 - Submittals
- B. General Conditions

1.03 OPERATION AND MAINTENANCE MANUAL

- A. Every piece of equipment furnished and installed shall be provided with complete operation and maintenance manual. These shall be detailed in instructions to the Owner's personnel. They shall be attractively bound for the Owner's records.
- B. The manuals shall be submitted to the Engineer for review as to adequacy and completeness. Provide six (6) copies each.

1.04 FORM OF SUBMITTALS

- A. Prepare data in the form of an instructional manual for use by Owner's personnel.
- B. Format
 - 1. Paper Size: 8½" x 11"
 - 2. Data: Manufacturer's printed data, or neatly typewritten.

3. Drawings:
 - (a) Provide reinforced punched binder tab, bind with text.
 - (b) Fold large drawings to the size of the data pages where feasible.
 - (c) For flow or piping diagrams that cannot be detailed on the standard size drawings, a larger, appropriate size drawing may be submitted.
4. Provide tab sheet for each separate product, or each piece of operating equipment.
 - (a) Provide typed description of product, and major component parts of equipment.
 - (b) Provide indexed tabs.
5. Cover: Identify each volume with types or printed title "OPERATION AND MAINTENANCE MANUAL". List:
 - (a) Title of project.
 - (b) Identity separate equipment as applicable.
 - (c) Identify general subject matter covered in the manual.

C. Binders

1. Commercial quality, durable and cleanable, 3-hole, 3-inch or 4-inch post type binders with oil and moisture resistant hard covers.
2. When multiple binders are used, correlate the data into related consistent grouping.
3. Labeled on the front cover and side of each binder shall be the name of the Plant, the Contractor Number and Volume Number.

1.05 CONTENT OF MANUAL

- A. Neatly typewritten table of contents for each volume, arranged in systematic order.
1. Contractor, name of responsible principal, address and telephone number.
 2. A list of each equipment required to be included, indexed to the content of the volume.
 3. List, with each equipment, the name, address and telephone number of:
 - (a) Supplier of equipment.
 - (b) Subcontractor or installer.
 - (c) Maintenance contractor, as appropriate.
 - (d) Identify the area of responsibility of each.
 - (e) Local source of supply for parts and replacement.

Operation and Maintenance Data
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4. Identify each product by product name and other identifying symbols as set forth in Contract Documents.
- B. Equipment Data
1. Include only those sheets which are pertinent to the specific equipment. References to other sizes and type or models of similar equipment shall be deleted or lined out.
 2. Annotate each sheet to:
 - (a) Clearly identify the specific equipment or part installed.
 - (b) Clearly identify the data applicable to the installation.
 - (c) Provide a parts list for all new equipment items, with catalog numbers and other data necessary for ordering replacement parts.
 - (d) Delete references to inapplicable information.
 3. Clear and concise instructions for the operation, adjustment, lubrication, and other maintenance of the equipment, including a lubrication chart.
- C. Drawings
1. Supplement equipment data with drawings as necessary to clearly illustrate:
 - (a) Relations of component parts of equipment and systems.
 - (b) Control and flow diagrams.
 2. Coordinate drawings with information in project record documents to assure correct illustration of completed installation.
 3. Do not use project record documents as maintenance drawings.
- D. Written text, as required to supplement equipment data for the particular installation:
1. Organize in a consistent format under separate headings for different procedures.
 2. Provide a logical sequence of instructions for each procedure.
- E. Copy of each warranty, bond, and service contract issued: Provide information sheet for Owner's personnel.
1. Proper procedures in the event of failure.
 2. Instances which might affect the validity of warranties or bonds.

- F. These manuals shall be delivered to the Engineer at the same time that the equipment to which it pertains is delivered at the site. The manuals must be approved by the Engineer before final payment on the equipment is made.

1.06 MAINTENANCE AND LUBRICATION SCHEDULES

The Contractor's attention is directed to the general conditions and Section 01300 for all requirements relative to the submission of shop drawings for the mechanical equipment. For all mechanical and electrical equipment furnished, the Contractor shall provide a list including the equipment name, and address and telephone number of the manufacturer's representative and service company so that service and/or spare parts can be readily obtained. In addition, a maintenance and lubrication schedule for each piece of equipment shall be submitted along with shop drawings. Submission shall be in six (6) copies. The lubrication schedule shall include the types of lubricant required for each schedule item.

- END OF SECTION -

SECTION 01740

WARRANTIES AND BONDS

PART 1 - GENERAL

1.01 WORK INCLUDED

- A. Compile specified warranties and bonds.
- B. Compile specified service and maintenance contracts.
- C. Co-execute submittals when required.
- D. Review submittals to verify compliance with Contract Documents.

1.02 RELATED REQUIREMENTS

- A. Bid Bond
- B. Performance and Payment Bonds
- C. Guaranty
- D. General Warranty of Construction
- E. Warranties and bonds required for specific products: as listed in other Specification sections.

1.03 EXECUTION OF BONDS

- A. Performance and Payment Bonds shall be executed and in full effect at the same time as the Agreements are executed.
- B. Warranty Bond shall be issued with final application for payment and effective the date of Substantial Completion.

1.04 WARRANTY BONDS OR CORPORATE GUARANTEES IN LIEU OF EXPERIENCE RECORD

- A. When specifically requested in the products and installation general provisions of a Specification section for a particular piece of equipment or product, a record of five (5) years of successful full-scale operation shall be required from the equipment manufacturer. This record of full-scale operation shall be from existing facilities utilizing the equipment or product specified, in an application similar to the application intended for this project.

- B. The manufacturer shall certify in writing to the Contractor that it has the required record of successful full-scale operation. This certification shall be submitted by the Contractor with his construction materials and/or equipment data list. In the event the manufacturer cannot provide the five (5) year certification of experience to the Contractor, the Contractor shall furnish within thirty (30) days after the notice of award, a warranty bond of corporation guarantee from the equipment manufacturer written in the name of the Contractor and acceptable to the Owner. The warranty bond or corporate guarantee shall be kept in force for five (5) years from the date of substantial completion of the Contract, less the number of years of experience the manufacturer may be able to certify to the Engineer. As a minimum, the bond or guarantee shall be in force for one (1) year after the date of substantial completion of the Contract. The warranty bond shall be written in an amount equivalent to the manufacturer's quotation, the Contractor's installation cost plus 100 percent (100%). The warranty bond or corporate guarantee will assure the Owner that, if in the judgement of the Engineer, the equipment does not perform its specified function, the Contractor shall remove the equipment and install equipment that will perform the specified function and the work by the Contractor shall be paid for by the warranty bond or corporate guarantee.

1.05 SUBMITTALS REQUIREMENTS

- A. Assemble warranties, bonds, and service and maintenance contracts, executed by each of the respective manufacturers, suppliers, and subcontractors.
- B. Furnish two (2) original signed copies.
- C. Table of Contents: neatly typed, in orderly sequence. Provide complete information for each item:
1. Product, equipment, or Work item.
 2. Manufacturer name, address, and telephone number.
 3. Supplier name, address, and telephone number.
 4. Contractor name, address, and telephone number.
 5. Scope.
 6. Date of beginning of warranty, bond, or service and maintenance contract.
 7. Duration of warranty, bond, or service and maintenance contract.
 8. Provide information for Owner's personnel:
 - a. Proper procedure in case of failure.
 - b. Instances that might affect the validity of warranty or bond.

1.06 FORM OF SUBMITTALS

- A. Prepare in duplicate packets.
- B. Format
 - 1. Size 8½" x 11", punch sheets for 3-ring binder; fold larger sheets to fit into binders.
 - 2. Cover: identify each packet with typed or printed title "WARRANTIES AND BONDS". List:
 - a. Title of project.
 - b. Date of project.
 - c. Contractor name, address, and telephone number.
- C. Binders: commercial quality, 3-ring, with durable and cleanable plastic covers.

1.07 TIME OF SUBMITTALS

- A. For equipment or component parts of equipment put into service during progress of construction: submit documents within ten (10) days after inspection and acceptance.
- B. Otherwise, make submittals within ten (10) days after date of substantial completion, prior to final request for payment.
- C. For items of work, where acceptance is delayed materially beyond the date of substantial completion, provide updated submittal within ten (10) days after acceptance, listing the date of acceptance as the start of the warranty period.

1.08 SUBMITTALS REQUIRED

Submit warranties, bonds, and service and maintenance contracts as specified in the respective sections of the Specifications. Additionally, the Contractor shall warrant the entire Contract, including all concrete, paving, building, plumbing, HVAC, mechanical and electrical equipment to be free from defects in design and installation for one (1) year from the date of startup. In the event a component fails to perform as specified or is proven defective in service during the warranty period, the Contractor shall repair the defect without cost to the Owner.

- END OF SECTION -

SECTION 01750

SPARE PARTS AND MAINTENANCE MATERIALS

PART 1 - GENERAL

1.01 GENERAL

- A. Contractor shall furnish spare parts and maintenance materials as specified in the individual Sections.
- B. Parts and materials shall be furnished in manufacturers' unopened cartons, boxes, crates, or other protective covering suitable for preventing corrosion or deterioration for the maximum length of storage which may be normally anticipated. They shall be clearly marked and identified as to contents and storage instructions.
- C. During construction, store parts in buildings or trailers with floor, roof, and closed sides, and in accordance with manufacturers' recommendations. Protect from weather, condensation, and humidity.
- D. Parts and materials shall be delivered to the Owner upon completion of the work or when the Owner assumes occupancy. Contractor shall then place them in permanent storage rooms or areas approved by the Owner.
- E. Provide a letter of transmittal including the following:
 - 1. Date of letter and transfer of parts and material,
 - 2. Contract title and number,
 - 3. Contractor's name and address,
 - 4. A complete inventory of the parts and material, listing the applicable Specification Section for each, and
 - 5. A place for the Owner to sign and signify receipt of the parts and materials.
- F. Contractor shall be fully responsible for loss or damage to parts and materials until they are transmitted to the Owner.

- END OF SECTION -

DIVISION 02

SITE WORK

SECTION 02110

SITE CLEARING

PART 1 - GENERAL

1.01 SUMMARY

- A. Clear site within construction limits of plant life and grass.
- B. Remove root system of trees and shrubs.
- C. Remove surface debris.
- D. Consult with KIPDA and U.S. Fish and Wildlife Service regarding tree removal and preservation of the endangered Indiana Bat.

1.02 REGULATORY COMPLIANCE

Conform to applicable local codes and ordinances for disposal of debris.

PART 2 - PRODUCTS (NOT USED)

PART 3 - EXECUTION

3.01 REMOVAL OF EXISTING TREES AND OTHER VEGETATION

- A. Reasonable care shall be taken during construction to avoid damage to vegetation. Ornamental shrubbery and tree branches shall be temporarily tied back, where appropriate, to minimize damage. Trees that receive damage to branches shall be trimmed of those branches to improve the appearance of the tree. Tree trunks receiving damage from equipment shall be treated with a tree dressing. The Contractor shall not cut or injure any trees or other vegetation outside right-of-way or easement line and outside areas to be cleared, as indicated on the drawings, without written permission from the Engineer. The Contractor shall be responsible for all damages done outside these lines.
- B. The Engineer shall designate which trees are to be removed within permanent and temporary easement lines or right-of-way lines.

3.02 CLEARING

- A. From areas to be cleared, the Contractor shall cut or otherwise remove all trees, brush, and other vegetable matter such as snags, bark, and refuse. The ground shall be cleared to the width of the permanent easement or right-of-way unless otherwise directed by the Engineer.

Site Clearing
02110-1

- B. Except where clearing is done by uprooting with machinery, trees, stumps, and stubs to be cleared shall be cut as close to the ground surface as practicable, but no more than six (6) inches above the ground surface for small trees and 12 inches for larger trees.
- C. Elm bark shall be either buried at least one (1) foot deep or burned in suitable incinerators off site with satisfactory antipollution controls and fire prevention controls, to prevent the spread of Dutch Elm disease and as required by applicable laws.

3.03 GRUBBING

From areas to be grubbed, the Contractor shall remove completely all stumps, remove to a depth of 12 inches all roots larger than 3-inch diameter, and remove to a depth of six (6) inches all roots larger than 1/2-inch diameter. Such depths shall be measured from the existing ground surface or the proposed finished grade, whichever is lower.

3.04 STRIPPING OF TOPSOIL

Prior to starting general excavation, strip topsoil to a depth of six (6) inches or to depths required by the Engineer. Do not strip topsoil in a muddy condition and avoid mixture of subsoil. Stockpile the stripped topsoil within easement or right-of-way lines for use in finish grading and site restoration. Topsoil stockpiled shall be free from trash, brush, stones over two (2) inches in diameter and other extraneous material.

3.05 PROTECTION

- A. Protect plant growth and features remaining as final landscaping.
- B. Protect bench marks and existing work from damage or displacement.
- C. Maintain designated site access for vehicle and pedestrian traffic.

3.06 OPEN BURNING OR CLEARING DEBRIS

- A. Natural growth from land clearing may be burned in accordance with the open burning regulations administered by the Kentucky Division for Air Quality and any local regulations. The Kentucky Division for Air Quality regulations may be found at 41 KAR 63:005 and stipulate that extraneous material, such as tires or heavy oil, which tends to produce dense smoke, may not be used to cause ignition or aid combustion. In addition, burning must be done on sunny days with mild winds. Finally, the Contractor must take all necessary precautions to ensure that surrounding areas or structures are not ignited and to follow all fire bulletins issued by the Kentucky Division of Forestry.
- B. Burning clearing debris shall be conducted at locations agreed upon by the Owner and Engineer.

- C. At a minimum all burning shall be a minimum of 100 feet from the remaining tree line or adjacent structures. The Contractor shall confirm the location for the burning with the Owner and Engineer prior to commencement of the activity.
- D. No burning shall occur or will be allowed over the weekend periods.
- E. The Contractor shall have personnel on-site continuously monitoring the burn area during burning activities. The Contractor shall have on-site and ready to use appropriate fire suppression equipment.

3.07 DISPOSAL

- A. All materials resulting from clearing and grubbing and not scheduled for reuse shall become the property of the Contractor and shall be suitably disposed of off-site, unless otherwise directed by the Engineer, in accordance with all applicable laws, ordinances, rules, and regulations.
- B. Such disposal shall be performed as soon as possible after removal of the material and shall not be left until the final period of cleaning up.

- END OF SECTION -

SECTION 02150

SHORING AND UNDERPINNING

PART 1 - GENERAL

1.01 SUMMARY

- A. Shore and brace sidewalls in deep excavations with steel sheet, soldier piles or timber lagging as required to protect existing buildings, utilities, roadways, and improvements. Prevent cave-ins, loss of ground, or damage to people and property.
- B. Maintain shoring and bracing during construction activities, and remove shoring and bracing if practical when construction and filling is complete.
- C. The Contractor is solely responsible for any determination necessary for the proper sizing of shoring and bracing.

1.02 SAFETY

Comply with all federal, state, and local codes and regulations regarding safety. Use experienced installers. Deliver, handle, and store materials in accordance with manufacturer's instructions.

PART 2 - PRODUCTS

2.01 MATERIALS

- A. Sheet Steel: Heavy-gauge steel sheet suitable for service.
- B. Soldier Piles: Steel H-beams in serviceable condition.
- C. Timber Lagging: Heavy timber pressure treated with wood preservative.

PART 3 - EXECUTION

3.01 INSTALLATION

- A. Install in proper relation with adjacent construction. Coordinate with work of other sections.
- B. Locate shoring and bracing to avoid permanent construction. Anchor and brace to prevent collapse.

- END OF SECTION -

Shoring and Underpinning
02150-1

SECTION 02211

ROUGH CLEANUP

PART 1 - GENERAL

1.01 WORK INCLUDED

A. Rough (preliminary) Clean-up

On a daily basis, maintain the work area free from accumulations of waste, debris, excess rock and excavated material, downed trees and brush resulting from line installation operations. Repair fences directly following backfilling of trench. Generally restore contours as directed by Engineer.

B. Final Clean-up

Fully restore contours, seed or sod, fertilize, and straw mulch as directed by Engineer. Restore property to original condition. Refer to Section 01710.

1.02 RELATED SECTIONS

A. Section 01710 – Cleaning/Final Cleaning

B. Section 02221 - Rock Removal

C. Section 02222 - Excavation

D. Section 02225 - Excavating, Backfilling, and Compacting for Utilities

1.03 PROTECTION

A. Protect trees and other features remaining as portion of final landscaping.

B. Protect bench marks, existing structures, fences, roads, sidewalks, and other features not designated for demolition.

C. Protect above or below grade utilities which are to remain.

D. Contractor shall be responsible for repairing any damage to those items not designated for demolition or removal in a manner satisfactory to the Owner at no additional cost to the Owner.

PART 2 - PRODUCTS

2.01 MATERIALS

Rough Cleanup
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A. Topsoil

Topsoil shall be fertile, natural soil, typical of the locality, free from large stones, roots, sticks, peat, weeds, and sod, and obtained from naturally well-drained areas. It shall not be excessively acid or alkaline nor contain other toxic material harmful to plant growth. Topsoil stockpiled under other sections or divisions may be used, but the Contractor shall furnish additional topsoil at his own expense, if required.

B. Subsoil

Subsoil shall be excavated material, graded free of lumps larger than 12 inches, rocks larger than 12 inches, and debris.

PART 3 - EXECUTION

3.01 PREPARATION

- A. Identify required lines, levels, contours, and datum.
- B. Identify known below grade utilities. Stake and flag locations.
- C. Identify and flag above grade utilities.
- D. Maintain and protect existing utilities remaining which pass through work area.
- E. Upon discovery of unknown utility or concealed conditions, discontinue affected work; notify Engineer.

3.02 TOPSOIL EXCAVATION

- A. Excavate topsoil from areas to be further excavated, and stockpile in area designated on site by the Engineer.
- B. Do not excavate wet topsoil.
- C. Stockpile topsoil to depth not exceeding eight (8) feet.

3.03 SUBSOIL EXCAVATION

- A. Excavate subsoil from indicated areas and stockpile in area designated on site. Excess subsoil may be reused according to Section 02225, Excavating, Backfilling, and Compacting for Utilities.
- B. Do not excavate wet topsoil.
- C. Stockpile topsoil to depth not exceeding eight (8) feet.

- D. When excavation through roots is necessary, perform work by hand and cut roots with a sharp axe.

- END OF SECTION -

Rough Cleanup
02211-3

SECTION 02221

ROCK REMOVAL

PART 1 - GENERAL

1.01 SUMMARY

- A. The Contractor shall excavate rock, if encountered, as required to perform the required work, and shall dispose of the excavated material, and shall furnish acceptable material for backfill in place of the excavated rock.
- B. In general, rock in pipe trenches shall be excavated so as to be not less than six (6) inches from the pipe after it has been laid.
- C. Use of explosives for rock removal shall not be permitted. Rock shall be excavated by means of rock trencher, or by hoe ram in areas field-approved by the Owner.

1.02 SAFETY

- A. Conform to all federal, state, and local codes and regulations regarding safety.

1.03 RELATED SECTIONS

- A. Section 02222 – Excavation
- B. Section 02225 – Excavating, Backfilling, and Compacting for Utilities

PART 2 - PRODUCTS

2.01 MATERIALS

- A. Rock Definition

Solid mineral material that cannot be removed with a power shovel.

PART 3 - EXECUTION

3.01 EXECUTION - RESERVED

- END OF SECTION -

Rock Removal
02221-1

SECTION 02222

EXCAVATION

PART 1 - GENERAL

1.01 SUMMARY

- A. Structure Excavation
- B. Shoring Excavation
- C. Trench Excavation
- D. Lagoon Excavation
- E. Boring Pit and Receiving Pit Excavation

1.02 RELATED SECTIONS

- A. Section 02221 - Rock Removal
- B. Section 02225 - Excavating, Backfilling, and Compacting for Utilities

1.03 SAFETY

- A. Conform to all federal, state, and local codes and regulations regarding safety.
- B. Protect excavations by shoring, bracing, sheet piling, underpinning, or other methods required to prevent cave-in or loose soil from falling into excavation.
- C. Underpin adjacent structures which may be damaged by excavation work, including service utilities and pipe chases.
- D. Notify Engineer of unexpected subsurface conditions and discontinue affected work in area until notified to resume work.
- E. Protect bottom of excavations and soil adjacent to and beneath foundations from frost.
- F. Grade excavation top perimeter to prevent surface water run-off into excavation.
- G. Contractor shall provide ample means and devices with which to intercept any water entering the excavation area.

1.04 ROCK EXCAVATION

Rock removal should be in accordance with Section 02221.

Excavation
02222-1

PART 2 - PRODUCTS

2.01 MATERIALS

A. Subsoil

Excavated material, graded free of lumps larger than 12 inches, rocks larger than 12 inches, and debris.

B. Pea Gravel

Mineral aggregate graded 1/4 inch to 5/8 inch, free of soil, subsoil, clay, shale, or foreign matter.

PART 3 - EXECUTION

3.01 CLASSIFICATION

- A. Without regard to the materials encountered, all trenching, roadway and drainage excavation is unclassified and the Owner will consider it Unclassified Excavation. Any reference to rock, earth, or any other material on the Drawings or cross sections, whether in numbers, words, letters, or lines, is solely for the owner's information and is not an indication of classified excavation or the quantity of either rock, earth, or any other material involved. The Bidder must draw his own conclusions as to the conditions to be encountered. The Owner does not give any guarantee as to the accuracy of the data and will not consider any claim for additional compensation when the materials encountered are not in accord with the classification shown.

3.02 PREPARATION

Identify required lines, levels, contours, and datum.

3.03 EXCAVATION

- A. All unclassified excavation shall be done in accordance with Section 204 – Roadway and Drainage Excavation in the Kentucky Transportation Cabinet's *Standard Specifications for Road and Bridge Construction*, Latest Edition.
- B. Reasonable care shall be taken during construction to avoid damage to vegetation. Ornamental shrubbery and tree branches shall be temporarily tied back, where appropriate, to minimize damage. Trees that receive damage to branches shall be trimmed of those branches to improve the appearance of the tree. Tree trunks receiving damage from equipment shall be treated with a tree dressing.
- C. Before excavation and grading is commenced for buildings, structures, roads, parking areas, or other work described hereinafter or before material is removed

from borrow pits, the topsoil shall be removed from the areas affected and stockpiled.

- D. Excavate subsoil required for construction operations and other work.
- E. Contractor is responsible to adequately brace open cuts and protect workmen and equipment from cave-in, in accordance with all federal, state, and local regulations.
- F. Remove lumped subsoil, boulders, and rock up to 1/3 cu. yd., measured by volume.
- G. Correct unauthorized excavation at no cost to Owner.
- H. Fill over-excavated areas under structure bearing surfaces in accordance with Section 02225 – Excavating, Backfilling, and Compacting for Utilities or as directed by Engineer.
- I. Stockpile excavated material in area designated on site.

3.03 DEWATERING

- A. The Contractor, at his own expense, shall provide adequate facilities for promptly and continuously removing water from all excavation. Additionally, no additional payment will be made for dewatering associated with leakage from any existing facilities during the construction.
- B. To ensure proper conditions at all times during construction, the Contractor shall provide and maintain ample means and devices (including spare units kept ready for immediate use in case of breakdowns) with which to remove promptly and dispose properly of all water entering trenches and other excavations. Such excavation shall be kept dry until the structures, pipes, and appurtenances to be built therein have been completed to such extent that they will not be floated or otherwise damaged.
- C. All water pumped or drained from the work shall be disposed of in a suitable manner without undue interference with other work, damage to pavements, other surfaces, or property. Suitable temporary pipes, flumes, or channels shall be provided for water that may flow along or across the site of the work.
- D. If necessary, the Contractor shall dewater the excavations by means of an efficient drainage wellpoint system which will drain the soil and prevent saturated soil from flowing into the excavation. The wellpoints shall be designed especially for this type of service. The pumping unit shall be designed for use with the wellpoints, and shall be capable of maintaining a high vacuum and of handling large volumes of air and water at the same time.
- E. The installation of the wellpoints and pump shall be done under the supervision of a competent representative of the manufacturer. The Contractor shall do all special work such as surrounding the wellpoints with sand or gravel or other work which is necessary for the wellpoint system to operate for the successful dewatering of the excavation.

Excavation
02222-3

3.05 UNAUTHORIZED EXCAVATION

If the bottom of any excavation is taken out beyond the limits indicated or prescribed, the resulting void shall be backfilled at the Contractor's expense with thoroughly compacted crushed stone in accordance with Section 02225, or with 4000 psi concrete, if the excavation was for a structure.

3.06 EXCAVATION / DISPOSAL OF UNSUITABLE MATERIAL

- A. If material unsuitable for foundation (in the opinion of the Engineer) is found at or below the grade to which excavation would normally be carried in accordance with the drawings and/or specifications, the Contractor shall remove such material to the required width and depth and replace it with thoroughly compacted, screened gravel, select bank-run gravel, fine aggregate, or concrete as directed.
- B. No excavated materials shall be removed from the site of the work or disposed of by the Contractor except as directed or permitted.
- C. Surplus excavated materials suitable for backfill shall be used to backfill normal excavations in rock or to replace other materials unacceptable for use as backfill; shall be neatly deposited and graded so as to make or widen fills, flatten side slopes, or fill depressions. All work shall be as directed or permitted and without additional compensation.
- D. Surplus excavated materials not needed as specified above shall be hauled away and dumped by the Contractor, at his expense, at appropriate locations, and in accordance with arrangements made by him.

3.07 EXCESS MATERIAL

Disposal of excess material shall be the responsibility of the Contractor. The Contractor shall determine the best method and area for disposal and obtain all permits and required permission. Disposal on site will not be permitted unless specifically indicated on the Drawings.

3.08 EXISTING UTILITIES AND OTHER OBSTRUCTIONS

Prior to the commencement of construction on the project, the Contractor shall contact the Owner and utility companies whose lines, above and below ground, may be affected during construction and verify the locations of the utilities as shown on the drawings. The Contractor shall ascertain from said parties if he will be allowed to displace or alter, by necessity, those lines encountered or replace those lines disturbed by accident during construction, or if the parties themselves are only permitted by policy to perform such work. If the Contractor is permitted to perform such work, he shall leave the lines in as good condition as were originally encountered and complete the work as quickly as possible. All such lines or underground structures damaged or molested in the construction shall be replaced at the Contractor's expense, unless in the opinion of the Engineer, such damage was caused through no fault of the Contractor.

Excavation
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- END OF SECTION -

Excavation
02222-5

SECTION 02225

EXCAVATING, BACKFILLING, AND COMPACTING FOR UTILITIES

PART 1 - GENERAL

1.01 SUMMARY

- A. Excavation of Trenches
- B. Bedding of Pipe
- C. Backfilling Trenches
- D. Installing Identification Tape

1.02 RELATED SECTIONS

- A. Section 02150 - Shoring and Underpinning
- B. Section 02221 - Rock Removal
- C. Section 02610 - Pipe and Fittings

PART 2 - PRODUCTS

2.01 BEDDING AND BACKFILLING STONE

- A. Crushed Stone material shall conform to the Kentucky Bureau of Highways Standard Specifications.
- B. Bedding Stone: No. 9 Crushed Stone.
- C. Backfill Stone: No. 9 Crushed Stone.

PART 3 - EXECUTION

3.01 GENERAL REQUIREMENTS

- A. Trenching may be accomplished by means of a backhoe, trenching machine or by hand depending on the construction area. Blasting of rock for the trench will not be permitted. At the Contractor's option, trenching by a trenching machine or by backhoe is acceptable except as noted below:
 - 1. Where the pipeline parallels a state highway and is being installed within the limits of the shoulder, a trenching machine must be used whenever practicable.

Excavating, Backfilling, and Compacting for Utilities
02225-1

2. Where the pipe line is being constructed close to other utilities, structures, building, or large trees, and it is reasonable to anticipate possible damage from the use of a backhoe, then trenching shall be made by hand methods.

B. Clearing

All trees, stumps, bushes, shrubbery, and abandoned concrete or masonry structures within the limits of the trench shall be removed by the Contractor and disposed of in a manner satisfactory to the land owner and in accordance with federal, state, and local regulations. All clearing work shall be considered as incidental to the cost of laying pipe.

C. Bracing and Sheeting

In areas of unstable soils, bracing and sheeting shall be provided to adequately protect the workers during pipeline installation.

1. All requirements of the Occupational Safety and Health Act (OSHA) shall be met during trenching and backfill operations.
2. When sheeting and bracing are required, the trench width shall not be less than specified herein. As backfill is placed, the sheeting shall be withdrawn in increments not exceeding one (1) foot and the void left by the withdrawn sheeting shall be filled and compacted.
3. The Engineer will not be responsible for determining requirements for bracing or sheeting.

- D. Excavated materials shall be piled in a manner that will not endanger the Work and will avoid obstructing driveways and sidewalks. Gutters shall be kept clear or other satisfactory provisions made for street and roadway drainage.

- E. The maximum amount of a continuous open/exposed trench that shall be allowed prior to installing the pipe and backfilling is 500 linear feet. No excavation shall remain open for more than four (4) calendar days.

3.02 TRENCHING

A. General

1. The Contractor shall perform all excavation of every description and of whatever substances encountered, including clearing over the pipe line route. All excavations for the pipeline shall be open-cut except at paved city and county roads, state and federal highways, and railroads which shall be bored unless otherwise approved by Engineer. Banks of excavations shall be kept as nearly vertical as possible.
2. Trench widths at the top of the pipe shall not be less than or greater than that given in the following table:

Excavating, Backfilling, and Compacting for Utilities
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| ALLOWABLE TRENCH WIDTHS | | |
|---------------------------|---------------------------|---------------------------|
| Pipe Diameter (inches) | Minimum Width (inches) | Maximum Width (inches) |
| 4 & less | 16 | 28 |
| 6 | 18 | 30 |
| 8 | 20 | 32 |
| 10 | 22 | 34 |
| 12 | 24 | 36 |
| 14 | 26 | 38 |
| 16 | 28 | 40 |
| 18 | 30 | 42 |
| 20 | 32 | 44 |

B. Trench Depth

1. The trench shall be excavated to a depth sufficient to provide 30 inches of cover over the pipe in non-traffic areas and 36 inches in traffic areas. In addition, excavation shall be carried to a minimum of six (6) inches below pipe grade in rock.
2. When it is necessary to install a pipeline below a roadway ditch, it shall be provided with 48 inches of cover unless otherwise approved by Engineer.

C. All excavation will be classified as unclassified. Unclassified excavation shall include all material encountered during excavation of trench to proper depth and width. It includes the removal of all slate, hardpan, soil, pavements, loess and solid rock and any other material which may be encountered in the trench.

D. Blasting for excavation will not be permitted.

3.03 WATER PIPE BEDDING

- A. The trench shall be excavated to a depth to allow a minimum of 30 inches cover over the top of the pipe.
- B. Bedding material, in earth excavation areas, shall be soil free from rocks, debris, or other foreign material.
- C. Bedding material, in rock excavation or vehicular traffic (including driveways) areas, shall be No. 9 Crushed Stone. The trench shall be over-excavated six (6) inches and filled with No. 9 Crushed Stone prior to laying pipe. In no case shall pipe be laid on solid or blasted rock.
- D. Bedding material shall be placed from bottom of pipe in earth excavation, and from six (6) inches below bottom of pipe in rock excavation, to the centerline (springline) of the pipe. Bedding shall be compacted in layers not to exceed six (6) inches.

Excavating, Backfilling, and Compacting for Utilities
02225-3

- E. When the subgrade is found to be unstable or to include ashes, cinders, refuse, organic material, or other unsuitable material, such material shall be removed to the depth ordered by the Engineer and replaced under the directions of the Engineer with clean, stable backfill material. When the bottom of the trench or the subgrade is found to consist of material that is unstable to such a degree that, in the judgement of the Engineer it cannot be removed, a foundation for the pipe and/or appurtenance shall be constructed using piling, timber, concrete, or other materials at the direction of the Engineer.

3.04 WATER PIPE BACKFILLING

A. Initial Backfill

1. Initial backfill is defined as the material placed from the centerline (springline) of the pipe to 12 inches above the top of the pipe.
2. Initial backfill, in earth excavation areas, shall be soil material free from rocks, debris, or other foreign materials.
3. Initial backfill, in rock excavation or vehicular traffic (including driveways) areas shall be No. 9 Crushed Stone.

B. Final Backfill

1. Final backfill is defined as the material placed from a point 12 inches above the top of the pipe to the original surface.
2. Final backfill, in earth excavation areas, shall be soil material free from rocks, debris, or other foreign materials.
3. Final backfill, in rock excavation shall be No. 9 Crushed Stone. Top six (6) inches shall be topsoil or earth material suitable for revegetation.
4. Final backfill, in vehicular traffic (including driveways) areas shall be No. 9 Crushed Stone up to the subgrade of vehicular traffic surface courses. See Sections 02507, 02510, or 02520 for specifications of surface courses.

3.05 CHANNEL LINING, CLASS III

In areas indicated on plans Class III Channel Lining shall be used as a protective covering. This material and its method of installation shall comply with the Kentucky Department of Highways 2012 Standard Specifications, Section 703 and Section 805.

- END OF SECTION -

Excavating, Backfilling, and Compacting for Utilities
02225-4

SECTION 02275

SEDIMENT CONTROL

PART 1 - GENERAL

1.01 SUMMARY

The Contractor shall furnish all labor, equipment, materials, and routine maintenance for the construction of temporary erosion and sediment control measures in accordance with the Drawings and Specifications, or as otherwise directed by the Engineer.

1.02 SUBMITTALS

There are no submittals required for this section.

PART 2 - PRODUCTS

2.01 SILT FENCE

- A. Silt fences shall be installed as shown on the Drawings, or as directed by the Engineer.
- B. Material: Silt Fence filter fabric shall be specifically recommended for this purpose by the manufacturer and shall meet or exceed the following criteria:

| Property | Conformance | Specification |
|-------------------|-------------|--------------------|
| Bursting Strength | ASTM D 751 | 150 psi |
| Grab Strength | ASTM D 1682 | 100 psi |
| Permeability | | 0.02 - 0.03 cm/sec |

- C. The silt fence shall contain ultraviolet ray inhibitors and stabilizers to provide a minimum of six months of expected usable construction life at a temperature range of 0°F to 120°F.
- D. Posts for the silt fence shall be either 2-inch diameter wood or 1.33 pounds per linear foot steel with a minimum length of 5 feet. The posts shall be set to sufficient depth to provide a sound anchor for the filter fabric. Steel posts shall have projectiles for fastening the silt fence.

PART 3 - EXECUTION

3.01 GENERAL

- A. All sediment and erosion control devices shall be installed prior to the initiation of site clearing and grubbing and/or excavation/construction to prevent sediment generated by the operation from escaping downstream of the work site.
- B. The Contractor shall monitor and maintain all sediment and erosion control devices throughout the construction period.

3.02 SILT FENCE INSTALLATION

- A. The silt fence posts shall be installed 6 to 10 feet apart on a slight angle toward the anticipated run-off source.
- B. A trench 4 to 6 inches deep shall be dug along the uphill side of the fence line.
- C. The silt fence shall then be attached to the posts with a maximum height of 3 feet.
- D. The lower 4 to 6 inches of the silt fence shall be laid in the trench and curled toward the erosion source.
- E. The trench shall then be backfilled with any available soil.

3.03 MAINTENANCE

All sediment and erosion control devices shall be maintained in a sound condition during the period of construction. Accumulations of silt, which may threaten their effectiveness, shall be removed. The sediment and erosion control devices shall be inspected after each storm event. Any required repairs shall be made promptly to insure the devices continue to function properly.

- END OF SECTION -

SECTION 02507

CRUSHED STONE PAVING

PART 1 - GENERAL

1.01 SUMMARY

Crushed stone paving course, compacted.

1.02 REFERENCES

ASTM C33 - Aggregate for Concrete.

1.03 TESTS

Gradation of stone material will be performed in accordance with ASTM C33.

PART 2 - PRODUCTS

2.01 MATERIALS

Crushed stone shall conform to ASTM C33, Type Dense Grade Aggregate (DGA), Type No. 57, Type No.2, and No. 610.

PART 3 - EXECUTION

3.01 FIELD QUALITY CONTROL

- A. Verify compacted subgrade.
- B. Verify gradients and elevations of base are correct.
- C. Beginning of installation means acceptance of existing conditions.

3.02 PLACING AND COMPACTING STONE PAVING

- A. Spread stone material over prepared base to a total compacted thickness of 12 inches.
- B. Stone shall be placed in four 3-inch layers. Each layer shall have three (3) inches of No. 2 stone placed and then DGA worked into the No. 2 stone. Each layer shall be compacted after placement.
- C. Level surfaces to elevations and gradients indicated.
- D. Add small quantities of sand to stone mix as appropriate to assist compaction.
- E. Adequately compact placed stone materials.
- F. Add water to assist compaction. With an excess water condition, rework topping and aerate to reduce moisture content.

- END OF SECTION -
Crushed Stone Paving
02507-1

SECTION 02510

ASPHALTIC CONCRETE PAVING

PART 1 - GENERAL

1.01 SUMMARY

- A. Provide asphalt concrete paving for following applications and prepared subbase and compacted base.
 - 1. Roads
 - 2. Parking Areas
 - 3. Driveways
 - 4. Walkways
 - 5. Curbs
- B. Provide striping for parking, roadway, and handicapped markings.

1.02 SUBMITTALS

Submit to Engineer product data and test reports for approval in accordance with Section 01300.

1.03 QUALITY ASSURANCE

Comply with governing codes and regulations. Provide products of acceptable manufacturers which have been in satisfactory use in similar service for three years. Use experienced installers. Deliver, handle, and store materials in accordance with manufacturer's instructions.

PART 2 - PRODUCTS

2.01 MATERIALS

- A. Prime coat: Cut-back asphalt.
- B. Tack coat: Emulsified asphalt.
- C. Asphalt cement: AASHTO M226 and as required by local authorities.
- D. Aggregate: Crushed stone.
- E. Traffic paint: Quick-drying chlorinated-rubber alkyd type, color as approved.

Asphaltic Concrete Paving
02510-1

- F. Wheelstops: Precast concrete of uniform color and texture with steel stakes.

PART 3 - EXECUTION

3.01 NEW PAVEMENT INSTALLATION

- A. Asphalt/Aggregate Mixture
Comply with local DPW Standard Specifications for Highways and Bridges. Class as required by loading and use.
- B. Remove loose material from compacted subbase. Proof roll and check for areas requiring additional compaction. Report unsatisfactory conditions in writing. Beginning of work means acceptance of subbase.
- C. Apply prime coat to prepared subbase. Apply tack coat to previous laid work and adjacent in-place concrete surfaces.
- D. Place asphalt concrete at minimum temperature of 225° F in strips not less than 10 feet wide overlapping previous strips. Complete entire base course before beginning surface course.
- E. Construct curbs to dimensions indicated or if not indicated to standard shapes. Provide tack coat between curb and pavement.
- F. Begin rolling when pavement can withstand weight of roller. Roll while still hot to obtain maximum density and to eliminate roller marks.
- G. Provide 4-inch lane and striping paint in uniform, straight lines. Provide wheelstops where indicated and securely dowel into pavement. Protect work from traffic and damage.
- H. Test in-place asphalt work for thickness and smoothness. Remove and replace defective work and patch to eliminate evidence of patching. Provide the following minimum thickness and smoothness unless otherwise greater thickness is required on the Drawings:
 - 1. Subbase course: 5-inch No. 2 stone and 5-inch DGA.
 - 2. Base course: 2½-inch.
 - 3. Surface course: 1½-inch plus or minus ¼-inch at drives and parking; 1-inch plus or minus ¼-inch at walks.
 - 4. Surface course smoothness: Plus or minus 1/8-inch in 10 feet. No ponding of water is acceptable.

3.02 REPLACEMENT PAVEMENT FOR UTILITIES

- A. Sections of pavement shall be replaced as required to install the pipelines. Disturbed

Asphaltic Concrete Paving
02510-2

pavement shall be constructed to original lines and grades with bituminous binder as detailed on the Drawings and in such manner as to leave all surfaces in fully as good or better condition than that which existed prior to these operations.

- B. Prior to trenching, the pavement shall be scored or cut to straight edges along each side of the proposed trench to avoid unnecessary damage to the remainder of the paving. Edges of the existing pavement shall be recut and trimmed as necessary to square, straight edges after the pipe has been installed and prior to placement of the binder course or concrete.
- C. Trenches shall be backfilled with No. 9 Crushed Stone up to the base course.
- D. Asphalt surface course shall be one course construction in accordance with applicable provisions of the Kentucky Transportation Cabinet Standard Specifications, Section 402.
 - 1. Placement and compaction of surface course shall be in accordance with Section 402 of the Kentucky Transportation Cabinet Standard Specifications. Minimum surface course thickness after compaction shall be two (2) inches with 10-inch DGA base for driveways and two (2) inches with 10-inch concrete slab base for roads.

- END OF SECTION -

SECTION 02520

PORTLAND CEMENT CONCRETE PAVING

PART 1 - GENERAL

1.01 SUMMARY

- A. Provide Portland cement concrete paving at following locations and prepared subbase and compacted base.
 - 1. Driveways and vehicular entrances.
 - 2. Walkways.
 - 3. Curbs.

1.02 SUBMITTALS

Submit to Engineer product data, mix design, mock-ups, and test reports for approval in accordance with Section 01300.

1.03 QUALITY ASSURANCE

Comply with governing codes and regulations. Provide products of acceptable manufacturers which have been in satisfactory use in similar service for three years. Use experienced installers. Deliver, handle, and store materials in accordance with manufacturer's instructions.

PART 2 - PRODUCTS

2.01 MATERIALS

A. Concrete Mix Design

Conform to specific mixes in Section 03300 as required for sidewalks, curbs, and vehicular ways.

B. Exposed Aggregate Paving

- 1. Aggregate to match approved sample.
- 2. Retarder.

C. Reinforcing

6 x 6, 2.9 x 2.9 welded flat wire mesh and ASTM A36 deformed steel bars.

Portland Cement Concrete Paving
02520-1

D. Joints

Preformed joint fillers/sealers.

E. Finish

1. Paving: Fine bristled stiff broom.
2. Exposed aggregate finish: Match approved sample.
3. Imprinting: Tools and hardeners by Bomanite Corp.
4. Curbs: Steel form finish.

F. Thickness

1. Driveways - 6 inches.
2. Vehicular entrances - 8 inches.
3. Roads - 12 inches.
4. Walkways - 4 inches.
5. Curbs - 6 inches.

PART 3 - EXECUTION

3.01 INSTALLATION

- A. Proof roll subbase and check for unstable areas. Report unsatisfactory conditions in writing. Beginning paving work means acceptance of subbase.
- B. Comply with concrete section for concrete mix, testing, placement, joints, tolerances, curing, repairs, and protection.

- END OF SECTION -

SECTION 02610

PIPE AND FITTINGS

PART 1 - GENERAL

1.01 SUMMARY

- A. The Contractor shall furnish all labor, material, and equipment necessary to install water piping and appurtenances as shown on the drawings and specified herein.
- B. This section describes several types of pipe which may or may not apply to the current project. Selected pipe materials will be identified either on the drawings or the bid form.

1.02 RELATED SECTIONS

- A. Section 02222 - Excavation
- B. Section 02225 - Excavating, Backfilling, and Compacting for Utilities
- C. Section 02642 - Water Valves and Accessories
- D. Section 02630 - Casing Pipe
- E. Section 02675 - Disinfection of Water Distribution Systems

1.03 DELIVERY, STORAGE, AND HANDLING

- A. Pipe and accessories shall be unloaded at the point of delivery, hauled to, and distributed at the site of the project by Contractor in such a manner to avoid damage to the materials. Whether moved by hand, skidways, or hoists, materials shall not be dropped or bumped against pipe or accessories already on the ground or against any other object.
- B. In distributing material at the construction site, each piece shall be unloaded as near the installation point as possible.
- C. Pipe shall be handled in such a manner as to avoid damage to the ends. When such damaged pipe cannot be repaired to the Engineer's satisfaction, it shall be replaced at the Contractor's expense. The interior of all pipe and accessories shall be kept free from dirt and foreign matter at all times. The interior of all pipe and accessories shall be checked for dirt and debris and, if necessary, thoroughly cleaned before use in the project.

PART 2 - PRODUCTS

2.01 DUCTILE IRON PIPE AND FITTINGS

A. Scope

This article covers the design and manufacture of ductile iron centrifugally cast in metal molds and ductile iron fittings.

B. Specific Requirements

Ductile iron pipe shall be furnished cement lined unless otherwise noted on the drawings or in other sections of these specifications. Ductile iron pipe shall be furnished with rubber gasket push-on joints except as may otherwise be noted on the drawings or in difficult working areas and approval of the Engineer.

1. Pressure class shall be 350 psi for pipe sizes 14 inches or smaller and pressure class 250 psi for pipe sizes larger than 14 inches for mechanical and push-on joint pipe.
2. Thickness design of ductile iron shall conform in all aspects to the requirements of ANSI/AWWA C150/A 21.50 latest revision.
3. Manufacture and testing of ductile iron pipe shall conform in all aspects to the requirements of ANSI/AWWA C151/A 21.51 latest revisions .
4. Cement mortar lining with bituminous seal coat shall conform to the requirements of ANSI/AWWA C104/A 21.4, latest revision for cement-mortar lining for ductile iron pipe, gray iron pipe, and fittings for water. Bituminous outside coating shall be in accordance with ANSI/AWWA C151/A 21.51 for pipe and ANSI/AWWA C110/A 21.10 for fittings.
5. Fittings and gaskets for mechanical and push-on joint ductile and cast iron pipe shall conform to the latest revisions of ANSI/AWWA C110/A 21.10 for mechanical and push-on joint fittings, ANSI/AWWA C111/A 21.11 for gaskets, and ANSI/AWWA C153/A 21.53 for mechanical and push-on joint compact fittings. Mechanical and push-on joint fittings shall have pressure class rating of 350 psi for sizes 14 inches and smaller and 250 psi for sizes larger than 14 inches.
6. All ductile and cast iron fittings shall be ductile iron grade 80-60-03 in accordance with ASTM A536.
7. Flanged ductile iron pipe shall conform to the latest revisions of ANSI/AWWA C115/A 21.15. Bolt pattern of flange shall be in accordance with ANSI/AWWA C115/A 21.15 (which is equivalent to ASME/ANSI B16.1, Class 125 flange bolt pattern). Pipe shall have pressure class 250 rating. Gaskets shall be synthetic rubber ring gaskets with a thickness of 1/8 inch. Nuts and bolts shall be in accordance with ASME/ANSI B18.2.1, ASME/ANSI B18.2.2, ASME/ANSI B1.1, and ASTM A307.

8. Flanged fittings shall conform to the latest revisions of ANSI/AWWA C110/A 21.10 or ANSI/AWWA C153/A 21.53 (compact fittings). Gaskets shall be in accordance with ANSI/AWWA C111/A 21.11. Fittings shall have pressure class rating of 250 psi. Bolt pattern of flange shall be in accordance with ANSI/AWWA C115/A 21.15 (which is equivalent to ASME/ANSI B16.1, class 125 flange bolt pattern).
9. Restrained joint pipe and fittings using restraining gaskets shall be a boltless system equal to "Field-Lok" restraining gaskets as manufactured by U.S. Pipe & Foundry Company or approved equal.
10. Restrained joint pipe and fittings using a locking ring system shall be American Flex-Ring, U.S. Pipe TRFLEX, or Clow Tyton/Fastite shop or field systems.
11. Restrained joint pipe and fittings using a grip ring system shall be equal to Romac Grip Rings or Mega Lugs.
12. Mechanical joint ductile iron anchor pipes shall be included as required. Anchor pipes shall be Clow Corporation F1211 mechanical joint, Tyler swivel by solid adapter 5-198 mechanical joint, or approved equal.
13. Ball and socket restrained joint pipe and fittings shall be a boltless system equal to USIFLEX manufactured by U.S. Pipe & Foundry Company or FLEX-LOK manufactured by American Pipe Company. Pipe shall have a working pressure rating of 250 psi and have a maximum joint deflection of 15°. Nominal laying lengths shall be in range of 18 feet 6 inches to 20 feet 6 inches.
14. Manufacturers: Pipe shall be as manufactured by U.S. Pipe & Foundry Company, Clow, American Cast Iron Pipe Company, or equal.
15. Marking: Pipe or fitting shall have the ANSI/AWWA standard, pressure (or thickness) class, diameter, DI or ductile noted, manufacturer, and country and year where cast on the outside of the body.
16. A separate pay item has been established for fittings. Payment for both mechanical joint fittings and restrained joint fittings will be made under the same pay item per unit pound.
17. No separate pay item will be made for a push-on or restrained joint bell – they are considered equal in price. Locking rings or restraining gasket/grip rings will be paid for per pound as fittings.
18. Restrained joints shall be used at all fittings, in all casing pipes, and under all driveways and roads.
19. Polyethylene tubing (Polywrap, or approved equal) when required, shall be eight (8) millimeters thick and comply with AWWA C105.

Pipe and Fittings
02610-3

2.02 PVC (POLYVINYL CHLORIDE) PIPE

A. Scope

This article covers the design and manufacture of PVC 1120 manufactured of CLASS 12454-B or CLASS 12454-C (cell classification) resin material with a hydrostatic-design-basis (HDB) rating of 4,000 psi at 73.4° F (23° C).

B. Specific Requirements

PVC pressure pipe shall be furnished, constructed of materials and to the specifications of this section. The types of PVC pipe permitted for use on the project will be as noted on the drawings or bid form. The selected pipe will be designated either as PVC (ASTM) or PVC (AWWA) followed by an appropriate pressure rating or dimension ratio (DR or SDR).

1. PVC (ASTM) Pipe

- a. PVC (ASTM) pipe shall be designed, manufactured, and tested to conform with the latest revision of ASTM D-2241, ASTM D-1784, and ASTM D-2672.
- b. Rubber gasketed joints shall conform to ASTM D-3139. The gaskets for the PVC pipe joint shall conform to ASTM F-477 and D-1869. Gaskets shall be twin gasket joints or integral bell joints with rubber O-ring seals.
- c. PVC (ASTM) pipe shall be furnished as SDR 17 for Class 250 psi.

2. PVC (AWWA) Pipe

- a. PVC (AWWA) pipe shall be designed, manufactured, and tested to conform with the latest revision of AWWA C900 for pipes sizes 12 inches and smaller and AWWA C905 for pipes sizes 14 inches and larger.
- b. Pipe shall have cast iron pipe equivalent ODs.
- c. Rubber gasketed joints shall conform to ASTM D-3139. The gaskets for the PVC pipe joint shall conform to ASTM F-477 and D-1869.
- d. PVC (AWWA) pipe shall be furnished as DR 14 for Class 200 psi,

- C. Rubber gasket joints shall provide adequate expansion to allow for a 50° change in temperature on one length of pipe. Lubrication for rubber connected couplings shall be water soluble, non-toxic, be non-objectionable in taste and odor and have no deteriorating affect on the PVC or rubber gaskets and shall be as supplied by the pipe manufacturer.

- D. Standard laying lengths shall be 20 feet \pm for all sizes. At least 85 percent of the total footage of pipe of any class and size shall be furnished in standard lengths, the remaining 15 percent in random lengths. Random lengths shall not be less than 10 feet long. Each standard and random length of pipe shall be tested to four times the class pressure of the pipe for a minimum of five (5) seconds. The integral bell shall be tested with the pipe.
- E. PVC Pipe shall be NSF approved for potable water service.
- F. All pipe and couplings shall bear identification markings that will remain legible during normal handling, storage, and installation, which have been applied in a manner what will not reduce the strength of the pipe or the coupling or otherwise damage them. Pipe and coupling markings shall include the nominal size and OD base, material code designation, dimension ratio number, ASTM or AWWA Pressure Class, ASTM or AWWA designation number for this standard, manufacturer's name or trademark seal (mark) of the testing agency that verified the suitability of the pipe material for potable-water service. Each marking shall be applied at intervals of not more than five (5) feet for the pipe and shall be marked on each coupling.
- G. Fittings shall be ductile iron in accordance with Article 2.01 of this section.

2.03 COUPLINGS AND ADAPTERS

- A. Flexible couplings shall be of the sleeve type with a middle ring, two round-wedge shaped rubber gaskets at each end, two following rings together, and compress the gasket against the pipe. Flexible couplings shall be steel with minimum wall thickness of the middle ring or sleeve installed on pipe being 5/16-inch for pipe smaller than 10 inches, 3/8-inch pipe for 10 inches or larger. The minimum length of the middle ring shall be 5 inches for pipe sizes up to 10 inches and 7 inches for pipe 10 inches to 30 inches. The pipe stop shall be removed. Gaskets shall be suitable for 250 psi pressure rating or at rated working pressure of the connecting pipe. Couplings shall be harnessed and be designed for 250 psi.
- B. Flanged adapters shall have one end suitable for bolting to a pipe flange and the other end of flexible coupling similar to that described hereinbefore. The adapters shall be furnished with bolts of an approved corrosion resistant steel alloy, extending to the adjacent pipe flanges. Flanges on flanged adapter (unless otherwise indicated or required) shall be faced and drilled ANSI B16.1 Class 125. Locking pins shall be provided.
- C. Flexible couplings and flanged adapters shall be as manufactured by Dresser, Rockwell, or equal, per the following, unless otherwise specified and/or noted on the Drawings.
 - 1. Steel couplings for joining same size, plain-end, steel, cast iron, and PVC plastic pipe shall be Dresser style 38, Rockwell 411, or equal.

2. Transition couplings for joining pipe of different outside diameters:

Dresser

Style 162 (4" – 12")

Style 62 (2" – 24")

Rockwell

413 steel (2" – 24")

415 steel (6" – 48")

433 cast (2" – 16")

435 cast (2" – 12")

3. Flanged adapters for joining plain-end pipe to flanged pipe, fittings, valves, and equipment:

Style 127 cast (3" – 12")

Style 128 steel (3" – 48" C.I. pipe)

Style 128 steel (2" – 96" steel pipe)

912 cast (3" – 12")

913 steel (3" and larger)

2.04 WALL PIPE AND SLEEVES

- A. All wall pipe shall be furnished with cast or welded collar water stops in the positions shown on the Drawings. Welding of water stop collars on pipe shall be accomplished by the wall pipe manufacturer in their shop. All centrifugally cast wall pipe shall be ductile iron meeting the requirements of AWWA C151 for the pipe barrel, conforming to the pressure rating of the pipeline in which installed, and in no case be lighter than Class 53. All statically cast wall pipe shall be ductile iron meeting the requirements of AWWA C110 for fittings. Mechanical joint end and cast-on flange end wall pipe shall conform to AWWA C110, and threaded flange wall pipe shall conform to AWWA C115. Where flanged or mechanical joint bell ends are flush with the wall, they shall be drilled and tapped for stud bolts which are to be of 300 Series stainless steel. The length of all wall pipe shall be not less than the thickness of the wall in which installed. Wall pipe shall have the same pressure rating as connecting pipe. All wall pipe shall be cement-mortar lined per AWWA C104. The outside of wall pipes shall be left uncoated and shall be field primed for painting on the portion exposed, uncoated where embedded, and field coated with standard bituminous coated where buried.
- B. Contractor may have the option to install wall pipe flush face-face of wall, in lieu of the dimensioned length wall pipe shown on the Drawings, in order to eliminate form penetrations. This option will be subject to Engineer's review at each wall pipe location and covers both flanged and mechanical-joint bell-end wall pipe. Embedded flanged and M.J. bell-end bolt holes shall be tapped for stud bolts; tapped bolt holes in embedded flanges shall be plugged for protection during concrete pouring.
- C. All pipe wall sleeves shall be plain end galvanized steel pipe of diameter noted on Drawings and length to fit flush face-to-face of wall.

PART 3 - EXECUTION

3.01 LAYING DEPTHS

Water pipe shall be laid with a minimum cover of 30 inches unless otherwise noted on Drawings.

3.02 THRUST BLOCKING

A. Concrete

Concrete thrust blocking (3500 psi) shall be installed as shown on drawings.

B. Hydrants

The bowl of each hydrant shall be well braced against a sufficient area of unexcavated earth at the end of the trench with stone slabs, concrete blocking, or it shall be tied to the pipe as shown on drawings.

1. Tie rods, clamps, or other components of dissimilar metal shall be protected against corrosion by hand application of a bituminous coating or by encasement of the entire assembly with eight (8) millimeter thick, loose polyethylene film in accordance with AWWA C105.

2. Thrust restraint design pressure shall be equal to the test pressure.

C. Fittings

All plugs, caps, tees, and bends, unless otherwise specified, shall be provided with thrust blocking. Substituting other restraint materials such as metal rods, clamps, or restrained joints must be specifically authorized by Engineer in writing.

D. Restraint Materials

1. Thrust Blocking

Vertical and horizontal thrust blocking shall be made of concrete having a compressive strength of not less than 3,500 psi after 28 days. Blocking shall be placed between solid ground and the fitting to be anchored; the area of bearing on the pipe and on the ground in each instance shall be that shown or directed by the Engineer. The blocking shall, unless otherwise shown or directed, be so located as to contain the resultant thrust force and so that the pipe and fitting joints will be accessible for repair.

2. Restrained Joints

Restrained push-on joints, mechanical joints utilizing set-screw retainer glands or metal harness of tie-rods, or clamps may only be used instead of concrete blocking if specifically authorized by Engineer. Tie rods, clamps,

or other components of dissimilar metal shall be protected against corrosion by hand application of a bituminous coating or by encasement of the entire assembly with eight (8) millimeter thick, loose polyethylene film in accordance with AWWA C105.

3.03 PIPE INSTALLATION

A. Proper implements, tools, and facilities shall be provided and used for the safe and convenient performance of the work. All pipe, fittings, valves, and hydrants shall be lowered carefully into the trench by means of a derrick, ropes, or other suitable tools or equipment, in such a manner as to prevent damage to water line materials and protective coatings and linings. Under no circumstances shall water line materials be dropped or dumped into the trench. The trench should be dewatered prior to installation of the pipe.

B. The Contractor shall secure from the manufacturer an installation guide for the pipe being used. The Contractor shall in all cases adhere to the recommended installation procedures of the manufacturer except where those given herein are more stringent. The more stringent requirements shall be met.

1. Examination of Material

All pipe fittings, valves, hydrants, and other appurtenances shall be examined carefully for damage and other defects immediately before installation. Defective materials shall be marked and held for inspection by the Engineer who may prescribe corrective repairs or reject the materials.

2. Pipe Ends

All lumps, blisters, and excess coating shall be removed from the socket and plain ends of each pipe, and the outside of the plain end and the inside of the bell shall be wiped clean and dry and be free from dirt, sand, grit, or any foreign material before the pipe is laid.

3. Pipe Cleanliness

Foreign material shall be prevented from entering the pipe while it is being placed in the trench. During laying operations, no debris, tools, clothing, or other materials shall be placed in the pipe.

4. Pipe Placement

As each length of pipe is placed in the trench, the joint shall be assembled and the pipe brought to correct line and grade. The pipe shall be secured in place with approved backfill material.

5. Pipe Plugs

At times when pipe laying is not in progress, the open ends of pipe shall be closed by a water tight plug or other means approved by the Engineer. The plug shall remain in place until the trench is pumped completely dry. Care must be taken to prevent pipe floatation should the trench fill with water.

3.04 JOINT ASSEMBLY

A. Push-On Joints

Push-on joints are to be assembled as follows:

1. Thoroughly clean the groove and bell socket and insert the gasket, making sure that it faces the proper direction and that it is correctly seated.
2. After cleaning dirt or foreign material from the plain end, apply lubricant in accordance with the pipe manufacturer's recommendations. The lubricant is supplied in sterile cans and every effort should be made to keep it sterile.
3. Be sure that the plain end is beveled; square or sharp edges may damage or dislodge the gasket and cause a leak. When pipe is cut in the field, bevel the plain end with a heavy file or grinder to remove all sharp edges. Push the plain end into the bell of the pipe. Keep the joint straight while pushing. Make deflection after the joint is assembled.
4. Small pipe can be pushed into the bell socket with a long bar. Large pipe requires additional power, such as a jack, lever puller, or backhoe. The supplier may provide a jack or lever pullers on a rental basis. A timber header should be used between the pipe and jack or backhoe bucket to avoid damage to the pipe.

B. Mechanical Joints

Mechanical joints are to be assembled as follows:

1. Wipe clean the socket and plain end. The plain end, socket, and gasket should be washed with a soap solution to improve gasket seating.
2. Place the gland on the plain end with the lip extension toward the plain end, followed by the gasket with the narrow edge of the gasket toward the plain end of the pipe.
3. Insert the pipe into the socket and press the gasket firmly and evenly into the gasket recess. Keep the joint straight during assembly.
4. Push the gland toward the bell and center it around the pipe with the gland lip against the gasket.

5. Align bolt holes and insert bolts with bolt heads behind the bell flange, and tighten opposite nuts to keep the gland square with the socket. Make deflection after joint assembly but before tightening the bolts.
6. Tighten the nuts in accordance with the following table:

| MECHANICAL JOINTS - BOLT TORQUES | |
|---|----------------------------------|
| Bolt Diameter (inches) | Torque (feet - pound) |
| 5/8 | 45 - 60 |
| 3/4 | 75 - 90 |
| 1 | 86 - 100 |
| 1¼ | 105 - 120 |

3.05 PIPE CUTTING

Cutting of pipe for the insertion of valves, fittings or closure pieces shall be done in a neat workmanlike manner without creating damage to the pipe, linings, or coatings and in strict accordance to manufacturer's recommendation.

3.06 TESTING

A. After the pipe has been laid, all newly laid pipe or any valved section thereof shall be subjected to a hydrostatic pressure test of at least 1.5 times the working pressure of the pipe at the point of testing, but in no case less than that required by other sections herein. In addition, a leakage test shall be conducted concurrently with the pressure test.

B. Pressure Test

1. Test Pressure Shall:

- a. Not be less than 1.25 times the working pressure at the highest point along the test section.
- b. Not to exceed pipe or thrust restraint design pressures at the lowest point along the test section.
- c. Be of at least two (2) hour duration.
- d. Not vary by more than plus or minus 5 psi.
- e. Not exceed twice the rated pressure of the valves or hydrants when the pressure of the test section includes closed gate valves or hydrants.
- f. Not to exceed the rated pressure of resilient seat butterfly valves when used.

2. Each valved section of pipe shall be filled with water slowly and the specified test pressure, based on the elevation of the lowest point of the line or section under test and corrected to the elevation of the test gauge, shall be applied by means of a pump connected to the pipe in a manner satisfactory to the Engineer.
3. Before applying the specified test pressure, air shall be expelled completely from the pipe, valves, and hydrants. If permanent air vents are not located at all high points, the Contractor shall install corporation cocks at such points so that the air can be expelled as the line is filled with water. After all the air has been expelled, the corporation cocks shall be closed and the test pressure applied. At the conclusion of the pressure test, the corporation cocks shall be removed and plugged, or left in place at the discretion of the Engineer.
4. All exposed pipe, fittings, valves, hydrants, and joints shall be examined carefully during the test. Any damage or defective pipe, fittings, valves, or hydrants that are discovered following the pressure test shall be repaired or replaced with sound material and the test shall be repeated until it is satisfactory to the Engineer.

C. Leakage Test

1. Leakage shall be defined as the quantity of water that must be supplied into the newly laid pipe, or any valved section thereof, to maintain pressure within 5 psi of the specified test pressure after the air in the pipeline has been expelled and the pipe has been filled with water.
2. The pipe shall be tested in accordance with AWWA C600 concurrently with the pressure test. No pipe installation will be accepted if the leakage is greater than that allowed in the following formula:

$$L = (S \times D \times (P)^{1/2}) \div 133,200$$

Where:

L = the allowable leakage (gallons per hour)

S = length of pipe tested, in feet

D = nominal diameter of the pipe (inches)

P = test pressure (psig)

- a. When hydrants are in the test section, the test shall be made against the closed hydrant.
3. Acceptance shall be determined on the basis of allowable leakage. If any pipe has leakage greater than allowed, the Contractor shall, at his own expense, locate and repair the defective material until the leakage is within the specified allowance.

- a. All visible leaks are to be repaired regardless of the amount of leakage.

- END OF SECTION -

SECTION 02630

CASING PIPE

PART 1 - GENERAL

1.01 GENERAL

Contractor shall provide all labor, materials, and equipment to construct, complete and in place, the casing pipe at the locations shown on the drawings.

1.02 RELATED SECTIONS

- A. Section 02222 - Excavation
- B. Section 02225 - Excavating, Backfilling, and Compacting for Utilities
- C. Section 02610 - Pipe and Fittings

PART 2 - PRODUCTS

2.01 STEEL CASING PIPE

- A. Casing pipe shall be steel (unless otherwise shown on the drawings), plain end, conforming to AWWA Specification C-200, latest revision. Steel for casing pipe shall have a minimum yield strength of 35,000 psi. Casing pipe shall neither be coated or wrapped. The inside diameter of the casing pipe shall be a minimum of four (4) inches greater than the outside diameter of the carrier pipe joint or coupling.
- B. The minimum wall thickness shall be as shown on Drawings, or in accordance with the following table:

| STEEL CASING PIPE WALL THICKNESS | | |
|----------------------------------|---|--|
| Casing Diameter (inches) | Minimum Wall Thickness Under Railroads (inches) | Minimum Wall Thickness All Other Uses (inches) |
| 16 and under | 0.250 | 0.250 |
| 18 | 0.281 | 0.250 |
| 20 and 22 | 0.312 | 0.281 |
| 24 | 0.344 | 0.312 |
| 26 | 0.375 | 0.344 |
| 28 | 0.406 | 0.375 |
| 30 | 0.438 | 0.406 |
| 32 | 0.469 | 0.438 |

Casing Pipe
02630-1

| STEEL CASING PIPE WALL THICKNESS | | |
|----------------------------------|---|--|
| Casing Diameter (inches) | Minimum Wall Thickness Under Railroads (inches) | Minimum Wall Thickness All Other Uses (inches) |
| 34 and 36 | 0.500 | 0.469 |
| 38 | 0.531 | 0.500 |
| 40 | 0.563 | 0.531 |
| 42 | 0.594 | 0.563 |
| 44 and 46 | 0.625 | 0.594 |
| 48 | 0.656 | 0.625 |
| 50 | 0.688 | 0.656 |
| 52 | 0.719 | 0.688 |
| 54 | 0.750 | 0.719 |
| 56 and 58 | 0.781 | 0.750 |
| 60 | 0.813 | 0.781 |
| 62 | 0.844 | 0.813 |
| 64 | 0.875 | 0.844 |
| 66 and 68 | 0.906 | 0.875 |
| 70 | 0.938 | 0.906 |
| 72 | 0.938 | 0.938 |

2.02 PIPELINE SPACERS

- A. Pipeline spacers and accessories such as nuts and bolts shall be constructed of polyethylene and/or stainless steel. Other materials will not be accepted.
- B. Carrier pipes installed inside casing pipes shall be centered throughout the length of casing pipe. Centering shall be accomplished by the installation of polyethylene pipeline spacers attached to the carrier pipe in such a manner as to prevent the dislodgement of the spacers as the carrier pipe is pulled or pushed through the casing pipe. Spacers shall be of such dimensions to provide: full supportive load capacity of the pipe and contents; of such thickness to allow installation and/or removal of the pipe; and to allow no greater than 1/2 inch movement of the carrier pipe within the cover pipe after carrier pipe is installed.
- C. Spacers shall be located immediately behind each bell and at a maximum spacing distance as follow:

Casing Pipe
02630-2

| Carrier Pipe Diameter (inches) | Maximum Spacing (feet) |
|--------------------------------|------------------------|
| 2 - 2½ | 4 |
| 3 - 8 | 7 |
| 10 - 26 | 10 |
| 28 | 9 |
| 30 | 8 |
| 32 | 7 |
| 34 | 6 |
| 36 - 38 | 5.5 |
| 40 - 44 | 5 |
| 46 - 48 | 4 |

- D. The materials and spacing to be used shall be accepted by the Engineer prior to installation. The polyethylene pipeline spacers shall be manufactured by Pipeline Seal and Insulator, Inc. (PSI), Raci Spacers, Inc., Advanced Products & Systems, Inc., or approved equal. Installation shall be in accordance with manufacturer's recommendations.

2.03 SEALING

After installation of the carrier pipe within the casing pipe, the ends of the casing shall be sealed using a 1/8" thick 60 durometer synthetic neoprene rubber, end seal, seamless, with vulcanized edges. The seal shall be securely bound to the casing and the carrier pipe barrel with ½" wide stainless steel bandings with nonmagnetic worm gear mechanisms. The seal shall be APS Advance Standard Model AC Pull-On casing end seals, or an approved equal.

PART 3 - EXECUTION

3.01 BORE AND JACK

- A. Where designated on the drawings, crossings beneath state maintained roads, railroads, or other surfaces shall not be disturbed and are to be installed by boring and jacking of steel casing pipe followed by installation of the carrier pipe within the casing pipe. The Contractor shall provide a jacking pit, bore through the earth, and/or rock, jack the casing pipe into proper line and grade and then install the carrier pipe within the casing pipe.
- B. The approach trench shall be large enough to accommodate one section of casing pipe, the jacks and blocking. The Contractor shall furnish and use adequate equipment to maintain the line and grade.

3.02 OPEN CUT

Where designated on drawings, the Contractor shall open the trench under the direction of the Engineer and install the casing pipe and complete the bedding, backfilling, and paved surface restoration as specified elsewhere herein.

3.03 DAMAGE

The cost of repairing damage which is caused by boring or open cutting the trench under a highway or railroad shall be borne by the Contractor.

- END OF SECTION -

SECTION 02642

WATER VALVES AND ACCESSORIES

PART 1 – GENERAL

1.01 SUMMARY

The Contractor shall furnish all labor, material, and equipment necessary to install valves together with all appurtenances as shown and detailed on the drawings and specified herein.

1.02 RELATED SECTIONS

- A. Section 02225 - Excavating, Backfilling, and Compacting for Utilities
- B. Section 02610 - Pipe and Fittings

1.03 SUBMITTALS

- A. Complete shop drawings of all valves and appurtenances shall be submitted to the Engineer in accordance with the requirements of Section 01300.
- B. The manufacturer shall furnish the Engineer two (2) copies of an affidavit stating that the valve and all materials used in its construction conform to the applicable requirements of the latest revision of the applicable AWWA Standard, and that all tests specified therein have been performed and that all test requirements have been met.
- C. The Engineer shall be furnished two (2) copies of affidavit that the "Valve Protection Testing" has been done and that all test requirements have been met.
- D. The Engineer shall be furnished with two (2) copies of affidavit that inspection, testing, and rejection are in accordance with the latest revision of the applicable AWWA Standard.
- E. The Engineer shall be furnished with two (2) copies of an affidavit stating that valves are constructed with NSF 61 approved materials (drinking water service).

1.04 VALVE COATINGS

See paragraph 3.02 in this Section.

PART 2 - PRODUCTS

2.01 MATERIALS

Water Valves and Accessories
02642-1

- A. All valves and appurtenances shall be of the size shown on the Drawings and, as far as possible, all equipment of the same type shall be from one manufacturer.
- B. All valves and appurtenances shall have the name of the maker, flow-directional arrows, and the design working pressure cast in raised letters on some appropriate part of the body.
- C. Except as otherwise shown on the Drawings or specified herein, all valves with operators located seven (7) feet or more above the operating floor shall be provided with chain wheel operators complete with chain guides and galvanized steel chain.
- D. All buried valves shall open left (counter-clockwise). Insofar as possible, all valves shall open counter-clockwise.
- E. All valves must be provided with suitable operating devices and adapted for operation in the position in which they are shown on the Drawings.
- F. All bolts and nuts for valves that are under water or in unheated vaults shall be of stainless steel. They shall be of the size recommended for the pipe and fittings they are to be used on and shall be in the recommended quantity.
- G. Buried valve operators shall be lubricated for the life of the valve and suitable for operation submerged in groundwater.

2.02 GATE VALVES

- A. All gate valves shall be of the resilient seat type in accordance with the latest revision of AWWA C509 Standard. The valve body, bonnet, and gate castings shall be ductile iron or cast iron. The valve shall have a non-rising stem (NRS), fully bronze or stainless steel mounted with o-ring seals. Valve body and bonnet, inside and out, shall be fully coated with fusion bonded epoxy coating in accordance with AWWA C550 Standard. Valves shall have a rated working pressure of 200 psi. Valves 14 inches and larger shall be provided with gearing.
- B. Gate valves for buried service shall be furnished with mechanical joint end connections unless otherwise shown on the drawings or specified herein. The end connection shall be suitable to receive ductile iron or PVC pipe.
- C. All gate valves shall have the name or monogram of the manufacturer, the year the valve casting was made, the size of the valve, and the working pressure cast on the body of the valve.
- D. Buried service gate valves shall be provided with a 2-inch square operating nut and shall be opened by turning to the left (counterclockwise)
- E. Buried service gate valves shall be installed in a vertical position with valve box as detailed on the drawings. They shall be set vertically and properly adjusted so that the cover will be in the same plane as the finished surface of the ground or street.

- F. Valves shall be those manufactured by Mueller, M & H Valve Company, American, American AVK, or approved equal.

2.03 BUTTERFLY VALVES (Buried)

- A. Valves 14-inch through 24-inch

The butterfly valve shall be DeZurik or M&H Valve Company AWWA C504 series (or approvable equal), mechanical joint, resilient seat, cast iron body and disk, stainless steel shaft and seating edge (ring), neoprene seat, Class 150B or Class 250B as noted on Drawings, cast iron housing with 2-inch operator nut in vertical position for use with a valve box. The valve shall be fully coated, inside and out, with fusion bonded epoxy in accordance with the latest revision of AWWA C550 Standard. Valves shall be rated for 150 psi or 250 psi working pressure as noted on Drawings and/or Bid Schedule.

2.04 VALVE BOXES

- A. Each buried stop and valve shall be provided with a suitable valve box top. Tops shall be aluminum "tophat" type as manufactured by Castings, Inc. or approved equal.
- B. The valve box top shall be adjusted to proper ground height by installing an appropriate length of 6-inch SDR 17 PVC from the valve to the box top.
- C. Covers for valves shall be close fitting and substantially dirt-tight and marked "WATER."
- D. The top of the cover shall be flush with the top of the box rim. An arrow and the word OPEN to indicate the direction of turning to open the valve shall be cast in the top of the valve covers.

2.05 COMBINATION AIR RELEASE AND AIR/VACUUM VALVES

- A. The combination air/vacuum valves shall be the size noted on the Drawings and equal to A.R.I., D-052, Val-Matic 202c.2, or Engineer approved equal.
- B. The valves shall be in accordance with ANSI/AWWA C512.
- C. The valves shall be of the type that automatically exhausts large quantities of air during the filling of a system and allows air to re-enter during draining or when a vacuum occurs. The overall height, less backwash accessories, shall not exceed 18 inches. Valves shall be constructed of standard cast iron body with a baked polyester coating and all operating parts shall be made of specially selected corrosion-resistant materials.
- D. The valve shall have a rolling seal mechanism that limits the possibility of obstruction by debris, discharges high air flow rates up to 200 yd³/hr, have a self-cleaning mechanism, and a one size orifice with a wide pressure range.

- E. The valve shall be non-slamming with a working pressure range of 0.3 to 230 psi.
- F. The discharge orifice shall be fitted with a double-acting throttle device to regulate and restrict air venting.
- G. All parts of the valves and the operating mechanisms shall be made of non-corrodible materials.

2.06 TAPPING SLEEVES

- A. Tapping sleeves shall be cast iron and capable of containing pressure within the full volume of the sleeve. Sleeve shall be mechanical joint suitable for use with ductile iron or PVC pipe.
- B. Sleeve shall be rated at 200 psi working pressure except at wellfield, where sleeve shall be rated for 250 psi working pressure.
- C. Flanged throat section of mechanical joint sleeves through 12-inch size shall conform to MSS SP60 Standard. For throat sections larger than 12 inches, flanged section shall mate valves of same manufacture as sleeves.
- D. All cast iron shall conform to ASTM A-126, Class B. Castings shall be cleaned and sound without defects that will impair their service. No plugging or welding of such defects will be allowed. Bolts, nuts, and gaskets shall be in accordance with mechanical joint requirements of AWWA C111.
- E. Tapping sleeves shall be capable of withstanding their rated pressure without leakage past the side gaskets and end gaskets of the sleeve. Sleeves shall be supplied with split end gaskets and two-piece glands. Side flange rubber gaskets shall butt against the rubber end gaskets to make a watertight seal. Side and end bolts shall be of a T-head design. The throat flange shall be designed to center the tapping valve to the sleeve. Tapping sleeve shall be equipped with a test plug.
- F. Tapping sleeves shall be fully coated with fusion bonded epoxy coating in accordance with AWWA C550 Standard.
- G. Sleeves shall be marked with the name of the manufacturer and size (run x branch).
- H. Tapping sleeve shall be manufactured by Mueller, M & H Valve Company, or approved equal.

2.07 TAPPING VALVES

- A. All tapping valves shall be of the resilient seat, gate valve type in accordance with the latest revision of AWWA C509 Standard. The valve body, bonnet, and gate castings shall be cast iron. The valve shall have a non-rising stem (NRS), fully bronze mounted with o-ring seals. Valve body and bonnet, inside and out, shall be

fully coated with fusion bonded epoxy coating in accordance with AWWA C550 Standard. Valves shall have a rated working pressure of 200 psi.

- B. Valve shall be furnished with ANSI B16.1 flanged end with centering ring on tapping side. Outlet side shall be mechanical joint. All valves through 12 inches shall mate all sleeves through 12-inch outlet regardless of manufacturer.
- C. All cast iron shall conform to ASTM A-126, Class B. Castings shall be clean and sound without defects that will impair their service. No plugging or welding of such defects will be allowed. Bolts shall be electric-zinc plated steel with hex heads and hex nuts in accordance with ASTM A-307 and A-563.
- D. Stems shall be manganese bronze having a minimum tensile strength of 60,000 psi, a minimum yield of 20,000 psi. NRS stem collars shall be cast integral with them and machined to size. The housing for the valve stem collar shall be machined. All thrust bearing shall be incorporated, as required, to optimize operating torques. NRS valves shall be furnished with two (2) o-ring stem seals located above the thrust collar and one (1) below. O-rings shall be set in grooves in the stem. The o-ring grooves shall not be less than the root diameter of the stem threads.

Gates for valve shall be totally encapsulated in rubber, be field replaceable, and provide a dual seal on the mating body seat. Valve shall be capable of installation in any position with rated sealing in both directions. Rubber sets of specially compounded SBR materials shall be utilized and be capable of sealing even under conditions of normal wear. The valve body shall have integral guide engaging lugs in the gate in a tongue-and-groove manner, supporting the gate throughout the entire open/close travel.

- E. Tapping valves shall be capable of making taps by using any cutter not less than 1/4 inch smaller than nominal pipe size.
- F. All tapping valves shall have the name or monogram of the manufacturer, the year the valve casting was made, the size of the valve, and the working pressure cast on the body of the valve.
- G. Tapping valves shall be provided with a 2-inch square operating nut and shall be opened by turning to the left counterclockwise.
- H. Tapping valves shall be installed in a vertical position with valve box as detailed on the drawings. They shall be set vertically and properly adjusted so that the cover will be in the same plane as the finished surface of the ground or street.
- I. Valves shall be those manufactured by Mueller, M & H Valve Company, American, or approved equal.

2.08 COUPLING ADAPTER

- A. The pipe couplings shall be of a gasketed, sleeve-type with diameter to properly fit the pipe. Each coupling shall consist of one (1) steel middle ring of thickness and

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length specified, two (2) steel followers, two (2) rubber-compounded wedge section gaskets and sufficient track-head steel bolts to properly compress the gaskets. Field joints shall be made with this type of coupling. The middle ring and followers of the coupling shall be true circular sections free from irregularities, flat spots, or surface defects. They shall be formed from mill sections with the follower-ring section of such design as to provide confinement of the gasket. After welding, they shall be tested by cold expanding a minimum of one (1) percent beyond the yield point. The coupling bolts shall be of the elliptic-neck, track-head design with rolled threads. The manufacturer shall supply information as to the recommended torque to which the bolts shall be tightened. All bolt holes in the followers shall be oval for greater strength. The coupling shall have longitudinal restraint accomplished by locking pins. The gaskets of the coupling shall be composed of a crude or synthetic rubber base compounded with other products to produce a material which will not deteriorate from age, from heat, or exposure to air under normal storage conditions. It shall also possess the quality of resilience and ability to resist cold flow of the material so that the joint will remain sealed and tight indefinitely when subjected to shock, vibration, pulsation, and temperature or other adjustments of the pipeline. The couplings shall be assembled on the job in a manner to ensure permanently tight joints under all reasonable conditions of expansion, contraction, shifting and settlement, unavoidable variations in trench gradient, etc.

- B. Nuts and bolts shall be in accordance with AWWA C111.
- C. Couplings shall be shop primed and field painted in accordance with Division 9 (or one coat of coal tar epoxy if not specified in Division 9).
- D. Compression couplings shall be equal to Style 38 manufactured by Dresser. Flanged couplings shall have flanges in accordance with AWWA C207 and be equal to Style 127 manufactured by Dresser.

PART 3 - EXECUTION

3.01 INSTALLATION

- A. Valves shall be installed as nearly as possible in the positions indicated on the drawings consistent with conveniences of operating the handwheel or wrench. All valves shall be carefully erected and supported in their respective positions free from all distortion and strain on appurtenances during handling and installation.
- B. All material shall be carefully inspected for defects in workmanship and material, all debris and foreign material cleaned out of valve openings and seats, all operating mechanisms operated to check their proper functioning, and all nuts and bolts checked for tightness.
- C. Valves and other equipment which do not operate easily or are otherwise defective shall be repaired or replaced at the Contractor's expense.
- D. Valves shall be provided with extension stems where required for convenience of operation. Extension stems shall be provided for valves installed underground and elsewhere so that the operating wrench does not exceed six (6) feet in length.

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3.02 PAINTING

- A. Valves shall be factory primed and fully coated, inside and out, with fusion bonded epoxy in accordance with the latest revision of AWWA C550 Standard, if valve is available in this coating.

- END OF SECTION -

SECTION 02675

DISINFECTION OF WATER SYSTEMS

PART 1 - GENERAL

1.01 STERILIZATION

A. General

It is the intent of this section to present essential procedures for disinfecting new and repaired water mains. The section is patterned after AWWA C651. The basic procedure comprises:

1. Preventing contaminating materials from entering the water mains during construction or repair and removing by flushing materials that may have entered the water main.
2. Disinfecting any residual contamination that may remain.
3. Determining the bacteriologic quality by laboratory test after disinfection.

B. Preventive Measures During Construction

1. Precautions shall be taken to protect pipe interiors, fittings, and valves against contamination. Pipe delivered for construction shall be strung so as to minimize entrance of foreign material. When pipe laying is not in progress, as for example, at the close of the day's work, all openings in the pipeline shall be closed by watertight plugs. Joints of all pipe in the trench shall be completed before work is stopped. If water accumulates in the trench, the plugs shall remain in place until the trench is dry.

If dirt, that, in the opinion of the Engineer, will not be removed by the flushing operation (Article 1.01-C.) enters the pipe, the interior of the pipe shall be cleaned and swabbed as necessary, with a five percent (5%) hypochlorite disinfecting solution.

2. Packing Materials and Joints

No contaminated material or any material capable of supporting prolific growth of micro-organisms shall be used for sealing joints. Packing material shall be handled in such a manner as to avoid contamination. Where applicable, packing materials must conform to AWWA standards. Packing material for cast iron pipe must conform to AWWA C600. Yarning or packing material shall consist of molded or tubular rubber rings, or treated paper. Materials such as jute or hemp shall not be used. The lubricant used in the installation of sealing gaskets shall be suitable for use in potable water. It shall be delivered to the job in enclosed containers and shall be kept clean.

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C. Preliminary Flushing

No site for flushing should be chosen unless it has been determined that drainage is adequate at the site. The main shall be flushed prior to disinfection, except when the tablet or granular methods are used (Articles 1.01-E.3. and 1.01-E.4.). It is recommended that the flushing velocity be not less than 2.5 ft/sec. The rate of flow required to produce this velocity in various diameters is shown in the following table:

| REQUIRED OPENINGS TO FLUSH PIPELINES (40-psi Residual Pressure) | | | | |
|--|-----------------|-------------------------|----------------|-----------|
| Flow Required to Produce 2.5 ft./sec. | | Minimum Outlet Size | | |
| Pipe Size (in) | Flow Rate (gpm) | Flushing Pipe Size (in) | Hydrant Nozzle | |
| | | | Number | Size (in) |
| 4 | 100 | 1 | 1 | 2½ |
| 6 | 220 | 1½ | 1 | 2½ |
| 8 | 390 | 2 | 1 | 2½ |
| 10 | 610 | 3 | 1 | 2½ |
| 12 | 880 | 3 | 2 | 2½ |
| 14 | 1,200 | 4 | 2 | 2½ |
| 16 | 1,565 | 4 | 2 | 2½ |
| 18 | 1,980 | 6 | 2 | 2½ |

D. Form of Chlorine for Disinfection

The most common forms of chlorine used in the disinfecting solutions are liquid chlorine (gas at atmospheric pressure), calcium hypochlorite tablets, calcium hypochlorite granules, and sodium hypochlorite solutions.

1. Liquid Chlorine Use

Liquid chlorine shall be used only when suitable equipment is available and only under the direct supervision of a person familiar with the physiological, chemical, and physical properties of this element and who is properly trained and equipped to handle any emergency that may arise. Introduction of chlorine gas directly from the supply cylinder is unsafe and shall not be permitted.

Note: The preferred equipment consists of a solution fed chlorinator in combination with a booster pump for injecting the chlorine gas water mixture into the main to be disinfected. Direct feed chlorinators are not recommended because their use is limited to situations where the water pressure is lower than the chlorine cylinder pressure.

2. Hypochlorites

- a. Calcium Hypochlorite - Calcium hypochlorite contains sixty-five percent (65%) available chlorine by weight. It is either tabular or granular in form. The tablets, 6-8 to the ounce, are designed to dissolve slowly in water. Calcium hypochlorite is packaged in containers of various types and sizes ranging from small plastic bottles to 100-pound drums.

A chlorine-water solution is prepared by dissolving the granules in water in the proportion requisite for the desired concentration.

- b. Sodium Hypochlorite - Sodium hypochlorite is supplied in strengths from five and one-quarter percent (5.25%) to sixteen percent (16%) available chlorine. It is packaged in liquid form in glass, rubber, or plastic containers ranging in size from one (1) quart bottles to five (5) gallon carboys. It may also be purchased in bulk for delivery by tank truck.

The chlorine water solution is prepared by adding hypochlorite to water. Product deterioration must be reckoned with in computing the quantity of sodium hypochlorite required for the desired concentration.

E. Methods of Chlorine Application

1. Continuous Feed Method - This method is suitable for general application.

- a. Water from the existing distribution system or other approved sources of supply shall be made to flow at a constant, measured rate into the newly laid pipeline. The water shall receive a dose of chlorine, also fed at a constant, measured rate. The two rates shall be proportioned so that the chlorine concentration in the water in the pipe is maintained at a minimum of 50 mg/L available chlorine. To assure that this concentration is maintained, the chlorine residual should be measured at regular intervals in accordance with the procedures described in the current edition of Standard Methods and AWWA M12--Simplified Procedures for Water Examination.

Note: In the absence of a meter, the rate may be determined either by placing a pitot gauge at the discharge or by measuring the time to fill a container of known volume.

Solutions of one percent (1%) chlorine may be prepared with sodium hypochlorite or calcium hypochlorite. The latter solution requires approximately one (1) pound of calcium hypochlorite in eight and five-tenths (8.5) gallons of water. The following table

gives the amount of chlorine residual required for each 100 feet of pipe of various diameters:

| CHLORINE REQUIRED TO PRODUCE 50 mg/L CONCENTRATION IN 100 FT. OF PIPE (By Diameter) | | |
|--|--------------------------------------|---|
| Pipe Size (in) | 100 Percent Chlorine (lb) | 1 Percent Chlorine Solutions (gal) |
| 4 | 0.027 | 0.33 |
| 6 | 0.061 | 0.73 |
| 8 | 0.108 | 1.3 |
| 10 | 0.170 | 2.04 |
| 12 | 0.240 | 2.88 |

- b. During the application of the chlorine, valves shall be manipulated to prevent the treatment dosage from flowing back into the line supplying the water. Chlorine application shall not cease until the entire main is filled with the chlorine solution. The chlorinated water shall be retained in the main for at least twenty-four (24) hours during which time all valves and hydrants in the section treated shall be operated in order to disinfect the appurtenances. At the end of this 24-hour period, the treated water shall contain no less than 25 mg/L chlorine throughout the length of the main.

2. Slug Method

This method is suitable for use with mains of large diameter for which, because of the volumes of water involved, the continuous feed method is not practical.

- a. Water from the existing distribution system or other approved source of supply shall be made to flow at a constant, measured rate (see Article 1.01-E.1.a.) into the newly laid pipeline. The water shall receive a dose of chlorine also fed at a constant, measured rate. The two rates shall be proportioned so that the concentration in the water entering the pipeline is maintained at no less than 300 mg/L. The chlorine shall be applied continuously and for a sufficient period to develop a solid column or "slug" of chlorinated water that will, as it passes along the line, expose all interior surfaces to a concentration of at least 300 mg/L for at least three (3) hours. The application shall be checked at a tap near the upstream end of the line by chlorine residual measurements.
- b. As the chlorinated water flows past tees and crosses, related valves and hydrants shall be operated as to disinfect appurtenances.

3. **Tablet Method**

Tablet disinfection is best suited to short extension (up to 2,500 feet) and smaller diameter mains (up to 12 inches). Because the preliminary flushing step must be eliminated, this method shall be used only when scrupulous cleanliness has been exercised. It shall not be used if trench water or foreign material has entered the main or if the water is below 5 degrees C (41 degrees Fahrenheit).

- a. **Placement of Tablets** - Tablets are placed in each section of pipe and also in hydrants, hydrant branches, and other appurtenances. They shall be attached by an adhesive, except for the tablets placed in hydrants and in the joints between the pipe sections. All the tablets within the main must be at the top of the main. If the tablets are fastened before the pipe section is placed in the trench, their position should be marked on the section to assure that there will be no rotation. When placing tables in joints, they are either crushed and placed on the inside annular space, or, if the type of assembly does not permit, they are rubbed like chalk on the butt ends of the sections to coat them with calcium hypochlorite.

The adhesive may be Permatex No. 1 or any alternative approved by the Engineer of the purchaser. There shall be no adhesive on the tablet except on the broad side next to the surface to which the tablet is attached. The following table gives the number of hypochlorite tablets required for various pipe diameters and lengths:

| NUMBER OF 5G HYPOCHLORITE TABLES REQUIRED FOR DOSE OF 50 mg/L | | | | | | |
|--|----------------------|----------|----------|----------|-----------|-----------|
| Length of Pipe (ft) | Pipe Diameter | | | | | |
| | 2 | 4 | 6 | 8 | 10 | 12 |
| 13 or less | 1 | 1 | 2 | 2 | 3 | 5 |
| 18 | 1 | 1 | 2 | 3 | 5 | 6 |
| 20 | 1 | 1 | 2 | 3 | 5 | 7 |
| 30 | 1 | 2 | 3 | 5 | 7 | 10 |
| 40 | 1 | 2 | 4 | 6 | 9 | 14 |

- b. **Filling and Contact** - When installation has been completed, the main shall be filled with water at a velocity of less than one (1) foot per second. This water shall remain in the pipe for at least twenty-four (24) hours.

Valves shall be manipulated so that the strong chlorine solution in the line being treated will not flow back into the line supplying the water.

4. Granule Method

Granular disinfection should only be used in the same instances when tabular disinfection can be used; that is, it may be used if the pipes and appurtenances are kept clean and dry during construction.

- a. Placement of Granules - Granules of calcium hypochlorite shall be placed during construction at the upstream end of the first section of pipe, at the upstream end of each branch main, and at 500-ft intervals.

Note: These granules cannot be used on solvent-welded plastic or on screwed-joint pipe because of the danger of fire or explosion from the reaction of the joint compounds with the calcium hypochlorite.

The following table gives the ounces of hypochlorite granules required for various pipe diameters:

| OUNCES OF CALCIUM HYPOCHLORITE GRANULES TO BE PLACED AT BEGINNINGS OF MAIN AND AT 500-ft INTERVALS | |
|---|--|
| Pipe Diameter (in.) | Calcium Hypochlorite Granules (oz.) |
| 4 | 0.5 |
| 6 | 1.0 |
| 8 | 2.0 |
| 12 | 4.0 |
| 16 and larger | 8.0 |

- b. Filling and Contact - When installation has been completed, the main shall be filled with water at a velocity of less than one (1) foot per second. This water shall remain in the pipe for at least twenty-four (24) hours. If the water temperature is less than 41°F (5 °C), the water shall remain in the pipe for at least forty-eight (48) hours.

Valves shall be manipulated so that the strong chlorine solution in the line being treated will not flow back into the line supplying the water.

F. Final Flushing

After the applicable retention period, the heavily chlorinated water shall be flushed from the main until the chlorine concentration in the water leaving the main is no higher than that generally prevailing in the system, or less than 1 mg/L. Chlorine residual determination shall be made to ascertain that the heavily chlorinated water has been removed from the pipeline.

G. Bacteriologic Tests

1. After final flushing, and before the water main is placed in service, a sample or samples shall be collected from the end of the line and tested for bacteriologic quality and shall show the absence of coliform organisms. If the number and frequency of samples is not prescribed by the public health authority having jurisdiction, at least one sample shall be collected from chlorinated supplies where a chlorine residual is maintained throughout the new main. From unchlorinated supplies at least two samples shall be collected at least twenty-four (24) hours apart.
2. Samples for bacteriologic analysis shall be collected in sterile bottles treated with sodium thiosulphate. No hose or fire hydrant shall be used in collection of samples. A suggested sampling tap consists of a standard corporation cock installed in the main with a copper tube gooseneck assembly. After samples have been collected, the gooseneck assembly may be removed, and retained for future use.

H. Repetition of Procedure

If the initial disinfection fails to produce satisfactory samples, disinfection shall be repeated until satisfactory samples have been obtained. The tablet method cannot be used in these subsequent disinfections. When the sample tests indicate that disinfection has been effective, the main may be placed in service.

I. Procedure After Cutting Into or Repairing Existing Mains

The procedures outlined in the Article apply primarily when mains are wholly or partially dewatered. Leaks or breaks that are repaired with clamping devices while the mains remain full of water under pressure present little danger of contamination and require no disinfection.

1. Trench "Treatment"

When an old line is opened, either by accident or by design, the excavation will likely be wet and may be badly contaminated from nearby sewers. Liberal quantities of hypochlorite applied to open trench areas will lessen the danger from such pollution. Tablets have the advantage in such a situation because they dissolve slowly and continue to release hypochlorite as water is pumped from the excavation.

2. Main Disinfection

The following procedure is considered as a minimum that may be used.

- a. Swabbing with Hypochlorite Solution - The interior of all pipe and fittings used in making the repair (particularly couplings and tapping sleeves) shall be swabbed with five percent (5%) hypochlorite solution before they are installed.
- b. Flushing - Thorough flushing is the most practical means of removing contamination introduced during repairs. If valving and hydrant locations permit, flushing from both directions is recommended. Flushing shall be started as soon as the repairs are completed and continued until discolored water is eliminated.
- c. Slug Method - Where practicable, in addition to the above procedures, a section main in which the break is located shall be isolated, all service connections shut off, and the section flushed and chlorinated as described in Article 2.5.2, except that the dose may be increased to as much as 500 mg/L, and the contact time reduced to as little as one-half (1/2) hour. After chlorination, flushing shall be resumed and continued until discolored water is eliminated.

3. Sampling

Bacteriologic samples shall be taken after repairs to provide a record by which the effectiveness of the procedures used can be determined. If the direction of flow is unknown, samples shall be taken on each side of the main break.

1.02 DISINFECTION OF WATER PLANT PROCESS BASINS AND CONNECTING PIPING

All water treatment plant basins and connecting piping downstream of the filter influent shall be disinfected to the same specification as given for the disinfection and bacteriological testing of mains. The Contractor shall take all necessary precautions to assure that there is no damage due to chlorine fumes during or after the disinfection process.

1.03 ALTERNATIVE METHOD FOR DISINFECTION OF LARGE TANKS

Fill tank with enough water (containing a free chlorine concentration of at least 250 mg/L) to spray all inside tank surfaces with the chlorinated water. Repeat the spraying again at no less than 60 minutes from the end of the first spraying. Drain the tank at no less than 30 minutes from the end of the second spraying before filling for use.

1.04 DECHLORINATION

All water discharged to the environment that could reach streams or ponds shall be properly dechlorinated prior to discharge.

- END OF SECTION -

SECTION 02935

SEEDING AND SODDING

PART 1 - GENERAL

1.01 GENERAL

The Contractor shall furnish all labor, materials, and equipment to regrade construction areas to original contours or regrade contours shown on drawings, fertilize and lime, seed or sod, and return all disturbed areas to their original or regrade contour and condition.

PART 2 - PRODUCTS

2.01 LIME AND FERTILIZER

Four (4) tons of agricultural limestone per acre and 1,000 pounds per acre of fertilizer with a 10-10-10 analysis shall be uniformly applied.

2.02 SEED

A mixture of fifty percent (50%) Falcon Fescue, twenty-five percent (25%) Creeping Red Fescue (*Festuca rubra*), ten percent (10%) Redtop (*Agrostis alba*), five percent (5%) White Dutch Clover (*Trifolium repens*), and ten percent (10%) Ryegrass, perennial (*Colium perenne*) shall be sowed at the rate of 100 pounds per acre (2.3 pounds per 1000 square feet). The seed shall have a minimum of eighty percent (80%) germination and a maximum of one percent (1%) weeds.

2.03 SOD

Sod shall be thirty percent (30%) to fifty percent (50%) bluegrass and fifty percent (50%) to seventy percent (70%) Falcon Fescue.

2.04 TOPSOIL

Topsoil shall be fertile, natural soil, typical of the locality, free from large stones, roots, sticks, peat, weeds, and sod, and obtained from naturally well-drained areas. It shall not be excessively acid or alkaline nor contain other toxic material harmful to plant growth. Topsoil stockpiled under other Sections or Divisions may be used, but the Contractor shall furnish additional topsoil at his own expense, if required.

2.05 MULCH

Mulch shall be clean small-grain straw.

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PART 3 - EXECUTION

3.01 GRADING

- A. Upon completion of backfill, the construction area shall be regraded roughly to original or regrade contours. The top four (4) inches of the regrade must be free from rocks and other deleterious material. All rock shall be picked up and disposed of at a designated place approved by Owner.
- B. Any and all settled areas must be brought to grade and restored to as near original conditions as possible prior to final acceptance of the project by the Owner.

3.02 TOPSOIL APPLICATION

Topsoil shall be spread and lightly compacted to finished grade. Compacted topsoil shall not be less than the depth specified. No topsoil shall be spread in water or while frozen or muddy.

3.03 SEEDING AND SODDING

A. Preparation of Seed Bed

Where the area to be seeded is not sufficiently pulverized to provide a good seedbed, the seedbed will be prepared by pulverizing the soil to a depth of four (4) inches with a disk harrow, drag harrow, spike toothed harrow or similar tool immediately prior to seeding. Lime and fertilizer shall be applied prior to preparing seedbed.

B. Seeding

The seed shall be raked into the ground to a depth of approximately ¼ inch.

C. Mulching

All seeded areas shall be mulched with clean small-grain straw at a rate of 1½ to 2 tons per acre. Asphalt emulsion shall be applied uniformly at a rate of 300 gallons per acre to tack the mulch, unless otherwise shown on the Drawings. Mechanical tacking will be considered on a case-by-case basis as approved by the Engineer .

D. Sodding

The sod bed shall be prepared, fertilized and limed similar to those areas to be seeded. Then the sod shall be placed in accordance with Section 528.3.4 of the Standard Specifications for Road and Bridge Construction of the Kentucky Department of Transportation.

E. Watering

The Contractor shall keep all seeded and sodded areas watered and in good condition, reseeding if, and when, necessary, until a good, healthy, uniform growth is established over the entire area seeded, and shall maintain these areas in good condition until final acceptance of the Contract.

F. Washouts

On slopes, the Contractor shall provide against washouts by an approved method. Any washout which occurs shall be regraded and reseeded at the Contractor's expense until good sod is established.

G. Maintenance

The Contractor shall maintain the areas in grass in a neat manner by watering, mowing, and raking clippings and leaves until the project is completed.

- END OF SECTION -