

**OFFICIAL CONTRACT DOCUMENTS**

**SPECIFICATIONS**

**CONTRACT 2**  
**Water System**  
**Improvements Project**

**Bracken County Water District**  
**Brooksville, Kentucky**



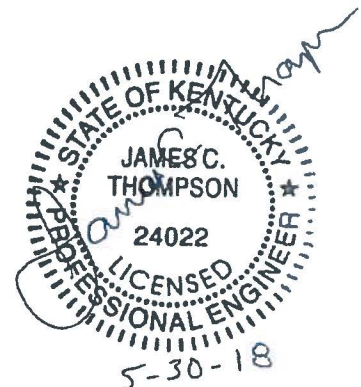
**Kentucky Engineering Group, PLLC**

**P.O. Box 1034**

**Versailles, Kentucky 40383**

**July, 2017**

**KEG Project No. 16041**







## MEMORANDUM

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**RE:** Bracken County Water District  
2016 Water System Improvements Project  
Brooksville, Kentucky

**TO:** Anthony Habermahl, Chairman  
Bracken County Water District

**FROM:** Matt Curtis, PE  
Bluegrass Engineering, PLLC

**DATE:** Monday, June 4, 2018

A handwritten signature in blue ink that reads 'Matt Curtis, PE'.

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This project was designed and plans and specifications prepared by Kentucky Engineering Group, PLLC. At the request of the Bracken County Water District, the contract for Engineering Services has been assigned from Kentucky Engineering Group, PLLC of Versailles, Kentucky to Bluegrass Engineering, PLLC of Georgetown, Kentucky effective May 31, 2018.

Engineering and Construction Services for this project will now be provided by Bluegrass Engineering, PLLC. In the plans and specifications, all references to "Kentucky Engineering Group, PLLC", "Engineer" or "Design Engineer", in writing and/or implied, shall now refer to "Bluegrass Engineering, PLLC".



## **ADDENDUM NO. 1**

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### **BRACKEN COUNTY WATER DISTRICT CONTRACT #2 - 2016 WATER SYSTEM IMPROVEMENTS BE Project # 18012**

**BID DATE: Thursday, August 9, 2018 – 11:00 am (Local Time)**

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This Addendum No. 1 and its noted revisions and attachments to the Drawings and Specifications shall supplement, amend, and become a part of the Bidding Documents, Contract Documents, Drawings, and Specifications. All Bids and Construction Contracts shall be based on these modifications and issued Drawings, Specifications, and all Addendum.

All Bids must be made on the required Bid Forms and include all of Section 004XXX series documents and must be fully completed and executed with original signatures and corporate seals. All Bid Bonds must be original forms and accompanied by the required certificates, original signatures, and seals. Any Bids without original documents, or a conditional or qualified Bid, will not be accepted

#### **REVISIONS AND ATTACHMENTS**

##### **General**

##### **ITEM AD1-1**

At the request of the Bracken County Water District, the contract for Engineering Services has been assigned from Kentucky Engineering Group, PLLC of Versailles, Kentucky to Bluegrass Engineering, PLLC of Georgetown, Kentucky effective May 31, 2018. Engineering and Construction Services for this project will be provided by Bluegrass Engineering, PLLC. In the plans and specifications, all references to "Kentucky Engineering Group, PLLC", "Engineer" or "Design Engineer" shall now refer to "Bluegrass Engineering, PLLC".

#### **SPECIFICATIONS**

##### **ITEM AD1-2**

##### **TABLE OF CONTENTS**

Replace with the attached Table of Contents in its entirety.

<b>ITEM AD1-3</b>	<b>SECTION 00010 – ADVERTISEMENT – PRE BID INFORMATION</b> Replace with the attached specification in its entirety.
<b>ITEM AD1-4</b>	<b>SECTION 2 – INFORMATION FOR BIDDERS</b> Replace with the attached specification in its entirety.
<b>ITEM AD 1-5</b>	<b>SECTION 00100 – INSTRUCTIONS TO BIDDERS</b> Replace with the attached specification in its entirety.
<b>ITEM AD 1-6</b>	<b>SECTION 00410 – BID FORM</b> Replace with the attached specification in its entirety.
<b>ITEM AD 1-7</b>	<b>EJCDC C-510 – NOTICE OF AWARD</b> Replace with the attached specification in its entirety.
<b>ITEM AD 1-8</b>	<b>EJCDC C-520 – AGREEMENT BETWEEN OWNER AND CONTRACTOR FOR CONSTRUCTION CONTRACT</b> Replace with the attached specification in its entirety.
<b>ITEM AD 1-9</b>	<b>EJCDC C-550 – NOTICE TO PROCEED</b> Replace with the attached specification in its entirety.
<b>ITEM AD 1-10</b>	<b>SECTION 00612 – INSURANCE CERTIFICATE</b> Replace with the attached specification in its entirety.
<b>ITEM AD1-11</b>	<b>EJCDC C-620 – CONTRACTOR'S APPLICATION FOR PAYMENT</b> Replace with the attached specification in its entirety.
<b>ITEM AD1-12</b>	<b>SECTION 00625, EJCDC C-941 – CHANGE ORDER</b> Replace with the attached specification in its entirety.
<b>ITEM AD1-13</b>	<b>SECTION 00630 – RD CONSTRUCTION SIGN</b> Replace with the attached specification in its entirety.

**ITEM AD1-14****SECTION 00635, EJCDC C-625 – CERTIFICATION OF SUBSTANTIAL COMPLETION**

Replace with the attached specification in its entirety.

**ITEM AD1-15****SECTION 01010 – SUMMARY**

Replace with the attached specification in its entirety.

**ITEM AD1-16****SECTION 01025 – MEASUREMENT AND PAYMENT**

Replace with the attached specification in its entirety.

**ITEM AD1-17****SECTION 013500 – SPECIAL PROVISIONS**

Insert this section in its entirety.

**ITEM AD1-18****SECTION 01580 – PROJECT IDENTIFICATION AND SIGNS**

Replace Figure 1 in its entirety with the attached FIGURE 1.

**ITEM AD1-19****SECTION 01740 – WARRANTIES AND BONDS**

Replace with the attached specification in its entirety.

**ITEM AD1-20****SECTION 02302 – RAILROAD OR HIGHWAY CROSSINGS**

Replace the table titled "Table of Minimum Wall Thickness for Steel Casing Pipe" as follows, to meet current KTC requirements:

**TABLE OF MINIMUM WALL THICKNESS FOR STEEL CASING PIPE**

<b>Minimum Wall Thickness of Casing Pipe (inches)</b>	<b>Normal Diameter of Casing Pipe (inches)</b>
0.375	18 or less
0.500	20 thru 30
0.532	36
0.625	42

**ITEM AD1-21****SECTION 02645 – HYDRANT ASSEMBLY**

Replace with the attached specifications in its entirety.



## **DRAWINGS**

<b>ITEM AD1 - D-1</b>	<b>PLAN SHEET NO. 4</b> Modification, see attached drawing #AD1 – D-1
<b>ITEM AD1 - D-2</b>	<b>PLAN SHEET NO. 5</b> Modification, see attached drawing #AD1 – D-2
<b>ITEM AD1 - D-3</b>	<b>PLAN SHEET NO. 6</b> Modification, see attached drawing #AD1 – D-3
<b>ITEM AD1 – D-4</b>	<b>PLAN SHEET NO. 16</b> Modification, see attached drawing #AD1 – D-4
<b>ITEM AD1 – D-5</b>	<b>PLAN SHEET NO. 17</b> Modification, see attached drawing #AD1 – D-5
<b>ITEM AD1 – D-6</b>	<b>PLAN SHEET NO. 20</b> Modification, see attached drawing #AD1 – D-6
<b>ITEM AD1 – D-7</b>	<b>PLAN SHEET NO. 22</b> Modification, see attached drawing #AD1 – D-7
<b>ITEM AD1 – D-8</b>	<b>PLAN SHEET NO. 23</b> Modification, see attached drawing #AD1 – D-8
<b>ITEM AD1 – D-9</b>	<b>PLAN SHEET NO. 24</b> Modification, see attached drawing #AD1 – D-9
<b>ITEM AD1 – D-10</b>	<b>PLAN SHEET NO. 27</b> Modification, see attached drawing #AD1 – D-10
<b>ITEM AD1 – D-11</b>	<b>PLAN SHEET NO. 31</b> Modification, see attached drawing #AD1 – D-11
<b>ITEM AD1 – D-12</b>	<b>PLAN SHEET NO. 32</b> Modification, see attached drawing #AD1 – D-12
<b>ITEM AD1 – D-13</b>	<b>PLAN SHEET NO. 33</b> Modification, see attached drawing #AD1 – D-13
<b>ITEM AD1 – D-14</b>	<b>PLAN SHEET NO. 36</b> Modification, see attached drawing #AD1 – D-14

<b>ITEM AD1 – D-15</b>	<b>PLAN SHEET NO. 40</b> Modification, see attached drawing #AD1 – D-15
<b>ITEM AD1 – D-16</b>	<b>PLAN SHEET NO. 41</b> Modification, see attached drawing #AD1 – D-16
<b>ITEM AD1 – D-17</b>	<b>PLAN SHEET NO. 42</b> Modification, see attached drawing #AD1 – D-17
<b>ITEM AD1 – D-18</b>	<b>PLAN SHEET NO. 44</b> Modification, see attached drawing #AD1 – D-18
<b>ITEM AD1 – D-19</b>	<b>PLAN SHEET NO. 47</b> Modification, see attached drawing #AD1 – D-19
<b>ITEM AD1 – D-20</b>	<b>PLAN SHEET NO. 48</b> Modification, see attached drawing #AD1 – D-20
<b>ITEM AD1 – D-21</b>	<b>PLAN SHEET NO. 49</b> Modification, see attached drawing #AD1 – D-21
<b>ITEM AD1 – D-22</b>	<b>PLAN SHEET NO. 52</b> Modification, see attached drawing #AD1 – D-22
<b>ITEM AD1 – D-23</b>	<b>ADDITION TO STANDARD DETAILS</b> Addition, see attached drawing #AD1 – D-23
<b>ITEM AD1 – D-24</b>	<b>PLAN SHEET NO. 20</b> Modification, see attached drawing #AD1 – D-24
<b>ITEM AD1 – D-25</b>	<b>PLAN SHEET NO. 31</b> Modification, see attached drawing #AD1 – D-25

## **ATTACHMENTS**

- Specification Sections
  - SECTION 0099 – TABLE OF CONTENTS
  - SECTION 00010 – ADVERTISEMENT FOR BIDS
  - SECTION 00410 – BID FORM
  - EJCDC C-510 – NOTICE OF AWARD
  - EJCDC C-520 – AGREEMENT BETWEEN OWNER AND CONTRACTOR FOR CONSTRUCTION PROJECT



EJCDC C-550 – NOTICE TO PROCEED  
EJCDC C-620 – CONTRACTOR'S APPLICATION FOR PAYMENT  
SECTION 00625, EJCDC C-941 – CHANGE ORDER  
SECTION 00630 – RD CONSTRUCTION SIGN  
SECTION 00635, EJCDC C-625 – CERTIFICATE OF SUBSTANTIAL COMPLETION  
SECTION 01010 – SUMMARY  
SECTION 01025 – MEASUREMENT AND PAYMENT  
SECTION 013500 – SPECIAL PROVISIONS  
SECTION 01580 – PROJECT IDENTIFICATION & SIGNS- FIGURE 1  
SECTION 01740 – WARRANTIES AND BONDS  
SECTION 02302 – RAILROAD OR HIGHWAY CROSSINGS  
SECTION 02645 – HYDRANT ASSEMBLY

## **DRAWINGS**

- Plan Sheets

DRAWING #AD1 – D-1  
DRAWING #AD1 – D-2  
DRAWING #AD1 – D-3  
DRAWING #AD1 – D-4  
DRAWING #AD1 – D-5  
DRAWING #AD1 – D-6  
DRAWING #AD1 – D-7  
DRAWING #AD1 – D-8  
DRAWING #AD1 – D-9  
DRAWING #AD1 – D-10  
DRAWING #AD1 – D-11  
DRAWING #AD1 – D-12  
DRAWING #AD1 – D-13  
DRAWING #AD1 – D-14  
DRAWING #AD1 – D-15  
DRAWING #AD1 – D-16  
DRAWING #AD1 – D-17  
DRAWING #AD1 – D-18  
DRAWING #AD1 – D-19  
DRAWING #AD1 – D-20  
DRAWING #AD1 – D-21  
DRAWING #AD1 – D-22  
DRAWING #AD1 – D-23  
DRAWING #AD1 – D-24  
DRAWING #AD1 – D-25



Mat. Curtis, PE

Project Engineer

**Bluegrass Engineering, PLLC**

P.O. Box 1657

Georgetown, KY 40324

Cell: 502.370.6551

e-mail: [mcurtis@bluegrassengineering.net](mailto:mcurtis@bluegrassengineering.net)

July 23, 2018

TABLE OF CONTENTS  
BRACKEN COUNTY WATER DISTRICT  
CONTRACT NO. 2 – WATER SYSTEM IMPROVEMENTS PROJECT

AD1-TOC-1

<b>BIDDING REQUIREMENTS, CONTRACT FORMS AND CONDITIONS OF THE CONTRACT</b>	
SECTION 00010 – PRE-BID INFORMATION - ADVERTISEMENT .....	1-2
SECTION 2 – INFORMATION FOR BIDDERS .....	1-3
EJCDC C-200 – INSTRUCTIONS TO BIDDERS .....	1-12
<b>BID FORMS</b>	
EJCDC C-410 – BID FORM .....	1-9
EJCDC C-430 – BID BOND .....	1-3
EJCDC C-451 – QUALIFICATION STATEMENT .....	1-12
<b>SUPPLEMENTS TO BID FORMS</b>	
SECTION 00440 – RD COMPLIANCE STATEMENT .....	1-2
SECTION 00450 – RD CERTIFICATION FOR CONTRACTS, GRANTS AND LOANS .....	1
SECTION 00460 – RD CERTIFICATION REGARDING DEBARMENT .....	1-2
<b>AGREEMENT FORMS</b>	
EJCDC C-510 – NOTICE OF AWARD .....	1-2
EJCDC C-520 – AGREEMENT BETWEEN OWNER AND CONTRACTOR FOR CONSTRUCTION CONTRACT .....	1-6
EJCDC C-550 – NOTICE TO PROCEED .....	1
<b>BONDS &amp; CERTIFICATES</b>	
SECTION 00600- INSURANCE CERTIFICATES .....	1
EJCDC C-610 – PERFORMANCE BOND .....	1-4
EJCDC C-615 – PAYMENT BOND .....	1-4
EJCDC C-620 – CONTRACTOR'S APPLICATION FOR PAYMENT .....	1
EJCDC C-941 – RD CHANGE ORDER FORM .....	1
EJCDC C-625 – CERTIFICATE OF SUBSTANTIAL COMPLETION .....	1
SECTION 00630 – RD CONSTRUCTION SIGN .....	1
SECTION 00640 – RD CERTIFICATE OF OWNER'S ATTORNEY .....	1
SECTION 00645 – KENTUCKY BULLETIN 1780-2 (AIS REQUIREMENTS) .....	1-31
<b>GENERAL, SUPPLEMENTARY AND SPECIAL CONDITIONS</b>	
EJCDC C-700- STANDARD GENERAL CONDITIONS .....	1-66
SECTION 00810 – SUPPLEMENTAL GENERAL CONDITIONS TO EJCDC STANDARD GENERAL CONDITIONS .....	1-8
SECTION 00901 – SPECIAL PROVISIONS .....	1-12
<b>DIVISION 1 - GENERAL REQUIREMENTS</b>	
SECTION 01010 - SUMMARY .....	1-2
SECTION 01015 - WORK SEQUENCE .....	1
SECTION 01016 - OCCUPANCY .....	1
SECTION 01025 - MEASUREMENT AND PAYMENT .....	1-6
SECTION 01030 – LABOR PROVISIONS .....	1
SECTION 01040 - COORDINATION .....	1
SECTION 01200 – SUBSTITUTIONS .....	1-5
SECTION 01300 - SUBMITTALS .....	1-3
SECTION 01380 – DVD .....	1
SECTION 01450 – QUALITY CONTROL .....	1
SECTION 01500 - TEMPORARY FACILITIES AND CONTROLS .....	1-3
SECTION 01530 - BARRIERS .....	1
SECTION 01540 - SECURITY .....	1
SECTION 01570 - TRAFFIC REGULATION .....	1-2

SECTION 01580 - PROJECT IDENTIFICATION AND SIGN.....	1-2
SECTION 01600 - MATERIAL AND EQUIPMENT.....	1-3
SECTION 01610 - TRANSPORTATION AND HANDLING.....	1
SECTION 01700 - PROJECT CLOSEOUT.....	1-3
SECTION 01710 - CLEANING.....	1-3
SECTION 01720 - PROJECT RECORD DOCUMENTS.....	1-2
SECTION 01740 - WARRANTIES AND BONDS.....	1-2

## DIVISION 2 - SITE WORK

SECTION 02110 – SITE CLEARING.....	1-2
SECTION 02211 – ROUGH GRADING.....	1-2
SECTION 02220 - EARTHWORK.....	1-8
SECTION 02222 - EXCAVATION.....	1-2
SECTION 02226 – TRENCHING, BACKFILLING AND COMPACTING.....	1-3
SECTION 02228 – ROCK REMOVAL.....	1-3
SECTION 02255 – CRUSHED STONE AND DENSE GRADED AGGREGATE.....	1
KPDES FORM NOI-SW.....	1-2
KPDES FROM NOT-SW.....	1-2
SECTION 02270 – SLOPE PROTECTION AND EROSION CONTROL.....	1-2
SECTION 02302 – RAILROAD OR HIGHWAY CROSSINGS.....	1-4
SECTION 02500 – BITUMINOUS PAVEMENT.....	1-3
SECTION 02502 – RESTORATION OF SURFACES.....	1-5
SECTION 02600 - PIPE, FITTINGS AND INSTALLATION.....	1-11
SECTION 02626 – CUSTOMER METER SERVICE AND SERVICE TUBING.....	1-6
SECTION 02630 - TAPPED CONNECTIONS.....	1-3
SECTION 02640 – VALVES.....	1-6
SECTION 02645 – HYDRANT ASSEMBLY.....	1-2
SECTION 02700 – SITE RESTORATION.....	1
SECTION 02900 – SEEDING AND SODDING.....	1-8

**ADVERTISEMENT FOR BIDS**

Sealed bids for "Contract 2 – Water System Improvements Project" for the Bracken County Water District, Brooksville, Kentucky, will be received at 1324 Brooksville Germantown Road, Brooksville, Kentucky, 41004 until 11:00 a.m., Local Time, August 9, 2018 and then publicly opened and read aloud. A pre-bid meeting will be held on August 2, 2018 at 11:00 a.m., Local Time, at the District's office.

Contract 2 – Water System Improvements Project- The program of work for which bids are to be submitted consists of approximately 20,000 LF of 8" water main, 90,000 LF of 6" water main, 30,000 LF of 4" water main, 5,000 LF of 3" water main and all related appurtenances as described in the Specifications and Plans. The contract time allotted for the completion of this contract is two hundred and seventy (270) consecutive calendar days.

The work is located in Bracken County, Kentucky: Drawings, Specifications and Contract Documents may be examined at:

Bluegrass Engineering, PLLC, 222 East Main St., Ste. 1, Georgetown, Kentucky 40324.

Bracken County Water District. 1324 Brooksville Germantown Road, Brooksville, Kentucky 41004.

Copies of the Specifications, Plans, and Contract Documents may be obtained from Kentucky Engineering Group, PLLC, Versailles, Kentucky 40383, upon receipt of a non-refundable amount of **\$750.00**.

**Prevailing Wage Rates Do Not Apply**

All bids must be made on the required Bid Form and must be fully completed and executed with original signatures and corporate seals. All bidders must be listed as a plan holder by the plan distributor.

Hearing impaired individuals may call 1-800-247-2510 for information.

No Bidder may withdraw his Bid within ninety (90) days after the actual date of bid opening.

Bidders on this work will be required to comply with Title VI of the Civil Rights Act of 1964, the Anti-Kickback Act, and the Contract Work Hours Standard Act.

Bidders must comply with the President's Executive Orders No. 11246 and No. 11375 and any amendments or supplements to those Executive Orders.

Attention of bidders is particularly called to the requirements as to conditions of employment to be observed under the contract, Section 3, Segregated Facility, Section 109 and E.O. 11246.

Bidders must certify they do not and will not maintain or provide for their employees any facilities that are segregated or based on race, color, creed, or national origin.

Minorities and small businesses are encouraged to submit bids on this project.

Bracken County Water District reserves the right to waive any bidding informalities and to reject any or all bids, for any reason deemed advisable by the Owner. The right is reserved by the Owner, in the exercise of its sole judgment to reject any or all Bids, and to re-advertise and award the Contract in the regular manner or to waive any informalities, irregularities, mistakes, errors or omissions in any Bid received and to accept any Bid deemed to be responsive to this invitation and favorable to the interests of the Owner.

The contract will be awarded on the basis of the low evaluated responsive, responsible, best and qualified bidder unless all bids are rejected.

The sealed bid for this Project shall be clearly marked on the outside of the envelope: Sealed Bid for "Contract 2 – Water System Improvements Project" for the Bracken County Water District. The bids may be mailed to: Bracken County Water District, 1324 Brooksville Germantown Road, Brooksville, Kentucky 41004. A certified check or Bid Bond payable to the Bracken County Water District in the amount of five (5) percent of the Bid shall accompany the Bid.

Section 746 of Title VII of the Consolidated Appropriations Act of 2017 (Division A-Agriculture, Rural Development, Food and Drug Administration, and Related Agencies, Appropriations Act, 2017) and subsequent statutes mandating domestic preference applies to American Iron and Steel requirement to this project. All listed iron and steel products used in this project must be produced in the United States. The term "iron and steel products" means the following products made primarily of iron and steel: lines or unlined pipes and fittings, manhole covers and other municipal castings, hydrants, tanks, flanges, pipe clamps and restraints, valves, structural steel, reinforced precast concrete, and construction materials. The de minimis and minor components waiver {all project specific waivers as applicable} apply to this contract.

Bracken County Water District  
Anthony Habermehl, Chairman  
Date: July 26, 2018



**INFORMATION FOR BIDDERS****SECTION 2****INSTRUCTIONS TO BIDDERS****PART 1 - GENERAL INSTRUCTIONS AND INFORMATION**

1.01 Each Bidder is responsible for inspecting the work site and for being thoroughly familiar with the Contract Documents, including Addenda. The Bidder shall in no way be relieved from any bidding obligation because of unfamiliarity with the site or documents. Neither the Owner nor Engineer assume any responsibility for errors or misinterpretations resulting from the use of incomplete sets of Bidding Documents.

1.02 All applicable laws, ordinances, and the rules and regulations of all authorities having jurisdiction over construction of the Project shall apply throughout the Contract and they will be deemed to be included in the Contract the same as though herein written out in full.

1.03 The Owner of the Project is Bracken County Water District.

1.04 The Engineer of the Project is Bluegrass Engineering, PLLC., P.O. Box 1657, Georgetown, Kentucky 40324, Phone 502-370-6551, Mr. Matt Curtis, PE.

1.05 The Contract Documents contain the provisions for construction of the Project. Information obtained from an officer, agent, or employee of the Owner, or from any other person, shall not affect the risk or obligation assumed by the Contractor or relieves the Contractor from fulfilling any of the conditions of the Contract.

1.06 The Owner may make such investigations as deemed necessary to determine the ability of the Bidder to perform the Work, and the Bidder shall furnish to the Owner all such information and data for this purpose as the Owner may request. The Owner reserves the right to reject any Bid if the evidence submitted by, or an investigation of, such Bidder fails to satisfy the Owner that such Bidder is properly qualified to carry out the obligations of the Agreement and to complete the Work.

**PART 2 - SPECIAL INSTRUCTIONS AND INFORMATION**

2.01 The Contract will be awarded based on the basis of the low evaluated responsive, responsible, best and qualified bidder unless all bids are rejected.

**PART 3 - BIDDING PROCEDURE**

3.01 Bids will be received by the Bracken County Water District until 11:00 A.M. (local time) August 9, 2018, and then publicly opened and read aloud at said office. A pre-bid meeting will be held at the District office, 1324 Brooksville Germantown Rd., Brooksville, Kentucky 41004 on August 2, 2018 at 11:00 A.M. (local time).

3.02 Each Bid must be submitted in a sealed envelope, addressed to Bracken County Water District, 1324 Brooksville Germantown Road, Brooksville, Kentucky 41004. The bid may be mailed to: Bracken County Water District, 1324 Brooksville Germantown Road, Brooksville, Kentucky 41004. Each envelope containing a Bid must be plainly marked on the outside as "Sealed Bid for Contract 2 – Water System Improvements Project" for Bracken County Water District and the envelope shall bear on the outside the Bidder's name, address and license number, if applicable, and date and time of opening. If forwarded by mail, the sealed envelope containing the bid must be enclosed in another envelope addressed to Bracken County Water District, 1324 Brooksville Germantown Road, Brooksville, Kentucky 41004.

3.03 All Bids must be made on the required bid form. All blank spaces for Bid prices must be filled in, in ink or typewritten, and the Bid form must be fully completed and executed when submitted. Each bid must be



submitted on the prescribed form and accompanied by the required certificates. All foregoing certifications must be fully completed and executed when submitted.

3.04 Each Bid must be accompanied by a separate Bid Bond for the Contract payable to the Owner for five (5) percent of the total amount of the Bid on the Contract. As soon as the Bid prices are compared, the Owner will return the Bonds of all except the three lowest responsible Bidders. When the Agreements are executed, the Bonds of the two remaining unsuccessful Bidders will be returned. The Bid Bonds of the successful Bidder will be retained until the Payment Bonds and Performance Bonds have been executed and approved, after which it will be returned. Certified checks payable to the Owner, equal to five (5) percent of the Bids, may be substituted for the Bid Bonds.

3.05 All bids must be made on the required Bid Form and must be fully completed and executed with original signatures and corporate seals. All Bid Bonds must be original forms and accompanied by the required certificates, original signatures and seals. Any Bids without original documents or a conditional or qualified Bid will not be accepted. All bidders must be listed as a plan holder by the plan distributor.

3.06 A Bid may be withdrawn prior to the scheduled time for the opening of Bids, or authorized postponement thereof. A Bid received after the time and date specified will not be considered. No Bidder may withdraw a Bid within ninety (90) days after the actual date of the opening. Should the Contract not be awarded within the specified period, the time may be extended by mutual agreement between the Owner and the Bidder.

3.07 The Owner may consider informal any bid not prepared and submitted in accordance with the provisions hereof. The Owner may waive any bidding informalities or minor defects or reject any and all bids. Any bid may be withdrawn prior to the above scheduled time for the opening of bids or authorized postponement thereof. Any bid received after the time and date specified shall not be considered.

3.08 A conditional or qualified Bid will not be accepted.

3.09 The Bidder shall supply the names and addresses of major suppliers and subcontractors as part of the Bid Proposal.

3.10 The quantities listed in the Bid Schedule are estimates only. Final payment will be based on unit prices and actual or plan quantities of work performed.

3.11 The Owner reserves the right to add, delete or change any part or portion of the proposed work. Any changes made by the Owner that affect the work will be compensated for.

3.12 Any bidder may modify his/her bid by telegraphic communication at any time prior to the scheduled closing time for receipt of bids, provided such telegraphic communication is received by the Owner prior to the closing time, and provided further, the Owner is satisfied that a written confirmation of the telegraphic modification over the signature of the bidder was mailed prior to the closing time. The telegraphic communication should not reveal the bid price but should provide the addition or subtraction or other modification so that the final prices or terms will not be known by the Owner until the bid is opened. If written confirmation is not received within two days from the closing time, no consideration will be given to the telegraphic modification.

3.13 The successful bidder, upon failure or refusal to execute and deliver the contract and bonds required within 10 days after receiving notice of the acceptance of their bid, shall forfeit to the Owner, as liquidated damages for such failure or refusal, the security deposited (Bid Bond) with the bid.

3.14 Each bidder must inform themselves fully of the conditions relating to the construction of the project and the employment of labor thereon. Failure to do so will not relieve a successful bidder of his/her obligation to furnish all material and labor necessary to carry out the provisions of the contract. Insofar as possible, the contractor, in carrying out the work, must employ such methods or means as will not cause any interruption of or interference with the work of any other Contractor.

3.15 No interpretation of the meaning of the plans, specifications or other pre-bid documents will be made to any bidder orally.

Every request for such interpretation should be in writing addressed to Mr. Matt Curtis, P.E., Bluegrass Engineering, PLLC, P.O. Box 1657, Georgetown, Kentucky 40324, Phone 502-370-6551, and to be given consideration must be received at least five days prior to the date fixed for the opening of bids. Any and all such interpretations and any supplemental instructions will be in the form of written addenda to the specifications which, if used, will be mailed to all prospective bidders (at the respective addresses furnished for such purposes), not later than three days prior to the date fixed for the opening of bids. Failure of any bidder to receive any such addendum or interpretation shall not relieve such bidder from any obligation under his/her bid as submitted. All addenda so issued shall become part of the contract documents.

3.16 At the time of the opening of bids each bidder will be presumed to have inspected the site and to have read and to be thoroughly familiar with the plans and Contract Documents (including all addenda). The failure or omission of any bidder to examine any form, instrument or document shall in no way relieve any bidder from any obligation in respect of his/her bid.

#### **PART 4 - AWARD OF CONTRACT (AGREEMENT)**

4.01 Award of Contract will be made to the low evaluated responsive, responsible, best and qualified Bidder for the Contract unless all Bids are rejected. The Owner reserves the right to reject any and all bids, to waive any bidding informalities, and to disregard all nonconforming, non-responsive or conditional bids. Discrepancies between words and figures will be resolved in favor of words. Discrepancies between the indicated sum of any column of figures and the correct sum thereof will be resolved in favor of the correct sum.

4.02 The Bidder to whom the Contract is awarded will be required to execute the Agreement and obtain the Performance Bond and Payment Bond within ten (10) calendar days from the date of the Notice of Award. The Notice of Award will be accompanied by the necessary Agreement and Bond forms. In case of failure of the Bidder to execute the Agreement, the Owner may consider the Bidder in default, in which case the Bid Bond accompanying the proposal shall become the property of the Owner.

4.03 A Performance Bond and a Payment Bond each in the amount of 100 percent (100%) of the Contract Price, with a corporate surety approved by the Owner, will be required for the faithful performance of the Contract. Such Bonds shall not be dated with a date earlier than the date of Agreement for the Contract (Project) being bonded.

4.04 Attorneys-in-fact who sign Bid Bonds or Payment Bonds and Performance Bonds must file with each Bond a certified and effective dated copy of their Power of Attorney.

4.05 The Owner within ten (10) calendar days of receipt of acceptable Performance Bond, Payment Bond and Agreement signed by the Bidder to whom the Agreement was awarded, shall sign the Agreement and return to such party an executed duplicate of the Agreement. Should the Owner not execute the Agreement within such period, the Bidder may, by written notice, withdraw the signed Agreement. Such notice of withdrawal shall be effective upon receipt of the notice by the Owner.

4.06 The Notice to Proceed shall be issued by the Owner within ten (10) calendar days of the execution of the Agreement by the Owner. Should there be reasons why the Notice to Proceed cannot be issued within such period, the time may be extended by mutual agreement between the Owner and Contractor. If the Notice to Proceed has not been issued within the specified periods or the period mutually agreed upon, the Contractor may terminate the Agreement without further liability on the part of either party.

- END OF SECTION -



## INSTRUCTIONS TO BIDDERS

### TABLE OF CONTENTS

	<b>Page</b>
ARTICLE 1 – Defined Terms.....	2
ARTICLE 2 – Copies of Bidding Documents.....	2
ARTICLE 3 – Qualifications of Bidders .....	2
ARTICLE 4 – Site and Other Areas; Existing Site Conditions; Examination of Site; Owner’s Safety Program; Other Work at the Site.....	2
ARTICLE 5 – Bidder’s Representations .....	4
ARTICLE 6 – Pre-Bid Conference.....	5
ARTICLE 7 – Interpretations and Addenda .....	5
ARTICLE 8 – Bid Security.....	5
ARTICLE 9 – Contract Times.....	6
ARTICLE 10 – Liquidated Damages .....	6
ARTICLE 11 – Substitute and “Or-Equal” Items.....	6
ARTICLE 12 – Subcontractors, Suppliers, and Others.....	7
ARTICLE 13 – Preparation of Bid.....	7
ARTICLE 14 – Basis of Bid .....	8
ARTICLE 15 – Submittal of Bid .....	9
ARTICLE 16 – Modification and Withdrawal of Bid.....	9
ARTICLE 17 – Opening of Bids.....	10
ARTICLE 18 – Bids to Remain Subject to Acceptance .....	10
ARTICLE 19 – Evaluation of Bids and Award of Contract.....	10
ARTICLE 20 – Bonds and Insurance.....	11
ARTICLE 21 – Signing of Agreement.....	11
ARTICLE 22 – NOT USED.....	11
ARTICLE 23 – NOT USED.....	11
ARTICLE 24 – Power Of Attorney.....	11
ARTICLE 25 – Laws And Regulations.....	11
ARTICLE 26 – Safety Standards And Accident Prevention.....	11
ARTICLE 27 – Wage Rate Requirments.....	12

## ARTICLE 1 – DEFINED TERMS

- 1.01 Terms used in these Instructions to Bidders have the meanings indicated in the General Conditions and Supplementary Conditions. The term "Bidder" means one who submits a Bid directly to Owner, as distinct from a subbidder, who submits a bid to a Bidder. The term "Successful Bidder" means the lowest, qualified, responsible, and responsive Bidder to whom Owner (on the basis of Owner's evaluation as hereinafter provided) makes an award. The term "Bidding Documents" includes the Advertisement or Invitation to Bid, Instructions to Bidders, the Bid Form, and the proposed Contract Documents (including all Addenda issued prior to receipt of Bids).

## ARTICLE 2 – COPIES OF BIDDING DOCUMENTS

- 2.01 Complete sets of the Bidding Documents must be obtained from the Issuing Office in the number and format stated in the advertisement or invitation to bid. Bids from anyone not on the Engineer's Plan Holders List will not be opened.
- 2.02 Complete sets of Bidding Documents shall 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 authorize or confer a license for any other use.

## ARTICLE 3 – QUALIFICATIONS OF BIDDERS

- 3.01 To demonstrate Bidder's qualifications to perform the Work, Bidder shall submit with its Bid written evidence establishing its qualifications such as financial data, previous experience, and present commitments, and the additional information listed in the Bid Form.
- 3.02 A Bidder's failure to submit required qualification information within the times indicated may disqualify Bidder from receiving an award of the Contract.
- 3.03 No requirement in this Article 3 to submit information will prejudice the right of Owner to seek additional pertinent information regarding Bidder's qualifications.
- 3.04 Bidder is advised to carefully review those portions of the Bid Form requiring Bidder's representations and certifications.

## ARTICLE 4 – SITE AND OTHER AREAS; EXISTING SITE CONDITIONS; EXAMINATION OF SITE; OWNER'S SAFETY PROGRAM; OTHER WORK AT THE SITE

- 4.01 *Site and Other Areas*
- A. The Site is identified in the Bidding Documents. By definition, the Site includes rights-of-way, easements, and other lands furnished by Owner for the use of the Contractor. Any additional lands required for temporary construction facilities, construction equipment, or storage of materials and equipment, and any access needed for such additional lands, are to be obtained and paid for by Contractor.



#### 4.02 *Existing Site Conditions*

##### A. Subsurface and Physical Conditions; Hazardous Environmental Conditions

1. If there are reports and/or additional information concerning site conditions available, they will be included as Appendices to the Bidding Documents.
2. Geotechnical Report: If a Geotechnical Report is available, it will be included as an appendix to the Bidding Documents. The Geotechnical Report describes certain select subsurface conditions that are anticipated to be encountered by Contractor during construction in specified locations.

The Conditions in the Geotechnical Report are intended to reduce uncertainty and the degree of contingency in submitted Bids. However, Bidders cannot rely solely on the said Conditions. Bids should be based on a comprehensive approach that includes an independent review and analysis of the Report, all other Contract Documents, Technical Data, other available information, and observable surface conditions. Not all potential subsurface conditions are reported.

Nothing in the report is intended to relieve Bidders of the responsibility to make their own determinations regarding construction costs, bidding strategies, and Bid prices, nor of the responsibility to select and be responsible for the means, methods, techniques, sequences, and procedures of construction, and for safety precautions and programs incident thereto.

- B. Underground Facilities: Information and data shown or indicated in the Bidding Documents with respect to existing Underground Facilities at or contiguous to the Site are set forth in the Contract Documents and are based upon information and data furnished to Owner and Engineer by owners of such Underground Facilities, including Owner, or others.
- C. Adequacy of Data: 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 subsurface or physical conditions appear in Paragraphs 5.03, 5.04, and 5.05 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 5.06 of the General Conditions.

#### 4.03 *Site Visit and Testing by Bidders*

- A. Bidder shall conduct the required Site visit during normal working hours, and shall not disturb any ongoing operations at the Site.
- B. Bidder is not required to conduct any subsurface testing, or exhaustive investigations of Site conditions.
- C. On request, and to the extent Owner has control over the Site, and schedule permitting, the Owner will provide Bidder access to the Site to conduct such additional examinations, investigations, explorations, tests, and studies as Bidder deems necessary for preparing and submitting a successful Bid. Owner will not have any obligation to grant such access if doing

so is not practical because of existing operations, security or safety concerns, or restraints on Owner's authority regarding the Site.

- D. Bidder shall comply with all applicable Laws and Regulations regarding excavation and location of utilities, obtain all permits, and comply with all terms and conditions established by Owner or by property owners or other entities controlling the Site with respect to schedule, access, existing operations, security, liability insurance, and applicable safety programs.
- E. 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.

#### 4.04 *Owner's Safety Program*

- A. Site visits and work at the Site may be governed by an Owner safety program. As the General Conditions indicate, if an Owner safety program exists, it will be noted in the Supplementary Conditions.

#### 4.05 *Other Work at the Site*

- A. Reference is made to Article 8 of the Supplementary Conditions for the identification of the general nature of other work of which Owner is aware (if any) that is to be performed at the Site by Owner or others (such as utilities and other prime contractors) and relates to the Work contemplated by these Bidding Documents. If Owner is party to a written contract for such other work, then on request, Owner will provide to each Bidder access to examine such contracts (other than portions thereof related to price and other confidential matters), if any.

### ARTICLE 5 – BIDDER'S REPRESENTATIONS

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

- A. examine and carefully study the Bidding Documents, and any data and reference items identified in the Bidding Documents;
- B. visit the Site, conduct a thorough, alert visual examination of the Site and adjacent areas, and become familiar with and satisfy itself as to the general, local, and Site conditions that may affect cost, progress, and performance of the Work;
- C. become familiar with and satisfy itself as to all Laws and Regulations that may affect cost, progress, and performance of the Work included but not limited to the AIS requirements as mandated and any subsequent statutes mandating domestic preference which apply to the following products made primarily of iron or steel: lined or unlined pipes and fittings, manhole covers and other municipal castings, hydrants, tanks, flanges, pipe clamps and restraints, valves, structural steel, reinforced precast concrete, and construction materials.
- D. carefully study 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 Bidding Documents, 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 Bidding Documents, especially with respect to Technical Data in such reports and drawings;



- E. consider 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 the Site-related reports and drawings identified in the Bidding Documents, with respect to the effect of such information, observations, and documents on (1) the cost, progress, and performance of the Work; (2) the means, methods, techniques, sequences, and procedures of construction to be employed by Bidder; and (3) Bidder's safety precautions and programs;
- F. agree, based on the information and observations referred to in the preceding paragraph, that at the time of submitting its Bid no further examinations, investigations, explorations, tests, studies, or data are necessary for the determination of its Bid for performance of the Work at the price bid and within the times required, and in accordance with the other terms and conditions of the Bidding Documents;
- G. become aware of the general nature of the work to be performed by Owner and others at the Site that relates to the Work as indicated in the Bidding Documents;
- H. promptly give Engineer written notice of all conflicts, errors, ambiguities, or discrepancies that Bidder discovers in the Bidding Documents and confirm that the written resolution thereof by Engineer is acceptable to Bidder;
- I. determine that the Bidding Documents are generally sufficient to indicate and convey understanding of all terms and conditions for the performance and furnishing of the Work; and
- J. agree that the submission of a Bid will constitute an incontrovertible representation by Bidder that Bidder has complied with every requirement of this Article, 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 6 – PRE-BID CONFERENCE**

- 6.01 A pre-bid conference shall be held at the District office 1324 Brooksville Germantown Road, Brooksville, Kentucky 41004 on August 2, 2018 at 11:00 A.M. (local time).

#### **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 via email to **mcurtis@bluegrassengineering.net**. Interpretations or clarifications considered necessary by Engineer in response to such questions will be issued by Addenda delivered to all parties recorded as having received the Bidding Documents. Questions received less than seven 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, supplement, or change the Bidding Documents.

#### **ARTICLE 8 – BID SECURITY**

- 8.01 A Bid must be accompanied by Bid security made payable to Owner in an amount of five (5) percent of Bidder's maximum Bid price (determined by adding the base bid and all alternates)

and in the form of a certified check, bank money order, or a Bid bond (on the form included in the Bidding Documents) issued by a surety meeting the requirements of Paragraphs 6.01 and 6.02 of the General Conditions.

- 8.02 The Bid security of the apparent Successful Bidder will be retained until Owner awards the contract to such Bidder, and 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 released. 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 consider Bidder to be in default, annul the Notice of Award, and the Bid security of that Bidder will be forfeited. Such forfeiture shall be Owner's exclusive remedy if Bidder defaults.
- 8.03 The Bid security of other Bidders that Owner believes to have a reasonable chance of receiving the award may be retained by Owner until the earlier of seven days after the Effective Date of the Contract or 91 days after the Bid opening, whereupon Bid security furnished by such Bidders will be released.
- 8.04 Bid security of other Bidders that Owner believes do not have a reasonable chance of receiving the award will be released 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 substantially completed and ready for final payment are set forth in the Agreement.

#### **ARTICLE 10 – LIQUIDATED DAMAGES**

- 10.01 Provisions for liquidated damages, if any, for failure to timely attain Substantial Completion, or completion of the Work in readiness for final payment, are set forth in the Supplemental General Conditions and referred to in the Agreement.

#### **ARTICLE 11 – SUBSTITUTE AND "OR-EQUAL" ITEMS**

- 11.01 The Contract for the Work, if awarded, will be on the basis of materials and equipment specified or described in the Bidding Documents, and those "or-equal" or substitute or materials and equipment subsequently approved by Engineer prior to the submittal of Bids and identified by Addendum. No item of material or equipment will be considered by Engineer as an "or-equal" or substitute unless written request for approval has been submitted by Bidder and has been received by Engineer at least 15 days prior to the date for receipt of Bids in the case of a proposed substitute and 5 days prior in the case of a proposed "or-equal". Each such request shall comply with the requirements of Paragraphs 7.04 and 7.05 of the General Conditions. Each such request shall include the Manufacturer's Certification Letter (Exhibit D) for compliance with AIS requirements and any subsequent statutes mandating domestic preference, if applicable. The burden of proof of the merit of the proposed item is upon Bidder. Engineer's decision of approval or disapproval of a proposed item will be final. If Engineer approves any such proposed item, such approval will be set forth in an Addendum issued to all prospective Bidders. Bidders shall not rely upon approvals made in any other manner. Substitutes and "or-equal" materials



and equipment may be proposed by Contractor in accordance with Paragraphs 7.04 and 7.05 of the General conditions after the Effective Date of the contract.

- 11.02 All prices that Bidder sets forth in its Bid shall be based on the presumption that the Contractor will furnish the materials and equipment specified or described in the Bidding Documents, as supplemented by Addenda. Any assumptions regarding the possibility of post-Bid approvals of "or-equal" or substitution requests are made at Bidder's sole risk.
- 11.03 If an award is made, Contractor shall be allowed to submit proposed substitutes and "or-equals" in accordance with the General Conditions.

## **ARTICLE 12 – SUBCONTRACTORS, SUPPLIERS, AND OTHERS**

- 12.01 If required by the bid documents, the Bidder shall submit to Owner a list of the Subcontractors or Suppliers proposed for the major portions of the Work. If requested by Owner, 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, or other individual or entity. 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 an acceptable substitute.
- 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, or other individuals or entities. Declining to make requested substitutions will 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 subsequent revocation of such acceptance as provided in Paragraph 7.06 of the General Conditions.
- 12.03 Subsequent to the submittal of the Bid, Owner may not require the Successful Bidder or Contractor to retain any Subcontractor, Supplier, or other individual or entity against which Contractor has reasonable objection.
- 12.04 The Contractor shall not award work to Subcontractor(s) in excess of the limits stated in SGC 7.06.

## **ARTICLE 13 – PREPARATION OF BID**

- 13.01 The Bid Form is included with the Bidding Documents.
  - A. All blanks on the Bid Form shall be completed in ink and the Bid Form signed in ink. Erasures or alterations shall be initialed in ink by the person signing the Bid Form. A Bid price shall be indicated for each section, Bid item, alternate, adjustment unit price item, and unit price item listed therein.
  - B. If the Bid Form expressly indicates that submitting pricing on a specific alternate item is optional, and Bidder elects to not furnish pricing for such optional alternate item, then Bidder may enter the words "No Bid" or "Not Applicable."
- 13.02 A Bid by a corporation shall be executed in the corporate name by a corporate officer (whose title must appear under the signature), accompanied by evidence of authority to sign. The corporate address and state of incorporation shall be shown.

- 13.03 A Bid by a limited liability company shall be executed in the name of the firm by a member or other authorized person and accompanied by evidence of authority to sign. The state of formation of the firm and the official address of the firm shall be shown.
- 13.04 A Bid by an individual shall show the Bidder's name and official address.
- 13.05 A Bid by a joint venture shall be executed by an authorized representative of each joint venturer in the manner indicated on the Bid Form. The official address of the joint venture shall be shown.
- 13.06 All names shall be printed in ink below the signatures.
- 13.07 The Bid shall contain an acknowledgment of receipt of all Addenda, the numbers of which shall be filled in on the Bid Form.
- 13.08 Postal and e-mail addresses and telephone number for communications regarding the Bid shall be shown.
- 13.09 The Bid shall contain evidence of Bidder's authority and qualification to do business in the state where the Project is located, or Bidder shall covenant in writing to obtain such authority and qualification prior to award of the Contract and attach such covenant to the Bid. Bidder's state contractor license number, if any, shall also be shown on the Bid Form. 11.8. The Bid price shall include such amounts as the Bidder deems proper for overhead and profit on account of any cash allowances named in the Contract Documents as provided in Paragraph 11.02 of the General Conditions.
- The Bid price shall include such amounts as the Bidder deems proper for overhead and profit on account of any cash allowances named in the Contract Documents as provided in Paragraph 11.02 of the General Conditions.
- 13.10 Each Bid must be submitted on the prescribed form and accompanied by the submittals listed in the Bid Form.

## **ARTICLE 14 – BASIS OF BID**

### **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 the sum of the products of the estimated quantity of each item and the corresponding unit price. The final quantities and contract price will be determined in accordance with paragraph 11.03 of the general conditions.
- C. Discrepancies between the multiplication of units of work and unit prices will be resolved in favor of 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 Bid prices will be compared after resolution of discrepancies, if any, as described above.

## **ARTICLE 15 – SUBMITTAL OF BID**

15.01 With each copy of the Bidding Documents, a Bidder is furnished one separate unbound copy of the Bid Form, and, if required, the Bid Bond Form. The unbound copy of the Bid Form is to be completed and submitted with the Bid security and the other documents required to be submitted under the terms of Article 7 of the Bid Form.

15.02 A Bid shall be received 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 a plainly marked package with the Project title (and, if applicable, the designated portion of the Project for which the Bid is submitted), the 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 package plainly marked on the outside with the notation "BID ENCLOSED."

15.03 Bids received after the date and time prescribed for the opening of bids, or not submitted at the correct location or in the designated manner, will not be accepted and will be returned to the Bidder unopened.

## **ARTICLE 16 – MODIFICATION AND WITHDRAWAL OF BID**

16.01 A Bid may be withdrawn by an appropriate document duly executed in the same 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. Upon receipt of such notice, the unopened Bid will be returned to the Bidder.



- 16.02 If a Bidder wishes to modify its Bid prior to Bid opening, Bidder must withdraw its initial Bid in the manner specified in Paragraph 16.01 and submit a new Bid prior to the date and time for the opening of Bids.
- 16.03 If within 24 hours after Bids are opened 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 will reject the Bid of any Bidder that Owner finds, after reasonable inquiry and evaluation, to not be responsible. If Bidder purports to add terms or conditions to its Bid, takes exception to any provision of the Bidding Documents, or attempts to alter the contents of the Contract Documents for purposes of the Bid, then the Owner will reject the Bid as nonresponsive; provided that Owner also reserves the right to waive all minor informalities not involving price, time, or changes in the Work.
- 19.02 If Owner awards the contract for the Work, such award shall be to the responsible Bidder submitting the lowest responsive Bid.
- 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 whether a Bidder is responsible, Owner will consider the qualifications of the Bidder and may consider the qualifications and experience of Subcontractors and Suppliers proposed for those portions of the Work for which the identity of Subcontractors and Suppliers must be submitted as provided in the Bidding Documents.
- 19.05 Owner may conduct such investigations as Owner deems necessary to establish the responsibility, qualifications, and financial ability of Bidders and any proposed Subcontractors or Suppliers.



## **ARTICLE 20 – BONDS AND INSURANCE**

- 20.01 Article 6 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 Agreement (executed by Successful Bidder) to Owner, it shall be accompanied by required bonds and insurance documentation.
- 20.02 **Construction activities occurring on Bracken County rights-of-way will require Successful Bidder to provide a construction bond for coverage in the amount of \$50,000.**

## **ARTICLE 21 – SIGNING OF AGREEMENT**

- 21.01 When Owner issues a Notice of Award to the Successful Bidder, it shall be accompanied by the unexecuted counterparts of the Agreement along with the other Contract Documents as identified in the Agreement. Within 15 days thereafter, Successful Bidder shall execute and deliver the required number of counterparts of the Agreement (and any bonds and insurance documentation required to be delivered by the Contract Documents) to Owner. Within ten days thereafter, Owner shall deliver one fully executed counterpart of the Agreement to Successful Bidder, together with printed and electronic copies of the Contract Documents as stated in Paragraph 2.02 of the General Conditions.

## **ARTICLE 22 – NOT USED**

## **ARTICLE 23 – NOT USED**

## **ARTICLE 24 – POWER OF ATTORNEY**

- 24.01 Attorneys-in-fact who sign Bid Bonds or Contract Bonds must file with each bond a certified and effective dated copy of their power of attorney.
- 24.02 Section 746 of Title VII Consolidated Appropriations Act of 2017 (Division A- Agriculture, Rural Development, Food and Drug Administration, and Related Agencies Appropriations Act, 2017) and any subsequent statutes mandating domestic preference applies an American Iron and Steel requirement to this project. All iron and steel products used in this project must be procured in the United States. "Iron and Steel Products" is defined in Section I.b.2. The de minimis and minor components waivers {add project specific waivers as applicable} apply to this contract.

## **ARTICLE 25 – LAWS AND REGULATIONS**

- 25.01 The Bidder's attention is directed to the fact that all applicable State Laws, municipal ordinance, and the rules and regulations of all authorities having jurisdiction over construction of the Project shall apply to the Contract throughout, and they will be deemed to be included in the Contract the same as though herein written out in full.

## **ARTICLE 26 – SAFETY STANDARDS AND ACCIDENT PREVENTION**

- 26.01 With respect to all Work performed under this contract, the Contractor shall:
- A. Comply with the safety standards provisions of applicable laws, building and construction codes and the "Manual of Accident Prevention in Construction" published by the

Associated General Contractors of America, the requirements of the Occupational Safety and Health Act of 1970 (Public Law 91-596), and the requirements of Title 29 of the Code of Federal Regulations, Section 1518 as published in the "Federal Register", Volume 36, No. 75, Saturday, April 17, 1971.

- B. Exercise every precaution at all times for the prevention of accidents and the protection of persons (including employees) and property.
- C. Maintain at his/her office or other well-known place at the job site, all articles necessary for giving first aid to the injured, and shall make standing arrangements for the immediate removal to a hospital or doctor's care of persons (including employees), who may be injured on the job site before the employer has made a standing arrangement for removal of injured persons to a hospital or a doctor's care.

#### **ARTICLE 27 – WAGE RATE REQUIREMENTS**

- 27.01 If the contract price is in excess of \$100,000, provisions of the Contract Work Hours and Safety Standards Act at 29 CFD 5.5(b) apply.

**BID FORM**

**BRACKEN COUNTY WATER DISTRICT**

**CONTRACT 2 - WATER SYSTEM IMPROVEMENTS (16041)**

## TABLE OF CONTENTS

	<b>Page</b>
Article 1 – Bid Recipient .....	1
Article 2 – Bidder’s Acknowledgements.....	1
Article 3 – Bidder’s Representations.....	1
Article 4 – Bidder’s Certification.....	2
Article 5 – Basis of Bid .....	3
Article 6 – Time of Completion.....	5
Article 7 – Attachments to this Bid .....	5
Article 8 – Defined Terms.....	6
Article 9 – Bid Submittal .....	6



## ARTICLE 1 – BID RECIPIENT

1.01 This Bid is submitted to:

***Bracken County Water District***

***1324 Brooksville Germantown Road***

***Brooksville, Kentucky 41004***

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 90 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>
1	

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 and including all AIS requirements.

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

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EJCDC® C-410, Bid Form for Construction Contracts.

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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	8" D.I.P. Water Main, Class 350	LF	1,500		
2	8" PVC Water Main, Class 250	LF	21,000		
3	6" PVC Water Main, Class 250	LF	93,000		
4	6" D.I.P. Water Main, Class 350	LF	700		
5	4" PVC Water Main, Class 250	LF	31,000		
6	3" PVC Water Main, Class 250	LF	6,000		
7	2" PVC Water Main, Class 250	LF	800		
8	Flushing Hydrant Assembly	EA	28		
9	Blow Off Hydrant Assembly	EA	14		
10	Underground Blow Off Hydrant	EA	1		
11	New Customer Service	EA	101		
12	Reconnect Existing Customer Service	EA	280		
13	Air Release Valve	EA	5		
14	Open Cut W/10" PVC Casing Pipe	LF	100		
15	10" PVC Casing Pipe	LF	400		
16	12" PVC Casing Pipe	LF	100		
17	16" Steel Casing, Bore & Jack	LF	300		
18	14" Steel Casing, Bore & Jack	LF	900		
19	14" Steel Casing, Open Cut	LF	50		
20	12" Steel Casing, Bore & Jack	LF	300		
21	6" Steel Casing, Bore & Jack	LF	50		
22	Tapping Sleeve & Valve	EA	39		
23	Cut & Plug Exist. W.M.	EA	52		
24	8" Gate Valve & Box	EA	20		
25	6" Gate Valve & Box	EA	35		
26	4" Gate Valve & Box	EA	15		
27	3" Gate Valve & Box	EA	10		
28	2" Gate Valve & Box	EA	1		
29	Connection To Existing W.M.	EA	18		
30	Additional Service Tubing	LF	5000		
31	Remove Existing Flushing Hydrant Assembly	EA	10		
32	Clean up and restoration of disturbed areas	LF	154,000		
<b>Total of All Unit Price Bid Items</b>					<b>\$</b>

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 Bid Price**

\$

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## ARTICLE 6 – TIME OF COMPLETION

- 6.01 Bidder agrees that the Work will be substantially complete within 240 calendar days after the date when the Contract Times commence to run as provided in Paragraph 4.01 of the General Conditions, and will be completed and ready for final payment in accordance with Paragraph 15.06 of the General Conditions within 270 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. 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 6.01 above, plus any extensions thereof allowed in accordance with Article 15 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 \$750 for each day that expires after the time specified in Paragraph 6.01 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 \$750 for each day that expires after the time specified in Paragraph 6.01 for completion and readiness for final payment until the Work is completed and ready for final payment.

## 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 SECTION 00430 EJCDC C-430;
  - B. List of Proposed Subcontractors;
  - C. List of Proposed Suppliers;
  - D. List of Project References;
  - E. 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;

- F. Contractor's License No.:   [or] Evidence of Bidder's ability to obtain a State Contractor's License and a covenant by Bidder to obtain said license within the time for acceptance of Bids;
- G. Required Bidder Qualification Statement with supporting data; and
- H. If Bid amount exceeds \$10,000, signed Compliance Statement (RD 400-6). Refer to specific equal opportunity requirements set forth in paragraph 18.10 of the General Conditions;
- I. If Bid amount exceeds \$25,000, signed Certification Regarding Debarment, Suspension, Ineligibility and Voluntary Exclusion - Lower Tier Covered Transactions (AD-1048);
- J. If Bid amount exceeds \$100,000, signed RD Instruction 1940-Q, Exhibit A-1, Certification for Contracts, Grants, and Loans. Refer to paragraph 18.11 of the General Conditions;
- K. Manufacturer's Certification Letter (Exhibit D) on any approved "or equal" or substitute request to ensure compliance with AIS requirements and any subsequent statutes mandating domestic preference

## 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)

*NOTE TO USER: Use in those states or other jurisdictions where applicable or required.*

## NOTICE OF AWARD

Date of Issuance:

Owner:	Bracken County Water District	Owner's Contract No.:	
Engineer:	Bluegrass Engineering, PLLC	Engineer's Project No.:	18012
Project:	Water System Improvements	Contract Name:	Contract No. 2 – Water System Improvements Project

Bidder:

Bidder's Address:

### TO BIDDER:

You are notified that Owner has accepted your Bid dated [ ] for the above Contract, and that you are the Successful Bidder and are awarded a Contract for:

Contract No. 2 – Water System Improvements Project.

The Contract Price of the awarded Contract is: \$ [ ]

[ 0 ] unexecuted counterparts of the Agreement accompany this Notice of Award, and one copy of the Contract Documents accompanies this Notice of Award, or has been transmitted or made available to Bidder electronically. *[revise if multiple copies accompany the Notice of Award]*

☒ a set of the Drawings will be delivered separately from the other Contract Documents.

You must comply with the following conditions precedent within 15 days of the date of this Notice of Award:

1. Deliver to Owner [ 5 ] counterparts of the Agreement, fully executed by Bidder.
2. Deliver with the executed Agreement(s) the Contract security *[e.g., performance and payment bonds]* and insurance documentation as specified in the Instructions to Bidders and General Conditions, Articles 2 and 6.
3. Other conditions precedent (if any):

Failure to comply with these conditions within the time specified will entitle Owner to consider you in default, annul this Notice of Award, and declare your Bid security forfeited.

Within ten days after you comply with the above conditions, Owner will return to you one fully executed counterpart of the Agreement, together with any additional copies of the Contract Documents as indicated in Paragraph 2.02 of the General Conditions.

Owner: Bracken County Water District

Authorized Signature

By:

Title:

Copy: Engineer





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 Laws and Regulations.

## **AGREEMENT BETWEEN OWNER AND CONTRACTOR FOR CONSTRUCTION CONTRACT (STIPULATED PRICE)**

Prepared by



Issued and Published Jointly by



Endorsed by



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National Society of Professional Engineers  
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(703) 684-2882  
[www.nspe.org](http://www.nspe.org)

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1015 15th Street N.W., Washington, DC 20005  
(202) 347-7474  
[www.acec.org](http://www.acec.org)

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(800) 548-2723  
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## INTRODUCTION

This Agreement between Owner and Contractor for Construction Contract (Stipulated Price) ("Agreement") has been prepared for use with the Suggested Instructions to Bidders for Construction Contracts ("Instructions to Bidders") (EJCDC® C-200, 2013 Edition); the Suggested Bid Form for Construction Contracts ("Bid Form") (EJCDC® C 410, 2013 Edition); and the Standard General Conditions of the Construction Contract ("General Conditions") (EJCDC® C-700, 2013 Edition). Their provisions are interrelated, and a change in one may necessitate a change in the others. See also the Guide to the Preparation of Supplementary Conditions (EJCDC® C-800, 2013 Edition), and the Commentary on the 2013 EJCDC Construction Documents (EJCDC® C-001, 2013 Edition).

In construction contracting, as a general matter the "agreement" is the legal instrument executed (signed) by the project owner and the construction contractor, binding the parties to the terms of the contract. See CSI Project Delivery Practice Guide (2011), Section 11.1.2, p. 210, and CSI Construction Specification Practice Guide (2011), Section 5.1, p. 75. This EJCDC Agreement form serves that basic function, by identifying the parties and Contract Documents, and establishing the Contract Price and Contract Times. This Agreement form is specifically intended for stipulated price (fixed price) contracts—that is, contracts in which Owner and Contractor identify specific lump sums and unit prices as Contractor's compensation for performing the Work. For construction contracts in which the Contract Price is primarily based on costs incurred during construction, users should select EJCDC® C-525, Agreement between Owner and Contractor for Construction Contract (Cost-Plus).

This Agreement form is drafted to be flexible enough to be used on projects that are competitively bid, and for public and private contracts that are negotiated or awarded through a proposal process or otherwise. On competitively bid projects, the following documentary information would typically be made available to bidders:

- Bidding Requirements, which include the Advertisement or invitation to bid, the Instructions to Bidders, and the Bid Form that is suggested or prescribed, all of which provide information and guidance for all Bidders, and Bid Form supplements (if any) such as Bid Bond and Qualifications Statement.
- Contract Documents, which include the Agreement, performance and payment bonds, the General Conditions, the Supplementary Conditions, the Drawings, and the Specifications.
- Documents referred to in the Supplementary Conditions or elsewhere as being of interest to bidders for reference purposes, but which are not Contract Documents.

Together, the Bidding Requirements and the Contract Documents are referred to as the Bidding Documents. (The terms "Bidding Documents," "Bidding Requirements," and "Contract Documents" are defined in Article 1 of the General Conditions.) The Bidding Requirements are not Contract Documents because much of their substance pertains to the relationships prior to the award of the Contract and has little effect or impact thereafter. Many contracts are awarded without even going through a bidding process, and thus have no Bidding Requirements, illustrating that the bidding items are typically superfluous to the formation of a binding and comprehensive construction contract. In some cases, however, a bid or proposal will contain numerous line items and their prices; in such case the actual bid or proposal document may be attached as an exhibit to the Agreement to avoid extensive rekeying.



Suggested provisions are accompanied by “Notes to User” and bracketed notes and prompts to assist in preparing the Agreement. The provisions have been coordinated with the other forms produced by EJCDC. Much of the language should be usable on most projects, but modifications and additional provisions will often be necessary. When modifying the suggested language or writing additional provisions, the user must check the other documents thoroughly for conflicts and coordination of terms, and make appropriate revisions in all affected documents.

All parties involved in construction projects benefit significantly from a standardized approach in the location of subject matter throughout the documents. Experience confirms the danger of addressing the same subject matter in more than one location; doing so frequently leads to confusion and unanticipated legal consequences. When preparing documents for a construction project, careful attention should be given to the guidance provided in EJCDC® N-122/AIA® A521, Uniform Location of Subject Matter (2012 Edition), available at no charge from the EJCDC website, [www.ejcdc.org](http://www.ejcdc.org), and from the websites of EJCDC’s sponsoring organizations.

CSI MasterFormat™ (50-Division format) designates Document “00 52 XX” for various forms of the owner-contractor agreement. If this format is used, the first page of the Agreement would be numbered 00 52 13-1 (or other appropriate third pair of numbers, in accordance with MasterFormat™).

Instructions and restrictions regarding the use of this document are set out in the License Agreement that accompanied the document at the time of purchase. To prepare the Agreement for inclusion in a Project Manual or for use in a specific contractual engagement, (1) remove the cover pages and this Introduction, (2) fill in Project-specific information and make revisions to the Agreement, following the guidance in the Notes to Users and bracketed notes and prompts, and the advice of legal counsel, and (3) delete the Notes to Users and bracketed notes and prompts.

Owner and Contractor hereby agree as follows:

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

2.01 *The Project, of which the Work under the Contract Documents is a part, is generally described as follows: **Contract No. 2 – Water System Improvements Project***

2.02 The part of the Project that pertains to the Work has been designed by Bluegrass Engineering, PLLC.

2.03 The Owner has retained Bluegrass Engineering, PLLC ("Engineer") 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.

### 3.01 *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.

### 3.02 Contract Times: Days

A. The Work will be substantially completed within 240 days after the date when the Contract Times commence to run as provided in Paragraph 4.01 of the General Conditions, and completed and ready for final payment in accordance with Paragraph 15.06 of the General Conditions within 270 days after the date when the Contract Times commence to run.

### 3.03 Liquidated Damages

A. Contractor and Owner recognize that time is of the essence as stated in Paragraph 4.01 above and that Owner will suffer financial and other losses if the Work is not completed and Milestones not achieved within the times specified in Paragraph 4.02 above, plus any extensions thereof allowed in accordance with the Contract. 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):

1. Substantial Completion: Contractor shall pay Owner \$ 750 for each day that expires after the time (as duly adjusted pursuant to the Contract) specified in Paragraph 4.02.A above for Substantial Completion until the Work is substantially completed.

*Finally, note that Paragraph 4.04.B above does not refer to fines or penalties. In the typical case, fines and penalties are linked to Substantial Completion, and are not applicable to delays in final completion of the Work.*

#### ARTICLE 4 – CONTRACT PRICE

4.01 Owner shall pay Contractor for completion of the Work in accordance with the Contract Documents the amounts that follow, subject to adjustment under the Contract:

- A. For all Work, at the prices stated in Contractor's Bid, attached hereto as an exhibit.

#### ARTICLE 5 – PAYMENT PROCEDURES

5.01 *Submittal and Processing of Payments*

- A. Contractor shall submit Applications for Payment in accordance with Article 15 of the General Conditions. Applications for Payment will be processed by Engineer as provided in the General Conditions.

5.02 *Progress Payments; Retainage*

- A. Owner shall make progress payments on account of the Contract Price on the basis of Contractor's Applications for Payment on or about the TBD day of each month during performance of the Work as provided in Paragraph 6.02.A.1 below, provided that such Applications for Payment have been submitted in a timely manner and otherwise meet the requirements of the Contract. All such payments will be measured by the Schedule of Values established as provided in 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 elsewhere in the Contract.
  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 Owner may withhold, including but not limited to liquidated damages, in accordance with the Contract
    - a. 95 percent of Work completed (with the balance being retainage). If the Work has been 50 percent completed as determined by Engineer, and if the character and progress of the Work have been satisfactory to Owner and Engineer, then as long as the character and progress of the Work remain satisfactory to Owner and Engineer, there will be no additional retainage; and
    - b. 100 percent of cost of materials and equipment not incorporated in the Work (with the balance being retainage).
- B. Upon Substantial Completion, Owner shall pay an amount sufficient to increase total payments to Contractor to 95 percent of the Work completed, less such amounts set off by Owner pursuant to Paragraph 15.01.E of the General Conditions, and less 5



percent of Engineer's estimate of the value of Work to be completed or corrected as shown on the punch list of items to be completed or corrected prior to final payment.

**5.03 Final Payment**

- A. Upon final completion and acceptance of the Work in accordance with Paragraph 15.06 of the General Conditions, Owner shall pay the remainder of the Contract Price as recommended by Engineer as provided in said Paragraph 15.06.

**ARTICLE 6 – INTEREST**

- 6.01 All amounts not paid when due shall bear interest at the rate of 3.5 percent per annum.

**ARTICLE 7 – CONTRACTOR'S REPRESENTATIONS**

- 7.01 In order to induce Owner to enter into this Contract, Contractor makes the following representations:
- A. Contractor has examined and carefully studied the Contract Documents, and any data and reference items identified in the Contract Documents.
  - B. Contractor has visited the Site, conducted a thorough, alert visual examination of the Site and adjacent areas, 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 Laws and Regulations that may affect cost, progress, and performance of the Work.
  - D. Contractor has considered the information known to Contractor itself; information commonly known to contractors doing business in the locality of the Site; information and observations obtained from visits to the Site; the Contract Documents; and the Site-related reports and drawings identified in the Contract Documents, with respect to the effect of such information, observations, and documents on (1) the cost, progress, and performance of the Work; (2) the means, methods, techniques, sequences, and procedures of construction to be employed by Contractor; and (3) Contractor's safety precautions and programs.
  - E. Based on the information and observations referred to in the preceding paragraph, Contractor agrees that no 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.
  - F. 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.
  - G. 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.
  - H. The Contract Documents are generally sufficient to indicate and convey understanding of all terms and conditions for performance and furnishing of the Work.

- I. Contractor's entry into this Contract constitutes an incontrovertible representation by Contractor that without exception all prices in the Agreement are premised upon performing and furnishing the Work required by the Contract Documents.

## ARTICLE 8 – CONTRACT DOCUMENTS

### 8.01 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. [ ] (pages [ ] to [ ] , inclusive).

*NOTE(S) TO USER:*

*Such other bonds might include maintenance or warranty bonds intended to manage risk after completion of the Work.*

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 (not attached but incorporated by reference) consisting of [ ] sheets with each sheet bearing the following general title: [ ] [or] the Drawings listed on the attached sheet index.
  9. Addenda (numbers [ ] to [ ] , inclusive).
  10. Exhibits to this Agreement (enumerated as follows):
    - a. Contractor's Bid (pages [ ] to [ ] , inclusive).
  11. The following which may be delivered or issued on or after the Effective Date of the Contract and are not attached hereto:
    - a. Change Orders
- 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 the General Conditions.

## ARTICLE 9 – MISCELLANEOUS

### 9.01 Terms

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

9.02 *Assignment of Contract*

- A. Unless expressly agreed to elsewhere in the Contract, 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, money that may become due and money that is due may not be assigned without such consent (except to the extent that the effect of this restriction may be limited by law), and unless specifically stated to the contrary in any written consent to an assignment, no assignment will release or discharge the assignor from any duty or responsibility under the Contract Documents.

9.03 *Successors and Assigns*

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

9.04 *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.

9.05 *Contractor's Certifications*

- A. Contractor certifies that it has not engaged in corrupt, fraudulent, collusive, or coercive practices in competing for or in executing the Contract. For the purposes of this Paragraph 10.05:
  - 1. "corrupt practice" means the offering, giving, receiving, or soliciting of any thing of value likely to influence the action of a public official in the bidding process or in the Contract execution;
  - 2. "fraudulent practice" means an intentional misrepresentation of facts made (a) to influence the bidding process or the execution of the Contract to the detriment of Owner, (b) to establish Bid or Contract prices at artificial non-competitive levels, or (c) to deprive Owner of the benefits of free and open competition;
  - 3. "collusive practice" means a scheme or arrangement between two or more Bidders, with or without the knowledge of Owner, a purpose of which is to establish Bid prices at artificial, non-competitive levels; and
  - 4. "coercive practice" means harming or threatening to harm, directly or indirectly, persons or their property to influence their participation in the bidding process or affect the execution of the Contract.

9.06 *Other Provisions*

- A. Owner stipulates that if the General Conditions that are made a part of this Contract are based on EJCDC® C-700, Standard General Conditions for the Construction Contract, published by the Engineers Joint Contract Documents Committee®, and if Owner is the party that has furnished said General Conditions, then Owner has plainly shown all modifications to the standard wording of such published document to the Contractor,



through a process such as highlighting or “track changes” (redline/strikeout), or in the Supplementary Conditions.

IN WITNESS WHEREOF, Owner and Contractor have signed this Agreement.

This Agreement will be effective on \_\_\_\_\_ (which is the Effective Date of the Contract).

OWNER:

CONTRACTOR:

\_\_\_\_\_  
Bracken County Water District

By: \_\_\_\_\_

By: \_\_\_\_\_

Title: Chairman

Title: \_\_\_\_\_

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

Attest: \_\_\_\_\_

Attest: \_\_\_\_\_

Title: \_\_\_\_\_

Title: \_\_\_\_\_

Address for giving notices:

Address for giving notices:

\_\_\_\_\_  
1324 Brooksville Germantown Road

\_\_\_\_\_  
Brooksville, Kentucky 41004

License No.: \_\_\_\_\_

*(where applicable)*

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

*NOTE TO USER: Use in those states or other jurisdictions where applicable or required.*

**NOTICE TO PROCEED**

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Owner:	Bracken County Water District	Owner's Contract No.:	N/A
Contractor:		Contractor's Project No.:	
Engineer:	Bluegrass Engineering, PLLC	Engineer's Project No.:	18012
Project:	Contract No. 2 – Water System Improvements Project	Contract Name:	Water System Improvements Project
Effective Date of Contract:			

---

**TO CONTRACTOR:**

Owner hereby notifies Contractor that the Contract Times under the above Contract will commence to run on [REDACTED], 20[REDACTED]. [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:  
[Note any access limitations, security procedures, or other restrictions]

---

Owner: Bracken County Water District

By: Authorized Signature

Title: Chairman

Date Issued:

Copy: Engineer



## SECTION 006216

### INSURANCE CERTIFICATE

Certificate of Insurance shall be provided in accordance with the General Conditions, this Division, Section 006216.

#### OWNER'S MINIMUM INSURANCE REQUIREMENTS

The Contractor at its expense shall procure and shall maintain the insurance required in this Contract and to be provided by the Contractor. The Contractor shall require each subcontractor to procure and maintain the insurance required by this Contract and to be provided by subcontractors. At a minimum, the following insurance Limits shall be procured:

General Liability – Commercial General Liability

Limits of Insurance - \$2,000,000 general aggregate  
\$2,000,000 products & completed operations aggregate  
\$1,000,000 personal & advertising  
\$1,000,000 each occurrence

Automobile Liability – All Owned, Non-owned & Hired vehicles

Limits of Liability - \$1,000,000 per accident

Excess or Umbrella Liability

Limits of Liability - \$2,000,000

Workmen's Compensation – Statutory Coverage in each state of operations or "all states" coverage

Limits of Liability - \$100,000 each accident bodily injury  
\$500,000 policy limit bodily injury by disease  
\$100,000 each employee bodily injury by disease

Description of Operations

Bracken County Water District and Bluegrass Engineering, PLLC must be added to the Commercial General Liability policy as an additional insured by Standard Endorsements CG 2010(11-85) and CG 2037 or their equivalents.

All policies, except workers compensation, shall include a waiver of subrogation.

Certificate Holder

Must list: Bracken County Water District  
1324 Brooksville Germantown Road  
Brooksville, Kentucky 41004

Cancellation

Thirty (30) days prior written notice is required.

Builders Risk/Installation Floater

May be required in an amount equal to the contract if above ground structures are involved in the Contract.

END OF SECTION

**Contractor's Application for Payment No.**

Application Period		Application Date	
To (Owner)	Bracken County Water District	From (Contractor)	Via (Engineer) Bluegrass Engineering, PLLC
Project	Water System Improvements Project	Contract	Contract No 2 - Water System Improvements
Owner's Contract No.	N/A	Contractor's Project No.	Engineer's Project No. 18012

**Application For Payment  
Change Order Summary**

Approved Change Orders			1. ORIGINAL CONTRACT PRICE.....	\$
Number	Additions	Deductions	2. Net change by Change Orders.....	\$
			3. Current Contract Price (Line 1 ± 2).....	\$
			4. TOTAL COMPLETED AND STORED TO DATE	
			(Column F total on Progress Estimates).....	\$
			5. RETAINAGE:	
			a. X Work Completed.....	\$
			b. X Stored Material.....	\$
			c. Total Retainage (Line 5.a + Line 5.b).....	\$
			6. AMOUNT ELIGIBLE TO DATE (Line 4 - Line 5.c).....	\$
			7. LESS PREVIOUS PAYMENTS (Line 6 from prior Application).....	\$
			8. AMOUNT DUE THIS APPLICATION.....	\$
			9. BALANCE TO FINISH, PLUS RETAINAGE	
			(Column G total on Progress Estimates + Line 5.c above).....	\$
TOTALS				
NET CHANGE BY				
CHANGE ORDERS				

**Contractor's Certification**

The undersigned Contractor certifies, to the best of its knowledge, the following:

(1) All previous progress payments received from Owner on account of Work done under the Contract have been applied on account to discharge Contractor's legitimate obligations incurred in connection with the Work covered by prior Applications for Payment;

(2) Title to all Work, materials and equipment incorporated in said Work, or otherwise listed in or covered by this Application for Payment, will pass to Owner at time of payment free and clear of all Liens, security interests, and encumbrances (except such as are covered by a bond acceptable to Owner indemnifying Owner against any such Liens, security interest, or encumbrances), and

(3) All the Work covered by this Application for Payment is in accordance with the Contract Documents and is not defective.

Contractor Signature

By: \_\_\_\_\_ Date: \_\_\_\_\_

Payment of \$ \_\_\_\_\_  
(Line 8 or other - attach explanation of the other amount)

is recommended by \_\_\_\_\_ (Date)  
Bluegrass Engineering, PLLC

Payment of \$ \_\_\_\_\_  
(Line 8 or other - attach explanation of the other amount)

is approved by \_\_\_\_\_ (Date)  
Bracken County Water District

Approved by \_\_\_\_\_ (Date)  
Rural Development

## Progress Estimate - Unit Price Work

## Contractor's Application

For (Contract): Contract No 2 - Water System Improvements						Application Number:				
Application Period:						Application Date:				
A				B	C	D	E	F		
Item		Contract Information			Estimated Quantity Installed	Value of Work Installed to Date	Materials Presently Stored (not in C)	Total Completed and Stored to Date (D + E)	% (F / B)	Balance to Finish (B - F)
Bid Item No	Description	Item Quantity	Units	Unit Price						
1	8" D I P , Class 350	1,500	LF							
2	8" PVC Water Main, SDR 17 Class 250	21,000	LF							
3	6" PVC Water Main, SDR 17 Class 250	93,000	LF							
4	6" D I P , Class 350	700	LF							
5	4" PVC Water Main, SDR 17 Class 250	31,000	LF							
6	3" PVC Water Main, SDR 17 Class 250	6,000	LF							
7	2" PVC Water Main, SDR 17 Class 250	800	LF							
8	Flushing Hydrant Assembly	28	EA							
9	Blow Off Hydrant Assembly	14	EA							
10	Underground Blow Off Hydrant	1	EA							
11	New Customer Service	101	EA							
12	Reconnect Existing Customer Service	280	EA							
13	Air Release Valve	5	EA							
14	Open Cut w/10" PVC Casing Pipe	100	LF							
15	10" PVC Casing Pipe	400	LF							
16	12" PVC Casing Pipe	100	LF							
17	16" Steel Casing, Bore & Jack	300	LF							
18	14" Steel Casing, Bore & Jack	900	LF							
19	14" Steel Casing, Open Cut	50	LF							
20	12" Steel Casing, Bore & Jack	300	LF							
21	6" Steel Casing, Bore & Jack	50	LF							
22	Tapping Sleeve & Valve	39	EA							
23	Cut & Plug Existing W M	52	EA							
24	8" Gate Valve & Box	20	EA							
25	6" Gate Valve & Box	35	EA							
26	4" Gate Valve & Box	15	EA							
27	3" Gate Valve & Box	10	EA							
28	2" Gate Valve & Box	1	EA							
29	Connection to Existing W M	18	EA							
30	Additional Service Tubing	5,000	LF							
31	Remove Existing Flushing Hydrant Assembly	10	EA							
32	Clean up and restoration of disturbed areas	154,000	LF							



## Progress Estimate - Unit Price Work

## Contractor's Application

For (Contract)      Contract No 2 - Water System Improvements								Application Number:			
Application Period:								Application Date:			
A						B	C	D	E	F	
Item		Contract Information				Estimated Quantity Installed	Value of Work Installed to Date	Materials Presently Stored (not in C)	Total Completed and Stored to Date (D + E)	% (F / B)	Balance to Finish (B - F)
Bid Item No	Description	Item Quantity	Units	Unit Price	Total Value of Item (\$)						
	Totals										

Date of Issuance:	Effective Date:
Owner: Bracken County Water District	Owner's Contract No.:
Contractor:	Contractor's Project No.:
Engineer: Bluegrass Engineering, PLLC	Engineer's Project No.: 18012
Project: Water System Improvements	Contract Name: Contract No. 2- Water System Improvements

The Contract is modified as follows upon execution of this Change Order:

Description:

Attachments: *[List documents supporting change]*

CHANGE IN CONTRACT PRICE	CHANGE IN CONTRACT TIMES <i>[note changes in Milestones if applicable]</i>
Original Contract Price: \$ _____	Original Contract Times: Substantial Completion: _____ Ready for Final Payment: _____ days or dates
[Increase] [Decrease] from previously approved Change Orders No. ____ to No. ____: \$ _____	[Increase] [Decrease] from previously approved Change Orders No. ____ to No. ____: Substantial Completion: _____ Ready for Final Payment: _____ days
Contract Price prior to this Change Order: \$ _____	Contract Times prior to this Change Order: Substantial Completion: _____ Ready for Final Payment: _____ days or dates
[Increase] [Decrease] of this Change Order: \$ _____	[Increase] [Decrease] of this Change Order: Substantial Completion: _____ Ready for Final Payment: _____ days or dates
Contract Price incorporating this Change Order: \$ _____	Contract Times with all approved Change Orders: Substantial Completion: _____ Ready for Final Payment: _____ days or dates

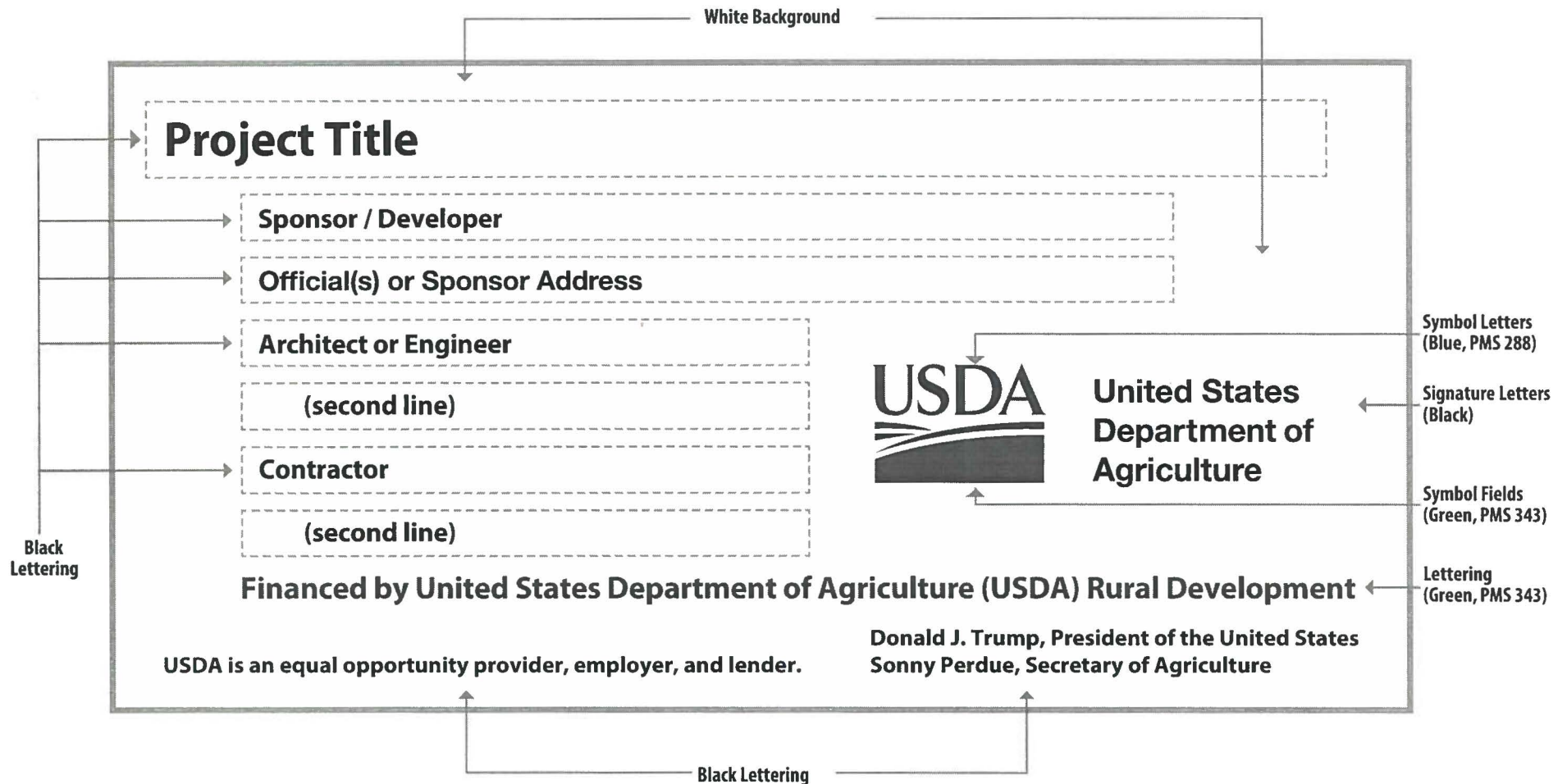
RECOMMENDED:		ACCEPTED:		ACCEPTED:	
By: _____	By: _____	By: _____	By: _____	By: _____	By: _____
Engineer (if required)	Owner (Authorized Signature)	Contractor (Authorized Signature)			
Title: _____	Title _____	Title _____			
Date: _____	Date _____	Date _____			

Approved by Funding Agency (if applicable)

By: \_\_\_\_\_ Date: \_\_\_\_\_  
Title: \_\_\_\_\_

# TEMPORARY CONSTRUCTION SIGN FOR RURAL DEVELOPMENT PROJECTS

Recommended Fonts: Helvetica, Arial, or Myriad Pro



**SIGN DIMENSIONS** : 1200 mm x 2400 mm x 19 mm (approx. 4' x 8' x 3/4")

**PLYWOOD PANEL (APA RATED A-B GRADE-EXTERIOR)**





### CERTIFICATE OF SUBSTANTIAL COMPLETION

Owner: Bracken County Water District	Owner's Contract No.:
Contractor:	Contractor's Project No.:
Engineer: Bluegrass Engineering, PLLC	Engineer's Project No.: 18012
Project: Water System Improvements	Contract Name: Contract No.2

**This [preliminary] [final] Certificate of Substantial Completion applies to:**

☐ All Work ☐ The following specified portions of the Work:

#### Date of Substantial Completion

The Work to which this Certificate applies has been inspected by authorized representatives of Owner, Contractor, and Engineer, and found to be substantially complete. The Date of Substantial Completion of the Work or portion thereof designated above is hereby established, subject to the provisions of the Contract pertaining to Substantial Completion. The date of Substantial Completion in the final Certificate of Substantial Completion marks the commencement of the contractual correction period and applicable warranties required by the Contract.

A punch list of items to be completed or corrected is attached to this Certificate. This list may not be all-inclusive, and the failure to include any items on such list does not alter the responsibility of the Contractor to complete all Work in accordance with the Contract.

The responsibilities between Owner and Contractor for security, operation, safety, maintenance, heat, utilities, insurance, and warranties upon Owner's use or occupancy of the Work shall be as provided in the Contract, except as amended as follows: *[Note: Amendments of contractual responsibilities recorded in this Certificate should be the product of mutual agreement of Owner and Contractor; see Paragraph 15.03.D of the General Conditions.]*

Amendments to Owner's responsibilities:

☐ None  
☐ As follows

Amendments to Contractor's responsibilities:

☐ None  
☐ As follows:

The following documents are attached to and made a part of this Certificate: *[punch list; others]*

This Certificate does not constitute an acceptance of Work not in accordance with the Contract Documents, nor is it a release of Contractor's obligation to complete the Work in accordance with the Contract.

EXECUTED BY ENGINEER:	RECEIVED:	RECEIVED:
By: _____ (Authorized signature)	By: _____ Owner (Authorized Signature)	By: _____ Contractor (Authorized Signature)
Title: _____	Title: _____	Title: _____
Date: _____	Date: _____	Date: _____

## **SPECIAL PROVISIONS**

### **SC-1 LINES, GRADES AND ELEVATIONS**

From the information provided by the Engineer, the Contractor shall verify bench marks and develop and make all detail surveys needed for construction.

The Contractor shall set and maintain all necessary intermediate points, lines, grades and elevations, and provide slope stakes, offset stakes, batter boards, stakes for pipe locations, and other such items at his own expense. Where the Contractor uses the laser for control, the Contractor shall periodically check the grade and alignment during each day's operation.

The accuracy of the Contractor's survey and other required data is the sole responsibility of the Contractor, and the furnishing of data to the Engineer does not constitute a transferal of responsibility for checking.

### **SC-2 MOBILIZATION AND DEMOBILIZATION**

Mobilization shall include the purchase of Contract bonds and all necessary permits; transportation of all personnel, equipment and operating supplies to the site; establishment of offices, buildings, sanitary facilities, telephone service, construction identification signs and other necessary facilities at the site; construction and maintenance of temporary access roads, bridges, and maintenance and protection of traffic during construction, and other preparatory work at the site. Mobilization shall also include the installation of barriers or fencing to limit public access to the site.

Demobilization shall include removal of all unused material and equipment including field offices, construction barriers, and soil and erosion control materials. All work and work areas shall be neatly cleaned upon completion according to the Engineer's direction and shall be left in a neat and orderly condition. Access roads constructed solely for the Contractor's use shall be graded to conform with adjacent ground. Any salvaged material not specified to be disposed of otherwise shall become the property of the Contractor and removed from the site. All trash shall be removed as directed by the Engineer and disposed of according to local regulations.

### **SC-3 WORKING HOURS AND HOLIDAYS**

The Contractor shall perform all work Monday through Friday during which period the Owner's or Engineer's representative will be on-site to inspect the work. The Contractor may seek permission to perform work outside this period that will require inspection by the Owner's or Engineer's representative. Overtime work performed by the Contractor shall be at no additional cost to the contract.

The Contractor shall recognize in the work schedule that normal holidays are observed each calendar year. Work may be allowed during holidays, whenever holiday work is scheduled, the Contractor shall give prior notice to the Owner.

### **SC-4 PRE-WORK CONFERENCE**

Prior to the start of construction by the successful bidder, a general information meeting shall be held with the Owner, Engineer, Contractor and other interested parties in attendance. The meeting shall cover the general features of the project and the various requirements in the Contract. The Contractor shall submit a draft work schedule prior to the meeting in accordance with the Work Schedule and Construction Activity requirements in the Special Provisions.

#### **SC-5 PROGRESS AND COORDINATION MEETINGS**

Progress and coordination meetings will be held biweekly or as directed by the Engineer, with the Contractor's supervisory representatives, having decision-making authority, in attendance.

The Contractor shall conduct the following meetings between:

- Contractor's project manager
- Contractor's project superintendent
- Engineer's designated Representative
- Owner's designated Representative
- Subcontractors

Meetings shall be held at approximately biweekly intervals or more frequently as called by the Engineer. The Engineer shall schedule the meetings. The Engineer shall take minutes at the meeting, review minutes with participants at the meeting and forward copies of the meeting minutes to the participants within fourteen days after the meeting date.

Agenda for the meeting shall consist of, but not be limited to, the following:

- Construction progress for the past month
- Construction schedule for upcoming month
- Pay request and materials stored lists
- Test results for tests performed during the month
- Problems with construction
- Pending or upcoming change orders
- Other items as deemed necessary by attendees

Contractor shall submit a work schedule update and submittal schedule update at each meeting if either is behind schedule.

#### **SC-6 PRE-WORK ON-SITE VIDEO RECORDING**

Prior to start of work, the Contractor, at their expense, shall in the presence of the Owner and Engineer, conduct video recording of all areas of the existing plant facilities which will be affected by the work under this Contract. Two copies (DVD format) of the recording shall be submitted to the Owner for record keeping before any work can proceed.

#### **SC-7 PHOTOGRAPHY DURING CONSTRUCTION**

The Contractor shall snap color photos on a periodic basis as specified in the Contract Documents.

#### **SC-8 PROGRESS PAYMENTS AND RETAINAGE**

All progress payments will be on the basis of progress of the Work. Owner will retain a portion of each Progress Payment otherwise due the Contractor. The following retention policy shall apply:

- Retainage of five (5) percent of the payment claimed until the work is complete.
- When the work is substantially complete, the retainage shall be two hundred (200) percent of the amount necessary as determined by the Owner to assure completion of the remaining work.
- The Owner may increase the retainage up to ten (10) percent, if the Owner determines, at its discretion, that the Contractor is not making satisfactory progress or there is other specific cause for such withholding.



Final payment shall include the interest earned on the withholding provided the work was completed within the time limits specified for the prices specified in the Contract or approved Change Orders.

#### **SC-9 PERMITS**

With reference to the General Conditions, the following permits and associated fees are being obtained and paid by the Owner:

Kentucky Division of Water

The Contractor shall be responsible for obtaining any additional Local, County, State or Federal issued permits necessary for the Work. This includes, but not limited to permits required for utilization of Bracken County right-of-way on county roads. Contractor shall pay all fees associated with obtaining such permits.

#### **SC-10 WORK SCHEDULE AND CONSTRUCTION ACTIVITIES**

The work schedule prepared by the Contractor (reference Section GC-3.02) shall be prepared in such detail as to enable regular monitoring and updating throughout construction. The work schedule shall demonstrate compliance with all milestones, durations and constraints stipulated in the Contract Documents. The work schedule shall include tasks for shop drawing submittal, shop drawing review, manufacture and delivery, start-up and testing. No separate payment will be made for developing or updating the work schedule.

The work schedule shall be developed utilizing computerized integrated Critical Path Method (CPM) planning software such as Primavera, Microsoft Project, or Suretrak and shall be resource-loaded. Tasks shall be indicated in the form of a legible bar and shall show proposed start and end dates and duration of all major components and activities included in the Contract. The schedule shall include tasks for shop drawing submittal, shop drawing review, manufacture and delivery, start-up and testing. The schedule shall indicate a baseline bar for each task and a bar indicating the actual progress of the task. The General Contractor shall integrate and take into account the work of the other Contractors, and the other Contractors shall provide input to the General Contractor's schedule and shall review the compiled work schedule for acceptance.

The General Contractor shall update the work schedule on a monthly basis throughout construction. A copy of the updated work schedule shall be submitted to the Engineer along with each payment application, along with copies of certified payrolls and required MBE/WBE documentation. Payment applications will not be reviewed by the Engineer until an acceptable updated work schedule has been received.

#### **SC-11 CONSTRUCTION ACCESS**

The Contractor shall recognize that a portion of the access roadways to the work sites are public roadways that will carry local, public traffic. Public traffic to and from these areas may occur at all hours. The Contractor shall provide and install all necessary construction traffic signage, including, but not limited to signs for speed limit; temporary construction indication; stop signs. Temporary signs shall be in accordance with KY DOT.

The Contractor shall make no claim against the Owner due to redirection of construction access location.

## **SC-12 MAINTENANCE OF EXISTING ACCESS ROAD**

The Contractor shall include in the lump sum Bid costs to maintain the existing access roads for construction traffic in acceptable condition during the construction period. Acceptable conditions shall mean that potholes and excessive deterioration of the existing road due to heavy construction traffic shall be repaired promptly by the Contractor. Potholes deeper than 6-inches and/or greater than 12-inches in any plan direction shall be filled and compacted with subbase aggregate. Where deterioration in a specific area is greater than 10 square feet, the area shall be paved in accordance with the Section, entitled "Restoration of Surfaces".

Regardless of the above criteria, if, in the sole opinion of the Owner or Engineer, it is deemed that the safety of public traffic is compromised due to road deterioration from the Contractor's construction traffic, the Engineer may direct the Contractor to repair the deteriorated portions in accordance with the Section, entitled "Restoration of Surfaces" at no additional costs to the Contract.

The Contractor shall apply water sprinkling, or other suitable methods to limit dust and dirt rising and scattering in air to lowest practical level. Do not use water when it may create hazardous or objectionable conditions such as ice, flooding, and pollution.

## **SC-13 DUST AND DEBRIS CONTROL**

The Contractor shall provide means for controlling dust at the sites throughout the duration of the project. The Contractor shall promptly remove any mud tracked onto adjacent roadways from vehicles leaving or entering the project site.

## **SC-14 MATERIAL STORAGE**

The Contractor shall be responsible to provide material storage (either on- or off-site) as required to complete construction. The Contractor shall not cut or remove any trees on the sites for purposes of material storage. The Contractor shall identify the proposed storage location for approval by the Engineer. Any relocation of the storage area during the project shall require approval of the Engineer.

## **SC-15 ON-SITE AND/OR OFF-SITE SOIL BORROW MATERIAL**

- A. The Contractor is permitted to use on-site soil borrow material as embankment material, as accepted by the Engineer, provided it meets all the requirements as specified for the type of earthwork being performed. If the Contractor elects to use this material, the Contractor is solely responsible for assessing and insuring that the material meets the requirements of the Contract Documents. The Contractor is solely responsible for costs associated with using on-site borrow material including but not limited to, permitting costs, borrow source development, excavation, transportation, laboratory testing, placement, and restoration of the borrow source.
- B. On-site and/or off-site soil borrow material to be used as fill to meet subgrades beneath structures shall meet the requirements of the Section, entitled "Embankment", with the following exceptions:

### Particle-Size Distribution

- 1. Soil material shall be run-of-bank gravel with the following gradation by weight, in accordance with ASTM D422:



<u>% Passing</u>	<u>Sieve</u>
100%	1-1/2 inch
30% to 65%	1/4 inch
0% to 10%	No. 200

2. Soil material shall be tested for grain size at a frequency of one (1) test per 500 cubic yards of material, or as otherwise requested by the Engineer. A minimum of one (1) grain size test shall be performed for the soil material used beneath each structure, or as otherwise requested by the Engineer.
3. The results of all testing specified herein shall be submitted to the Engineer for review.

#### Density Control

1. Soil material shall be compacted to 95% of maximum dry density as determined by the density tests designated in ASTM D1557.
    - a. Compaction curves for the full range of soil materials to be used shall be developed by an approved independent testing laboratory.
  2. Field control samples shall be taken and tested by an independent testing laboratory as required to assure that adequate compaction of the soil material is being achieved.
  3. A minimum of one (1) in-place density test shall be made for every 1,000 square feet of compacted area per lift, or as otherwise requested by the Engineer. A minimum of two (2) in-place density tests per lift shall be performed for the compacted area beneath each structure, or as otherwise requested by the Engineer.
    - a. In-place density of soil material shall be determined by the methods described in ASTM D1556 or ASTM D2922 and expressed as a percentage of the maximum dry density.
  4. The results of all testing specified herein shall be submitted to the Engineer for review.
- C. On-site and/or off-site soil borrow material to be used as elsewhere shall meet the requirements of the Section titled "Embankment".

#### **SC-16 EMERGENCY CALLS**

The Contractor shall provide the Owner with the phone numbers of at least three responsible persons, to be used during non-working hours and weekends, who shall be in a position to dispatch labor and equipment to the project in the event of an emergency.

#### **SC-17 EXISTING UTILITIES**

Prior to the start of construction, the Contractor shall contact Utilities Protection Center at (800) 282-7411 to determine the location of all existing underground utilities in accordance with the General Provisions. The location of the existing underground utilities shown on the Contract Drawings are approximate and shall be verified by the Contractor.



## **SC-18 OWNER'S RIGHT TO EXISTING MATERIALS AND EQUIPMENT**

All existing material and equipment required to be removed, replaced, or demolished under this contract shall become the property and responsibility of the Contractor and may be salvaged at their discretion, with the exception of items listed in the Section, entitled "Demolition" which shall remain in the Owner's property and at no additional cost to the contract. Those items which shall remain in the Owner's property include but are not limited to; **customer meter services (including meter box, lid, setter, and meter), gate valve boxes and lids in areas of the project in which cut and plugs are utilized near existing gate valves. These gate valve boxes and lids shall be removed and returned to owner.**

## **SC-19 QUALIFICATIONS OF BIDDER**

In addition to requirements described in the Information for Bidders, Contractors will be required to show evidence of a suitable license to perform work in the Commonwealth of Kentucky before their bids will be considered. The Owner will consider, in determining the qualifications of a bidder, their record in the performance of any contracts for the construction work into which they may have entered with any public bodies or corporations; the Owner expressly reserves the right to reject the bid of such bidder if such record discloses that such bidder, in the opinion of the Owner, has not properly performed such contracts or has habitually and without just cause neglected the payment of bills, or has otherwise discarded his obligations to subcontractors, vendors, or employees.

The apparent low bidders will be required to submit a qualification statement providing suitable evidence indicating that the bidder has the capabilities to perform classes of work contemplated, that the bidder has satisfactorily performed similar work elsewhere, and that the bidder has the necessary plant and sufficient capital to execute the work properly.

The Owner may make such additional investigation as it deems necessary to determine the ability of the bidder to perform the work, and the bidder shall furnish to the Owner all such additional information and data for this purpose as it may request. The Owner reserves the right to reject any bid if the evidence submitted by, or investigation of such bidder, fails to satisfy the Owner that such bidder is properly qualified by experience and financial status to carry out the obligations of the Contract and to complete the work contemplated herein in an expeditious manner. Conditional bids will not be accepted.

Within ten days of Bid opening date, the three lowest bidders shall provide the following information (additional information may be requested):

- Financial data
- Experience
- Equipment and personnel available
- List of previous, similar projects
- References

## **SC-20 SITE CONDITIONS AND CONDITIONS OF WORK**

The Contractor must acquaint themselves thoroughly as to the character and nature of the work to be done. The Contractor furthermore must make a careful examination of the site of the work and inform themselves fully as to the difficulties to be encountered in the performance of the work, the facilities for delivering, storing and placing materials and equipment, and other conditions relating to construction labor.

The Contractor assumes all risk as to the nature and behavior of the soil or subsurface conditions which underlie the work or is adjacent thereto, or difficulties that may be due to any unfavorable conditions that may be encountered in the work, whether apparent on surface inspection or disclosed after construction begins.

No plea of ignorance of conditions that exist or may hereafter exist on the site of the work, or difficulties that may be encountered in the execution of the work as a result of failure to make necessary

investigations and examinations, will be accepted as an excuse for any failure or omission on the part of the Contractor to fulfill, in every detail, all the requirements of the Contract Documents and to complete the work for the consideration set forth therein, or as a basis for any claim whatsoever.

Insofar as possible, the Contractor, in carrying out his work must employ such methods or means as will not cause interruption of or interference with the work of the Owner or any separate Contractor.

This Contract includes excavation of the unclassified basis. The cost of all excavation required under this Contract will be merged into the base bid. No distinction will be made insofar as payment is concerned between earth and rock.

#### **SC-21 CONDITIONS AFFECTING THE WORK**

The Contractor shall be responsible for having taken steps reasonably necessary to ascertain the nature and location of the work, and the general and local conditions which can affect the work or the cost thereof. Any failure by the Contractor to do so will not relieve them from responsibility for successfully performing the work without additional expense. The Owner and Engineer assume no responsibility for any understanding or representations concerning conditions made by any of its officers or agents prior to the execution of this Contract, unless such understanding or representations by the Owner or Engineer are expressly stated in the Contract.

#### **SC-22 LEAD-BASED PAINT**

The possibility exists for surfaces encountered during the work to contain lead-based paint. For the purpose of this bid the Contractor shall assume all efforts to comply and to perform work in accordance with applicable state and federal laws, rules and regulations related to worker safety, including but not limited to OSHA and Health Standard for Occupational Exposure to Lead in Construction Work.

#### **SC-23 EXAMINATION OF RECORDS**

The Contractor agrees that the Owner, or any duly authorized representative, shall, until the expiration of three (3) years after final payment hereunder, have access to and the right to examine and copy any directly pertinent books, documents, papers and records of the Contractor involving transactions related to this Contract.

The Contractor further agrees to include in any subcontract for more than \$10,000 entered into as a result of this Contract, a provision to the effect that subcontractor agreed that the Owner or any duly authorized representative shall, until the expiration of three (3) years after final payment under the subcontract, have access to and the right to examine and copy any directly pertinent books, documents, papers and records of such Contractor involving transactions related to such subcontractor, or this Contract. The term subcontract as used herein shall exclude subcontracts or purchase orders for public utility services at rates established for uniform applicability to the general public.

The period of access provided in subparagraphs above for records, books, documents and papers which may relate to any arbitration, litigation or the settlement of claims arising out of the performance of this Contract or any subcontract shall continue until any appeals, arbitration, litigation, or claims shall have been finally disposed of.

#### **SC-24 RODENT AND PEST CONTROL**

The Contractor shall at all times keep the work area, including the storage areas, free from rodents, noxious pests, and other vermin.

The Owner or the Engineer shall notify the Contractor on any non-compliance with this requirement and of the corrective action required. This notice, when delivered to the Contractor or the Contractor's representative at the site of the work, shall be deemed sufficient notice of the non-compliance and the



corrective action required. After receiving the notice, the Contractor shall immediately take corrective action. If the Contractor fails or refuses to eliminate the rodents, pests or vermin and the causes thereof promptly, the Owner may have the necessary extermination work performed and charge the cost to the Contractor.

## **SC-25 ACCURACY OF DRAWINGS**

The Contractor shall have sole responsibility for field verifying existing equipment, piping, appurtenances and structure locations and dimensions prior to ordering, fabrication and installation of equipment, piping, appurtenance and materials. The Contractor shall conform to the Drawings as closely as possible and exercise care to secure approved headroom and space conditions, neat arrangements of equipment, piping, valves, hangers and like items to overcome interferences with the existing conditions.

## **SC-26 DISSEMINATION OF CONTRACT INFORMATION**

The Contractor shall not publish, permit to be published, or distribute for public consumption, any information, or written, concerning the results or conclusions made pursuant to performance of this Contract without the prior written consent of the Engineer. (Two copies of any material proposed to be published or distributed shall be submitted to the Engineer).

## **SC-27 MODEL NUMBERS FOR EQUIPMENT, MATERIALS OR SYSTEMS**

Model or series numbers listed for a particular piece of equipment, material or system establishes minimum standards for operation and quality. Additional requirements and standards may be defined by the Specifications, and furnishing the listed model or series does not relieve the Contractor or Manufacturer from the responsibility of satisfying all requirements and standards set forth in the Specifications.

## **SC-28 EQUIPMENT OPERATION AND MAINTENANCE MANUALS**

The Contractor shall submit equipment O&M manuals in accordance with the General Provisions. Where O&M Manuals are specified to be submitted, six (6) copies shall be provided. At least one copy of the O&M Manual shall be an original. Retainage on Pay Requests will not be reduced until the Engineer has approved the O&M Manuals required for the work. The content of each manual shall be provided in accordance with the following checklist:

### **1. General**

- a. Three-ring binder (8 ½" x 11") with cover sheet including:
  - (1) Functional Name
  - (2) Manufacturer
  - (3) Specific Location Installed
  - (4) Model & Serial Numbers
- b. Table of Contents with sections in the O&M tabbed
- c. Sheet with Name, Address, Phone Number and E-mail Address of:
  - (1) Local Supplier
  - (2) Factory
  - (3) Contractor
- d. All Purchase Order Numbers
- e. Bill of Materials
- f. Drawings larger than 11" x 17" (blueprints, shop drawings) neatly folded in clear plastic vinyl pockets

### **2. Operation Portion**

- a. Brief description of equipment/system/controls
- b. Principle components identified
- c. Normal starting procedure
- d. Normal stop procedure



- e. Emergency stop procedure
  - f. Equipment test procedures
  - g. Alarm silence procedure/overload reset procedure
  - h. Programming procedure/recommended settings
  - i. Assistance telephone number
3. Maintenance Portion
- a. Detailed assembly drawings
  - b. Detailed parts list with unique part numbers
  - c. Spare parts list
  - d. Lubrication schedules/requirements
4. Complete set of previously "Reviewed" Shop Drawings

### **SC-29 VIDEO RECORDING DURING EQUIPMENT OPERATIONS TRAINING**

The Owner reserves the right to video record all training sessions involving the Owner's operations staff during the training periods conducted by the equipment manufacturer as specified in the Contract Documents. Videotapes of these training sessions will be used for the sole purpose of training and educating the Owners' operations staff.

### **SC-30 REQUIREMENTS FOR PROFESSIONAL ENGINEER'S LICENSE**

Where the Contract Documents include requirements for certain shop drawing submittals to be prepared by a professional engineer licensed in the Commonwealth of Kentucky, the Engineer may consider a waiver of the licensing requirements specifically for the Commonwealth of Kentucky provided that said professional engineer is licensed and in good standing with the licensing board in a U.S. state outside the Commonwealth of Kentucky. Such waiver shall not relieve the professional engineer from complying with applicable design codes and standards specific to the Commonwealth of Kentucky.

### **SC-31 FIELD TESTING AND FACILITY STARTUP**

#### **I. GENERAL**

- A. This Special Provision includes:
- 1. Requirements for sequencing of the various field testing described in the Contract Specifications, including sequencing of testing described in this Special Provision.
  - 2. Requirements for documentation prior to performance of system testing.
  - 3. Requirements for developing a detailed plan for and conducting clean water system testing and/or dry system testing.
  - 4. Requirements for startup performance period.
  - 5. Requirements for scheduling of training
- B. Requests for deviations from the test sequencing and testing described herein may be provided by the Contractor to the Engineer. Such requests shall be made in writing and shall be accepted by the Engineer prior to implementation.
- C. Prior to startup activity the contractor shall verify that: systems are tested hydraulically, mechanically, and electrically; systems which require calibration, commissioning, and balancing are fully certified as complete and perform in accordance with the Contract Documents; and that the required tagging and identification is complete.
- D. Contractor shall verify to the Engineer in writing that the potable water components have been disinfected in accordance with AWWA Specifications C651, C652 and C653. These

requirements apply equally to new facilities and components and to existing components into which connections have been made.

- E. The Contractor shall schedule the start-up a minimum of 30 days prior to the start-up date with a written notice issued to, but not necessarily limited to Owner and Engineer and sub-contractors.

## II. TEST SEQUENCING

- A. Field testing shall be performed in accordance with the Contract Documents. Testing shall be performed in the sequence described herein. Each test shall be clearly identified on the Contractor's work schedule. Work schedule shall include line items for each piece of equipment and system that will be tested, and each type of test to be performed.
- B. Testing shall be performed within the phasing and sequencing listed herein. Tests specified in the Contract Documents that are not listed in one of the phases described herein are not required to be performed in any particular order or phase but shall be performed in accordance with the requirements of the individual specification section. Tests associated with equipment required for operation of equipment or systems listed herein shall be performed as prerequisites regardless of whether or not such tests are listed in the testing sequence specified herein. Tests listed in the same phase may be performed concurrently where approved by the Engineer. No testing in a particular phase may be performed until all testing in prior phases have been completed and approved by the Engineer. Before proceeding to testing in the next phase, all discrepancies and deficiencies observed during the tests in the previous phase shall be noted and corrected, and, if directed by the Engineer, the test of equipment and systems previously found deficient shall be rescheduled and repeated at no additional cost to the Owner. The Contractor shall provide written notification to the Engineer a minimum of seven (7) calendar days prior to beginning the next phase of testing. Tests shall be performed by phase in the following sequence:

## SC-32 PAYMENTS TO CONTRACTOR

Owner shall pay Contractor as set forth in the General Provisions of the Contract Documents, Section 11, as amended by these Special Conditions.

At least ten (10) days before each progress payment falls due (but not more often than once a month) the CONTRACTOR will submit to the ENGINEER a partial payment estimate filled out and signed by the CONTRACTOR covering the WORK performed during the period covered by the partial payment estimate and supported by such data as the ENGINEER may reasonably require. If payment is requested on the basis of materials and equipment not incorporated in the WORK but delivered and suitably stored at or near the site, the partial payment estimate shall also be accompanied by such supporting data, satisfactory to the OWNER, as will establish the Owner's title to the material and equipment and protect his interest therein including applicable insurance. The ENGINEER will, within ten (10) days after receipt of each partial payment estimate, either indicate in writing his approval of payment and present the partial payment estimate to the OWNER, or return the partial payment estimate to the CONTRACTOR indicating in writing his reasons for refusing to approve payment. In the latter case, the CONTRACTOR may make the necessary corrections and resubmit the partial payment estimate. The OWNER within ten (10) days of presentation to him of an approved partial payment estimate, pay the CONTRACTOR a progress payment on the basis of the approved partial payment estimate.

## SC-33 AS-BUILT DRAWINGS

As-built drawings shall be delivered to the Engineer and approved prior to submittal of final request for payment.



#### **SC-34 PERFORMANCE AND PAYMENT BONDS**

100% performance and 100% payment bonds are required and they must be valid for one year beyond the date of acceptance of the completed project.

#### **SC-35 SUBMITTALS**

Submittals must bear the approval stamp of the Contractor prior to submittal.

#### **SC-36 BLASTING**

Blasting is not permitted.

#### **SC-37 SUBSURFACE CONDITIONS**

Rock may be encountered during construction of this project. The cost of rock excavation is to be included in the price for other items of construction and no additional payment for rock excavation will be made. The Contractor shall be responsible for inspecting the site and must satisfy himself as to the existing subsurface conditions.

The presence of rock shall be considered a usual physical condition, ordinarily encountered and generally recognized as inherent in the work described in the Contract Documents.

#### **SC-38 SEWER AND POTABLE WATER LINES**

All sewer and potable water lines will maintain a horizontal separation of 10 feet and a vertical separation of 18 inches.

#### **SC-39 EROSION AND SEDIMENT CONTROL**

The contractor shall take positive steps to minimize siltation and erosion during the project as per the Erosion and Sedimentation Control Plan. All erosion and sedimentation control measures must be installed prior to initiation of construction activity. In addition, all erosion and sedimentation control measures must comply with the applicable regulations in the Commonwealth of Kentucky. Erosion and sediment control measures shown on the Plans are minimum requirements. Contractor shall provide additional measures as may be required to be in compliance at all times with local and state laws.

#### **SC-40 QUALITY CONTROL TESTING**

Contractor will perform his own quality control testing at his own expense. The Owner may perform testing to check the Contractor's work but such tests shall not be used by the Contractor for quality control and such tests shall not relieve the Contractor from obligations to perform the work in accordance with the Specifications and Contract Documents.

In the event that any test is performed by the Owner which in the opinion of the Engineer indicates failure of the work to meet the specifications, the Contractor shall promptly correct the work and reimburse the Owner for the costs of all subsequent tests until the work has been corrected.

The Contractor will be responsible for taking all samples and concrete cylinders requested by the Engineer and delivery of same to a testing laboratory selected by the Owner.

Unless specifically stated otherwise in individual Sections of the Specifications or Drawings, the Contractor shall provide test results within 48 hours of test completion.



#### **SC-41 CONTRACTOR'S FINAL RELEASE**

Before the Owner pays the Contractor his final payment on the Work, the Contractor will be required to sign a final release as set out hereinbefore. This final release shall be notarized and shall state that all claims against the Owner on the Contractor's part have been met in full; it shall further state that all accounts for labor performed, materials furnished, liens, judgments and claims of every nature against the Contractor have been satisfied by him. It shall further state that any obligation or lawsuit whatsoever arising from the Contractor's operations on the Project which may be presented or filed after the settlement shall be borne by the Contractor. In case the Contractor is unable to settle any claim that may be in dispute or litigation, the Owner may allow him to furnish a proper bond to indemnify the Owner against the claim and then release the final payment to him.

**It is understood that the Contractor is to guarantee to the Owner all construction against defective materials, equipment and workmanship for a period of thirty-six (36) months after acceptance, and in the event of notification to the Contractor by the Owner of a defect, the Contractor shall take immediate steps occurring within two (2) hours of notification to correct or replace such defective materials, equipment or workmanship without cost to the Owner. Notification to the Contractor shall include any of the following; telephone call, facsimile transmission, electronic mailing, and/or in person meeting. Should the Contractor fail to respond within two (2) hours from the receipt of notification of a defect then the Owner reserves the right to bill the Contractor for time, materials, and general expenses related to the defect.**

- END OF SECTION -

## **SECTION 01010**

### **SUMMARY**

#### **PART 1 - GENERAL**

##### **1.01 SUMMARY**

- A. This Section includes the following:
  - 1. Work covered by the Contract Documents.
  - 2. Sequence of Operations.
  - 3. Utility Shutdowns
  - 4. Tie-ins and Disconnections
  - 5. Temporary Systems
  - 6. Use of premises.
  - 7. Specification formats and conventions.

##### **1.02 WORK COVERED BY CONTRACT DOCUMENTS**

- A. The Contractor shall provide all material, services, labor, tools and equipment, necessary to construct this project. The following is a brief description of the major work items included in the contract: Construction of approximately 145,000 LF main line, 380 meter reconnects and replacement of service line, and all related appurtenances as shown on the Drawings and described in the Specifications.

##### **1.03 SPECIAL INSTRUCTIONS**

- A. Bracken County Water District shall determine sequence of construction.
- B. In the even of line breakage by the contractor, the contractor is responsible for the immediate repair (within 2 hours) and notification to Bracken County Water District's staff. The staff shall then GPS the point of line repair.
- C. Contractor shall respond within 24 hours of any notification by the Water District or Engineer's representative of any and all resident complaints.
- D. Bracken County Water District staff will GPS all water mains installed as well as all appurtenant devices.
- E. Sterilization, testing, and sampling of the new water main will be completed prior to abandoning the existing water main.

##### **1.04 UTILITY SHUTDOWNS**

- A. One-week advance notice to the Owner is required prior to performing any utility shutdown unless of an emergency in nature.
- B. Contractor shall know where all existing valves are located on the project and shall be able to shut down expeditiously in case of line breaks.
- C. The existing water line is shown as an approximate location on the plans. The contractor shall field verify the existing water main locations. Contractor shall work closely with the Bracken County Water District personnel.

**1.05 TIE-INS AND DISCONNECTIONS**

- A. Contractor shall furnish all materials and shall provide excavation, de-watering, scaffolding and support operations to support tie-ins.

**1.06 TEMPORARY SYSTEM (S)**

- A. All temporary water lines and hoses shall be depressurized and all temporary electrical lines and equipment de-energized when not in use and at the end of each workday.

**1.07 SPECIFICATION FORMATS AND CONVENTIONS**

- A. Specification Format: The Specifications are organized into Division and Sections using the 17-division format.

**PART 2 - PRODUCTS**

Not used

**PART 3 - EXECUTION**

Not used

END OF SECTION



## **SECTION 01025**

### **MEASUREMENT AND PAYMENT**

#### **PART 1 - GENERAL**

##### **1.01 WORK INCLUDED**

The Contractor shall furnish all necessary labor, machinery, tools, apparatus, equipment, materials, equipment, service, other necessary supplies and perform all work, including all excavation and backfilling (without additional compensation, except where specifically set out in these specifications) at the unit or lump sum prices for the following items.

##### **1.02 PROGRESS AND PAYMENTS SCHEDULES**

A. Within ten (10) days after the date of formal execution of the AGREEMENT, 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. The Contractor's construction schedule must be approved by the Engineer before any payments will be made on this contract.

B. Within ten (10) days after the date of formal execution of the CONTRACT AGREEMENT, the Contractor shall prepare and submit to the Engineer, for approval, a periodic estimate 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 periodic payments. The Contractor's periodic estimate 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 schedule and periodic estimate will be final.

D. The Contractor must make current, to the satisfaction of the Engineer, the construction schedule and periodic estimate each time he requests a payment on this contract.

E. The Contractor's construction schedule and periodic estimate must be maintained at the construction site 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 periodic estimate and be current. Further, the current periodic estimate and construction schedule (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 (periodic estimate and construction schedule) when requesting payment.

##### **1.03 CONDITIONS FOR PAYMENT**

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 periodic estimate, 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.

B. No payment will be made for stored materials unless a proper invoice from the supplier is attached to the pay request. Further, no item whose value is less than \$1,000 will be considered as stored materials for pay purposes.

C. Payment for pipeline items shall be limited to eighty percent (80%) of the bid price until the pipeline items have been tested and clean up has been completed and accepted by the Engineer.

D. Payment for equipment items shall be limited to eighty-five percent (85%) of their scheduled value (materials portion only) until they are set in place. Eighty-five percent (85%) for stored materials and equipment shall be contingent on proper on-site storage as recommended by the manufacturer or required by the Engineer.

E. Payment for equipment items set in place shall be limited to ninety percent (90%) of their scheduled value until they are ready for operation and have been certified by the manufacturer. Ninety percent (90%) payment for installed equipment shall be contingent on proper routine maintenance of the equipment in accordance with the manufacturer's recommendations.

F. Payment for equipment items set in place and ready for operation shall be limited to ninety-five percent (95%) of their scheduled value until all acceptance tests have been completed and the required manufacturer's pre-startup operator's training has been completed.

G. Payment for the labor portion of equipment items will be subject only to the degree of completeness and the appropriate retainage.

H. The retainage shall be an amount equal to 10% of said estimate. The retainage on the equipment items shall be 10% as defined hereinbefore.

I. If at any time thereafter when the progress of the WORK is not satisfactory or determine that the Contractor is not making satisfactory progress, additional amounts may be retained.

#### **1.04 CLAIMS FOR EXTRA WORK**

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 reasonably be 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 provided herein for "Changes in the Work".

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 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 when he was bidding on this Contract to receive or examine any form, instrument or document, or to visit the site and acquaint himself with conditions there existing, in no way relieves him from any obligation under the Contract, and the Contractor agrees that the Owner



shall be justified in rejecting any claim 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**

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 20% for added work or a minimum 20% for deleted work which shall cover the Contractor's general supervision, overhead and profit. In case of subcontracts, the sum of total overhead amounts of the subcontractors and Contractor, plus total profit amounts for the subcontracts and Contractor shall not exceed 25% of the cost. Subcontractors shall be limited to 15% and Contractors shall be limited to 10% for combined overhead and profit. The cost of labor shall include required insurance, taxes and fringe benefits. Contractor to provide detailed breakdown of all cost as justification of change in work. 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.

### **PART 2 - PRODUCTS**

#### **2.01 WATER MAIN**

A. Payment for installing the water main will be made at the contract unit price per linear foot, complete in place, which shall include compensation for furnishing pipe, trenching (including rock excavation), earth or Class I material bedding, copper wire, thrust blocking, earth backfill, grip rings, fittings, crushed stone, copper wire, caution tape, pavement replacement, asphalt replacement, sidewalk repair or replacement, disinfection, testing, bonding, and all appurtenances required. The quantity of water mains to be paid for shall be the length of the completed line as measured along its centerline without any deduction for lengths of fittings, valves or other appurtenances.

B. Casing for sewer main, and sewer lateral crossings, as described in the plan sheets will be incidental to laying the main water line. There will be no additional compensation for these pvc casings. Please figure these costs into the water line price.

C. Use of crushed stone bedding on the water main will be determined in the field by the engineer if quality bedding material is not available. Please figure bedding costs into the water line price.



D. Payment for installing the water main shall include locating existing water main ahead of (approximately 40' intervals) the new water main installation.

## **2.02 TAPPING SLEEVE AND VALVE**

Payment for tapping sleeves and valves shall be made at the contract unit price each, complete in place including all excavation, material, tapping sleeve, tapping valve, box, concrete collar and other items required to make a complete and workable tap. Connection to the existing water main will be paid per 2.03.

## **2.03 CUT AND PLUG EXISTING WATER MAIN**

Payment for cutting and plugging the existing water main shall include all materials and labor necessary for completing the disconnection of the existing water line. This will be paid per cut and plug and will include piping, mechanical joint cap, grip rings, concrete blocking and other appurtenances required to complete the installation. Size of the piping will be paid as one price and will not be differentiated.

## **2.04 HIGHWAY BORED CROSSING W/STEEL CASING**

A. Payment for water mains crossing the railroad, highway, roadway, driveway or other areas shown on the plans shall include the respective encasement pipe bored under roadways and will be paid for at the contract unit price per linear foot of steel encasement pipe for the various sizes and types. This work shall include the encasement pipe, complete in place with fittings, spacers, end seals, skids, blocking, line markers on each side of crossed roadway, and all items necessary for its construction and installation. Carrier pipe is paid separately under item 2.01. The casing pipe shall be as noted in section 02302-2.

B. No payment shall be made for failed bore paths or incomplete installations.

## **2.05 OPEN CUT CASING**

Payment for water mains crossing major creeks or streams shall include excavation, rock excavation, concrete, rip-rap, crushed stone, gravel backfill, anchors, PVC/Steel casing pipe (whichever one is called for on the contract drawings), spacers and end seals. The length of the creek crossing to be paid for shall be measured from end to end of the encasement pipe. Where casing is required the carrier pipe shall be Yelomine® or approved equal and shall be paid separately under item 2.01.

## **2.06 GATE VALVES AND BOXES**

A. Payment for furnishing and installing gate valves and valve boxes with covers in water mains will be made at the contract unit price each, complete in place, which shall include compensation for furnishing, hauling, trenching (including rock excavation), bedding, laying, jointing, backfilling, concrete supports and concrete collars.

B. Each valve shall also include installation of a valve box protector ring with copper locator pin installed within the protector ring.

## **2.07 NEW CUSTOMER SERVICE**

Payment will be made per complete installation to include saddle, corporation stop, polyethylene service tubing (appropriate size), single or tandem setter, ¾" pressure reducing valve (if applicable), meter box and lid, excavation, valve, casing pipe (if applicable) and all items necessary for a complete installation. Services to be placed five (5) feet inside the customer's property line including a two (2) foot stub out with female adapter on customer side of meter box. **Radio Read Badger meter shall be supplied by the Owner.**

## **2.08 RECONNECT EXISTING CUSTOMER SERVICE**

Payment for re-connecting an existing service line to a new or existing water main will be paid on a per unit basis. This shall include all materials and labor including saddle, corporation stop, required service tubing, fittings, inserts and pushing under the existing road to complete the installation. This item shall also include any necessary relocation of the existing meter box and all related appearances. **This item shall require reconnection of existing service at a point just outside the existing meter box.**

## **2.09 ADDITIONAL SERVICE TUBING**

Payment for additional copper service pipe and fittings installed in open trench and backfilled will be made per linear foot in place. Payment for concrete, crushed stone, bituminous and concrete drives; sidewalk repair or replacement is included in the contract unit price for "service tubing." Excavation is unclassified and included in this item.

## **2.10 BLOW OFF ASSEMBLY**

Payment for hydrant assemblies will be made at the unit price, complete in place, which shall include all piping, fittings, gate valve and valve box and cover, 6 feet of connecting pipe, concrete blocking and supporting pad, drainage bed, stainless steel all thread rods and nuts, wrenches, and include the Mueller Model A-411 flushing assembly all other materials and labor necessary to complete the installation. Additional connector pipe is not included in this item and will be paid separately under the pay item "Water Main".

## **2.11 FLUSHING HYDRANT ASSEMBLY**

Payment for flush hydrant assemblies will be made at the unit price, complete in place, which shall include all piping, fittings, 6" fire hydrant, gate valve and valve box and cover, 6 feet of connecting pipe, concrete blocking and supporting pad, drainage bed, stainless steel all thread rods and nuts, wrenches, and all other materials and labor necessary to complete the installation. Additional connector pipe is not included in this item and will be paid separately under the pay item "Water Main".

## **2.12 UNDERGROUND BLOW OFF HYDRANT**

Payment for below ground blow off assemblies will be made at the unit price, complete in place which shall include all piping, fittings, gate valve, pvc pipe to daylight, concrete blocking, supporting pad and all other materials and labor necessary to complete the installation.

## **2.13 CONNECTION TO EXISTING WATER MAIN**

Payment for connecting to an existing water main at the location listed shall include all materials and labor necessary for making a connection to the existing water main as shown on the plans. Payment will be made per connection and will include tees, grip rings, thrust blocks, fittings and a maximum of 20 LF pipe. Valves at dry tie-ins will be paid separately under the gate valve price.

## **2.14 AIR RELEASE VALVE ASSEMBLY**

Payment for a 3/4" air release valve will be made at the contract unit price each, complete in place, including all excavation, material, meter box, saddles, fittings, ball valves, backfilling, and labor necessary to complete to complete the installation.

## **2.15 REMOVE EXISTING FLUSHING HYDRANT ASSEMBLY**

Payment for removal of existing flush hydrant assemblies will be made at the contract unit price each, complete in place, including all excavation and labor necessary to complete the removal. All flush hydrant assemblies removed from service will be returned to the Bracken County Water District office located at 1324 Brooksville Germantown Road, Brooksville, KY 41004.



## **2.16 CLEAN UP AND RESTORATION OF DISTURBED AREAS**

Payment for clean up and restoration of disturbed areas will be made at the unit price, complete in place which shall include clean up and restoration of all disturbed areas, including seeding and mulching as required.

**(NOTE: All rock excavation, crushed stone bedding, and asphalt replacement shall be included in the per unit price for pipe. No additional payment will be provided for these items)**

## **PART 3 - EXECUTION**

### **3.01 PAY ITEMS**

A. The pay items listed herein before refer to the items listed in the Bid Schedule and cover all of the pay items under the base bid for this contract.

B. Any and all other items of work listed in the specifications or shown on the Contract Drawings for this contract shall be considered incidental to and included in those pay items.

### **3.02 QUANTITIES OF ESTIMATE**

A. Wherever the estimated quantities of work to be done and materials to be furnished under this Contract are shown in any of the documents, including the Bid Proposal, they are given for use in comparing bids and the right is especially reserved except as herein otherwise specifically limited, to increase or diminish them as may be deemed reasonably necessary or desirable by the Owner to complete the work contemplated by this Contract, and such increase or diminution shall not give cause for claims or liability for damages. The Engineer will not be financially responsible for any omissions from the Contract Documents and therefore not included by the Contractor in his proposal.

B. Aerial photographs utilized for plan sheets in the Contract Documents are indicated at an approximate scale and shall not be scaled for quantity take-offs. The pipeline quantities listed in the Bid Schedule are given for use in comparing bids and may not be the actual quantities to be installed. It is the Contractor's responsibility to field verify the length and quantities of pipeline to be installed prior to the ordering of materials. Payment on unit price contracts are based on actual quantities installed. The Owner or Engineer will not be financially responsible for any shortage of pipe or overrun of pipe ordered for the pipeline quantities.

C. The actual quantities of all materials to be used for this project shall be field verified prior to the Contractor ordering the necessary materials. The quantity listed in the bid schedule is given for use in comparing bids and may increase or diminish as may be deemed necessary or as directed by the Owner. Any such increase or diminution shall not give cause for claims or liability for damages. The Engineer or Owner will not be financially responsible for any charges incurred for restocking of materials ordered.

- END OF SECTION -



## **SECTION 01580**

### **PROJECT IDENTIFICATION AND SIGNS**

#### **PART 1 - GENERAL**

##### **1.01 WORK INCLUDED**

A. The Contractor shall provide all signs required by these specifications 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 as shown on the Plans or in these Specifications.

B. The Contractor shall furnish and install One (1) sign on the Project. One sign shall conform to the specifications and painted as shown on Figure I on the following page. The location of signs shall be determined by the Owner and/or Engineer at the pre-construction meeting.

#### **PART 2 - PRODUCT**

##### **2.01 SIGN**

The sign shall be constructed of 3/4" thick APA A-B Exterior grade or marine plywood. Posts shall be 4" x 4" of fencing type material. Prime all wood with white primer. Sign shall be as shown in Figure I and II.

#### **PART 3 - EXECUTION**

##### **3.01 MAINTENANCE**

The sign shall be maintained in good condition until completion of the Project.

##### **3.02 LOCATION**

The location of the project signs shall be determined at the pre-construction conference after the contract has been awarded.

Temporary Black & White Construction Sign for projects

**BRACKEN COUNTY WATER DISTRICT  
WATER SYSTEM IMPROVEMENTS PROJECT  
CONTRACT #2  
BROOKSVILLE, KENTUCKY**

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**BRACKEN COUNTY WATER DISTRICT  
1324 BROOKSVILLE GERMANTOWN ROAD  
BROOKSVILLE, KY 41004**



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**PROJECT SPONSOR: BRACKEN COUNTY WATER DISTRICT  
PROJECT ENGINEER: BLUEGRASS ENGINEERING, PLLC  
CONTRACTOR: TO BE DETERMINED**

**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 so specified.
- D. Review submittals to verify compliance with Contract Documents.
- E. Related requirements specified elsewhere:
  - 1. Bid Bond: Instructions to Bidders.
  - 2. Performance and Payment Bonds: General Provisions.
  - 3. Guaranty: General Provisions.
  - 4. General Warranty of Construction: General Provisions. **See Special Conditions, SC-41.**
  - 5. Project Closeout: Section 01700.
  - 6. Warranties and Bonds required for specific products: As listed herein.
  - 7. Provisions of Warranties and Bonds, Duration: Respective specification sections for particular products.
  - 8. Operating and Maintenance Data: Section 01730.

**1.02 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. Firm name, address and telephone number.
  - 3. Scope



4. Date of beginning of warranty, bond or service and maintenance contract.
5. Duration of warranty, bond or service and maintenance contract.
6. Provide information for Owner's personnel:
  - a. Proper procedure in case of failure.
  - b. Instances which might affect the validity of warranty or bond.
7. Contractor name, address and telephone number.

### **1.03 FORM OF SUBMITTALS**

- A. Prepare in duplicate packets.
- B. Format:
  1. Size 8-1/2 in. x 11 in., 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. Name of Contractor.
- C. Binders: Commercial quality, three-ring, with durable and cleanable plastic covers.

### **1.04 TIME OF SUBMITTALS**

- A. For equipment or component parts of equipment put into service during progress of construction: Submit documents within 10 days after inspection and acceptance.
- B. Otherwise, make submittals within 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 10 days after acceptance, listing the date of acceptance as the start of the warranty period.

### **1.05 SUBMITTALS REQUIRED**

Submit warranties, bonds, service and maintenance contracts as specified in the respective sections of the Specifications.

- END OF SECTION -

## SECTION 02302

### RAILROAD OR HIGHWAY CROSSINGS

#### PART 1 GENERAL

##### 1.01 SUMMARY

- A. This Section includes railroad or highway crossings including casing pipes for pipelines installed by (jacking), (tunneling) or (boring) method, and installation of the carrier pipe within the casing in the location(s) and to the limits as shown on the Contract Drawings. The engineer has filed for the permits, but it is the responsibility of the contractor to put up the bond for the State Highway crossings.
- B. All work shall be performed in accordance with the applicable rules and regulations of the State and Federal Codes and with the terms and conditions of the permit issued by the railroad or highway having jurisdiction.

##### 1.02 SUBMITTALS

- A. In addition to those submittals identified in the General Provisions, the following items shall be submitted:
  - 1. Method of Installation
    - a. Following the award of the Contract, the Contractor shall submit a description of the method and equipment which is proposed to be employed in installing the casing.
    - b. A Professional Engineer licensed in the State of Kentucky shall design all sheeting and bracing at the Contractor's expense. The seal of the Professional Engineer shall appear on all drawings and design sheets submitted for review.
  - 2. Materials
    - a. Drawings and manufacturer's data of the casing materials showing compliance with this specification.
  - 3. Contractor's Data
    - a. The Contractor shall submit such data as may be required as conditions of the Railroad or Highway Permit.

##### 1.03 QUALITY ASSURANCE

- A. Contractor's Qualifications
  - 1. The casing shall be installed by a contractor who has experience in this field of construction and can furnish a record of satisfactory performance on at least three projects for work of comparable type.

## PART 2 PRODUCTS

### 2.01 MATERIALS AND CONSTRUCTION

#### A. Casings

1. The casing shall be of the size and type as shown on the Contract Drawings.
  - a. Steel pipe of the thickness specified shall have a minimum yield strength of 35,000 psi and a minimum ultimate strength of 60,000 psi. Steel casing pipe shall be uncoated .
  - b. Liner plate of the gauge specified shall be pressed steel, galvanized and bituminous coated.
  - c. Concrete pipe shall be designed for the purpose of jacking and shall be tongue and grooved.
  - d. All joints in the encasement pipe shall be of continuous solid weld.

**TABLE OF MINIMUM WALL THICKNESS FOR STEEL CASING PIPE**

Minimum Wall Thickness of Casing Pipe (inches)	Normal Diameter of Casing Pipe (inches)
0.375	18 or less
0.500	20 thru 30
0.532	36
0.625	42

- B. The steel casing pipe for all highway crossings shall be as follows:

Carrier Pipe Size

Casing Pipe Size

2"	6"
3"	8"
4"	12"
6"	14"
8"	16"
10"	18"
12"	20"
14"	24"
16"	26"
20"	30"
24"	34"
30"	40"

#### B. Carrier Pipes



1. The carrier pipe shall be as specified on the Contract Drawings and in accordance with the Section for the type of pipe.

C. Signs

1. Signs shall be weatherproof.

**PART 3 EXECUTION**

**3.01 INSTALLATION**

A. General

1. Unless otherwise shown or specified, the Contractor may employ any one of jacking, tunneling or boring methods within the limits shown for the installation of the casing.
  - a. The remaining portion of the casing may be constructed by open cut method in a sheeted trench.
2. Installation of the casing pipe shall be carried out without disturbance of the embankment, pavement, tracks or other railroad or highway facilities and without obstructing the passage of traffic at any time.
3. Once the jacking, tunneling or boring operation is started, it shall proceed on a 24-hour basis without interruption until completed.
4. The casing pipe shall be maintained accurately to line and grade during the installation operation.
5. The casing shall be advanced from the lower end.
6. The use of water or other liquid, except bentonite slurry with prior approval of the Engineer, to facilitate casing placement or spoil removal is prohibited.
7. Dewatering shall be in accordance with the Section entitled "Earthwork".

B. Jacking

1. The jacking force shall be properly distributed through the jacking frame to the casing and parallel with the axis.
2. The soil shall be trimmed with care and shall not precede the jacking operation, to insure a minimum disturbance to the natural soils adjacent to the casing.
  - a. No augering will be allowed.

C. Tunneling

1. Excavation shall be in such a manner that voids behind the liner plates shall be held to a minimum.
2. Poling plates shall be used as necessary to prevent caving of material above the tunnel prior to liner plate installation.
  - a. Poling plates shall not be driven into the unexcavated material.

3. Liner plates shall be installed as soon as excavation proceeds the necessary distance for the next set of plates.
4. Grout plugs shall be placed on approximately 4-foot centers, at the top, bottom and on the spring line.
  - a. Grout holes shall be not less than 1-inch diameter.
  - b. Voids between the liner plates and the excavation shall be filled with a 1:6 cement grout placed under pressure.
  - c. Not more than 6 lineal feet of tunnel shall progress beyond the grouting.
5. Tunneled casings shall have a foundation of Class "C" concrete placed for the entire length of the interior of the casing.
  - a. The leveling course shall be at such an elevation that the carrier pipe, when installed, shall be at the grade specified.

D. Boring

1. Boring shall consist of pushing the casing with an auger rotating within to remove the spoil.
2. The auger or cutting head shall not lead the casing and shall be removable from within the casing.
3. The face of the cutting head shall be arranged to provide reasonable obstruction to the free flow of soft or poor materials.

E. Pressure Carrier Pipe

1. No contact shall be permitted between the casing and the carrier pipe.
  - a. Casing spacers shall be used between the casing pipe and carrier pipe. Spacers shall be manufactured by Pipeline Seal & Insulator, Inc. (PSI) of Houston Texas, or equal and be of the type to separate dissimilar metals and keep the carrier pipe centered within the casing. The spacers shall be installed within the casing in the quantity and at the locations recommended by the manufacturer.
  - b. Both ends of the casing pipe shall be sealed with rubber boot "End Seals" by PSI or equal, held in place by stainless steel bands/clamps.

F. Non-Pressure Carrier Pipe

1. No contact shall be permitted between the casing and the carrier pipe.
  - a. Casing spacers shall be used between the casing pipe and carrier pipe. Spacers shall be manufactured by Pipeline Seal & Insulator, Inc. (PSI) of Houston Texas, or equal and be of the type to separate dissimilar metals and keep the carrier pipe centered within the casing. The spacers shall be installed within the casing in the quantity and at the locations recommended by the manufacturer.
  - e. Both ends of the casing pipe shall be sealed with rubber boot "End

Seals" by PSI or equal, held in place by stainless steel bands/clamps.

-END OF SECTION-



## SECTION 02645

### HYDRANT ASSEMBLY

#### PART 1 - GENERAL

##### 1.01 SCOPE

The Contractor shall furnish and install, where shown on the plans and additional locations as directed by the Owner, hydrant assemblies and blow-hydrants manufactured and equipped as described below.

**Existing hydrant assemblies that are removed from service are to be returned to the owner, Bracken County Water District, at their offices at 1324 Brooksville Germantown Road, Brooksville, Kentucky.**

#### PART 2 - PRODUCTS

##### 2.01 FLUSHING HYDRANT ASSEMBLY

A. Hydrants shall conform in all respects to the requirements of AWWA C502. All hydrants shall have 6-inch mechanical joint shoe connection, two (2) 2-1/2" hose outlets, one (1) 4-1/2" pumper nozzle with caps. Connection threads and operation nuts shall conform to National Standard Specifications as adopted by National Board of Fire Underwriters. The hydrant shall be equipped with safety flanges designed to prevent barrel breakage when struck by a vehicle and an auxiliary gate valve.

B. Each hydrant shall be fully bronze mounted with the main valve having a threaded bronze seat ring assembly of such design that it is easily removable by unscrewing from a threaded bronze drain ring. Bronze drain ring shall have multiple ports providing positive automatic drainage as the main valve is opened or closed. Drainage waterways shall be completely bronze to prevent rust or corrosion.

C. Operating stems shall be equipped with anti-friction thrust bearing to reduce operating torque and assure easy opening. Stops shall be provided to limit stem travel. Stem threads shall be enclosed in a permanently sealed lubricant reservoir protected from weather and the waterway with O-ring seals.

D. Hydrants shall be designed for 250 psi working pressure and shop tested to 400 psi pressure with main valve both opened and closed. Under test the valve shall not leak, the automatic drain shall function and there shall be no leakage into the bonnet. Hydrants shall have a UL/FM approved rating.

E. Each hydrant shall be installed with an auxiliary shut-off valve and valve box; valve box cover shall be marked "WATER" as required. Hydrants shall be secured to the shut-off valve by AWWA approved restraint joints, rodding with four (4) equally spaced all thread rods and "Duc-Lugs", or other equally approved method.

F. Inlet cover depth shall be 36" and the minimum dimension from ground to centerline of lowest opening shall be 18". Hydrants shall be supported on a poured-in-place concrete thrust block and provided with a drainage pit as indicated on Standard Detail Sheet.

G. All hydrants shall receive two (2) field coats of Koppers Company, Inc. Glamortex enamel (red). The Owner shall be furnished with two (2) hydrant barrel wrenches, four (4) spanner wrenches and two (2) operating nut wrenches.

H. Below ground hydrants shall be flush type with the upper barrel and nozzles contained in a cast iron box with a non locking lid.

I. SEE SECTION 01600 MATERIAL AND EQUIPMENT for APPROVED MANUFACTURE

J. Hydrant assemblies shall include the isolation valve and both valve and hydrant shall have a UL/FM approved rating.

## **2.02 BLOW-OFF ASSEMBLY**

The underground blow off assembly shall be a gate valve, ninety degree fitting and pvc cap sized to fit the end of the pipe at surface level as shown on the standard detail drawings.

## **2.02 BLOW OFF HYDRANT**

- A. 3-inch Hydrants shall be self-draining, non-freezing, compression type with 2½" main valve opening. Inlet connection shall be MJ. Outlet shall be 2" IP. Hydrants shall be post type SEE SECTION 01600 MATERIAL AND EQUIPMENT for APPROVED MANUFACTURE.
- B. Hydrants shall have a ductile iron pipe riser with a cast iron stock top, and non-turning operating rod. Principal interior operating parts shall be brass and removable from the hydrant for servicing without excavating the hydrant.
- C. Flushing assembly installation shall also include all excavation, backfill, thrust blocking, and #9 crushed stone.

## **PART 3 – EXECUTION**

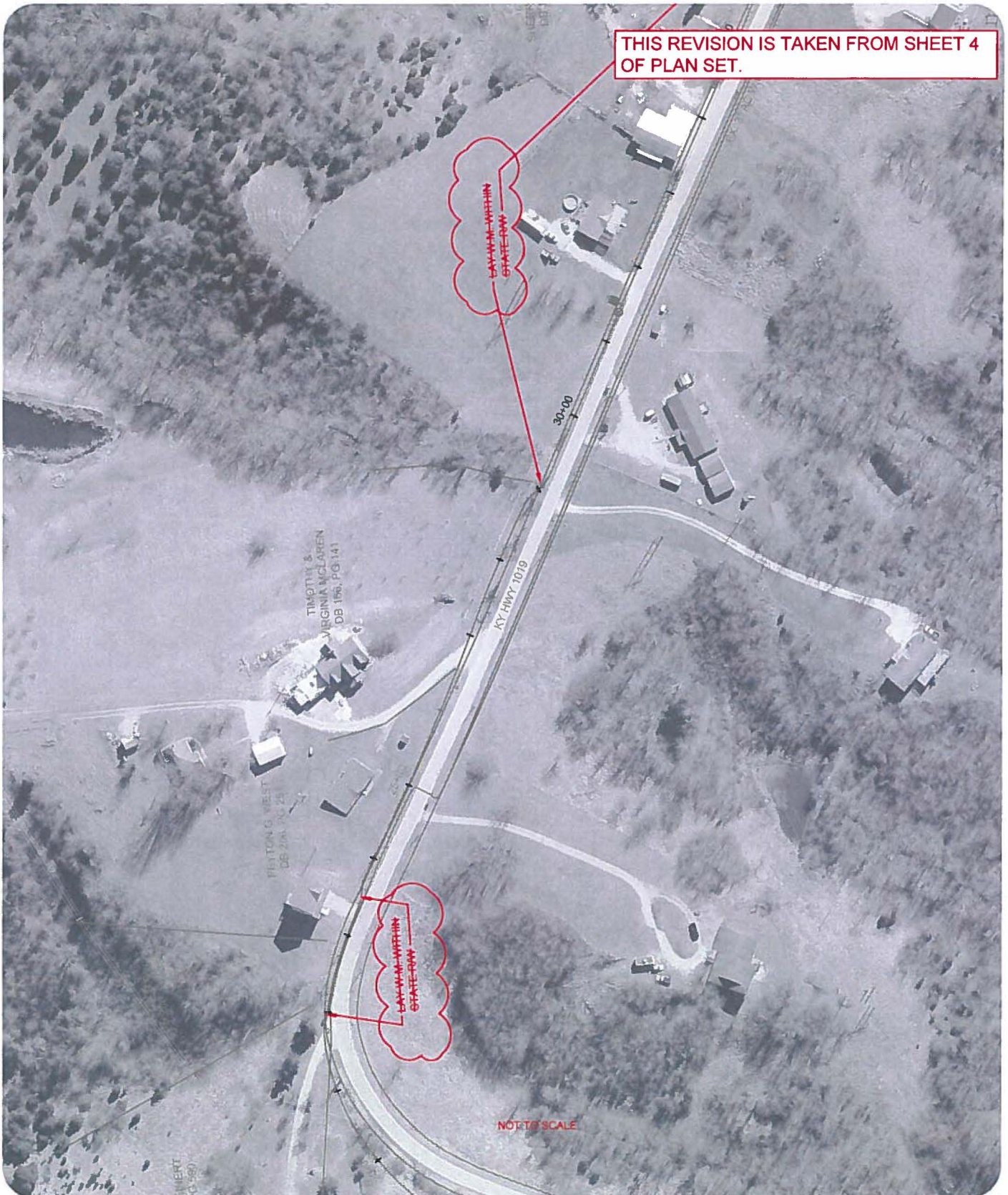
### **3.01 INSTALLATION**

A. Hydrants shall be located as shown on the drawings unless otherwise specified by the Owner. Each hydrant shall be connected to the main with a 6-inch branch line having at least as much cover as the distribution main. Hydrants shall be set plumb with pumper nozzle facing the roadway and the cast-iron valve box set flush with the finished surrounding grade. Except where approved otherwise, the backfill around hydrants shall be thoroughly compacted to the finished gradeline immediately after installation to obtain beneficial use of the hydrant as soon as practicable. All hydrants shall be provided with a shut-off valve in the hydrant lateral as shown. All hydrants shall be installed in accordance with the manufacturer's directions and as detailed on the Contract Drawings.

B. Blow-off hydrants shall be located as shown on the drawings unless otherwise specified by the Utility. Each blow-off hydrant shall be connected to the main with at least as much cover as the distribution main. Blow-off hydrants shall be set plumb with nozzle facing the roadway and with the box cover set flush with the finished surrounding grade. The backfill around each hydrant shall be thoroughly compacted to the finished gradeline immediately after installation to obtain beneficial use of the hydrant as soon as practicable. All blow-off hydrants shall be provided with a shut-off valve in the lateral as shown.

- END OF SECTION -





222 East Main Street, Ste. 1 • Georgetown, KY 40324

BRACKEN COUNTY WATER DISTRICT  
2016 WATER SYSTEM IMPROVEMENTS  
ADDENDUM #1

Project No.  
18012

Date  
06/11/2018

Dwg. No.  
AD1 - D-1



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DB 148

THIS REVISION IS TAKEN FROM SHEET 5  
OF PLAN SET.

BE 6/27/18

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LAY W.M. WITHIN  
STATE RAW

NOT TO SCALE



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BRACKEN COUNTY WATER DISTRICT  
2016 WATER SYSTEM IMPROVEMENTS  
ADDENDUM #1

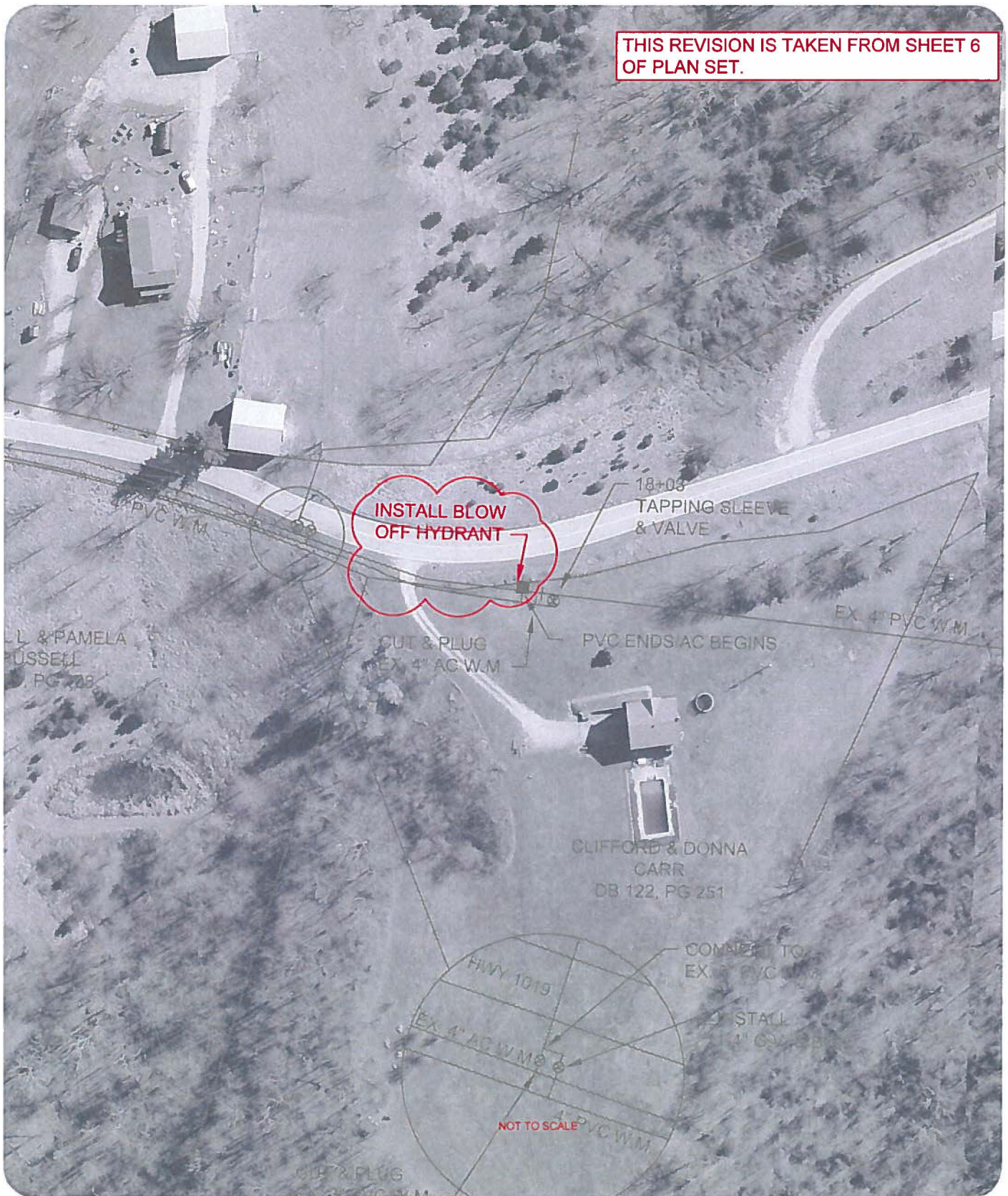
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OF PLAN SET.



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OF PLAN SET.

LAY W.M. WITHIN  
STATE R/W

190+00

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Dwg. No.  
AD1 - D-4



THIS REVISION IS TAKEN FROM SHEET 17  
OF PLAN SET.

STA 10+00  
CONNECT TO EXIST.  
8" PVC W.M.  
TAPPING SLEEVE & VALVE

CUT & PLUG  
EX. 8" AC W.M.

INSTALL  
1 - 8" G.V. & BOX  
1 - FLUSHING ASSEMBLY

BERLIN TANK

NOT TO SCALE

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OF PLAN SET.

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Date  
06/11/2018

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THIS REVISION IS TAKEN FROM SHEET 22  
OF PLAN SET.



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2016 WATER SYSTEM IMPROVEMENTS  
ADDENDUM #1

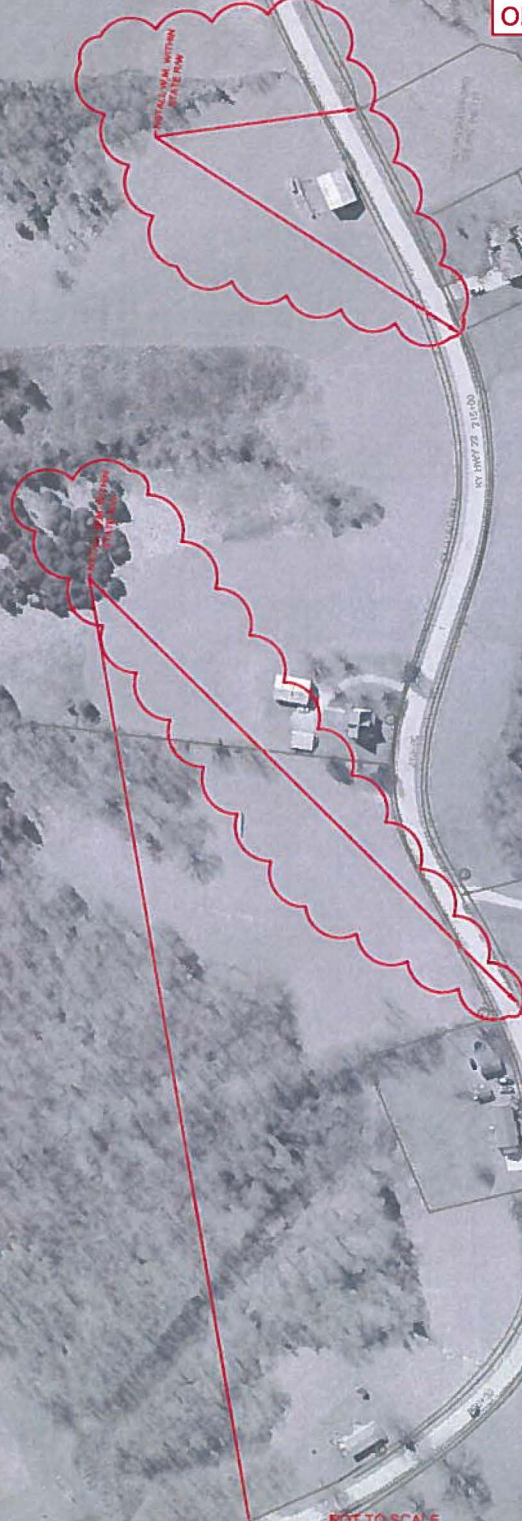
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OF PLAN SET.



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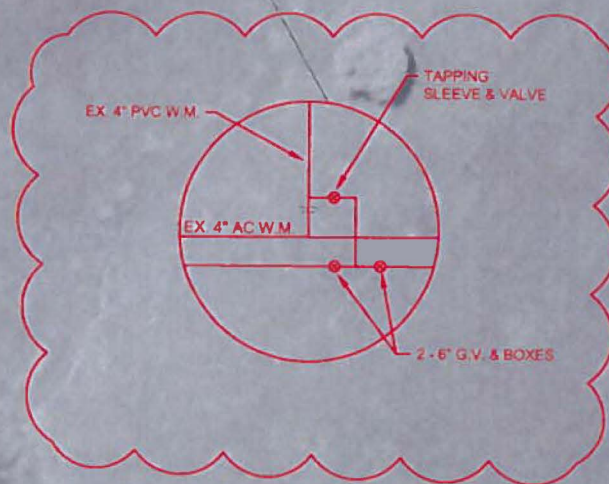
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AD1 - D-8



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OF PLAN SET.

TAPPING SLEEVE &  
VALVE  
OUT & BACK  
PVC W.M.  
245+00  
TAPPING SLEEVE &  
VALVE  
OUT & BACK  
PVC W.M.



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Project No.  
18012

Date  
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AD1 - D-9





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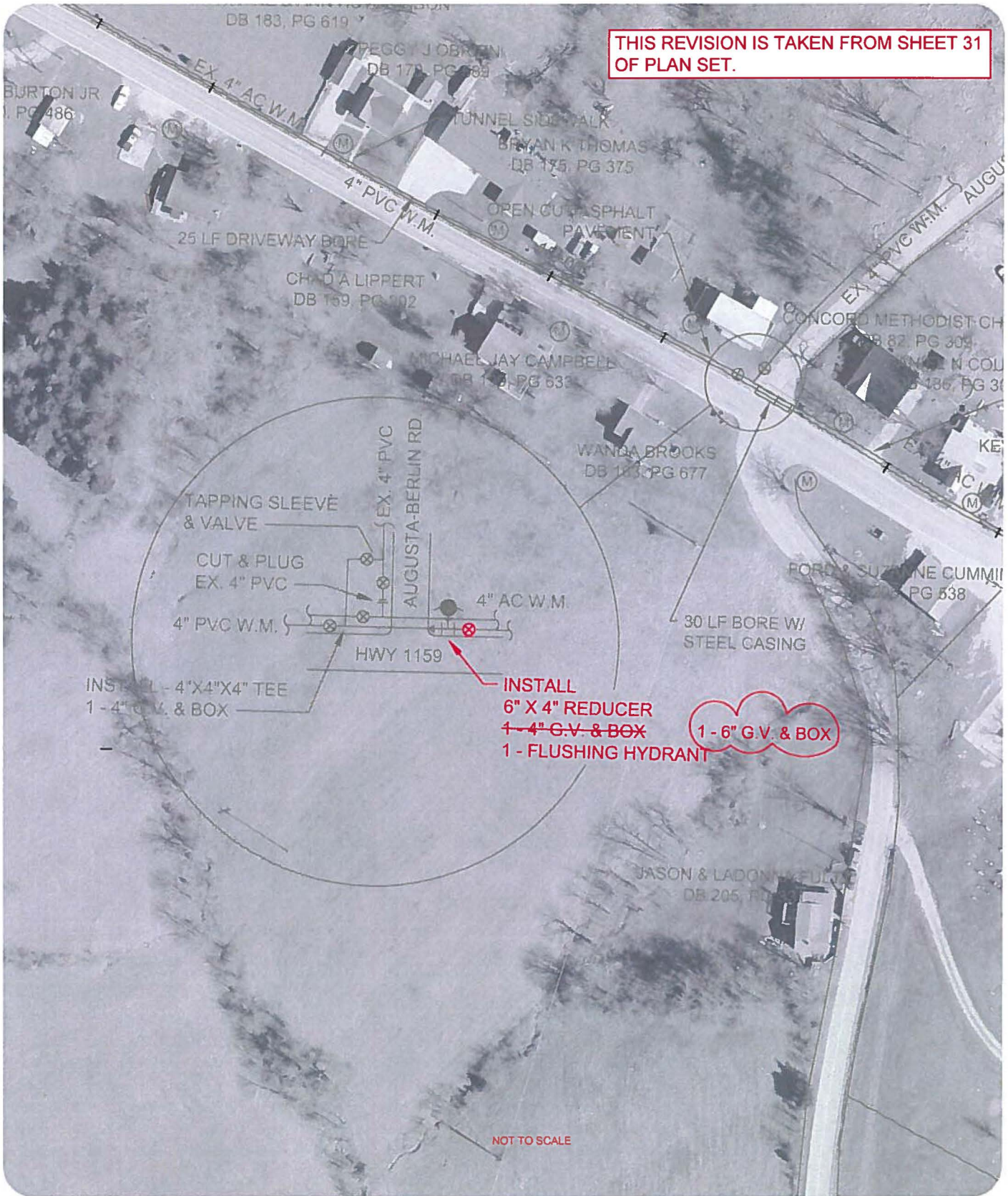
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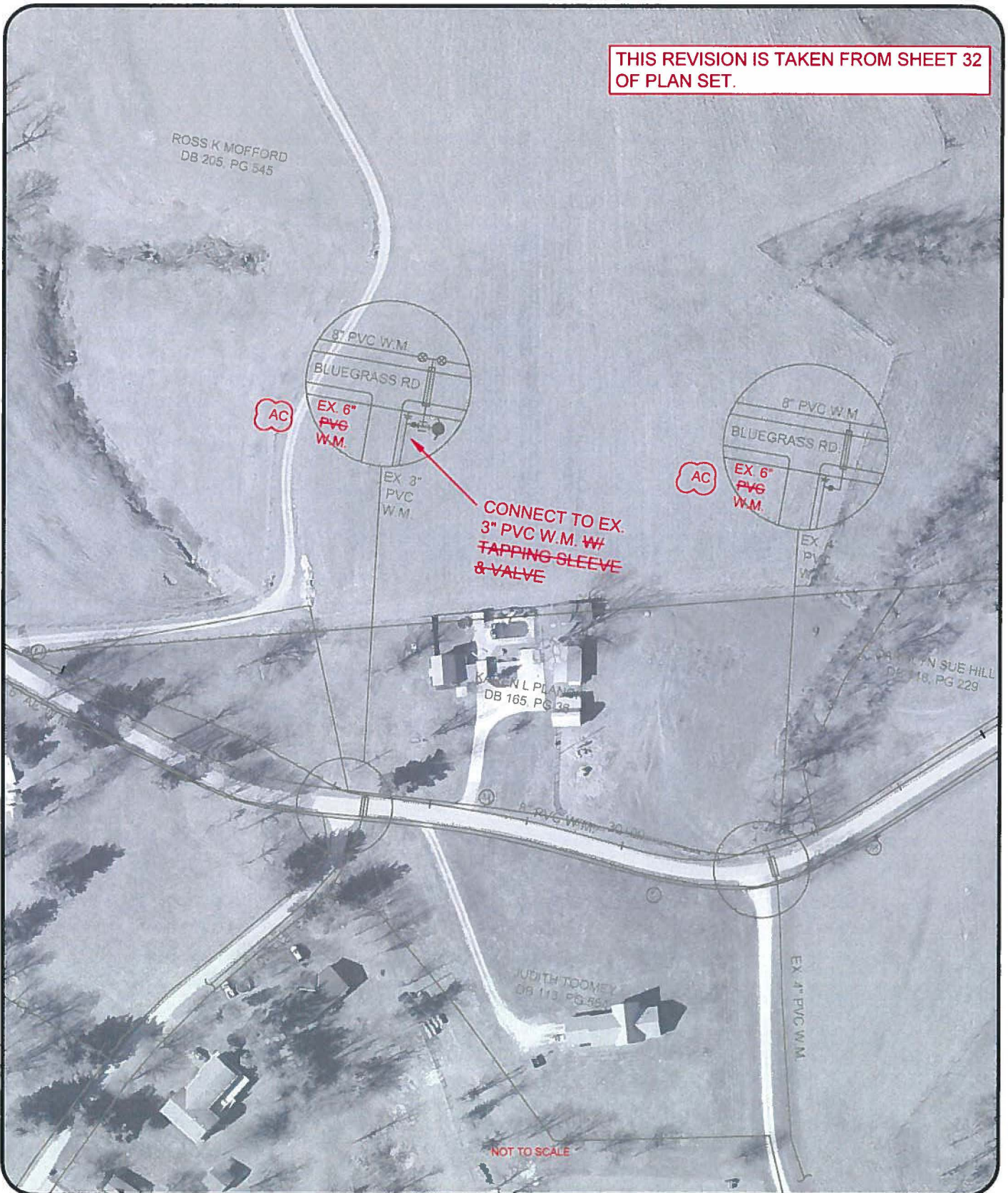
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OF PLAN SET.

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ADDENDUM #1

Project No.  
18012

Date  
06/11/2018

Dwg. No.  
AD1 - D-12



THIS REVISION IS TAKEN FROM SHEET 33  
OF PLAN SET.

INSTALL  
1 - 8" X 8" X 3" TEE  
1 - 3" G.V & BOX  
1 - BLOWOFF HYDRANT

NOT TO SCALE

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2016 WATER SYSTEM IMPROVEMENTS  
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AD1 - D-13



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OF PLAN SET.



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2016 WATER SYSTEM IMPROVEMENTS  
ADDENDUM #1

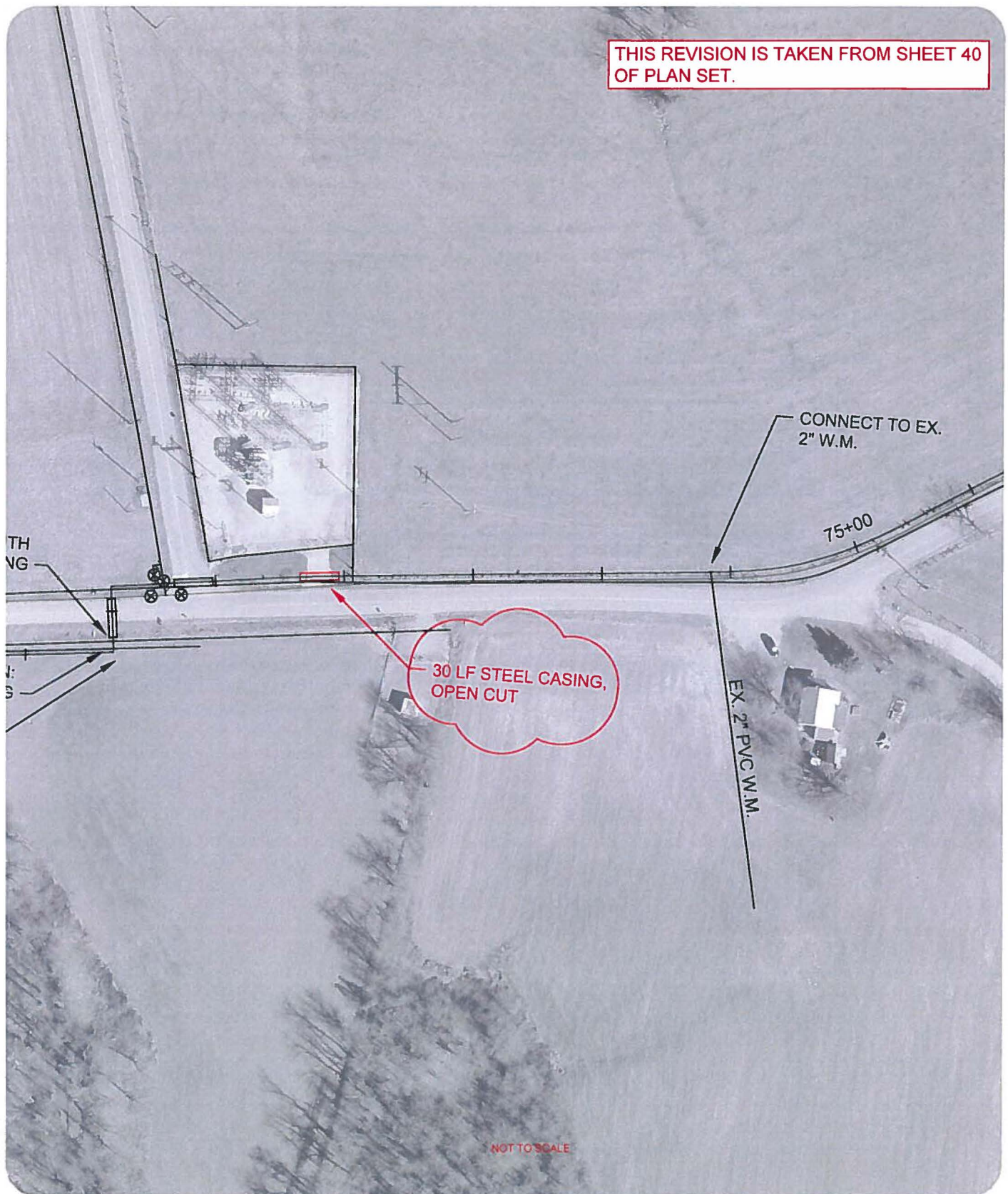
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18012

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06/11/2018

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AD1 - D-14



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OF PLAN SET.



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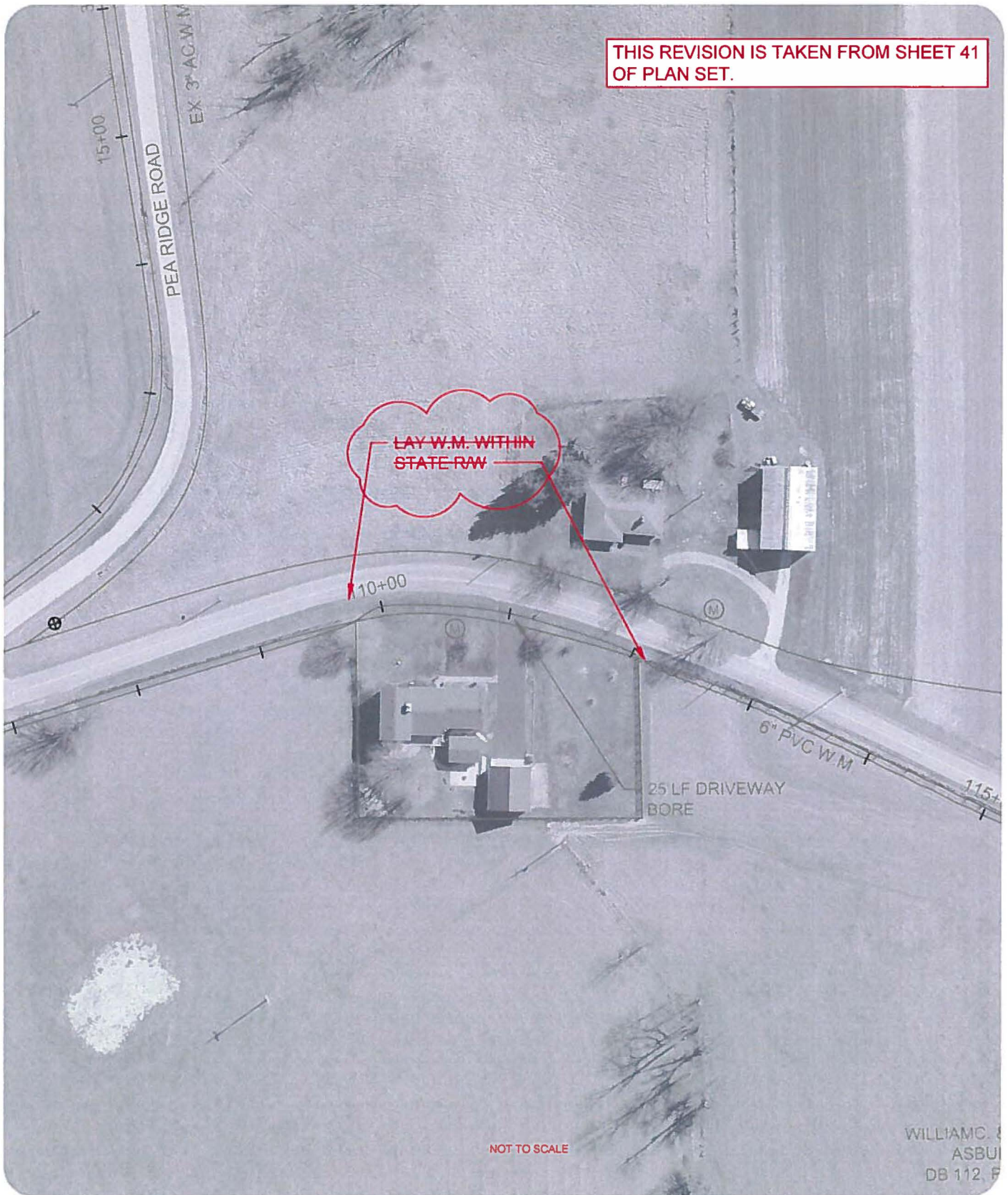
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2016 WATER SYSTEM IMPROVEMENTS  
ADDENDUM #1

Project No.	18012
Date	06/11/2018
Dwg. No.	AD1 - D-15



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OF PLAN SET.



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NOT TO SCALE

WILLIAMC. &  
ASBURY  
DB 112, F



THIS REVISION IS TAKEN FROM SHEET 42  
OF PLAN SET.

LAY W.M. WITHIN  
STATE ROW

ASBURY ROAD

150+00

155+00

PROL GANT  
DE 180 PG 232

NOT TO SCALE



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2016 WATER SYSTEM IMPROVEMENTS  
ADDENDUM #1

Project No.  
18012

Date  
06/11/2018

Dwg. No.  
AD1 - D-17



THIS REVISION IS TAKEN FROM SHEET 44  
OF PLAN SET.

CASING PIPE

EX. 3" PVC W.M.

ASBURY ROAD

220+00

DAVID L. & JEANNINE K. APPLEMAN  
& EMORY & LOIS APPLEMAN  
DB 184, PG 396

NOT TO SCALE

BE 62618

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2016 WATER SYSTEM IMPROVEMENTS  
ADDENDUM #1

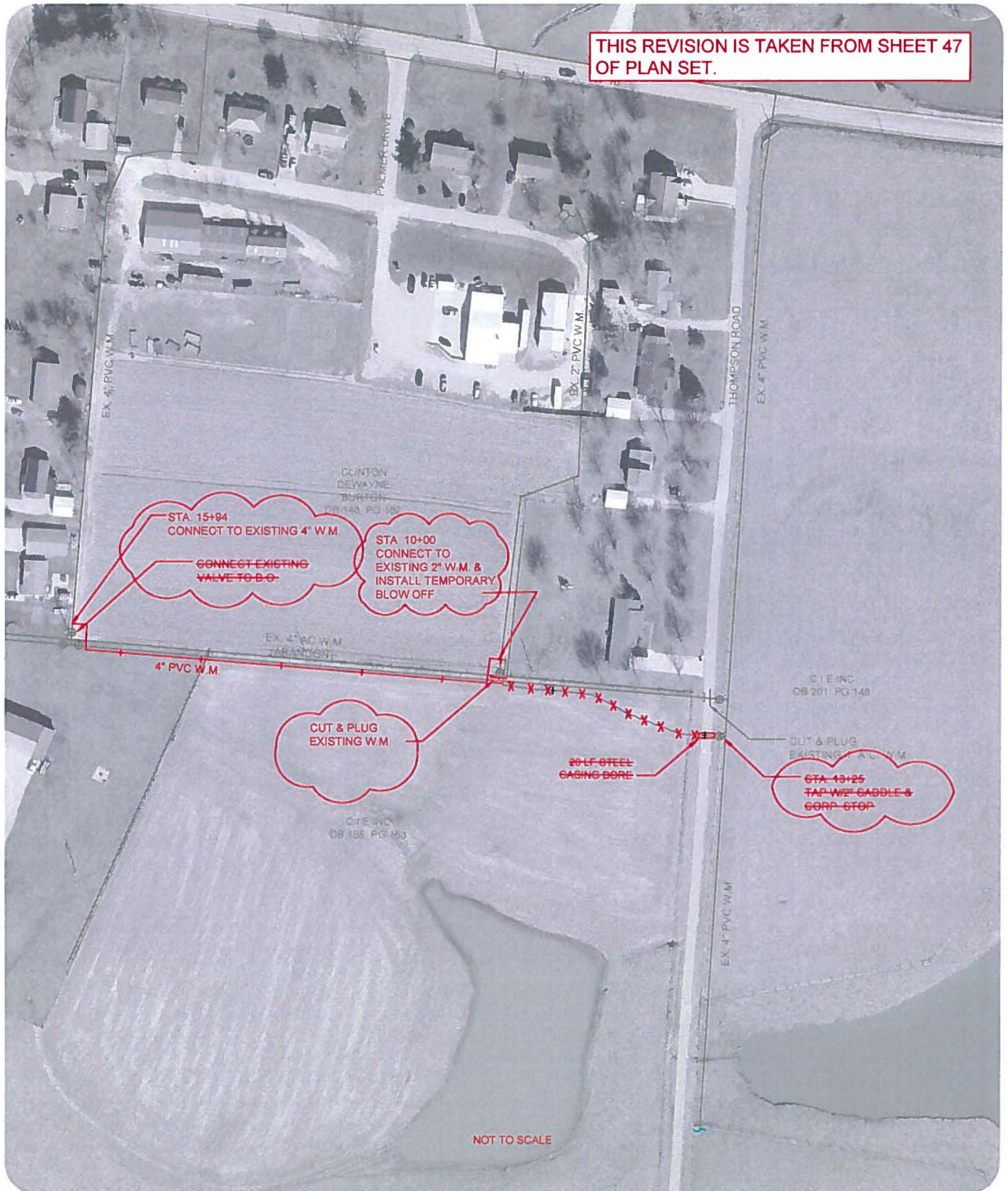
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Date  
06/11/2018

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AD1 - D-18



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OF PLAN SET.



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2016 WATER SYSTEM IMPROVEMENTS  
ADDENDUM #1

Project No.  
18012

Date  
06/11/2018

Dwg. No.  
AD1 - D-19



THIS REVISION IS TAKEN FROM SHEET 48  
OF PLAN SET.

ST 10 + 00  
CONNECT TO EX.  
4" PVC W.M.  
W/CORP. STOP

ST 14 + 20  
INSTALL  
1 - BLOWOFF ASSEMBLY

2" PVC W.M.  
EX. 4" AC W.M.

EX. 8" PVC W.M.



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2016 WATER SYSTEM IMPROVEMENTS  
ADDENDUM #1

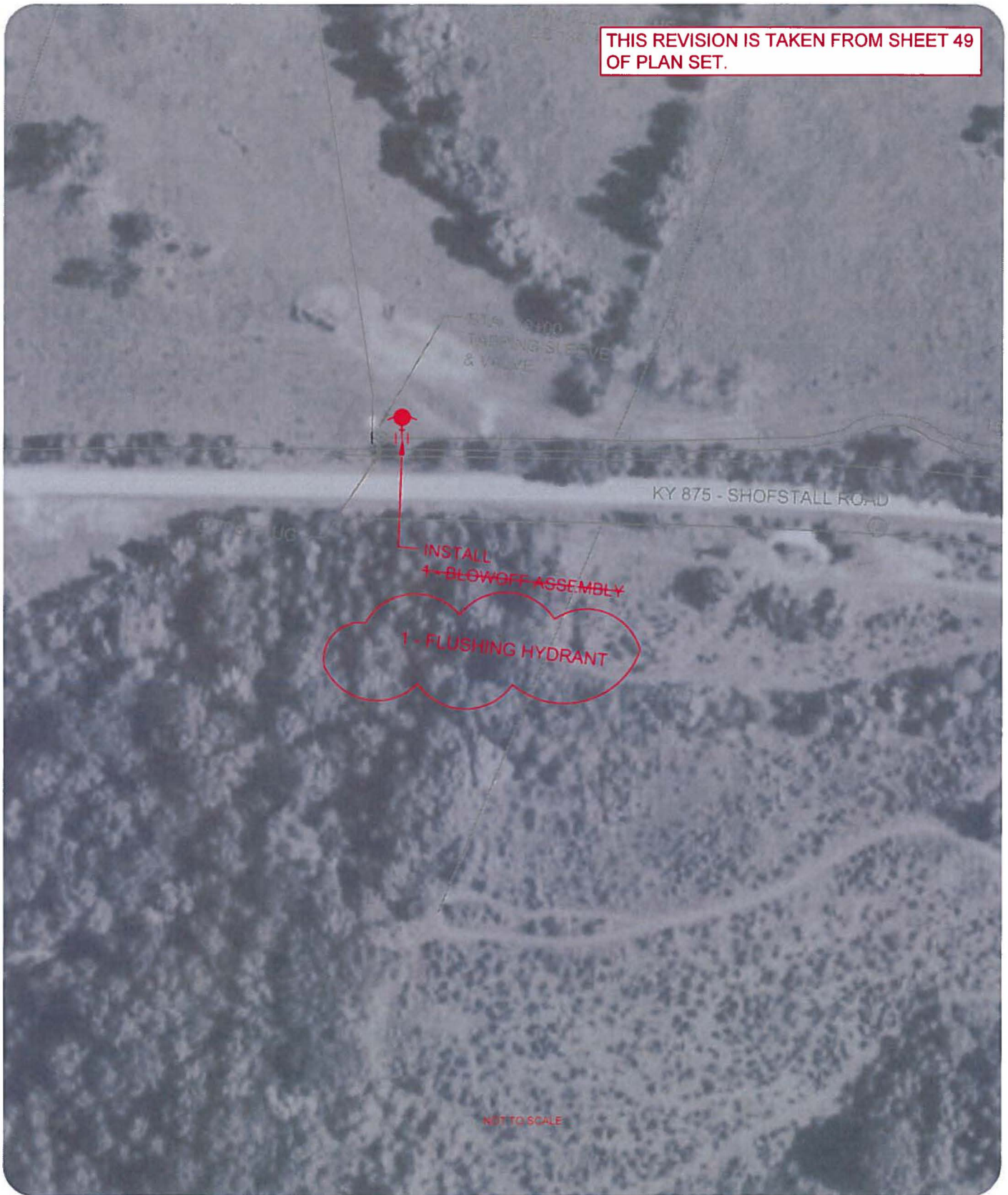
Project No.  
18012

Date  
06/11/2018

Dwg. No.  
AD1 - D-20



THIS REVISION IS TAKEN FROM SHEET 49  
OF PLAN SET.



222 East Main Street, Ste. 1 • Georgetown, KY 40324

BRACKEN COUNTY WATER DISTRICT  
2016 WATER SYSTEM IMPROVEMENTS  
ADDENDUM #1

Project No.  
18012

Date  
06/11/2018

Dwg. No.  
AD1 - D-21

THIS REVISION IS TAKEN FROM SHEET 52  
OF PLAN SET.



222 East Main Street, Ste. 1 • Georgetown, KY 40324

BRACKEN COUNTY WATER DISTRICT  
2016 WATER SYSTEM IMPROVEMENTS  
ADDENDUM #1

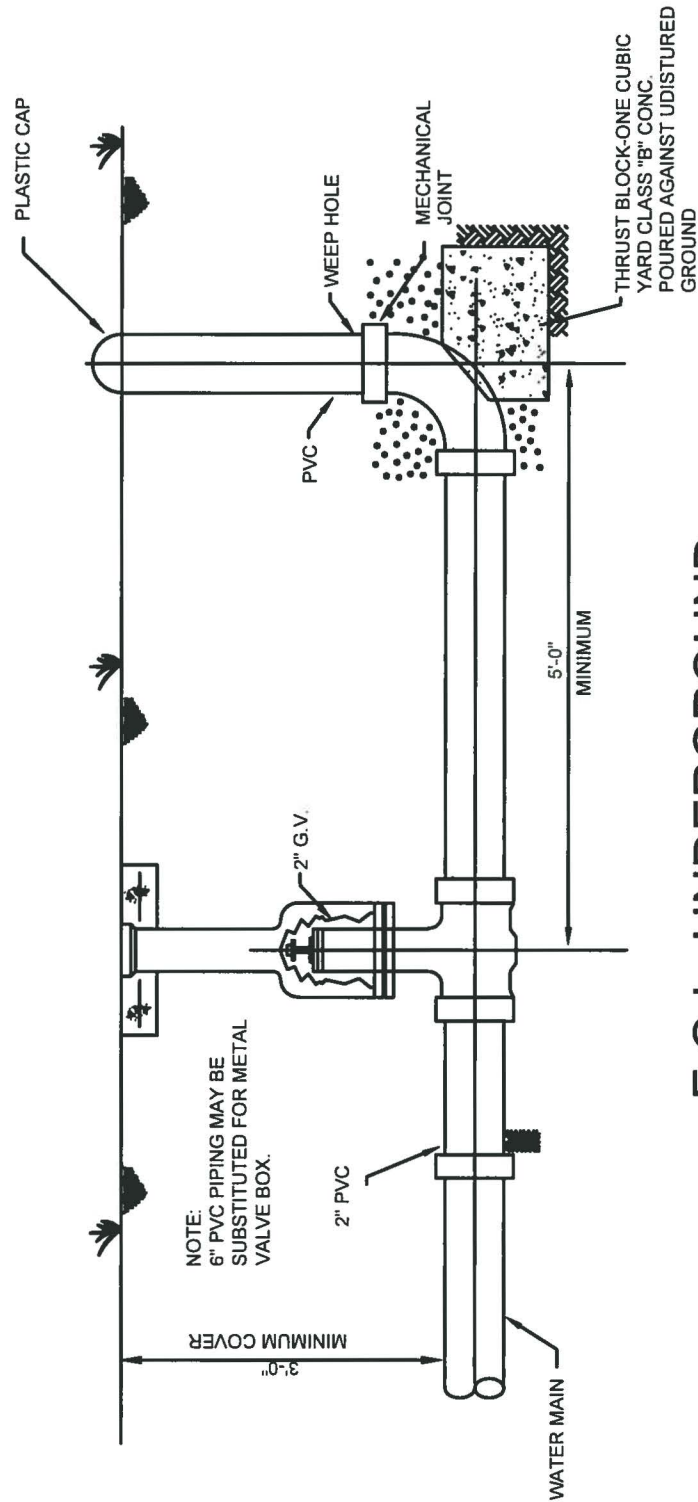
Project No.  
18012

Date  
06/11/2018

Dwg. No.  
AD1 - D-22



THIS ADDENDA IS TO BE ADDED TO THE  
STANDARD DETAILS



**E.O.L. UNDERGROUND  
BLOWOFF ASSEMBLY**  
NOT TO SCALE



222 East Main Street, Ste. 1 • Georgetown, KY 40324

BRACKEN COUNTY WATER DISTRICT  
2016 WATER SYSTEM IMPROVEMENTS  
ADDENDUM #1

Project No.  
18012

Date  
06/11/2018

Dwg. No.  
AD1 - D-23

THIS REVISION IS TAKEN FROM SHEET 20  
OF PLAN SET.

CUT & PLUG

40 LF BORE W/  
STEEL CASING

KY HWY 10

BOWLES FARMS, LLC  
DB 168, PG 506

100+00

FLUSHING  
HYDRANT  
BOWLES FARMS, LLC  
DB 168, PG 506

EX-8" AG W-M

INSTALL  
1 - 6" G.V. & BOX

NOT TO SCALE



222 East Main Street, Ste. 1 • Georgetown, KY 40324

BRACKEN COUNTY WATER DISTRICT  
2016 WATER SYSTEM IMPROVEMENTS  
ADDENDUM #1

Project No.  
18012

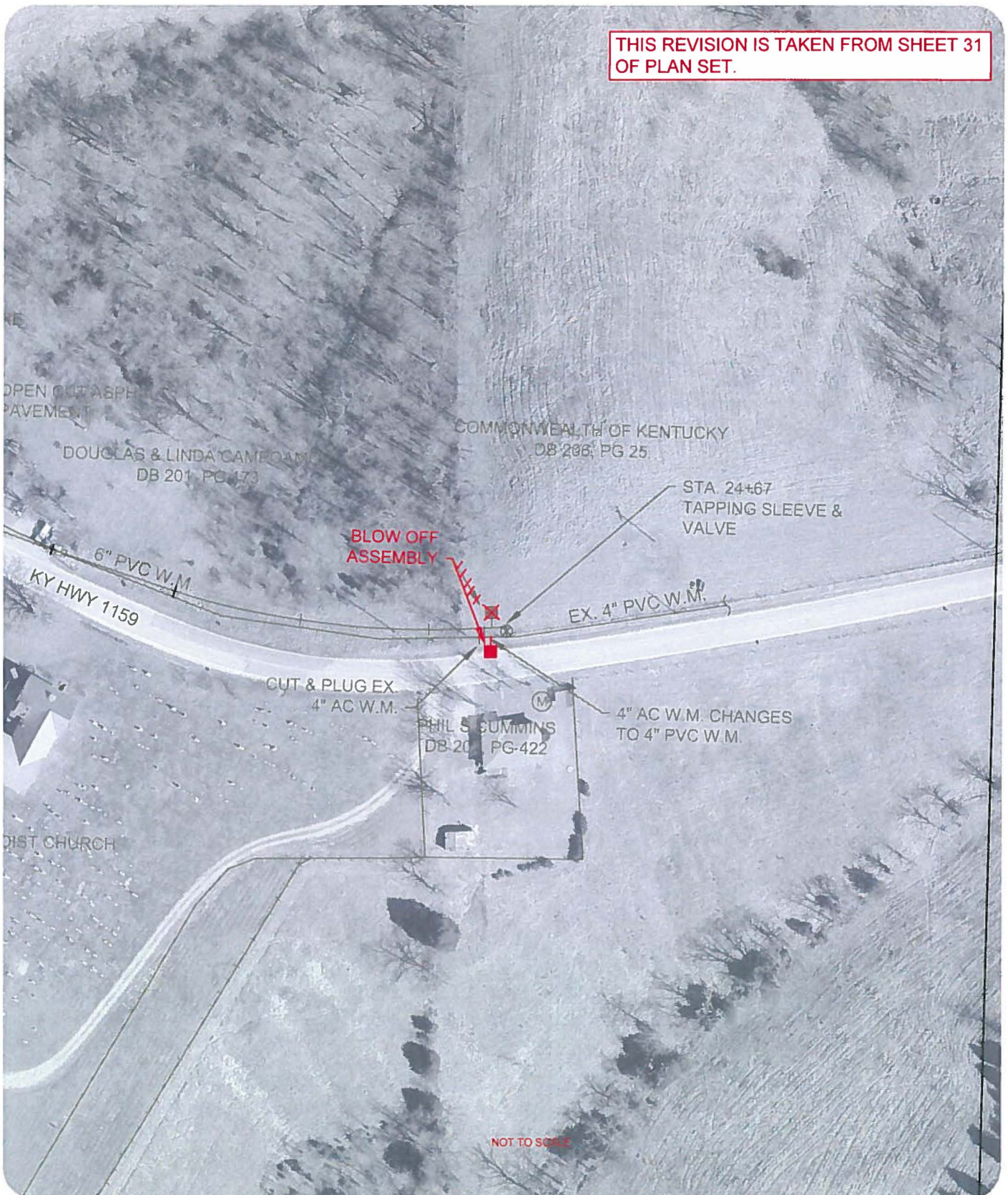
Date  
06/11/2018

Dwg. No.  
AD1 - D-24



THIS REVISION IS TAKEN FROM SHEET 31  
OF PLAN SET.

B:\PROJECTS\Bracken County Water District\18012 - 2016 Water System Improvements\DWG\Bldg Set\KED\Amended 18041-PLAN-KY1159-BLADESTON.dwg  
BE 7/6/18



222 East Main Street, Ste. 1 • Georgetown, KY 40324

BRACKEN COUNTY WATER DISTRICT  
2016 WATER SYSTEM IMPROVEMENTS  
ADDENDUM #1

Project No.  
18012

Date  
06/11/2018

Dwg. No.  
AD1 - D-25





## **ADDENDUM NO. 2**

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### **BRACKEN COUNTY WATER DISTRICT CONTRACT #2 - 2016 WATER SYSTEM IMPROVEMENTS BE Project # 18012**

**BID DATE:** Thursday, August 9, 2018 – 11:00 am (Local Time)

---

This Addendum No. 2 and its noted revisions and attachments to the Drawings and Specifications shall supplement, amend, and become a part of the Bidding Documents, Contract Documents, Drawings, and Specifications. All Bids and Construction Contracts shall be based on these modifications and issued Drawings, Specifications, and all Addendum.

All Bids must be made on the required Bid Forms and include all of Section 004XXX series documents and must be fully completed and executed with original signatures and corporate seals. All Bid Bonds must be original forms and accompanied by the required certificates, original signatures, and seals. Any Bids without original documents, or a conditional or qualified Bid, will not be accepted

#### **REVISIONS AND ATTACHMENTS**

#### **SPECIFICATIONS**

##### **ITEM AD2-1**

##### **SECTION 00410 – BID FORM**

Replace with the attached specification in its entirety. This addendum replaces Item No. 32 of the Bid Schedule with a dollar amount that is equal to 5.0% of the Total Bid Price of the lump sum of Item No.'s 1-31. This Item No. 32 must be bid by all bidders.

##### **ITEM AD2-2**

##### **SECTION 00010 – ADVERTISEMENT – PRE-BID INFORMATION**

Replace with the attached specification in its entirety.

## ATTACHMENTS

- Specification Sections  
SECTION 00410 – BID FORM  
SECTION 00010 – ADVERTISEMENT – PRE-BID INFORMATION

A handwritten signature in blue ink that reads "Matthew R. Curtis, PE". The signature is written in a cursive style and is positioned above a horizontal line.

Mat. Curtis, PE

Project Engineer

**Bluegrass Engineering, PLLC**

P.O. Box 1657

Georgetown, KY 40324

Cell: 502.370.6551

e-mail: [mcurtis@bluegrassengineering.net](mailto:mcurtis@bluegrassengineering.net)

July 31, 2018



**BID FORM**

**BRACKEN COUNTY WATER DISTRICT**

**CONTRACT 2 - WATER SYSTEM IMPROVEMENTS (16041)**

## TABLE OF CONTENTS

	<b>Page</b>
Article 1 – Bid Recipient .....	1
Article 2 – Bidder’s Acknowledgements .....	1
Article 3 – Bidder’s Representations.....	1
Article 4 – Bidder’s Certification .....	2
Article 5 – Basis of Bid.....	3
Article 6 – Time of Completion .....	5
Article 7 – Attachments to this Bid .....	5
Article 8 – Defined Terms.....	6
Article 9 – Bid Submittal.....	6

## ARTICLE 1 – BID RECIPIENT

1.01 This Bid is submitted to:

***Bracken County Water District***

***1324 Brooksville Germantown Road***

***Brooksville, Kentucky 41004***

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 90 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>
1	
2	

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 and including all AIS requirements.

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

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EJCDC® C-410, Bid Form for Construction Contracts.

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and American Society of Civil Engineers. All rights reserved.



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	Total Bid Price
1	8" D.I.P. Water Main, Class 350	LF	1,500		
2	8" PVC Water Main, Class 250	LF	21,000		
3	6" PVC Water Main, Class 250	LF	93,000		
4	6" D.I.P. Water Main, Class 350	LF	700		
5	4" PVC Water Main, Class 250	LF	31,000		
6	3" PVC Water Main, Class 250	LF	6,000		
7	2" PVC Water Main, Class 250	LF	800		
8	Flushing Hydrant Assembly	EA	28		
9	Blow Off Hydrant Assembly	EA	14		
10	Underground Blow Off Hydrant	EA	1		
11	New Customer Service	EA	101		
12	Reconnect Existing Customer Service	EA	280		
13	Air Release Valve	EA	5		
14	Open Cut W/10" PVC Casing Pipe	LF	100		
15	10" PVC Casing Pipe	LF	400		
16	12" PVC Casing Pipe	LF	100		
17	16" Steel Casing, Bore & Jack	LF	300		
18	14" Steel Casing, Bore & Jack	LF	900		
19	14" Steel Casing, Open Cut	LF	50		
20	12" Steel Casing, Bore & Jack	LF	300		
21	6" Steel Casing, Bore & Jack	LF	50		
22	Tapping Sleeve & Valve	EA	39		
23	Cut & Plug Exist. W.M.	EA	52		
24	8" Gate Valve & Box	EA	20		
25	6" Gate Valve & Box	EA	35		
26	4" Gate Valve & Box	EA	15		
27	3" Gate Valve & Box	EA	10		
28	2" Gate Valve & Box	EA	1		
29	Connection To Existing W.M.	EA	18		
30	Additional Service Tubing	LF	5000		
31	Remove Existing Flushing Hydrant Assembly	EA	10		



Item No.	Description	Unit	Estimated Quantity	Bid Unit Price	Total Bid Price
32	Clean up and restoration of disturbed areas	%	Sum of Total Bid Price of Item No.'s 1-31	5.0%	
<b>Total of All Unit Price Bid Items</b>					\$

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 Bid Price** \$ \_\_\_\_\_

#### ARTICLE 6 – TIME OF COMPLETION

- 6.01 Bidder agrees that the Work will be substantially complete within 240 calendar days after the date when the Contract Times commence to run as provided in Paragraph 4.01 of the General Conditions, and will be completed and ready for final payment in accordance with Paragraph 15.06 of the General Conditions within 270 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. 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 6.01 above, plus any extensions thereof allowed in accordance with Article 15 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 \$750 for each day that expires after the time specified in Paragraph 6.01 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 \$750 for each day that expires after the time specified in Paragraph 6.01 for completion and readiness for final payment until the Work is completed and ready for final payment.

#### 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 SECTION 00430 EJCDC C-430;

- B. List of Proposed Subcontractors;
- C. List of Proposed Suppliers;
- D. List of Project References;
- E. 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;
- F. Contractor's License No.: [REDACTED] [or] Evidence of Bidder's ability to obtain a State Contractor's License and a covenant by Bidder to obtain said license within the time for acceptance of Bids;
- G. Required Bidder Qualification Statement with supporting data; and
- H. If Bid amount exceeds \$10,000, signed Compliance Statement (RD 400-6). Refer to specific equal opportunity requirements set forth in paragraph 18.10 of the General Conditions;
- I. If Bid amount exceeds \$25,000, signed Certification Regarding Debarment, Suspension, Ineligibility and Voluntary Exclusion - Lower Tier Covered Transactions (AD-1048);
- J. If Bid amount exceeds \$100,000, signed RD Instruction 1940-Q, Exhibit A-1, Certification for Contracts, Grants, and Loans. Refer to paragraph 18.11 of the General Conditions;
- K. Manufacturer's Certification Letter (Exhibit D) on any approved "or equal" or substitute request to ensure compliance with AIS requirements and any subsequent statutes mandating domestic preference

## 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)*

*NOTE TO USER: Use in those states or other jurisdictions where applicable or required.*



**ADVERTISEMENT FOR BIDS**

Sealed bids for "Contract 2 – Water System Improvements Project" for the Bracken County Water District, Brooksville, Kentucky, will be received at 1324 Brooksville Germantown Road, Brooksville, Kentucky, 41004 until 11:00 a.m., Local Time, August 9, 2018 and then publicly opened and read aloud. A pre-bid meeting will be held on August 2, 2018 at 11:00 a.m., Local Time, at the District's office.

Contract 2 – Water System Improvements Project- The program of work for which bids are to be submitted consists of approximately 20,000 LF of 8" water main, 90,000 LF of 6" water main, 30,000 LF of 4" water main, 5,000 LF of 3" water main and all related appurtenances as described in the Specifications and Plans. The contract time allotted for the completion of this contract is two hundred and seventy (270) consecutive calendar days.

The work is located in Bracken County, Kentucky: Drawings, Specifications and Contract Documents may be examined at:

Bluegrass Engineering, PLLC, 222 East Main St., Ste. 1, Georgetown, Kentucky 40324.

Bracken County Water District. 1324 Brooksville Germantown Road, Brooksville, Kentucky 41004.

Copies of the Specifications, Plans, and Contract Documents may be obtained from **Bluegrass Engineering, PLLC**, Georgetown, Kentucky 40324, upon receipt of a non-refundable amount of **\$750.00**.

**Prevailing Wage Rates Do Not Apply**

All bids must be made on the required Bid Form and must be fully completed and executed with original signatures and corporate seals. All bidders must be listed as a plan holder by the plan distributor.

Hearing impaired individuals may call 1-800-247-2510 for information.

No Bidder may withdraw his Bid within ninety (90) days after the actual date of bid opening.

Bidders on this work will be required to comply with Title VI of the Civil Rights Act of 1964, the Anti-Kickback Act, and the Contract Work Hours Standard Act.

Bidders must comply with the President's Executive Orders No. 11246 and No. 11375 and any amendments or supplements to those Executive Orders.

Attention of bidders is particularly called to the requirements as to conditions of employment to be observed under the contract, Section 3, Segregated Facility, Section 109 and E.O. 11246.

Bidders must certify they do not and will not maintain or provide for their employees any facilities that are segregated or based on race, color, creed, or national origin.

Minorities and small businesses are encouraged to submit bids on this project.

Bracken County Water District reserves the right to waive any bidding informalities and to reject any or all bids, for any reason deemed advisable by the Owner. The right is reserved by the Owner, in the exercise of its sole judgment to reject any or all Bids, and to re-advertise and award the Contract in the regular manner or to waive any informalities, irregularities, mistakes, errors or omissions in any Bid received and to accept any Bid deemed to be responsive to this invitation and favorable to the interests of the Owner.

The contract will be awarded on the basis of the low evaluated responsive, responsible, best and qualified bidder unless all bids are rejected.

The sealed bid for this Project shall be clearly marked on the outside of the envelope: Sealed Bid for "Contract 2 – Water System Improvements Project" for the Bracken County Water District. The bids may be mailed to: Bracken County Water District, 1324 Brooksville Germantown Road, Brooksville, Kentucky 41004. A certified check or Bid Bond payable to the Bracken County Water District in the amount of five (5) percent of the Bid shall accompany the Bid.

Section 746 of Title VII of the Consolidated Appropriations Act of 2017 (Division A-Agriculture, Rural Development, Food and Drug Administration, and Related Agencies, Appropriations Act, 2017) and subsequent statutes mandating domestic preference applies to American Iron and Steel requirement to this project. All listed iron and steel products used in this project must be produced in the United States. The term "iron and steel products" means the following products made primarily of iron and steel: lines or unlined pipes and fittings, manhole covers and other municipal castings, hydrants, tanks, flanges, pipe clamps and restraints, valves, structural steel, reinforced precast concrete, and construction materials. The de minimis and minor components waiver {all project specific waivers as applicable} apply to this contract.

Bracken County Water District  
Anthony Habermehl, Chairman  
Date: August 2, 2018



## ADDENDUM NO. 3

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### **BRACKEN COUNTY WATER DISTRICT CONTRACT #2 - 2016 WATER SYSTEM IMPROVEMENTS BE Project # 18012**

**BID DATE:** Thursday, August 9, 2018 – 11:00 am (Local Time)

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This Addendum No. 3 and its noted revisions and attachments to the Drawings and Specifications shall supplement, amend, and become a part of the Bidding Documents, Contract Documents, Drawings, and Specifications. All Bids and Construction Contracts shall be based on these modifications and issued Drawings, Specifications, and all Addendum.

All Bids must be made on the required Bid Forms and include all of Section 004XXX series documents and must be fully completed and executed with original signatures and corporate seals. All Bid Bonds must be original forms and accompanied by the required certificates, original signatures, and seals. Any Bids without original documents, or a conditional or qualified Bid, will not be accepted

#### **REVISIONS AND ATTACHMENTS**

#### **SPECIFICATIONS**

##### **ITEM AD3-1**

##### **SECTION 01025 – MEASUREMENT AND PAYMENT**

This addendum shall add the following language to Item 2.07 NEW CUSTOMER SERVICE and Item 2.08 RECONNECT EXISTING CUSTOMER SERVICES:

**Same side services shall include a maximum of twenty-five (25) feet of service line. Opposite side services shall also include a maximum of one hundred twenty-five (125) feet of service line and all costs of boring or pushing the service line.**

##### **ITEM AD3-2**

See the attached pages of questions and RFIs submitted for clarifications and/or responses to the questions.





## **ADDENDUM NO. 3**

**BRACKEN COUNTY WATER DISTRICT  
CONTRACT #2 - 2016 WATER SYSTEM IMPROVEMENTS  
BE Project # 18012**

### **QUESTIONS & REQUEST FOR INFORMATION SUBMITTED FOR CLARIFICATIONS**

1. Can acceptable earthen material be used for pipe bedding or is crushed stone required?  
See Addendum #3, Section 01025 – MEASUREMENT AND PAYMENT, (NOTE: All rock excavation, crushed stone bedding, and asphalt replacement shall be included in the per unit price for pipe.) No additional payment will be provided for these items. In areas in which there is not acceptable earthen material then crushed stone bedding will be required.
2. Will there be a separate bid item for asphalt and/or concrete replacement?  
See Addendum #3, Section 01025 – MEASUREMENT AND PAYMENT, PART 2 – PRODUCTS; 2.01 WATER MAIN, A.

See Addendum #3, Section 01025 – MEASUREMENT AND PAYMENT, (NOTE: All rock excavation, crushed stone bedding, and asphalt replacement shall be included in the per unit price for pipe. No additional payment will be provided for these items.)

3. Will there be a bid item added for potential mobilization/demobilization that occurs during the course of the project?  
After discussion among District personnel there will be no bid item added for potential mobilization/demobilization occurring during the course of the project.



### **ATTACHMENTS**

- Specification Sections  
SECTION 01025 – MEASUREMENT AND PAYMENT

A handwritten signature in blue ink, reading 'Matthew R. Curtis, PE', is positioned above a horizontal line.

Mat. Curtis, PE  
Project Engineer  
**Bluegrass Engineering, PLLC**  
P.O. Box 1657  
Georgetown, KY 40324  
Cell: 502.370.6551  
e-mail: [mcurtis@bluegrassengineering.net](mailto:mcurtis@bluegrassengineering.net)  
August 5, 2018

## **SECTION 01025**

### **MEASUREMENT AND PAYMENT**

#### **PART 1 - GENERAL**

##### **1.01 WORK INCLUDED**

The Contractor shall furnish all necessary labor, machinery, tools, apparatus, equipment, materials, equipment, service, other necessary supplies and perform all work, including all excavation and backfilling (without additional compensation, except where specifically set out in these specifications) at the unit or lump sum prices for the following items.

##### **1.02 PROGRESS AND PAYMENTS SCHEDULES**

A. Within ten (10) days after the date of formal execution of the AGREEMENT, 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. The Contractor's construction schedule must be approved by the Engineer before any payments will be made on this contract.

B. Within ten (10) days after the date of formal execution of the CONTRACT AGREEMENT, the Contractor shall prepare and submit to the Engineer, for approval, a periodic estimate 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 periodic payments. The Contractor's periodic estimate 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 schedule and periodic estimate will be final.

D. The Contractor must make current, to the satisfaction of the Engineer, the construction schedule and periodic estimate each time he requests a payment on this contract.

E. The Contractor's construction schedule and periodic estimate must be maintained at the construction site 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 periodic estimate and be current. Further, the current periodic estimate and construction schedule (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 (periodic estimate and construction schedule) when requesting payment.

##### **1.03 CONDITIONS FOR PAYMENT**

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 periodic estimate, 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.

B. No payment will be made for stored materials unless a proper invoice from the supplier is attached to the pay request. Further, no item whose value is less than \$1,000 will be considered as stored materials for pay purposes.



C. Payment for pipeline items shall be limited to eighty percent (80%) of the bid price until the pipeline items have been tested and clean up has been completed and accepted by the Engineer.

D. Payment for equipment items shall be limited to eighty-five percent (85%) of their scheduled value (materials portion only) until they are set in place. Eighty-five percent (85%) for stored materials and equipment shall be contingent on proper on-site storage as recommended by the manufacturer or required by the Engineer.

E. Payment for equipment items set in place shall be limited to ninety percent (90%) of their scheduled value until they are ready for operation and have been certified by the manufacturer. Ninety percent (90%) payment for installed equipment shall be contingent on proper routine maintenance of the equipment in accordance with the manufacturer's recommendations.

F. Payment for equipment items set in place and ready for operation shall be limited to ninety-five percent (95%) of their scheduled value until all acceptance tests have been completed and the required manufacturer's pre-startup operator's training has been completed.

G. Payment for the labor portion of equipment items will be subject only to the degree of completeness and the appropriate retainage.

H. The retainage shall be an amount equal to 10% of said estimate. The retainage on the equipment items shall be 10% as defined hereinbefore.

I. If at any time thereafter when the progress of the WORK is not satisfactory or determine that the Contractor is not making satisfactory progress, additional amounts may be retained.

#### **1.04 CLAIMS FOR EXTRA WORK**

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 reasonably be 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 provided herein for "Changes in the Work".

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 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 when he was bidding on this Contract to receive or examine any form, instrument or document, or to visit the site and acquaint himself with conditions there existing, in no way relieves him from any obligation under the Contract, and the Contractor agrees that the Owner

shall be justified in rejecting any claim 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**

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 20% for added work or a minimum 20% for deleted work which shall cover the Contractor's general supervision, overhead and profit. In case of subcontracts, the sum of total overhead amounts of the subcontractors and Contractor, plus total profit amounts for the subcontracts and Contractor shall not exceed 25% of the cost. Subcontractors shall be limited to 15% and Contractors shall be limited to 10% for combined overhead and profit. The cost of labor shall include required insurance, taxes and fringe benefits. Contractor to provide detailed breakdown of all cost as justification of change in work. 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.

### **PART 2 - PRODUCTS**

#### **2.01 WATER MAIN**

A. Payment for installing the water main will be made at the contract unit price per linear foot, complete in place, which shall include compensation for furnishing pipe, trenching (including rock excavation), earth or Class I material bedding, copper wire, thrust blocking, earth backfill, grip rings, fittings, crushed stone, copper wire, caution tape, pavement replacement, asphalt replacement, sidewalk repair or replacement, disinfection, testing, bonding, and all appurtenances required. The quantity of water mains to be paid for shall be the length of the completed line as measured along its centerline without any deduction for lengths of fittings, valves or other appurtenances.

B. Casing for sewer main, and sewer lateral crossings, as described in the plan sheets will be incidental to laying the main water line. There will be no additional compensation for these pvc casings. Please figure these costs into the water line price.

C. Use of crushed stone bedding on the water main will be determined in the field by the engineer if quality bedding material is not available. Please figure bedding costs into the water line price.

D. Payment for installing the water main shall include locating existing water main ahead of (approximately 40' intervals) the new water main installation.

## **2.02 TAPPING SLEEVE AND VALVE**

Payment for tapping sleeves and valves shall be made at the contract unit price each, complete in place including all excavation, material, tapping sleeve, tapping valve, box, concrete collar and other items required to make a complete and workable tap. Connection to the existing water main will be paid per 2.03.

## **2.03 CUT AND PLUG EXISTING WATER MAIN**

Payment for cutting and plugging the existing water main shall include all materials and labor necessary for completing the disconnection of the existing water line. This will be paid per cut and plug and will include piping, mechanical joint cap, grip rings, concrete blocking and other appurtenances required to complete the installation. Size of the piping will be paid as one price and will not be differentiated.

## **2.04 HIGHWAY BORED CROSSING W/STEEL CASING**

A. Payment for water mains crossing the railroad, highway, roadway, driveway or other areas shown on the plans shall include the respective encasement pipe bored under roadways and will be paid for at the contract unit price per linear foot of steel encasement pipe for the various sizes and types. This work shall include the encasement pipe, complete in place with fittings, spacers, end seals, skids, blocking, line markers on each side of crossed roadway, and all items necessary for its construction and installation. Carrier pipe is paid separately under item 2.01. The casing pipe shall be as noted in section 02302-2.

B. No payment shall be made for failed bore paths or incomplete installations.

## **2.05 OPEN CUT CASING**

Payment for water mains crossing major creeks or streams shall include excavation, rock excavation, concrete, rip-rap, crushed stone, gravel backfill, anchors, PVC/Steel casing pipe (whichever one is called for on the contract drawings), spacers and end seals. The length of the creek crossing to be paid for shall be measured from end to end of the encasement pipe. Where casing is required the carrier pipe shall be Yelomine® or approved equal and shall be paid separately under item 2.01.

## **2.06 GATE VALVES AND BOXES**

A. Payment for furnishing and installing gate valves and valve boxes with covers in water mains will be made at the contract unit price each, complete in place, which shall include compensation for furnishing, hauling, trenching (including rock excavation), bedding, laying, jointing, backfilling, concrete supports and concrete collars.

B. Each valve shall also include installation of a valve box protector ring with copper locator pin installed within the protector ring.

## **2.07 NEW CUSTOMER SERVICE**

Payment will be made per complete installation to include saddle, corporation stop, polyethylene service tubing (appropriate size), single or tandem setter,  $\frac{3}{4}$ " pressure reducing valve (if applicable), meter box and lid, excavation, valve, casing pipe (if applicable) and all items necessary for a complete installation. Services to be placed five (5) feet inside the customer's property line including a two (2) foot stub out with female adapter on customer side of meter box. Same side services shall include a maximum of twenty-five (25) feet of service line. Opposite side services shall also include a maximum of one hundred twenty-five (125) feet of service line and all costs of boring or pushing the service line. **Radio Read Badger meter shall be supplied**



by the Owner.

## **2.08 RECONNECT EXISTING CUSTOMER SERVICE**

Payment for re-connecting an existing service line to a new or existing water main will be paid on a per unit basis. This shall include all materials and labor including saddle, corporation stop, required service tubing, fittings, inserts and pushing under the existing road to complete the installation. This item shall also include any necessary relocation of the existing meter box and all related appearances. Same side services shall include a maximum of twenty-five (25) feet of service line. Opposite side services shall also include a maximum of one hundred twenty-five (125) feet of service line and all costs of boring or pushing the service line. **This item shall require reconnection of existing service at a point just outside the existing meter box.**

## **2.09 ADDITIONAL SERVICE TUBING**

Payment for additional copper service pipe and fittings installed in open trench and backfilled will be made per linear foot in place. Payment for concrete, crushed stone, bituminous and concrete drives; sidewalk repair or replacement is included in the contract unit price for "service tubing." Excavation is unclassified and included in this item.

## **2.10 BLOW OFF ASSEMBLY**

Payment for hydrant assemblies will be made at the unit price, complete in place, which shall include all piping, fittings, gate valve and valve box and cover, 6 feet of connecting pipe, concrete blocking and supporting pad, drainage bed, stainless steel all thread rods and nuts, wrenches, and include the Mueller Model A-411 flushing assembly all other materials and labor necessary to complete the installation. Additional connector pipe is not included in this item and will be paid separately under the pay item "Water Main".

## **2.11 FLUSHING HYDRANT ASSEMBLY**

Payment for flush hydrant assemblies will be made at the unit price, complete in place, which shall include all piping, fittings, 6" fire hydrant, gate valve and valve box and cover, 6 feet of connecting pipe, concrete blocking and supporting pad, drainage bed, stainless steel all thread rods and nuts, wrenches, and all other materials and labor necessary to complete the installation. Additional connector pipe is not included in this item and will be paid separately under the pay item "Water Main".

## **2.12 UNDERGROUND BLOW OFF HYDRANT**

Payment for below ground blow off assemblies will be made at the unit price, complete in place which shall include all piping, fittings, gate valve, pvc pipe to daylight, concrete blocking, supporting pad and all other materials and labor necessary to complete the installation.

## **2.13 CONNECTION TO EXISTING WATER MAIN**

Payment for connecting to an existing water main at the location listed shall include all materials and labor necessary for making a connection to the existing water main as shown on the plans. Payment will be made per connection and will include tees, grip rings, thrust blocks, fittings and a maximum of 20 LF pipe. Valves at dry tie-ins will be paid separately under the gate valve price.

## **2.14 AIR RELEASE VALVE ASSEMBLY**

Payment for a 3/4" air release valve will be made at the contract unit price each, complete in place, Including all excavation, material, meter box, saddles, fittings, ball valves, backfilling, and labor necessary to complete to complete the installation.

## **2.15 REMOVE EXISTING FLUSHING HYDRANT ASSEMBLY**

Payment for removal of existing flush hydrant assemblies will be made at the contract unit price each, complete in place, including all excavation and labor necessary to complete the removal. All flush hydrant assemblies removed from service will be returned to the Bracken County Water District office located at 1324 Brooksville Germantown Road, Brooksville, KY 41004.

## **2.16 CLEAN UP AND RESTORATION OF DISTURBED AREAS**

Payment for clean up and restoration of disturbed areas will be made at the unit price, complete in place which shall include clean up and restoration of all disturbed areas, including seeding and mulching as required.

**(NOTE: All rock excavation, crushed stone bedding, and asphalt replacement shall be included in the per unit price for pipe. No additional payment will be provided for these items)**

## **PART 3 - EXECUTION**

### **3.01 PAY ITEMS**

A. The pay items listed herein before refer to the items listed in the Bid Schedule and cover all of the pay items under the base bid for this contract.

B. Any and all other items of work listed in the specifications or shown on the Contract Drawings for this contract shall be considered incidental to and included in those pay items.

### **3.02 QUANTITIES OF ESTIMATE**

A. Wherever the estimated quantities of work to be done and materials to be furnished under this Contract are shown in any of the documents, including the Bid Proposal, they are given for use in comparing bids and the right is especially reserved except as herein otherwise specifically limited, to increase or diminish them as may be deemed reasonably necessary or desirable by the Owner to complete the work contemplated by this Contract, and such increase or diminution shall not give cause for claims or liability for damages. The Engineer will not be financially responsible for any omissions from the Contract Documents and therefore not included by the Contractor in his proposal.

B. Aerial photographs utilized for plan sheets in the Contract Documents are indicated at an approximate scale and shall not be scaled for quantity take-offs. The pipeline quantities listed in the Bid Schedule are given for use in comparing bids and may not be the actual quantities to be installed. It is the Contractor's responsibility to field verify the length and quantities of pipeline to be installed prior to the ordering of materials. Payment on unit price contracts are based on actual quantities installed. The Owner or Engineer will not be financially responsible for any shortage of pipe or overrun of pipe ordered for the pipeline quantities.

C. The actual quantities of all materials to be used for this project shall be field verified prior to the Contractor ordering the necessary materials. The quantity listed in the bid schedule is given for use in comparing bids and may increase or diminish as may be deemed necessary or as directed by the Owner. Any such increase or diminution shall not give cause for claims or liability for damages. The Engineer or Owner will not be financially responsible for any charges incurred for restocking of materials ordered.

- END OF SECTION -

**OFFICIAL CONTRACT DOCUMENTS**

**SPECIFICATIONS**

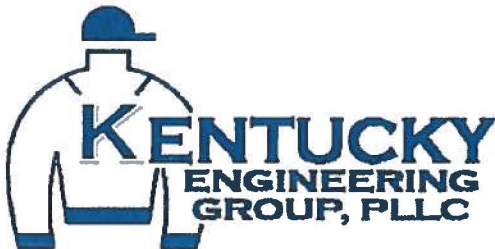
**CONTRACT 2**

**Water System**

**Improvements Project**

**Bracken County Water District**

**Brooksville, Kentucky**



**Kentucky Engineering Group, PLLC**

**P.O. Box 1034**

**Versailles, Kentucky 40383**

**July, 2017**

**KEG Project No. 16041**

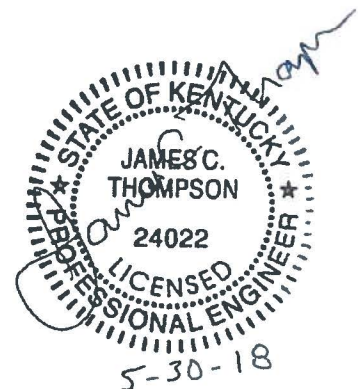




TABLE OF CONTENTS  
BRACKEN COUNTY WATER DISTRICT  
CONTRACT NO. 2 – WATER SYSTEM IMPROVEMENTS PROJECT

TOC-1

---

**ADVERTISEMENT FOR BIDS**

SECTION 00010 – ADVERTISEMENT FOR BIDS .....	1-1
SECTION 00100 – INSTRUCTIONS TO BIDDERS .....	1-11
SECTION 00100 – INFORMATION FOR BIDDERS LABOR PROVISIONS .....	1-11

**BID FORMS**

SECTION 00400 – BID FORM .....	1-5
SECTION 00420 – QUALIFICATIONS STATEMENT .....	1-12
SECTION 00430 – BID BOND .....	1-3

**SUPPLEMENTS TO BID FORMS**

SECTION 00440 – RD COMPLIANCE STATEMENT .....	1-2
SECTION 00450 – RD CERTIFICATION FOR CONTRACTS, GRANTS AND LOANS .....	1
SECTION 00460 – RD CERTIFICATION REGARDING DEBARMENT .....	1-2

**AGREEMENT FORMS**

SECTION 00510 – NOTICE OF AWARD .....	1
SECTION 00520 – AGREEMENT FORMS .....	1-7
SECTION 00550 – NOTICE TO PROCEED .....	1

**BONDS & CERTIFICATIONS**

SECTION 00600- INSURANCE CERTIFICATES .....	1
SECTION 00610 – PERFORMANCE BOND .....	1-4
SECTION 00615 – PAYMENT BOND .....	1-4
SECTION 00620 – PARTIAL PAY ESTIMATE .....	1
SECTION 00625 – RD CHANGE ORDER .....	1-2
SECTION 00630 – RD CONSTRUCTION SIGN .....	1
SECTION 00635 – RD CERTIFICATION OF SUBSTANTIAL COMPLETION .....	1
SECTION 00640 – RD CERTIFICATE OF OWNER’S ATTORNEY .....	1
SECTION 00645 – KENTUCKY BULLETIN 1780-2 (AIS REQUIREMENTS) .....	1-31

**GENERAL CONDITIONS**

SECTION 00710- RD GENERAL CONDITIONS .....	1-66
--	------

**SUPPLEMENTARY CONDITIONS**

SECTION 00810 – RD SUPPLEMENTAL GENERAL CONDITIONS .....	1-8
--	-----

**DIVISION 1 - GENERAL REQUIREMENTS**

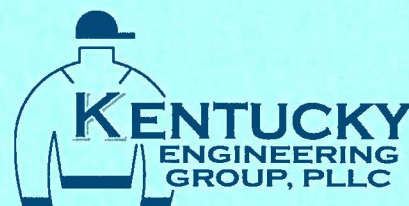
SECTION 01010 - SUMMARY .....	1-2
SECTION 01015 - WORK SEQUENCE .....	1
SECTION 01016 - OCCUPANCY .....	1
SECTION 01025 - MEASUREMENT AND PAYMENT .....	1-5
SECTION 01030 – LABOR PROVISIONS .....	1
SECTION 01040 - COORDINATION .....	1
SECTION 01200 – SUBSTITUTIONS .....	1-5
SECTION 01210 – ALLOWANCES .....	1-2
SECTION 01300 - SUBMITTALS .....	1-3
SECTION 01380 – DVD .....	1
SECTION 01450 – QUALITY CONTROL .....	1
SECTION 01500 - TEMPORARY FACILITIES AND CONTROLS .....	1-3
SECTION 01530 - BARRIERS .....	1
SECTION 01540 - SECURITY .....	1

SECTION 01570 - TRAFFIC REGULATION.....	1-2
SECTION 01580 - PROJECT IDENTIFICATION AND SIGN.....	1-2
SECTION 01600 - MATERIAL AND EQUIPMENT.....	1-3
SECTION 01610 - TRANSPORTATION AND HANDLING.....	1
SECTION 01700 - PROJECT CLOSEOUT.....	1-3
SECTION 01710 - CLEANING.....	1-3
SECTION 01720 - PROJECT RECORD DOCUMENTS.....	1-2
SECTION 01740 - WARRANTIES AND BONDS .....	1-2

## **DIVISION 2 - SITE WORK**

SECTION 02110 - SITE CLEARING .....	1-2
SECTION 02211 - ROUGH GRADING .....	1-2
SECTION 02220 - EARTHWORK .....	1-8
SECTION 02222 - EXCAVATION.....	1-2
SECTION 02226 - TRENCHING, BACKFILLING AND COMPACTING.....	1-3
SECTION 02228 - ROCK REMOVAL .....	1-3
SECTION 02255 - CRUSHED STONE AND DENSE GRADED AGGREGATE .....	1
KPDES FORM NOI-SW .....	1-2
KPDES FROM NOT-SW .....	1-2
SECTION 02270 - SLOPE PROTECTION AND EROSION CONTROL.....	1-2
SECTION 02302 - RAILROAD OR HIGHWAY CROSSINGS .....	1-4
SECTION 02500 - BITUMINOUS PAVEMENT .....	1-3
SECTION 02502 - RESTORATION OF SURFACES.....	1-5
SECTION 02600 - PIPE, FITTINGS AND INSTALLATION .....	1-11
SECTION 02626 - CUSTOMER METER SERVICE AND SERVICE TUBING.....	1-6
SECTION 02630 - TAPPED CONNECTIONS.....	1-3
SECTION 02640 - VALVES .....	1-6
SECTION 02645 - HYDRANT ASSEMBLY .....	1-2
SECTION 02700 - SITE RESTORATION.....	1
SECTION 02900 - SEEDING AND SODDING .....	1-8

## **ADVERTISEMENT FOR BIDS**





## ADVERTISEMENT FOR BIDS

Sealed bids for "Contract 2 – Water System Improvements Project" for the Bracken County Water District, Brooksville, Kentucky, will be received at 1324 Brooksville Germantown Road, Brooksville, Kentucky, 41004 until 9:30 a.m., Local Time (EST), \_\_\_\_\_, 2018 and then publicly opened and read aloud. A pre-bid meeting will be held on \_\_\_\_\_, 2018 at the District's office.

Contract 2 – Water System Improvements Project- The program of work for which bids are to be submitted consists of approximately 20,000 LF of 8" water main, 70,000 LF of 6" water main, 45,000 LF of 4" water main, 5,000 LF of 3" water main and all related appurtenances as described in the Specifications and Plans. The contract time allotted for the completion of this contract is two hundred and seventy (270) consecutive calendar days.

The work is located in Bracken County, Kentucky: Drawings, Specifications and Contract Documents may be examined at:

Kentucky Engineering Group, PLLC, Box 1034, Versailles, Kentucky 40383

Bracken County Water District, 1324 Brooksville Germantown Road, Brooksville, Kentucky 41004.

Copies of the Specifications, Plans, and Contract Documents may be obtained from Kentucky Engineering Group, PLLC, Versailles, Kentucky 40383, upon receipt of a non-refundable amount of **\$350.00**.

### **Prevailing Wage Rates Apply**

All bids must be made on the required Bid Form and must be fully completed and executed with original signatures and corporate seals. All bidders must be listed as a plan holder by the plan distributor.

Hearing impaired individuals may call 1-800-247-2510 for information.

No Bidder may withdraw his Bid within ninety (90) days after the actual date of bid opening.

Bidders on this work will be required to comply with Title VI of the Civil Rights Act of 1964, the Anti-Kickback Act, and the Contract Work Hours Standard Act.

Bidders must comply with the President's Executive Orders No. 11246 and No. 11375 and any amendments or supplements to those Executive Orders.

Attention of bidders is particularly called to the requirements as to conditions of employment to be observed under the contract, Section 3, Segregated Facility, Section 109 and E.O. 11246.

Bidders must certify they do not and will not maintain or provide for their employees any facilities that are segregated or based on race, color, creed, or national origin.

Minorities and small businesses are encouraged to submit bids on this project.

Bracken County Water District reserves the right to waive any bidding informalities and to reject any or all bids, for any reason deemed advisable by the Owner. The right is reserved by the Owner, in the exercise of its sole judgment to reject any or all Bids, and to re-advertise and award the Contract in the regular manner or to waive any informalities, irregularities, mistakes, errors or omissions in any Bid received and to accept any Bid deemed to be responsive to this invitation and favorable to the interests of the Owner.

The sealed bid for this Project shall be clearly marked on the outside of the envelope: Sealed Bid for "Contract 2 – Water System Improvements Project" for the Bracken County Water District. The bids may be mailed to: Bracken

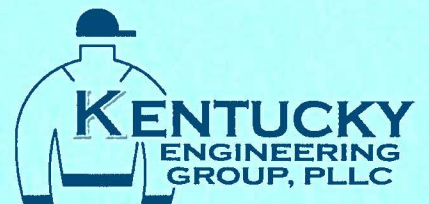
INFORMATION FOR BIDDERS - ADVERTISEMENT

County Water District, 1324 Brooksville Germantown Road, Brooksville, Kentucky 41004. A certified check or Bid Bond payable to the Bracken County Water District in the amount of five (5) percent of the Bid shall accompany the Bid.

Section 746 of Title VII of the Consolidated Appropriations Act of 2017 (Division A-Agriculture, Rural Development, Food and Drug Administration, and Related Agencies, Appropriations Act, 2017) and subsequent statutes mandating domestic preference applies to American Iron and Steel requirement to this project. All listed iron and steel products used in this project must be produced in the United States. The term "iron and steel products" means the following products made primarily of iron and steel: lines or unlined pipes and fittings, manhole covers and other municipal castings, hydrants, tanks, flanges, pipe clamps and restraints, valves, structural steel, reinforced precast concrete, and construction materials. The de minimis and minor components waiver {all project specific waivers as applicable} apply to this contract.

Bracken County Water District  
Anthony Habermehl, Chairman  
Date: \_\_\_\_\_, 2018

## **INFORMATION FOR BIDDERS**





## INSTRUCTIONS TO BIDDERS

## TABLE OF CONTENTS

	Page
ARTICLE 1 – Defined Terms.....	2
ARTICLE 2 – Copies of Bidding Documents.....	2
ARTICLE 3 – Qualifications of Bidders.....	2
ARTICLE 4 – Site and Other Areas; Existing Site Conditions; Examination of Site; Owner's Safety Program; Other Work at the Site.....	2
ARTICLE 5 – Bidder's Representations .....	4
ARTICLE 6 – Pre-Bid Conference .....	5
ARTICLE 7 – Interpretations and Addenda .....	5
ARTICLE 8 – Bid Security .....	5
ARTICLE 9 – Contract Times.....	6
ARTICLE 10 – Liquidated Damages .....	6
ARTICLE 11 – Substitute and "Or-Equal" Items.....	6
ARTICLE 12 – Subcontractors, Suppliers, and Others.....	7
ARTICLE 13 – Preparation of Bid.....	7
ARTICLE 14 – Basis of Bid.....	8
ARTICLE 15 – Submittal of Bid .....	9
ARTICLE 16 – Modification and Withdrawal of Bid .....	9
ARTICLE 17 – Opening of Bids .....	9
ARTICLE 18 – Bids to Remain Subject to Acceptance .....	9
ARTICLE 19 – Evaluation of Bids and Award of Contract.....	10
ARTICLE 20 – Bonds and Insurance .....	10
ARTICLE 21 – Signing of Agreement .....	10
ARTICLE 22 – NOT USED.....	11
ARTICLE 23 – NOT USED.....	11
ARTICLE 24 – Power Of Attorney .....	11
ARTICLE 25 – Laws And Regulations.....	11
ARTICLE 26 – Safety Standards And Accident Prevention.....	11
ARTICLE 27 – Wage Rate Requirments.....	11

**ARTICLE 1 – DEFINED TERMS**

- 1.01 Terms used in these Instructions to Bidders have the meanings indicated in the General Conditions and Supplementary Conditions. The term "Bidder" means one who submits a Bid directly to Owner, as distinct from a subbidder, who submits a bid to a Bidder. The term "Successful Bidder" means the lowest, qualified, responsible, and responsive Bidder to whom Owner (on the basis of Owner's evaluation as hereinafter provided) makes an award. The term "Bidding Documents" includes the Advertisement or Invitation to Bid, Instructions to Bidders, the Bid Form, and the proposed Contract Documents (including all Addenda issued prior to receipt of Bids).

**ARTICLE 2 – COPIES OF BIDDING DOCUMENTS**

- 2.01 Complete sets of the Bidding Documents must be obtained from the Issuing Office in the number and format stated in the advertisement or invitation to bid. Bids from anyone not on the Engineer's Plan Holders List will not be opened.
- 2.02 Complete sets of Bidding Documents shall 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 authorize or confer a license for any other use.

**ARTICLE 3 – QUALIFICATIONS OF BIDDERS**

- 3.01 To demonstrate Bidder's qualifications to perform the Work, Bidder shall submit with its Bid written evidence establishing its qualifications such as financial data, previous experience, and present commitments, and the additional information listed in the Bid Form.
- 3.02 A Bidder's failure to submit required qualification information within the times indicated may disqualify Bidder from receiving an award of the Contract.
- 3.03 No requirement in this Article 3 to submit information will prejudice the right of Owner to seek additional pertinent information regarding Bidder's qualifications.
- 3.04 Bidder is advised to carefully review those portions of the Bid Form requiring Bidder's representations and certifications.

**ARTICLE 4 – SITE AND OTHER AREAS; EXISTING SITE CONDITIONS; EXAMINATION OF SITE; OWNER'S SAFETY PROGRAM; OTHER WORK AT THE SITE**

- 4.01 *Site and Other Areas*
- A. The Site is identified in the Bidding Documents. By definition, the Site includes rights-of-way, easements, and other lands furnished by Owner for the use of the Contractor. Any additional lands required for temporary construction facilities, construction equipment, or storage of materials and equipment, and any access needed for such additional lands, are to be obtained and paid for by Contractor.

#### 4.02 *Existing Site Conditions*

##### A. Subsurface and Physical Conditions; Hazardous Environmental Conditions

1. If there are reports and/or additional information concerning site conditions available, they will be included as Appendices to the Bidding Documents.
2. Geotechnical Report: If a Geotechnical Report is available, it will be included as an appendix to the Bidding Documents. The Geotechnical Report describes certain select subsurface conditions that are anticipated to be encountered by Contractor during construction in specified locations.

The Conditions in the Geotechnical Report are intended to reduce uncertainty and the degree of contingency in submitted Bids. However, Bidders cannot rely solely on the said Conditions. Bids should be based on a comprehensive approach that includes an independent review and analysis of the Report, all other Contract Documents, Technical Data, other available information, and observable surface conditions. Not all potential subsurface conditions are reported.

Nothing in the report is intended to relieve Bidders of the responsibility to make their own determinations regarding construction costs, bidding strategies, and Bid prices, nor of the responsibility to select and be responsible for the means, methods, techniques, sequences, and procedures of construction, and for safety precautions and programs incident thereto.

- B. Underground Facilities: Information and data shown or indicated in the Bidding Documents with respect to existing Underground Facilities at or contiguous to the Site are set forth in the Contract Documents and are based upon information and data furnished to Owner and Engineer by owners of such Underground Facilities, including Owner, or others.
- C. Adequacy of Data: 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 subsurface or physical conditions appear in Paragraphs 5.03, 5.04, and 5.05 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 5.06 of the General Conditions.

#### 4.03 *Site Visit and Testing by Bidders*

- A. Bidder shall conduct the required Site visit during normal working hours, and shall not disturb any ongoing operations at the Site.
- B. Bidder is not required to conduct any subsurface testing, or exhaustive investigations of Site conditions.
- C. On request, and to the extent Owner has control over the Site, and schedule permitting, the Owner will provide Bidder access to the Site to conduct such additional examinations, investigations, explorations, tests, and studies as Bidder deems necessary for preparing and submitting a successful Bid. Owner will not have any obligation to grant such access if doing



so is not practical because of existing operations, security or safety concerns, or restraints on Owner's authority regarding the Site.

- D. Bidder shall comply with all applicable Laws and Regulations regarding excavation and location of utilities, obtain all permits, and comply with all terms and conditions established by Owner or by property owners or other entities controlling the Site with respect to schedule, access, existing operations, security, liability insurance, and applicable safety programs.
- E. 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.

#### 4.04 *Owner's Safety Program*

- A. Site visits and work at the Site may be governed by an Owner safety program. As the General Conditions indicate, if an Owner safety program exists, it will be noted in the Supplementary Conditions.

#### 4.05 *Other Work at the Site*

- A. Reference is made to Article 8 of the Supplementary Conditions for the identification of the general nature of other work of which Owner is aware (if any) that is to be performed at the Site by Owner or others (such as utilities and other prime contractors) and relates to the Work contemplated by these Bidding Documents. If Owner is party to a written contract for such other work, then on request, Owner will provide to each Bidder access to examine such contracts (other than portions thereof related to price and other confidential matters), if any.

### ARTICLE 5 – BIDDER'S REPRESENTATIONS

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

- A. examine and carefully study the Bidding Documents, and any data and reference items identified in the Bidding Documents;
- B. visit the Site, conduct a thorough, alert visual examination of the Site and adjacent areas, and become familiar with and satisfy itself as to the general, local, and Site conditions that may affect cost, progress, and performance of the Work;
- C. become familiar with and satisfy itself as to all Laws and Regulations that may affect cost, progress, and performance of the Work;
- D. carefully study 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 Bidding Documents, 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 Bidding Documents, especially with respect to Technical Data in such reports and drawings;
- E. consider 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 the Site-related reports and drawings identified in the Bidding Documents, with respect to the effect of such

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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. agree, based on the information and observations referred to in the preceding paragraph, that at the time of submitting its Bid no further examinations, investigations, explorations, tests, studies, or data are necessary for the determination of its Bid for performance of the Work at the price bid and within the times required, and in accordance with the other terms and conditions of the Bidding Documents;
- G. become aware of the general nature of the work to be performed by Owner and others at the Site that relates to the Work as indicated in the Bidding Documents;
- H. promptly give Engineer written notice of all conflicts, errors, ambiguities, or discrepancies that Bidder discovers in the Bidding Documents and confirm that the written resolution thereof by Engineer is acceptable to Bidder;
- I. determine that the Bidding Documents are generally sufficient to indicate and convey understanding of all terms and conditions for the performance and furnishing of the Work; and
- J. agree that the submission of a Bid will constitute an incontrovertible representation by Bidder that Bidder has complied with every requirement of this Article, 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 6 – PRE-BID CONFERENCE**

- 6.01 A pre-bid conference shall be held at the District office 1324 Brooksville Germantown Road, Brooksville, Kentucky 41004 on \_\_\_\_\_, 2018.

#### **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 via email to [jthompson@kyengr.com](mailto:jthompson@kyengr.com). Interpretations or clarifications considered necessary by Engineer in response to such questions will be issued by Addenda delivered to all parties recorded as having received the Bidding Documents. Questions received less than seven 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, supplement, or change the Bidding Documents.

#### **ARTICLE 8 – BID SECURITY**

- 8.01 A Bid must be accompanied by Bid security made payable to Owner in an amount of five (5) percent of Bidder's maximum Bid price (determined by adding the base bid and all alternates) and in the form of a certified check, bank money order, or a Bid bond (on the form included in the Bidding Documents) issued by a surety meeting the requirements of Paragraphs 6.01 and 6.02 of the General Conditions.



- 8.02 The Bid security of the apparent Successful Bidder will be retained until Owner awards the contract to such Bidder, and 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 released. 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 consider Bidder to be in default, annul the Notice of Award, and the Bid security of that Bidder will be forfeited. Such forfeiture shall be Owner's exclusive remedy if Bidder defaults.
- 8.03 The Bid security of other Bidders that Owner believes to have a reasonable chance of receiving the award may be retained by Owner until the earlier of seven days after the Effective Date of the Contract or 91 days after the Bid opening, whereupon Bid security furnished by such Bidders will be released.
- 8.04 Bid security of other Bidders that Owner believes do not have a reasonable chance of receiving the award will be released 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 substantially completed and ready for final payment are set forth in the Agreement.

#### ARTICLE 10 – LIQUIDATED DAMAGES

- 10.01 Provisions for liquidated damages, if any, for failure to timely attain Substantial Completion, or completion of the Work in readiness for final payment, are set forth in the Supplemental General Conditions and referred to in the Agreement.

#### ARTICLE 11 – SUBSTITUTE AND "OR-EQUAL" ITEMS

- 11.01 The Contract for the Work, if awarded, will be on the basis of materials and equipment specified or described in the Bidding Documents, and those "or-equal" or substitute or materials and equipment subsequently approved by Engineer prior to the submittal of Bids and identified by Addendum. No item of material or equipment will be considered by Engineer as an "or-equal" or substitute unless written request for approval has been submitted by Bidder and has been received by Engineer at least 15 days prior to the date for receipt of Bids in the case of a proposed substitute and 5 days prior in the case of a proposed "or-equal". Each such request shall comply with the requirements of Paragraphs 7.04 and 7.05 of the General Conditions. The burden of proof of the merit of the proposed item is upon Bidder. Engineer's decision of approval or disapproval of a proposed item will be final. If Engineer approves any such proposed item, such approval will be set forth in an Addendum issued to all prospective Bidders. Bidders shall not rely upon approvals made in any other manner. Substitutes and "or-equal" materials and equipment may be proposed by Contractor in accordance with Paragraphs 7.04 and 7.05 of the General conditions after the Effective Date of the contract.
- 11.02 All prices that Bidder sets forth in its Bid shall be based on the presumption that the Contractor will furnish the materials and equipment specified or described in the Bidding Documents, as supplemented by Addenda. Any assumptions regarding the possibility of post-Bid approvals of "or-equal" or substitution requests are made at Bidder's sole risk.



- 11.03 If an award is made, Contractor shall be allowed to submit proposed substitutes and "or-equals" in accordance with the General Conditions.

## **ARTICLE 12 – SUBCONTRACTORS, SUPPLIERS, AND OTHERS**

- 12.01 If required by the bid documents, the Bidder shall submit to Owner a list of the Subcontractors or Suppliers proposed for the major portions of the Work. If requested by Owner, 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, or other individual or entity. 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 an acceptable substitute.
- 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, or other individuals or entities. Declining to make requested substitutions will 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 subsequent revocation of such acceptance as provided in Paragraph 7.06 of the General Conditions.
- 12.03 Subsequent to the submittal of the Bid, Owner may not require the Successful Bidder or Contractor to retain any Subcontractor, Supplier, or other individual or entity against which Contractor has reasonable objection.
- 12.04 The Contractor shall not award work to Subcontractor(s) in excess of the limits stated in SGC 7.06.

## **ARTICLE 13 – PREPARATION OF BID**

- 13.01 The Bid Form is included with the Bidding Documents.
- A. All blanks on the Bid Form shall be completed in ink and the Bid Form signed in ink. Erasures or alterations shall be initialed in ink by the person signing the Bid Form. A Bid price shall be indicated for each section, Bid item, alternate, adjustment unit price item, and unit price item listed therein.
  - B. If the Bid Form expressly indicates that submitting pricing on a specific alternate item is optional, and Bidder elects to not furnish pricing for such optional alternate item, then Bidder may enter the words "No Bid" or "Not Applicable."
- 13.02 A Bid by a corporation shall be executed in the corporate name by a corporate officer (whose title must appear under the signature), accompanied by evidence of authority to sign. The corporate address and state of incorporation shall be shown.
- 13.03 A Bid by a limited liability company shall be executed in the name of the firm by a member or other authorized person and accompanied by evidence of authority to sign. The state of formation of the firm and the official address of the firm shall be shown.
- 13.04 A Bid by an individual shall show the Bidder's name and official address.

- 13.05 A Bid by a joint venture shall be executed by an authorized representative of each joint venturer in the manner indicated on the Bid Form. The official address of the joint venture shall be shown.
- 13.06 All names shall be printed in ink below the signatures.
- 13.07 The Bid shall contain an acknowledgment of receipt of all Addenda, the numbers of which shall be filled in on the Bid Form.
- 13.08 Postal and e-mail addresses and telephone number for communications regarding the Bid shall be shown.
- 13.09 The Bid shall contain evidence of Bidder's authority and qualification to do business in the state where the Project is located, or Bidder shall covenant in writing to obtain such authority and qualification prior to award of the Contract and attach such covenant to the Bid. Bidder's state contractor license number, if any, shall also be shown on the Bid Form. 11.8. The Bid price shall include such amounts as the Bidder deems proper for overhead and profit on account of any cash allowances named in the Contract Documents as provided in Paragraph 11.02 of the General Conditions.  
  
The Bid price shall include such amounts as the Bidder deems proper for overhead and profit on account of any cash allowances named in the Contract Documents as provided in Paragraph 11.02 of the General Conditions.
- 13.10 Each Bid must be submitted on the prescribed form and accompanied by the submittals listed in the Bid Form.

#### ARTICLE 14 – BASIS OF BID

- 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 the sum of the products of the estimated quantity of each item and the corresponding unit price. The final quantities and contract price will be determined in accordance with paragraph 11.03 of the general conditions.
  - C. Discrepancies between the multiplication of units of work and unit prices will be resolved in favor of 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 Bid prices will be compared after resolution of discrepancies, if any, as described above.

**ARTICLE 15 – SUBMITTAL OF BID**

- 15.01 With each copy of the Bidding Documents, a Bidder is furnished one separate unbound copy of the Bid Form, and, if required, the Bid Bond Form. The unbound copy of the Bid Form is to be completed and submitted with the Bid security and the other documents required to be submitted under the terms of Article 7 of the Bid Form.
- 15.02 A Bid shall be received 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 a plainly marked package with the Project title (and, if applicable, the designated portion of the Project for which the Bid is submitted), the 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 package plainly marked on the outside with the notation "BID ENCLOSED."
- 15.03 Bids received after the date and time prescribed for the opening of bids, or not submitted at the correct location or in the designated manner, will not be accepted and will be returned to the Bidder unopened.

**ARTICLE 16 – MODIFICATION AND WITHDRAWAL OF BID**

- 16.01 A Bid may be withdrawn by an appropriate document duly executed in the same 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. Upon receipt of such notice, the unopened Bid will be returned to the Bidder.
- 16.02 If a Bidder wishes to modify its Bid prior to Bid opening, Bidder must withdraw its initial Bid in the manner specified in Paragraph 16.01 and submit a new Bid prior to the date and time for the opening of Bids.
- 16.03 If within 24 hours after Bids are opened 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 will reject the Bid of any Bidder that Owner finds, after reasonable inquiry and evaluation, to not be responsible. If Bidder purports to add terms or conditions to its Bid, takes exception to any provision of the Bidding Documents, or attempts to alter the contents of the Contract Documents for purposes of the Bid, then the Owner will reject the Bid as nonresponsive; provided that Owner also reserves the right to waive all minor informalities not involving price, time, or changes in the Work.
- 19.02 If Owner awards the contract for the Work, such award shall be to the responsible Bidder submitting the lowest responsive Bid.
- 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 whether a Bidder is responsible, Owner will consider the qualifications of the Bidder and may consider the qualifications and experience of Subcontractors and Suppliers proposed for those portions of the Work for which the identity of Subcontractors and Suppliers must be submitted as provided in the Bidding Documents.
- 19.05 Owner may conduct such investigations as Owner deems necessary to establish the responsibility, qualifications, and financial ability of Bidders and any proposed Subcontractors or Suppliers.

**ARTICLE 20 – BONDS AND INSURANCE**

- 20.01 Article 6 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 Agreement (executed by Successful Bidder) to Owner, it shall be accompanied by required bonds and insurance documentation.

**ARTICLE 21 – SIGNING OF AGREEMENT**

- 21.01 When Owner issues a Notice of Award to the Successful Bidder, it shall be accompanied by the unexecuted counterparts of the Agreement along with the other Contract Documents as identified in the Agreement. Within 15 days thereafter, Successful Bidder shall execute and deliver the required number of counterparts of the Agreement (and any bonds and insurance documentation required to be delivered by the Contract Documents) to Owner. Within ten days thereafter, Owner shall deliver one fully executed counterpart of the Agreement to Successful Bidder, together with printed and electronic copies of the Contract Documents as stated in Paragraph 2.02 of the General Conditions.

**ARTICLE 22 – NOT USED****ARTICLE 23 – NOT USED****ARTICLE 24 – POWER OF ATTORNEY**

- 24.01 Attorneys-in-fact who sign Bid Bonds or Contract Bonds must file with each bond a certified and effective dated copy of their power of attorney.

**ARTICLE 25 – LAWS AND REGULATIONS**

- 25.01 The Bidder's attention is directed to the fact that all applicable State Laws, municipal ordinance, and the rules and regulations of all authorities having jurisdiction over construction of the Project shall apply to the Contract throughout, and they will be deemed to be included in the Contract the same as though herein written out in full.

**ARTICLE 26 – SAFETY STANDARDS AND ACCIDENT PREVENTION**

- 26.01 With respect to all Work performed under this contract, the Contractor shall:
- A. Comply with the safety standards provisions of applicable laws, building and construction codes and the "Manual of Accident Prevention in Construction" published by the Associated General Contractors of America, the requirements of the Occupational Safety and Health Act of 1970 (Public Law 91-596), and the requirements of Title 29 of the Code of Federal Regulations, Section 1518 as published in the "Federal Register", Volume 36, No. 75, Saturday, April 17, 1971.
  - B. Exercise every precaution at all times for the prevention of accidents and the protection of persons (including employees) and property.
  - C. Maintain at his/her office or other well-known place at the job site, all articles necessary for giving first aid to the injured, and shall make standing arrangements for the immediate removal to a hospital or doctor's care of persons (including employees), who may be injured on the job site before the employer has made a standing arrangement for removal of injured persons to a hospital or a doctor's care.

**ARTICLE 27 – WAGE RATE REQUIREMENTS**

- 27.01 If the contract price is in excess of \$100,000, provisions of the Contract Work Hours and Safety Standards Act at 29 CFD 5.5(b) apply.

## **INFORMATION FOR BIDDERS**

### **SECTION 3**

#### **BIDDING PROVISIONS**

##### **PART 1 - HOURS AND WAGES**

1.01 No laborer, workman or mechanic in the employ of the Contractor, Subcontractor or other person doing or contracting to do the whole or part of the work contemplated by this Contract shall be permitted or required to work more than eight hours in any one calendar day or more than five days in any one week except in cases of extraordinary emergency, including fire, flood or danger to life or property.

1.02 Each laborer, workman or mechanic employed by the Contractor, Subcontractor or other person about or upon the work under this contract shall be paid no less than the prevailing rate of wages and shall be provided the supplements not less than the prevailing supplements as determined by the Fiscal Officer pursuant to Article 8 of the Labor Law. The prevailing rate schedule as determined by the Fiscal Officer follows this section and is a part of this Contract. Wage rates redetermined in accordance with the law will be transmitted, when received, to the Contractor and will become a part of this Contract at no cost to the Owner. Any person employed on the site of the work in an occupation not listed in the following prevailing rate schedule shall be paid not less than the minimum rate per hour and shall be provided not less than the supplements designated by the Fiscal Officer.

##### **PART 2. DISCRIMINATION PROHIBITED**

The Contractor agrees, in accordance with the applicable provisions of the Labor Law of the State of Kentucky:

2.01 That in the hiring of employees for the performance of work under this Contract or any subcontract hereunder, no Contractor, Subcontractor nor any person acting on behalf of such Contractor or Subcontractor, shall by reason of race, creed, color, national origin, or sex discriminate against any citizen of the State of Kentucky who is qualified and available to perform the work to which the employment relates;

2.02 That no Contractor, Subcontractor, nor any person on his behalf shall, in any manner, discriminate against or intimidate any employee hired for the performance of work under this Contract on account of race, creed, color, national origin, or sex;

2.03 That this Contract may be canceled or terminated by the Owner and all monies due or to become due hereunder may be forfeited, for a second or any subsequent violation of the terms or conditions of this section of the Contract;

2.04 The aforesaid provisions of this section covering every contract for or on behalf of the State or a municipality for the manufacture, sale or distribution of materials, equipment or supplies shall be limited to operations performed within the territorial limits of the State of Kentucky.

##### **PART 3 - WORKER'S COMPENSATION**

3.01 This Contract shall be void and of no effect unless the person or corporation making or performing such contract shall secure compensation for the benefit of, and keep insured during the life of such contract, such employees, in compliance with the provisions of the worker's compensation law.



#### **PART 4 - LIEN LAW**

4.01 The attention of the Contractor is invited to the provisions of the Lien Law of the State of Kentucky, wherein funds received by a contractor for a public improvement are declared to constitute trust funds in the hands of such contractor to be applied first to the payment of certain claims.

INSERT FEDERAL WAGE and STATE WAGE RATES HERE

## BID FORMS





**BID FORM**

**BRACKEN COUNTY WATER DISTRICT**

**CONTRACT 2 - WATER SYSTEM IMPROVEMENTS (16041)**

## TABLE OF CONTENTS

	<b>Page</b>
Article 1 – Bid Recipient .....	1
Article 2 – Bidder’s Acknowledgements .....	1
Article 3 – Bidder’s Representations.....	1
Article 4 – Bidder’s Certification .....	2
Article 5 – Basis of Bid.....	3
Article 6 – Time of Completion .....	5
Article 7 – Attachments to this Bid .....	5
Article 8 – Defined Terms .....	6
Article 9 – Bid Submittal .....	6

**ARTICLE 1 – BID RECIPIENT**

- 1.01 This Bid is submitted to:

***Bracken County Water District***

***1324 Brooksville Germantown Road***

***Brooksville, Kentucky 41004***

- 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 90 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

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EJCDC® C-410, Bid Form for Construction Contracts.

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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	8" D.I.P. Water Main, Class 350	LF	1,334		
2	8" PVC Water Main, Class 250	LF	20,326		
3	6" PVC Water Main, Class 250	LF	88,431		
4	6" D.I.P. Water Main, Class 350	LF	660		
5	4" PVC Water Main, Class 250	LF	29,343		
6	3" PVC Water Main, Class 250	LF	5,660		
7	2" PVC Water Main, Class 250	LF	745		
8	Flushing Hydrant Assembly	EA	27		
9	Blowoff Hydrant Assembly	EA	15		
10	Customer Reconnects	EA	140		
11	Air Release Valves	EA	15		
12	Open Cut W/10" PVC Casing Pipe	LF	80		
13	10" PVC Casing Pipe	LF	300		
14	12" PVC Casing Pipe	LF	60		
15	16" Steel Casing, Bore & Jack	LF	195		
16	14" Steel Casing, Bore & Jack	LF	580		
17	12" Steel Casing, Bore & Jack	LF	470		
18	6" Steel Casing, Bore & Jack	LF	20		
19	Wet Tap Connection	EA	38		
20	Cut & Plug Exist. W.M.	EA	50		
21	8" G.V. & Box	EA	14		
22	6" G.V. & Box	EA	26		
23	4" G.V. & Box	EA	10		
24	3" G.V. & Box	EA	6		
25	Connection To Exist. W.M.	EA	17		
26	Additional Service Tubing	LF	1000		
<b>Total of All Unit Price Bid Items</b>					<b>\$</b>

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.



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**Total Bid Price**\$ 

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**ARTICLE 6 – TIME OF COMPLETION**

- 6.01 Bidder agrees that the Work will be substantially complete within 240 calendar days after the date when the Contract Times commence to run as provided in Paragraph 4.01 of the General Conditions, and will be completed and ready for final payment in accordance with Paragraph 15.06 of the General Conditions within 270 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. 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 6.01 above, plus any extensions thereof allowed in accordance with Article 15 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 \$750 for each day that expires after the time specified in Paragraph 6.01 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 \$750 for each day that expires after the time specified in Paragraph 6.01 for completion and readiness for final payment until the Work is completed and ready for final payment.

**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 SECTION 00430 EJCDC C-430;
  - B. List of Proposed Subcontractors;
  - C. List of Proposed Suppliers;
  - D. List of Project References;
  - E. 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;
  - F. Contractor's License No.:            [or] Evidence of Bidder's ability to obtain a State Contractor's License and a covenant by Bidder to obtain said license within the time for acceptance of Bids;
  - G. Required Bidder Qualification Statement with supporting data; and
  - H. If Bid amount exceeds \$10,000, signed Compliance Statement (RD 400-6). Refer to specific equal opportunity requirements set forth in paragraph 18.10 of the General Conditions;

- I. If Bid amount exceeds \$25,000, signed Certification Regarding Debarment, Suspension, Ineligibility and Voluntary Exclusion - Lower Tier Covered Transactions (AD-1048);
- J. If Bid amount exceeds \$100,000, signed RD Instruction 1940-Q, Exhibit A-1, Certification for Contracts, Grants, and Loans. Refer to paragraph 18.11 of the General Conditions;
- K. Manufacturer's Certification Letter (Exhibit D) on any approved "or equal" or substitute request to ensure compliance with AIS requirements and any subsequent statutes mandating domestic preference

## 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:





## BID BOND

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

BIDDER (*Name and Address*):

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

OWNER (*Name and Address*): Bracken County Water District  
1324 Brooksville Germantown Road  
Brooksville, Kentucky 41004

### BID

Bid Due Date:

Description: Contract No. 2 - Water System Improvements Project

### BOND

Bond Number:

Date:

Penal sum \_\_\_\_\_ \$ \_\_\_\_\_  
(Words) (Figures)

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

**BIDDER**

**SURETY**

\_\_\_\_\_  
(Seal) Bidder's Name and Corporate Seal

\_\_\_\_\_  
(Seal) Surety's Name and Corporate Seal

By: \_\_\_\_\_ Signature

By: \_\_\_\_\_ Signature (Attach Power of Attorney)

\_\_\_\_\_  
Print Name

\_\_\_\_\_  
Print Name

\_\_\_\_\_  
Title

\_\_\_\_\_  
Title

Attest: \_\_\_\_\_ Signature

Attest: \_\_\_\_\_ Signature

\_\_\_\_\_  
Title

\_\_\_\_\_  
Title

*Note: Addresses are to be used for giving any required notice.*

*Provide execution by any additional parties, such as joint venturers, if necessary.*

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

govern and the remainder of this Bond that is not in conflict therewith shall continue in full force and effect.

11. The term "Bid" as used herein includes a Bid, offer, or proposal as applicable.



# QUALIFICATIONS STATEMENT

Prepared by



Issued and Published Jointly by



Endorsed by



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**QUALIFICATIONS STATEMENT**

**THE INFORMATION SUPPLIED IN THIS DOCUMENT IS CONFIDENTIAL TO THE EXTENT  
PERMITTED BY LAWS AND REGULATIONS**

**1. SUBMITTED BY:**

Official Name of Firm: \_\_\_\_\_

Address: \_\_\_\_\_  
\_\_\_\_\_  
\_\_\_\_\_**2. SUBMITTED TO:** \_\_\_\_\_**3. SUBMITTED FOR:** \_\_\_\_\_

Owner: \_\_\_\_\_

Bracken County Water District

Project Name: \_\_\_\_\_

Contract No. 2 - Water System Improvements Project  
\_\_\_\_\_  
\_\_\_\_\_  
\_\_\_\_\_**TYPE OF WORK:**Replacement of approximately 27 miles of AC water main and  
various sundry related items.  
\_\_\_\_\_**4. CONTRACTOR'S CONTACT INFORMATION**

Contact Person: \_\_\_\_\_

Title: \_\_\_\_\_

Phone: \_\_\_\_\_

Email: \_\_\_\_\_



**5. AFFILIATED COMPANIES:**

Name: \_\_\_\_\_

Address: \_\_\_\_\_  
\_\_\_\_\_  
\_\_\_\_\_**6. TYPE OF ORGANIZATION:**☐ SOLE PROPRIETORSHIP

Name of Owner: \_\_\_\_\_

Doing Business As: \_\_\_\_\_

Date of Organization: \_\_\_\_\_

☐ PARTNERSHIP

Date of Organization: \_\_\_\_\_

Type of Partnership: \_\_\_\_\_

Name of General Partner(s): \_\_\_\_\_  
\_\_\_\_\_  
\_\_\_\_\_☐ CORPORATION

State of Organization: \_\_\_\_\_

Date of Organization: \_\_\_\_\_

Executive Officers:

- President: \_\_\_\_\_

- Vice President(s): \_\_\_\_\_  
\_\_\_\_\_  
\_\_\_\_\_

- Treasurer: \_\_\_\_\_

- Secretary: \_\_\_\_\_

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☐ LIMITED LIABILITY COMPANY

State of Organization: \_\_\_\_\_

Date of Organization: \_\_\_\_\_

Members: \_\_\_\_\_  
\_\_\_\_\_  
\_\_\_\_\_  
\_\_\_\_\_☐ JOINT VENTURE

State of Organization: \_\_\_\_\_

Date of Organization: \_\_\_\_\_

Form of Organization: \_\_\_\_\_

Joint Venture Managing Partner

- Name: \_\_\_\_\_

- Address: \_\_\_\_\_  
\_\_\_\_\_  
\_\_\_\_\_

Joint Venture Managing Partner

- Name: \_\_\_\_\_

- Address: \_\_\_\_\_  
\_\_\_\_\_

Joint Venture Managing Partner

- Name: \_\_\_\_\_

- Address: \_\_\_\_\_  
\_\_\_\_\_

**7. LICENSING**

Jurisdiction: \_\_\_\_\_

Type of License: \_\_\_\_\_

License Number: \_\_\_\_\_

Jurisdiction: \_\_\_\_\_

Type of License: \_\_\_\_\_

License Number: \_\_\_\_\_

**8. CERTIFICATIONS****CERTIFIED BY:**

Disadvantage Business Enterprise: \_\_\_\_\_

Minority Business Enterprise: \_\_\_\_\_

Woman Owned Enterprise: \_\_\_\_\_

Small Business Enterprise: \_\_\_\_\_

Other ( \_\_\_\_\_ ): \_\_\_\_\_

**9. BONDING INFORMATION**

Bonding Company: \_\_\_\_\_

Address: \_\_\_\_\_

Bonding Agent: \_\_\_\_\_

Address: \_\_\_\_\_

Contact Name: \_\_\_\_\_

Phone: \_\_\_\_\_

Aggregate Bonding Capacity: \_\_\_\_\_

Available Bonding Capacity as of date of this submittal: \_\_\_\_\_



**10. FINANCIAL INFORMATION**

Financial Institution: \_\_\_\_\_

Address: \_\_\_\_\_

Account Manager: \_\_\_\_\_

Phone: \_\_\_\_\_

INCLUDE AS AN ATTACHMENT AN AUDITED BALANCE SHEET FOR EACH OF THE  
LAST 3 YEARS

**11. CONSTRUCTION EXPERIENCE:**

Current Experience:

List on **Schedule A** all uncompleted projects currently under contract (If Joint Venture list each participant's projects separately).

Previous Experience:

List on **Schedule B** all projects completed within the last 5 Years (If Joint Venture list each participant's projects separately).

Has firm listed in Section 1 ever failed to complete a construction contract awarded to it?

☐ YES ☐ NO

If YES, attach as an Attachment details including Project Owner's contact information.

Has any Corporate Officer, Partner, Joint Venture participant or Proprietor ever failed to complete a construction contract awarded to them in their name or when acting as a principal of another entity?

☐ YES ☐ NO

If YES, attach as an Attachment details including Project Owner's contact information.

Are there any judgments, claims, disputes or litigation pending or outstanding involving the firm listed in Section 1 or any of its officers (or any of its partners if a partnership or any of the individual entities if a joint venture)?

☐ YES ☐ NO

If YES, attach as an Attachment details including Project Owner's contact information.

**12. SAFETY PROGRAM:**

Name of Contractor's Safety Officer: \_\_\_\_\_

Include the following as attachments:

Provide as an Attachment Contractor's (and Contractor's proposed Subcontractors and Suppliers furnishing or performing Work having a value in excess of 10 percent of the total amount of the Bid) OSHA No. 500- Log & Summary of Occupational Injuries & Illnesses for the past 5 years.

Provide as an Attachment Contractor's (and Contractor's proposed Subcontractors and Suppliers furnishing or performing Work having a value in excess of 10 percent of the total amount of the Bid) list of all OSHA Citations & Notifications of Penalty (monetary or other) received within the last 5 years (indicate disposition as applicable) - IF NONE SO STATE.

Provide as an Attachment Contractor's (and Contractor's proposed Subcontractors and Suppliers furnishing or performing Work having a value in excess of 10 percent of the total amount of the Bid) list of all safety citations or violations under any state all received within the last 5 years (indicate disposition as applicable) - IF NONE SO STATE.

Provide the following for the firm listed in Section V (and for each proposed Subcontractor furnishing or performing Work having a value in excess of 10 percent of the total amount of the Bid) the following (attach additional sheets as necessary):

Workers' compensation Experience Modification Rate (EMR) for the last 5 years:

YEAR	_____	EMR	_____
YEAR	_____	EMR	_____
YEAR	_____	EMR	_____
YEAR	_____	EMR	_____
YEAR	_____	EMR	_____

Total Recordable Frequency Rate (TRFR) for the last 5 years:

YEAR	_____	TRFR	_____
YEAR	_____	TRFR	_____
YEAR	_____	TRFR	_____
YEAR	_____	TRFR	_____
YEAR	_____	TRFR	_____

Total number of man-hours worked for the last 5 Years:

YEAR	_____	TOTAL NUMBER OF MAN-HOURS	_____
YEAR	_____	TOTAL NUMBER OF MAN-HOURS	_____
YEAR	_____	TOTAL NUMBER OF MAN-HOURS	_____
YEAR	_____	TOTAL NUMBER OF MAN-HOURS	_____
YEAR	_____	TOTAL NUMBER OF MAN-HOURS	_____

Provide Contractor's (and Contractor's proposed Subcontractors and Suppliers furnishing or performing Work having a value in excess of 10 percent of the total amount of the Bid) Days Away From Work, Days of Restricted Work Activity or Job Transfer (DART) incidence rate for the particular industry or type of Work to be performed by Contractor and each of Contractor's proposed Subcontractors and Suppliers) for the last 5 years:

YEAR	_____	DART	_____
YEAR	_____	DART	_____
YEAR	_____	DART	_____
YEAR	_____	DART	_____
YEAR	_____	DART	_____

### 13. EQUIPMENT:

#### MAJOR EQUIPMENT:

List on **Schedule C** all pieces of major equipment available for use on Owner's Project.



I HEREBY CERTIFY THAT THE INFORMATION SUBMITTED HERewith, INCLUDING ANY ATTACHMENTS, IS TRUE TO THE BEST OF MY KNOWLEDGE AND BELIEF.

NAME OF ORGANIZATION: \_\_\_\_\_

BY: \_\_\_\_\_

TITLE: \_\_\_\_\_

DATED: \_\_\_\_\_

NOTARY ATTEST:

SUBSCRIBED AND SWORN TO BEFORE ME

THIS \_\_\_\_\_ DAY OF \_\_\_\_\_, 20\_\_\_\_

NOTARY PUBLIC - STATE OF \_\_\_\_\_

MY COMMISSION EXPIRES: \_\_\_\_\_

REQUIRED ATTACHMENTS

1. Schedule A (Current Experience).
2. Schedule B (Previous Experience).
3. Schedule C (Major Equipment).
4. Audited balance sheet for each of the last 3 years for firm named in Section 1.
5. Evidence of authority for individuals listed in Section 7 to bind organization to an agreement.
6. Resumes of officers and key individuals (including Safety Officer) of firm named in Section 1.
7. Required safety program submittals listed in Section 13.
8. Additional items as pertinent.

## SCHEDULE A

### CURRENT EXPERIENCE

Project Name	Owner's Contact Person	Design Engineer	Contract Date	Type of Work	Status	Cost of Work
	Name: Address: Telephone:	Name: Company: Telephone:				
	Name: Address: Telephone:	Name: Company: Telephone:				
	Name: Address: Telephone:	Name: Company: Telephone:				
	Name: Address: Telephone:	Name: Company: Telephone:				
	Name: Address: Telephone:	Name: Company: Telephone:				
	Name: Address: Telephone:	Name: Company: Telephone:				
	Name: Address: Telephone:	Name: Company: Telephone:				

## SCHEDULE B

PREVIOUS EXPERIENCE (Include ALL Projects Completed within last 5 years)

Project Name	Owner's Contact Person	Design Engineer	Contract Date	Type of Work	Status	Cost of Work
	Name: Address: Telephone:	Name: Company: Telephone:				
	Name: Address: Telephone:	Name: Company: Telephone:				
	Name: Address: Telephone:	Name: Company: Telephone:				
	Name: Address: Telephone:	Name: Company: Telephone:				
	Name: Address: Telephone:	Name: Company: Telephone:				
	Name: Address: Telephone:	Name: Company: Telephone:				
	Name: Address: Telephone:	Name: Company: Telephone:				



## SCHEDULE B

PREVIOUS EXPERIENCE (Include ALL Projects Completed within last 5 years)

Project Name	Owner's Contact Person	Design Engineer	Contract Date	Type of Work	Status	Cost of Work
	Name: Address: Telephone:	Name: Company: Telephone:				
	Name: Address: Telephone:	Name: Company: Telephone:				
	Name: Address: Telephone:	Name: Company: Telephone:				
	Name: Address: Telephone:	Name: Company: Telephone:				
	Name: Address: Telephone:	Name: Company: Telephone:				
	Name: Address: Telephone:	Name: Company: Telephone:				
	Name: Address: Telephone:	Name: Company: Telephone:				

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Page 3 of 4

SCHEDULE C - LIST OF MAJOR EQUIPMENT AVAILABLE

ITEM	PURCHASE DATE	CONDITION	ACQUIRED VALUE

COMPLIANCE STATEMENT

This statement relates to a proposed contract with Bracken County Water District

*(Name of borrower or grantee)*

who expects to finance the contract with assistance from either the Rural Housing Service (RHS), Rural Business-Cooperative Service (RBS), or the Rural Utilities Service (RUS) or their successor agencies, United States Department of Agriculture (whether by a loan, grant, loan insurance, guarantee, or other form of financial assistance). I am the undersigned bidder or prospective contractor, I represent that:

1. ☐ I have, ☐ have not, participated in a previous contract or subcontract subject to Executive 11246 (regarding equal employment opportunity) or a preceding similar Executive Order.
2. If I have participated in such a contract or subcontract, ☐ I have, ☐ have not, filed all compliance reports that have been required to file in connection with the contract or subcontract.

If the proposed contract is for \$50,000 or more and I have 50 or more employees, I also represent that:

3. ☐ I have, ☐ have not previously had contracts subject to the written affirmative action programs requirements of the Secretary of Labor.
4. If I have participated in such a contract or subcontract, ☐ I have, ☐ have not developed and placed on file at each establishment affirmative action programs as required by the rules and regulations of the Secretary of Labor.

I understand that if I have failed to file any compliance reports that have been required of me, I am not eligible and will not be eligible to have my bid considered or to enter into the proposed contract unless and until I make an arrangement regarding such reports that is satisfactory to either the RHS, RBS or RUS, or to the office where the reports are required to be filed.

I also certify that I do not maintain or provide for my employees any segregated facilities at any of my establishments, and that I do not permit my employees to perform their services at any location, under my control, where segregated facilities are maintained. I certify further that I will not maintain or provide for my employees any segregated facilities at any of my establishments, and that I will not permit my employees to perform their services at any location, under my control, where segregated facilities are maintained. I agree that a breach of this certification is a violation of the Equal Opportunity clause in my contract. As used in this certification, the term "segregated facilities" means any waiting rooms, work areas, restrooms and wash rooms, restaurants and other eating areas time clocks, locker rooms and other storage or dressing areas, parking lots, drinking fountains, recreation or entertainment areas, transportation, and housing facilities provided for employees which are segregated by explicit directive or are in fact segregated on the basis of race, creed, color, or national origin, because of habit, local custom, or otherwise. I further agree that (except where I have obtained identical certifications for proposed subcontractors for specific time periods) I will obtain identical certifications from proposed subcontractors prior to the award of subcontracts exceeding \$10,000 which are not exempt from the provisions of the Equal Opportunity clause; that I will retain such certifications in my files; and that I will forward the following notice to such proposed subcontractors (except where the proposed subcontractors have submitted identical certifications for specific time periods): (See Reverse).

---

According to the Paperwork Reduction Act of 1995, an agency may not conduct or sponsor, and a person is not required to respond to a collection of information unless it displays the valid OMB control number. The valid OMB control number for this information collection is 0575-0018. The time required to complete this information collection is estimated to average 10 minutes per response, including the time for reviewing instructions, searching existing data sources, gathering and maintaining the data needed, and completing and reviewing the collection of information.

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**NOTICE TO PROSPECTIVE SUBCONTRACTORS OF REQUIREMENTS FOR  
CERTIFICATIONS OF NON-SEGREGATED FACILITIES**

A certification of Nonsegregated Facilities, as required by the May 9, 1967, order (32F.R. 7439, May 19, 1967) on Elimination of Segregated Facilities, by the Secretary of Labor, must be submitted prior to the award of a subcontract exceeding \$ 10,000 which is not exempt from the provisions of the Equal Opportunity clause. The certification may be submitted either for each subcontract or for all subcontracts during a period (i.e., quarterly, semiannually, or annually).

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

Date \_\_\_\_\_

\_\_\_\_\_  
*(Signature of Bidder or Prospective Contractor)*

\_\_\_\_\_  
*Address (including Zip Code)*

CERTIFICATION FOR CONTRACTS, GRANTS AND LOANS

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 any 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 or Federal loan, and the extension, continuation, renewal, amendment, or modification of any Federal contract, grant or loan.

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 or loan, the undersigned shall complete and submit Standard Form - LLL, "Disclosure of Lobbying Activities," in accordance with its instructions.

3. The undersigned shall require that the language of this certification be included in the award documents for all subawards at all tiers (including contracts, subcontracts, and subgrants under grants and loans) and that all subrecipients 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.

\_\_\_\_\_  
(name)

\_\_\_\_\_  
(date)

\_\_\_\_\_  
(title)

oOo

**U.S. DEPARTMENT OF AGRICULTURE**

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**Certification Regarding Debarment, Suspension, Ineligibility  
and Voluntary Exclusion - Lower Tier Covered Transactions**

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This certification is required by the regulations implementing Executive Order 12549, Debarment and Suspension, 7 CFR part 3017, Section 3017.510, Participants' responsibilities. The regulations were published as Part IV of the January 30, 1989, Federal Register (pages 4722-4733). Copies of the regulations may be obtained by contacting the Department of Agriculture agency with which this transaction originated.

**(BEFORE COMPLETING CERTIFICATION, READ INSTRUCTIONS ON REVERSE)**

- (1) The prospective lower tier participant certifies, by submission of this proposal, that neither it nor its principals is presently debarred, suspended, proposed for debarment, declared ineligible, or voluntarily excluded from participation in this transaction by any Federal department or agency.
- (2) Where the prospective lower tier participant is unable to certify to any of the statements in this certification, such prospective participant shall attach an explanation to this proposal.

Bracken County Water District

---

Organization Name

PR/Award Number or Project Name

---

Name(s) and Title(s) of Authorized Representative(s)

---

Signature(s)

Date



Instructions for Certification

1. By signing and submitting this form, the prospective lower tier participant is providing the certification set out on the reverse side in accordance with these instructions.
2. The certification in this clause is a material representation of fact upon which reliance was placed when this transaction was entered into. If it is later determined that the prospective lower tier participant knowingly rendered an erroneous certification, in addition to other remedies available to the Federal Government, the department or agency with which this transaction originated may pursue available remedies, including suspension and/or debarment.
3. The prospective lower tier participant shall provide immediate written notice to the person to which this proposal is submitted if at any time the prospective lower tier participant learns that its certification was erroneous when submitted or has become erroneous by reason of changed circumstances.
4. The terms "covered transaction," "debarred," "suspended," "ineligible," "lower tier covered transaction," "participant," "person," "primary covered transaction," "principal," "proposal," and "voluntarily excluded," as used in this clause, have the meanings set out in the Definitions and Coverage sections of rules implementing Executive Order 12549. You may contact the person to which this proposal is submitted for assistance in obtaining a copy of those regulations.
5. The prospective lower tier participant agrees by submitting this form that, should the proposed covered transaction be entered into, it shall not knowingly enter into any lower tier covered transaction with a person who is debarred, suspended, declared ineligible, or voluntarily excluded from participation in this covered transaction, unless authorized by the department or agency with which this transaction originated.
6. The prospective lower tier participant further agrees by submitting this form that it will include this clause titled "Certification Regarding Debarment, Suspension, Ineligibility and Voluntary Exclusion - Lower Tier Covered Transaction," without modification, in all lower tier covered transaction and in all solicitations for lower tier covered transactions.
7. A participant in a covered transaction may rely upon a certification of a prospective participant in a lower tier covered transaction that is not debarred, suspended, ineligible, or voluntarily excluded from the covered transaction, unless it knows that the certification is erroneous. A participant may decide the method and frequency by which it determines the eligibility of its principals. Each participant may, but is not required to, check the Nonprocurement List.
8. Nothing contained in the foregoing shall be construed to require establishment of a system of records in order to render in good faith the certification required by this clause. The knowledge and information of a participant is not required to exceed that which is normally possessed by a prudent person in the ordinary course of business dealings.
9. Except for transactions authorized under paragraph 5 of these instructions, if a participant in a covered transaction knowingly enters into a lower tier covered transaction with a person who is suspended, debarred, ineligible, or voluntarily excluded from participation in this transaction, in addition to other remedies available to the Federal Government, the department or agency with which this transaction originated may pursue available remedies, including suspension and/or debarment.

## **AGREEMENT FORMS**



**SECTION 00500**  
**AGREEMENT FORMS**

**PART 1 - NOTICE OF AWARD**

TO: \_\_\_\_\_  
\_\_\_\_\_  
\_\_\_\_\_

**PROJECT Description: Contract 2 – Water System Improvements Project, Bracken County Water District, Brooksville, Kentucky.**

The OWNER has considered the BID submitted by you for the above-described WORK in response to its Bid request.

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

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

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

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

Dated this \_\_\_\_\_ day of \_\_\_\_\_ 2017.

**BRACKEN COUNTY WATER DISTRICT**  
OWNER

By \_\_\_\_\_

Title \_\_\_\_\_

**ACCEPTANCE OF NOTICE**

Receipt of the above NOTICE OF AWARD is hereby acknowledged by this the \_\_\_\_ day of \_\_\_\_\_, 2017.

By \_\_\_\_\_

Title Owner \_\_\_\_\_



**PART 2 - AGREEMENT**

THIS AGREEMENT, made this the \_\_\_\_ day of \_\_\_\_ 2017, by and between the **Bracken County Water District**, hereinafter called "OWNER" and \_\_\_\_\_ doing business as ("a corporation", "a partnership", or "an individual" as applicable), hereinafter called "CONTRACTOR".

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

1. Contractor will commence and complete the construction of Contract 2 - Water System Improvements Project for the Bracken County Water District.
2. The following documents shall constitute integral parts of this AGREEMENT, the whole to be collectively known and referred to as the CONTRACT DOCUMENTS and in the case of discrepancies among any parts of the CONTRACT DOCUMENTS, the most stringent shall apply.
3. The CONTRACTOR will furnish all of the materials, supplies, tools, equipment, labor and other services necessary for the construction and completion of the PROJECT described herein.
4. The CONTRACTOR will commence the work required by the CONTRACT DOCUMENTS within ten (10) calendar days after the date of the NOTICE TO PROCEED and will complete the same within **Two Hundred and Seventy (270)** consecutive calendar days unless the period for completion is extended otherwise by the CONTRACT DOCUMENTS.
5. The CONTRACTOR agrees to perform all of the WORK described in the CONTRACT DOCUMENTS and comply with the terms therein for the sum of: \$\_\_\_\_\_ as shown in the Bid Schedule.
6. The OWNER will pay to the CONTRACTOR in the manner and at such times as set forth in the General Conditions such amounts as required by the CONTRACT DOCUMENTS.
7. This AGREEMENT shall be binding upon all parties hereto and their respective heirs, executors, administrators, successors and assigns.

IN WITNESS WHEREOF, the parties hereto have executed or caused to be executed by their duly authorized officials, this AGREEMENT in six (6) copies each of which shall be deemed an original on the date first above written.

**BRACKEN COUNTY WATER DISTRICT**  
OWNER

By \_\_\_\_\_  
(Signature)

Name \_\_\_\_\_  
(Print Name)

Title \_\_\_\_\_

(SEAL)

ATTEST:

(Signature)

\_\_\_\_\_  
CONTRACTOR

By \_\_\_\_\_  
(Signature)

Name \_\_\_\_\_  
(Print Name)

Address \_\_\_\_\_

\_\_\_\_\_

(SEAL)

ATTEST:

(Signature)

Name

(Print Name)

Title

**PART 3 - NOTICE TO PROCEED**

TO: \_\_\_\_\_  
\_\_\_\_\_  
\_\_\_\_\_

You are hereby notified to commence WORK in accordance with the AGREEMENT date \_\_\_\_\_, 2017, on or before \_\_\_\_\_, 2018, and you are to complete the WORK within **270 consecutive** calendar days thereafter. The date of completion of all WORK is therefore \_\_\_\_\_, 2018.

**BRACKEN COUNTY WATER DISTRICT**  
OWNER

By \_\_\_\_\_  
(Signature)

Title \_\_\_\_\_

**ACCEPTANCE OF NOTICE**

Receipt of the above NOTICE TO PROCEED  
is hereby acknowledged by:

this the \_\_\_\_ day of \_\_\_\_\_, 2017

\_\_\_\_\_  
CONTRACTOR

By \_\_\_\_\_

Title Owner \_\_\_\_\_

- END OF SECTION -



**NOTICE OF AWARD**

Date of Issuance:

Owner: Bracken County Water District      Owner's Contract No.:  
Engineer: Kentucky Engineering Group, PLLC      Engineer's Project No.: 16041  
Project: Water System Improvements      Contract Name: Contract No. 2 – Water System  
Improvements Project

Bidder:

Bidder's Address:

**TO BIDDER:**

You are notified that Owner has accepted your Bid dated [ ] for the above Contract, and that you are the Successful Bidder and are awarded a Contract for:

Contract No. 2 – Water System Improvements Project.

The Contract Price of the awarded Contract is: \$ [ ]

[ 0 ] unexecuted counterparts of the Agreement accompany this Notice of Award, and one copy of the Contract Documents accompanies this Notice of Award, or has been transmitted or made available to Bidder electronically. *[revise if multiple copies accompany the Notice of Award]*

☒ a set of the Drawings will be delivered separately from the other Contract Documents.

You must comply with the following conditions precedent within 15 days of the date of this Notice of Award:

1. Deliver to Owner [ 5 ] counterparts of the Agreement, fully executed by Bidder.
2. Deliver with the executed Agreement(s) the Contract security *[e.g., performance and payment bonds]* and insurance documentation as specified in the Instructions to Bidders and General Conditions, Articles 2 and 6.
3. Other conditions precedent (if any):

Failure to comply with these conditions within the time specified will entitle Owner to consider you in default, annul this Notice of Award, and declare your Bid security forfeited.

Within ten days after you comply with the above conditions, Owner will return to you one fully executed counterpart of the Agreement, together with any additional copies of the Contract Documents as indicated in Paragraph 2.02 of the General Conditions.

Owner: Bracken County Water District

Authorized Signature

By:

Title:

Copy: Engineer

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 Laws and Regulations.

**AGREEMENT  
BETWEEN OWNER AND CONTRACTOR FOR  
CONSTRUCTION CONTRACT (STIPULATED PRICE)**

Prepared by



Issued and Published Jointly by



Endorsed by



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National Society of Professional Engineers  
1420 King Street, Alexandria, VA 22314-2794  
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1015 15th Street N.W., Washington, DC 20005  
(202) 347-7474  
[www.acec.org](http://www.acec.org)

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(800) 548-2723  
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## INTRODUCTION

This Agreement between Owner and Contractor for Construction Contract (Stipulated Price) ("Agreement") has been prepared for use with the Suggested Instructions to Bidders for Construction Contracts ("Instructions to Bidders") (EJCDC® C-200, 2013 Edition); the Suggested Bid Form for Construction Contracts ("Bid Form") (EJCDC® C 410, 2013 Edition); and the Standard General Conditions of the Construction Contract ("General Conditions") (EJCDC® C-700, 2013 Edition). Their provisions are interrelated, and a change in one may necessitate a change in the others. See also the Guide to the Preparation of Supplementary Conditions (EJCDC® C-800, 2013 Edition), and the Commentary on the 2013 EJCDC Construction Documents (EJCDC® C-001, 2013 Edition).

In construction contracting, as a general matter the "agreement" is the legal instrument executed (signed) by the project owner and the construction contractor, binding the parties to the terms of the contract. See CSI Project Delivery Practice Guide (2011), Section 11.1.2, p. 210, and CSI Construction Specification Practice Guide (2011), Section 5.1, p. 75. This EJCDC Agreement form serves that basic function, by identifying the parties and Contract Documents, and establishing the Contract Price and Contract Times. This Agreement form is specifically intended for stipulated price (fixed price) contracts—that is, contracts in which Owner and Contractor identify specific lump sums and unit prices as Contractor's compensation for performing the Work. For construction contracts in which the Contract Price is primarily based on costs incurred during construction, users should select EJCDC® C-525, Agreement between Owner and Contractor for Construction Contract (Cost-Plus).

This Agreement form is drafted to be flexible enough to be used on projects that are competitively bid, and for public and private contracts that are negotiated or awarded through a proposal process or otherwise. On competitively bid projects, the following documentary information would typically be made available to bidders:

- Bidding Requirements, which include the Advertisement or invitation to bid, the Instructions to Bidders, and the Bid Form that is suggested or prescribed, all of which provide information and guidance for all Bidders, and Bid Form supplements (if any) such as Bid Bond and Qualifications Statement.
- Contract Documents, which include the Agreement, performance and payment bonds, the General Conditions, the Supplementary Conditions, the Drawings, and the Specifications.
- Documents referred to in the Supplementary Conditions or elsewhere as being of interest to bidders for reference purposes, but which are not Contract Documents.

Together, the Bidding Requirements and the Contract Documents are referred to as the Bidding Documents. (The terms "Bidding Documents," "Bidding Requirements," and "Contract Documents" are defined in Article 1 of the General Conditions.) The Bidding Requirements are not Contract Documents because much of their substance pertains to the relationships prior to the award of the Contract and has little effect or impact thereafter. Many contracts are awarded without even going through a bidding process, and thus have no Bidding Requirements, illustrating that the bidding items are typically superfluous to the formation of a binding and comprehensive construction contract. In some cases, however, a bid or proposal will contain numerous line items and their prices; in such case the actual bid or proposal document may be attached as an exhibit to the Agreement to avoid extensive rekeying.

Suggested provisions are accompanied by “Notes to User” and bracketed notes and prompts to assist in preparing the Agreement. The provisions have been coordinated with the other forms produced by EJCDC. Much of the language should be usable on most projects, but modifications and additional provisions will often be necessary. When modifying the suggested language or writing additional provisions, the user must check the other documents thoroughly for conflicts and coordination of terms, and make appropriate revisions in all affected documents.

All parties involved in construction projects benefit significantly from a standardized approach in the location of subject matter throughout the documents. Experience confirms the danger of addressing the same subject matter in more than one location; doing so frequently leads to confusion and unanticipated legal consequences. When preparing documents for a construction project, careful attention should be given to the guidance provided in EJCDC® N-122/AIA® A521, Uniform Location of Subject Matter (2012 Edition), available at no charge from the EJCDC website, [www.ejcdc.org](http://www.ejcdc.org), and from the websites of EJCDC’s sponsoring organizations.

CSI MasterFormat™ (50-Division format) designates Document “00 52 XX” for various forms of the owner-contractor agreement. If this format is used, the first page of the Agreement would be numbered 00 52 13-1 (or other appropriate third pair of numbers, in accordance with MasterFormat™).

Instructions and restrictions regarding the use of this document are set out in the License Agreement that accompanied the document at the time of purchase. To prepare the Agreement for inclusion in a Project Manual or for use in a specific contractual engagement, (1) remove the cover pages and this Introduction, (2) fill in Project-specific information and make revisions to the Agreement, following the guidance in the Notes to Users and bracketed notes and prompts, and the advice of legal counsel, and (3) delete the Notes to Users and bracketed notes and prompts.

Owner and Contractor hereby agree as follows:

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

2.01 *The Project, of which the Work under the Contract Documents is a part, is generally described as follows: **Contract No. 2 – Water System Improvements Project***

2.03 The Owner has retained Kentucky Engineering Group, PLLC ("Engineer") 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.

### 3.01 *Time of the Essence*

### 3.02 Contract Times: Days

A. The Work will be substantially completed within 240 days after the date when the Contract Times commence to run as provided in Paragraph 4.01 of the General Conditions, and completed and ready for final payment in accordance with Paragraph 15.06 of the General Conditions within 270 days after the date when the Contract Times commence to run.

### 3.03 Liquidated Damages

A. Contractor and Owner recognize that time is of the essence as stated in Paragraph 4.01 above and that Owner will suffer financial and other losses if the Work is not completed and Milestones not achieved within the times specified in Paragraph 4.02 above, plus any extensions thereof allowed in accordance with the Contract. 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):

1. Substantial Completion: Contractor shall pay Owner \$ 750 for each day that expires after the time (as duly adjusted pursuant to the Contract) specified in Paragraph 4.02.A above for Substantial Completion until the Work is substantially completed.

*Finally, note that Paragraph 4.04.B above does not refer to fines or penalties. In the typical case, fines and penalties are linked to Substantial Completion, and are not applicable to delays in final completion of the Work.*

#### ARTICLE 4 – CONTRACT PRICE

- 4.01 Owner shall pay Contractor for completion of the Work in accordance with the Contract Documents the amounts that follow, subject to adjustment under the Contract:

A. For all Work, at the prices stated in Contractor's Bid, attached hereto as an exhibit.

#### ARTICLE 5 – PAYMENT PROCEDURES

- 5.01 *Submittal and Processing of Payments*

A. Contractor shall submit Applications for Payment in accordance with Article 15 of the General Conditions. Applications for Payment will be processed by Engineer as provided in the General Conditions.

- 5.02 *Progress Payments; Retainage*

A. Owner shall make progress payments on account of the Contract Price on the basis of Contractor's Applications for Payment on or about the TBD day of each month during performance of the Work as provided in Paragraph 6.02.A.1 below, provided that such Applications for Payment have been submitted in a timely manner and otherwise meet the requirements of the Contract. All such payments will be measured by the Schedule of Values established as provided in 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 elsewhere in the Contract.

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 Owner may withhold, including but not limited to liquidated damages, in accordance with the Contract

a. 95 percent of Work completed (with the balance being retainage). If the Work has been 50 percent completed as determined by Engineer, and if the character and progress of the Work have been satisfactory to Owner and Engineer, then as long as the character and progress of the Work remain satisfactory to Owner and Engineer, there will be no additional retainage; and

b. 100 percent of cost of materials and equipment not incorporated in the Work (with the balance being retainage).

B. Upon Substantial Completion, Owner shall pay an amount sufficient to increase total payments to Contractor to 95 percent of the Work completed, less such amounts set off by Owner pursuant to Paragraph 15.01.E of the General Conditions, and less 5

percent of Engineer's estimate of the value of Work to be completed or corrected as shown on the punch list of items to be completed or corrected prior to final payment.

### 5.03 *Final Payment*

- A. Upon final completion and acceptance of the Work in accordance with Paragraph 15.06 of the General Conditions, Owner shall pay the remainder of the Contract Price as recommended by Engineer as provided in said Paragraph 15.06.

## ARTICLE 6 – INTEREST

- 6.01 All amounts not paid when due shall bear interest at the rate of 3.5 percent per annum.

## ARTICLE 7 – CONTRACTOR'S REPRESENTATIONS

- 7.01 In order to induce Owner to enter into this Contract, Contractor makes the following representations:

- A. Contractor has examined and carefully studied the Contract Documents, and any data and reference items identified in the Contract Documents.
- B. Contractor has visited the Site, conducted a thorough, alert visual examination of the Site and adjacent areas, 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 Laws and Regulations that may affect cost, progress, and performance of the Work.
- D. Contractor has considered the information known to Contractor itself; information commonly known to contractors doing business in the locality of the Site; information and observations obtained from visits to the Site; the Contract Documents; and the Site-related reports and drawings identified in the Contract Documents, with respect to the effect of such information, observations, and documents on (1) the cost, progress, and performance of the Work; (2) the means, methods, techniques, sequences, and procedures of construction to be employed by Contractor; and (3) Contractor's safety precautions and programs.
- E. Based on the information and observations referred to in the preceding paragraph, Contractor agrees that no 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.
- F. 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.
- G. 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.
- H. The Contract Documents are generally sufficient to indicate and convey understanding of all terms and conditions for performance and furnishing of the Work.

- I. Contractor's entry into this Contract constitutes an incontrovertible representation by Contractor that without exception all prices in the Agreement are premised upon performing and furnishing the Work required by the Contract Documents.

## ARTICLE 8 – CONTRACT DOCUMENTS

### 8.01 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. [ ] (pages [ ] to [ ] inclusive).

#### NOTE(S) TO USER:

*Such other bonds might include maintenance or warranty bonds intended to manage risk after completion of the Work.*

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 (not attached but incorporated by reference) consisting of [ ] sheets with each sheet bearing the following general title: [ ] [or] the Drawings listed on the attached sheet index.
9. Addenda (numbers [ ] to [ ] inclusive).
10. Exhibits to this Agreement (enumerated as follows):
  - a. Contractor's Bid (pages [ ] to [ ] inclusive).
11. The following which may be delivered or issued on or after the Effective Date of the Contract and are not attached hereto:
  - a. Change Orders
- 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 the General Conditions.

## ARTICLE 9 – MISCELLANEOUS

### 9.01 Terms

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



#### 9.02 *Assignment of Contract*

- A. Unless expressly agreed to elsewhere in the Contract, 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, money that may become due and money that is due may not be assigned without such consent (except to the extent that the effect of this restriction may be limited by law), and unless specifically stated to the contrary in any written consent to an assignment, no assignment will release or discharge the assignor from any duty or responsibility under the Contract Documents.

#### 9.03 *Successors and Assigns*

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

#### 9.04 *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.

#### 9.05 *Contractor's Certifications*

- A. Contractor certifies that it has not engaged in corrupt, fraudulent, collusive, or coercive practices in competing for or in executing the Contract. For the purposes of this Paragraph 10.05:
  - 1. "corrupt practice" means the offering, giving, receiving, or soliciting of any thing of value likely to influence the action of a public official in the bidding process or in the Contract execution;
  - 2. "fraudulent practice" means an intentional misrepresentation of facts made (a) to influence the bidding process or the execution of the Contract to the detriment of Owner, (b) to establish Bid or Contract prices at artificial non-competitive levels, or (c) to deprive Owner of the benefits of free and open competition;
  - 3. "collusive practice" means a scheme or arrangement between two or more Bidders, with or without the knowledge of Owner, a purpose of which is to establish Bid prices at artificial, non-competitive levels; and
  - 4. "coercive practice" means harming or threatening to harm, directly or indirectly, persons or their property to influence their participation in the bidding process or affect the execution of the Contract.

#### 9.06 *Other Provisions*

- A. Owner stipulates that if the General Conditions that are made a part of this Contract are based on EJCDC® C-700, Standard General Conditions for the Construction Contract, published by the Engineers Joint Contract Documents Committee®, and if Owner is the party that has furnished said General Conditions, then Owner has plainly shown all modifications to the standard wording of such published document to the Contractor,

through a process such as highlighting or “track changes” (redline/strikeout), or in the Supplementary Conditions.

IN WITNESS WHEREOF, Owner and Contractor have signed this Agreement.

This Agreement will be effective on                      (which is the Effective Date of the Contract).

OWNER:

Bracken County Water District

By:

Title: Chairman

Attest:

Title:

Address for giving notices:

1324 Brooksville Germantown Road

Brooksville, Kentucky 41004

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

CONTRACTOR:

By:

Title:

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

Attest:

Title:

Address for giving notices:

License No.:

(where applicable)

**NOTE TO USER:** Use in those states or other jurisdictions where applicable or required.



**NOTICE TO PROCEED**

Owner:	Bracken County Water District	Owner's Contract No.:	N/A
Contractor:		Contractor's Project No.:	
Engineer:	Kentucky Engineering Group, PLLC	Engineer's Project No.:	16041
Project:	Contract No. 2 – Water System Improvements Project	Contract Name:	Water System Improvements Project

Effective Date of Contract:

**TO CONTRACTOR:**

Owner hereby notifies Contractor that the Contract Times under the above Contract will commence to run on [REDACTED], 20[REDACTED]. [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:  
[Note any access limitations, security procedures, or other restrictions]

Owner: Bracken County Water District

Authorized Signature

By:

Title: Chairman

Date Issued:

Copy: Engineer

## **BONDS & CERTIFICATES**



**SECTION 00600**

**INSURANCE CERTIFICATE**

Certificate of Insurance shall be provided in accordance with the General Conditions, this Division, Section 00710.

END OF SECTION





## PERFORMANCE BOND

CONTRACTOR *(name and address):*

SURETY *(name and address of principal place of business):*

OWNER *(name and address):*

Bracken County Water District  
1324 Brooksville Germantown Road  
Brooksville, Kentucky 41004

### CONSTRUCTION CONTRACT

Effective Date of the Agreement:

Amount:

Description *(name and location):* Contract No. 2 - Water System Improvements Project

### BOND

Bond Number:

Date *(not earlier than the Effective Date of the Agreement of the Construction Contract):*

Amount:

Modifications to this Bond Form: ☐ None ☐ See Paragraph 16

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

### CONTRACTOR AS PRINCIPAL

### SURETY

\_\_\_\_\_  
Contractor's Name and Corporate Seal *(seal)*

\_\_\_\_\_  
Surety's Name and Corporate Seal *(seal)*

By: \_\_\_\_\_  
Signature

By: \_\_\_\_\_  
Signature *(attach power of attorney)*

\_\_\_\_\_  
Print Name

\_\_\_\_\_  
Print Name

\_\_\_\_\_  
Title

\_\_\_\_\_  
Title

Attest: \_\_\_\_\_  
Signature

Attest: \_\_\_\_\_  
Signature

\_\_\_\_\_  
Title

\_\_\_\_\_  
Title

EJCDC® C-610, Performance Bond

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16041/3/6/2018

PERFORMANCE BOND

**Notes: (1) Provide supplemental execution by any additional parties, such as joint venturers. (2) Any singular reference to Contractor, Surety, Owner, or other party shall be considered plural where applicable.**

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

2. If the Contractor performs the Construction Contract, the Surety and the Contractor shall have no obligation under this Bond, except when applicable to participate in a conference as provided in Paragraph 3.

3. If there is no Owner Default under the Construction Contract, the Surety's obligation under this Bond shall arise after:

3.1 The Owner first provides notice to the Contractor and the Surety that the Owner is considering declaring a Contractor Default. Such notice shall indicate whether the Owner is requesting a conference among the Owner, Contractor, and Surety to discuss the Contractor's performance. If the Owner does not request a conference, the Surety may, within five (5) business days after receipt of the Owner's notice, request such a conference. If the Surety timely requests a conference, the Owner shall attend. Unless the Owner agrees otherwise, any conference requested under this Paragraph 3.1 shall be held within ten (10) business days of the Surety's receipt of the Owner's notice. If the Owner, the Contractor, and the Surety agree, the Contractor shall be allowed a reasonable time to perform the Construction Contract, but such an agreement shall not waive the Owner's right, if any, subsequently to declare a Contractor Default;

3.2 The Owner declares a Contractor Default, terminates the Construction Contract and notifies the Surety; and

3.3 The Owner has agreed to pay the Balance of the Contract Price in accordance with the terms of the Construction Contract to the Surety or to a contractor selected to perform the Construction Contract.

4. Failure on the part of the Owner to comply with the notice requirement in Paragraph 3.1 shall not constitute a failure to comply with a condition precedent to the Surety's obligations, or release the Surety from its obligations, except to the extent the Surety demonstrates actual prejudice.

5. 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:

5.1 Arrange for the Contractor, with the consent of the Owner, to perform and complete the Construction Contract;

5.2 Undertake to perform and complete the Construction Contract itself, through its agents or independent contractors;

5.3 Obtain bids or negotiated proposals from qualified contractors acceptable to the Owner for a contract for performance and completion of the Construction Contract,

arrange for a contract to be prepared for execution by the Owner and a contractor selected with the Owners concurrence, to be secured with performance and payment bonds executed by a qualified surety equivalent to the bonds issued on the Construction Contract, and pay to the Owner the amount of damages as described in Paragraph 7 in excess of the Balance of the Contract Price incurred by the Owner as a result of the Contractor Default; or

5.4 Waive its right to perform and complete, arrange for completion, or obtain a new contractor, and with reasonable promptness under the circumstances:

5.4.1 After investigation, determine the amount for which it may be liable to the Owner and, as soon as practicable after the amount is determined, make payment to the Owner; or

5.4.2 Deny liability in whole or in part and notify the Owner, citing the reasons for denial.

6. If the Surety does not proceed as provided in Paragraph 5 with reasonable promptness, the Surety shall be deemed to be in default on this Bond seven 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 5.4, and the Owner refuses the payment 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.

7. If the Surety elects to act under Paragraph 5.1, 5.2, or 5.3, then the responsibilities of the Surety to the Owner shall not be greater than those of the Contractor under the Construction Contract, and the responsibilities of the Owner to the Surety shall not be greater than those of the Owner under the Construction Contract. Subject to the commitment by the Owner to pay the Balance of the Contract Price, the Surety is obligated, without duplication for:

7.1 the responsibilities of the Contractor for correction of defective work and completion of the Construction Contract;

7.2 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 5; and

7.3 liquidated damages, or if no liquidated damages are specified in the Construction Contract, actual damages caused by delayed performance or non-performance of the Contractor.

8. If the Surety elects to act under Paragraph 5.1, 5.3, or 5.4, the Surety's liability is limited to the amount of this Bond.

9. The Surety shall not be liable to the Owner or others for obligations of the Contractor that are unrelated to the Construction 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, successors, and assigns.

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

11. Any proceeding, legal or equitable, under this Bond may be instituted in any court of competent jurisdiction in the location in which the work or part of the work is located and shall be instituted within two years after a declaration of Contractor Default or within two years after the Contractor ceased working or within two 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 periods of limitations 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 address shown on the page on which their signature appears.

13. When this Bond has been furnished to comply with a statutory or other legal requirement in the location where the construction was to be performed, any provision in this 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. When so furnished, the intent is that this Bond shall be construed as a statutory bond and not as a common law bond.

#### 14. Definitions

14.1 Balance of the Contract Price: The total amount payable by the Owner to the Contractor under the Construction

Contract after all proper adjustments have been made including allowance for the Contractor for 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 Construction Contract.

14.2 Construction Contract: The agreement between the Owner and Contractor identified on the cover page, including all Contract Documents and changes made to the agreement and the Contract Documents.

14.3 Contractor Default: Failure of the Contractor, which has not been remedied or waived, to perform or otherwise to comply with a material term of the Construction Contract.

14.4 Owner Default: Failure of the Owner, which has not been remedied or waived, to pay the Contractor as required under the Construction Contract or to perform and complete or comply with the other material terms of the Construction Contract.

14.5 Contract Documents: All the documents that comprise the agreement between the Owner and Contractor.

15. If this Bond is issued for an agreement between a contractor and subcontractor, the term Contractor in this Bond shall be deemed to be Subcontractor and the term Owner shall be deemed to be Contractor.

16. Modifications to this Bond are as follows:

## PAYMENT BOND

CONTRACTOR (name and address):

SURETY (name and address of principal place of business):

OWNER (name and address)

Bracken County Water District  
1324 Brooksville Germantown Road  
Brooksville, KY 41004

### CONSTRUCTION CONTRACT

Effective Date of the Agreement:

Amount:

Description (name and location): Contract No. 2 – Water System Improvements Project

### BOND

Bond Number:

Date (not earlier than the Effective Date of the Agreement of the Construction Contract):

Amount:

Modifications to this Bond Form: ☐ None ☐ See Paragraph 18

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

### CONTRACTOR AS PRINCIPAL

### SURETY

\_\_\_\_\_  
Contractor's Name and Corporate Seal

\_\_\_\_\_  
Surety's Name and Corporate Seal

By: \_\_\_\_\_  
Signature

By: \_\_\_\_\_  
Signature (attach power of attorney)

\_\_\_\_\_  
Print Name

\_\_\_\_\_  
Print Name

\_\_\_\_\_  
Title

\_\_\_\_\_  
Title

Attest: \_\_\_\_\_

Attest: \_\_\_\_\_

Signature

Signature

Title

Title

***Notes: (1) Provide supplemental execution by any additional parties, such as joint venturers. (2) Any singular reference to Contractor, Surety, Owner, or other party shall be considered plural where applicable.***



1. The Contractor and 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 Construction Contract, which is incorporated herein by reference, subject to the following terms.
2. If the Contractor promptly makes payment of all sums due to Claimants, and defends, indemnifies, and holds harmless the Owner from claims, demands, liens, or suits by any person or entity seeking payment for labor, materials, or equipment furnished for use in the performance of the Construction Contract, then the Surety and the Contractor shall have no obligation under this Bond.
3. If there is no Owner Default under the Construction Contract, the Surety's obligation to the Owner under this Bond shall arise after the Owner has promptly notified the Contractor and the Surety (at the address described in Paragraph 13) of claims, demands, liens, or suits against the Owner or the Owner's property by any person or entity seeking payment for labor, materials, or equipment furnished for use in the performance of the Construction Contract, and tendered defense of such claims, demands, liens, or suits to the Contractor and the Surety.
4. When the Owner has satisfied the conditions in Paragraph 3, the Surety shall promptly and at the Surety's expense defend, indemnify, and hold harmless the Owner against a duly tendered claim, demand, lien, or suit.
5. The Surety's obligations to a Claimant under this Bond shall arise after the following:
  - 5.1 Claimants who do not have a direct contract with the Contractor,
    - 5.1.1 have furnished a written notice of non-payment to the Contractor, stating with substantial accuracy the amount claimed and the name of the party to whom the materials were, or equipment was, furnished or supplied or for whom the labor was done or performed, within ninety (90) days after having last performed labor or last furnished materials or equipment included in the Claim; and
    - 5.1.2 have sent a Claim to the Surety (at the address described in Paragraph 13).
  - 5.2 Claimants who are employed by or have a direct contract with the Contractor have sent a Claim to the Surety (at the address described in Paragraph 13).
6. If a notice of non-payment required by Paragraph 5.1.1 is given by the Owner to the Contractor, that is sufficient to satisfy a Claimant's obligation to furnish a written notice of non-payment under Paragraph 5.1.1.
7. When a Claimant has satisfied the conditions of Paragraph 5.1 or 5.2, whichever is applicable, the Surety shall promptly and at the Surety's expense take the following actions:
  - 7.1 Send an answer to the Claimant, with a copy to the Owner, within sixty (60) days after receipt of the Claim, stating the amounts that are undisputed and the basis for challenging any amounts that are disputed; and
  - 7.2 Pay or arrange for payment of any undisputed amounts.
  - 7.3 The Surety's failure to discharge its obligations under Paragraph 7.1 or 7.2 shall not be deemed to constitute a waiver of defenses the Surety or Contractor may have or acquire as to a Claim, except as to undisputed amounts for which the Surety and Claimant have reached agreement. If, however, the Surety fails to discharge its obligations under Paragraph 7.1 or 7.2, the Surety shall indemnify the Claimant for the reasonable attorney's fees the Claimant incurs thereafter to recover any sums found to be due and owing to the Claimant.
8. The Surety's total obligation shall not exceed the amount of this Bond, plus the amount of reasonable attorney's fees provided under Paragraph 7.3, and the amount of this Bond shall be credited for any payments made in good faith by the Surety.
9. Amounts owed by the Owner to the Contractor under the Construction Contract shall be used for the performance of the Construction Contract and to satisfy claims, if any, under any construction 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 Construction Contract are dedicated to satisfy obligations of the Contractor and Surety under this Bond, subject to the Owner's priority to use the funds for the completion of the work.
10. The Surety shall not be liable to the Owner, Claimants, or others for obligations of the Contractor that are unrelated to the Construction Contract. The Owner shall not be liable for the payment of any costs or expenses of any Claimant under this Bond, and shall have under this Bond no obligation to make payments to or give notice on behalf of Claimants, or otherwise have any obligations to Claimants under this Bond.
11. The Surety hereby waives notice of any change, including changes of time, to the Construction Contract or to related subcontracts, purchase orders, and other obligations.

12. No suit or action shall be commenced by a Claimant under this Bond other than in a court of competent jurisdiction in the state in which the project that is the subject of the Construction Contract is located or after the expiration of one year from the date (1) on which the Claimant sent a Claim to the Surety pursuant to Paragraph 5.1.2 or 5.2, 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.

13. Notice and Claims to the Surety, the Owner, or the Contractor shall be mailed or delivered to the address shown on the page on which their signature appears. Actual receipt of notice or Claims, however accomplished, shall be sufficient compliance as of the date received.

14. When this Bond has been furnished to comply with a statutory or other legal requirement in the location where the construction was to be performed, any provision in this 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. When so furnished, the intent is that this Bond shall be construed as a statutory bond and not as a common law bond.

15. Upon requests by any person or entity appearing to be a potential beneficiary of this Bond, the Contractor and Owner shall promptly furnish a copy of this Bond or shall permit a copy to be made.

## 16. Definitions

16.1 **Claim:** A written statement by the Claimant including at a minimum:

1. The name of the Claimant;
2. The name of the person for whom the labor was done, or materials or equipment furnished;
3. A copy of the agreement or purchase order pursuant to which labor, materials, or equipment was furnished for use in the performance of the Construction Contract;
4. A brief description of the labor, materials, or equipment furnished;
5. The date on which the Claimant last performed labor or last furnished materials or equipment for use in the performance of the Construction Contract;
6. The total amount earned by the Claimant for labor, materials, or equipment furnished as of the date of the Claim;
7. The total amount of previous payments received by the Claimant; and

8. The total amount due and unpaid to the Claimant for labor, materials, or equipment furnished as of the date of the Claim.

16.2 **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 Construction Contract. The term Claimant also includes any individual or entity that has rightfully asserted a claim under an applicable mechanic's lien or similar statute against the real property upon which the Project is located. The intent of this Bond shall be to include without limitation in the terms of "labor, materials, or equipment" that part of the water, gas, power, light, heat, oil, gasoline, telephone service, or rental equipment used in the Construction 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.

16.3 **Construction Contract:** The agreement between the Owner and Contractor identified on the cover page, including all Contract Documents and all changes made to the agreement and the Contract Documents.

16.4 **Owner Default:** Failure of the Owner, which has not been remedied or waived, to pay the Contractor as required under the Construction Contract or to perform and complete or comply with the other material terms of the Construction Contract.

16.5 **Contract Documents:** All the documents that comprise the agreement between the Owner and Contractor.

17. If this Bond is issued for an agreement between a contractor and subcontractor, the term Contractor in this Bond shall be deemed to be Subcontractor and the term Owner shall be deemed to be Contractor.

18. Modifications to this Bond are as follows:



## Contractor's Application for Payment No.

<b>Application Period</b>		<b>Application Date</b>	
To (Owner)     Bracken County Water District	From (Contractor)	Via (Engineer)	Kentucky Engineering Group, PLLC
Project     Water System Improvements Project	Contract     Contract No 2 - Water System Improvements		
Owner's Contract No <div style="text-align: center;">N/A</div>	Contractor's Project No	Engineer's Project No	16041

### Application For Payment Change Order Summary

Approved Change Orders				\$
Number	Additions	Deductions		
			1. ORIGINAL CONTRACT PRICE.....	\$
			2. Net change by Change Orders.....	\$
			3. Current Contract Price (Line 1 ± 2).....	\$
			4. TOTAL COMPLETED AND STORED TO DATE	
			(Column F total on Progress Estimates).....	\$
			5. RETAINAGE:	
			a.     X     Work Completed.....	\$
			b.     X     Stored Material.....	\$
			c. Total Retainage (Line 5.a + Line 5.b).....	\$
			6. AMOUNT ELIGIBLE TO DATE (Line 4 - Line 5.c).....	\$
			7. LESS PREVIOUS PAYMENTS (Line 6 from prior Application).....	\$
			8. AMOUNT DUE THIS APPLICATION.....	\$
			9. BALANCE TO FINISH, PLUS RETAINAGE	
			(Column G total on Progress Estimates + Line 5.c above).....	\$
TOTALS				
NET CHANGE BY				
CHANGE ORDERS				

#### Contractor's Certification

The undersigned Contractor certifies to the best of its knowledge, the following

(1) All previous progress payments received from Owner on account of Work done under the Contract have been applied on account to discharge Contractor's legitimate obligations incurred in connection with the Work covered by prior Applications for Payment.

(2) Title to all Work, materials and equipment incorporated in said Work, or otherwise listed in or covered by this Application for Payment, will pass to Owner at time of payment free and clear of all Liens, security interests, and encumbrances (except such as are covered by a bond acceptable to Owner indemnifying Owner against any such Liens, security interest, or encumbrances), and

(3) All the Work covered by this Application for Payment is in accordance with the Contract Documents and is not defective

#### Contractor Signature

By \_\_\_\_\_ Date \_\_\_\_\_

Payment of \$ \_\_\_\_\_  
(Line 8 or other - attach explanation of the other amount)

is recommended by \_\_\_\_\_ (Date)  
Kentucky Engineering Group, PLLC

Payment of \$ \_\_\_\_\_  
(Line 8 or other - attach explanation of the other amount)

is approved by \_\_\_\_\_ (Date)  
Bracken County Water District

Approved by \_\_\_\_\_ (Date)  
Rural Development



**Change Order No.** \_\_\_\_\_

<b>Date of Issuance:</b>	<b>Effective Date:</b>
<b>Owner:</b> Bracken County Water District	<b>Owner's Contract No.:</b>
<b>Contractor:</b>	<b>Contractor's Project No.:</b>
<b>Engineer:</b> Kentucky Engineering Group, PLLC	<b>Engineer's Project No.:</b> 16041
<b>Project:</b> Water System Improvements	<b>Contract Name:</b> Contract No. 2- Water System Improvements

The Contract is modified as follows upon execution of this Change Order:

**Description:**

**Attachments:** *[List documents supporting change]*

CHANGE IN CONTRACT PRICE	CHANGE IN CONTRACT TIMES <i>[note changes in Milestones if applicable]</i>
Original Contract Price:  \$ _____	Original Contract Times: Substantial Completion: _____ Ready for Final Payment: _____ days or dates
[Increase] [Decrease] from previously approved Change Orders No. ____ to No. ____:  \$ _____	[Increase] [Decrease] from previously approved Change Orders No. ____ to No. ____: Substantial Completion: _____ Ready for Final Payment: _____ days
Contract Price prior to this Change Order:  \$ _____	Contract Times prior to this Change Order: Substantial Completion: _____ Ready for Final Payment: _____ days or dates
[Increase] [Decrease] of this Change Order:  \$ _____	[Increase] [Decrease] of this Change Order: Substantial Completion: _____ Ready for Final Payment: _____ days or dates
Contract Price incorporating this Change Order:  \$ _____	Contract Times with all approved Change Orders: Substantial Completion: _____ Ready for Final Payment: _____ days or dates

<b>RECOMMENDED:</b>		<b>ACCEPTED:</b>		<b>ACCEPTED:</b>	
By: _____	By: _____	By: _____	By: _____	By: _____	By: _____
Engineer (if required)	Owner (Authorized Signature)	Contractor (Authorized Signature)			
Title: _____	Title: _____	Title: _____			
Date: _____	Date: _____	Date: _____			

Approved by Funding Agency (if applicable)

By: \_\_\_\_\_ Date: \_\_\_\_\_  
Title: \_\_\_\_\_

EJCDC® C-941, Change Order.

Prepared and published 2013 by the Engineers Joint Contract Documents Committee.

Page 1 of 2

Job #/3/6/2018

**CHANGE ORDER**



## CERTIFICATE OF SUBSTANTIAL COMPLETION

Owner: Bracken County Water District	Owner's Contract No.:
Contractor:	Contractor's Project No.:
Engineer: Kentucky Engineering Group, PLLC	Engineer's Project No.: 16041
Project: Water System Improvements	Contract Name: Contract No.2

**This [preliminary] [final] Certificate of Substantial Completion applies to:**

☐ All Work ☐ The following specified portions of the Work:

### Date of Substantial Completion

The Work to which this Certificate applies has been inspected by authorized representatives of Owner, Contractor, and Engineer, and found to be substantially complete. The Date of Substantial Completion of the Work or portion thereof designated above is hereby established, subject to the provisions of the Contract pertaining to Substantial Completion. The date of Substantial Completion in the final Certificate of Substantial Completion marks the commencement of the contractual correction period and applicable warranties required by the Contract.

A punch list of items to be completed or corrected is attached to this Certificate. This list may not be all-inclusive, and the failure to include any items on such list does not alter the responsibility of the Contractor to complete all Work in accordance with the Contract.

The responsibilities between Owner and Contractor for security, operation, safety, maintenance, heat, utilities, insurance, and warranties upon Owner's use or occupancy of the Work shall be as provided in the Contract, except as amended as follows: *[Note: Amendments of contractual responsibilities recorded in this Certificate should be the product of mutual agreement of Owner and Contractor; see Paragraph 15.03.D of the General Conditions.]*

Amendments to Owner's responsibilities: ☐ None ☐ As follows

Amendments to Contractor's responsibilities: ☐ None ☐ As follows:

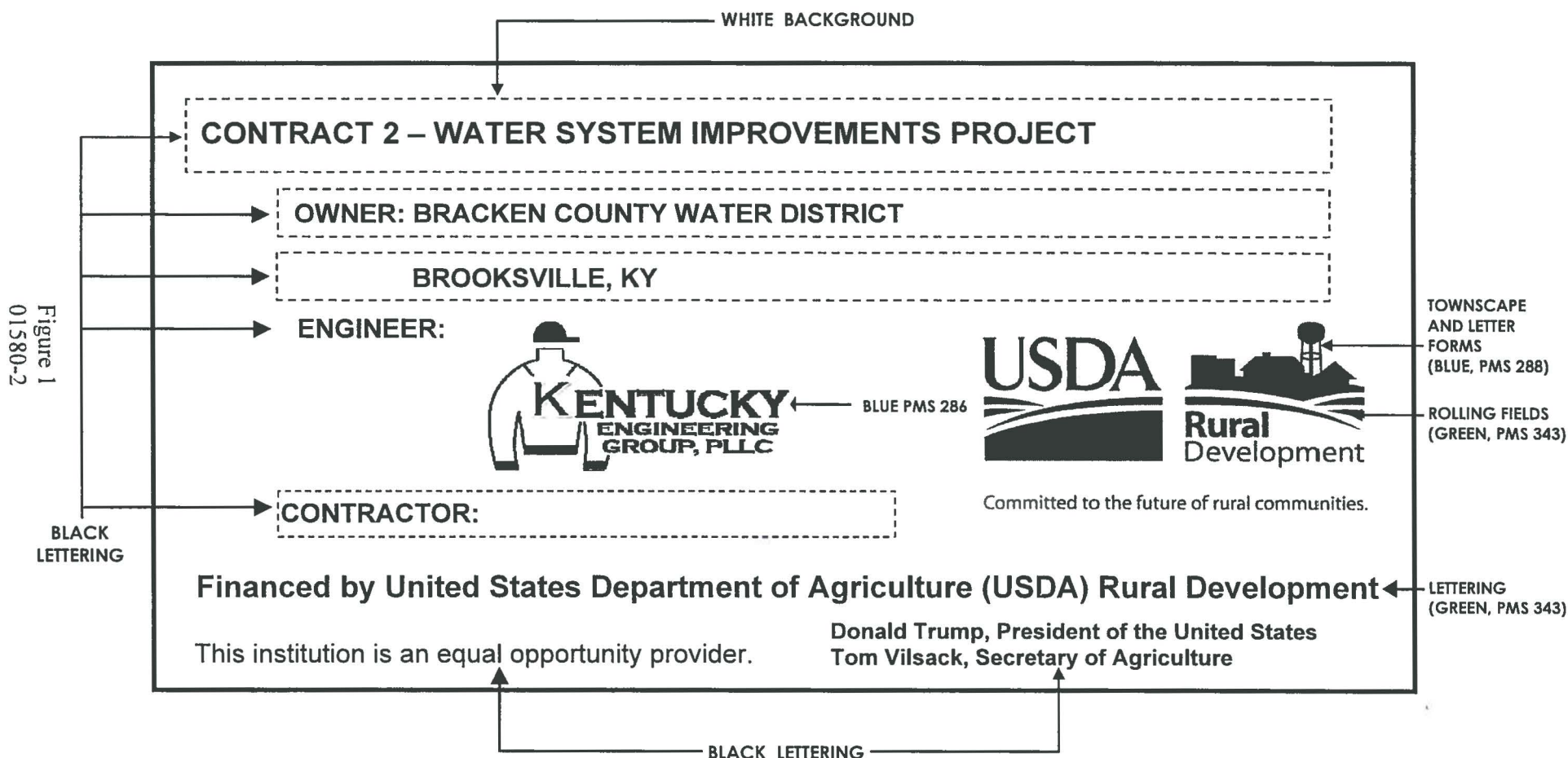
The following documents are attached to and made a part of this Certificate: *[punch list; others]*

This Certificate does not constitute an acceptance of Work not in accordance with the Contract Documents, nor is it a release of Contractor's obligation to complete the Work in accordance with the Contract.

EXECUTED BY ENGINEER:	RECEIVED:	RECEIVED:
By: _____ (Authorized signature)	By: _____ Owner (Authorized Signature)	By: _____ Contractor (Authorized Signature)
Title: _____	Title: _____	Title: _____
Date: _____	Date: _____	Date: _____



# TEMPORARY CONSTRUCTION SIGN FOR USDA RURAL DEVELOPMENT PROJECTS



**SIGN DIMENSIONS:** 1200 mm x 2400 mm x 19 mm (approx. 4' x 8' x 3/4")  
PLYWOOD PANEL (APA RATED A-B GRADE-EXTERIOR)

**CERTIFICATE OF OWNER'S ATTORNEY AND AGENCY CONCURRENCE****CERTIFICATE OF OWNER'S ATTORNEY**

**PROJECT NAME:** Contact No. 2 - Water System Improvements Project

---

**CONTRACTOR NAME:**

---

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.

---

Name

Date

**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 Representative

Date

---

Name

UNITED STATES DEPARTMENT OF AGRICULTURE  
Rural Utilities Service  
KENTUCKY BULLETIN 1780-2

**SUBJECT:** Guidance for Implementation of American Iron and Steel (AIS).

**TO:** Applicants, Consulting Engineers, Contractors, and Manufacturers

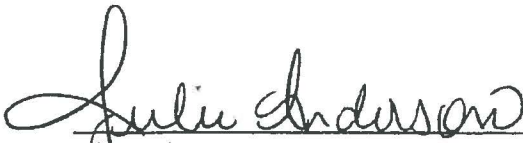
**EFFECTIVE DATE:** Date of approval.

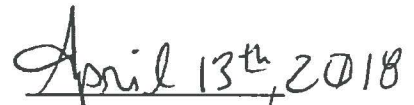
**INSTRUCTIONS:** This is a new Bulletin and does not replace any existing Kentucky Bulletin.

**AVAILABILITY:** This Bulletin, as well as any RD or RUS instructions, regulations, or forms referenced in this Bulletin are available at any RD State Office or Area Office. The State Office staff is familiar with the use of the documents and can answer specific questions or RD requirements.

The basic concept of this new requirement is that all iron and steel products used in projects funded by RUS WEP must be produced in the United States. Iron and steel products are defined on page 14 of this Bulletin.

**PURPOSE:** This Bulletin provides information and guidance to effected parties regarding the AIS Requirements mandated by Section 746 of Title VII Consolidated Appropriations Act of 2017 (Division A-Agriculture, Rural Development, Food and Drug Administration, and Related Agencies Appropriations Act, 2017) and subsequent statues mandating domestic preference.

  
Julie Anderson  
State Engineer  
Water and Environmental Programs

  
Date



## TABLE OF CONTENTS

1.	BACKGROUND.....	3
2.	APPCILABILITY.....	3
3.	IMPLEMENTATION.....	4
4.	OWNER RESPONSIBILITIES.....	5
5.	ENGINEER RESPONSIBILITIES.....	5
6.	CONTRACTOR RESPONSIBILITIES.....	6
7.	MANUFACTURER, SUPPLIER, DISTRIBUTOR RESPONSIBILITIES.....	7
8.	RESPONSIBILITIES UNDER THE GUARANTEED LOAN PROGRAM.....	8
9.	ECWAG.....	8
10.	AGREEMENT BETWEEN OWNER & ENGINEER (E-500).....	8
11.	BIDDING AND CONSTRUCTION CONTRACT DOCUMENTS (EJCDC C-SERIES, 2013).....	10
12.	PURCHASE OF EQUIPMENT AND MATERIALS.....	17
13.	WAIVER PROCESS.....	17
14.	MONITORING.....	19
15.	NON-COMPLIANCE.....	19
16.	INTERNATIONAL AGREEMENTS.....	20
17.	USE OF EXHIBITS.....	20

1. BACKGROUND

- A. Section 746 of Title VII Consolidated Appropriations Act of 2017 (Division A- Agriculture, Rural Development, Food and Drug Administration, and Related Agencies Appropriations Act, 2017) and subsequent statutes mandating domestic preference. It applies a new American Iron and Steel (AIS) requirement on the Rural Development (RD) WEP program.
- B. Statutory Language: SEC 746 Division A Title VII the Consolidated Appropriations Act of 2017.
  - (1) No Federal funds made available for this fiscal year for the rural water, waste water, waste disposal, and solid waste management programs authorized by sections 306, 306A, 306C, 306D, and 310B of the Consolidated Farm and Rural Development Act (7 USC 1926 et seq.) shall be used for a project for the construction, alteration, maintenance, or repair of a public water or wastewater system unless all of the iron and steel products used in the project are produced in the United States.
  - (2) In this section, the term "iron and steel products" means the following products made primarily of iron or steel: lined or unlined pipe flanges, manhole covers, and other municipal castings, hydrants, tanks, flanges, pipe clamps and restraints, valves, structural steel, reinforced precast concrete, and construction materials.

2. APPLICABILITY

- A. The requirements of AIS apply only to projects that construct, alter, enlarge, extend, maintain, repair or otherwise improve rural water, sanitary sewage, solid waste disposal, and storm wastewater disposal facilities.
- B. The requirements apply to projects using funds from RD WEP. Any amount of funding from this program requires compliance with the AIS requirements. Use of funds from this program is not allowed unless the requirements for AIS are met for the entire project. Projects that leverage funds from other funding sources are also subject to the requirements.
- C. The requirements apply in the United States as defined in Section 746 (g) of the statute and therefore do not apply to projects located in Puerto Rico, the Virgin Islands, or Western Pacific Territories.
- D. The requirements apply to any used iron and steel products to be constructed in the project.
- E. The requirements do not apply to projects for which any funds were obligated on or before May 5, 2017. The requirements therefore do not apply to subsequent obligation of funds for projects which had an initial obligation of funds on or before May 5, 2017.
- F. The requirements do not apply to contracts which were executed prior to or on May 5, 2017, regardless of date of obligation.

- G. The requirements do not apply to projects for which contracts were executed and/or construction is already underway and/or completed prior to applying to USDA for funding.
  - H. The requirements do not apply to products primarily composed of iron and/or steel (composed of more than 50%) if they are not listed in the statute.
  - I. The requirements do not apply to raw materials used in the production of iron or steel such as iron ore, limestone, scrap iron and scrap steel.
  - J. The requirements do not apply to any items that are at the construction site temporarily, such as scaffolding, trench boxes, and equipment temporarily used or stored on site.
  - K. The requirements do not apply when the sole purpose of the loan and/or grant is to fund non-construction activities such as capacity/connection fees or the acquisition of a system.
  - L. The requirements supersede any regulation on full and open competition stated in 7 CFR 1780.70 (b) and 2 CFR Part 200.319. For example, if an iron and steel product that is compliant with AIS is made by only one manufacturer, provided documentation is submitted and verified, sole source procurement of said product may be used.
  - M. The requirements only apply to the final product as delivered to the work site and incorporated into the project. The need for compliance of an item with AIS depends on whether or not the final assembled product is listed. Components of a final product, even if they are listed, do not need to comply with the AIS requirements. In the case of an assembled product where the primary component is not listed in the 2017 Consolidated Appropriations Act and includes components/appurtenances that are specifically listed, said assembled product is not subject to AIS (e.g. pump assembly).
3. IMPLEMENTATION (Agency, Owner, Engineer, Contractor, manufacturer's et al)
- A. There are several parties involved in compliance with the AIS requirement and some requirements are specific to a party.
  - B. The parties that have one or more responsibilities under AIS include: the Agency funding recipients under the Water and Waste Disposal Loan and Grant program and Guaranteed Loan Program, consulting engineers, construction contractors, suppliers, distributors, manufacturers; lenders under the Guaranteed Loan Program; and grantees under 306C and ECWAG programs.



4. OWNER RESPONSIBILITIES:

- A. Sign loan resolutions, grant agreements and letters of intent to meet conditions which include AIS language, accepting AIS requirements in those documents and in the letter of conditions.
- B. Sign Agreement for Engineering Services, executed construction contracts and all other appropriate and necessary documents which include AIS language.
- C. Acknowledge responsibility for compliance with AIS requirements by signing change orders (i.e. C-941 of EJCDC or RD Form 1924-7) and partial payment estimates (i.e. C-602 of EJCDC or RD Form 1924-18).
- D. Obtain the certification letters from the Engineer once substantial completion has been achieved and maintain this documentation for the life of the loan.
- E. In special cases where the Owner provides its' own engineering and/or construction services, provide copies of Engineer's Certification Letter (Exhibit B) and Contractor's Certification Letter (Exhibit C) to the Agency. Manufacturer's Certification Letter (Exhibit D) must be obtained by the Owner for each AIS qualifying product. All certification letters must be kept in the Engineer's project file and on site during construction. For Owner Construction (Force Account), all AIS clauses from Section 11 must be included in the Agreement for Engineering Services.

5. ENGINEER RESPONSIBILITIES

- A. Costs of compliance with AIS should be included in the engineering fees (if appropriate) and in Engineer's opinions of probable project costs.
- B. Develop the initial AIS Materials List (Exhibit J) for each contract using project specifications and include the initial qualifying list with the bid documents. An excel version that will compute all totals can be obtained from the RD State Office that can be used as a working copy.
- C. Include AIS language (Section 11) in the Agreement for Engineering Services.
- D. Plans, specifications, bidding documents and bid addenda must include required AIS language (Section 12). For any AIS products specified by brand names, obtain a Manufacturer's Certification Letter (Exhibit D) from the manufacturer to verify the products comply with AIS.
- E. Certify that plans, specifications, and bidding documents comply with AIS and commit that bid addenda, executed contracts and change orders will comply with AIS and submit Engineer's Certification Letter (Exhibit B) to the Agency prior to authorization to advertise for bids.

- F. Provide a copy of the Manufacturer's Certification Letter (Exhibit D) on any specified brand name AIS products in the plans, specifications and bidding documents including any bid addenda to the Contractor.
  - G. Coordinate with the Contractor(s) to compile a complete AIS Materials List (Exhibit J) for each contract, sign and date, and provide a copy to the Agency in the construction contract(s).
  - H. Review shop drawings and change orders to ensure compliance with AIS. For shop drawings under consideration for any brand name, equal and/or substitute, any iron and steel products subject to AIS, obtain the Manufacturer's Certification Letter (Exhibit D) from the Contractor to verify the products comply with AIS.
  - I. Keep all certification letters (including those from the Engineer, Contractor, and any manufacturer providing AIS products) in the Engineer's project file.
  - J. Review AIS Materials List (Exhibit J) submitted with each invoice to verify accuracy and sign and date.
  - K. For any change order under consideration for any AIS products, obtain a Manufacturer's Certification Letter (Exhibit D) from party submitting the change proposal to ensure compliance with AIS.
  - L. Acknowledge responsibility for compliance with AIS requirements by signing change orders (i.e. C-941 of EJCDC or RD Form 1927-7) and partial pay estimates (i.e. C-620 of EJCDC or RD Form 1924-18).
  - M. Upon substantial completion of project, obtain the Contractor's Certification Letter (Exhibit C) and a complete and final AIS Materials List (Exhibit J) to submit to the RD State Engineer. Obtain copies of any/all manufacturers' certification letters for all AIS products used in the project to be kept in the Owner's project file.
  - N. Resident project representative (RPR) reports must include verification, either by picture or written statement, that an item subject to AIS was installed and was in compliance with requirements.
6. CONTRACTOR RESPONSIBILITIES
- A. Review the Engineer's AIS Materials List (Exhibit J) prior to bid preparation.
  - B. Bid submittal with a request for consideration from a proposed equal or substitute should also include a Manufacturer's Certification Letter (see Exhibit D) to verify the products comply with AIS.
  - C. Upon award of the contract, obtain copies of any and all manufacturers' certification letters from the Engineer for brand name products specified by the Engineer.

- D. Work with the Engineer to compile a complete AIS Materials List (Exhibit J) for each contract as bid.
  - E. Shop drawing submittals for proposed equals, substitutes, and any iron and steel product subject to AIS, provide a Manufacturer's Certification Letter (Exhibit D) to verify the product complies with AIS.
  - F. Prior to construction, ensure that copies of any and all manufacturers' certification letters, including those from others (e.g. Engineer, Owner, etc.), for any AIS products to be used in the project are in the project file on site prior to installation.
  - G. Pay request must have an updated AIS Materials List (Exhibit J) submitted with each pay request. All columns must be filled out completely as applicable. Do not complete columns under "De Minimis Materials Only" for qualifying materials. Sign and date. An excel version that will compute all totals can be obtained from the RD State Office that can be used as a working copy.
  - H. Change orders for any AIS products must include a Manufacturer's Certification Letter (Exhibit D) to the Engineer to verify the products comply with AIS.
  - I. Acknowledge responsibility for compliance with AIS requirement by signing change orders (i.e. C-941 of EJCDC or RD Form 1924-7) and partial pay estimates (C-620 of EJCDC or RD Form 1924-18).
  - J. Keep all manufacturer certification letters (including those from the Engineer, Contractor and any manufacturer providing AIS products) on site during construction in the construction project file.
  - K. Upon substantial completion of the project, provide Contractor's Certification Letter (Exhibit C) to the Engineer that all iron and steel products installed comply with AIS
7. MANUFACTURER, SUPPLIER, DISTRIBUTOR RESPONSIBILITIES
- A. If iron and steel products are produced in the United States as defined in this Bulletin, prepare (applicable to manufacturers and fabricators) or obtain (applicable to suppliers, distributors, vendors, etc.) Manufacturer's Certification Letters (Exhibit D) and make available upon request to Engineer, Contractor, etc.
8. RESPONSIBILITIES UNDER THE GUARANTEED LOAN PROGRAM
- AIS applies to projects funded by Section 306A- Guaranteed Loan Program
- A. Lenders are responsible to ensure that loan recipients comply with AIS requirements.
  - B. Loan recipients are ultimately responsible for compliance with AIS requirements.



9. ECWAG

- A. If construction contracts were awarded and/or executed or construction began prior to application, these projects are not subject to AIS (Section 2).
- B. If construction contracts were awarded and/or executed or construction began during the application process, these projects are subject to AIS.

10. AGREEMENT BETWEEN OWNER AND ENGINEER (EJCDC E-500) PROVISIONS

- A. Article 5.01.A: Add the following "Opinions of probable cost and any revisions thereof should reflect compliance with American Iron and Steel (AIS) requirements mandated in the Consolidated Appropriations Act of 2017 and any subsequent mandating domestic preferences."
- B. Add paragraph 5.03.B: "Opinions of total project cost and any revisions thereof should reflect compliance with AIS and any subsequent statutes mandating domestic preference."
- C. Add paragraph A.1.03.A.13: "Services required to determine and certify that to the best of the Engineer's knowledge and belief that all iron and steel products referenced in engineering analysis, the plans, specifications, bidding documents, and associated bid addenda requiring design revisions are either produced in the US or are subject to approved waiver. Services required to determine to the best of the Engineer's knowledge and belief that approved substitutes, equals, and all iron and steel products proposed in the shop drawings, change orders and partial payment estimates are either produced in the US, or are subject of an approved waiver. The de minimis and minor components waiver {add project specific waivers if applicable} apply to this contract."
- D. Add paragraph A.1.04.A.10: "Provide copies of all manufacturers' certification letters to the Bidders on brand name iron and steel products along with plans, specifications and bidding documents. Manufacturers' certification letters are to be included in the bidding documents and must be kept in the Engineer's project file and in site during construction."
- E. Add paragraph A.1.04.11: "Provide copies of all manufacturers' certification letters to the Contractor on any brand name iron and steel products along with the plans, specifications, bidding documents. Including any bid addenda and change orders. Manufacturers' certification letters must be kept in the Engineer's project file for the duration of construction."
- F. Add paragraph A.1.04.12: "Develop AIS Materials list (Exhibit J) for bidding purposes and finalize with the Contractor for tracking. Review updated AIS Materials list for accuracy each month and include in each pay request. An excel version that will compute all totals can be obtained from the RD State Office that can be used as a working copy."

- G. Modify A.1.05.A.17: Add the following prior to the first sentence "Review and approve, or take other appropriate action, with respect to shop drawings, samples, and other required Contractor submittals to ensure compliance with AIS requirements and any subsequent statutes mandating domestic preference. Any iron and steel products included in any submittal by the Contractor, must include the Manufacturer's Certification Letter (Exhibit D) to verify the products were produced in the U.S. Copies of these letters must be kept in the Engineer's project file and on site during construction."
- H. Article A.1.05.A.18: Add the following at the end of the paragraph as amended by Kentucky Bulletin 1780-1 "Prior to approval of any substitute "or equal" obtain the Manufacturer's Certification Letter (Exhibit D) to verify the products were produced in the U.S. Manufacturers' certification letters must be kept in Engineer's project file and on site during construction to ensure compliance with AIS requirements and any subsequent statutes mandating domestic preference, if applicable."
- I. Add subparagraph A.1.05.A.19.d: "Receive and review all manufacturers' certification letters for materials required to comply with AIS and any subsequent statutes mandating domestic preference to verify the products were procured in the U.S. Manufacturers' certification letters must be kept in the Engineer's project file on site during construction."
- J. Add subparagraph (c) to the end of A.1.05.A.20: (c) Review change proposals to ensure compliance with AIS requirements and any subsequent statutes mandating domestic preference."
- K. Add item "a" as a deliverable under paragraph A.1.05.A.25: (s) Obtain the Contractor's Certification Letter (Exhibit C) and copies of manufacturers' certification letters for all AIS used in the project. Upon substantial completion, provide copies of Engineer's, Contractor's, and all manufacturers' certification letters to the Owner. Attach Contractor's Certification Letter (Exhibit C) and a final AIS Materials List (Exhibit J) with letter of substantial completion and submit it to the Agency."
- L. Add the following language to B.2.02: "Owners are ultimately responsible for compliance with AIS and any subsequent statutes mandating domestic preference and will be responsible for the following:
  - 1. Signing loan resolutions, grant agreements and letter of intent to meet conditions which include AIS language, accepting AIS requirements in those documents and in the letter of conditions.
  - 2. Signing change orders (i.e. C-941 of EJCDC or RD Form 1924-7) and partial pay estimates (C-620 of EJCDC or RD Form 1924-18) and thereby acknowledging responsibility for compliance with AIS requirements.
  - 3. Obtaining all certification letters from the Engineer upon substantial completion of the project and maintaining this documentation for the life of the loan.

4. Where the Owner provides their own engineering and/or construction services, provide copies of Engineer's, and Contractor's certification letters to the Agency, and obtain all manufacturers' certification letters as required. All certification letters must be kept in the Engineer's project file and on site during construction. For Owner Construction (Force Account), all clauses from Section 11 must be included in the Agreement or Engineering Services.
  5. Where the Owner directly procures AIS products, including AIS clauses in the procurement contracts and obtaining manufacturers' certification letters and providing copies to consulting engineers and contractors.
- M. Add subparagraph D.1.01.C.11.g: "(g) Maintain all manufacturers' certification letters in the project file and on site during construction to ensure compliance with AIS requirements and any subsequent statutes mandating domestic preference, as applicable."
- N. Add the following at the end of D.1.01.c.11b: Daily reports should document installation of an AIS material and verify by picture or statement on the report that the manufacturer was the same as that listed on the AIS materials list and complied with AIS requirements.
11. BIDDING AND CONSTRUCTION CONTRACT DOCUMENTS (EJCDC C-SERIES, 2013)
- A. Advertisement for Bids (C-111)  
Add at the end of C-111 prior to the Owner's name: "Section 746 of Title VII of the Consolidated Appropriations Act of 2017 (Division A- Agriculture, Rural Development, Food and Drug Administration, and Related Agencies, Appropriations Act, 2017) and subsequent statutes mandating domestic preference applies to American Iron and Steel requirement to this project. All listed iron and steel products used in this project must be produced in the United States. The term "iron and steel products" means the following products made primarily of iron and steel: lines or unlined pipes and fittings, manhole covers and other municipal castings, hydrants, tanks, flanges, pipe clamps and restraints, valves, structural steel, reinforced precast concrete, and construction materials. The de minimis and minor components waiver {all project specific waivers as applicable} apply to this contract."
- B. Instruction to Bidders (C-200)
1. Article 5.01.C: Delete the semicolon at the end of the article and insert the following "included but not limited to the AIS requirements as mandated and any subsequent statutes mandating domestic preference which apply to the following products made primarily of iron or steel: lined or unlined pipes and fittings, manhole covers and other municipal castings, hydrants, tanks, flanges, pipe clamps and restraints, valves, structural steel, reinforced precast concrete, and construction materials.
  2. Article 11.01: Modify article as previously amended by Kentucky Bulletin 1780-1 by inserting the following sentence after "Each such request shall comply with the requirements of Paragraphs 7.04 and 7.05 of the General Conditions. Each such request shall include the Manufacturer's Certification Letter (Exhibit D) for compliance with AIS requirements and any subsequent statutes mandating domestic preference, if applicable.



3. Article 24.02: Add paragraph 24.02:Section 746 of Title VII Consolidated Appropriations Act of 2017 (Division A- Agriculture, Rural Development, Food and Drug Administration, and Related Agencies Appropriations Act, 2017) and any subsequent statues mandating domestic preference applies an American Iron and Steel requirement to this project. All iron and steel products used in this project must be procured in the United States. "Iron and Steel Products" is defined in Section 1.b.2. The de minimis and minor components waivers {add project specific waivers as applicable} apply to this contract."
- C. Bid Form (C-410)
1. Article 3.01.C: Add language at the end of the sentence "...and including all AIS requirements.
  2. Article 7.01: Add 7.01.K "Manufacturer's Certification Letter (Exhibit D) on any approved "or equal" or substitute request to ensure compliance with AIS requirements and any subsequent statutes mandating domestic preference.
- D. Supplementary General Conditions (C-800)
1. SC 1.01.A.51: "Manufacture's Certification Letter (Exhibit D) is documentation provided by the manufacturer, supplier, distributor, vendor, fabricator, etc. to various entities stating that the AIS products to be used in the project are produced in the U.S. in accordance with the AIS requirements.
  2. SC 1.01.A.52: "AIS refers to requirements mandated by Section 746 Title VII of the Consolidated Appropriation s Act of 2017 and any subsequent statutes mandating domestic preference. "Iron and Steel Products" is defined in Section 1.b.2.
  3. SC 7.03: Add sentence "all iron and steel must meet AIS requirements.
  4. SC 7.04.B.1: "Contractor shall include the Manufacturer's Certification Letter (Exhibit D) for compliance with AIS requirements to support data, if applicable. In addition, Contractor shall maintain an updated AIS Materials List (Exhibit J), to ensure that for de minimis waiver, cost is less than 5% of total materials cost for project and for minor components waiver, the cost of the non-domestically produced component is less than 5% of the total materials cost of the product." An excel version that will compute all totals can be obtained from the RD State Office that can be used as a working copy.
  5. SC 7.05.A.3.a4: "4) comply with AIS by providing the Manufacturer's Certification Letter (Exhibit D), if applicable.
  6. SC 7.11.A: Modify by inserting the following after "written interpretations and clarifications,"; "Manufacturer's Certification Letter (Exhibit D) is documentation provided by the manufacturer, supplier, distributor, vendor, fabricator, etc. to various entities stating that the iron and steel products to be used in the project are produced in the U.S. in accordance with AIS requirements.
  7. SC 7.16.A.1.e: "e. obtain the Manufacturer's Certification Letter (Exhibit D) for any item in the submittal subject to AIS requirements and include the certificate in the submittal.
  8. SC 7.16.D.9: "Engineer's review and approval of shop drawings or sample shall include review of compliance with AIS requirements, as applicable."

9. SC 7.17.E: "Contractor shall certify upon substantial completion that all work and materials has complied with AIS requirements as mandated and any subsequent statutes mandating domestic preference. Contractor shall provide Contractor's Certification Letter (Exhibit C) to Owner.
10. SC 10.10.A: "A: Services required to determine and certify that, to the best of the Engineer's knowledge and belief, all iron and steel products referenced in the engineering analysis, the plans, specifications, bidding documents, and associated bid addenda requiring design revisions are either produced in the U.S. or are the subject of an approved waiver. Services required to determine, to the best of the Engineer's knowledge and belief, that approved substitutes, equals, and all iron and steel products proposed in the shop drawings, change orders, and partial pay estimates are either produced in the U.S. or are the subject of an approved waiver under the Consolidate Appropriations Act of 2017.
11. SC 11.06.A.1: Modify by inserting the following sentence after "within 15 days after the submittal of the change proposal..." "Include supporting data (project name, name of manufacturer, city and state where the product was manufactured, description of product, signature of authorized manufacturer's representative) in the Manufacturer's Certification Letter (Exhibit D), as applicable."
12. SC 14.03G: Installation of materials that are non-compliant with AIS requirements shall be considered defective work.
13. SC 15.01.B.4: "4. By submitting materials for payment, Contractor is certifying that the submitted materials are compliant with AIS requirements. Manufacturers' Certification letter for Materials satisfy this certification. Refer to Manufacturer's Certification Letter provided in these Contract Documents.
14. SC 15.01.D.2: An updated AIS Materials List (See Exhibit J) included in these contract documents must be dated and signed and submitted with each pay request prior to payment being authorized. An excel version that will compute all totals can be obtained from the RD State Office that can be used as a working copy.
15. SC 15.01.C.2d: "d. The materials presented for payment comply with AIS requirements.
16. SC 15.03.A: Modify by adding the following "Services required to determine and certify that, to the best of the Contractor's knowledge and belief, all substitutes, equals, and iron and steel products proposed in the shop drawings, change orders, and partial payment estimates are produced in the U.S. or are the subject of an approved waiver. Services required to certify that, to the best of the Contractor's knowledge, all those products installed for the project are either produced in the U.S. or are the subject of an approved waiver.
17. SC19.14: Section 746 of Title VII of the Consolidated Appropriations Act of 2017 (Division A- Agriculture, Rural Development, Food and Drug Administration, and Related Agencies Appropriations Act, 2017) and any subsequent statutes mandating domestic preference applies in AIS requirement to this project. All iron and steel products used in this project must be produced in the U.S. The term "iron and steel products" is defined in Section 1.b.2. The de minimis and minor components waivers {add project specific waivers as applicable} apply to this contract."



18. SC 19.15: add Definitions:

"Assistance recipient" is the entity that received funding assistance from programs required to comply with AIS requirements in the Consolidated Appropriations Act of 2017 and any subsequent statutes mandating domestic preference. This term includes owner and/or applicant.

"Certifications" means the following:

- *Manufacturers'* certification is the documentation provided by the manufacturer or fabricator to various entities stating that the iron and steel products to be used in the project are produced in the U.S. in accordance with AIS requirements. If items are purchased via a supplier, distributor, vendor, etc. vs. direct from the manufacturer or fabricator directly, then the supplier, distributor, vendor, etc. will be responsible for obtaining and providing these certification letters to the parties purchasing the product.
- *Engineer's* certification is documentation that plans, specifications, and bidding documents comply with AIS.
- *Contractors'* certification is documentation submitted upon substantial completion of the project that all iron and steel products installed were produced in the U.S.

"Coating" means a covering that is applied to the surface of an object. If a coating is applied to the external surface of a domestic iron or steel component, and the application takes place outside of the U.S., said product will be considered a compliant product under the AIS requirements. Any coating processes that are applied to the external surface of iron and steel components that would otherwise be AIS compliant would not disqualify the product from meeting the AIS requirements regardless of where the coating processes occur, provided that final assembly of the product occurs in the U.S. This exemption only applies to coatings on the *external surface* of iron and steel products, such as the lining of lined pipes. All manufacturing processes for lined pipes, including the application of pipe lining, must occur in U.S. for the product to be compliant with AIS requirements.

"Contractor" is the individual or entity with which the applicant has contracted (or is expected to) to perform construction services (or for water and waste projects funded by the programs which are subject to AIS requirements). This includes bidders and/or contractors that have received an award from the applicant and any party having a direct contractual relationship with the owner/applicant. A general contractor is often referred to as the prime contractor.

"Construction materials" are those articles, materials, or supplies made primarily of iron and steel, that are permanently incorporated into the project, not included mechanical and/or electrical components, equipment and systems. Some of these products may overlap with what is also considered "structural steel".



*Note:* Mechanical and electrical components, equipment, and systems are not considered construction materials. See definition of mechanical and electrical equipment.

"De minimis incidental components" are various miscellaneous low-cost components that are essential for, but incidental to, the construction and are incorporated into the physical structure of the project. Examples of incidental components could include small washers, screws, fasteners (such as "off the shelf" nuts and bolts, miscellaneous wire, corner bead, ancillary tube, signage, trash bins, door hardware etc. Costs for de minimis incidental components cumulatively may comprise no more than a total of five percent of the total cost of the materials used in and incorporated into a project. The cost of an individual item may not exceed one percent of the total cost of the materials used in and incorporated into a project.

"Engineer" is an individual or entity with which the owner has contracted to perform engineering/architectural services for water and waste projects funded by the programs subject to AIS requirements.

"Iron and Steel Products" are defined as the following products made primarily of iron and steel: lined or unlined pipes and fittings, manhole covers and other municipal castings, hydrants, tanks, flanges, pipe clamps and restraints, valves, structural steel, reinforced precast concrete, and construction materials. Only items on the above list made of primarily iron or steel, permanently incorporated into the project must be produced in the U.S. For example; trench boxes, scaffolding or equipment, which are removed from the project site upon completion of the project, are not required to be made of U.S. Iron or Steel.

"Manufacturers" meaning supplier, fabricator, distributor, materialman, or vendor is an entity with which the applicant, general contractor or with any subcontractor has contracted to furnish materials or equipment to be incorporated in the project by the applicant, contractor or subcontractor.

"Manufacturing processes" are processes such as melting, refining, forming, rolling, drawing, finishing, and fabricating. Further, if a domestic iron and steel product is taken out of the U.S. for any part of the manufacturing process, it becomes foreign source material. However, raw materials such as iron ore, limestone, and iron and steel scrap are not covered by the AIS requirements, and the material(s), if any, being applied as coating are similarly not covered. Non-iron or steel components of an iron and steel product may come from non-U.S. sources. For example, for products such as valves and hydrants, the individual non-iron and steel components do not have to be of domestic origin. Raw materials, such as iron ore, limestone, scrap iron, and scrap steel, can come from non-U.S. sources.

"Mechanical equipment" is typically that which has motorized parts and/or is powered by a motor. "Electrical equipment" is typically any machine powered by electricity and included components that are part of the electrical distribution system. AIS does not apply to mechanical equipment.

"Minor components" are components within an iron or steel product otherwise compliant with the AIS requirements. This is different from the de minimis definition where de minimis pertains to the entire project and the minor component definition pertains to a single product. This waiver would allow non-domestically produced miscellaneous minor components comprising up to five percent of the total material cost of an otherwise domestically produced iron and steel product to be used. However, unless a separate waiver for a product has been approved, all other iron and steel components in said product must still meet the AIS requirements. This waiver does not exempt the whole product from the AIS requirements. Only minor components within said product and the iron or steel components of the product must be produced domestically. Valves and hydrants are also subject to the cost ceiling requirements described here. Examples of minor components could include items such as pins and springs in valves/hydrants, bands/straps in couplings, and other low cost items such as small fasteners etc.

"Municipal castings" are cast iron and steel infrastructure products that are melted and cast. They typically provide access, protection, or housing for components incorporated into utility owned drinking water, storm water, wastewater, and solid waste infrastructure.

"National Office" refers to the office responsible for the oversight and administration of the program nationally. The National Office sets policy, develops program regulations, and provides training and technical assistance to help the state offices administer the program. The National Office is located in Washington, D.C.

"Owner" is the individual or entity with which the general contractor has contracted regarding the work, and which has agreed to pay the general contractor for the performance of the work pursuant to the terms of the contract for water and waste projects funded by the programs subject to AIS requirement. For the purpose of this Bulletin, the term is synonymous with the term "applicant" as defined in 7 CFR 1780.7 (a) (1), (2), and (3), and is an entity receiving financial assistance from the programs subject to AIS requirements.

"Primarily iron or steel" is defined as a product made of greater than 50 percent iron or steel, measured by cost. The cost should be based on the material costs. An exception to this definition is reinforced precast concrete (see Definition). All technical specifications and applicable industry standards (e.g. NIST, NSF, AWWA) must be met. If a product is determined to be less than 50 percent iron and steel, the AIS requirements do not apply.

For example, the cost of a fire hydrant includes:

1. The cost of materials used for the iron portion of the fire hydrant (e.g. bonnet, body, and shoe); and
2. The cost to pour and cast and create those components (e.g. labor and energy).

Not included in the cost are:

1. The additional material costs for the non-iron and steel internal working of the hydrant (e.g. stem, coupling, valve, seals, etc.); and
2. The cost to assemble the internal workings into the hydrant body.

"Produced in the United States" means that the production in the United States of the iron or steel products used in the project requires that all manufacturing processes must take place in the United States, with the exception of metallurgical processes involving refinement of steel additives.

"Project" is the total undertaking to be accomplished for the applicant by consulting engineers, general contractors, and others, including the planning, study, design, construction, testing, commissioning, and start-up of which the work to be performed under the contract is a part. A project includes all activity that an applicant is undertaking to be financed in whole or part by programs subject to AIS requirements. The intentional splitting of projects to separate into smaller contracts or obligations to avoid AIS requirements is prohibited.

"Reinforced Precast Concrete" may not consist of at least 50 percent iron or steel, but the reinforcing bar and wire must be produced in the United States and meet the same standards for any other iron or steel product. Additionally, the casting of the concrete product must take place in the United States. The cement and other raw materials used in concrete production are not required to be of domestic origin. If the reinforced concrete is cast at the construction site, the reinforcing bar and wire are considered to be a construction material and must be produced in the United States.

"Steel" means an alloy that includes at least 50 percent iron between 0.02 and 2 percent carbon, and may include other elements. Metallic elements such as chromium, nickel, molybdenum, manganese, and silicon may be added during the melting of steel for the purpose of enhancing properties such as corrosion resistance, hardness, or strength. The definition of steel covers carbon steel, alloy steel, stainless steel, tool steel, and other specialty steels.



"Structural steel" is rolled flanged shapes, having at least one dimension of their cross-section three inches or greater, which are used in the construction of bridges, buildings, ships, railroad rolling stock, and for numerous other constructional purposes. Such shapes are designated as wide-flange shapes, standard I beams, channels, angles, tees, and zeos. Other shapes include but are not limited to, H-piles, sheet piling, tie plates, cross ties, and those for other special purposes.

"United States" means each of the several states, the District of Columbia, and each Federally Recognized Indian Tribe.

## 12. PURCHASE OF EQUIPMENT AND MATERIALS

Irrespective of who purchases AIS products, owner, contractor or other parties must ensure that the products were produced in the United States as defined in this Bulletin. It is the manufacturers' responsibility to provide manufacturers' certification letters to ensure compliance with AIS requirements. The AIS requirements supersede any regulation on full and open free competition stated in 7 CFR 1780.70(b) and (d) and 2 CFR Part 200.319. For example, if an iron and steel product that is compliant with AIS is made by only one manufacturer, sole source procurement of said product may be used.

## 13. WAIVER PROCESS

### A. General

Each entity that receives financial assistance for the construction, alteration, maintenance, or repair of water and waste infrastructure from programs mandated to comply with the statute, must use iron and steel products produced in the United States. A waiver is a legal document granting a project an exception to AIS requirements, to use iron and steel products of non-domestic origin specified in the waiver(s). More than one waiver could be applied to a project.

Any funding recipient subject to AIS requirements are eligible to apply for waivers as outlined in the statute which states:

"A waiver may be granted by the Secretary of Agriculture or designee, if one or more of the following conditions are met:

1. Applying the American Iron and Steel requirements of the Act would be inconsistent with the public interest;
2. Iron and Steel products are not produced in the United States in sufficient and reasonably available quantities or of satisfactory quality; or
3. Inclusion of iron and steel products produced in the United States will increase the overall cost of the project by more than 25 percent."

Until a waiver is granted by USDA, the AIS requirement stands except with respect to municipalities covered by international agreements (see Section 17).

One public interest waiver has been granted by the Secretary of Agriculture or designee that addresses: (1) de minimis items and (2) minor components. This waiver is national in scope and applies to all projects. The term de minimis applies to products when they occur as a de minimis incidental components as intended for assistance recipients to use for their projects. The term minor components applies to minor components within an iron and/or steel product and is intended for manufacturers to certify that their products comply with AIS requirements. For definitions of de minimis and minor components see Definitions.

**B. Application**

To request a project specific waiver, proper and sufficient documentation must be provided by the assistance recipient (see Exhibit H).

To apply for a waiver under condition one (public interest), applicants and their consulting engineers must demonstrate definitive impacts on the community if a specified product is not utilized. Information must be submitted to the National Office (via [ESEngineering@wdc.usda.gov](mailto:ESEngineering@wdc.usda.gov)), copy to the RD State Engineer and approved by the Administrator of RUS. Public interest waivers national in scope will be identified and approved by the Administrator of RUS.

To apply for a waiver under special condition two (quality or quantity), applicants and their consulting engineers must submit information outlined in Exhibit I and J to the National Office (via [ESEngineering@wdc.usda.gov](mailto:ESEngineering@wdc.usda.gov)).

All waiver applications must be submitted to National Office. If RD State Office receives any waiver requests, the request must be submitted to National Office for approval.

**C. Timing**

Waivers should be submitted prior to and no later than the submission of final plans, specifications, and bidding documents for any iron and steel products of known foreign origin. All waiver requests must be approved by the Agency prior to authorization to advertise for bids. In the event that a waiver is requested during construction such as via change order, it must be approved by the Agency prior to installation.

D. Evaluation by USDA

After receiving an application for a waiver of the AIS requirements, USDA National Office will publish the request on its website for 15 days and receive informal comment. National Office will evaluate whether the application adequately documents the statutory basis cited for the waiver. The Secretary or designee will determine whether or not to grant the waiver.

Approved and disapproved waivers will be posted on the USDA AIS website.

For project specific waivers where EPA and USDA are co-funding and the applicant has already submitted a request to and received an approval waiver from EPA, USDA will review said waiver for the co-funded project. Applicants/owners or their representatives are required to submit approved waiver to EESengineerig@wdc.usda.gov for USDA RD review and concurrence.

All approved waivers must be included in the bidding documents, any bid addenda, change orders, and partial estimates. All information presented in waiver requests are subject to verification. Waiver requests deliberately containing false information will be rejected.

14. MONITORING

In order to comply with the Executive Order 13788 "Buy American, Hire American", dated April 18, 2017, and AIS requirements, monitoring activities will be completed by the State Office and/or National Office.

15. NON-COMPLIANCE

No Federal funds made available for the rural water, waste water, waste disposal, and solid waste management programs authorized by sections 306, 306A, 306C, 306D, 306E, and 310B of the Consolidated Farm and Rural Development Act (7 U.S.C. 1926 et seq.) shall be used for a project for the construction, alteration, maintenance, or repair of a public utility system unless all of the iron and steel products used in the project are produced in the United States.

Noncompliance occurs when funds are used from these programs for construction, alteration, maintenance, or repair using non-domestic iron or steel products and the product is not covered by either a project-specific or a national waiver. Loan and grant recipients should avoid non-compliance at all times as it is a violation of a Federal statute.

Process for Noncompliance

- (1) Identify the noncompliant product.
- (2) The loan or grant recipient notifies appropriate USDA RD State or National Office contact.
- (3) If USDA RD State Office is notified, the Program Director will notify the National Office, Director of EES.
- (4) USDA will apply remedies for noncompliance as per 2 CFR 200 338-342.



16. INTERNATIONAL AGREEMENTS

The AIS requirements apply in a manner consistent with United States obligations under international agreements. In a few cases where such an agreement exists between a loan and/or grant recipient and an international entity, the recipient is under the obligation to determine the applicability of the AIS requirements and document the actions taken to comply with these requirements.

17. USE OF EXHIBITS

The following explains the purpose of each Exhibit to this Bulletin:

- A. AMERICAN IRON AND STEEL: Exhibit A is to be read by the RD Specialist at the pre-construction and signed by all parties subject to the AIS requirements on the project. Signature of this form will serve as certification of advisement and acknowledgement of the AIS requirements.
- B. ENGINEER'S CERTIFICATION OF COMPLIANCE: Exhibit B consists of a letter to be completed and signed by the consulting engineer certifying that he/she will ensure that plans, specifications, bidding documents, and associated bid addenda, executed contracts and change orders for this project will comply with the AIS requirements. This certification letter is to be submitted to the Agency for approval prior to the Advertisement for Bids and must be kept in the engineer's project file and on-site during construction.
- C. GENERAL (PRIME) CONTRACTOR'S CERTIFICATION OF COMPLIANCE  
Exhibit C consists of a letter to be completed and signed by the general contractor certifying that he/she will ensure that all iron and steel products installed for this project, comply with the AIS requirements. This includes not only installation and/or construction by their own company, but any and all subcontractors and manufacturers their company has contracted with on this project. This certification letter is to be submitted upon substantial completion of the project to the project engineer.
- D. EXAMPLE OF A MANUFACTURER'S CERTIFICATION LETTER OF COMPLIANCE: Exhibit D is an example of a letter to be completed and signed by the manufacturer certifying that he/she will ensure that all iron and steel products and/or materials shipped or provided for the subject project are in full compliance with the AIS requirements. This includes listing each individual item/product/material provided to the project and providing the location of this/these item(s) being manufactured, including assembly. All manufacturers' certification letters must be kept in the engineer's project file and on site during construction.
- E. EXAMPLES OF MUNICIPAL CASTINGS: Exhibit E provides a sample list of iron and steel products that are subject to the AIS requirements. This list is not exhaustive and is meant only to provide examples. A unique list should be completed for each specific project/contract.

- F. **EXAMPLES OF CONSTRUCTION MATERIALS:** Exhibit F provides a sample list of construction materials that are subject to the AIS requirements. This list is not exhaustive and is meant only to provide examples.
- G. **EXAMPLES OF NON-CONSTRUCTION MATERIALS:** Exhibit G provides a sample list of items that are not subject to AIS requirements. This list is not exhaustive and is meant only to provide examples.
- H. **INFORMATIONAL CHECKLIST FOR PROJECT SPECIFIC WAIVER REQUEST:** Exhibit I is a checklist that is to be completed by the applicant and/or consulting engineer to help ensure that all appropriate and necessary information is submitted with the request to USDA. This checklist should not be used for public interest waiver. It is for informational purposes only and does not need to be included as part of the waiver application. Project specific waivers may be requested if one or more of the following conditions applies: (1) The iron and/or steel products are not produced in the United States in sufficient and reasonably available quantities and of satisfactory quality; (2) The inclusion of iron and/or steel products produced in the United States will increase the overall cost of the project by more than 25 percent. All approved waivers must be included in the bidding documents, any bid addenda, change orders, and partial estimates. All information presented in waiver requests are subject to evaluation. Waiver requests deliberately containing false information will be rejected.
- I. **EXAMPLE COST TABLE FOR A PROJECT COST WAIVER:** Exhibit I is an example of a table that must be included with any cost based project waiver request. Information included in the table; product reference in the specification, brief description of the product, quantity, unit, unit price and two costs of the item: (1) cost of an AIS compliant product and (2) cost of a non-domestic product. The total cost for all items will be part of the evaluation. Waiver requests deliberately containing false information in order to receive a project cost waiver will be rejected.
- J. **AIS MATERIALS TRACKING:** Exhibit J is a spreadsheet to track all AIS products, de minimis components, and minor components. An updated list must be signed and dated and submitted to the Engineer by the Contractor with each pay request. Once reviewed for accuracy, the signed and updated list must be submitted to the Agency with each pay request. If an AIS qualifying or de minimis material is delivered more than once, a new line will be required for each delivery of that material. An excel version that will compute all totals can be obtained from the RD State Office that can be used as a working copy.

**AMERICAN IRON AND STEEL COMPLIANCE STATEMENT**

"Section 746 of Title VII of the Consolidated Appropriations Act of 2017 (Division A- Agriculture, Rural Development, Food and Drug Administration, and Related Agencies Appropriations Act, 2017) and subsequent statues mandating domestic preference applies an American Iron and Steel requirement to this project.

All parties are required to comply with these requirements and to ensure that all iron and steel products used on this project are produced in the United States. The term "iron and steel products" means the following products made of primarily iron or steel: lined or unlined pipes and fittings, manhole covers and other municipal castings, hydrants, tanks, flanges, pipe clamps and restraints, valves, structural steel, reinforced precast concrete, and construction materials."

\_\_\_\_\_  
**RD Specialist Signature**

\_\_\_\_\_  
Date

\_\_\_\_\_  
Printed Name

\_\_\_\_\_  
**Borrower Signature or Approved Representative**

\_\_\_\_\_  
Date

\_\_\_\_\_  
Printed Name

\_\_\_\_\_  
**Engineer's Signature**

\_\_\_\_\_  
Date

\_\_\_\_\_  
Printed Name

\_\_\_\_\_  
**Contractor's Signature**

\_\_\_\_\_  
Date

\_\_\_\_\_  
Printed Name



**ENGINEER'S CERTIFICATION LETTER**

DATE:

RE: APPLICANT  
PROJECT NAME  
CONTRACT NUMBER

I hereby certify that to the best of my knowledge and belief, iron and steel products referenced in the Plans, Specifications, and Bidding Documents for this project comply with Section 746 of Title VII of the Consolidated Appropriations Act of 2017 and any subsequent statutes mandating domestic preference or are the subject of a waiver approved by the Secretary of Agriculture or designee. This certification is not intended to be a warranty in any way, but rather the designer's professional opinion that to the best of their knowledge, the products comply.

I hereby commit that to the best of my ability, all iron and steel products that will be referenced in the Bid Addenda, Executed contracts, and Change Orders will comply with Section 746 of the Title VII of the Consolidated Appropriations Act, 2017 and any subsequent statutes mandating domestic preference or are/will be the subject of a waiver approved by the Secretary of Agriculture or designee.

\_\_\_\_\_  
Name of Engineering Firm (Print)

\_\_\_\_\_  
By Authorized Representative (Signature)

\_\_\_\_\_  
Title

This document is to be submitted prior to Agency authorization for Advertisement for Bids.

**CONTRACTOR'S CERTIFICATION LETTER**

DATE:

**RE: APPLICANT  
PROJECT NAME  
CONTRACT NUMBER**

I hereby certify that, to the best of my knowledge and belief, all iron and steel products installed for this project by my company and by any and all subcontractors and manufacturers my company has contracted with for this project, comply with Section 746 of Title VII of the Consolidated Appropriations Act of 2017 and any subsequent statutes mandating domestic preference or are the subject of a waiver approved by the Secretary of Agriculture or designee.

\_\_\_\_\_  
Name of Construction Company (Print)

\_\_\_\_\_  
By Authorized Representative (Signature)

\_\_\_\_\_  
Title

This certification is to be submitted upon completion of the project to the project engineer.

**MANUFACTURER'S CERTIFICATION LETTER**

Date:

Company Name:

Company Address:

Subject: AIS Step Certification for Project (X), Owner's Name, and Contract Number

I, (company representative), certify that the (melting, bending, galvanizing, cutting, etc.) processes for (manufacturing or fabricating) the following products and/or material shipped or provided for the subject project is in full compliance with the mandated AIS requirements.

Item, Products and/or Materials, and location of delivery (City, State)

- 1.
- 2.
- 3.

Such process for AIS took place in the following location:

---

City, State

This certification is to be submitted upon request to interested parties (e.g. municipalities, consulting engineers, general contractors, etc.)

If any of the above compliance statements change while providing materials to this project, please immediately notify the person(s) who is requesting to use your product(s).

---

Authorized Company Representative

(Note: *Authorized signature shall be manufacturer's representative and not the materials distributor or supplier*)



**EXAMPLES OF MUNICIPAL CASTINGS** (*includes but not limited to*):

Access Hatches  
Ballast Screen  
Benches (Iron or Steel)  
Bollards  
Cast Bases  
Cast Iron Hinged Hatches, Square and Rectangular  
Cast Iron Riser Rings  
Catch Basin Inlet  
Cleanout/Monument Boxes  
Construction Covers and Frames  
Curb Corner Guards  
Curb Openings  
Detectable Warning Plates  
Downspout Shoes (Boot, Inlet)  
Drainage Grates, Frames and Curb Inlets  
Inlets  
Junction Boxes  
Lampposts  
Manhole Covers, Rings and Frames, Risers  
Meter Boxes  
Service Boxes  
Steel Hinged Hatches, Square and Rectangular  
Steel Riser Rings  
Trash Receptacles  
Tree Grates  
Tree Guards  
Trench Grates  
Valve Boxes, Covers and Risers

**EXAMPLES OF CONSTRUCTION MATERIALS (included but not limited to)**

Wire rod, bar, angles  
Concrete reinforcing bar, wire, wire cloth  
Wire rope and cables  
Tubing  
Framing  
Joists  
Trusses  
Fasteners (i.e., nuts and bolts)  
Welding rods  
Decking  
Grating  
Railings  
Stairs  
Access ramps  
Fire escapes  
Ladders  
Wall panels  
Dome structures  
Roofing  
Ductwork  
Surface drains  
Cable hanging systems  
Manhole steps  
Fencing and fence tubing  
Guardrails  
Doors  
Stationary screens

**EXAMPLES OF NON-CONSTRUCTION MATERIALS-** (includes but not limited to):

(Note: includes appurtenances necessary for their intended use and operation and are not subject to AIS requirements)

Pumps

Motors

Gear Reducers

Drives (including variable frequency drives (VFD's)

Electric/pneumatic/manual accessories used to operate valves (such as electric valve actuators).

Mixers

Gates (e.g. sluice and slide gates)

Motorized screens (such as traveling screens)

Blowers/aeration equipment

Compressors

Meters (flow and water meters)

Sensors

Controls and switches

Supervisory control data acquisition (SCADA)

Membrane filtration systems (includes RO package plants)

Filters

Clarifier arms and clarifier mechanisms

Rakes

Grinders

Disinfection systems

Presses (including belt presses)

Conveyors

Cranes

HVAC (excluding network)

Water heaters

Heat exchangers

Generators

Cabinetry and housing (such as electrical boxes/enclosures)

Lighting fixtures

Electrical conduit

Emergency life systems

Metal office furniture

Shelving

Laboratory equipment

Analytical instrumentation

Dewatering equipment



# INFORMATIONAL CHECKLIST FOR PROJECT SPECIFIC WAIVER REQUEST

Please reference the specifications of the product.

Information	<input type="checkbox"/>	Note
<b>General</b> <ul style="list-style-type: none"> <li>• Waiver request includes the following information: <ul style="list-style-type: none"> <li>— Description of the foreign and domestic construction materials</li> <li>— Unit of measure</li> <li>— Quantity</li> <li>— Price</li> <li>— Date that product is needed (e.g. time of delivery or availability)</li> <li>— Location of the construction project</li> <li>— Name and address of the proposed supplier</li> <li>— A detailed justification for the use of foreign construction materials</li> </ul> </li> <li>• Waiver request was submitted according to the instructions in the memorandum</li> <li>• Assistance recipient made a good faith effort to solicit bids for domestic iron and steel products, as demonstrated by language in requests for proposals, contracts, and communications with the prime</li> </ul>		
<b>Cost Waiver Requests</b> <ul style="list-style-type: none"> <li>• Waiver request includes the following information: <ul style="list-style-type: none"> <li>— Comparison of overall cost of project with domestic iron and steel products to overall cost of project with foreign iron and steel products (Exhibit J)</li> <li>— Relevant excerpts from the bid documents used by the contractors to complete the comparison</li> <li>— Supporting documentation indicating that the contractor made a reasonable survey of the market, such as a description of the process for identifying suppliers and a list of contacted suppliers</li> </ul> </li> </ul>		
<b>Availability Waiver Requests</b> <ul style="list-style-type: none"> <li>• Waiver request includes the following supporting documentation necessary to demonstrate the availability, quantity, and/or quality of the materials for which the waiver is requested: <ul style="list-style-type: none"> <li>— Supplier information or pricing information from a reasonable number of domestic suppliers indicating availability/delivery date for construction materials</li> <li>— Documentation of the assistance recipient's efforts to find available domestic sources, such as a description of the process for identifying suppliers and a list of contacted suppliers.</li> <li>— Date that product is needed (e.g. time of delivery or availability) to provide justification</li> <li>— Relevant excerpts from project plans, specifications, and permits indicating the required quantity and quality of construction materials</li> </ul> </li> <li>• Waiver request includes a statement from the prime contractor and/or supplier confirming the non-availability of the domestic construction materials for which the waiver is sought</li> <li>• Has the State received other waiver requests for the materials described in this waiver request, for comparable projects?</li> </ul>		

EXAMPLE COST TABLE FOR A PROJECT COST WAIVER

AIS/Non-AIS Cost Comparison Table							
Specification	Item or Description	Quantity	Unit	Unit Price	Cost if applying AIS	Cost if a waiver to AIS is applied	
					\$ -	\$ -	
					\$ -	\$ -	
					\$ -	\$ -	
					\$ -	\$ -	
					\$ -	\$ -	
					\$ -	\$ -	
					\$ -	\$ -	
					\$ -	\$ -	
					\$ -	\$ -	

TOTAL COST:

\$0.00

\$0.00

## AIS Materials Tracking

Page 1

\_\_\_\_\_

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1. *Journal of the American Medical Association*, 2000; 283: 2689-2695.

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\_\_\_\_\_

---

\_\_\_\_\_

\_\_\_\_\_

0

0

\_\_\_\_\_

**Note 2:** All listed qualifying AIS must have a manufacturer's certification unless a waiver is obtained.

[illegible]



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 Laws and Regulations.

## STANDARD GENERAL CONDITIONS OF THE CONSTRUCTION CONTRACT

Prepared by



Issued and Published Jointly by



Endorsed by



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(703) 684-2882  
[www.nspe.org](http://www.nspe.org)

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1015 15th Street N.W., Washington, DC 20005  
(202) 347-7474  
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# STANDARD GENERAL CONDITIONS OF THE CONSTRUCTION CONTRACT

## TABLE OF CONTENTS

	Page
Article 1 – Definitions and Terminology .....	1
1.01 Defined Terms .....	1
1.02 Terminology .....	5
Article 2 – Preliminary Matters.....	6
2.01 Delivery of Bonds and Evidence of Insurance .....	6
2.02 Copies of Documents .....	6
2.03 Before Starting Construction .....	6
2.04 Preconstruction Conference; Designation of Authorized Representatives .....	7
2.05 Initial Acceptance of Schedules .....	7
2.06 Electronic Transmittals.....	7
Article 3 – Documents: Intent, Requirements, Reuse .....	8
3.01 Intent.....	8
3.02 Reference Standards .....	8
3.03 Reporting and Resolving Discrepancies .....	9
3.04 Requirements of the Contract Documents .....	9
3.05 Reuse of Documents .....	10
Article 4 – Commencement and Progress of the Work.....	10
4.01 Commencement of Contract Times; Notice to Proceed .....	10
4.02 Starting the Work .....	10
4.03 Reference Points .....	10
4.04 Progress Schedule .....	11
4.05 Delays in Contractor’s Progress .....	11
Article 5 – Availability of Lands; Subsurface and Physical Conditions; Hazardous Environmental Conditions .....	12
5.01 Availability of Lands .....	12
5.02 Use of Site and Other Areas .....	12
5.03 Subsurface and Physical Conditions.....	13
5.04 Differing Subsurface or Physical Conditions .....	14
5.05 Underground Facilities .....	15



5.06	Hazardous Environmental Conditions at Site.....	17
Article 6 – Bonds and Insurance .....		19
6.01	Performance, Payment, and Other Bonds .....	19
6.02	Insurance—General Provisions .....	19
6.03	Contractor’s Insurance .....	21
6.04	Owner’s Liability Insurance .....	23
6.05	Property Insurance.....	23
6.06	Waiver of Rights .....	25
6.07	Receipt and Application of Property Insurance Proceeds .....	26
Article 7 – Contractor’s Responsibilities .....		26
7.01	Supervision and Superintendence .....	26
7.02	Labor; Working Hours .....	26
7.03	Services, Materials, and Equipment.....	27
7.04	“Or Equals” .....	27
7.05	Substitutes .....	28
7.06	Concerning Subcontractors, Suppliers, and Others .....	30
7.07	Patent Fees and Royalties .....	31
7.08	Permits .....	32
7.09	Taxes .....	32
7.10	Laws and Regulations.....	32
7.11	Record Documents.....	33
7.12	Safety and Protection.....	33
7.13	Safety Representative .....	34
7.14	Hazard Communication Programs .....	34
7.15	Emergencies .....	34
7.16	Shop Drawings, Samples, and Other Submittals.....	34
7.17	Contractor’s General Warranty and Guarantee.....	36
7.18	Indemnification .....	37
7.19	Delegation of Professional Design Services .....	38
Article 8 – Other Work at the Site .....		38
8.01	Other Work .....	38
8.02	Coordination .....	39
8.03	Legal Relationships.....	39

Article 9 – Owner’s Responsibilities.....	40
9.01 Communications to Contractor.....	40
9.02 Replacement of Engineer .....	41
9.03 Furnish Data .....	41
9.04 Pay When Due.....	41
9.05 Lands and Easements; Reports, Tests, and Drawings .....	41
9.06 Insurance.....	41
9.07 Change Orders.....	41
9.08 Inspections, Tests, and Approvals .....	41
9.09 Limitations on Owner’s Responsibilities .....	41
9.10 Undisclosed Hazardous Environmental Condition.....	41
9.11 Evidence of Financial Arrangements.....	41
9.12 Safety Programs .....	42
Article 10 – Engineer’s Status During Construction.....	42
10.01 Owner’s Representative.....	42
10.02 Visits to Site.....	42
10.03 Project Representative.....	42
10.04 Rejecting Defective Work.....	42
10.05 Shop Drawings, Change Orders and Payments.....	43
10.06 Determinations for Unit Price Work .....	43
10.07 Decisions on Requirements of Contract Documents and Acceptability of Work .....	43
10.08 Limitations on Engineer’s Authority and Responsibilities.....	43
10.09 Compliance with Safety Program.....	44
Article 11 – Amending the Contract Documents; Changes in the Work .....	44
11.01 Amending and Supplementing Contract Documents .....	44
11.02 Owner-Authorized Changes in the Work .....	44
11.03 Unauthorized Changes in the Work .....	45
11.04 Change of Contract Price .....	45
11.05 Change of Contract Times .....	46
11.06 Change Proposals .....	46
11.07 Execution of Change Orders.....	47
11.08 Notification to Surety .....	47
Article 12 – Claims.....	48

12.01 Claims .....	48
Article 13 – Cost of the Work; Allowances; Unit Price Work.....	49
13.01 Cost of the Work .....	49
13.02 Allowances .....	51
13.03 Unit Price Work .....	52
Article 14 – Tests and Inspections; Correction, Removal or Acceptance of Defective Work.....	52
14.01 Access to Work.....	52
14.02 Tests, Inspections, and Approvals.....	53
14.03 Defective Work.....	53
14.04 Acceptance of Defective Work.....	54
14.05 Uncovering Work .....	54
14.06 Owner May Stop the Work .....	55
14.07 Owner May Correct Defective Work.....	55
Article 15 – Payments to Contractor; Set-Offs; Completion; Correction Period .....	56
15.01 Progress Payments .....	56
15.02 Contractor’s Warranty of Title .....	59
15.03 Substantial Completion .....	59
15.04 Partial Use or Occupancy .....	60
15.05 Final Inspection .....	60
15.06 Final Payment.....	60
15.07 Waiver of Claims .....	62
15.08 Correction Period .....	62
Article 16 – Suspension of Work and Termination .....	63
16.01 Owner May Suspend Work .....	63
16.02 Owner May Terminate for Cause.....	63
16.03 Owner May Terminate For Convenience .....	64
16.04 Contractor May Stop Work or Terminate .....	64
Article 17 – Final Resolution of Disputes .....	65
17.01 Methods and Procedures.....	65
Article 18 – Miscellaneous .....	65
18.01 Giving Notice .....	65
18.02 Computation of Times.....	65
18.03 Cumulative Remedies .....	65



18.04	Limitation of Damages .....	66
18.05	No Waiver .....	66
18.06	Survival of Obligations .....	66
18.07	Controlling Law .....	66
18.08	Headings.....	66

## ARTICLE 1 – DEFINITIONS AND TERMINOLOGY

### 1.01 *Defined Terms*

- A. Wherever used in the Bidding Requirements or Contract Documents, a term printed with initial capital letters, including the term's singular and plural forms, will have the meaning indicated in the definitions below. In addition to terms specifically defined, terms with initial capital letters in the Contract Documents include references to identified articles and paragraphs, and the titles of other documents or forms.
1. *Addenda*—Written or graphic instruments issued prior to the opening of Bids which clarify, correct, or change the Bidding Requirements or the proposed Contract Documents.
  2. *Agreement*—The written instrument, executed by Owner and Contractor, that sets forth the Contract Price and Contract Times, identifies the parties and the Engineer, and designates the specific items that are Contract Documents.
  3. *Application for Payment*—The form acceptable to Engineer which is to be used by Contractor during the course of the Work in requesting progress or final payments and which is to be accompanied by such supporting documentation as is required by the Contract Documents.
  4. *Bid*—The offer of a Bidder submitted on the prescribed form setting forth the prices for the Work to be performed.
  5. *Bidder*—An individual or entity that submits a Bid to Owner.
  6. *Bidding Documents*—The Bidding Requirements, the proposed Contract Documents, and all Addenda.
  7. *Bidding Requirements*—The advertisement or invitation to bid, Instructions to Bidders, Bid Bond or other Bid security, if any, the Bid Form, and the Bid with any attachments.
  8. *Change Order*—A document which is signed by Contractor and Owner and authorizes an addition, deletion, or revision in the Work or an adjustment in the Contract Price or the Contract Times, or other revision to the Contract, issued on or after the Effective Date of the Contract.
  9. *Change Proposal*—A written request by Contractor, duly submitted in compliance with the procedural requirements set forth herein, seeking an adjustment in Contract Price or Contract Times, or both; contesting an initial decision by Engineer concerning the requirements of the Contract Documents or the acceptability of Work under the Contract Documents; challenging a set-off against payments due; or seeking other relief with respect to the terms of the Contract.
  10. *Claim*—(a) A demand or assertion by Owner directly to Contractor, duly submitted in compliance with the procedural requirements set forth herein: seeking an adjustment of Contract Price or Contract Times, or both; contesting an initial decision by Engineer concerning the requirements of the Contract Documents or the acceptability of Work under the Contract Documents; contesting Engineer's decision regarding a Change Proposal; seeking resolution of a contractual issue that Engineer has declined to address; or seeking other relief with respect to the terms of the Contract; or (b) a demand or assertion by Contractor directly to Owner, duly submitted in compliance with the procedural requirements set forth herein, contesting Engineer's decision

regarding a Change Proposal; or seeking resolution of a contractual issue that Engineer has declined to address. A demand for money or services by a third party is not a Claim.

11. *Constituent of Concern*—Asbestos, petroleum, radioactive materials, polychlorinated biphenyls (PCBs), hazardous waste, and any substance, product, waste, or other material of any nature whatsoever that is or becomes listed, regulated, or addressed pursuant to (a) the Comprehensive Environmental Response, Compensation and Liability Act, 42 U.S.C. §§9601 et seq. ("CERCLA"); (b) the Hazardous Materials Transportation Act, 49 U.S.C. §§5101 et seq.; (c) the Resource Conservation and Recovery Act, 42 U.S.C. §§6901 et seq. ("RCRA"); (d) the Toxic Substances Control Act, 15 U.S.C. §§2601 et seq.; (e) the Clean Water Act, 33 U.S.C. §§1251 et seq.; (f) the Clean Air Act, 42 U.S.C. §§7401 et seq.; or (g) any other federal, state, or local statute, law, rule, regulation, ordinance, resolution, code, order, or decree regulating, relating to, or imposing liability or standards of conduct concerning, any hazardous, toxic, or dangerous waste, substance, or material.
12. *Contract*—The entire and integrated written contract between the Owner and Contractor concerning the Work.
13. *Contract Documents*—Those items so designated in the Agreement, and which together comprise the Contract.
14. *Contract Price*—The money that Owner has agreed to pay Contractor for completion of the Work in accordance with the Contract Documents. .
15. *Contract Times*—The number of days or the dates by which Contractor shall: (a) achieve Milestones, if any; (b) achieve Substantial Completion; and (c) complete the Work.
16. *Contractor*—The individual or entity with which Owner has contracted for performance of the Work.
17. *Cost of the Work*—See Paragraph 13.01 for definition.
18. *Drawings*—The part of the Contract that graphically shows the scope, extent, and character of the Work to be performed by Contractor.
19. *Effective Date of the Contract*—The date, indicated in the Agreement, on which the Contract becomes effective.
20. *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 does not change the Contract Price or the Contract Times.
22. *Hazardous Environmental Condition*—The presence at the Site of Constituents of Concern in such quantities or circumstances that may present a danger to persons or property exposed thereto. The presence at the Site of materials that are necessary for the execution of the Work, or that are to be incorporated in the Work, and that are controlled and contained pursuant to industry practices, Laws and Regulations, and the requirements of the Contract, does not establish a Hazardous Environmental Condition.



23. *Laws and Regulations; Laws or Regulations*—Any and all applicable laws, statutes, rules, regulations, ordinances, codes, and orders of any and all governmental bodies, agencies, authorities, and courts having jurisdiction.
24. *Liens*—Charges, security interests, or encumbrances upon Contract-related funds, real property, or personal property.
25. *Milestone*—A principal event in the performance of the Work that the Contract requires Contractor to achieve by an intermediate completion date or by a time prior to Substantial Completion of all the Work.
26. *Notice of Award*—The written notice by Owner to a Bidder of Owner's acceptance of the Bid.
27. *Notice to Proceed*—A written notice by Owner to Contractor fixing the date on which the Contract Times will commence to run and on which Contractor shall start to perform the Work.
28. *Owner*—The individual or entity with which Contractor has contracted regarding the Work, and which has agreed to pay Contractor for the performance of the Work, pursuant to the terms of the Contract.
29. *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.
30. *Project*—The total undertaking to be accomplished for Owner by engineers, contractors, and others, including planning, study, design, construction, testing, commissioning, and start-up, and of which the Work to be performed under the Contract Documents is a part.
31. *Project Manual*—The written documents prepared for, or made available for, procuring and constructing the Work, including but not limited to the Bidding Documents or other construction procurement documents, geotechnical and existing conditions information, the Agreement, bond forms, General Conditions, Supplementary Conditions, and Specifications. The contents of the Project Manual may be bound in one or more volumes.
32. *Resident Project Representative*—The authorized representative of Engineer assigned to assist Engineer at the Site. As used herein, the term Resident Project Representative or "RPR" includes any assistants or field staff of Resident Project Representative.
33. *Samples*—Physical examples of materials, equipment, or workmanship that are representative of some portion of the Work and that establish the standards by which such portion of the Work will be judged.
34. *Schedule of Submittals*—A schedule, prepared and maintained by Contractor, of required submittals and the time requirements for Engineer's review of the submittals and the performance of related construction activities.
35. *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.
36. *Shop Drawings*—All drawings, diagrams, illustrations, schedules, and other data or information that are specifically prepared or assembled by or for Contractor and

submitted by Contractor to illustrate some portion of the Work. Shop Drawings, whether approved or not, are not Drawings and are not Contract Documents.

37. *Site*—Lands or areas indicated in the Contract Documents as being furnished by Owner upon which the Work is to be performed, including rights-of-way and easements, and such other lands furnished by Owner which are designated for the use of Contractor.
38. *Specifications*—The part of the Contract that consists of written requirements for materials, equipment, systems, standards, and workmanship as applied to the Work, and certain administrative requirements and procedural matters applicable to the Work.
39. *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.
40. *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.
41. *Successful Bidder*—The Bidder whose Bid the Owner accepts, and to which the Owner makes an award of contract, subject to stated conditions.
42. *Supplementary Conditions*—The part of the Contract that amends or supplements these General Conditions.
43. *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 a Subcontractor.
44. *Technical Data*—Those items expressly identified as Technical Data in the Supplementary Conditions, with respect to either (a) subsurface conditions at the Site, or physical conditions relating to existing surface or subsurface structures at the Site (except Underground Facilities) or (b) Hazardous Environmental Conditions at the Site. If no such express identifications of Technical Data have been made with respect to conditions at the Site, then the data contained in boring logs, recorded measurements of subsurface water levels, laboratory test results, and other factual, objective information regarding conditions at the Site that are set forth in any geotechnical or environmental report prepared for the Project and made available to Contractor are hereby defined as Technical Data with respect to conditions at the Site under Paragraphs 5.03, 5.04, and 5.06.
45. *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 but not limited to those that convey electricity, gases, steam, liquid petroleum products, telephone or other communications, fiber optic transmissions, cable television, water, wastewater, storm water, other liquids or chemicals, or traffic or other control systems.
46. *Unit Price Work*—Work to be paid for on the basis of unit prices.
47. *Work*—The entire construction or the various separately identifiable parts thereof required to be provided under the Contract Documents. Work includes and is the



result of performing or providing all labor, services, and documentation necessary to produce such construction; furnishing, installing, and incorporating all materials and equipment into such construction; and may include related services such as testing, start-up, and commissioning, all as required by the Contract Documents.

48. *Work Change Directive*—A written directive to Contractor issued on or after the Effective Date of the Contract, signed by Owner and recommended by Engineer, ordering an addition, deletion, or revision in the Work.

## 1.02 Terminology

- A. The words and terms discussed in the following paragraphs are not defined but, when used in the Bidding Requirements or Contract Documents, have the indicated meaning.
- B. *Intent of Certain Terms or Adjectives:*
1. The Contract Documents include the terms “as allowed,” “as approved,” “as ordered,” “as directed” or terms of like effect or import to authorize an exercise of professional judgment by Engineer. In addition, the adjectives “reasonable,” “suitable,” “acceptable,” “proper,” “satisfactory,” or adjectives of like effect or import are used to describe an action or determination of Engineer as to the Work. It is intended that such exercise of professional judgment, action, or determination will be solely to evaluate, in general, the Work for compliance with the information in the Contract Documents and with the design concept of the Project as a functioning whole as shown or indicated in the Contract Documents (unless there is a specific statement indicating otherwise). The use of any such term or adjective is not intended to and shall not be effective to assign to Engineer any duty or authority to supervise or direct the performance of the Work, or any duty or authority to undertake responsibility contrary to the provisions of Article 10 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 15.03 or 15.04).
- 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. If the Contract Documents establish an obligation of Contractor with respect to specific services, materials, or equipment, but do not expressly use any of the four words "furnish," "install," "perform," or "provide," then Contractor shall furnish and install said services, materials, or equipment complete and ready for intended use.
- F. Unless stated otherwise in the Contract Documents, words or phrases that have a well-known technical or construction industry or trade meaning are used in the Contract Documents in accordance with such recognized meaning.

## ARTICLE 2 – PRELIMINARY MATTERS

### 2.01 *Delivery of Bonds and Evidence of Insurance*

- A. *Bonds:* 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 Contractor's Insurance:* When Contractor delivers the executed counterparts of the Agreement to Owner, Contractor shall also deliver to Owner, with copies to each named insured and additional insured (as identified in the Supplementary Conditions or elsewhere in the Contract), the certificates and other evidence of insurance required to be provided by Contractor in accordance with Article 6.
- C. *Evidence of Owner's Insurance:* After receipt of the executed counterparts of the Agreement and all required bonds and insurance documentation, Owner shall promptly deliver to Contractor, with copies to each named insured and additional insured (as identified in the Supplementary Conditions or otherwise), the certificates and other evidence of insurance required to be provided by Owner under Article 6.

### 2.02 *Copies of Documents*

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

### 2.03 *Before Starting Construction*

- A. *Preliminary Schedules:* Within 10 days after the Effective Date of the Contract (or as otherwise specifically required by the Contract Documents), Contractor shall submit to Engineer for timely review:

1. a preliminary Progress Schedule indicating the times (numbers of days or dates) for starting and completing the various stages of the Work, including any Milestones specified in the Contract;
2. a preliminary Schedule of Submittals; and
3. a preliminary Schedule of Values for all of the Work which includes quantities and prices of items which when added together equal the Contract Price and subdivides the Work into component parts in sufficient detail to serve as the basis for progress payments during performance of the Work. Such prices will include an appropriate amount of overhead and profit applicable to each item of Work.

#### 2.04 *Preconstruction Conference; Designation of Authorized Representatives*

- A. Before any Work at the Site is started, a conference attended by Owner, Contractor, Engineer, and others as appropriate will be held to establish a working understanding among the parties as to the Work and to discuss the schedules referred to in Paragraph 2.03.A, procedures for handling Shop Drawings, Samples, and other submittals, processing Applications for Payment, electronic or digital transmittals, and maintaining required records.
- B. At this conference Owner and Contractor each shall designate, in writing, a specific individual to act as its authorized representative with respect to the services and responsibilities under the Contract. Such individuals shall have the authority to transmit and receive information, render decisions relative to the Contract, and otherwise act on behalf of each respective party.

#### 2.05 *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 2.03.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 the component parts of the Work.

#### 2.06 *Electronic Transmittals*

- A. Except as otherwise stated elsewhere in the Contract, the Owner, Engineer, and Contractor may transmit, and shall accept, Project-related correspondence, text, data, documents, drawings, information, and graphics, including but not limited to Shop Drawings and other submittals, in electronic media or digital format, either directly, or through access to a secure Project website.



- B. If the Contract does not establish protocols for electronic or digital transmittals, then Owner, Engineer, and Contractor shall jointly develop such protocols.
- C. When transmitting items in electronic media or digital format, the transmitting party makes no representations as to long term compatibility, usability, or readability of the items resulting from the recipient's use of software application packages, operating systems, or computer hardware differing from those used in the drafting or transmittal of the items, or from those established in applicable transmittal protocols.

### ARTICLE 3 – DOCUMENTS: INTENT, REQUIREMENTS, 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.
- C. Unless otherwise stated in the Contract Documents, if there is a discrepancy between the electronic or digital versions of the Contract Documents (including any printed copies derived from such electronic or digital versions) and the printed record version, the printed record version shall govern.
- D. The Contract supersedes prior negotiations, representations, and agreements, whether written or oral.
- E. Engineer will issue clarifications and interpretations of the Contract Documents as provided herein.

#### 3.02 *Reference Standards*

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



### 3.03 *Reporting and Resolving Discrepancies*

#### A. *Reporting Discrepancies:*

1. *Contractor's Verification of Figures and Field Measurements:* Before undertaking each part of the Work, Contractor shall carefully study the Contract Documents, and check and verify pertinent figures and dimensions therein, particularly with respect to applicable field measurements. Contractor shall promptly report in writing to Engineer any conflict, error, ambiguity, or discrepancy that Contractor discovers, or has actual knowledge of, and shall not proceed with any Work affected thereby until the conflict, error, ambiguity, or discrepancy is resolved, by a clarification or interpretation by Engineer, or by an amendment or supplement to the Contract Documents issued pursuant to Paragraph 11.01.
2. *Contractor's Review of Contract Documents:* If, before or during the performance of the Work, Contractor discovers any conflict, error, ambiguity, or discrepancy within the Contract Documents, or between the Contract Documents and (a) any applicable Law or Regulation, (b) actual field conditions, (c) any standard specification, manual, reference standard, or code, or (d) any instruction of any Supplier, then Contractor shall promptly report it to Engineer in writing. Contractor shall not proceed with the Work affected thereby (except in an emergency as required by Paragraph 7.15) until the conflict, error, ambiguity, or discrepancy is resolved, by a clarification or interpretation by Engineer, or by an amendment or supplement to the Contract Documents issued pursuant to Paragraph 11.01.
3. Contractor shall not be liable to Owner or Engineer for failure to report any conflict, error, ambiguity, or discrepancy in the Contract Documents unless Contractor had actual knowledge thereof.

#### B. *Resolving Discrepancies:*

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

### 3.04 *Requirements of the Contract Documents*

- A. During the performance of the Work and until final payment, Contractor and Owner shall submit to the Engineer all matters in question concerning the requirements of the Contract Documents (sometimes referred to as requests for information or interpretation—RFIs), or relating to the acceptability of the Work under the Contract Documents, as soon as possible after such matters arise. Engineer will be the initial interpreter of the requirements of the Contract Documents, and judge of the acceptability of the Work thereunder.
- B. Engineer will, with reasonable promptness, render a written clarification, interpretation, or decision on the issue submitted, or initiate an amendment or supplement to the Contract

Documents. Engineer's written clarification, interpretation, or decision will be final and binding on Contractor, unless it appeals by submitting a Change Proposal, and on Owner, unless it appeals by filing a Claim.

- C. If a submitted matter in question concerns terms and conditions of the Contract Documents that do not involve (1) the performance or acceptability of the Work under the Contract Documents, (2) the design (as set forth in the Drawings, Specifications, or otherwise), or (3) other engineering or technical matters, then Engineer will promptly give written notice to Owner and Contractor that Engineer is unable to provide a decision or interpretation. If Owner and Contractor are unable to agree on resolution of such a matter in question, either party may pursue resolution as provided in Article 12.

### 3.05 *Reuse of Documents*

- A. Contractor and its Subcontractors and Suppliers shall not:
  - 1. have or acquire any title to or ownership rights in any of the Drawings, Specifications, or other documents (or copies of any thereof) prepared by or bearing the seal of Engineer or its consultants, including electronic media editions, or reuse any such Drawings, Specifications, other documents, or copies thereof on extensions of the Project or any other project without written consent of Owner and Engineer and specific written verification or adaptation by Engineer; or
  - 2. have or acquire any title or ownership rights in any other Contract Documents, reuse any such Contract Documents for any purpose without Owner's express written consent, or violate any copyrights pertaining to such Contract Documents.
- B. The prohibitions of this Paragraph 3.05 will survive final payment, or termination of the Contract. Nothing herein shall preclude Contractor from retaining copies of the Contract Documents for record purposes.

## ARTICLE 4 – COMMENCEMENT AND PROGRESS OF THE WORK

### 4.01 *Commencement of Contract Times; Notice to Proceed*

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

### 4.02 *Starting the Work*

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

### 4.03 *Reference Points*

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



requires relocation because of necessary changes in grades or locations, and shall be responsible for the accurate replacement or relocation of such reference points or property monuments by professionally qualified personnel.

#### 4.04 *Progress Schedule*

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

#### 4.05 *Delays in Contractor's Progress*

- A. If Owner, Engineer, or anyone for whom Owner is responsible, delays, disrupts, or interferes with the performance or progress of the Work, then Contractor shall be entitled to an equitable adjustment in the Contract Times and Contract Price. 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.
- B. Contractor shall not be entitled to an adjustment in Contract Price or Contract Times for delay, disruption, or interference caused by or within the control of Contractor. Delay, disruption, and interference attributable to and within the control of a Subcontractor or Supplier shall be deemed to be within the control of Contractor.
- C. If Contractor's performance or progress is delayed, disrupted, or interfered with by unanticipated causes not the fault of and beyond the control of Owner, Contractor, and those for which they are responsible, then Contractor shall be entitled to an equitable adjustment in Contract Times. 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. Such an adjustment shall be Contractor's sole and exclusive remedy for the delays, disruption, and interference described in this paragraph. Causes of delay, disruption, or interference that may give rise to an adjustment in Contract Times under this paragraph include but are not limited to the following:
  - 1. severe and unavoidable natural catastrophes such as fires, floods, epidemics, and earthquakes;
  - 2. abnormal weather conditions;
  - 3. acts or failures to act of utility owners (other than those performing other work at or adjacent to the Site by arrangement with the Owner, as contemplated in Article 8); and
  - 4. acts of war or terrorism.
- D. Delays, disruption, and interference to the performance or progress of the Work resulting from the existence of a differing subsurface or physical condition, an Underground Facility



that was not shown or indicated by the Contract Documents, or not shown or indicated with reasonable accuracy, and those resulting from Hazardous Environmental Conditions, are governed by Article 5.

- E. Paragraph 8.03 governs delays, disruption, and interference to the performance or progress of the Work resulting from the performance of certain other work at or adjacent to the Site.
- F. Contractor shall not be entitled to an adjustment in Contract Price or Contract Times for any delay, disruption, or interference if such delay is concurrent with a delay, disruption, or interference caused by or within the control of Contractor.
- G. Contractor must submit any Change Proposal seeking an adjustment in Contract Price or Contract Times under this paragraph within 30 days of the commencement of the delaying, disrupting, or interfering event.

## **ARTICLE 5 – AVAILABILITY OF LANDS; SUBSURFACE AND PHYSICAL CONDITIONS; HAZARDOUS ENVIRONMENTAL CONDITIONS**

### **5.01 *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.
- B. Upon reasonable written request, Owner shall furnish Contractor with a current statement of record legal title and legal description of the lands upon which permanent improvements are to be made and Owner's interest therein as necessary for giving notice of or filing a mechanic's or construction lien against such lands in accordance with applicable Laws and Regulations.
- C. Contractor shall provide for all additional lands and access thereto that may be required for temporary construction facilities or storage of materials and equipment.

### **5.02 *Use of Site and Other Areas***

- A. *Limitation on Use of Site and Other Areas:*
  - 1. Contractor shall confine construction equipment, temporary construction facilities, the storage of materials and equipment, and the operations of workers to the Site, adjacent areas that Contractor has arranged to use through construction easements or otherwise, and other adjacent areas permitted by Laws and Regulations, and shall not unreasonably encumber the Site and such other adjacent areas with construction equipment or other materials or equipment. Contractor shall assume full responsibility for (a) damage to the Site; (b) damage to any such other adjacent areas used for Contractor's operations; (c) damage to any other adjacent land or areas; and (d) for injuries and losses sustained by the owners or occupants of any such land or areas; provided that such damage or injuries result from the performance of the Work or from other actions or conduct of the Contractor or those for which Contractor is responsible.
  - 2. If a damage or injury claim is made by the owner or occupant of any such land or area because of the performance of the Work, or because of other actions or conduct of the Contractor or those for which Contractor is responsible, Contractor shall (a) take immediate corrective or remedial action as required by Paragraph 7.12, or otherwise;

(b) promptly attempt to settle the claim as to all parties through negotiations with such owner or occupant, or otherwise resolve the claim by arbitration or other dispute resolution proceeding, or at law; and (c) to the fullest extent permitted by Laws and Regulations, indemnify and hold harmless Owner and Engineer, and the officers, directors, members, partners, employees, agents, consultants and subcontractors of each and any of them from and against any such claim, and against all costs, losses, and damages (including but not limited to all fees and charges of engineers, architects, attorneys, and other professionals and all court or arbitration or other dispute resolution costs) arising out of or relating to any claim or action, legal or equitable, brought by any such owner or occupant against Owner, Engineer, or any other party indemnified hereunder to the extent caused directly or indirectly, in whole or in part by, or based upon, Contractor's performance of the Work, or because of other actions or conduct of the Contractor or those for which Contractor is responsible.

- B. *Removal of Debris During Performance of the Work:* During the progress of the Work the Contractor shall keep the Site and other adjacent areas free from accumulations of waste materials, rubbish, and other debris. Removal and disposal of such waste materials, rubbish, and other debris 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 and adjacent areas all tools, appliances, construction equipment and machinery, and surplus materials and shall restore to original condition all property not designated for alteration by the Contract Documents.
- D. *Loading of Structures:* Contractor shall not load nor permit any part of any structure to be loaded in any manner that will endanger the structure, nor shall Contractor subject any part of the Work or adjacent structures or land to stresses or pressures that will endanger them.

### 5.03 *Subsurface and Physical Conditions*

- A. *Reports and Drawings:* The Supplementary Conditions identify:
  - 1. those reports known to Owner of explorations and tests of subsurface conditions at or adjacent to the Site;
  - 2. those drawings known to Owner of physical conditions relating to existing surface or subsurface structures at the Site (except Underground Facilities); and
  - 3. Technical Data contained in such reports and drawings.
- B. *Reliance by Contractor on Technical Data Authorized:* Contractor may rely upon the accuracy of the Technical Data expressly identified in the Supplementary Conditions with respect to such reports and drawings, but such reports and drawings are not Contract Documents. If no such express identification has been made, then Contractor may rely upon the accuracy of the Technical Data (as defined in Article 1) contained in any geotechnical or environmental report prepared for the Project and made available to Contractor. Except for such reliance on Technical Data, Contractor may not rely upon or make any claim against Owner or Engineer, or any of their officers, directors, members, partners, employees, agents, consultants, or subcontractors, with respect to:
  - 1. the completeness of such reports and drawings for Contractor's purposes, including, but not limited to, any aspects of the means, methods, techniques, sequences, and



procedures of construction to be employed by Contractor, and safety precautions and programs incident thereto; 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.

#### 5.04 *Differing Subsurface or Physical Conditions*

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

B. *Engineer's Review:* After receipt of written notice as required by the preceding paragraph, Engineer will promptly review the subsurface or physical condition in question; determine the necessity of Owner's obtaining additional exploration or tests with respect to the condition; conclude whether the condition falls within any one or more of the differing site condition categories in Paragraph 5.04.A above; obtain any pertinent cost or schedule information from Contractor; prepare recommendations to Owner regarding the Contractor's resumption of Work in connection with the subsurface or physical condition in question and the need for any change in the Drawings or Specifications; and advise Owner in writing of Engineer's findings, conclusions, and recommendations.

C. *Owner's Statement to Contractor Regarding Site Condition:* After receipt of Engineer's written findings, conclusions, and recommendations, Owner shall issue a written statement to Contractor (with a copy to Engineer) regarding the subsurface or physical condition in question, addressing the resumption of Work in connection with such condition, indicating whether any change in the Drawings or Specifications will be made, and adopting or rejecting Engineer's written findings, conclusions, and recommendations, in whole or in part.

D. *Possible Price and Times Adjustments:*

1. Contractor shall be entitled to an equitable adjustment in Contract Price or Contract Times, or both, to the extent that the existence of a differing subsurface or physical condition, or any related delay, disruption, or interference, causes an increase or



decrease in Contractor's cost of, or time required for, performance of the Work; subject, however, to the following:

- a. such condition must fall within any one or more of the categories described in Paragraph 5.04.A;
  - b. with respect to Work that is paid for on a unit price basis, any adjustment in Contract Price will be subject to the provisions of Paragraph 13.03; and,
  - c. Contractor's entitlement to an adjustment of the Contract Times is conditioned on such adjustment being essential to Contractor's ability to complete the Work within the Contract Times.
2. Contractor shall not be entitled to any adjustment in the Contract Price or Contract Times with respect to a subsurface or physical condition if:
    - a. Contractor knew of the existence of such condition at the time Contractor made a commitment to Owner with respect to Contract Price and Contract Times by the submission of a Bid or becoming bound under a negotiated contract, or otherwise; or
    - b. the existence of such condition reasonably could have been discovered or revealed as a result of any examination, investigation, exploration, test, or study of the Site and contiguous areas expressly required by the Bidding Requirements or Contract Documents to be conducted by or for Contractor prior to Contractor's making such commitment; or
    - c. Contractor failed to give the written notice as required by Paragraph 5.04.A.
  3. If Owner and Contractor agree regarding Contractor's entitlement to and the amount or extent of any adjustment in the Contract Price or Contract Times, or both, then any such adjustment shall be set forth in a Change Order.
  4. Contractor may submit a Change Proposal regarding its entitlement to or the amount or extent of any adjustment in the Contract Price or Contract Times, or both, no later than 30 days after Owner's issuance of the Owner's written statement to Contractor regarding the subsurface or physical condition in question.

#### 5.05 *Underground Facilities*

- A. *Contractor's Responsibilities:* The information and data shown or indicated in the Contract Documents with respect to existing Underground Facilities at or adjacent 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 do not warrant or guarantee the accuracy or completeness of any such information or data provided by others; 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 information and data regarding existing Underground Facilities at the Site;
    - b. locating all Underground Facilities shown or indicated in the Contract Documents as being at the Site;

- c. coordination of the Work with the owners (including Owner) of such Underground Facilities, during construction; and
  - d. the safety and protection of all existing Underground Facilities at the Site, and repairing any damage thereto resulting from the Work.
- B. *Notice by Contractor:* If Contractor believes that an Underground Facility that is uncovered or revealed at the Site was not shown or indicated in the Contract Documents, or was not shown or indicated with reasonable accuracy, then Contractor shall, promptly after becoming aware thereof and before further disturbing conditions affected thereby or performing any Work in connection therewith (except in an emergency as required by Paragraph 7.15), identify the owner of such Underground Facility and give written notice to that owner and to Owner and Engineer.
- C. *Engineer's Review:* Engineer will promptly review the Underground Facility and conclude whether such Underground Facility was not shown or indicated in the Contract Documents, or was not shown or indicated with reasonable accuracy; obtain any pertinent cost or schedule information from Contractor; prepare recommendations to Owner regarding the Contractor's resumption of Work in connection with the Underground Facility in question; determine the extent, if any, to which a change is required in the Drawings or Specifications to reflect and document the consequences of the existence or location of the Underground Facility; and advise Owner in writing of Engineer's findings, conclusions, and recommendations. During such time, Contractor shall be responsible for the safety and protection of such Underground Facility.
- D. *Owner's Statement to Contractor Regarding Underground Facility:* After receipt of Engineer's written findings, conclusions, and recommendations, Owner shall issue a written statement to Contractor (with a copy to Engineer) regarding the Underground Facility in question, addressing the resumption of Work in connection with such Underground Facility, indicating whether any change in the Drawings or Specifications will be made, and adopting or rejecting Engineer's written findings, conclusions, and recommendations in whole or in part.
- E. *Possible Price and Times Adjustments:*
  - 1. Contractor shall be entitled to an equitable adjustment in the Contract Price or Contract Times, or both, to the extent that any existing Underground Facility at the Site that was not shown or indicated in the Contract Documents, or was not shown or indicated with reasonable accuracy, or any related delay, disruption, or interference, causes an increase or decrease in Contractor's cost of, or time required for, performance of the Work; subject, however, to the following:
    - a. Contractor did not know of and could not reasonably have been expected to be aware of or to have anticipated the existence or actual location of the Underground Facility in question;
    - b. With respect to Work that is paid for on a unit price basis, any adjustment in Contract Price will be subject to the provisions of Paragraph 13.03;
    - c. 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; and
    - d. Contractor gave the notice required in Paragraph 5.05.B.



2. If Owner and Contractor agree regarding Contractor's entitlement to and the amount or extent of any adjustment in the Contract Price or Contract Times, or both, then any such adjustment shall be set forth in a Change Order.
3. Contractor may submit a Change Proposal regarding its entitlement to or the amount or extent of any adjustment in the Contract Price or Contract Times, or both, no later than 30 days after Owner's issuance of the Owner's written statement to Contractor regarding the Underground Facility in question.

5.06 *Hazardous Environmental Conditions at Site*

- A. *Reports and Drawings:* The Supplementary Conditions identify:
  1. those reports and drawings known to Owner relating to Hazardous Environmental Conditions that have been identified at or adjacent to the Site; and
  2. Technical Data contained in such reports and drawings.
- B. *Reliance by Contractor on Technical Data Authorized:* Contractor may rely upon the accuracy of the Technical Data expressly identified in the Supplementary Conditions with respect to such reports and drawings, but such reports and drawings are not Contract Documents. If no such express identification has been made, then Contractor may rely on the accuracy of the Technical Data (as defined in Article 1) contained in any geotechnical or environmental report prepared for the Project and made available to Contractor. Except for such reliance on Technical Data, Contractor may not rely upon or make any claim against Owner or Engineer, or any of their officers, directors, members, partners, employees, agents, consultants, or subcontractors with respect to:
  1. the completeness of such reports and drawings for Contractor's purposes, including, but not limited to, any aspects of the means, methods, techniques, sequences and procedures of construction to be employed by Contractor and safety precautions and programs incident thereto; or
  2. other data, interpretations, opinions and information contained in such reports or shown or indicated in such drawings; or
  3. any Contractor interpretation of or conclusion drawn from any Technical Data or any such other data, interpretations, opinions or information.
- C. Contractor shall not be responsible for removing or remediating any Hazardous Environmental Condition encountered, uncovered, or revealed at the Site unless such removal or remediation is expressly identified in the Contract Documents to be within the scope of the Work.
- D. Contractor shall be responsible for controlling, containing, and duly removing all Constituents of Concern brought to the Site by Contractor, Subcontractors, Suppliers, or anyone else for whom Contractor is responsible, and for any associated costs; and for the costs of removing and remediating any Hazardous Environmental Condition created by the presence of any such Constituents of Concern.
- E. If Contractor encounters, uncovers, or reveals a Hazardous Environmental Condition whose removal or remediation is not expressly identified in the Contract Documents as being within the scope of the Work, or if Contractor or anyone for whom Contractor is responsible creates a Hazardous Environmental Condition, then Contractor shall immediately: (1) secure or otherwise isolate such condition; (2) stop all Work in connection with such condition and in any area affected thereby (except in an emergency as required



by Paragraph 7.15); and (3) notify Owner and Engineer (and promptly thereafter confirm such notice in writing). Owner shall promptly consult with Engineer concerning the necessity for Owner to retain a qualified expert to evaluate such condition or take corrective action, if any. Promptly after consulting with Engineer, Owner shall take such actions as are necessary to permit Owner to timely obtain required permits and provide Contractor the written notice required by Paragraph 5.06.F. If Contractor or anyone for whom Contractor is responsible created the Hazardous Environmental Condition in question, then Owner may remove and remediate the Hazardous Environmental Condition, and impose a set-off against payments to account for the associated costs.

- F. Contractor shall not resume Work in connection with such Hazardous Environmental Condition or in any affected area until after Owner has obtained any required permits related thereto, and delivered written notice to Contractor either (1) specifying that such condition and any affected area is or has been rendered safe for the resumption of Work, or (2) specifying any special conditions under which such Work may be resumed safely.
- G. If Owner and Contractor cannot agree as to entitlement to or on the amount or extent, if any, of any adjustment in Contract Price or Contract Times, or both, as a result of such Work stoppage or such special conditions under which Work is agreed to be resumed by Contractor, then within 30 days of Owner's written notice regarding the resumption of Work, Contractor may submit a Change Proposal, or Owner may impose a set-off.
- H. If after receipt of such written notice Contractor does not agree to resume such Work based on a reasonable belief it is unsafe, or does not agree to resume such Work under such special conditions, then Owner may order the portion of the Work that is in the area affected by such condition to be deleted from the Work, following the contractual change procedures in Article 11. Owner may have such deleted portion of the Work performed by Owner's own forces or others in accordance with Article 8.
- I. To the fullest extent permitted by Laws and Regulations, Owner shall indemnify and hold harmless Contractor, Subcontractors, and Engineer, and the officers, directors, members, partners, employees, agents, consultants, and subcontractors of each and any of them from and against all claims, costs, losses, and damages (including but not limited to all fees and charges of engineers, architects, attorneys, and other professionals and all court or arbitration or other dispute resolution costs) arising out of or relating to a Hazardous Environmental Condition, provided that such Hazardous Environmental Condition (1) was not shown or indicated in the Drawings, Specifications, or other Contract Documents, identified as Technical Data entitled to limited reliance pursuant to Paragraph 5.06.B, or identified in the Contract Documents to be included within the scope of the Work, and (2) was not created by Contractor or by anyone for whom Contractor is responsible. Nothing in this Paragraph 5.06.I shall obligate Owner to indemnify any individual or entity from and against the consequences of that individual's or entity's own negligence.
- J. To the fullest extent permitted by Laws and Regulations, Contractor shall indemnify and hold harmless Owner and Engineer, and the officers, directors, members, partners, employees, agents, consultants, and subcontractors of each and any of them from and against all claims, costs, losses, and damages (including but not limited to all fees and charges of engineers, architects, attorneys, and other professionals and all court or arbitration or other dispute resolution costs) arising out of or relating to the failure to control, contain, or remove a Constituent of Concern brought to the Site by Contractor or by anyone for whom Contractor is responsible, or to a Hazardous Environmental Condition created by Contractor or by anyone for whom Contractor is responsible. Nothing in this

Paragraph 5.06.J shall obligate Contractor to indemnify any individual or entity from and against the consequences of that individual's or entity's own negligence.

- K. The provisions of Paragraphs 5.03, 5.04, and 5.05 do not apply to the presence of Constituents of Concern or to a Hazardous Environmental Condition uncovered or revealed at the Site.

## ARTICLE 6 – BONDS AND INSURANCE

### 6.01 *Performance, Payment, and Other Bonds*

- A. Contractor shall furnish a performance bond and a payment bond, each in an amount at least equal to the Contract Price, as security for the faithful performance and payment of all of Contractor's obligations under the Contract. 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 15.08, whichever is later, except as provided otherwise by Laws or Regulations, the Supplementary Conditions, or other specific provisions of the Contract. Contractor shall also furnish such other bonds as are required by the Supplementary Conditions or other specific provisions of the Contract.
- B. All bonds shall be in the form prescribed by the Contract except as provided otherwise by Laws or Regulations, and shall be executed by such sureties as are named in "Companies Holding Certificates of Authority as Acceptable Sureties on Federal Bonds and as Acceptable Reinsuring Companies" as published in Circular 570 (as amended and supplemented) by the Financial Management Service, Surety Bond Branch, U.S. Department of the Treasury. A bond signed by an agent or attorney-in-fact must be accompanied by a certified copy of that individual's authority to bind the surety. The evidence of authority shall show that it is effective on the date the agent or attorney-in-fact signed the accompanying bond.
- C. Contractor shall obtain the required bonds from surety companies that are duly licensed or authorized in the jurisdiction in which the Project is located to issue bonds in the required amounts.
- D. If the surety on a bond furnished by Contractor is declared bankrupt or becomes insolvent, or its right to do business is terminated in any state or jurisdiction where any part of the Project is located, or the surety ceases to meet the requirements above, then 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 bond and surety requirements above.
- E. If Contractor has failed to obtain a required bond, Owner may exclude the Contractor from the Site and exercise Owner's termination rights under Article 16.
- F. Upon request, Owner shall provide a copy of the payment bond to any Subcontractor, Supplier, or other person or entity claiming to have furnished labor or materials used in the performance of the Work.

### 6.02 *Insurance—General Provisions*

- A. Owner and Contractor shall obtain and maintain insurance as required in this Article and in the Supplementary Conditions.
- B. All insurance required by the Contract to be purchased and maintained by Owner or Contractor shall be obtained from insurance companies that are duly licensed or



authorized, in the state or jurisdiction in which the Project is located, to issue insurance policies for the required limits and coverages. Unless a different standard is indicated in the Supplementary Conditions, all companies that provide insurance policies required under this Contract shall have an A.M. Best rating of A-VII or better.

- C. Contractor shall deliver to Owner, with copies to each named insured and additional insured (as identified in this Article, in the Supplementary Conditions, or elsewhere in the Contract), certificates of insurance establishing that Contractor has obtained and is maintaining the policies, coverages, and endorsements required by the Contract. Upon request by Owner or any other insured, Contractor shall also furnish other evidence of such required insurance, including but not limited to copies of policies and endorsements, and documentation of applicable self-insured retentions and deductibles. Contractor may block out (redact) any confidential premium or pricing information contained in any policy or endorsement furnished under this provision.
- D. Owner shall deliver to Contractor, with copies to each named insured and additional insured (as identified in this Article, the Supplementary Conditions, or elsewhere in the Contract), certificates of insurance establishing that Owner has obtained and is maintaining the policies, coverages, and endorsements required of Owner by the Contract (if any). Upon request by Contractor or any other insured, Owner shall also provide other evidence of such required insurance (if any), including but not limited to copies of policies and endorsements, and documentation of applicable self-insured retentions and deductibles. Owner may block out (redact) any confidential premium or pricing information contained in any policy or endorsement furnished under this provision.
- E. Failure of Owner or Contractor to demand such certificates or other evidence of the other party's full compliance with these insurance requirements, or failure of Owner or Contractor to identify a deficiency in compliance from the evidence provided, shall not be construed as a waiver of the other party's obligation to obtain and maintain such insurance.
- F. If either party does not purchase or maintain all of the insurance required of such party by the Contract, such party shall notify the other party in writing of such failure to purchase prior to the start of the Work, or of such failure to maintain prior to any change in the required coverage.
- G. If Contractor has failed to obtain and maintain required insurance, Owner may exclude the Contractor from the Site, impose an appropriate set-off against payment, and exercise Owner's termination rights under Article 16.
- H. Without prejudice to any other right or remedy, if a party has failed to obtain required insurance, the other party may elect to obtain equivalent insurance to protect such other party's interests at the expense of the party who was required to provide such coverage, and the Contract Price shall be adjusted accordingly.
- I. Owner does not represent that insurance coverage and limits established in this Contract necessarily will be adequate to protect Contractor or Contractor's interests.
- J. The insurance and insurance limits required herein shall not be deemed as a limitation on Contractor's liability under the indemnities granted to Owner and other individuals and entities in the Contract.



### 6.03 Contractor's Insurance

- A. *Workers' Compensation:* Contractor shall purchase and maintain workers' compensation and employer's liability insurance for:
  - 1. claims under workers' compensation, disability benefits, and other similar employee benefit acts.
  - 2. United States Longshoreman and Harbor Workers' Compensation Act and Jones Act coverage (if applicable).
  - 3. claims for damages because of bodily injury, occupational sickness or disease, or death of Contractor's employees (by stop-gap endorsement in monopolist worker's compensation states).
  - 4. Foreign voluntary worker compensation (if applicable).
- B. *Commercial General Liability—Claims Covered:* Contractor shall purchase and maintain commercial general liability insurance, covering all operations by or on behalf of Contractor, on an occurrence basis, against:
  - 1. claims for damages because of bodily injury, sickness or disease, or death of any person other than Contractor's employees.
  - 2. claims for damages insured by reasonably available personal injury liability coverage.
  - 3. 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.
- C. *Commercial General Liability—Form and Content:* Contractor's commercial liability policy shall be written on a 1996 (or later) ISO commercial general liability form (occurrence form) and include the following coverages and endorsements:
  - 1. Products and completed operations coverage:
    - a. Such insurance shall be maintained for three years after final payment.
    - b. Contractor shall furnish Owner and each other additional insured (as identified in the Supplementary Conditions or elsewhere in the Contract) evidence of continuation of such insurance at final payment and three years thereafter.
  - 2. Blanket contractual liability coverage, to the extent permitted by law, including but not limited to coverage of Contractor's contractual indemnity obligations in Paragraph 7.18.
  - 3. Broad form property damage coverage.
  - 4. Severability of interest.
  - 5. Underground, explosion, and collapse coverage.
  - 6. Personal injury coverage.
  - 7. Additional insured endorsements that include both ongoing operations and products and completed operations coverage through ISO Endorsements CG 20 10 10 01 and CG 20 37 10 01 (together); or CG 20 10 07 04 and CG 20 37 07 04 (together); or their equivalent.

8. For design professional additional insureds, ISO Endorsement CG 20 32 07 04, "Additional Insured—Engineers, Architects or Surveyors Not Engaged by the Named Insured" or its equivalent.
- D. *Automobile liability*: Contractor shall purchase and maintain automobile liability insurance against claims for damages because of bodily injury or death of any person or property damage arising out of the ownership, maintenance, or use of any motor vehicle. The automobile liability policy shall be written on an occurrence basis.
- E. *Umbrella or excess liability*: Contractor shall purchase and maintain umbrella or excess liability insurance written over the underlying employer's liability, commercial general liability, and automobile liability insurance described in the paragraphs above. Subject to industry-standard exclusions, the coverage afforded shall follow form as to each and every one of the underlying policies.
- F. *Contractor's pollution liability insurance*: Contractor shall purchase and maintain a policy covering third-party injury and property damage claims, including clean-up costs, as a result of pollution conditions arising from Contractor's operations and completed operations. This insurance shall be maintained for no less than three years after final completion.
- G. *Additional insureds*: The Contractor's commercial general liability, automobile liability, umbrella or excess, and pollution liability policies shall include and list as additional insureds Owner and Engineer, and any individuals or entities identified in the Supplementary Conditions; include coverage for the respective officers, directors, members, partners, employees, agents, consultants, and subcontractors of each and any of all such additional insureds; and the insurance afforded to these additional insureds shall provide primary coverage for all claims covered thereby (including as applicable those arising from both ongoing and completed operations) on a non-contributory basis. Contractor shall obtain all necessary endorsements to support these requirements.
- H. *Contractor's professional liability insurance*: If Contractor will provide or furnish professional services under this Contract, through a delegation of professional design services or otherwise, then Contractor shall be responsible for purchasing and maintaining applicable professional liability insurance. This insurance shall provide protection against claims arising out of performance of professional design or related services, and caused by a negligent error, omission, or act for which the insured party is legally liable. It shall be maintained throughout the duration of the Contract and for a minimum of two years after Substantial Completion. If such professional design services are performed by a Subcontractor, and not by Contractor itself, then the requirements of this paragraph may be satisfied through the purchasing and maintenance of such insurance by such Subcontractor.
- I. *General provisions*: The policies of insurance required by this Paragraph 6.03 shall:
1. include at least the specific coverages provided in this Article.
  2. be written for not less than the limits of liability provided in this Article and in the Supplementary Conditions, or required by Laws or Regulations, whichever is greater.
  3. contain a provision or endorsement that the coverage afforded will not be canceled, materially changed, or renewal refused until at least 10 days prior written notice has been given to Contractor. Within three days of receipt of any such written notice, Contractor shall provide a copy of the notice to Owner, Engineer, and each other insured under the policy.



4. remain in effect at least until final payment (and longer if expressly required in this Article) and at all times thereafter when Contractor may be correcting, removing, or replacing defective Work as a warranty or correction obligation, or otherwise, or returning to the Site to conduct other tasks arising from the Contract Documents.
  5. be appropriate for the Work being performed and provide protection from claims that 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.
- J. The coverage requirements for specific policies of insurance must be met by such policies, and not by reference to excess or umbrella insurance provided in other policies.

#### 6.04 *Owner's Liability Insurance*

- A. In addition to the insurance required to be provided by Contractor under Paragraph 6.03, 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.
- B. Owner's liability policies, if any, operate separately and independently from policies required to be provided by Contractor, and Contractor cannot rely upon Owner's liability policies for any of Contractor's obligations to the Owner, Engineer, or third parties.

#### 6.05 *Property Insurance*

- A. *Builder's Risk:* Unless otherwise provided in the Supplementary Conditions, Contractor shall purchase and maintain builder's risk insurance upon the Work on a completed value basis, in the amount of the full insurable replacement cost thereof (subject to such deductible amounts as may be provided in the Supplementary Conditions or required by Laws and Regulations). This insurance shall:
  1. include the Owner and Contractor as named insureds, and all Subcontractors, and any individuals or entities required by the Supplementary Conditions to be insured under such builder's risk policy, as insureds or named insureds. For purposes of the remainder of this Paragraph 6.05, Paragraphs 6.06 and 6.07, and any corresponding Supplementary Conditions, the parties required to be insured shall collectively be referred to as "insureds."
  2. be written on a builder's risk "all risk" policy form that shall at least include insurance for physical loss or damage to the Work, temporary buildings, falsework, and materials and equipment in transit, and shall insure against at least the following perils or causes of loss: fire; lightning; windstorm; riot; civil commotion; terrorism; vehicle impact; aircraft; smoke; theft; vandalism and malicious mischief; mechanical breakdown, boiler explosion, and artificially generated electric current; earthquake; volcanic activity, and other earth movement; flood; collapse; explosion; debris removal; demolition occasioned by enforcement of Laws and Regulations; water damage (other than that caused by flood); and such other perils or causes of loss as may be specifically required by the Supplementary Conditions. If insurance against mechanical breakdown, boiler explosion, and artificially generated electric current; earthquake; volcanic activity, and other earth movement; or flood, are not commercially available



under builder's risk policies, by endorsement or otherwise, such insurance may be provided through other insurance policies acceptable to Owner and Contractor.

3. cover, as insured property, at least the following: (a) the Work and all materials, supplies, machinery, apparatus, equipment, fixtures, and other property of a similar nature that are to be incorporated into or used in the preparation, fabrication, construction, erection, or completion of the Work, including Owner-furnished or assigned property; (b) spare parts inventory required within the scope of the Contract; and (c) temporary works which are not intended to form part of the permanent constructed Work but which are intended to provide working access to the Site, or to the Work under construction, or which are intended to provide temporary support for the Work under construction, including scaffolding, form work, fences, shoring, falsework, and temporary structures.
  4. cover expenses incurred in the repair or replacement of any insured property (including but not limited to fees and charges of engineers and architects).
  5. extend to cover damage or loss to insured property while in temporary storage at the Site or in a storage location outside the Site (but not including property stored at the premises of a manufacturer or Supplier).
  6. extend to cover damage or loss to insured property while in transit.
  7. allow for partial occupation or use of the Work by Owner, such that those portions of the Work that are not yet occupied or used by Owner shall remain covered by the builder's risk insurance.
  8. allow for the waiver of the insurer's subrogation rights, as set forth below.
  9. provide primary coverage for all losses and damages caused by the perils or causes of loss covered.
  10. not include a co-insurance clause.
  11. include an exception for ensuing losses from physical damage or loss with respect to any defective workmanship, design, or materials exclusions.
  12. include performance/hot testing and start-up.
  13. be maintained in effect, subject to the provisions herein regarding Substantial Completion and partial occupancy or use of the Work by Owner, until the Work is complete.
- B. *Notice of Cancellation or Change:* All the policies of insurance (and the certificates or other evidence thereof) required to be purchased and maintained in accordance with this Paragraph 6.05 will contain a provision or endorsement that the coverage afforded will not be canceled or materially changed or renewal refused until at least 10 days prior written notice has been given to the purchasing policyholder. Within three days of receipt of any such written notice, the purchasing policyholder shall provide a copy of the notice to each other insured.
- C. *Deductibles:* The purchaser of any required builder's risk or property insurance shall pay for costs not covered because of the application of a policy deductible.
- D. *Partial Occupancy or Use by Owner:* If Owner will occupy or use a portion or portions of the Work prior to Substantial Completion of all the Work as provided in Paragraph 15.04, then Owner (directly, if it is the purchaser of the builder's risk policy, or through Contractor) will

provide notice of such occupancy or use to the builder's risk insurer. The builder's risk insurance shall not be canceled or permitted to lapse on account of any such partial use or occupancy; rather, those portions of the Work that are occupied or used by Owner may come off the builder's risk policy, while those portions of the Work not yet occupied or used by Owner shall remain covered by the builder's risk insurance.

- E. *Additional Insurance:* If Contractor elects to obtain other special insurance to be included in or supplement the builder's risk or property insurance policies provided under this Paragraph 6.05, it may do so at Contractor's expense.
- F. *Insurance of Other Property:* If the express insurance provisions of the Contract do not require or address the insurance of a property item or interest, such as tools, construction equipment, or other personal property owned by Contractor, a Subcontractor, or an employee of Contractor or a Subcontractor, then the entity or individual owning such property item will be responsible for deciding whether to insure it, and if so in what amount.

#### 6.06 *Waiver of Rights*

- A. All policies purchased in accordance with Paragraph 6.05, expressly including the builder's risk policy, 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 insureds thereunder, or against Engineer or its consultants, or their officers, directors, members, partners, employees, agents, consultants, or subcontractors. Owner and Contractor waive all rights against each other and the respective officers, directors, members, partners, employees, agents, consultants, and subcontractors of each and any of them, for all losses and damages caused by, arising out of, or resulting from any of the perils or causes of loss covered by such policies and any other property insurance applicable to the Work; and, in addition, waive all such rights against Engineer, its consultants, all Subcontractors, all individuals or entities identified in the Supplementary Conditions as insureds, and the officers, directors, members, partners, employees, agents, consultants, and subcontractors of each and any of them, under such policies for losses and damages so caused. None of the above waivers shall extend to the rights that any party making such waiver may have to the proceeds of insurance held by Owner or Contractor as trustee or fiduciary, or otherwise payable under any policy so issued.
- B. Owner waives all rights against Contractor, Subcontractors, and Engineer, and the officers, directors, members, partners, employees, agents, consultants and subcontractors of each and any of them, for:
  - 1. loss due to business interruption, loss of use, or other consequential loss extending beyond direct physical loss or damage to Owner's property or the Work caused by, arising out of, or resulting from fire or other perils whether or not insured by Owner; and
  - 2. loss or damage to the completed Project or part thereof caused by, arising out of, or resulting from fire or other insured peril or cause of loss covered by any property insurance maintained on the completed Project or part thereof by Owner during partial occupancy or use pursuant to Paragraph 15.04, after Substantial Completion pursuant to Paragraph 15.03, or after final payment pursuant to Paragraph 15.06.
- C. Any insurance policy maintained by Owner covering any loss, damage or consequential loss referred to in Paragraph 6.06.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, or the officers, directors, members, partners, employees, agents, consultants, or subcontractors of each and any of them.

- D. Contractor shall be responsible for assuring that the agreement under which a Subcontractor performs a portion of the Work contains provisions whereby the Subcontractor waives all rights against Owner, Contractor, all individuals or entities identified in the Supplementary Conditions as insureds, the Engineer and its consultants, and the officers, directors, members, partners, employees, agents, consultants, and subcontractors of each and any of them, for all losses and damages caused by, arising out of, relating to, or resulting from any of the perils or causes of loss covered by builder's risk insurance and any other property insurance applicable to the Work.

#### 6.07 *Receipt and Application of Property Insurance Proceeds*

- A. Any insured loss under the builder's risk and other policies of insurance required by Paragraph 6.05 will be adjusted and settled with the named insured that purchased the policy. Such named insured shall act as fiduciary for the other insureds, and give notice to such other insureds that adjustment and settlement of a claim is in progress. Any other insured may state its position regarding a claim for insured loss in writing within 15 days after notice of such claim.
- B. Proceeds for such insured losses may be made payable by the insurer either jointly to multiple insureds, or to the named insured that purchased the policy in its own right and as fiduciary for other insureds, subject to the requirements of any applicable mortgage clause. A named insured receiving insurance proceeds under the builder's risk and other policies of insurance required by Paragraph 6.05 shall distribute such proceeds in accordance with such agreement as the parties in interest may reach, or as otherwise required under the dispute resolution provisions of this Contract or applicable Laws and Regulations.
- C. If no other special agreement is reached, the damaged Work shall be repaired or replaced, the money so received applied on account thereof, and the Work and the cost thereof covered by Change Order, if needed.

### ARTICLE 7 – CONTRACTOR'S RESPONSIBILITIES

#### 7.01 *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.
- 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.

#### 7.02 *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, Monday through Friday. Contractor will not perform Work on a Saturday, Sunday, or any legal holiday. Contractor may perform Work outside regular working hours or on Saturdays, Sundays, or legal holidays only with Owner's written consent, which will not be unreasonably withheld.

#### 7.03 *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, whether or not such items are specifically called for in the Contract Documents.
- B. All materials and equipment incorporated into the Work 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.

#### 7.04 *"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 Contract Price has been based upon Contractor furnishing such item as specified. The specification or description of such an item is intended to establish the type, function, appearance, and quality required. Unless the specification or description contains or is followed by words reading that no like, equivalent, or "or equal" item is permitted, Contractor may request that Engineer authorize the use of other items of material or equipment, or items from other proposed suppliers under the circumstances described below.
  - 1. If Engineer in its sole discretion determines that 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, Engineer shall deem it an "or equal" item. For the purposes of this paragraph, 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
- 4) it is not objectionable to Owner.
- 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.
- B. *Contractor's Expense*: Contractor shall provide all data in support of any proposed "or equal" item at Contractor's expense.
- C. *Engineer's Evaluation and Determination*: Engineer will be allowed a reasonable time to evaluate each "or-equal" request. Engineer may require Contractor to furnish additional data about the proposed "or-equal" item. Engineer will be the sole judge of acceptability. No "or-equal" item will be ordered, furnished, installed, or utilized until Engineer's review is complete and Engineer determines that the proposed item is an "or-equal", which will be evidenced by an approved Shop Drawing or other written communication. Engineer will advise Contractor in writing of any negative determination.
- D. *Effect of Engineer's Determination*: Neither approval nor denial of an "or-equal" request shall result in any change in Contract Price. The Engineer's denial of an "or-equal" request shall be final and binding, and may not be reversed through an appeal under any provision of the Contract Documents.
- E. *Treatment as a Substitution Request*: If Engineer determines that an item of material or equipment proposed by Contractor does not qualify as an "or-equal" item, Contractor may request that Engineer considered the proposed item as a substitute pursuant to Paragraph 7.05.

#### 7.05 Substitutes

- A. Unless the specification or description of an item of material or equipment required to be furnished under the Contract Documents contains or is followed by words reading that no substitution is permitted, Contractor may request that Engineer authorize the use of other items of material or equipment under the circumstances described below. To the extent possible such requests shall be made before commencement of related construction at the Site.
  - 1. Contractor shall submit sufficient information as provided below to allow Engineer to determine if the item of material or equipment proposed is functionally equivalent to that named and an acceptable substitute therefor. Engineer will not accept requests for review of proposed substitute items of material or equipment from anyone other than Contractor.
  - 2. The requirements for review by Engineer will be as set forth in Paragraph 7.05.B, as supplemented by the Specifications, and as Engineer may decide is appropriate under the circumstances.
  - 3. Contractor shall make written application to Engineer for review of a proposed substitute item of material or equipment that Contractor seeks to furnish or use. The application:



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



- F. *Effect of Engineer's Determination:* If Engineer approves the substitution request, Contractor shall execute the proposed Change Order and proceed with the substitution. The Engineer's denial of a substitution request shall be final and binding, and may not be reversed through an appeal under any provision of the Contract Documents. Contractor may challenge the scope of reimbursement costs imposed under Paragraph 7.05.D, by timely submittal of a Change Proposal.

7.06 *Concerning Subcontractors, Suppliers, and Others*

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

- J. Contractor shall be solely responsible for scheduling and coordinating the work of Subcontractors, Suppliers, and all other individuals or entities performing or furnishing any of the Work.
- K. Contractor shall restrict all Subcontractors, Suppliers, and such other individuals or entities performing or furnishing any of the Work from communicating with Engineer or Owner, except through Contractor or in case of an emergency, or as otherwise expressly allowed herein.
- L. 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.
- M. All Work performed for Contractor by a Subcontractor or Supplier shall be pursuant to an appropriate contractual agreement that specifically binds the Subcontractor or Supplier to the applicable terms and conditions of the Contract Documents for the benefit of Owner and Engineer.
- N. Owner may furnish to any Subcontractor or Supplier, to the extent practicable, information about amounts paid to Contractor on account of Work performed for Contractor by the particular Subcontractor or Supplier.
- O. Nothing in the Contract Documents:
  - 1. shall create for the benefit of any such Subcontractor, Supplier, or other individual or entity any contractual relationship between Owner or Engineer and any such Subcontractor, Supplier, or other individual or entity; nor
  - 2. shall create any obligation on the part of Owner or Engineer to pay or to see to the payment of any money due any such Subcontractor, Supplier, or other individual or entity except as may otherwise be required by Laws and Regulations.

#### 7.07 *Patent Fees and Royalties*

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



- C. To the fullest extent permitted by Laws and Regulations, Contractor shall indemnify and hold harmless Owner and Engineer, and the officers, directors, members, partners, employees, agents, consultants and subcontractors of each and any of them from and against all claims, costs, losses, and damages (including but not limited to all fees and charges of engineers, architects, attorneys, and other professionals and all court or arbitration or other dispute resolution costs) arising out of or relating to any infringement of patent rights or copyrights incident to the use in the performance of the Work or resulting from the incorporation in the Work of any invention, design, process, product, or device not specified in the Contract Documents.

#### 7.08 *Permits*

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

#### 7.09 *Taxes*

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

#### 7.10 *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 or takes any other action knowing or having reason to know that it is contrary to Laws or Regulations, Contractor shall bear all resulting costs and losses, and shall indemnify and hold harmless Owner and Engineer, and the officers, directors, members, partners, employees, agents, consultants, and subcontractors of each and any of them from and against all claims, costs, losses, and damages (including but not limited to all fees and charges of engineers, architects, attorneys, and other professionals and all court or arbitration or other dispute resolution costs) arising out of or relating to such Work or other action. It shall not be Contractor's responsibility to make certain that the Work described in the Contract Documents is in accordance with Laws and Regulations, but this shall not relieve Contractor of Contractor's obligations under Paragraph 3.03.
- C. Owner or Contractor may give notice to the other party of any changes after the submission of Contractor's Bid (or after the date when Contractor became bound under a negotiated contract) in Laws or Regulations having an effect on the cost or time of performance of the Work, including but not limited to changes in Laws or Regulations having an effect on procuring permits and on sales, use, value-added, consumption, and other similar taxes. If Owner and Contractor are unable to agree on entitlement to or on the amount or extent, if any, of any adjustment in Contract Price or Contract Times resulting from such changes, then within 30 days of such notice Contractor may submit a Change Proposal, or Owner may initiate a Claim.



### 7.11 *Record Documents*

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

### 7.12 *Safety and Protection*

- A. Contractor shall be solely responsible for initiating, maintaining, and supervising all safety precautions and programs in connection with the Work. Such responsibility does not relieve Subcontractors of their responsibility for the safety of persons or property in the performance of their work, nor for compliance with applicable safety Laws and Regulations. Contractor shall take all necessary precautions for the safety of, and shall provide the necessary protection to prevent damage, injury, or loss to:
  - 1. all persons on the Site or who may be affected by the Work;
  - 2. all the Work and materials and equipment to be incorporated therein, whether in storage on or off the Site; and
  - 3. other property at the Site or adjacent thereto, including trees, shrubs, lawns, walks, pavements, roadways, structures, other work in progress, 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 Owner; the owners of adjacent property, Underground Facilities, and other utilities; and other contractors and utility owners performing work at or adjacent to the Site, when prosecution of the Work may affect them, and shall cooperate with them in the protection, removal, relocation, and replacement of their property or work in progress.
- C. Contractor shall comply with the applicable requirements of Owner's safety programs, if any. The Supplementary Conditions identify any Owner's safety programs that are applicable to the Work.
- D. Contractor shall inform Owner and Engineer of the specific requirements of Contractor's safety program with which Owner's and Engineer's employees and representatives must comply while at the Site.
- E. All damage, injury, or loss to any property referred to in Paragraph 7.12.A.2 or 7.12.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 at its expense (except damage or loss attributable to the fault of Drawings or Specifications or to the acts or omissions of Owner or Engineer or anyone employed by any of them, or anyone for whose acts any of them may be liable, and not attributable, directly or indirectly, in whole or in part, to the fault or negligence of

Contractor or any Subcontractor, Supplier, or other individual or entity directly or indirectly employed by any of them).

- F. Contractor's duties and responsibilities for safety and protection 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 15.06.B that the Work is acceptable (except as otherwise expressly provided in connection with Substantial Completion).
- G. Contractor's duties and responsibilities for safety and protection shall resume whenever Contractor or any Subcontractor or Supplier returns to the Site to fulfill warranty or correction obligations, or to conduct other tasks arising from the Contract Documents.

#### 7.13 *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.

#### 7.14 *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.

#### 7.15 *Emergencies*

- A. In emergencies affecting the safety or protection of persons or the Work or property at the Site or adjacent thereto, Contractor is obligated to act to prevent 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.

#### 7.16 *Shop Drawings, Samples, and Other Submittals*

##### A. *Shop Drawing and Sample Submittal Requirements:*

1. Before submitting a Shop Drawing or Sample, Contractor shall have:
  - a. reviewed and coordinated the Shop Drawing or Sample with other Shop Drawings and Samples and with the requirements of the Work and the Contract Documents;
  - b. determined and verified all field measurements, quantities, dimensions, specified performance and design criteria, installation requirements, materials, catalog numbers, and similar information with respect thereto;
  - c. determined and verified the suitability of all materials and equipment offered with respect to the indicated application, fabrication, shipping, handling, storage, assembly, and installation pertaining to the performance of the Work; and
  - d. determined and verified all information relative to Contractor's responsibilities for means, methods, techniques, sequences, and procedures of construction, and safety precautions and programs incident thereto.



2. Each submittal shall bear a stamp or specific written certification that Contractor has satisfied Contractor's obligations under the Contract Documents with respect to Contractor's review of that submittal, and that Contractor approves the 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 set forth in a written communication separate from the Shop Drawings or Sample submittal; and, in addition, in the case of Shop Drawings by a specific notation made on each Shop Drawing submitted to Engineer for review and approval of each such variation.
- B. *Submittal Procedures for Shop Drawings and Samples:* Contractor shall submit Shop Drawings and Samples to Engineer for review and approval in accordance with the accepted Schedule of Submittals. Each submittal will be identified as Engineer may require.
1. *Shop Drawings:*
    - a. Contractor shall submit the number of copies required in the Specifications.
    - 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 7.16.D.
  2. *Samples:*
    - a. Contractor shall submit the number of Samples required in the Specifications.
    - b. Contractor shall clearly identify each Sample as to material, Supplier, pertinent data such as catalog numbers, the use for which intended and other data as Engineer may require to enable Engineer to review the submittal for the limited purposes required by Paragraph 7.16.D.
  3. Where a Shop Drawing or Sample is required by the Contract Documents or the Schedule of Submittals, any related Work performed prior to Engineer's review and approval of the pertinent submittal will be at the sole expense and responsibility of Contractor.
- C. *Other Submittals:* Contractor shall submit other submittals to Engineer in accordance with the accepted Schedule of Submittals, and pursuant to the applicable terms of the Specifications.
- 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 or to safety precautions or programs incident thereto.



3. Engineer's review and approval of a separate item as such will not indicate approval of the assembly in which the item functions.
4. Engineer's review and approval of a Shop Drawing or Sample 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 7.16.A.3 and Engineer has given written approval of each such variation by specific written notation thereof incorporated in or accompanying the Shop Drawing or Sample. Engineer will document any such approved variation from the requirements of the Contract Documents in a Field Order.
5. Engineer's review and approval of a Shop Drawing or Sample shall not relieve Contractor from responsibility for complying with the requirements of Paragraph 7.16.A and B.
6. Engineer's review and approval of a Shop Drawing or Sample, or of a variation from the requirements of the Contract Documents, shall not, under any circumstances, change the Contract Times or Contract Price, unless such changes are included in a Change Order.
7. Neither Engineer's receipt, review, acceptance or approval of a Shop Drawing, Sample, or other submittal shall result in such item becoming a Contract Document.
8. Contractor shall perform the Work in compliance with the requirements and commitments set forth in approved Shop Drawings and Samples, subject to the provisions of Paragraph 7.16.D.4.

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

7.17 *Contractor's General Warranty and Guarantee*

- A. Contractor warrants and guarantees to Owner that all Work will be in accordance with the Contract Documents and will not be defective. Engineer and its officers, directors, members, partners, employees, agents, consultants, and subcontractors shall be entitled to rely on 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;
  - 6. the issuance of a notice of acceptability by Engineer;
  - 7. any inspection, test, or approval by others; or
  - 8. any correction of defective Work by Owner.
- D. If the Contract requires the Contractor to accept the assignment of a contract entered into by Owner, then the specific warranties, guarantees, and correction obligations contained in the assigned contract shall govern with respect to Contractor's performance obligations to Owner for the Work described in the assigned contract.

#### 7.18 *Indemnification*

- A. To the fullest extent permitted by Laws and Regulations, and in addition to any other obligations of Contractor under the Contract or otherwise, Contractor shall indemnify and hold harmless Owner and Engineer, and the officers, directors, members, partners, employees, agents, consultants and subcontractors of each and any of them from and against all claims, costs, losses, and damages (including but not limited to all fees and charges of engineers, architects, attorneys, and other professionals and all court or arbitration or other dispute resolution costs) arising out of or relating to the performance of the Work, provided that any such claim, cost, loss, or damage is attributable to bodily injury, sickness, disease, or death, or to injury to or destruction of tangible property (other than the Work itself), including the loss of use resulting therefrom but only to the extent caused by any negligent act or omission of Contractor, any Subcontractor, any Supplier, or any individual or entity directly or indirectly employed by any of them to perform any of the Work or anyone for whose acts any of them may be liable.
- B. In any and all claims against Owner or Engineer or any of their officers, directors, members, partners, employees, agents, consultants, or subcontractors by any employee (or the survivor or personal representative of such employee) of Contractor, any Subcontractor, any Supplier, or any individual or entity directly or indirectly employed by any of them to perform any of the Work, or anyone for whose acts any of them may be liable, the indemnification obligation under Paragraph 7.18.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 7.18.A shall not extend to the liability of Engineer and Engineer's officers, directors, members, partners, employees, agents, consultants and subcontractors arising out of:
  - 1. the preparation or approval of, or the failure to prepare or approve maps, Drawings, opinions, reports, surveys, Change Orders, designs, or Specifications; or
  - 2. giving directions or instructions, or failing to give them, if that is the primary cause of the injury or damage.

#### 7.19 *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 Laws and Regulations.
- 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, 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, 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 7.16.D.1.
- E. Contractor shall not be responsible for the adequacy of the performance or design criteria specified by Owner or Engineer.

### ARTICLE 8 – OTHER WORK AT THE SITE

#### 8.01 *Other Work*

- A. In addition to and apart from the Work under the Contract Documents, the Owner may perform other work at or adjacent to the Site. Such other work may be performed by Owner's employees, or through contracts between the Owner and third parties. Owner



may also arrange to have third-party utility owners perform work on their utilities and facilities at or adjacent to the Site.

- B. If Owner performs other work at or adjacent to the Site with Owner's employees, or through contracts for such other work, then Owner shall give Contractor written notice thereof prior to starting any such other work. If Owner has advance information regarding the start of any utility work at or adjacent to the Site, Owner shall provide such information to Contractor.
- C. Contractor shall afford each other contractor that performs such other work, each utility owner performing other work, and Owner, if Owner is performing other work with Owner's employees, proper and safe access to the Site, and provide a reasonable opportunity for the introduction and storage of materials and equipment and the execution of such other work. Contractor shall do all cutting, fitting, and patching of the Work that may be required to properly connect or otherwise make its several parts come together and properly integrate with such other work. Contractor shall not endanger any work of others by cutting, excavating, or otherwise altering such work; provided, however, that Contractor may cut or alter others' work with the written consent of Engineer and the others whose work will be affected.
- D. If the proper execution or results of any part of Contractor's Work depends upon work performed by others under this Article 8, 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.

#### 8.02 *Coordination*

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

#### 8.03 *Legal Relationships*

- A. If, in the course of performing other work at or adjacent to the Site for Owner, the Owner's employees, any other contractor working for Owner, or any utility owner for whom the Owner is responsible causes damage to the Work or to the property of Contractor or its Subcontractors, or delays, disrupts, interferes with, or increases the scope or cost of the performance of the Work, through actions or inaction, then Contractor shall be entitled to an equitable adjustment in the Contract Price or the Contract Times, or both. Contractor

must submit any Change Proposal seeking an equitable adjustment in the Contract Price or the Contract Times under this paragraph within 30 days of the damaging, delaying, disrupting, or interfering event. The entitlement to, and extent of, any such equitable adjustment shall take into account information (if any) regarding such other work that was provided to Contractor in the Contract Documents prior to the submittal of the Bid or the final negotiation of the terms of the Contract. When applicable, any such equitable adjustment in Contract Price shall be conditioned on Contractor assigning to Owner all Contractor's rights against such other contractor or utility owner with respect to the damage, delay, disruption, or interference that is the subject of the adjustment. Contractor's entitlement to an adjustment of the Contract Times is conditioned on such adjustment being essential to Contractor's ability to complete the Work within the Contract Times.

- B. Contractor shall take reasonable and customary measures to avoid damaging, delaying, disrupting, or interfering with the work of Owner, any other contractor, or any utility owner performing other work at or adjacent to the Site. If Contractor fails to take such measures and as a result damages, delays, disrupts, or interferes with the work of any such other contractor or utility owner, then Owner may impose a set-off against payments due to Contractor, and assign to such other contractor or utility owner the Owner's contractual rights against Contractor with respect to the breach of the obligations set forth in this paragraph.
- C. When Owner is performing other work at or adjacent to the Site with Owner's employees, Contractor shall be liable to Owner for damage to such other work, and for the reasonable direct delay, disruption, and interference costs incurred by Owner as a result of Contractor's failure to take reasonable and customary measures with respect to Owner's other work. In response to such damage, delay, disruption, or interference, Owner may impose a set-off against payments due to Contractor.
- D. If Contractor damages, delays, disrupts, or interferes with the work of any other contractor, or any utility owner performing other work at or adjacent to the Site, through Contractor's failure to take reasonable and customary measures to avoid such impacts, or if any claim arising out of Contractor's actions, inactions, or negligence in performance of the Work at or adjacent to the Site is made by any such other contractor or utility owner against Contractor, Owner, or Engineer, then Contractor shall (1) promptly attempt to settle the claim as to all parties through negotiations with such other contractor or utility owner, or otherwise resolve the claim by arbitration or other dispute resolution proceeding or at law, and (2) indemnify and hold harmless Owner and Engineer, and the officers, directors, members, partners, employees, agents, consultants and subcontractors of each and any of them from and against any such claims, and against all costs, losses, and damages (including but not limited to all fees and charges of engineers, architects, attorneys, and other professionals and all court or arbitration or other dispute resolution costs) arising out of or relating to such damage, delay, disruption, or interference.

## ARTICLE 9 – OWNER'S RESPONSIBILITIES

### 9.01 *Communications to Contractor*

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



9.02 *Replacement of Engineer*

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

9.03 *Furnish Data*

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

9.04 *Pay When Due*

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

9.05 *Lands and Easements; Reports, Tests, and Drawings*

- A. Owner's duties with respect to providing lands and easements are set forth in Paragraph 5.01.
- B. Owner's duties with respect to providing engineering surveys to establish reference points are set forth in Paragraph 4.03.
- C. Article 5 refers to Owner's identifying and making available to Contractor copies of reports of explorations and tests of conditions at the Site, and drawings of physical conditions relating to existing surface or subsurface structures at the Site.

9.06 *Insurance*

- A. Owner's responsibilities, if any, with respect to purchasing and maintaining liability and property insurance are set forth in Article 6.

9.07 *Change Orders*

- A. Owner's responsibilities with respect to Change Orders are set forth in Article 11.

9.08 *Inspections, Tests, and Approvals*

- A. Owner's responsibility with respect to certain inspections, tests, and approvals is set forth in Paragraph 14.02.B.

9.09 *Limitations on Owner's Responsibilities*

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

9.10 *Undisclosed Hazardous Environmental Condition*

- A. Owner's responsibility in respect to an undisclosed Hazardous Environmental Condition is set forth in Paragraph 5.06.

9.11 *Evidence of Financial Arrangements*

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



**9.12 Safety Programs**

- A. While at the Site, Owner's employees and representatives shall comply with the specific applicable requirements of Contractor's safety programs of which Owner has been informed.
- B. Owner shall furnish copies of any applicable Owner safety programs to Contractor.

**ARTICLE 10 – ENGINEER'S STATUS DURING CONSTRUCTION****10.01 Owner's Representative**

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

**10.02 Visits to Site**

- A. Engineer will make visits to the Site at intervals appropriate to the various stages of construction as Engineer deems necessary in order to observe as an experienced and qualified design professional the progress that has been made and the quality of the various aspects of Contractor's executed Work. Based on information obtained during such visits and observations, Engineer, for the benefit of Owner, will determine, in general, if the Work is proceeding in accordance with the Contract Documents. Engineer will not be required to make exhaustive or continuous inspections on the Site to check the quality or quantity of the Work. Engineer's efforts will be directed toward providing for Owner a greater degree of confidence that the completed Work will conform generally to the Contract Documents. On the basis of such visits and observations, Engineer will keep Owner informed of the progress of the Work and will endeavor to guard Owner against defective Work.
- B. Engineer's visits and observations are subject to all the limitations on Engineer's authority and responsibility set forth in Paragraph 10.08. Particularly, but without limitation, during or as a result of Engineer's visits or observations of Contractor's Work, Engineer will not supervise, direct, control, or have authority over or be responsible for Contractor's means, methods, techniques, sequences, or procedures of construction, or the safety precautions and programs incident thereto, or for any failure of Contractor to comply with Laws and Regulations applicable to the performance of the Work.

**10.03 Project Representative**

- A. If Owner and Engineer have agreed that Engineer will furnish a Resident Project Representative to represent Engineer at the Site and assist Engineer in observing the progress and quality of the Work, then the authority and responsibilities of any such Resident Project Representative will be as provided in the Supplementary Conditions, and limitations on the responsibilities thereof will be as provided in Paragraph 10.08. 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.

**10.04 Rejecting Defective Work**

- A. Engineer has the authority to reject Work in accordance with Article 14.

10.05 *Shop Drawings, Change Orders and Payments*

- A. Engineer's authority, and limitations thereof, as to Shop Drawings and Samples, are set forth in Paragraph 7.16.
- B. 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, are set forth in Paragraph 7.19.
- C. Engineer's authority as to Change Orders is set forth in Article 11.
- D. Engineer's authority as to Applications for Payment is set forth in Article 15.

10.06 *Determinations for Unit Price Work*

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

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

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

10.08 *Limitations on Engineer's Authority and Responsibilities*

- A. Neither Engineer's authority or responsibility under this Article 10 or under any other provision of the Contract, nor any decision made by Engineer in good faith either to exercise or not exercise such authority or responsibility or the undertaking, exercise, or performance of any authority or responsibility by Engineer, 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 15.06.A will only be to determine generally that their content complies with the requirements of, and in the case of certificates of inspections, tests, and approvals, that the results certified indicate compliance with the Contract Documents.
- E. The limitations upon authority and responsibility set forth in this Paragraph 10.08 shall also apply to the Resident Project Representative, if any.



#### 10.09 *Compliance with Safety Program*

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

### ARTICLE 11 – AMENDING THE CONTRACT DOCUMENTS; CHANGES IN THE WORK

#### 11.01 *Amending and Supplementing Contract Documents*

- A. The Contract Documents may be amended or supplemented by a Change Order, a Work Change Directive, or a Field Order.
  - 1. *Change Orders:*
    - a. If an amendment or supplement to the Contract Documents includes a change in the Contract Price or the Contract Times, such amendment or supplement must be set forth in a Change Order. A Change Order also may be used to establish amendments and supplements of the Contract Documents that do not affect the Contract Price or Contract Times.
    - b. Owner and Contractor may amend those terms and conditions of the Contract Documents that do not involve (1) the performance or acceptability of the Work, (2) the design (as set forth in the Drawings, Specifications, or otherwise), or (3) other engineering or technical matters, without the recommendation of the Engineer. Such an amendment shall be set forth in a Change Order.
  - 2. *Work Change Directives:* A Work Change Directive will not change the Contract Price or the Contract Times but is evidence that the parties expect that the modification ordered or documented by a Work Change Directive will be incorporated in a subsequently issued Change Order, following negotiations by the parties as to the Work Change Directive's effect, if any, on the Contract Price and Contract Times; or, if negotiations are unsuccessful, by a determination under the terms of the Contract Documents governing adjustments, expressly including Paragraph 11.04 regarding change of Contract Price. Contractor must submit any Change Proposal seeking an adjustment of the Contract Price or the Contract Times, or both, no later than 30 days after the completion of the Work set out in the Work Change Directive. Owner must submit any Claim seeking an adjustment of the Contract Price or the Contract Times, or both, no later than 60 days after issuance of the Work Change Directive.
  - 3. *Field Orders:* Engineer may authorize minor changes in the Work if the changes do not involve an adjustment in the Contract Price or the Contract Times and are compatible with the design concept of the completed Project as a functioning whole as indicated by the Contract Documents. Such changes will be accomplished by a Field Order and will be binding on Owner and also on Contractor, which shall perform the Work involved promptly. If Contractor believes that a Field Order justifies an adjustment in the Contract Price or Contract Times, or both, then before proceeding with the Work at issue, Contractor shall submit a Change Proposal as provided herein.

#### 11.02 *Owner-Authorized Changes in the Work*

- A. Without invalidating the Contract and without notice to any surety, Owner may, at any time or from time to time, order additions, deletions, or revisions in the Work. Such changes shall be supported by Engineer's recommendation, to the extent the change



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

#### 11.03 *Unauthorized Changes in the Work*

- A. Contractor shall not be entitled to an increase in the Contract Price or an extension of the Contract Times with respect to any work performed that is not required by the Contract Documents, as amended, modified, or supplemented, except in the case of an emergency as provided in Paragraph 7.15 or in the case of uncovering Work as provided in Paragraph 14.05.

#### 11.04 *Change of Contract Price*

- A. The Contract Price may only be changed by a Change Order. Any Change Proposal for an adjustment in the Contract Price shall comply with the provisions of Paragraph 11.06. Any Claim for an adjustment of Contract Price shall comply with the provisions of Article 12.
- B. An adjustment in the Contract Price will be determined as follows:
  - 1. where the Work involved is covered by unit prices contained in the Contract Documents, then by application of such unit prices to the quantities of the items involved (subject to the provisions of Paragraph 13.03); or
  - 2. where the Work involved is not covered by unit prices contained in the Contract Documents, then by a mutually agreed lump sum (which may include an allowance for overhead and profit not necessarily in accordance with Paragraph 11.04.C.2); or
  - 3. where the Work involved is not covered by unit prices contained in the Contract Documents and the parties do not reach mutual agreement to a lump sum, then on the basis of the Cost of the Work (determined as provided in Paragraph 13.01) plus a Contractor's fee for overhead and profit (determined as provided in Paragraph 11.04.C).
- C. *Contractor's Fee:* When applicable, 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 13.01.B.1 and 13.01.B.2, the Contractor's fee shall be 15 percent;
    - b. for costs incurred under Paragraph 13.01.B.3, the Contractor's fee shall be five percent;
    - c. where one or more tiers of subcontracts are on the basis of Cost of the Work plus a fee and no fixed fee is agreed upon, the intent of Paragraphs 11.04.C.2.a and

11.04.C.2.b is that the Contractor's fee shall be based on: (1) a fee of 15 percent of the costs incurred under Paragraphs 13.01.A.1 and 13.01.A.2 by the Subcontractor that actually performs the Work, at whatever tier, and (2) with respect to Contractor itself and to any Subcontractors of a tier higher than that of the Subcontractor that actually performs the Work, a fee of five percent of the amount (fee plus underlying costs incurred) attributable to the next lower tier Subcontractor; provided, however, that for any such subcontracted work the maximum total fee to be paid by Owner shall be no greater than 27 percent of the costs incurred by the Subcontractor that actually performs the work;

- d. no fee shall be payable on the basis of costs itemized under Paragraphs 13.01.B.4, 13.01.B.5, and 13.01.C;
- e. the amount of credit to be allowed by Contractor to Owner for any change which results in a net decrease in cost 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 11.04.C.2.a through 11.04.C.2.e, inclusive.

#### 11.05 *Change of Contract Times*

- A. The Contract Times may only be changed by a Change Order. Any Change Proposal for an adjustment in the Contract Times shall comply with the provisions of Paragraph 11.06. Any Claim for an adjustment in the Contract Times shall comply with the provisions of Article 12.
- B. An adjustment of the Contract Times shall be subject to the limitations set forth in Paragraph 4.05, concerning delays in Contractor's progress.

#### 11.06 *Change Proposals*

- A. Contractor shall submit a Change Proposal to Engineer to request an adjustment in the Contract Times or Contract Price; appeal an initial decision by Engineer concerning the requirements of the Contract Documents or relating to the acceptability of the Work under the Contract Documents; contest a set-off against payment due; or seek other relief under the Contract. The Change Proposal shall specify any proposed change in Contract Times or Contract Price, or both, or other proposed relief, and explain the reason for the proposed change, with citations to any governing or applicable provisions of the Contract Documents.
  - 1. *Procedures:* Contractor shall submit each Change Proposal to Engineer promptly (but in no event later than 30 days) after the start of the event giving rise thereto, or after such initial decision. The Contractor shall submit supporting data, including the proposed change in Contract Price or Contract Time (if any), to the Engineer and Owner within 15 days after the submittal of the Change Proposal. The supporting data shall be accompanied by a written statement that the supporting data are accurate and complete, and that any requested time or price adjustment is the entire adjustment to which Contractor believes it is entitled as a result of said event. Engineer will advise Owner regarding the Change Proposal, and consider any comments or response from Owner regarding the Change Proposal.
  - 2. *Engineer's Action:* Engineer will review each Change Proposal and, within 30 days after receipt of the Contractor's supporting data, either deny the Change Proposal in whole,



approve it in whole, or deny it in part and approve it in part. Such actions shall be in writing, with a copy provided to Owner and Contractor. If Engineer does not take action on the Change Proposal within 30 days, then either Owner or Contractor may at any time thereafter submit a letter to the other party indicating that as a result of Engineer's inaction the Change Proposal is deemed denied, thereby commencing the time for appeal of the denial under Article 12.

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

#### 11.07 *Execution of Change Orders*

- A. Owner and Contractor shall execute appropriate Change Orders covering:
  1. 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;
  2. changes in Contract Price resulting from an Owner set-off, unless Contractor has duly contested such set-off;
  3. changes in the Work which are: (a) ordered by Owner pursuant to Paragraph 11.02, (b) required because of Owner's acceptance of defective Work under Paragraph 14.04 or Owner's correction of defective Work under Paragraph 14.07, or (c) agreed to by the parties, subject to the need for Engineer's recommendation if the change in the Work involves the design (as set forth in the Drawings, Specifications, or otherwise), or other engineering or technical matters; and
  4. changes in the Contract Price or Contract Times, or other changes, which embody the substance of any final and binding results under Paragraph 11.06, or Article 12.
- B. If Owner or Contractor refuses to execute a Change Order that is required to be executed under the terms of this Paragraph 11.07, it shall be deemed to be of full force and effect, as if fully executed.

#### 11.08 *Notification to Surety*

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



## ARTICLE 12 – CLAIMS

### 12.01 *Claims*

- A. *Claims Process:* The following disputes between Owner and Contractor shall be submitted to the Claims process set forth in this Article:
1. Appeals by Owner or Contractor of Engineer's decisions regarding Change Proposals;
  2. Owner demands for adjustments in the Contract Price or Contract Times, or other relief under the Contract Documents; and
  3. Disputes that Engineer has been unable to address because they do not involve the design (as set forth in the Drawings, Specifications, or otherwise), the acceptability of the Work, or other engineering or technical matters.
- B. *Submittal of Claim:* The party submitting a Claim shall deliver it directly to the other party to the Contract promptly (but in no event later than 30 days) after the start of the event giving rise thereto; in the case of appeals regarding Change Proposals within 30 days of the decision under appeal. The party submitting the Claim shall also furnish a copy to the Engineer, for its information only. The responsibility to substantiate a Claim shall rest with the party making the Claim. In the case of a Claim by Contractor seeking an increase in the Contract Times or Contract Price, or both, Contractor shall certify that the Claim is made in good faith, that the supporting data are accurate and complete, and that to the best of Contractor's knowledge and belief the amount of time or money requested accurately reflects the full amount to which Contractor is entitled.
- C. *Review and Resolution:* The party receiving a Claim shall review it thoroughly, giving full consideration to its merits. The two parties shall seek to resolve the Claim through the exchange of information and direct negotiations. The parties may extend the time for resolving the Claim by mutual agreement. All actions taken on a Claim shall be stated in writing and submitted to the other party, with a copy to Engineer.
- D. *Mediation:*
1. At any time after initiation of a Claim, Owner and Contractor may mutually agree to mediation of the underlying dispute. The agreement to mediate shall stay the Claim submittal and response process.
  2. If Owner and Contractor agree to mediation, then after 60 days from such agreement, either Owner or Contractor may unilaterally terminate the mediation process, and the Claim submittal and decision process shall resume as of the date of the termination. If the mediation proceeds but is unsuccessful in resolving the dispute, the Claim submittal and decision process shall resume as of the date of the conclusion of the mediation, as determined by the mediator.
  3. Owner and Contractor shall each pay one-half of the mediator's fees and costs.
- E. *Partial Approval:* If the party receiving a Claim approves the Claim in part and denies it in part, such action shall be final and binding unless within 30 days of such action the other party invokes the procedure set forth in Article 17 for final resolution of disputes.
- F. *Denial of Claim:* If efforts to resolve a Claim are not successful, the party receiving the Claim may deny it by giving written notice of denial to the other party. If the receiving party does not take action on the Claim within 90 days, then either Owner or Contractor may at any time thereafter submit a letter to the other party indicating that as a result of the inaction,

the Claim is deemed denied, thereby commencing the time for appeal of the denial. A denial of the Claim shall be final and binding unless within 30 days of the denial the other party invokes the procedure set forth in Article 17 for the final resolution of disputes.

- G. *Final and Binding Results:* If the parties reach a mutual agreement regarding a Claim, whether through approval of the Claim, direct negotiations, mediation, or otherwise; or if a Claim is approved in part and denied in part, or denied in full, and such actions become final and binding; then the results of the agreement or action on the Claim shall be incorporated in a Change Order to the extent they affect the Contract, including the Work, the Contract Times, or the Contract Price.

## ARTICLE 13 – COST OF THE WORK; ALLOWANCES; UNIT PRICE WORK

### 13.01 *Cost of the Work*

- A. *Purposes for Determination of Cost of the Work:* The term Cost of the Work means the sum of all costs necessary for the proper performance of the Work at issue, as further defined below. The provisions of this Paragraph 13.01 are used for two distinct purposes:
1. To determine Cost of the Work when Cost of the Work is a component of the Contract Price, under cost-plus-fee, time-and-materials, or other cost-based terms; or
  2. To determine the value of a Change Order, Change Proposal, Claim, set-off, or other adjustment in Contract Price. When the value of any such adjustment is determined on the basis of Cost of the Work, Contractor is entitled only to those additional or incremental costs required because of the change in the Work or because of the event giving rise to the adjustment.
- B. *Costs Included:* Except as otherwise may be agreed to in writing by Owner, costs included in the Cost of the Work shall be in amounts no higher than those prevailing in the locality of the Project, shall not include any of the costs itemized in Paragraph 13.01.C, and shall include only the following items:
1. Payroll costs for employees in the direct employ of Contractor in the performance of the Work under schedules of job classifications agreed upon by Owner and Contractor. Such employees shall include, without limitation, superintendents, foremen, and other personnel employed full time on the Work. Payroll costs for employees not employed full time on the Work shall be apportioned on the basis of their time spent on the Work. Payroll costs shall include, but not be limited to, salaries and wages plus the cost of fringe benefits, which shall include social security contributions, unemployment, excise, and payroll taxes, workers' compensation, health and retirement benefits, bonuses, sick leave, and 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 13.01.
4. Costs of special consultants (including but not limited to engineers, architects, testing laboratories, surveyors, attorneys, and accountants) employed for services specifically related to the Work.
5. Supplemental costs including the following:
  - a. The proportion of necessary transportation, travel, and subsistence expenses of Contractor's employees incurred in discharge of duties connected with the Work.
  - b. Cost, including transportation and maintenance, of all materials, supplies, equipment, machinery, appliances, office, and temporary facilities at the Site, and hand tools not owned by the workers, which are consumed in the performance of the Work, and cost, less market value, of such items used but not consumed which remain the property of Contractor.
  - c. Rentals of all construction equipment and machinery, and the parts thereof, whether rented from Contractor or others in accordance with rental agreements approved by Owner with the advice of Engineer, and the costs of transportation, loading, unloading, assembly, dismantling, and removal thereof. All such costs shall be in accordance with the terms of said rental agreements. The rental of any such equipment, machinery, or parts shall cease when the use thereof is no longer necessary for the Work.
  - d. Sales, consumer, use, and other similar taxes related to the Work, and for which Contractor is liable, as imposed by Laws and Regulations.
  - e. Deposits lost for causes other than negligence of Contractor, any Subcontractor, or anyone directly or indirectly employed by any of them or for whose acts any of them may be liable, and royalty payments and fees for permits and licenses.
  - f. Losses and damages (and related expenses) caused by damage to the Work, not compensated by insurance or otherwise, sustained by Contractor in connection with the performance of the Work (except losses and damages within the deductible amounts of property insurance established in accordance with Paragraph 6.05), 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 communication service at the Site, express and courier services, and similar petty cash items in connection with the Work.



- i. The costs of premiums for all bonds and insurance that Contractor is required by the Contract Documents to purchase and maintain.
- C. *Costs Excluded:* The term Cost of the Work 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 13.01.B.1 or specifically covered by Paragraph 13.01.B.4. The payroll costs and other compensation excluded here are to be considered administrative costs covered by the Contractor's fee.
  - 2. 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 Paragraph 13.01.B.
- D. *Contractor's Fee:* When the Work as a whole 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, Change Proposal, Claim, set-off, or other 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 11.04.C.
- E. *Documentation:* Whenever the Cost of the Work for any purpose is to be determined pursuant to this Article 13, 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.

### 13.02 Allowances

- A. It is understood that Contractor has included in the Contract Price all allowances so named in the Contract Documents and shall cause the Work so covered to be performed for such sums and by such persons or entities as may be acceptable to Owner and Engineer.
- B. *Cash Allowances:* Contractor agrees that:
  - 1. the cash allowances include the cost to Contractor (less any applicable trade discounts) of materials and equipment required by the allowances to be delivered at the Site, and all applicable taxes; and
  - 2. Contractor's costs for unloading and handling on the Site, labor, installation, overhead, profit, and other expenses contemplated for the cash allowances have been included in the Contract Price and not in the allowances, and no demand for additional payment on account of any of the foregoing will be valid.

- C. *Contingency Allowance*: 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.

### 13.03 *Unit Price Work*

- A. Where the Contract Documents provide that all or part of the Work is to be Unit Price Work, initially the Contract Price will be deemed to include for all Unit Price Work an amount equal to the sum of the unit price for each separately identified item of Unit Price Work times the estimated quantity of each item as indicated in the Agreement.
- B. The estimated quantities of items of Unit Price Work are not guaranteed and are solely for the purpose of comparison of Bids and determining an initial Contract Price. Payments to Contractor for Unit Price Work will be based on actual quantities.
- C. Each unit price will be deemed to include an amount considered by Contractor to be adequate to cover Contractor's overhead and profit for each separately identified item.
- D. Engineer will determine the actual quantities and classifications of Unit Price Work performed by Contractor. Engineer will review with Contractor the Engineer's preliminary determinations on such matters before rendering a written decision thereon (by recommendation of an Application for Payment or otherwise). Engineer's written decision thereon will be final and binding (except as modified by Engineer to reflect changed factual conditions or more accurate data) upon Owner and Contractor, subject to the provisions of the following paragraph.
- E. Within 30 days of Engineer's written decision under the preceding paragraph, Contractor may submit a Change Proposal, or Owner may file a Claim, seeking an adjustment in the Contract Price if:
  - 1. the quantity of any item of Unit Price Work performed by Contractor differs materially and significantly from the estimated quantity of such item indicated in the Agreement;
  - 2. there is no corresponding adjustment with respect to any other item of Work; and
  - 3. Contractor believes that it 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 14 – TESTS AND INSPECTIONS; CORRECTION, REMOVAL OR ACCEPTANCE OF DEFECTIVE WORK**

### 14.01 *Access to Work*

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



#### 14.02 Tests, Inspections, and Approvals

- A. Contractor shall give Engineer timely notice of readiness of the Work (or specific parts thereof) for all required inspections and tests, and shall cooperate with inspection and testing personnel to facilitate required inspections and tests.
- B. Owner shall retain and pay for the services of an independent inspector, testing laboratory, or other qualified individual or entity to perform all inspections and tests expressly required by the Contract Documents to be furnished and paid for by Owner, except that costs incurred in connection with tests or inspections of covered Work shall be governed by the provisions of Paragraph 14.05.
- C. If Laws or Regulations of any public body having jurisdiction require any Work (or part thereof) specifically to be inspected, tested, or approved by an employee or other representative of such public body, Contractor shall assume full responsibility for arranging and obtaining such inspections, tests, or approvals, pay all costs in connection therewith, and furnish Engineer the required certificates of inspection or approval.
- D. Contractor shall be responsible for arranging, obtaining, and paying for all inspections and tests required:
  - 1. by the Contract Documents, unless the Contract Documents expressly allocate responsibility for a specific inspection or test to Owner;
  - 2. to attain Owner's and Engineer's acceptance of materials or equipment to be incorporated in the Work;
  - 3. by manufacturers of equipment furnished under the Contract Documents;
  - 4. for testing, adjusting, and balancing of mechanical, electrical, and other equipment to be incorporated into the Work; and
  - 5. for acceptance of materials, mix designs, or equipment submitted for approval prior to Contractor's purchase thereof for incorporation in the Work.

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

- E. If the Contract Documents require the Work (or part thereof) to be approved by Owner, Engineer, or another designated individual or entity, then Contractor shall assume full responsibility for arranging and obtaining such approvals.
- F. If any Work (or the work of others) that is to be inspected, tested, or approved is covered by Contractor without written concurrence of Engineer, Contractor shall, if requested by Engineer, uncover such Work for observation. Such uncovering shall be at Contractor's expense unless Contractor had given Engineer timely notice of Contractor's intention to cover the same and Engineer had not acted with reasonable promptness in response to such notice.

#### 14.03 Defective Work

- A. *Contractor's Obligation:* It is Contractor's obligation to assure that the Work is not defective.
- B. *Engineer's Authority:* Engineer has the authority to determine whether Work is defective, and to reject defective Work.



- C. *Notice of Defects*: Prompt notice of all defective Work of which Owner or Engineer has actual knowledge will be given to Contractor.
- D. *Correction, or Removal and Replacement*: Promptly after receipt of written notice of defective Work, Contractor shall correct all such defective Work, whether or not fabricated, installed, or completed, or, if Engineer has rejected the defective Work, remove it from the Project and replace it with Work that is not defective.
- E. *Preservation of Warranties*: When correcting defective Work, Contractor shall take no action that would void or otherwise impair Owner's special warranty and guarantee, if any, on said Work.
- F. *Costs and Damages*: In addition to its correction, removal, and replacement obligations with respect to defective Work, Contractor shall pay all claims, costs, losses, and damages arising out of or relating to defective Work, including but not limited to the cost of the inspection, testing, correction, removal, replacement, or reconstruction of such defective Work, fines levied against Owner by governmental authorities because the Work is defective, and the costs of repair or replacement of work of others resulting from defective Work. Prior to final payment, if Owner and Contractor are unable to agree as to the measure of such claims, costs, losses, and damages resulting from defective Work, then Owner may impose a reasonable set-off against payments due under Article 15.

#### 14.04 *Acceptance of Defective Work*

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

#### 14.05 *Uncovering Work*

- A. Engineer has the authority to require additional inspection or testing of the Work, whether or not the Work is fabricated, installed, or completed.
- B. If any Work is covered contrary to the written request of Engineer, then Contractor shall, if requested by Engineer, uncover such Work for Engineer's observation, and then replace the covering, all at Contractor's expense.
- C. If Engineer considers it necessary or advisable that covered Work be observed by Engineer or inspected or tested by others, then Contractor, at Engineer's request, shall uncover, expose, or otherwise make available for observation, inspection, or testing as Engineer may require, that portion of the Work in question, and provide all necessary labor, material, and equipment.

1. If it is found that the uncovered Work is defective, Contractor shall be responsible for all claims, costs, losses, and damages arising out of or relating to such uncovering, exposure, observation, inspection, and testing, and of satisfactory replacement or reconstruction (including but not limited to all costs of repair or replacement of work of others); and pending Contractor's full discharge of this responsibility the Owner shall be entitled to impose a reasonable set-off against payments due under Article 15.
2. If the uncovered Work is not found to be defective, Contractor shall be allowed an increase in the Contract Price or an extension of the Contract Times, 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, then Contractor may submit a Change Proposal within 30 days of the determination that the Work is not defective.

#### 14.06 *Owner May Stop the Work*

- A. If the Work is defective, or Contractor fails to supply sufficient skilled workers or suitable materials or equipment, or fails to perform the Work in such a way that the completed Work will conform to the Contract Documents, then Owner may order Contractor to stop the Work, or any portion thereof, until the cause for such order has been eliminated; however, this right of Owner to stop the Work 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.

#### 14.07 *Owner May Correct Defective Work*

- A. If Contractor fails within a reasonable time after written notice from Engineer to correct defective Work, or to remove and replace rejected Work as required by Engineer, 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, then 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 14.07, Owner shall proceed expeditiously. In connection with such corrective or remedial action, Owner may exclude Contractor from all or part of the Site, take possession of all or part of the Work and suspend Contractor's services related thereto, and incorporate in the Work all materials and equipment stored at the Site or for which Owner has paid Contractor but which are stored elsewhere. Contractor shall allow Owner, Owner's representatives, agents and employees, Owner's other contractors, and Engineer and Engineer's consultants access to the Site to enable Owner to exercise the rights and remedies under this paragraph.
- C. All claims, costs, losses, and damages incurred or sustained by Owner in exercising the rights and remedies under this Paragraph 14.07 will be charged against Contractor as set-offs against payments due under Article 15. Such claims, costs, losses and damages will include but not be limited to all costs of repair, or replacement of work of others destroyed or damaged by correction, removal, or replacement of Contractor's defective Work.
- D. Contractor shall not be allowed an extension of the Contract Times because of any delay in the performance of the Work attributable to the exercise by Owner of Owner's rights and remedies under this Paragraph 14.07.



**ARTICLE 15 – PAYMENTS TO CONTRACTOR; SET-OFFS; COMPLETION; CORRECTION PERIOD****15.01 Progress Payments**

- A. *Basis for Progress Payments:* The Schedule of Values established as provided in Article 2 will serve as the basis for progress payments and will be incorporated into a form of Application for Payment acceptable to Engineer. Progress payments on account of Unit Price Work will be based on the number of units completed during the pay period, as determined under the provisions of Paragraph 13.03. Progress payments for cost-based Work will be based on Cost of the Work completed by Contractor during the pay period.
- B. *Applications for Payments:*
1. At least 20 days before the date established in the Agreement for each progress payment (but not more often than once a month), Contractor shall submit to Engineer for review an Application for Payment filled out and signed by Contractor covering the Work completed as of the date of the Application and accompanied by such supporting documentation as is required by the Contract Documents. 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, a warehouse bond, 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.
- C. *Review of Applications:*
1. Engineer will, within 10 days after receipt of each Application for Payment, including each resubmittal, either indicate in writing a recommendation of payment and present the Application to Owner, or return the Application to Contractor indicating in writing Engineer's reasons for refusing to recommend payment. In the latter case, Contractor may make the necessary corrections and resubmit the Application.
  2. Engineer's recommendation of any payment requested in an Application for Payment will constitute a representation by Engineer to Owner, based on Engineer's observations of the executed Work as an experienced and qualified design professional, and on Engineer's review of the Application for Payment and the accompanying data and schedules, that to the best of Engineer's knowledge, information and belief:
    - a. the Work has progressed to the point indicated;
    - b. the quality of the Work is generally in accordance with the Contract Documents (subject to an evaluation of the Work as a functioning whole prior to or upon Substantial Completion, the results of any subsequent tests called for in the Contract Documents, a final determination of quantities and classifications for



Unit Price Work under Paragraph 13.03, and any other qualifications stated in the recommendation); and

- c. the conditions precedent to Contractor's being entitled to such payment appear to have been fulfilled in so far as it is Engineer's responsibility to observe the Work.
3. By recommending any such payment Engineer will not thereby be deemed to have represented that:
  - a. inspections made to check the quality or the quantity of the Work as it has been performed have been exhaustive, extended to every aspect of the Work in progress, or involved detailed inspections of the Work beyond the responsibilities specifically assigned to Engineer in the Contract; or
  - b. there may not be other matters or issues between the parties that might entitle Contractor to be paid additionally by Owner or entitle Owner to withhold payment to Contractor.
4. Neither Engineer's review of Contractor's Work for the purposes of recommending payments nor Engineer's recommendation of any payment, including final payment, will impose responsibility on Engineer:
  - a. to supervise, direct, or control the Work, 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 money 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 15.01.C.2.
6. Engineer will recommend reductions in payment (set-offs) necessary in Engineer's opinion to protect Owner from loss because:
  - a. the Work is defective, requiring correction or replacement;
  - b. the Contract Price has been reduced by Change Orders;
  - c. Owner has been required to correct defective Work in accordance with Paragraph 14.07, or has accepted defective Work pursuant to Paragraph 14.04;
  - d. Owner has been required to remove or remediate a Hazardous Environmental Condition for which Contractor is responsible; or
  - e. Engineer has actual knowledge of the occurrence of any of the events that would constitute a default by Contractor and therefore justify termination for cause under the Contract Documents.

D. *Payment Becomes Due:*

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

E. *Reductions in Payment by Owner:*

1. In addition to any reductions in payment (set-offs) recommended by Engineer, Owner is entitled to impose a set-off against payment based on any of the following:
  - a. claims have been made against Owner on account of Contractor's conduct in the performance or furnishing of the Work, or Owner has incurred costs, losses, or damages on account of Contractor's conduct in the performance or furnishing of the Work, including but not limited to claims, costs, losses, or damages from workplace injuries, adjacent property damage, non-compliance with Laws and Regulations, and patent infringement;
  - b. Contractor has failed to take reasonable and customary measures to avoid damage, delay, disruption, and interference with other work at or adjacent to the Site;
  - c. Contractor has failed to provide and maintain required bonds or insurance;
  - d. Owner has been required to remove or remediate a Hazardous Environmental Condition for which Contractor is responsible;
  - e. Owner has incurred extra charges or engineering costs related to submittal reviews, evaluations of proposed substitutes, tests and inspections, or return visits to manufacturing or assembly facilities;
  - f. the Work is defective, requiring correction or replacement;
  - g. Owner has been required to correct defective Work in accordance with Paragraph 14.07, or has accepted defective Work pursuant to Paragraph 14.04;
  - h. the Contract Price has been reduced by Change Orders;
  - i. an event that would constitute a default by Contractor and therefore justify a termination for cause has occurred;
  - j. liquidated damages have accrued as a result of Contractor's failure to achieve Milestones, Substantial Completion, or final completion of the Work;
  - k. Liens have been filed in connection with the Work, except where Contractor has delivered a specific bond satisfactory to Owner to secure the satisfaction and discharge of such Liens;
  - l. there are other items entitling Owner to a set off against the amount recommended.
2. If Owner imposes any set-off against payment, whether based on its own knowledge or on the written recommendations of Engineer, Owner will give Contractor immediate written notice (with a copy to Engineer) stating the reasons for such action and the specific amount of the reduction, and promptly pay Contractor any amount remaining after deduction of the amount so withheld. Owner shall promptly pay Contractor the amount so withheld, or any adjustment thereto agreed to by Owner and Contractor, if Contractor remedies the reasons for such action. The reduction



imposed shall be binding on Contractor unless it duly submits a Change Proposal contesting the reduction.

3. Upon a subsequent determination that Owner's refusal of payment was not justified, the amount wrongfully withheld shall be treated as an amount due as determined by Paragraph 15.01.C.1 and subject to interest as provided in the Agreement.

#### 15.02 *Contractor's Warranty of Title*

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

#### 15.03 *Substantial Completion*

- A. When Contractor considers the entire Work ready for its intended use Contractor shall notify Owner and Engineer in writing that the entire Work is substantially complete and request that Engineer issue a certificate of Substantial Completion. Contractor shall at the same time submit to Owner and Engineer an initial draft of punch list items to be completed or corrected before final payment.
- B. Promptly after Contractor's notification, Owner, Contractor, and Engineer shall make an inspection of the Work to determine the status of completion. If Engineer does not consider the Work substantially complete, Engineer will notify Contractor in writing giving the reasons therefor.
- C. If Engineer considers the Work substantially complete, Engineer will deliver to Owner a preliminary certificate of Substantial Completion which shall fix the date of Substantial Completion. Engineer shall attach to the certificate a punch list of items to be completed or corrected before final payment. Owner shall have seven days after receipt of the preliminary certificate during which to make written objection to Engineer as to any provisions of the certificate or attached punch list. If, after considering the objections to the provisions of the preliminary certificate, Engineer concludes that the Work is not substantially complete, Engineer will, within 14 days after submission of the preliminary certificate to Owner, notify Contractor in writing that the Work is not substantially complete, stating the reasons therefor. If Owner does not object to the provisions of the certificate, or if despite consideration of Owner's objections Engineer concludes that the Work is substantially complete, then Engineer will, within said 14 days, execute and deliver to Owner and Contractor a final certificate of Substantial Completion (with a revised punch list of items to be completed or corrected) reflecting such changes from the preliminary certificate as Engineer believes justified after consideration of any objections from Owner.
- D. At the time of receipt of the preliminary certificate of Substantial Completion, Owner and Contractor will confer regarding Owner's use or occupancy of the Work following Substantial Completion, review the builder's risk insurance policy with respect to the end of the builder's risk coverage, and confirm the transition to coverage of the Work under a permanent property insurance policy held by Owner. Unless Owner and Contractor agree otherwise in writing, Owner shall bear responsibility for security, operation, protection of the Work, property insurance, maintenance, heat, and utilities upon Owner's use or occupancy of the Work.
- E. After Substantial Completion the Contractor shall promptly begin work on the punch list of items to be completed or corrected prior to final payment. In appropriate cases Contractor



may submit monthly Applications for Payment for completed punch list items, following the progress payment procedures set forth above.

- F. Owner shall have the right to exclude Contractor from the Site after the date of Substantial Completion subject to allowing Contractor reasonable access to remove its property and complete or correct items on the punch list.

#### 15.04 *Partial Use or Occupancy*

- A. Prior to Substantial Completion of all the Work, Owner may use or occupy any substantially completed part of the Work which has specifically been identified in the Contract Documents, or which Owner, Engineer, and Contractor agree constitutes a separately functioning and usable part of the Work that can be used by Owner for its intended purpose without significant interference with Contractor's performance of the remainder of the Work, subject to the following conditions:
  1. At any time Owner may request in writing that Contractor permit Owner to use or occupy any such part of the Work that Owner believes to be substantially complete. If and when Contractor agrees that such part of the Work is substantially complete, Contractor, Owner, and Engineer will follow the procedures of Paragraph 15.03.A through E for that part of the Work.
  2. At any time Contractor may notify Owner and Engineer in writing that Contractor considers any such part of the Work substantially complete and request Engineer to issue a certificate of Substantial Completion for that part of the Work.
  3. Within a reasonable time after either such request, Owner, Contractor, and Engineer shall make an inspection of that part of the Work to determine its status of completion. If Engineer does not consider that part of the Work to be substantially complete, Engineer will notify Owner and Contractor in writing giving the reasons therefor. If Engineer considers that part of the Work to be substantially complete, the provisions of Paragraph 15.03 will apply with respect to certification of Substantial Completion of that part of the Work and the division of responsibility in respect thereof and access thereto.
  4. No use or occupancy or separate operation of part of the Work may occur prior to compliance with the requirements of Paragraph 6.05 regarding builder's risk or other property insurance.

#### 15.05 *Final Inspection*

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

#### 15.06 *Final Payment*

- A. *Application for Payment:*
  1. After Contractor has, in the opinion of Engineer, satisfactorily completed all corrections identified during the final inspection and has delivered, in accordance with the Contract Documents, all maintenance and operating instructions, schedules, guarantees, bonds, certificates or other evidence of insurance, certificates of

inspection, annotated record documents (as provided in Paragraph 7.11), and other documents, Contractor may make application for final payment.

2. The final Application for Payment shall be accompanied (except as previously delivered) by:
  - a. all documentation called for in the Contract Documents;
  - b. consent of the surety, if any, to final payment;
  - c. satisfactory evidence that all title issues have been resolved such that title to all Work, materials, and equipment has passed to Owner free and clear of any Liens or other title defects, or will so pass upon final payment.
  - d. a list of all disputes that Contractor believes are unsettled; and
  - e. complete and legally effective releases or waivers (satisfactory to Owner) of all Lien rights arising out of the Work, and of Liens filed in connection with the Work.
3. In lieu of the releases or waivers of Liens specified in Paragraph 15.06.A.2 and as approved by Owner, Contractor may furnish receipts or releases in full and an affidavit of Contractor that: (a) the releases and receipts include all labor, services, material, and equipment for which a Lien could be filed; and (b) all payrolls, material and equipment bills, and other indebtedness connected with the Work for which Owner might in any way be responsible, or which might in any way result in liens or other burdens on Owner's property, have been paid or otherwise satisfied. If any Subcontractor or Supplier fails to furnish such a release or receipt in full, Contractor may furnish a bond or other collateral satisfactory to Owner to indemnify Owner against any Lien, or Owner at its option may issue joint checks payable to Contractor and specified Subcontractors and Suppliers.

**B. *Engineer's Review of 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 have been fulfilled, Engineer will, within ten days after receipt of the final Application for Payment, indicate in writing Engineer's recommendation of final payment and present the Application for Payment to Owner for payment. Such recommendation shall account for any set-offs against payment that are necessary in Engineer's opinion to protect Owner from loss for the reasons stated above with respect to progress payments. 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 15.07. 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. *Completion of Work:*** The Work is complete (subject to surviving obligations) when it is ready for final payment as established by the Engineer's written recommendation of final payment.

**D. *Payment Becomes Due:*** Thirty days after the presentation to Owner of the final Application for Payment and accompanying documentation, the amount recommended by Engineer



(less any further sum Owner is entitled to set off against Engineer's recommendation, including but not limited to set-offs for liquidated damages and set-offs allowed under the provisions above with respect to progress payments) will become due and shall be paid by Owner to Contractor.

#### 15.07 *Waiver of Claims*

- A. The making of final payment will not constitute a waiver by Owner of claims or rights against Contractor. Owner expressly reserves claims and rights arising from unsettled Liens, from defective Work appearing after final inspection pursuant to Paragraph 15.05, from Contractor's failure to comply with the Contract Documents or the terms of any special guarantees specified therein, from outstanding Claims by Owner, or from Contractor's continuing obligations under the Contract Documents.
- B. The acceptance of final payment by Contractor will constitute a waiver by Contractor of all claims and rights against Owner other than those pending matters that have been duly submitted or appealed under the provisions of Article 17.

#### 15.08 *Correction Period*

- A. If within one year after the date of Substantial Completion (or such longer period of time as may be prescribed by the 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 Site, adjacent areas that Contractor has arranged to use through construction easements or otherwise, and other adjacent areas used by Contractor as permitted by Laws and Regulations, is found to be defective, then Contractor shall promptly, without cost to Owner and in accordance with Owner's written instructions:
  - 1. correct the defective repairs to the Site or such other adjacent areas;
  - 2. correct such defective Work;
  - 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 to 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. 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 repair or such removal and replacement (including but not limited to all costs of repair or replacement of work of others).
- 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, 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 are in addition to all other obligations and warranties. The provisions of this paragraph shall not be construed as a substitute for, or a waiver of, the provisions of any applicable statute of limitation or repose.

## ARTICLE 16 – SUSPENSION OF WORK AND TERMINATION

### 16.01 Owner May Suspend Work

- A. At any time and without cause, Owner may suspend the Work or any portion thereof for a period of not more than 90 consecutive days by written notice to Contractor and Engineer. Such notice will fix the date on which Work will be resumed. Contractor shall resume the Work on the date so fixed. Contractor shall be entitled to an adjustment in the Contract Price or an extension of the Contract Times, or both, directly attributable to any such suspension. Any Change Proposal seeking such adjustments shall be submitted no later than 30 days after the date fixed for resumption of Work.

### 16.02 Owner May Terminate for Cause

- A. The occurrence of any one or more of the following events will constitute a default by Contractor and justify termination for cause:
  - 1. Contractor's persistent failure to perform the Work in accordance with the Contract Documents (including, but not limited to, failure to supply sufficient skilled workers or suitable materials or equipment or failure to adhere to the Progress Schedule);
  - 2. Failure of Contractor to perform or otherwise to comply with a material term of the Contract Documents;
  - 3. Contractor's disregard of Laws or Regulations of any public body having jurisdiction; or
  - 4. Contractor's repeated disregard of the authority of Owner or Engineer.
- B. If one or more of the events identified in Paragraph 16.02.A occurs, then after giving Contractor (and any surety) ten days written notice that Owner is considering a declaration that Contractor is in default and termination of the contract, Owner may proceed to:
  - 1. declare Contractor to be in default, and give Contractor (and any surety) notice that the Contract is terminated; and
  - 2. enforce the rights available to Owner under any applicable performance bond.
- C. Subject to the terms and operation of any applicable performance bond, if Owner has terminated the Contract for cause, Owner may exclude Contractor from the Site, take possession of the Work, incorporate in the Work all materials and equipment stored at the Site or for which Owner has paid Contractor but which are stored elsewhere, and complete the Work as Owner may deem expedient.
- D. Owner may not proceed with termination of the Contract under Paragraph 16.02.B if Contractor within seven days of receipt of notice of intent to terminate begins to correct its failure to perform and proceeds diligently to cure such failure.
- E. If Owner proceeds as provided in Paragraph 16.02.B, Contractor shall not be entitled to receive any further payment until the Work is completed. If the unpaid balance of the Contract Price exceeds the cost to complete the Work, including all related claims, costs,

losses, and damages (including but not limited to all fees and charges of engineers, architects, attorneys, and other professionals) sustained by Owner, such excess will be paid to Contractor. If the cost to complete the Work including such related claims, costs, losses, and damages exceeds such unpaid balance, Contractor shall pay the difference to Owner. Such claims, costs, losses, and damages incurred by Owner will be reviewed by Engineer as to their reasonableness and, when so approved by Engineer, incorporated in a Change Order. When exercising any rights or remedies under this paragraph, Owner shall not be required to obtain the lowest price for the Work performed.

- F. Where Contractor's services have been so terminated by Owner, the termination will not affect any rights or remedies of Owner against Contractor then existing or which may thereafter accrue, or any rights or remedies of Owner against Contractor or any surety under any payment bond or performance bond. Any retention or payment of money due Contractor by Owner will not release Contractor from liability.
- G. If and to the extent that Contractor has provided a performance bond under the provisions of Paragraph 6.01.A, the provisions of that bond shall govern over any inconsistent provisions of Paragraphs 16.02.B and 16.02.D.

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

#### 16.04 *Contractor May Stop Work or Terminate*

- A. If, through no act or fault of Contractor, (1) the Work is suspended for more than 90 consecutive days by Owner or under an order of court or other public authority, or (2) Engineer fails to act on any Application for Payment within 30 days after it is submitted, or (3) Owner fails for 30 days to pay Contractor any sum finally determined to be due, then Contractor may, upon 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 16.03.
- B. In lieu of terminating the Contract and without prejudice to any other right or remedy, if Engineer has failed to act on an Application for Payment within 30 days after it is submitted, or Owner has failed for 30 days to pay Contractor any sum finally determined to be due, Contractor may, 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 are not intended to preclude Contractor from submitting a Change Proposal for an adjustment in Contract Price or Contract Times or otherwise for expenses or damage directly attributable to Contractor's stopping the Work as permitted by this paragraph.

## **ARTICLE 17 – FINAL RESOLUTION OF DISPUTES**

### **17.01 *Methods and Procedures***

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

## **ARTICLE 18 – MISCELLANEOUS**

### **18.01 *Giving Notice***

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

### **18.02 *Computation of Times***

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

### **18.03 *Cumulative Remedies***

- A. The duties and obligations imposed by these General Conditions and the rights and remedies available hereunder to the parties hereto are in addition to, and are not to be construed in any way as a limitation of, any rights and remedies available to any or all of



them which are otherwise imposed or available by Laws or Regulations, by special warranty or guarantee, or by other provisions of the Contract. The provisions of this paragraph will be as effective as if repeated specifically in the Contract Documents in connection with each particular duty, obligation, right, and remedy to which they apply.

18.04 *Limitation of Damages*

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

18.05 *No Waiver*

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

18.06 *Survival of Obligations*

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

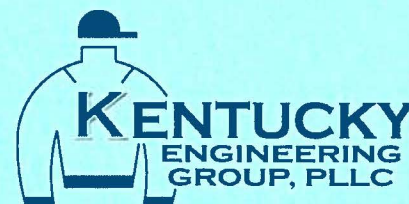
18.07 *Controlling Law*

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

18.08 *Headings*

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

## **SUPPLEMENTARY CONDITIONS**



**RD SUPPLEMENTARY GENERAL CONDITIONS TO EJCDC  
GENERAL CONDITIONS**



## **RD SUPPLEMENTAL GENERAL CONDITIONS TO EJCDC GENERAL CONDITIONS**

These Supplementary General Conditions amend or supplement the Standard General Conditions of the Construction Contract, EJCDC® C-700 (2013 Edition). All provisions that are not so amended or supplemented remain in full force and effect.

These revisions to the General Conditions are requirements of the funding agency, USDA Rural Development Utilities Service, and are applied in conjunction with the GRW Supplemental General Conditions.

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

The address system used in these Supplementary General Conditions is the same as the address system used in the General Conditions, with the prefix "SGC" added thereto.

### **SGC-1.01.A.8.**

**Add the following language to the end of Paragraph 1.01.A.8:**

The Change Order form to be used on this Project is EJCDC No. C-941. Agency approval is required before Change Orders are effective.

### **SGC-1.01.**

**Add the following language at the end of the last sentence of Paragraph 1.01.A.48:**

A Work Change Directive cannot change Contract Price or Contract Times without a subsequent Change Order.

### **SGC-1.01.**

**Add the following new Paragraph after Paragraph 1.01.A.48:**

49. *Abnormal Weather Conditions* – Conditions of extreme or unusual weather for a given region, elevation, or season as determined by Engineer. Extreme or unusual weather that is typical for a given region, elevation, or season should not be considered Abnormal Weather Conditions.

### **SGC-1.01**

**Add the following new Paragraph after Paragraph 1.01.A.49:**

50. *Agency* - The Project is financed in whole or in part by USDA Rural Utilities Service pursuant to the Consolidated Farm and Rural Development Act (7 USC Section 1921 et seq.). The Rural Utilities Service programs are administered through the USDA Rural Development offices; therefore, the Agency

for these documents is USDA Rural Development.

**SGC-2.02**

**Delete Paragraph 2.02.A in its entirety and insert the following new paragraph in its place:**

- A. Owner shall furnish to Contractor five copies of conformed Contract Documents incorporating and integrating all Addenda and any amendments negotiated prior to the Effective Date of the Contract (including one fully executed counterpart of the Agreement), and one copy in electronic portable document format (PDF). Additional printed copies of the conformed Contract Documents will be furnished upon request at the cost of reproduction.

**SGC-4.01**

**Delete the following sentence from Paragraph 4.01A:**

In no event will the Contract Times commence to run later than the ninetieth day after the day of Bid opening or the thirtieth day after the Effective Date of the Agreement, whichever date is earlier.

**SGC-4.05**

**Replace the phrase "abnormal weather conditions" from Paragraph 4.05.C.2 and replace with "Abnormal Weather Conditions"**

**SGC-5.03**

**Add the following new paragraph after Paragraph 5.03B:**

If any geotechnical exploration for the project was performed and reported, said report will be included as an Appendix. The geotechnical report shall be used as a reference and all recommendations included therein shall be followed in full.

**SGC-5.06**

**Add the following new paragraph immediately after Paragraph 5.06.A.2:**

- 3. If any Hazardous Conditions were reported, said report will be included as an Appendix.

**SGC-6.03**

**Add the following paragraphs after Paragraph 6.03.J:**

- K. The insurance required by this Paragraph shall include specific coverage and be written for not less than the limits of liability and coverages tabulated in the prototype Certificate of Insurance included as Section 00 62 16, or as required by law, whichever is greater.

**SGC-7.04**

**Amend the third sentence of Paragraph 7.04.A by deleting the following words:**

Unless the specification or description contains or is followed by words reading that no like, equivalent or "or-equal" item is permitted

**SGC-7.04**

**Amend the last sentence of Paragraph 7.04.A.1.a.3 by striking out "and", and adding a period at the end of said paragraph.**

**SGC-7.04**

**Delete Paragraph 7.04.A.1.a.4 in its entirety and insert the following in its place:**

(Deleted)

**SGC-7.06**

**Amend Paragraph 7.06.A by adding the following text to the end of the Paragraph:**

The contractor shall not award work valued at more than fifty percent of the Contract Price to Subcontractor(s), without prior written approval of the Owner.

**SGC-7.06**

**Delete Paragraph 7.06.B in its entirety and insert the following in its place.**

(Deleted)

**SGC-7.06**

**Amend the second sentence of Paragraph 7.06.E by striking out "Owner may also require Contractor to retain specific replacements; provided, however, that".**

**SGC-10.03.A.**

The Duties, Responsibilities, and Limitations of Authority of the Resident Project Representative will be as stated in the document attached to these Supplementary General Conditions.

**SGC-11.07**

**Add the following new paragraph immediately after Paragraph 11.07B:**

11.07.C All Contract Change Orders must be concurred in by Agency before they are effective.

**SGC-13.02**

**Delete Paragraph 13.02.C in its entirety and insert the following in its place:**



(Deleted)

**SGC-15.01**

**Amend the second sentence of Paragraph 15.01B.1 by striking out the following text: "a bill of sale, invoice or other".**

**SGC-15.01**

**Add the following new paragraph after Paragraph 15.01.B.3:**

4. The Application for Payment form to be used on this Project is EJCDC No. C-620. The Agency must approve all Applications for Payment before payment is made.

**SGC-15.01**

**Add the following language at the end of Paragraph 15.01.B.3:**

No payments will be made that would deplete the retainage, place in escrow any funds that are required for retainage, or invest the retainage for the benefit of the Contractor.

**SGC-15.01**

**Delete Paragraph 15.01.D.1 in its entirety and insert the following in its place:**

The Application for Payment with Engineer's recommendations will be presented to the Owner and Agency for consideration. If both Owner and Agency find the Application for Payment acceptable, the recommended amount less any reduction under the provisions of Paragraph 15.01.E will become due twenty (20) days after the Application for Payment is presented to the Owner, and the Owner will make payment to the Contractor.

**SGC-15.02**

Amend Paragraph 15.02.A by striking out the following text: "no later than seven days after the time of payment by Owner" and inserting "no later than the time of payment by the Owner.":

**SGC-18.11**

**Add the following new paragraph after Paragraph 18.10:**

**18.11 Tribal Sovereignty.**

- A. No provision of this Agreement will be construed by any of the signatories as abridging or debilitating any sovereign powers of the named Tribe; affecting the trust-beneficiary relationship between the Secretary of the Interior, Tribe and Indian landowner(s); or interfering with the government-to government relationship between the United States and the Tribe.

**SGC-19 Add a new Article 19, "Federal Requirements," after Article 18.****SGC-19.01**

**Add the following language at the beginning of Article 18 with the title "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.

**SGC-19.02**

**Add the following language after Article 19.01.A with the title "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.

**SC 19.03**

**Add the following language after Article 19.02.B with the title "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. 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.

**SC-19.04**

**Add the following language after Article 19.03.A with the title "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 19.04.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.

#### **SC-19.05**

**Add the following language after Article 19.04.B with the title "Audit and Access to Records."**

- A. Owner, Agency, the Comptroller General of the United States, or any of their duly authorized representatives, shall have access to any books, documents, papers, and records of the Engineer which are pertinent to the Agreement, for the purpose of making audits, examinations, excerpts, and transcriptions. Engineer shall maintain all required records for three years after final payment is made and all other pending matters are closed.

#### **SC-19.06**

**Add the following language after Article 18.05.A with the title "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.

#### **SGC-19.07 Add the following after Article 19.06.A with the title "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.

#### **SGC-19.08**

**Add the following after Article 19.07.A with the title "Clean Air and Pollution Control Acts."**

- A. If this Contract exceeds \$100,000, Compliance with all applicable standards, orders, or requirements issued under section 306 of the Clean Air Act (42 U.S.C. 1857(h) and 42 USC 7401et. seq.), section 508 of the Clean Water Act (33 U.S.C. 1368) and Federal Water Pollution Control Act (33 USC 1251 et seq.), Executive Order 11738, and



Environmental Protection Agency regulations (40 CFR part 15) is required. Contractor will report violations to the Agency and the Regional Office of the EPA.

#### **SGC-19.09**

**Add the following after Article 19.08 with the title "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.

**SGC-19.10 Add the following after Article 19.09 with the title "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.

#### **SGC-19.11**

**Add the following after Article 19.10.C:**

**19.11 *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.

#### **SGC-19.12**

##### **Add the following after Article 19.11.A :**

##### **19.12 *Environmental Requirements.***

When constructing a project involving trenching and/or other related earth excavations, Contractor shall comply with the following environmental constraints:

- A. Wetlands – When disposing of excess, spoil, or other construction materials on public or private property, Contractor shall not fill in or otherwise convert wetlands.
- B. 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.
- C. 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).
- D. 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.
- E. Mitigation Measures – If the project had an Environmental Report, Environmental Assessment, or Environmental Impact Statement to meet the requirements of the National Environmental Policy Act, compliance with the mitigation measures, if any, in that document are hereby included as a condition of this contract.



**DIVISION 1**

**GENERAL REQUIREMENTS**





**SECTION 01010****SUMMARY****PART 1 - GENERAL****1.01 SUMMARY**

- A. This Section includes the following:
  - 1. Work covered by the Contract Documents.
  - 2. Sequence of Operations.
  - 3. Utility Shutdowns
  - 4. Tie-ins and Disconnections
  - 5. Temporary Systems
  - 6. Use of premises.
  - 7. Specification formats and conventions.

**1.02 WORK COVERED BY CONTRACT DOCUMENTS**

- A. The Contractor shall provide all material, services, labor, tools and equipment, necessary to construct this project. The following is a brief description of the major work items included in the contract: Construction of approximately 145,000 LF main line, 130 meter reconnects and replacement of service line, and all related appurtenances as shown on the Drawings and described in the Specifications.

**1.03 SEQUENCE OF OPERATIONS**

- A. Water mains are to be installed contiguously from beginning to end.
- B. **Sterilization, testing, and sampling of the new water main will be completed prior to abandoning the existing water main.**

**1.04 UTILITY SHUTDOWNS**

- A. One-week advance notice to the Owner is required prior to performing any utility shutdown unless of an emergency in nature.
- B. Contractor shall know where all existing valves are located on the project and shall be able to shut down expeditiously in case of line breaks.
- C. The existing water line is shown as an approximate location on the plans. The contractor shall field verify the existing water main locations. Contractor shall work closely with the Bracken County Water District personnel.

**1.05 TIE-INS AND DISCONNECTIONS**

- A. Contractor shall furnish all materials and shall provide excavation, de-watering, scaffolding and support operations to support tie-ins.

**1.06 TEMPORARY SYSTEM (S)**

- A. All temporary water lines and hoses shall be depressurized and all temporary electrical lines and equipment de-energized when not in use and at the end of each workday.

**1.07 SPECIFICATION FORMATS AND CONVENTIONS**

- A. Specification Format: The Specifications are organized into Division and Sections using the 17-division format.

**PART 2 - PRODUCTS**

Not used

**PART 3 - EXECUTION**

Not used

END OF SECTION

**SECTION 01015****WORK SEQUENCE****PART 1 - GENERAL****1.01 WORK INCLUDED**

The Contractor shall submit to the Engineer for review and acceptance a complete schedule 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 water system extension. This schedule requirement in no way prevents the Contractor from completing the project in a shorter time frame than scheduled. The construction schedule shall be submitted and approved by the Owner prior to the submittal of the first partial payment request. A revised construction schedule shall be submitted with every subsequent partial payment request. This revised schedule must be approved by the Owner prior to payment. The contractor shall use the following sequence of construction while working on the new water mains for the Bracken County Water District, Contract No. 2 – Water System Improvements Project.

1. Bracken County Water District shall determine construction sequence.
2. Locate all existing valves and make sure they are workable.
3. Notify the Bracken County Water District a minimum of 48 hours prior to connecting into any existing line
4. Install new water main using extreme caution not to damage existing water lines or services

**1.02 RELATED WORK**

- A. Section 01010 - Summary of Work.

**1.03 ADDITIONAL INFORMATION**

Any delays caused by the Contractor shall be at his expense and at no cost to the Owner or Engineer.

- END OF SECTION -



**SECTION 01016****OCCUPANCY****PART 1 - GENERAL****1.01 WORK INCLUDED**

A. The Contractor shall be aware that after each major portion of the project is completed, the Contractor shall notify the Engineer that those specific operations are complete and prior to replacing that portion of the work into service shall request an interim inspection of the work to be returned to or placed into service.

B. The interim inspection requested by the Contractor shall not preclude or supersede the final inspection of the project or reduce the Contractor's responsibility for the completed portion prior to final acceptance of the work by the Owner.

C. The Contractor shall provide all necessary temporary controls and other items required for operation of all work placed into service prior to final acceptance as required. At such time as new controls, etc. are complete and functioning, the Contractor shall remove all temporary installed items.

- END OF SECTION -

**SECTION 01025****MEASUREMENT AND PAYMENT****PART 1 - GENERAL****1.01 WORK INCLUDED**

The Contractor shall furnish all necessary labor, machinery, tools, apparatus, equipment, materials, equipment, service, other necessary supplies and perform all work, including all excavation and backfilling (without additional compensation, except where specifically set out in these specifications) at the unit or lump sum prices for the following items.

**1.02 PROGRESS AND PAYMENTS SCHEDULES**

A. Within ten (10) days after the date of formal execution of the AGREEMENT, 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. The Contractor's construction schedule must be approved by the Engineer before any payments will be made on this contract.

B. Within ten (10) days after the date of formal execution of the CONTRACT AGREEMENT, the Contractor shall prepare and submit to the Engineer, for approval, a periodic estimate 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 periodic payments. The Contractor's periodic estimate 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 schedule and periodic estimate will be final.

D. The Contractor must make current, to the satisfaction of the Engineer, the construction schedule and periodic estimate each time he requests a payment on this contract.

E. The Contractor's construction schedule and periodic estimate must be maintained at the construction site 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 periodic estimate and be current. Further, the current periodic estimate and construction schedule (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 (periodic estimate and construction schedule) when requesting payment.

**1.03 CONDITIONS FOR PAYMENT**

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 periodic estimate, 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.

B. No payment will be made for stored materials unless a proper invoice from the supplier is attached to the pay request. Further, no item whose value is less than \$1,000 will be considered as stored materials for pay purposes.

C. Payment for pipeline items shall be limited to eighty percent (80%) of the bid price until the pipeline items have been tested and clean up has been completed and accepted by the Engineer.

D. Payment for equipment items shall be limited to eighty-five percent (85%) of their scheduled value (materials portion only) until they are set in place. Eighty-five percent (85%) for stored materials and equipment shall be contingent on proper on-site storage as recommended by the manufacturer or required by the Engineer.

E. Payment for equipment items set in place shall be limited to ninety percent (90%) of their scheduled value until they are ready for operation and have been certified by the manufacturer. Ninety percent (90%) payment for installed equipment shall be contingent on proper routine maintenance of the equipment in accordance with the manufacturer's recommendations.

F. Payment for equipment items set in place and ready for operation shall be limited to ninety-five percent (95%) of their scheduled value until all acceptance tests have been completed and the required manufacturer's pre-startup operator's training has been completed.

G. Payment for the labor portion of equipment items will be subject only to the degree of completeness and the appropriate retainage.

H. The retainage shall be an amount equal to 10% of said estimate. The retainage on the equipment items shall be 10% as defined hereinbefore.

I. If at any time thereafter when the progress of the WORK is not satisfactory or determine that the Contractor is not making satisfactory progress, additional amounts may be retained.

#### **1.04 CLAIMS FOR EXTRA WORK**

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 reasonably be 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 provided herein for "Changes in the Work".

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 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 when he was bidding on this Contract to receive or examine any form, instrument or document, or to visit the site and acquaint himself with conditions there existing, in no way relieves him from any obligation under the Contract, and the Contractor agrees that the Owner



shall be justified in rejecting any claim 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**

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 20% for added work or a minimum 20% for deleted work which shall cover the Contractor's general supervision, overhead and profit. In case of subcontracts, the sum of total overhead amounts of the subcontractors and Contractor, plus total profit amounts for the subcontracts and Contractor shall not exceed 25% of the cost. Subcontractors shall be limited to 15% and Contractors shall be limited to 10% for combined overhead and profit. The cost of labor shall include required insurance, taxes and fringe benefits. Contractor to provide detailed breakdown of all cost as justification of change in work. 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.

### **PART 2 - PRODUCTS**

#### **2.01 WATER MAIN**

A. Payment for installing the water main will be made at the contract unit price per linear foot, complete in place, which shall include compensation for furnishing pipe, trenching (including rock excavation), earth or Class I material bedding, copper wire, thrust blocking, earth backfill, grip rings, fittings, crushed stone, copper wire, caution tape, pavement replacement, asphalt replacement, sidewalk repair or replacement, disinfection, clean up and restoration of all disturbed areas, including seeding and mulching as required, testing, bonding, and all appurtenances required. The quantity of water mains to be paid for shall be the length of the completed line as measured along its centerline without any deduction for lengths of fittings, valves or other appurtenances.

B. Casing for sewer main, and sewer lateral crossings, as described in the plan sheets will be incidental to laying the main water line. There will be no additional compensation for these pvc casings. Please figure these costs into the water line price.

C. Use of crushed stone bedding on the water main will be determined in the field by the engineer if quality bedding material is not available. Please figure bedding costs into the water line price.

## **2.02 TAPPING SLEEVE AND VALVE**

Payment for tapping sleeves and valves shall be made at the contract unit price each, complete in place including all excavation, material, tapping sleeve, tapping valve, box, concrete collar and other items required to make a complete and workable tap. Connection to the existing water main will be paid per 2.03.

## **2.03 CUT AND PLUG EXISTING WATER MAIN**

Payment for cutting and plugging the existing water main shall include all materials and labor necessary for completing the disconnection of the existing water line. This will be paid per cut and plug and will include piping, mechanical joint cap, grip rings, concrete blocking and other appurtenances required to complete the installation. Size of the piping will be paid as one price and will not be differentiated.

## **2.04 HIGHWAY BORED CROSSING W/STEEL CASING**

Payment for water mains crossing the railroad, highway, roadway, driveway or other areas shown on the plans shall include the respective encasement pipe bored under roadways and will be paid for at the contract unit price per linear foot of steel encasement pipe for the various sizes and types. This work shall include the encasement pipe, complete in place with fittings, spacers, end seals, skids, blocking, line markers on each side of crossed roadway, and all items necessary for its construction and installation. Carrier pipe is paid separately under item 2.01. The casing pipe shall be as noted in section 02302-2.

## **2.05 OPEN CUT CASING**

Payment for water mains crossing major creeks or streams shall include excavation, rock excavation, concrete, rip-rap, crushed stone, gravel backfill, anchors, PVC/Steel casing pipe (whichever one is called for on the contract drawings), spacers and end seals. The length of the creek crossing to be paid for shall be measured from end to end of the encasement pipe. Where casing is required the carrier pipe shall be Yelomine® or approved equal and shall be paid separately under item 2.01.

## **2.06 GATE VALVES AND BOXES**

Payment for furnishing and installing gate valves and valve boxes with covers in water mains will be made at the contract unit price each, complete in place, which shall include compensation for furnishing, hauling, trenching (including rock excavation), bedding, laying, jointing, backfilling, concrete supports and concrete collars.

**Each valve shall also include installation of a valve box protector ring with copper locator pin installed within the protector ring.**

## **2.07 NEW CUSTOMER SERVICES**

Payment will be made per complete installation to include saddle, corporation stop, copper service tubing (appropriate size), single or tandem setter, ¾" pressure reducing valve (if applicable), meter box and lid, excavation, valve, casing pipe (if applicable) and all items necessary for a complete installation. Services to be placed five (5) feet inside the customer's property line including a two (2) foot stub out with female adapter on customer side of meter box. Same side services shall include a maximum of twenty-five (25) feet of service line. Opposite side services shall also include a maximum of one hundred twenty-five (125) feet of service line and all costs of boring or pushing the service line. **Radio Read Badger meter shall be supplied by the Owner.**

## **2.08 RECONNECT EXISTING CUSTOMER SERVICES**

Payment for re-connecting an existing service line to a new or existing water main will be paid on a per unit basis. This shall include all materials and labor including saddle, corporation stop, required service tubing, fittings, inserts and pushing under the existing road to complete the installation. This item shall also



by the Owner.

## **2.08 RECONNECT EXISTING CUSTOMER SERVICES**

Payment for re-connecting an existing service line to a new or existing water main will be paid on a per unit basis. This shall include all materials and labor including saddle, corporation stop, required service tubing, fittings, inserts and pushing under the existing road to complete the installation. This item shall also include any necessary relocation of the existing meter box and all related appearances.

## **2.09 ADDITIONAL SERVICE TUBING**

Payment for additional copper service pipe and fittings installed in open trench and backfilled will be made per linear foot in place. Payment for concrete, crushed stone, bituminous and concrete drives; sidewalk repair or replacement is included in the contract unit price for "service tubing." Excavation is unclassified and included in this item.

**(NOTE: All rock excavation, crushed stone bedding, and asphalt replacement shall be included in the per unit price for pipe. No additional payment will be provided for these items)**

## **PART 3 - EXECUTION**

### **3.01 PAY ITEMS**

A. The pay items listed herein before refer to the items listed in the Bid Schedule and cover all of the pay items under the base bid for this contract.

B. Any and all other items of work listed in the specifications or shown on the Contract Drawings for this contract shall be considered incidental to and included in those pay items.

### **3.02 QUANTITIES OF ESTIMATE**

A. Wherever the estimated quantities of work to be done and materials to be furnished under this Contract are shown in any of the documents, including the Bid Proposal, they are given for use in comparing bids and the right is especially reserved except as herein otherwise specifically limited, to increase or diminish them as may be deemed reasonably necessary or desirable by the Owner to complete the work contemplated by this Contract, and such increase or diminution shall not give cause for claims or liability for damages. The Engineer will not be financially responsible for any omissions from the Contract Documents and therefore not included by the Contractor in his proposal.

B. Aerial photographs utilized for plan sheets in the Contract Documents are indicated at an approximate scale and shall not be scaled for quantity take-offs. The pipeline quantities listed in the Bid Schedule are given for use in comparing bids and may not be the actual quantities to be installed. It is the Contractor's responsibility to field verify the length and quantities of pipeline to be installed prior to the ordering of materials. Payment on unit price contracts are based on actual quantities installed. The Owner or Engineer will not be financially responsible for any shortage of pipe or overrun of pipe ordered for the pipeline quantities.

C. The actual quantities of all materials to be used for this project shall be field verified prior to the Contractor ordering the necessary materials. The quantity listed in the bid schedule is given for use in comparing bids and may increase or diminish as may be deemed necessary or as directed by the Owner. Any such increase or diminution shall not give cause for claims or liability for damages. The Engineer or Owner will not be financially responsible for any charges incurred for restocking of materials ordered.

- END OF SECTION -



**SECTION 01030****LABOR PROVISIONS****PART 1 - GENERAL****1.01 WORK INCLUDED**

A. The Contractor shall conform to all provisions of the Kentucky Department of Labor, Wage Decisions (latest revisions), relative to minimum wages and hours as they may apply to the work to be accomplished under these specifications.

B. 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 RELATED SECTIONS**

A. Section 3 - Part 1 Hours and Wages

**1.03 WAGE RATES**

Prevailing wage rates do not apply to this job. The Contractor will utilize, when feasible, local labor and will pay them wages commensurate with the wages prevailing in the Community.

**1.04 LABOR PREFERENCE**

Where feasible, the Contractor will utilize local labor.

**1.05 HOURS OF WORK**

A. Hours of work shall be as set out in Kentucky Department of Labor Wage Decisions (latest revisions); that is, not more than eight (8) hours in one calendar day, nor more than forty (40) hours in one week, except in case of emergency caused by fire, flood or damage to life and property.

B. Any laborer, workman, mechanic, helper, assistant or apprentice working in excess of forty (40) hours per week, except in case of emergency, shall be paid not less than 1-1/2 times the wage rate. Whenever overtime work is scheduled, the Contractor shall give prior notice to the Owner.

- END OF SECTION -

**SECTION 01040****COORDINATION****PART 1 - GENERAL****1.01 COORDINATION OF THE WORK**

The Contractor shall coordinate the work of all the crafts, trades and subcontractors engaged on the Work, and he shall have final responsibility as regards the schedule, workmanship and completeness of each and all parts of the Work.

All crafts, 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 the execution of subcontract agreements and the assignment of the parts of the Work. Each craft, 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.

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 as will, in the opinion of the Engineer, bring said structure or component back to its original design condition at no additional cost to the Owner.

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 his work to the end that complete coordination between trades will be affected. Each Contractor shall consult with the Engineer if conflicts exist on the Drawings.

The Contractor shall conduct testing of water lines in a timely manner. The Contractor shall make provisions to test all water lines regardless of whether or not planned pump stations have been delivered and/or installed.

- END OF SECTION -

**SECTION 01200****SUBSTITUTIONS****PART 1 - GENERAL****1.01 DESCRIPTION OF REQUIREMENTS**

- A. General: Substitution of materials and/or equipment is defined in Paragraph 6.7.1 of the General Conditions and more fully hereinafter.
- B. Definitions: Definitions used in this paragraph are not intended to negate the meaning of other terms used in the Contract Documents including such terms as "specialties", "systems", "structure", "finishes", "accessories", "furnishings", "special construction" and similar terms. Such terms are self-explanatory and have recognized meanings in the construction industry.
  - 1. "Products" are items purchased for incorporation in the Work, regardless of whether they were specifically purchased for the project or taken from the Contractor's previously purchased stock. The term "product" as used herein includes the terms "material", "equipment", "system" and other terms of similar intent.
  - 2. "Named Products" are products identified by use of the manufacturer's name for a product, including such items as a make or model designation, as recorded in published product literature, of the latest issue as of the date of the Contract Documents.
  - 3. "Materials" are products that must be substantially cut, shaped, worked, mixed, finished, refined or otherwise fabricated, processed, or installed to form units of work.
  - 4. "Equipment" is defined as a product with operational parts, regardless of whether motorized or manually operated, and in particular, a product that requires service connections such as wiring or piping.
- C. Substitutions: The Contractor's requests for changes in the products, materials, equipment and methods of construction required by the Contract Documents are considered requests for "substitutions", and are subject to the requirements specified herein. The following are not considered as substitutions:
  - 1. Revisions to the Contract Documents, where requested by the Owner, Engineer are considered as "changes" not substitutions.
  - 2. Substitutions requested during the bidding period, which have been accepted prior to the Contract Date, are included in the Contract Documents and are not subject to the requirements for substitutions as herein specified.
  - 3. Specified Contractor options on products and construction methods included in the Contract Documents are choices available to the Contractor and are not subject to the requirements for substitutions as herein specified.



4. Except as otherwise provided in the Contract Documents, the Contractor's determination of and compliance with governing regulations and orders as issued by governing authorities do not constitute "substitutions" and do not constitute a basis for change orders.
- D. Standards: Refer to Division-1 section "Definitions and Standards" for applicability of industry standards to the products specified for the project, and for acronyms used in the text of the specification sections.

## **1.02 RELATED DOCUMENTS**

- A. Drawings and general provisions of Contract, including General and Supplementary Conditions and other Division-1 Specification sections, apply to Work of this Section.

## **1.03 SUBMITTALS**

The information required to be furnished for evaluation of product substitution will be as follows:

- A. Performance capabilities, and materials and construction details will be evaluated based upon conformance with the Specifications. Products that do not conform with the Specification shall not be accepted.
- B. Manufacturer's production and service capabilities, and evidence of proven reliability will be acceptable if the following is furnished.
  1. Written evidence that the manufacturer has not less than (3) years experience in the design and manufacture of the substitute product.
  2. Written evidence of at least one application, of a type and size similar to the proposed substitute product, in successful operation in a wastewater treatment plant for a period of at least one year.
  3. In lieu of furnishing evidence of a manufacturer's Experience and successful operation of an application of the product to be substituted, the Contractor has the option of furnishing a cash deposit or bond which will guarantee replacement if the product the furnished does not satisfy the other requirements specified in this section. The amount of each deposit or bond will be subject to the approval.
- C. Specific reference to characteristics either superior or inferior to specified requirements will be evaluated based on their net effect on the project. Products with any characteristics inferior to those specified will not be acceptable unless offset by characteristics that, in the opinion of the Engineer, will cause the overall effect of the product on the project to be at least equal to that of those specified.

## **1.04 QUALITY ASSURANCE**

- A. Source Limitations: To the fullest extent possible, provide products of the same generic kind, from a single source, for each unit of work.
- B. Compatibility of Options: Compatibility of products is a basic requirement of product selection. When the Contractor is given the option of selecting between two or more products for use on the project, the product selected must be compatible with other products previously selected, even if the products previously selected were also Contractor options. The complete compatibility between the various choices available to the Contractor is not assured by the various requirements of the Contract Documents, but must be provided by the Contractor.

- C. The detailed estimate of operating and maintenance costs will be evaluated based on comparison with similar data on the specified products. Proposed substitute products which have an operating and maintenance cost that, in the opinion of the Engineer, exceeds that of the specified products will not be considered equal and will not be acceptable.

#### **1.05 PRODUCT DELIVERY, STORAGE, AND HANDLING**

General: Deliver, store, and handle products in accordance with manufacturer's recommendations, using means and methods that will prevent damage, deterioration and loss, including theft. Control delivery schedules to minimize long-term storage at the site and to prevent overcrowding of construction spaces. In particular coordinate delivery and installation to ensure minimum holding or storage times for items known or recognized to be flammable, hazardous, easily damaged, or sensitive to deterioration, theft and other sources of loss.

- A. Deliver products to the site in the manufacturer's sealed container or other packaging system, complete with labels and instructions for handling, storing, unpacking, protecting and installing.
- B. Store products at the site in a manner that will facilitate inspection and measurement of quantity or counting of units.
- C. Store heavy materials away from the project structure in a manner that will not endanger the supporting construction.

### **PART 2 - PRODUCTS**

#### **2.01 GENERAL PRODUCT COMPLIANCE**

- A. General: Requirements for individual products are indicated in the Contract Documents; compliance with these requirements is in itself a Contract Requirement. These requirements may be specified in any one of several different specifying methods, or in any combination of these methods. These methods include the following:

1. Proprietary.
2. Descriptive.
3. Performance.
4. Compliance with Reference Standards.

Compliance with codes, compliance with graphic details, allowances, and similar provisions of the Contract Documents also have a bearing on the selection process.

- B. Procedures for Selecting Products: Contractor's options in selecting products are limited by requirements of the Contract Documents and governing regulations. They are not controlled by industry traditions or procedures experienced by the Contractor on previous construction projects.

#### **2.02 SUBSTITUTIONS**

- A. Conditions: Contractor's request for substitution will be received and considered when extensive revisions to the Contract Documents are not required, when the proposed changes are in keeping with the general intent of the Contract Documents, when the request are timely, fully documented and properly submitted, and when one or more of the following

conditions is satisfied, all as judged by the Engineer; otherwise the requests will be returned without action except to record non-compliance with these requirements.

1. The Engineer will consider a request for substitution where the request is directly related to an "or equal" clause or similar language in the Contract Documents.
2. The Engineer will consider a request for substitution where the specified product or method cannot be provided within the Contract Time. However, the request will not be considered if the product or method cannot be provided as a result of the Contractor's failure to pursue the work promptly or to coordinate the various activities properly.
3. The Engineer will consider a request for substitution where the specified product or method cannot receive necessary approval by a governing authority, and the requested substitution can be approved.
4. The Engineer will consider a request for a substitution where a substantial advantage is offered the Owner, in terms of cost, time, energy conservation or other considerations of merit, after deducting offsetting responsibilities the Owner may be required to bear. These additional responsibilities may include such considerations as additional compensation to the Engineer for redesign and evaluation services, the increased cost of other work by the Owner or separate contractors, and similar considerations.
5. The Engineer will consider a request for substitution when the specified product or method cannot be provided in a manner which is compatible with other materials of the work, and where the Contractor certifies that the substitution will overcome the incompatibility.
6. The Engineer will consider a request for substitution when the specified product or method cannot be properly coordinated with other materials in the work, and where the Contractor certifies that the proposed substitution can be properly coordinated.
7. The Engineer will consider a request for substitution when the specified product or method cannot receive a warranty as required by the Contract Documents and where the Contractor certifies that the proposed substitution receive the required warranty.
8. The Contractor shall reimburse the Owner any costs for review by the Engineer of proposed product substitutions which require major design changes, as determined by the Owner, to related of adjacent work made necessary by the proposed substitutions.

- B. Work-Related Submittals: Contractor's submittal of and the Engineer's acceptance of shop drawings, product data or samples which relate to work not complying with requirements of the Contract Documents, does not constitute an acceptable or valid request for a substitution, nor approval thereof.

## **2.03 GENERAL PRODUCT REQUIREMENTS**

- A. General: Provide products that comply with the requirements of the Contract Documents and that are undamaged and, unless otherwise indicated, unused at the time of installation. Provide products that are complete with all accessories, trim, finish, safety guards and other devices and details needed for a complete installation and for the intended use and effect.
1. Standard Products: Where they are available, provide standard products of types that have been produced and used successfully in similar situations on other projects.



2. Continued Availability: Where, because of the nature of its application, the Owner is likely to need replacement parts or additional amounts of a product at a later date, either for maintenance and repair or replacement, provide standard, domestically produced products for which the manufacturer has published assurances that the products and its parts are likely to be available to the Owner at a later date.
- B. Nameplates: Except as otherwise indicated for required labels and operating data, do not permanently attach or imprint manufacturer's or producer's nameplates or trademarks on exposed surfaces of products which will be exposed to view either in occupied spaces or on the exterior of the completed project.
1. Labels: Locate required product labels and stamps on a concealed surface or, where required for observation after installation, on an accessible surface which, in occupied spaces, is not conspicuous.
  2. Equipment Nameplates: Provide permanent nameplate on each item of service-connected or power operated equipment. Locate the nameplate on an easily accessible surface which is inconspicuous in occupied spaces. The nameplate shall contain the following information and other essential operating data.
    - a. Name of manufacturer
    - b. Name of product
    - c. Model number
    - d. Serial number
    - e. Capacity
    - f. Speed
    - g. Ratings

### **PART 3 - EXECUTION**

#### **3.01 INSTALLATION OF PRODUCTS**

- A. General: Except as otherwise indicated in individual sections of these Specifications, comply with the manufacturer's instructions and recommendations for installation of the products in the applications indicated. Anchor each product securely in place, accurately located and aligned with other work. Clean exposed surfaces and protect surfaces as necessary to ensure freedom from damage and deterioration at Time of Acceptance.

END OF SECTION

**SECTION 01300****SUBMITTALS****PART 1 - GENERAL****1.01 WORK INCLUDED**

Shop drawings, descriptive literature, project 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, reviewed and signed by the Contractor before submission to the Engineer. The review of the Drawings by the Engineer shall not be construed as a complete check but only for conformance with the design concept of the Project and for compliance with information given in the Contract Documents. Review of such drawings will not relieve the Contractor of the responsibility for any errors that 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 REQUIREMENTS SPECIFIED ELSEWHERE**

- A. General Provision.
- B. Section 01720 - Project Record Documents (As-Built).

**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.

**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 reviewed 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 righthand corner of the exposed surface.

B. Project 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 transmittal of the deviation and the reasons therefor. 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.

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.
- D. Begin no work, and have no material or products fabricated or shipped which required submittals until return of submittals with Engineer's stamp and initials or signature indicating review.

- END OF SECTION -

**SECTION 01380****DVD****PART 1 - GENERAL****1.01 WORK INCLUDED**

The Contractor shall be responsible for video taping the entire project site both prior to construction and immediately after completion and acceptance of all work. DVD's shall be produced by a videographer acceptable to the Engineer and of a professional quality.

**1.02 VIDEO TAPE**

The video tape shall be of a high quality DVD format. Video tapes shall show the time, date, and project location on screen during playback.

**1.03 SUBMITTALS**

The Contractor shall provide two copies of the project DVD with jackets. The DVD's and jackets shall be clearly labeled with project name start date and completion date as shown below.

Project Name and Contract No.  
Owner Name  
Start Date: \_\_\_\_\_  
Completion Date: \_\_\_\_\_

-END OF SECTION-

**SECTION 01450**  
**QUALITY CONTROL**

**PART 1 - GENERAL**

**1.01 QUALITY CONTROL**

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.

**1.02 TESTS, INSPECTIONS, AND CERTIFICATIONS OF MATERIALS**

A. Tests, inspections and certifications of materials, equipment, subcontractors or completed work, as required by the various sections of the Specifications shall be obtained by the Contractor and all costs shall be included in the Contract Price.

B. The Contractor shall submit to the Engineer the name of testing laboratory to be used.

C. Contractor shall deliver written notice to the Engineer at least 24 hours in advance of any inspections or tests to be made at the Project site. All inspections, tests, samples for water quality or other procedures requiring the Engineer to attest to be conducted in the field shall be done in the presence of the Engineer or his representative.

D. Certifications by independent testing laboratories may be by copy of the attestation(s) and shall give scientific procedures and results of tests. Certifications by persons having interest in the matter shall be by original attest properly sworn to and notarized.

- END OF SECTION -



**SECTION 01500****TEMPORARY FACILITIES AND CONTROLS****PART 1 - GENERAL****1.01 DESCRIPTION**

A. The Contractor shall make his own provisions for temporary electricity and water and maintain strict supervision of use of temporary utility services as follows:

1. Enforce compliance with applicable standards.
2. Enforce safety practices
3. Prevent abuse of services.
4. Pay all utility charges required.

**1.02 REQUIREMENTS OF REGULATORY AGENCIES**

A. The Contractor shall 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 or that is shown on the Contract Drawings.

C. The Contractor shall comply with applicable codes.

**1.03 REMOVAL**

A. The Contractor shall completely remove temporary materials, equipment, and offices upon completion of construction.

B. The Contractor shall repair damage caused by installation and restore to specified or original condition.

**1.04 TEMPORARY LIGHTING**

A. The Contractor shall furnish and install temporary lighting required for:

1. Construction needs.
2. Safe and adequate working conditions.
3. Public Safety.
4. Security lighting.
5. Temporary office and storage area lighting.

B. Service periods for safety lighting shall be as follows:

1. Within construction area: All times that authorized personnel are present.
2. Public areas: At all times.

C. Costs of Installation and Preparation: Contractor shall pay all installation, maintenance and removal costs of temporary lighting.

D. Maintenance of temporary lighting service (replacement of bulbs, etc.) shall be the sole responsibility of the General Contractor.

#### **1.05 TEMPORARY WATER**

The Contractor shall provide the water necessary for testing and disinfection. Water purchased from the owner for flushing and testing shall be paid for at the whole sale price by the contractor. The Contractor shall supply his own hoses, chlorine for disinfection, etc.

#### **1.06 SANITARY FACILITIES**

Contractor shall provide sanitary facilities as set forth in General Provisions (GP-2.04.Sanitary Regulations).

#### **1.07 FIELD OFFICE (Office Trailer not Required for this Contract)**

The Contractor shall make his own provisions for providing the electricity, telephone, gas, water, sewer, and other utilities to his office trailer that are required or as necessary for completion of the work.

The Contractor shall be responsible for all utility charges.

### **PART 2 - PRODUCTS**

Not used.

### **PART 3 – EXECUTION**

#### **3.01 IMPLEMENTATION**

- B. The Contractor shall provide measures to prevent soil erosion and discharge of soil-bearing water runoff and airborne dust to storm drains, adjacent areas and walkways prior to the start of any site work.
- C. Straw bale dikes, silt fencing and synthetic filter fabric shall be used as necessary to protect adjacent lands, surface waters, and vegetation to achieve environmental objectives.
- D. Provide barriers in and around excavations and subgrade construction to prevent flooding by runoff of stormwater from heavy rains.
- E. Soil deposited on pavement by construction and other contractor vehicles shall be removed and the pavement swept as required.
- F. Plan and execute construction by methods to control surface drainage from cuts and fills, from borrow and waste disposal areas. Prevent erosion and sedimentation.
- G. Minimize amount of bare soil exposed at one time.
- H. Provide temporary measures such as berms, dikes, drains, hay bales, gabions, etc., as directed by the Engineer so as to minimize siltation due to runoff.

- I. Construct fill and waste areas by selective placement to avoid erosive exposed surface of silts or clays.
- J. Periodically inspect earthwork to detect evidence of erosion and sedimentation; promptly apply corrective measures.

### **3.02 OPERATION AND MAINTENANCE**

- A. The Contractor shall inspect, repair, and maintain erosion and sediment control measures until final stabilization has been established.

### **3.03 REMOVAL OF FACILITIES**

- A. The Contractor shall remove the temporary facilities after final stabilization has been established. Used devices (including old straw bales) shall be disposed of as Construction & Demolition debris.

### **3.04 DUST CONTROL**

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

- END OF SECTION -



**SECTION 01530**

**BARRIERS**

**PART 1 - GENERAL**

**1.01 WORK INCLUDED**

Temporary Railing: Temporary railing shall be provided around open pits and other locations where needed, to prevent accidents or injury to persons.

**1.02 COST**

The Contractor shall pay all costs for temporary railing.

- END OF SECTION -

**SECTION 01540**

**SECURITY**

**PART 1 - GENERAL**

**1.01 WORK INCLUDED**

A. Provide barricades, lanterns and other such signs and signals as may be necessary to warn of the dangers in connection with open excavation and obstructions.

B. Provide an adequate and approved 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 all costs for protection and security systems.

- END OF SECTION -

**SECTION 01570**  
**TRAFFIC REGULATION**

**PART 1 - GENERAL**

**1.01 REQUIREMENTS INCLUDED**

- A. Construction parking control.
- B. Flagmen.
- C. Flares and lights.
- D. Haul routes.
- E. Traffic signs and signals.
- F. Removal.

**1.02 RELATED REQUIREMENTS**

- A. Section 01530 - Barriers.
- B. Section 01580 - Project Identification and Signs.

**PART 2 - PRODUCTS**

**2.01 SIGNS, SIGNALS AND DEVICES**

- A. Post-mounted and wall-mounted traffic control and informational signs as specified and required by local jurisdictions.
- B. Automatic Traffic Control Signals: As approved by local jurisdictions.
- C. Traffic Cones and Drums, Flares and Lights: As approved by local jurisdictions.
- D. Flagman Equipment: As required by 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 nondesignated 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 City 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 TRAFFIC SIGNS AND SIGNALS**

A. At approaches to site and on site, install appropriate signs at crossroads, detours, parking areas, and elsewhere as needed to direct construction and affected public traffic.

B. Install and operate traffic control signals to direct and maintain orderly flow of traffic in areas under Contractor's control, and areas affected by Contractor's operations.

C. Relocate as work progresses, to maintain effective traffic control.

### **3.07 REMOVAL**

Remove equipment and devices when no longer required. Repair damage caused by installation. Remove post settings to a depth of 2 feet.

- END OF SECTION -

**SECTION 01580****PROJECT IDENTIFICATION AND SIGNS****PART 1 - GENERAL****1.01 WORK INCLUDED**

A. The Contractor shall provide all signs required by these specifications 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 as shown on the Plans or in these Specifications.

B. The Contractor shall furnish and install One (1) sign on the Project. One sign shall conform to the specifications and painted as shown on Figure I on the following page. The location of signs shall be determined by the Owner and/or Engineer at the pre-construction meeting.

**PART 2 - PRODUCT****2.01 SIGN**

The sign shall be constructed of 3/4" thick APA A-B Exterior grade or marine plywood. Posts shall be 4" x 4" of fencing type material. Prime all wood with white primer. Sign shall be as shown in Figure I and II.

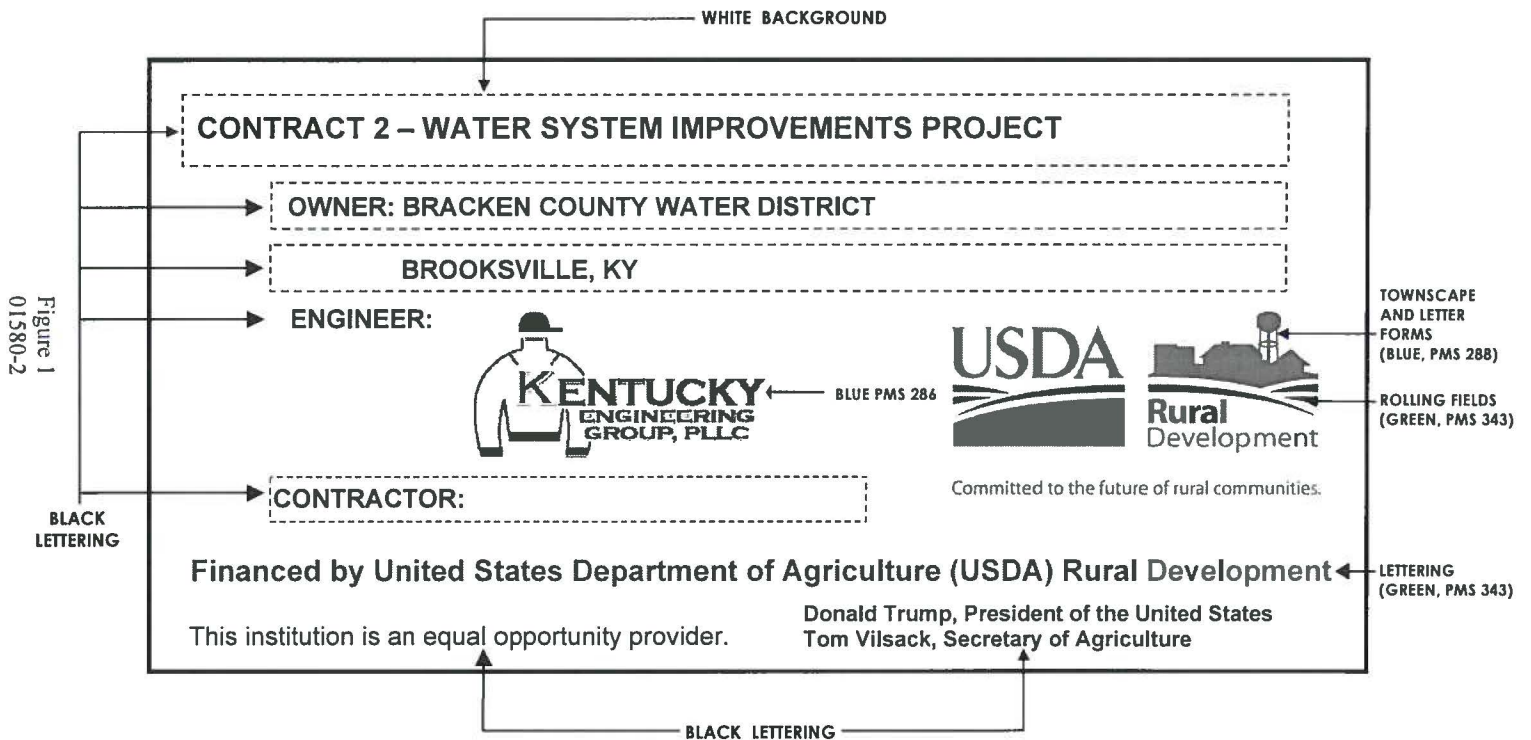
**PART 3 - EXECUTION****3.01 MAINTENANCE**

The sign shall be maintained in good condition until completion of the Project.

**3.02 LOCATION**

The location of the project signs shall be determined at the pre-construction conference after the contract has been awarded.

## TEMPORARY CONSTRUCTION SIGN FOR USDA RURAL DEVELOPMENT PROJECTS



**SIGN DIMENSIONS:** 1200 mm x 2400 mm x 19 mm (approx. 4' x 8' x 3/4")  
PLYWOOD PANEL (APA RATED A-B GRADE-EXTERIOR)



**SECTION 01600****MATERIAL AND EQUIPMENT****PART 1 - GENERAL****1.01 COMPLIANCE WITH SAFETY REGULATIONS**

The equipment items furnished shall comply with all governing Federal and State laws regarding safety, including all requirements of the Occupational Safety and Health Act of 1970 (OSHA).

**PART 2 - PRODUCTS****2.01 REFERENCES**

A. General Provisions: Section 10 Correction and Guarantee of Work, Section 13 Materials and Equipment.

B. Section 02600 – Pipe, Fittings, and Installation

C. Section 02640 - Valves.

D. All material shall meet applicable American Water Works Association (AWWA), American Standard Testing Methods (ASTM), Underwriters Laboratories (UL), Factory Mutual (FM), National Sanitation Foundation (NSF) standards.

**BRACKEN COUNTY WATER DISTRICT**

The following is a list of manufacturers for the materials that may be provided on the project. All material shall meet applicable AWWA, ASTM, Underwriters Laboratories, and Factory Mutual standards. The Owner and Engineer shall approve actual materials during shop drawing review.

<b>MATERIAL/ITEM</b>	<b>APPROVED MANUFACTURER</b>
Air Release Valve (Water and Sewer)	Apco, ARI, Primer Corp or Approved Equal
All Brass Fittings (AWWA brass)	Mueller
Aluminum Hatch	Bil-Co or Approved Equal
Blowoff Hydrant Assembly	Hydrants shall be post type Model No. A-411 as manufactured by Mueller Co. or Approved Equal.
Blowoff Assembly (Underground)	Hydrants shall be Model No. A-412 as manufactured by Mueller Co. or Approved Equal.
Bolted Cast Couplings	Dresser, Smith & Blair, Ford, Viking-Johnson, JCM, Powerseal or Approved Equal
Brass Nipples and Pipe	State Origin

<b>MATERIAL/ITEM</b>	<b>APPROVED MANUFACTURER</b>
Brass Service Saddles	Mueller
Butterfly Valves (Class 150)	Mueller Lineseal III
Butterfly Valves (Class 250)	Mueller Lineseal XP
Casing Spacers	State Origin
Check Valve	Valve shall be those manufactured by Mueller, Kennedy, American Flow Control, or Approved Equal.
Control Valve	n/a
Copper Tracing Wire 12 AWG	State Origin
Customer Individual Pressure Reducing Valve	Watts N55BUM1 or Approved Equal
Customer Meter	Badger (Orion) Radio Read
Customer Meter Box Cover	Pro Source AMR Lid
Customer Meter Setter	Mueller
DI and Cast Iron Full Body Tapping Sleeves	Mueller, Clow, US Pipe, American Flow or Approved Equal or Approved Equal
DI Double Strap Service Saddles	Mueller, Ford, Smith & Blair, JCM or Approved Equal
DI Pipe Class 350	Griffin, Clow, US Pipe, American DI Pipe or Approved Equal
Dual Disc Check Valve	Valve shall be Series #8800 (class 125) as manufactured by Val-Matic® Valve & Mfg. Corporation, Elmhurst, IL. USA. or Approved Equal.
Fire Hydrant	Mueller® Super Centurion 250 ® Model A-423 or Approved Equal
Flushing Hydrant Assembly	Mueller® – Super Centurion 250, Model No. A-423 or Approved Equal
Full Circle Repair Clamps (all stainless steel)	Mueller, Smith & Blair, Ford, Powerseal, Cascade or Approved Equal
Galvanized Compression Couplings	Smith & Blair, Dresser, JCM, Powerseal or Approved Equal
Gate Valves	Mueller Resilient Seat or Approved Equal
Individual Pressure Reducing Valve	Watts Model No. N55BUM1 or Approved Equal
Mainline Pressure Reducing Valve	n/a
Manhole Ring and Cover	J. R. Hoe & Sons or Approved Equal
MJ Fittings Compact/Full Body MJ Packs	McWayne (Tyler/Union, Clow), Griffin, US Pipe, American DI Pipe or Approved Equal
Precast Concrete Manholes	Cloud, Sherman-Dixie or Approved Equal
PVC Couplings	JM Manufacturing, Harrington, Multi-Fittings or Approved Equal
PVC Pipe Class 250 or C900	Diamond, JM Manufacturing, Napco, Freedom, ETI, National, Pioneer or Approved Equal

<b>MATERIAL/ITEM</b>	<b>APPROVED MANUFACTURER</b>
Restraint Joint Collar Fittings	Mueller, McWayne, Ford, EBBA or Approved Equal
Service Tubing – Polyethylene Tubing (CTS Service Tubing)	Domestic
Service Tubing - Type K Copper Soft	Domestic
Steel Tapping Valves and Sleeves (Check Working Pressure)	Mueller, Kennedy, Ford or Approved Equal
Underground Blowoff Hydrant Assembly	Mueller Model No. A-412 or Approved Equal
Underground Detectable Tape	Shall be Lineguard brand encased aluminum foil, Type III. The identification tape is manufactured by Lineguard, Inc., P. O. Box 426, Wheaton, IL 60187 or Approved Equal
Underground Tracer Wire Anchor System	Valve Box Protector Ring w/copper locator pin

-END OF SECTION-



**SECTION 01610****TRANSPORTATION AND HANDLING****PART 1 - GENERAL****1.01 WORK INCLUDED****A. Handling and Distribution:**

1. 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.
2. Storage and demurrage charges by transportation companies and vendors shall be borne by the Contractor.

B. **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 the 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.

- END OF SECTION -

**SECTION 01700**  
**PROJECT CLOSEOUT**

**PART 1 - GENERAL**

**1.01 RELATED REQUIREMENTS SPECIFIED ELSEWHERE**

A. Liquidated Damages: General Provisions-11.20. CHARGES FOR DELAY CAUSED BY THE CONTRACTOR

B. Cleaning: Section 01710.

C. Project Record Documents: Section 01720.

**1.02 SUBSTANTIAL COMPLETION**

A. Contractor:

1. Submit written certification to Engineer that project is substantially complete.
2. Submit list of major items to be completed or corrected.

B. Engineer will make an inspection within seven days after receipt of certification, together with Owner's Representative.

C. Should Engineer consider that work is substantially complete:

1. Contractor shall prepare, and submit to Engineer, a list of items to be completed or corrected, as determined by the inspection.
2. 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.
  - d. Time and date Owner will assume possession of work or designated portion thereof.
  - e. Responsibilities of Owner and Contractor for:
    - (1) Insurance
    - (2) Utilities
    - (3) Operation of mechanical, electrical and other systems.
    - (4) Maintenance and cleaning.
    - (5) Security

- f. Signatures of:
  - (1) Engineer.
  - (2) Contractor.
  - (3) Owner.
- 3. Owner occupancy of Project or Designated Portion of Project:
  - a. Contractor shall:
    - (1) Obtain certificate of occupancy.
    - (2) Perform final cleaning in accordance with Section 01710.
  - b. Owner will occupy Project, under provisions stated in Certificate of Substantial Completion.
- 4. 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 reinspect 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 inspection within seven (7) 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 Project 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 reinspect work.

**1.04 FINAL CLEAN UP**

The Work will not be considered as completed and final payment made until all final clean up has been done by the Contractor in a manner satisfactory to the Engineer. See Section 01710 for detailed requirements.

**1.05 CLOSEOUT SUBMITTALS**

Project Record Documents: To requirements of Section 01720.

**1.06 FINAL APPLICATION FOR PAYMENT**

Contractor shall submit final applications in accordance with requirements of GENERAL PROVISIONS.

**1.07 FINAL CERTIFICATE FOR PAYMENT**

A. Engineer will issue final certificate in accordance with provisions of GENERAL PROVISIONS.

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****PART 1 - GENERAL****1.01 WORK INCLUDED**

A. During its progress the work and the adjacent areas affected thereby shall be kept cleaned up and all rubbish, surplus materials, and unneeded construction equipment shall be removed and all damage repaired so that the public and property owners will be inconvenienced as little as possible.

B. Where material or debris has washed or flowed into or been placed in existing watercourses, ditches, gutters, drains, pipes, structures, by work done under this contract, or elsewhere during the course of the Contractor's operations, such material or debris shall be entirely removed and satisfactorily disposed of during the progress of the work, and the ditches, channels, drains, pipes, structures, and work, etc., shall, upon completion of the work, be left in a clean and neat condition.

C. On or before the completion of the work, the Contractor shall, unless otherwise especially directed or permitted in writing, tear down and remove all temporary buildings and structures built by him; shall remove all temporary works, tools, and machinery or other construction equipment furnished by him; shall remove, acceptably disinfect, and cover all organic matter and material containing organics in, under, and around privies, houses, and other buildings used by him; shall remove all rubbish from any grounds which he has occupied; and shall leave the roads and all parts of the premises and adjacent property affected by his operations in a neat and satisfactory condition.

D. The Contractor shall thoroughly clean all materials and equipment installed by him and his subcontractors, and on completion of the work shall deliver it undamaged and in fresh and new appearing condition.

E. The Contractor shall restore or replace, when and as directed, any public or private property damaged by his work, equipment, or employees, to a condition equal or better than that existing immediately prior to the beginning of operations. To this end the Contractor shall do as required all necessary highway or driveway, walk, and landscaping work. Suitable materials, equipment, and methods shall be used for such restoration. The restoration of existing property or structures shall be done as promptly as practicable as work progresses and shall not be left until the end of the contract period.

**1.02 DESCRIPTION**

A. Related Requirements Specified Elsewhere:

1. Project Closeout: Section 01700.
2. Cleaning for Specific Products or Work: Specification Section for that work.

B. On a continuous basis, maintain premises free from accumulations of waste, debris, and rubbish, caused by operations.

C. 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.

**1.03 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 in compliance 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 fuel in open drainage ditches or storm or sanitary drains.
  - 3. Do not dispose of wastes into streams or waterways.

**PART 2 - PRODUCTS****2.01 MATERIALS**

- A. Use only cleaning materials recommended by manufacturer of surface to be cleaned.
- B. Use cleaning materials only on surfaces recommended by cleaning material manufacturer.

**PART 3 - EXECUTION****3.01 DURING CONSTRUCTION**

- A. Execute cleaning to ensure that grounds and public properties are maintained free from accumulations of waste materials and rubbish.
- B. Wet down dry materials and rubbish to minimize blowing dust.
- C. At reasonable intervals during progress of Work, clean site and public properties, and dispose of waste materials, debris and rubbish.
- D. Provide on-site containers for collection of waste materials, debris and rubbish.
- E. Remove waste materials, debris and rubbish from site and legally dispose of at public or private dumping areas off construction site.
- F. The Contractor shall thoroughly clean all materials and equipment installed.



**3.02 FINAL CLEANING**

- A. Employ experienced workmen, or professional cleaners, for final cleaning.
- B. In preparation for substantial completion, conduct final inspection of project area(s).
- C. Broom clean paved surfaces; rake clean other surfaces of grounds.
- D. Maintain cleaning until Project, or portion thereof, is accepted by Owner.

- END OF SECTION -

**SECTION 01720****PROJECT RECORD DOCUMENTS****PART 1 - GENERAL****1.01 WORK INCLUDED**

The Contractor shall obtain from the Engineer, one (1) set of prints of the Contract Drawings. These prints shall be kept and maintained in good condition at the project site and a qualified representative of the Contractor shall enter upon these prints, from day-to-day, the actual "as-built" record of the construction progress. Entries and notations shall be made in a neat and legible manner and these prints shall be delivered to the Engineer upon completion of the construction. APPROVAL FOR FINAL PAYMENT WILL BE CONTINGENT UPON COMPLIANCE WITH THIS PROVISION.

**1.02 RELATED REQUIREMENTS SPECIFIED ELSEWHERE:**

- A. Section 01300 - Submittals.
- B. General Provisions – Kentucky Engineering Group, PLLC

**1.03 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
  - 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.

**1.04 MARKING DEVICES**

Provide colored pencil or felt-tip marking pen for all marking.

**1.05 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.

#### **1.06 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 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, or his authorized Representative.

- 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 so specified.
- D. Review submittals to verify compliance with Contract Documents.
- E. Related requirements specified elsewhere:
  - 1. Bid Bond: Instructions to Bidders.
  - 2. Performance and Payment Bonds: General Provisions.
  - 3. Guaranty: General Provisions.
  - 4. General Warranty of Construction: General Provisions. **See General Conditions, Section 00700-27.**
  - 5. Project Closeout: Section 01700.
  - 6. Warranties and Bonds required for specific products: As listed herein.
  - 7. Provisions of Warranties and Bonds, Duration: Respective specification sections for particular products.
  - 8. Operating and Maintenance Data: Section 01730.

**1.02 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. Firm name, address and telephone number.

3. Scope
4. Date of beginning of warranty, bond or service and maintenance contract.
5. Duration of warranty, bond or service and maintenance contract.
6. Provide information for Owner's personnel:
  - a. Proper procedure in case of failure.
  - b. Instances which might affect the validity of warranty or bond.
7. Contractor name, address and telephone number.

### **1.03 FORM OF SUBMITTALS**

- A. Prepare in duplicate packets.
- B. Format:
  1. Size 8-1/2 in. x 11 in., 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. Name of Contractor.
- C. Binders: Commercial quality, three-ring, with durable and cleanable plastic covers.

### **1.04 TIME OF SUBMITTALS**

- A. For equipment or component parts of equipment put into service during progress of construction: Submit documents within 10 days after inspection and acceptance.
- B. Otherwise, make submittals within 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 10 days after acceptance, listing the date of acceptance as the start of the warranty period.

### **1.05 SUBMITTALS REQUIRED**

Submit warranties, bonds, service and maintenance contracts as specified in the respective sections of the Specifications.

- END OF SECTION -

**DIVISION 2**

**SITE WORK**





**SECTION 02110****SITE CLEARING****PART 1 - GENERAL****1.01 WORK INCLUDED**

- A. Clear site within construction limits of plant life.
- B. Remove grass and topsoil in area of access road and foundation.
- C. Remove root system of trees and shrubs.
- D. Remove surface debris

**1.02 RELATED WORK**

- A. Section 02228 - Rock Removal.
- B. Section 02211 - Rough Grading.
- C. Section 02222 - Excavation.

**1.03 REGULATORY REQUIREMENTS**

Conform to applicable local codes and ordinances for disposal of debris.

**PART 2 - PRODUCTS**

Not Used.

**PART 3 - EXECUTION****3.01 CLEARING**

- A. Clear areas required for access to site and execution of work.
- B. Remove trees, shrubs, brush, and other vegetable matter such as snags, bark, and refuse.

**3.02 PROTECTION**

The Contractor shall not cut or injure any trees or other vegetation outside the easement lines and outside the areas to be cleared, as indicated on the Drawings, without written permission from the Engineer. The Contractor shall be responsible for all damage done outside these lines.

**3.03 GRUBBING**

From areas to be grubbed, the Contractor shall remove completely all stumps, remove to a depth of at least 24 inches below subgrade elevation all roots larger than 1 1/2 in. in diameter, and remove to a depth of 12 in. all roots larger than 1/2 in. in diameter. Such depths shall be measured from the existing ground surface, the proposed finished grade or subgrade, whichever is lower.

**3.04 STRIPPING**

All stumps, roots, foreign matter, topsoil, loam, and unsuitable earth shall be stripped from the ground surface. The topsoil and loam shall be utilized insofar as possible, for finished surfacing. Loam shall not be taken from the site.

**3.05 DISPOSAL**

A. All material resulting from clearing and grubbing and not scheduled for reuse or stockpiling 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 promptly as possible after removal of the material and shall not be left until the final period of cleaning up.

**3.06 FENCES**

Wherever fences need to be removed to provide access to the work or are damaged during the progress of work, they shall be restored or repaired to as good a condition as existed prior to construction at the Contractor's expense.

- END OF SECTION -

**SECTION 02211****ROUGH GRADING****PART 1 - GENERAL****1.01 WORK INCLUDED**

- A. Remove topsoil and stockpile for later reuse.
- B. Excavate subsoil and stockpile for later reuse as directed in Section 022110, Backfilling and Embankments.
- C. Grade and rough contour site.

**1.02 RELATED WORK**

- A. Geotechnical data as indicated in Appendix A of the specifications. (None provided or available for this Contract)
- B. Section 02228 - Rock Removal.
- C. Section 02222 - Excavation.
- D. Section 02220 - Earthwork.

**1.03 PROJECT RECORD DOCUMENTS**

- A. Submit documents under provisions of Section 01720.
- B. Accurately record location of utilities remaining, rerouted utilities, new utilities by horizontal dimensions, elevations or inverts, and slope gradients.

**1.04 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**

- A. Topsoil: Excavated material, graded free of roots, rocks larger than one inch, subsoil, debris, and large weeds.



B. Subsoil: 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 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 02220, Backfilling.
- B. Do not excavate wet subsoil.
- C. Stockpile subsoil to depth not exceeding 8 feet.
- D. When excavation through roots is necessary, perform work by hand and cut roots with a sharp axe.

#### **3.04 TOLERANCES**

Top Surface of Subgrade: Plus or minus three inches.

- END OF SECTION -

**SECTION 02220****EARTHWORK****PART 1 GENERAL****1.01 SUMMARY**

- A. This Section includes excavation and backfilling including the loosening, removing, refilling, transporting, storage and disposal of all materials classified as "earth" necessary to be removed for the construction and completion of all work under the Contract, and as shown on the Contract Drawings, specified or directed.

**1.02 REFERENCES**

- A. Materials and installation shall be in accordance with the latest revisions of the following codes, standards, and specifications, except where more stringent requirements have been specified herein:
1. American Society for Testing and Materials (ASTM)
    - a. A328 Specification for Steel Sheet Piling
    - b. D698 Test Method for Laboratory Compaction Characteristics of Soil Using Standard Effort (12,400 ft-lbf/ft<sup>3</sup>) (600 kN-m/m<sup>3</sup>)
    - c. D1556 Test Method for Density and Unit Weight of Soil in Place by the Sand-Cone Method
    - d. D1760 Specification for Pressure Treatment of Timber Products
    - e. D2922 Test Methods for Density of Soil and Soil Aggregate in Place by Nuclear Methods (Shallow Depth)

**1.03 DEFINITIONS**

- A. Excavation (or Trenching)
1. Grubbing, stripping, removing, storing and rehandling of all materials of every name and nature necessary to be removed for all purposes incidental to the construction and completion of all the work under construction.
  2. All sheeting, sheetpiling, bracing and shoring, and the placing, driving, cutting off and removing of the same.
  3. All diking, ditching, fluming, cofferdamming, pumping, bailing, draining, well pointing, or otherwise disposing of water.
  4. The removing and disposing of all surplus materials from the excavations in the manner specified.

5. The maintenance, accommodation and protection of travel and the temporary paving of highways, roads and driveways.
  6. The supporting and protecting of all tracks, rails, buildings, curbs, sidewalks, pavements, overhead wires, poles, trees, vines, shrubbery, pipes, sewers, conduits or other structures or property in the vicinity of the work, whether over- or underground or which appear within or adjacent to the excavations, and the restoration of the same in case of settlement or other injury.
  7. All temporary bridging and fencing and the removing of same.
- B. Earth
1. All materials such as sand, gravel, clay, loam, ashes, cinders, pavements, muck, roots or pieces of timber, soft or disintegrated rock, not requiring blasting, barring, or wedging from their original beds, and specifically excluding all ledge or bedrock and individual boulders or masonry larger than one-half cubic yard in volume.
- C. Backfill
1. The refilling of excavation and trenches to the line of filling indicated on the Contract Drawings or as directed using materials suitable for refilling of excavations and trenches; and the compacting of all materials used in filling or refilling by rolling, ramming, watering, puddling, etc., as may be required.
- D. Spoil
1. Surplus excavated materials not required or not suitable for backfills or embankments.
- E. Embankments
1. Fills constructed above the original surface of the ground or such other elevation as specified or directed.
- F. Limiting Subgrade
1. The underside of the pipe barrel for pipelines
  2. The underside of footing lines for structures
- G. Excavation Below Subgrade
1. Excavation below the limiting subgrades of structures or pipelines.
  2. Where materials encountered at the limiting subgrades are not suitable for proper support of structures or pipelines, the Contractor shall excavate to such new lines and grades as required.

## **PART 2 PRODUCTS**

### **2.01 MATERIALS AND CONSTRUCTION**

- A. Wood Sheeting and Bracing



1. Shall be sound and straight; free from cracks, shakes and large or loose knots; and shall have dressed edges where directed.
2. Shall conform to National Design Specifications for Stress Grade Lumber having a minimum fiber stress of 1200 pounds per square inch.
3. Sheeting and bracing to be left-in-place shall be pressure treated in accordance with ASTM D1760 for the type of lumber used and with a preservative approved by the Engineer.

**B. Steel Sheeting and Bracing**

1. Shall be sound
2. Shall conform to ASTM A328 with a minimum thickness of 3/8 inch.

**PART 3 EXECUTION**

**3.01 UNAUTHORIZED EXCAVATION**

- A. Whenever excavations are carried beyond or below the lines and grades shown on the Contract Drawings, or as given or directed by the Engineer, all such excavated space shall be refilled with special granular materials, concrete or other materials as the Engineer may direct. All refilling of unauthorized excavations shall be at the Contractor's expense.
- B. All material which slides, falls or caves into the established limits of excavations due to any cause whatsoever, shall be removed and disposed of at the Contractor's expense and no extra compensation will be paid the Contractor for any materials ordered for refilling the void areas left by the slide, fall or cave-in.

**3.02 REMOVAL OF WATER**

**A. General**

1. The Contractor shall at all times provide and maintain proper and satisfactory means and devices for the removal of all water entering the excavations, and shall remove all such water as fast as it may collect, in such manner as shall not interfere with the prosecution of the work or the proper placing of pipes, structures, or other work.
2. Unless otherwise specified, all excavations which extend down to or below the static groundwater elevations shall be dewatered by lowering and maintaining the groundwater beneath such excavations at all times when work thereon is in progress, during subgrade preparation and the placing of the structure or pipe thereon.
3. Water shall not be allowed to rise over or come in contact with any masonry, concrete or mortar, until at least 24 hours after placement, and no stream of water shall be allowed to flow over such work until such time as the Engineer may permit.
4. Where the presence of fine grained subsurface materials and a high groundwater table may cause the upward flow of water into the excavation with a resulting quick or unstable condition, the Contractor shall install and

operate a well point system to prevent the upward flow of water during construction.

5. Water pumped or drained from excavations, or any sewers, drains or water courses encountered in the work, shall be disposed of in a suitable manner without injury to adjacent property, the work under construction, or to pavements, roads, drives, and water courses. No water shall be discharged to sanitary sewers. Sanitary sewage shall be pumped to sanitary sewers or shall be disposed of by an approved method.
6. Any damage caused by or resulting from dewatering operations shall be the sole responsibility of the Contractor.

B. Work Included

1. The construction and removal of cofferdams, sheeting and bracing, and the furnishing of materials and labor necessary therefor.
2. The excavation and maintenance of ditches and sluiceways.
3. The furnishing and operation of pumps, well points, and appliances needed to maintain thorough drainage of the work in a satisfactory manner.

C. Well Point Systems

1. Installation

- a. The well point system shall be designed and installed by or under the supervision of an organization whose principal business is well pointing and which has at least five consecutive years of similar experience and can furnish a representative list of satisfactory similar operations.
- b. Well point headers, points and other pertinent equipment shall not be placed within the limits of the excavation in such a manner or location as to interfere with the laying of pipe or trenching operations or with the excavation and construction of other structures.
- c. Detached observation wells of similar construction to the well points shall be installed at intervals of not less than 50 feet along the opposite side of the excavation from the header pipe and line of well points, to a depth of at least 5 feet below the proposed excavation. In addition, one well point in every 50 feet shall be fitted with a tee, plug and valve so that the well point can be converted for use as an observation well. Observation wells shall be not less than 1-½ inches in diameter.
- d. Standby gasoline or diesel powered equipment shall be provided so that in the event of failure of the operating equipment, the standby equipment can be readily connected to the system. The standby equipment shall be maintained in good order and actuated regularly not less than twice a week.

2. Operation

- a. Where well points are used, the groundwater shall be lowered and maintained continuously (day and night) at a level not less than 2 feet

below the bottom of the excavation. Excavation will not be permitted at a level lower than 2 feet above the water level as indicated by the observation wells.

- b. The effluent pumped from the well points shall be examined periodically by qualified personnel to determine if the system is operating satisfactorily without the removal of fines.
- c. The water level shall not be permitted to rise until construction in the immediate area is completed and the excavation backfilled.

### **3.03 STORAGE OF MATERIALS**

#### **A. Sod**

- 1. Any sod cut during excavation shall be removed and stored during construction so as to preserve the grass growth. Sod damaged while in storage shall be replaced in like kind at the sole expense of the Contractor.

#### **B. Topsoil**

- 1. Topsoil suitable for final grading shall be removed and stored separately from other excavated material.

#### **C. Excavated Materials**

- 1. All excavated materials shall be stored in locations so as not to endanger the work, and so that easy access may be had at all times to all parts of the excavation. Stored materials shall be kept neatly piled and trimmed, so as to cause as little inconvenience as possible to public travel or to adjoining property holders.
- 2. Special precautions must be taken to permit access at all times to fire hydrants, fire alarm boxes, police and fire department driveways, and other points where access may involve the safety and welfare of the general public.
- 3.

### **3.04 DISPOSAL OF MATERIALS**

#### **A. Spoil Material**

- 1. All spoil materials shall be disposed of as required by the local, state or federal regulations pertaining to the area or as described in the Special Provisions or on the Contract Drawings.
- 2. The surface of all spoil areas shall be graded and dressed and no unsightly mounds or heaps shall be left on completion of the work.

### **3.05 SHEETING AND BRACING**

#### **A. Installation**

- 1. The Contractor shall furnish, place and maintain such sheeting, bracing and shoring as may be required to support the sides and ends of excavations in such manner as to prevent any movement which could, in any way, injure the pipe, structures, or other work; diminish the width necessary for construction;



otherwise damage or delay the work of the Contract; endanger existing structures, pipes or pavements; or cause the excavation limits to exceed the right-of-way limits.

2. In no case will bracing be permitted against pipes or structures in trenches or other excavations.
3. Sheet piling shall be driven as the excavation progresses, and in such manner as to maintain pressure against the original ground at all times. The sheet piling shall be driven vertically with the edges tight together, and all bracing shall be of such design and strength as to maintain the sheet piling in its proper position. Sheet piling which carries fines through the sheet piling shall be plugged to retain the fines.
4. Where breast boards are used between soldier pile, the boards shall be back packed with soil to maintain support.
5. The Contractor shall be solely responsible for the adequacy of all sheet piling and bracing.

**B. Removal**

1. In general, all sheet piling and bracing, whether of steel, wood or other material, used to support the sides of trenches or other open excavations, shall be withdrawn as the trenches or other open excavations are being refilled. That portion of the sheet piling extending below the top of a pipe or structural foundation shall not be withdrawn, unless otherwise directed, before more than 6 inches of earth is placed above the top of the pipe or structural foundation and before any bracing is removed. The voids left by the sheet piling shall be carefully refilled with selected material and rammed tight with tools especially adapted for the purpose or otherwise as may be approved.
2. The Contractor shall not remove sheet piling and bracing until the work has attained the necessary strength to permit placing of backfill.

**C. Left in Place**

1. If, to serve any purpose of his own, the Contractor files a written request for permission to leave sheet piling or bracing in the trench or excavation, the Engineer may grant such permission, in writing, on condition that the cost of such sheet piling and bracing be assumed and paid by the Contractor.
2. The Contractor shall leave in place all sheet piling, shoring and bracing which are shown on the Contract Drawings or specified to be left in place or which the Engineer may order, in writing, to be left in place. All shoring, sheet piling and bracing shown or ordered to be left in place will be paid for under the appropriate item of the Contract. No payment allowance will be made for wasted ends or for portions above the proposed cutoff level which are driven down instead of cut-off.
3. In case sheet piling is left in place, it shall be cut off or driven down as directed so that no portion of the same shall remain within 12 inches of the street subgrade or finished ground surface.

**3.06 BACKFILLING**

A. General

1. All excavations shall be backfilled to the original surface of the ground or to such other grades as may be shown, specified or directed.
2. Backfilling shall be done with suitable excavated materials which can be satisfactorily compacted during refilling of the excavation. In the event the excavated materials are not suitable, Special Backfill as specified or ordered by the Engineer shall be used for backfilling.
4. Any settlement occurring in the backfilled excavations shall be refilled and compacted.

B. Unsuitable Materials

1. Stones, pieces of rock or pieces of pavement greater than 1 cubic foot in volume or greater than 1.5 feet in any single dimension shall not be used in any portion of the backfill.
2. All stones, pieces of rock or pavement shall be distributed through the backfill and alternated with earth backfill in such a manner that all interstices between them shall be filled with earth.
3. Frozen earth shall not be used for backfilling.

C. Compaction and Density Control

1. The compaction shall be as specified for the type of earthwork, i.e., structural, trenching or embankment.
  - a. The compaction specified shall be the percent of maximum dry density.
  - b. The compaction equipment shall be suitable for the material encountered.
2. Where required, to assure adequate compaction, in-place density test shall at the expense of the Contractor be made by an approved testing laboratory.
  - a. The moisture-density relationship of the backfill material shall be determined by ASTM D698, Method D.
    - 1) Compaction curves for the full range of materials used shall be developed.
  - b. In-place density shall be determined by the methods of ASTM D1556 or ASTM D2922 and shall be expressed as a percentage of maximum dry density.
3. Where required, to obtain the optimum moisture content, the Contractor shall add, at his expense, sufficient water during compaction to assure the specified maximum density of the backfill. If, due to rain or other causes, the material exceeds the optimum moisture content, it shall be allowed to dry, assisted if necessary, before resuming compaction or filling efforts.

4. The Contractor shall be responsible for all damage or injury done to pipes, structures, property or persons due to improper placing or compacting of backfill.

### 3.07 OTHER REQUIREMENTS

#### A. Drainage

1. All material deposited in roadway ditches or other water courses shall be removed immediately after backfilling is completed and the section, grades and contours of such ditches or water courses restored to their original condition, in order that surface drainage will be obstructed no longer than necessary.

#### B. Unfinished Work

1. When, for any reason, the work is to be left unfinished, all trenches and excavations shall be filled and all roadways, sidewalks and watercourses left unobstructed with their surfaces in a safe and satisfactory condition. The surface of all roadways and sidewalks shall have a temporary pavement.

#### C. Hauling Material on Streets

1. When it is necessary to haul material over the streets or pavements, the Contractor shall provide suitable tight vehicles so as to prevent deposits on the streets or pavements. In all cases where any materials are dropped from the vehicles, the Contractor shall clean up the same as often as required to keep the crosswalks, streets and pavements clean and free from dirt, mud, stone and other hauled material.

#### D. Dust Control

1. It shall be the sole responsibility of the Contractor to control the dust created by any and all of his operations to such a degree that it will not endanger the safety and welfare of the general public.
2. Calcium chloride and petroleum products shall not be used for dust control.

#### E. Test Pits

1. For the purpose of obtaining detail locations of underground obstructions, the Contractor shall make excavations in advance of the work. Payment for the excavations ordered by the Engineer will be made under an appropriate item of the Contract and shall include sheeting, bracing, pumping, excavation and backfilling.

- END OF SECTION -



**SECTION 02222****EXCAVATION****PART 1 - GENERAL****1.01 WORK INCLUDED**

- A. Structure excavation.
- B. Shoring excavations.

**1.02 RELATED WORK**

- A. Geotechnical Report in Appendix A of these specifications. (None provided or available for this Contract)
- B. Section 01450 - Quality Control.
- C. Section 02228 - Rock Removal.
- D. Section 02211 - Rough Grading.
- E. Section 02220 - Backfilling and Embankments.
- F. Section 02226 - Trenching.

**1.03 REGULATORY REQUIREMENTS**

- A. Protect excavations by shoring, bracing, sheet piling, underpinning, or other methods required to prevent cave-in or loose soil from falling into excavation.
- B. Underpin adjacent structures which may be damaged by excavation work, including service utilities and pipe chases.
- C. Notify Engineer of unexpected subsurface conditions and discontinue affected work in area until notified to resume work.
- D. Protect bottom of excavations and soil adjacent to and beneath foundations from frost.
- E. Grade excavation top perimeter to prevent surface water run-off into excavation.

**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. # 57's or # 9's: Mineral aggregate graded 1/4 inch to 5/8 inch, free of soil, subsoil, clay, shale, or foreign matter.

**PART 3 - EXECUTION**

**3.01 PREPARATION**

Identify required liens, levels, contours, and datum.

**3.02 EXCAVATION**

A. Excavate subsoil required for structure foundations, construction operations, and other work. All excavation shall be unclassified excavation.

B. Contractor is responsible to adequately brace open cuts and protect workmen and equipment from cave-in.

C. Remove lumped subsoil, boulders, and rock up to 1/3 cu. yd., measured by volume. Remove larger material under Section 02228.

D. Correct unauthorized excavation at no cost to Owner.

E. Fill over-excavated areas under structure bearing surfaces in accordance with direction by Engineer.

F. Stockpile excavated material in area designated on site.

**3.03 FIELD QUALITY CONTROL**

Provide for visual inspection of rock surfaces under provisions of Section 01450.

- END OF SECTION -

**SECTION 02226****TRENCHING, BACKFILLING AND COMPACTING****PART 1 GENERAL****1.01 SUMMARY**

- A. This Section includes excavation and backfill as required for pipe installation or other construction in the trench, and removal and disposal of water, in accordance with the applicable provisions of the Section entitled "Earthwork" unless modified herein.

**PART 2 PRODUCTS**

NOT USED

**PART 3 EXECUTION****3.01 EXCAVATION**

- A. The trench excavation shall be located as shown on the Contract Drawings or as specified. Under ordinary conditions, excavation shall be by open cut from the ground surface. Where the depth of trench and soil conditions permit, tunneling may be required beneath cross walks, curbs, gutters, pavements, trees, driveways, railroad tracks and other surface structures. No additional compensation will be allowed for such tunneling over the price bid for open cut excavation of equivalent depths below the ground surface unless such tunnel excavation is specifically provided for in the Contract Documents.
- B. Trenches shall be excavated to maintain the depths as shown on the Contract Drawings or as specified for the type of pipe to be installed.
- C. The alignment and depth shall be determined and maintained by the use of a string line installed on batter boards above the trench, a double string line installed along side of the trench or a laser beam system.
- D. The minimum width of trench excavation shall be 6-inches on each side of the pipe hub for 21-inch diameter pipe and smaller and 12-inches on each side of the pipe hub for 24-inch diameter pipe and larger.
- E. Trenches shall not be opened for more than 300 feet in advance of pipe installation nor left unfilled for more than 100 feet in the rear of the installed pipe when work is in progress without the consent of the Engineer. Open trenches shall be protected and barricaded as required.
- F. Bridging across open trenches shall be constructed and maintained where required.

**3.02 SUBGRADE PREPARATION FOR PIPE**

- A. Where pipe is to be laid on undisturbed bottom of excavated trench, mechanical excavation shall not extend lower than the finished subgrade elevation at any point.



- B. Where pipe is to be laid on special granular material the excavation below subgrade shall be to the depth specified or directed. The excavation below subgrade shall be refilled with special granular material as specified or directed, shall be deposited in layers not to exceed 6 inches and shall be thoroughly compacted prior to the preparation of pipe subgrade.
- C. The subgrade shall be prepared by shaping with hand tools to the contour of the pipe barrel to allow for uniform and continuous bearing and support on solid undisturbed ground or embedment for the entire length of the pipe.
- D. Pipe subgrade preparation shall be performed immediately prior to installing the pipe in the trench. Where bell holes are required they shall be made after the subgrade preparation is complete and shall be only of sufficient length to prevent any part of the bell from becoming in contact with the trench bottom and allowing space for joint assembly.

### **3.03 STORAGE OF MATERIALS**

- A. Traffic shall be maintained at all times in accordance with the applicable Highway Permits. Where no Highway Permit is required at least one-half of the street must be kept open for traffic.
- B. Where conditions do not permit storage of materials adjacent to the trench, the material excavated from a length as may be required, shall be removed by the Contractor, at his cost and expense, as soon as excavated. The material subsequently excavated shall be used to refill the trench where the pipe had been built, provided it be of suitable character. The excess material shall be removed to locations selected and obtained by the Contractor.
  - 1. The Contractor shall, at his cost and expense, bring back adequate amounts of satisfactory excavated materials as may be required to properly refill the trenches.
- C. If directed by the Engineer, the Contractor shall refill trenches with select fill or other suitable materials and excess excavated materials shall be disposed of as spoil.

### **3.04 REMOVAL OF WATER AND DRAINAGE**

- A. The Contractor shall at all times provide and maintain proper and satisfactory means and devices for the removal of all water entering the trench, and shall remove all such water as fast as it may collect, in such manner as shall not interfere with the prosecution of the work.
- B. The removal of water shall be in accordance with the Section entitled "Earthwork".

### **3.05 PIPE EMBEDMENT**

- A. All pipe shall be protected from lateral displacement and possible damage resulting from superimposed backfill loads, impact or unbalanced loading during backfilling operations by being adequately embedded in suitable pipe embedment material. To ensure adequate lateral and vertical stability of the installed pipe during pipe jointing and embedment operations, a sufficient amount of the pipe embedment material to hold the pipe in rigid alignment shall be uniformly deposited and thoroughly compacted on each side, and back of the bell, of each pipe as laid.
- B. Concrete cradle and encasement of the class specified shall be installed where and as shown on the Contract Drawings or ordered by the Engineer. Before any concrete is placed, the pipe shall be securely blocked and braced to prevent movement or flotation. The concrete cradle or encasement shall extend the full width of the trench as excavated unless otherwise authorized by the Engineer. Where concrete is to be placed in a sheeted trench it shall be

poured directly against sheeting to be left in place or against a bond-breaker if the sheeting is to be removed.

- C. Embedment materials placed above the centerline of the pipe or above the concrete cradle to a depth of 12 inches above the top of the pipe barrel shall be deposited in such manner as to not damage the pipe. Compaction shall be as required for the type of embedment being installed.

### **3.06 BACKFILL ABOVE EMBEDMENT**

- A. The remaining portion of the pipe trench above the embedment shall be refilled with suitable materials compacted as specified.
  - 1. Where trenches are within the ditch-to-ditch limits of any street or road or within a driveway or sidewalk, or shall be under a structure, the trench shall be refilled in horizontal layers not more than 8 inches in thickness, and compacted to obtain 95% maximum density, and determined as set forth in the Section entitled "Earthwork".
  - 2. Where trenches are in open fields or unimproved areas outside of the ditch limits of roads, the backfilling may be by placing the material in the trench and mounding the surface.
  - 3. Hand tamping shall be required around buried utility lines or other subsurface features that could be damaged by mechanical compaction equipment.
- B. Backfilling of trenches beneath, across or adjacent to drainage ditches and water courses shall be done in such a manner that water will not accumulate in unfilled or partially filled trenches and the backfill shall be protected from surface erosion by adequate means.
  - 1. Where trenches cross waterways, the backfill surface exposed on the bottom and slopes thereof shall be protected by means of stone or concrete rip-rap or pavement.
- C. All settlement of the backfill shall be refilled and compacted as it occurs.
- D. Temporary pavement shall be placed as specified in the Section entitled "Restoration of Surfaces".

-END OF SECTION-

**SECTION 02228****ROCK REMOVAL****PART 1 GENERAL****1.01 SUMMARY**

- A. This Section includes removal to the widths and depths shown on the Contract Drawings or as directed by the Engineer, including the loosening, removing, transporting, storing and disposal of all materials requiring blasting, barring, or wedging for removal from their original beds, and backfill of rock excavations with acceptable materials
- B. Use of explosives for rock removal shall be used only with prior permission from both the Engineer and Owner. **Blasting will NOT be permitted in this project.**
- C. Rock removal is part of and incidental to unclassified excavation. No separate payment shall be made for rock removal.

**1.02 SUBMITTALS**

- A. In addition to those submittals identified in the General Provisions, the following items shall be submitted:
  - 1. Before any blasting operations begin the Contractor shall obtain all permits and licenses required.

**1.03 DEFINITIONS**

- A. Rock
  - 1. All pieces of ledge or bedrock, boulders or masonry larger than one-half cubic yard in volume.
  - 2. Any material requiring blasting, barring, or wedging for removal from its original bed.

**PART 2 PRODUCTS**

NOT USED

**PART 3 EXECUTION****3.01 BLASTING (Use of explosives for rock removal shall be used only with prior permission from both the Engineer and Owner.)**

- A. General
  - 1. Handling of explosives and blasting shall be done only by experienced persons.



2. Handling and blasting shall be in accordance with all Federal, State and local laws, rules and regulations relating to the possession, handling, storage and transportation and use of explosives.
3. All blasts in open cut shall be properly covered and protected with approved blasting mats.
4. Charges shall be of such size that the excavation will not be unduly large and shall be so arranged and timed that adjacent rock, upon or against which pipelines or structures are to be built, will not be shattered.
5. Blasting will not be permitted within 25 feet of pipelines or structures.
6. All existing pipes or structures exposed during excavation shall be adequately protected from damage before proceeding with the blasting.
7. NFPA 495 - Code for Manufacture, Transportation, Storage and Use of Explosive Materials.
8. Commonwealth of Kentucky Department of Mines and Minerals, Laws and Regulations Governing Explosives and Blasting.

B. Repair of Damages Due to Blasting

1. Any injury or damage to the work or to existing pipes or structures shall be repaired or rebuilt by the Contractor at his expense.
2. Whenever blasting may damage adjacent rock, pipes or structures, blasting shall be discontinued and the rock removed by drilling, barring, wedging or other methods.

C. Explosives

1. At no time shall an excessive amount of explosives be kept at the site of the work. Such explosives shall be stored, handled and used in conformity with all applicable laws and regulations.
2. Accurate daily records shall be kept showing the amounts of explosives on hand, both at the site and at any storage magazine, the quantities received and issued, and the purpose for which issued.
3. The Contractor shall be responsible for any damage or injury to any persons, property or structures as a result of his handling, storage or use of explosives.

D. Rock Clearance in Trenches

1. Ledge rock, boulders and large stones shall be removed from the sides and bottom of the trench to provide clearance for the specified embedment of each pipe section, joint or appurtenance; but in no instance shall the clearance be less than 6 inches. Additional clearance at the pipe bell or joint shall be provided to allow for the proper make-up of the joint.
2. At the transition from an earth bottom to a rock bottom the minimum bottom clearance shall be 12 inches for a distance of not less than 5 feet.

E. Rock Clearance at Structures

1. Concrete for structures shall be placed directly on the rock and the excavation shall be only to the elevations and grades shown on the Contract Drawings.

**3.02 EXCAVATION AND BACKFILL**

- A. Rock removal and backfilling shall be performed in accordance with the applicable provisions of the Section entitled "Earthwork".
- B. The rock excavated which cannot be incorporated into the backfill material, as specified, shall be disposed of as spoil and shall be replaced with the quantity of acceptable material required for backfilling.

-END OF SECTION-

**SECTION 02255****CRUSHED STONE AND DENSE GRADED AGGREGATE****PART 1 - GENERAL****1.01 SCOPE OF WORK**

- A. Furnish and install crushed stone for miscellaneous uses as shown on the Drawings, as called for in the Specifications.
- B. Sizes, types, and quality of crushed stone are specified in this Section, but its use for replacement of unsuitable material, pavement base, and similar uses is specified in detail elsewhere in the Specifications. The Engineer may order the use of crushed stone for purposes other than those specified in other Sections, if, in his opinion, such use is advisable. Payment for same will be subject to negotiation.

**PART 2 - PRODUCTS****2.01 MATERIALS**

- A. When referred to in these Specifications, crushed stone shall be Number 57 graded in accordance with the Kentucky Department of Highways, Standard Specifications, latest edition, unless otherwise noted.
- B. When referred to in these Specifications, dense graded aggregate (DGA) shall be crushed stone classified by the Kentucky Department of Highways, Standard Specifications, latest edition, and conforming to the following requirements:

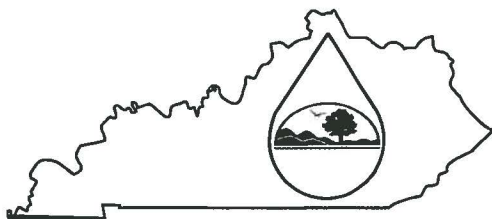
<u>Sieve Size</u>	<u>Percent Passing</u>
1 Inch	100
3/4 Inch	70 - 100
1/2 Inch	50 - 80
#4	30 - 65
#10	17 - 50
#40	8 - 30
#200	2 - 10

**PART 3 - EXECUTION****3.01 INSTALLATION**

- A. Crushed stone shall be placed and compacted in accordance with the Kentucky Department of Highways, Standard Specifications.
- B. Crushed stone shall be placed in those areas as shown on the Drawings.

-- END OF SECTION --



**KPDES FORM NOI-SW**

Kentucky Pollutant Discharge Elimination System  
(KPDES)  
**Notice of Intent (NOI)**  
**for Storm Water Discharges**  
**Associated with Industrial Activity Under the**  
**KPDES General Permit**

Submission of this Notice of Intent constitutes notice that the party identified in Section I of this form intends to be authorized by a KPDES permit issued for storm water discharges associated with industrial activity. Becoming a permittee obligates such discharger to comply with the terms and conditions of the permit.

**ALL NECESSARY INFORMATION MUST BE PROVIDED ON THIS FORM (See Instructions on back)**

**I. Facility Operator Information**

Name:		Phone:	
Address:		Status of Owner/Operator:	
City, State, Zip Code:			

**II. Facility/Site Location Information**

Name:			
Address:			
City, State, Zip Code:			
County:			
Site Latitude: (degrees/minutes/seconds)		Site Longitude: (degrees/minutes/seconds)	

**III. Site Activity Information**

MS4 Operator Name:						
Receiving Water Body:						
Are there existing quantitative data?	Yes <input type="checkbox"/>	If Yes, submit with this form.				
	No <input type="checkbox"/>					
SIC or Designated Activity Code Primary		2nd		3rd		4 <sup>th</sup>
If this facility is a member of a Group Application, enter Group Application Number:						
If you have other existing KPDES Permits, enter Permit Numbers:						

**IV. Additional Information Required FOR CONSTRUCTION ACTIVITIES ONLY**

Project Start Date:		Completion Date:	
Estimated Area to be disturbed (in acres):			
Is the Storm Water Pollution Prevention Plan in Compliance with State and/or Local Sediment and Erosion Plans?	Yes <input type="checkbox"/> No <input type="checkbox"/>		

**V. 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, 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.

Printed or Typed Name:		
Signature:	Date:	

**Kentucky Pollutant Discharge Elimination System (KPDES)  
Instructions  
Notice of Intent (NOI) for Storm Water Discharges Associated with Industrial Activity  
To Be Covered Under The KPDES General Permit**

**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, Industrial Section, Kentucky Division of Water at (502) 564-3410**.

**WHERE TO FILE NOI FORM**

NOIs must be sent to the following address:

**Section Supervisor  
Inventory & Data Management Section  
KPDES Branch, Division of Water  
Frankfort Office Park  
14 Reilly Road  
Frankfort, KY 40601**

**COMPLETING THE FORM**

Type or print legibly in the appropriate areas only. If you have any questions regarding the completion of this form call the **Storm Water Contact, Industrial Section, at (502) 564-3410**.

**SECTION I - 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 as the name of the facility. The responsible party is the legal entity that 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.

Enter the appropriate letter to indicate the legal status of the operator of the facility.

F = Federal	M = Public (other than federal or state)
S = State	P = Private

**SECTION II - FACILITY/SITE LOCATION INFORMATION**

Enter the facility's or site's official or legal name and complete street address, including city, state, and ZIP code.

**SECTION III - SITE ACTIVITY INFORMATION**

If the storm water discharges to a municipal separate storm sewer system (MS4), enter the name of the operator of the MS4 (e.g., municipality name, county name) and the receiving water of the discharge from the MS4. (A MS4 is defined as a conveyance or system of conveyances (including roads with drainage systems, municipal streets, catch basins, curbs, gutters, ditches, man-made channels, or storm drains) that is owned or operated by a state, city, town, borough, county, parish, district, association, or other public body which is designed or used for collecting or conveying storm water.)

If the facility discharges storm water directly to receiving water(s), enter the name of the receiving water.

Indicate whether or not the owner or operator of the facility has existing quantitative data that represent the characteristics and concentration of pollutants in storm water discharges. If data is available submit with this form.

List, in descending order of significance, up to four 4-digit standard industrial classification (SIC) codes that best describe the principal products or services provided at the facility or site identified in Section II of this application.

If the facility listed in Section II has participated in Part 1 of an approved storm water group application and a group number has been assigned, enter the group application number in the space provided.

If there are other KPDES permits presently issued for the facility or site listed in Section II, list the permit numbers.

**SECTION IV - ADDITIONAL INFORMATION REQUIRED FOR CONSTRUCTION ACTIVITIES ONLY**

Construction activities must complete Section IV in addition of Sections I through III. Only construction activities need to complete Section IV.

Enter the project start date and the estimated completion date for the entire development plan.

Provide an estimate of the total number of acres of the site on which soil will be disturbed (round to the nearest acre).

Indicate whether the storm water pollution prevention plan for the site is in compliance with approved state and/or local sediment and erosion plans, permits, or storm water management plans.

**SECTION V - 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:

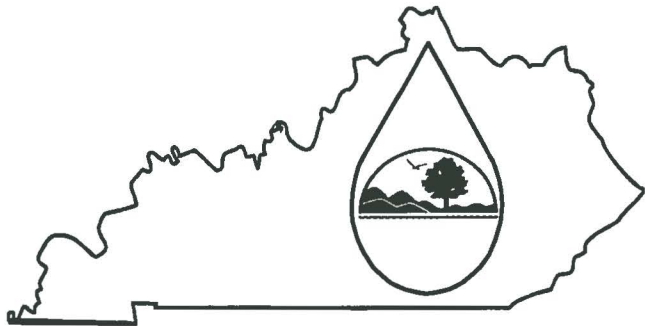
*For a corporation:* by a responsible corporate officer, which means: (i) president, secretary, treasurer, or vice-president of the corporation in charge of a principal business function, or any other person who performs similar policy or decision making functions, or (ii) the manager of one or more 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 officer or ranking elected official.



# KPDES FORM NOT-SW

	<p>Kentucky Pollutant Discharge Elimination System (KPDES)</p> <p><b>NOTICE OF TERMINATION (NOT)</b> of Coverage Under the KPDES General Permit for Storm Water Discharges Associated with Industrial Activity</p>
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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.)

<b>I. PERMIT INFORMATION</b>
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"/>
<b>II. FACILITY OPERATOR INFORMATION</b>
Name:
Address:
City/State/Zip Code:
Telephone Number:
<b>III. FACILITY/SITE LOCATION INFORMATION</b>
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 02270****SLOPE PROTECTION AND EROSION CONTROL****PART 1 - GENERAL****1.01 WORK INCLUDED**

A. The Contractor shall do all work and 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 adjacent property.

B. 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 environmental effects of construction. The Contractor shall be responsible for obtaining all associated permits.

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**

A. Temporary Slope Protection and Erosion Control:

Bales may be hay or straw, and shall be reasonably clean and free of noxious weeds and deleterious materials. Filter fabric for sediment traps shall be of suitable materials acceptable to the Engineer.

B. Permanent Slope Protection and Erosion Control:

On slopes 2H:1V and steeper, and where shown on the drawings place Type A Dumped Rock Fill with a 24-inch minimum thickness over non-woven geotextile filter fabric.

**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 which 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, borrow and fill operations and to direct the Contractor to provide immediate permanent or temporary pollution control measures to prevent contamination of the 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 the 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, all materials used in construction such as excavation, backfill, roadway, and pipe bedding and equipment shall be kept within the limits of the easements.

E. The Contractor shall not pump silt-laden water from trenches or other excavations into the wetlands, or adjacent watercourses. Instead, silt-laden water from his excavations shall be discharged within areas surrounded by baled hay or into sediment traps to 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.
7. Open burning of debris from the construction work.

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 baled hay or straw erosion checks in all locations indicated on the Drawings, surrounding the base of all deposits of stored excavated material outside of the disturbed area, and where indicated by the Engineer. Checks, where indicated on the Drawings, shall be installed immediately after the site is cleared and before trench excavation is begun at the location indicated. Checks located surrounding stored material shall be located approximately 6 ft. from that material. Bales shall be held in place with two 2 in. by 2 in. by 3 ft. wooden stakes. Each bale shall be butted tightly against the adjoining bale to preclude short circuiting of the erosion check.

- END OF SECTION -



**SECTION 02302****RAILROAD OR HIGHWAY CROSSINGS****PART 1 GENERAL****1.01 SUMMARY**

- A. This Section includes railroad or highway crossings including casing pipes for pipelines installed by (jacking), (tunneling) or (boring) method, and installation of the carrier pipe within the casing in the location(s) and to the limits as shown on the Contract Drawings. The engineer has filed for the permits, but it is the responsibility of the contractor to put up the bond for the State Highway crossings.
- B. All work shall be performed in accordance with the applicable rules and regulations of the State and Federal Codes and with the terms and conditions of the permit issued by the railroad or highway having jurisdiction.

**1.02 SUBMITTALS**

- A. In addition to those submittals identified in the General Provisions, the following items shall be submitted:
  - 1. Method of Installation
    - a. Following the award of the Contract, the Contractor shall submit a description of the method and equipment which is proposed to be employed in installing the casing.
    - b. A Professional Engineer licensed in the State of Kentucky shall design all sheeting and bracing at the Contractor's expense. The seal of the Professional Engineer shall appear on all drawings and design sheets submitted for review.
  - 2. Materials
    - a. Drawings and manufacturer's data of the casing materials showing compliance with this specification.
  - 3. Contractor's Data
    - a. The Contractor shall submit such data as may be required as conditions of the Railroad or Highway Permit.

**1.03 QUALITY ASSURANCE**

- A. Contractor's Qualifications
  - 1. The casing shall be installed by a contractor who has experience in this field of construction and can furnish a record of satisfactory performance on at least three projects for work of comparable type.

**PART 2 PRODUCTS****2.01 MATERIALS AND CONSTRUCTION****A. Casings**

1. The casing shall be of the size and type as shown on the Contract Drawings.
  - a. Steel pipe of the thickness specified shall have a minimum yield strength of 35,000 psi and a minimum ultimate strength of 60,000 psi. Steel casing pipe shall be uncoated .
  - b. Liner plate of the gauge specified shall be pressed steel, galvanized and bituminous coated.
  - c. Concrete pipe shall be designed for the purpose of jacking and shall be tongue and grooved.
  - d. All joints in the encasement pipe shall be of continuous solid weld.

**TABLE OF MINIMUM WALL THICKNESS FOR STEEL CASING PIPE**

<u>Minimum Thickness</u> <u>Inches</u>	<u>Normal Diameter</u> <u>Inches</u>
0.250	4 thru 12
0.312	14 thru 18
0.375	20 thru 24
0.500	26 thru 42

- B. The steel casing pipe for all highway crossings shall be as follows:

<u>Carrier Pipe Size</u>	<u>Casing Pipe Size</u>
2"	6"
3"	8"
4"	12"
6"	14"
8"	16"
10"	18"
12"	20"
14"	24"
16"	26"
20"	30"
24"	34"
30"	40"

**B. Carrier Pipes**

1. The carrier pipe shall be as specified on the Contract Drawings and in accordance with the Section for the type of pipe.

**C. Signs**

1. Signs shall be weatherproof.

**PART 3 EXECUTION****3.01 INSTALLATION****A. General**

1. Unless otherwise shown or specified, the Contractor may employ any one of jacking, tunneling or boring methods within the limits shown for the installation of the casing.
  - a. The remaining portion of the casing may be constructed by open cut method in a sheeted trench.
2. Installation of the casing pipe shall be carried out without disturbance of the embankment, pavement, tracks or other railroad or highway facilities and without obstructing the passage of traffic at any time.
3. Once the jacking, tunneling or boring operation is started, it shall proceed on a 24-hour basis without interruption until completed.
4. The casing pipe shall be maintained accurately to line and grade during the installation operation.
5. The casing shall be advanced from the lower end.
6. The use of water or other liquid, except bentonite slurry with prior approval of the Engineer, to facilitate casing placement or spoil removal is prohibited.
7. Dewatering shall be in accordance with the Section entitled "Earthwork".

**B. Jacking**

1. The jacking force shall be properly distributed through the jacking frame to the casing and parallel with the axis.
2. The soil shall be trimmed with care and shall not precede the jacking operation, to insure a minimum disturbance to the natural soils adjacent to the casing.
  - a. No augering will be allowed.

**C. Tunneling**

1. Excavation shall be in such a manner that voids behind the liner plates shall be held to a minimum.
2. Poling plates shall be used as necessary to prevent caving of material above the tunnel prior to liner plate installation.
  - a. Poling plates shall not be driven into the unexcavated material.
3. Liner plates shall be installed as soon as excavation proceeds the necessary distance for the next set of plates.
4. Grout plugs shall be placed on approximately 4-foot centers, at the top, bottom and on the spring line.
  - a. Grout holes shall be not less than 1-inch diameter.



- b. Voids between the liner plates and the excavation shall be filled with a 1:6 cement grout placed under pressure.
    - c. Not more than 6 lineal feet of tunnel shall progress beyond the grouting.
  - 5. Tunneled casings shall have a foundation of Class "C" concrete placed for the entire length of the interior of the casing.
    - a. The leveling course shall be at such an elevation that the carrier pipe, when installed, shall be at the grade specified.
- D. Boring
  - 1. Boring shall consist of pushing the casing with an augur rotating within to remove the spoil.
  - 2. The auger or cutting head shall not lead the casing and shall be removable from within the casing.
  - 3. The face of the cutting head shall be arranged to provide reasonable obstruction to the free flow of soft or poor materials.
- E. Pressure Carrier Pipe
  - 1. No contact shall be permitted between the casing and the carrier pipe.
    - a. Casing spacers shall be used between the casing pipe and carrier pipe. Spacers shall be manufactured by Pipeline Seal & Insulator, Inc. (PSI) of Houston Texas, or equal and be of the type to separate dissimilar metals and keep the carrier pipe centered within the casing. The spacers shall be installed within the casing in the quantity and at the locations recommended by the manufacturer.
    - b. Both ends of the casing pipe shall be sealed with rubber boot "End Seals" by PSI or equal, held in place by stainless steel bands/clamps.
- F. Non-Pressure Carrier Pipe
  - 1. No contact shall be permitted between the casing and the carrier pipe.
    - a. Casing spacers shall be used between the casing pipe and carrier pipe. Spacers shall be manufactured by Pipeline Seal & Insulator, Inc. (PSI) of Houston Texas, or equal and be of the type to separate dissimilar metals and keep the carrier pipe centered within the casing. The spacers shall be installed within the casing in the quantity and at the locations recommended by the manufacturer.
    - e. Both ends of the casing pipe shall be sealed with rubber boot "End Seals" by PSI or equal, held in place by stainless steel bands/clamps.

-END OF SECTION-

**SECTION 02500****BITUMINOUS PAVEMENT****PART 1 - GENERAL****1.01 DESCRIPTION OF THE WORK**

- A. Extent of bituminous pavement paving is shown on the Drawings, including roads, driveways and parking areas.

**1.02 RELATED WORK SPECIFIED ELSEWHERE**

- A. Unless noted, all specification designations refer to the Kentucky Department of Highways Standard Specifications, (KDOHSS), latest edition. Appropriate portions of the referenced sections of the Specifications shall apply, but all work shall be included in lump sum bid items described herein unless otherwise specified or shown on the Drawings.
- B. Preparation of subbase is specified in this Division, Section 02200, 02226 and 02230.
- C. Crushed stone and dense graded aggregate are specified in this Division, Section 02255.

**1.03 QUALITY ASSURANCE**

- A. Performance: Bituminous seal coat that fails as the result of not meeting the requirements of these Specification shall be corrected at the Contractor's expense.
- B. The design plant mix shall be submitted to the Engineer for review and acceptance. The submittal shall include the last date the mixture was approved by the Kentucky Department of Highways for use on a state road project; and the location where the mixture was recently used, and the name and address of the paving contractor.

**PART 2 - PRODUCTS****2.01 BITUMINOUS CONCRETE SURFACE MATERIAL**

- A. Aggregates shall meet the applicable requirements of the KDOHSS.
- B. Bituminous materials shall meet the applicable requirements of the KDOHSS.
- C. Bituminous materials for tack coat shall be one of the following: SS-1, SS-1h, CSS-1, CSS-1h, AE-60, RS-1, CRS-1, RC-70 or RC-250.
- D. Steel, wood or other suitable material shall be of size and strength necessary to resist movement during bituminous placement and to retain horizontal and vertical alignment until removal. Use straight forms, free of distortion and defects.

**2.02 BITUMINOUS SEAL COAT MATERIAL**

- A. Coarse aggregate shall be Kentucky Department of Highways Standard Size No. 8, meeting applicable requirements of Section 805 of KDOHSS.

- B. Bituminous materials shall meet applicable requirements of Section 806 of KDOHSS.

### PART 3 - EXECUTION

#### 3.01 SURFACE PREPARATION

The road shall be swept with an approved mechanical sweeper and with wire hand brooms, when necessary. Special care shall be taken to clean the edges of the surface so that full width of the roadway to be treated shall be uniformly clean. Where any mud or earth exists, it shall be removed sufficiently in advance of application of bituminous material to allow the surface to become thoroughly dry.

#### 3.02 BITUMINOUS CONCRETE PAVING

- A. Composition of Mixtures: Surface pavement mixture, meeting requirements of the KDOHSS shall be used as determined by local plant mix availability. The mixture shall have been approved recently by the Kentucky Department of Highways, used recently on a state project, and conform to the requirements below when tested in accordance with ASTM D 1559-76:

Stability, minimum pounds	1200
Flow, 0.01 inch	Min. 6, Max. 16
Percent air voids	Min. 4, Max. 8
Minimum voids in mineral aggregate,	
percent: 3/4 inch	14
1 inch	13

- B. Construction Methods: Construction requirements shall conform to applicable requirements of the KDOHSS.
- C. A tack coat shall be required to bond new paving to the surface of concrete or brick pavements and bases or existing bituminous surfaces. It shall be applied in accordance with Section 407 of KDOHSS.
- D. Where bituminous paving is placed against vertical surfaces such as curbs, gutters, manhole frames, valve boxes, etc., the vertical face shall be tack coated to seal the surface. Where these surfaces are inaccessible to pressure distributor, the tack coat may be brushed or broomed into place. The tack coat shall not be allowed to spill over onto any horizontal surface outside the area to be paved.
- E. Unless otherwise indicated on the Drawings or in these Specifications, the compacted thickness of the bituminous concrete paving shall be a minimum of 2 inches and the minimum ambient temperature for placing shall be 40 deg F. Mixing and laying temperatures shall be as follows:

Aggregates	Min. 240 deg F Max. 325 deg F
Asphalt Cement	Min. 225 deg F Max. 325 deg F
Mixture at Plant (measured	
in truck)	Min. 240 deg F Max. 325 deg F
Mixture when Placed (measured	
in truck when discharging)	275 deg $\pm$ 20 deg F**

\*\*The 275 deg F + 20 deg F mixture placing temperature is based on 275 deg F being about the ideal temperature for obtaining optimum compaction under average conditions. However, when the distance between asphalt plant and the job is such that specified placing temperatures cannot be maintained even though maximum mixing temperatures are covered, insulated



hauling equipment as described below are used, the minimum placing temperature shall be 225 deg F.

- F. Trucks for hauling bituminous mixtures shall have tight, clean and smooth metal beds that have been sprayed with a minimum amount of soap emulsion, paraffin oil, or other approved material that is not detrimental to the mixture to prevent the mixture from adhering to the beds. All trucks shall be equipped with covers of sufficient size to completely cover the located material and all covers shall be securely fastened in place before the truck leaves the plant. Truck beds shall be insulated, when necessary, to maintain the specified temperature to the point of delivery. Any truck causing excessive segregation of material by its spring suspension or other contributing factors shall be discharged from the work until such conditions are corrected.
- G. The Contractor shall have an accurate thermometer on the job at all times for verifying all temperature requirements and for taking temperature measurements whenever requested by the Engineer or Owner. The Contractor shall closely control temperature and compaction requirements to achieve quality bituminous paving and related work.
- H. Bituminous paving that fails as the result of not meeting the requirements of these Specifications shall be removed and replaced at the Contractor's expense.

-- END OF SECTION --

**SECTION 02502****RESTORATION OF SURFACES****PART 1 GENERAL****1.01 SUMMARY**

- A. This Section includes restoration and maintenance of all types of surfaces, sidewalks, curbs, gutters, culverts and other features disturbed, damaged or destroyed during the performance of the work under or as a result of the operations of the Contract.
- B. The quality of materials and the performance of work used in the restoration shall produce a surface or feature equal to the condition of each before the work began.

**1.02 REFERENCES**

- A. Materials and installation shall be in accordance with the latest revisions of the following codes, standards and specifications, except where more stringent requirements have been specified herein:
  - 1. American Society for Testing and Materials (ASTM)
    - a. D698 - Test Method for Laboratory Compaction Characteristics of Soil Using Standard Effort (12,400 ft-lbf/ft<sup>3</sup>) (600 kN-m/m<sup>3</sup>)

**1.03 SUBMITTALS**

- A. In addition to those submittals identified in the General Provisions, the following items shall be submitted:
  - 1. A schedule of restoration operations. After an accepted schedule has been agreed upon it shall be adhered to unless otherwise revised with the approval of the Engineer.

**PART 2 PRODUCTS**

NOT USED

**PART 3 EXECUTION****3.01 GENERAL**

- A. In general, permanent restoration of paved surfaces will not be permitted until one months' time has elapsed after excavations have been completely backfilled as specified. A greater length of time, but not more than nine months may be allowed to elapse before permanent restoration of street surfaces is undertaken, if additional time is required for shrinkage and settlement of the backfill.
- B. The replacement of surfaces at any time, as scheduled or as directed, shall not relieve the Contractor of responsibility to repair damages by settlement or other failures.

**3.02 TEMPORARY PAVEMENT**

- A. Immediately upon completion of refilling of the trench or excavation, the Contractor shall place a temporary pavement over all disturbed areas of streets, driveways, sidewalks, and other traveled places where the original surface has been disturbed as a result of his operations.
- B. Unless otherwise specified or directed the temporary pavement shall consist of compacted run-of-crusher limestone to such a depth as required to withstand the traffic to which it will be subjected.
- C. Where concrete pavements are removed, the temporary pavement shall be surfaced with "cold patch". The surface of the temporary pavement shall conform to the slope and grade of the area being restored.
- D. For dust prevention, the Contractor shall treat all surfaces, not covered with cold patch, as frequently as may be required.
- E. The temporary pavement shall be maintained by the Contractor in a safe and satisfactory condition until such time as the permanent paving is completed. The Contractor shall immediately remove and restore all pavement as shall become unsatisfactory.

**3.03 PERMANENT PAVEMENT REPLACEMENT**

- A. The permanent and final repaving of all streets, driveways and similar surfaces where pavement has been removed, disturbed, settled or damaged by or as a result of performance of the Contract shall be repaired and replaced by the Contractor, by a new and similar pavement.
  - 1. The top surface shall conform with the grade of existing adjacent pavement and the entire replacement shall meet the current specifications of the local community for the particular types of pavement.
  - 2. Where the local community has no specification for the type of pavement, the work shall be done in conformity with the State Department of Transportation Standard which conforms the closest to the type of surfacing being replaced, as determined by the Engineer.

**3.04 PREPARATION FOR PERMANENT PAVEMENT**

- A. When scheduled and within the time specified, the temporary pavement shall be removed and a base prepared, at the depth required by the local community or Highway Permit, to receive the permanent pavement.
  - 1. The base shall be brought to the required grade and cross-section and thoroughly compacted before placing the permanent pavement.
  - 2. Any base material which has become unstable for any reason shall be removed and replaced with compacted base materials.
- B. Prior to placing the permanent pavement all service boxes, manhole frames and covers and similar structures within the area shall be adjusted to the established grade and cross-section.



- C. The edges of existing asphalt pavement shall be cut a minimum of 1 foot beyond the excavation or disturbed base whichever is greater.

- 1. All cuts shall be parallel or perpendicular to the centerline of the street.

### **3.05 ASPHALT PAVEMENT**

- A. The permanent asphalt pavement replacement for streets, driveways and parking area surfaces shall be replaced with bituminous materials of the same depth and kind as the existing unless otherwise specified.
- B. Prior to placing of any bituminous pavement a sealer shall be applied to the edges of the existing pavement and other features.
- C. The furnishing, handling and compaction of all bituminous materials shall be in accordance with the State Department of Transportation Standards.

### **3.06 CONCRETE PAVEMENT AND PAVEMENT BASE**

- A. Concrete pavements and concrete bases for asphalt, brick or other pavement surfaces shall be replaced with Class "B" Concrete, air-entrained.
- B. Paving slabs or concrete bases shall be constructed to extend 1 foot beyond each side of the trench and be supported on undisturbed soil. Where such extension of the pavement will leave less than 2 feet of original pavement slab or base, the repair of the pavement slab or base shall be extended to replace the slab to the original edge of the pavement or base unless otherwise indicated on the Contract Drawings.
- C. Where the edge of the pavement slab or concrete base slab falls within the excavation, the excavation shall be backfilled with Special Backfill compacted to 95% maximum dry density as determined by ASTM D 698 up to the base of the concrete.
- D. The new concrete shall be of the same thickness as the slab being replaced and shall contain reinforcement equal to the old pavement.
  - 1. New concrete shall be placed and cured in accordance with the applicable provisions of the State Department of Transportation Standards.

### **3.07 STONE OR GRAVEL PAVEMENT**

- A. All pavement and other areas surfaced with stone or gravel shall be replaced with material to match the existing surface unless otherwise specified.
  - 1. The depth of the stone or gravel shall be at least equal to the existing.
  - 2. After compaction the surface shall conform to the slope and grade of the area being replaced.

### **3.08 CONCRETE WALKS, CURBS AND GUTTER REPLACEMENT**

- A. Concrete walks, curbs and gutters removed or damaged in connection with or as a result of the construction operations shall be replaced with new construction.
  - 1. The minimum replacement will be a flag or block of sidewalk and 5 feet of curb or gutter.

- B. Walks shall be constructed of Class "B" concrete, air-entrained with KY-DOT #2 stone aggregate on a 4-inch base of compacted gravel or stone.
  - 1. The walk shall be not less than 4 inches in thickness or the thickness of the replaced walk where greater than 4 inches, shall have construction joints spaced not more than 25 feet apart, shall have expansion joints spaced not more than 50 feet apart and shall be sloped at right angles to the longitudinal centerline approximately inch per foot of width.
- C. 1/2-inch expansion joint material shall be placed around all objects within the sidewalk area as well as objects to which the new concrete will abut, such as valve boxes, manhole frames, curbs, buildings and others.
- D. Walks shall be hand-floated and broom-finished, edged and grooved at construction joints and at intermediate intervals matching those intervals of the walk being replaced.
  - 1. The intermediate grooves shall be scored a minimum of 1/4 of the depth of the walk.
  - 2. The lengths of blocks formed by the grooving tool, and distances between construction and expansion joints shall be uniform throughout the length of the walk in any one location.
- E. The minimum length of curb or gutter to be left in place or replaced shall be 5 feet. Where a full section is not being replaced, the existing curb or gutter shall be saw cut to provide a true edge.
  - 1. The restored curb or gutter shall be the same shape, thickness and finish as being replaced and shall be built of the same concrete and have construction and expansion joints as stated above for sidewalks.
- F. All concrete shall be placed and cured as specified in the Section for concrete.

### **3.09 LAWNS AND IMPROVED AREAS**

- A. The area to receive topsoil shall be graded to a depth of not less than 4 inches or as specified, below the proposed finished surface.
  - 1. If the depth of existing topsoil prior to construction was greater than 4 inches, topsoil shall be replaced to that depth.
- B. The furnishing and placing of topsoil, seed and mulch shall be in accordance with the Section entitled "Topsoil and Seeding".
- C. When required to obtain germination, the seeded areas shall be watered in such a manner as to prevent washing out of the seed.
- D. Any washout or damage which occurs shall be regraded and reseeded until a good sod is established.
- E. The Contractor shall maintain the newly seeded areas, including regrading, reseeding, watering and mowing, in good condition.

### **3.10 CULTIVATED AREA REPLACEMENT**

- A. Areas of cultivated lands shall be graded to a depth to receive topsoil of not less than the depth of the topsoil before being disturbed. All debris and inorganic material shall be removed prior to the placing of the topsoil.
- B. The furnishing and placing of topsoil shall be in accordance with the Section entitled "Topsoil and Seeding".
- C. After the topsoil has been placed and graded, the entire area disturbed during construction shall be cultivated to a minimum depth of 12-inches with normal farm equipment.
  - 1. Any debris or inorganic materials appearing shall be removed.
  - 2. The removal of stones shall be governed by the adjacent undisturbed cultivated area.
- D. Grass areas shall be reseeded using a mixture equal to that of the area before being disturbed, unless otherwise specified.

### **3.11 OTHER TYPES OF RESTORATION**

- A. Trees, shrubs and landscape items damaged or destroyed as a result of the construction operations shall be replaced in like species and size.
  - 1. All planting and care thereof shall meet the standards of the American Association of Nurserymen.
- B. Water courses shall be reshaped to the original grade and cross-section and all debris removed. Where required to prevent erosion, the bottom and sides of the water course shall be protected.
- C. Culverts destroyed or removed as a result of the construction operations shall be replaced in like size and material and shall be replaced at the original location and grade. When there is minor damage to a culvert and with the consent of the Engineer, a repair may be undertaken, if satisfactory results can be obtained.
- D. Should brick pavements be encountered in the work, the restoration shall be as set forth in the Special Provisions or as directed.

### **3.12 MAINTENANCE**

- A. The finished products of restoration shall be maintained in an acceptable condition for and during a period of one year following the date of Substantial Completion or other such date as set forth elsewhere in the Contract Documents.

-END OF SECTION-



**SECTION 02600****PIPE, FITTINGS AND INSTALLATION****PART 1 - GENERAL****1.01 SCOPE**

A. Furnish all labor, materials, equipment and incidentals necessary to install and test pipe and fittings as shown on the Drawings and required by the Specifications.

B. Piping shall be located substantially as shown. The Engineer reserves the right to make such modifications in locations as may be found desirable to avoid interference between pipes or for other reasons.

C. Wherever the word pipe or piping is used it shall mean pipe and fittings unless otherwise noted. All ductile iron pipe (D.I.P.), fittings, glands and accessories shall be of the same manufacturer unless approved otherwise.

**PART 2 - PRODUCTS****2.01 DUCTILE IRON PIPE (D.I.P.) AND FITTINGS**

A. Ductile iron pipe (D.I.P.) shall conform to ANSI/AWWA C150/A21.50, ANSI/AWWA C151/A21.51 Standard. The pipe shall conform to thickness class 350 unless noted otherwise. All pipe, fittings and joints should be capable of accommodating pressure up to 350 psi. SEE SECTION 01600 MATERIAL AND EQUIPMENT for APPROVED MANUFACTURE.

B. Ductile iron mechanical joint fittings shall have a body thickness and radii of curvature conforming to ANSI A21.10 and have joints in accordance with ANSI/AWWA C111.A21.11. Fittings and joints shall be supplied with all accessories.

C. All pipe and fittings shall be tar coated outside and shall receive a standard cement lining with bituminous seal coat on the inside in accordance with ASA Specification A21.40 (AWWA-C104).

D. Cement mortar lining and seal coating for pipe and fittings, where applicable, shall be in accordance with ANSI/AWWA C104/A21.4. Bituminous outside coating shall be in accordance with ANSI/AWWA C151/A21.51 for pipe and ANSI/AWWA C110/A21.10 for fittings.

E. All ductile fittings shall be rated at 350 psi water working pressure plus water hammer. Ductile iron fittings shall be ductile cast-iron grade 80-60-03 per ASTM Specification A339-55.

F. No separate pay item has been established for fittings and no determination of the number of fittings required on the job has been made. The Contractor, during the bidding phase, shall determine the number of fittings required on the job and include the cost of the fittings and installation in the unit price for pipe.

G. Push-on type joints shall be single rubber gasket, with cast gasket socket and recessed bell with a tapered annular opening and flared socket and shall conform to ANSI/AWWA C111/A21.11. Plain spigot ends shall be suitably beveled to permit easy entry into the bell, centering and compressing the gasket.

H. Ductile iron flanged joint pipe shall conform to ANSI/AWWA C115/A 21.15 Standard and have a Class of 350. The pipe shall have a rated working pressure of 350 psi with Class 125 flanges. Gaskets shall be ring gaskets with a thickness of 1/8-inch. Flange bolts shall conform to ANSI B16.1.

I. Flanged fittings shall meet all requirements of ANSI/AWWA C110/A21.10 and have Class 125 flanges. Fittings shall accommodate a working pressure up to 350 psi and be supplied with all accessories.

## **2.02 POLYVINYL CHLORIDE (PVC) PIPE (SDR 21 AND SDR 17)**

A. Polyvinyl chloride (PVC) pipe for water mains shall be Class 200 (SDR 21) or Class 250 (SDR 17) PVC pressure rated pipe as shown on the Drawings or indicated in the proposal form with either twin gasket joints or integral bell joints with rubber O-ring seals.

B. All PVC pipe shall conform to the latest revisions of ASTM D-1784 (PVC Compounds), ASTM D-2241 (PVC Plastic Pipe, SDR) and ASTM D-2672 (Bell-End PVC Pipe). 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.

C. Couplings shall be furnished by the pipe manufacturer and shall accommodate the pipe for which they are used. Rubber gasket joints shall provide adequate expansion to allow for a 50 degree 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. Couplings shall conform to ASTM D-3139; SDR-21, 200 psi.

D. 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 that will not reduce the strength of the pipe or coupling or otherwise damage them. Pipe and coupling markings shall include the normal size and OD base, material code designation, dimension ratio number, ASTM Pressure Class, ASTM 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 5 feet for the pipe and shall be marked on each coupling.

## **2.03 POLYVINYL CHLORINE (PVC) PIPE - C.I. PIPE SIZE DR14 AND DR 18**

A. Pipe shall meet the requirements of AWWA C-900 Polyvinyl Chlorine (PVC) Pressure Pipe. All Class 200 pipe shall meet the requirements of DR 14 and all Class 150 pipe shall meet the requirements of DR 18. Joints shall be integral bell or twin gasket joints with rubber O-ring seals.

B. All pipe shall be suitable for use as a pressure conduit. Provisions must be made for expansion and contractions at each joint with an elastomeric ring. The bell shall consist of an integral wall section with a solid cross-section elastomeric ring which meets the requirements of ASTM D-1869 and F-477. The bell section shall be designed to be at least as strong as the pipe wall. Sizes and dimensions shall be as shown in this specification.

C. Gaskets and lubricants intended for use with PVC pipe and couplings shall be made from materials that are compatible with the plastic material and with each other when used together, will not support the growth of bacteria, and will not adversely affect the potable qualities of the water that is to be transported. Gaskets and lubricants shall be supplied by the pipe manufacturer.

D. Physical Requirements:

1. Standard Laying Lengths - Standard laying lengths shall be 20 ft. (plus or minus 1") for all sizes. The total footage of pipe of any class and size shall be furnished in standard lengths. Each length of pipe shall be tested to four times the class pressure of the pipe for minimum of 5 second. The integral bell shall be tested with the pipe.
2. Pipe Stiffness - The pipe stiffness using F/y for PVC class water pipe shall be as follows:



<u>Class</u>	<u>DR</u>	<u>F/y</u>
200	14	815
150	18	364

3. Quick Burst Test - Randomly selected tested in accordance with ASTM D-1599 shall withstand without failure pressures listed below when applied in 60 - 70 seconds. Class 150 shall have a minimum burst pressure of 755 psi and Class 200 shall have a minimum burst pressure of 986 psi at 73 degrees F. for all sizes.
4. Drop Impact Test - Pipe shall withstand without failure at 73 degrees F. an impact of 120 ft/lbs created by a falling 12 lb missile with a 2" radius nose without visible evidence of shattering or splitting.

E. 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 that will not reduce the strength of the pipe or coupling or otherwise damage them. Pipe and coupling markings shall include the nominal size and OD base, material code designation, dimension ratio number, AWWA Pressure Class, 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 5 feet for the pipe and shall be marked on each coupling.

#### **2.04 DUCTILE IRON MECHANICAL JOINT FITTINGS FOR PVC PIPE**

A. General: Cast-iron mechanical joints shall conform to the latest revision of ANSI A21.11 for centrifugally cast-iron water pipe.

1. 3" to 12". All Working Pressures: Fittings shall conform to ASA Specification A21.10 for 250 psi water working pressure plus water hammer.
2. Fittings 12" and Over, for 150 psi and Less WWP: Fittings for use on 150 psi WWP pipe shall be AWWA Class D Pattern.
3. Fittings 12" and Larger, for 200 psi and Above WWP: Fittings shall be ductile iron or gray iron rated at 250 psi water working pressure plus water hammer. Ductile iron fittings only will be used with ductile iron pipe.

B. All ductile iron fittings shall be rated at 250 psi water working pressure plus water hammer. Ductile iron fittings shall be ductile cast-iron grad 80-60-03 per ASTM Specification A33955. All fittings for connection to PVC pipe-all classes, shall be ductile iron.

C. No separate pay item has been established for fittings and no determination of the number of fittings required on the job has been made. The Contractor, during the bidding phase, shall determine the number of fittings required on the job and include the cost of the fittings and installation in the unit price for pipe.

D. Lining and Coating: All mechanical joint fittings shall be cement lined and bituminous seal coated per Federal Specification WW-P-421b and ASA Specification A421.40 (AWWA C104). Bituminous outside coating shall be in accordance with ANSI/AWWA C110/A21.10.



## **PART 3 - EXECUTION**

### **3.01 LAYING DEPTHS FOR WATER MAINS**

In general, water mains shall be laid with a minimum cover of 36" above the top of the main, unless otherwise noted on the Drawings, i.e. for minimum separation between water main and other utilities, connections to existing mains, valve locations, or when required by Kentucky Department of Highways, i.e. ditch lines and borings shall be 42" minimum cover.

### **3.02 PIPE BEDDING**

A. The foundation for pipes laid in trenches shall be prepared so that the entire load of the backfill on top of the pipe will be carried uniformly on the barrel of the pipe. Pipe bells shall not carry any of the load of the backfill.

B. The Contractor shall use the "Undercutting Method" of pipe bedding.

C. When the "Undercutting Method" is used in rock bottom trenches, Class I granular bedding (No.9 crushed stone aggregate) or earth shall be of such depth that the bottom of the barrel of the pipe will be at least 6" above the bottom of the trench as excavated. Pipe bedding required in this paragraph is NOT considered a separate pay item.

D. In wet, yielding and mucky locations where pipe is in danger of sinking below grade or floating out of line or grade, the pipe must be weighted or secured permanently in place by such means as will prove effective. In areas where a high water table exists, the Contractor is cautioned to exercise extreme care in the placement of the backfill material to prevent flotation of the pipe at any time.

E. Where an unstable (i.e., water, mud, etc.) trench bottom is encountered, stabilization of the trench bottom is required. This is to be accomplished by undercutting the trench depth and replacing to grade with a foundation of crushed stone aggregate. The depth of the foundations dependent upon the severity of the trench bottom. The size of stone aggregate used in the foundation will be determined by the condition of the unstable material. Once the trench bottom has been stabilized, the required Class I bedding can be placed. The amount of crushed stone aggregate required to bring the top of the foundation to the trench bottom prior to the removal of the unstable material will be considered a separate pay item following negotiation between the Contractor and Owner and constitute a change order item. No compensation will be made if the instability of the trench bottom is caused by the Contractor's neglect.

F. The Contractor shall use compacted earth material or Class I granular bedding (No.9 crushed stone aggregate) when the pipe is to be placed in the rock bottom trenches or in trenches with excavated rock present. This type of bedding material shall be placed 12" above and 6" below the pipe as shown on the Contract Drawings as "Class C Bedding Detail".

G. It should be noted that no pipe shall be laid on solid or blasted rock. No rock shall be allowed to rest against the pipe once it is placed in the trench.

H. Pipe bedding as required in Paragraphs C and D of this Article is NOT considered a separate pay item.

### **3.03 PIPE LAYING**

A. All pipe shall be laid with ends abutting and true to the lines and grades indicated on the Plans. Pipe shall be fitted and matched so that when laid in the work, it will provide a smooth and uniform invert. Supporting of pipe shall be as set out hereinbefore under "Pipe Bedding" and in no case shall the supporting of pipe on blocks be permitted.

B. Fittings and specials for the water main shall be provided and laid as and where directed by the Engineer or as shown on the Plans.

C. Before each piece of pipe is lowered into the trench, it shall be thoroughly swabbed out to insure its being clean. Any piece of pipe or fitting which is known to be defective shall not be laid or placed in the lines. If any defective pipe or fitting shall be discovered after the pipe is laid, it shall be removed and replaced with a satisfactory pipe or fitting without additional charge. In case a length of pipe is cut to fit in a line, it shall be so cut as to leave a smooth end at right angles to the longitudinal axis of the pipe.

D. The interior of the pipe, as the work progresses, shall be cleaned of dirt, jointing materials, and superfluous materials of every description. When laying of pipe is topped for any reason, the exposed end of such pipe shall be closed with a plywood plug fitted into the pipe bell so as to exclude earth or other material and precautions shall be taken to prevent flotation of pipe by runoff into trench.

E. No backfilling (except for securing pipe in place) over pipe will be allowed until the Engineer has had an opportunity to make an inspection of the joints, alignment and grade in the section laid, but such inspection shall not relieve the Contractor of further liability in case of defective joints, misalignment caused by backfilling and other such deficiencies that are noted later.

F. Anchorage of Bends, Tees, Plugs and Valves:

1. At all tees, plugs, caps and bends of 11-1/4 degrees and over, and at reducers or in fittings where changes in pipe diameter occur, movement shall be prevented by using suitable harness, thrust blocks or ballast. Valves shall be provided with similar protection. Thrust blocks and supports shall be as shown in the typical details, with sufficient volumes of concrete being provided; however, care shall be taken to leave weep holes unobstructed and allow for future tightening of all nearby joints. Unless otherwise directed by the Engineer, thrust blocks shall be placed so that the pipe and fitting joints will be accessible for repair. Thrust blocks shall bear on undisturbed earth or rock.
2. Bridles, harness or pipe ballasting shall meet with the approval of the Engineer. Steel rods and clamps shall be galvanized.
3. No extra pay shall be allowed for work on proper anchorage of pipe, fittings or other appurtenances; such items shall be included in the unit price bid for the supported item.

### **3.04 WATER MAINS PUSHED UNDER DRIVEWAYS**

The Contractor may be required to tunnel or bore under a bituminous or concrete surface driveway instead of open trenching as requested by the property owner. The opening under the driveway shall be of the smallest diameter possible to accommodate the water main to minimize settlement of the driveway. Should settlement occur, the Contractor shall repair the driveway at his own expense in a manner satisfactory to the Engineer and the property owner.

### **3.05 JOINTING**

Jointing shall be accomplished in accordance with the manufacturer's recommendation.

### 3.06 TYPES OF CRUSHED STONE MATERIAL

Two classes of crushed stone material are mentioned in the Detailed Specifications. The Type of material used in each class is as follows:

Class I	No. 9 Aggregate
Class II	Dense Graded Aggregate

### 3.07 BACKFILLING

#### A. Initial Backfill:

1. This backfill is defined as that material which is placed over the water main from the spring line in an earth trench to a point 6" above the top of the pipe or from the trench bottom in a rock trench to a point 12" above the top of the pipe. The initial backfill for Case I situations shall be earth material free of rocks, acceptable to the Engineer or Class I material (No. 9 crushed stone aggregate). The initial backfill for Case II, Case III and Case IV situations shall be compacted earth material or be Class I material (No.9 crushed stone aggregate).
2. In areas where large quantities of rock are excavated, and the excavated earth is insufficient, then the Contractor must either haul in earth or order crushed stone aggregate for backfilling over the top of the pipe. Neither earth nor the crushed stone aggregate used to fulfill the backfill requirements is considered a pay item.

B. Final Backfill: There are four cases where the method final backfilling varies. The various cases and their trench situations are as follows:

1. Case I: Areas not subject to vehicular traffic.
2. Case II: Gravel areas subject to light vehicular traffic such as residential driveways; church and commercial parking lots and entrances; and farm drives.
3. Case III: City and County gravel roads; gravel and bituminous road shoulders; all bituminous surface areas such as City and County streets, residential driveways, church and commercial parking lots, and entrances; City and County road shoulders.
4. Case IV: State maintained streets and roads; road shoulders for State roads and streets.

C. In all cases, walking or working on the completed pipelines, except as may be necessary in backfilling, will not be permitted until the trench has been backfilled to a point twelve (12) inches above the top of the pipe. The method of final backfilling for each of the above cases is as follows:

1. Case I - The trench shall be backfilled from a point 6" (12" for a rock trench) above the top of the pipe to a point 8" below the surface of the ground with earth material free from large rock (over one-half cubic foot in volume), acceptable to the Engineer. The remainder of the trench to existing grade shall be backfilled with earth material reasonably free of any rocks.  
  
Earth backfill used in this Case is not a separate pay item but will be paid under the pay item "Water Main".
2. Case II - The trench shall be backfilled from a point 6" (12" for a rock trench) above the top of the pipe to a point 12" below the surface of the ground with Class I (No. 9 crushed stone aggregate) material. The trench shall be tamped to assure maximum possible



compaction (approximately 80 to 85 percent of Standard Proctor density). Extreme care shall be exercised to prevent damage to the pipe during tamping operation. The remainder of the trench to existing grade shall be backfilled with Class II (dense graded aggregate) material with the material being mounded over the trench. The trench shall be tamped again to assure additional compaction. The trench may be left with a slight mound if permitted by the Engineer.

Class I material used and method of backfilling used in this case is not a separate pay item and is considered incidental to the work and will be paid for under the item "Water Main".

Class II material used in this method of backfill is not a separate pay item and will be included in the unit price per linear foot under the item "Water Main".

Sufficient stockpiles of Class II material shall be placed throughout the project area to insure immediate replacement by the Contractor of any settled areas. No extra payment will be made for the filling of settled areas by the Contractor.

3. Case III - The trench shall be backfilled from a point 6" (12" for a rock trench) above the top of pipe to the height indicated in the "City and County Maintained Streets, Roads and Driveway Pavement Replacement" detail with Class I (No. 9 crushed stone aggregate) material. Said material shall be tamped as described for Case II. A 12-inch layer of Class II (dense graded aggregate) material shall be placed over the compacted backfill before bituminous or concrete surface is placed as shown in the previously mentioned details. The 12-inch layer of Class II material is NOT a separate pay item but such expense will be borne by the Contractor and is considered incidental to the bid items "Bituminous Surface Replacement" and "Concrete Surface Replacement". Also considered incidental is all temporary stone required for a temporary surface between backfilling and pavement replacement.

Sufficient stockpiles of Class II material shall be placed throughout the project area to insure immediate replacement by the Contractor of any settled areas. No extra payment will be made for the filling in of settled areas by the Contractor. Class II material used in this method of backfill is paid for as a support item under item "Bituminous Surface Replacement" or "Concrete Surface Replacement" as its unit price per linear foot.

Class I material used for backfilling is not a separate pay item and is considered incidental to the bid item "Water Main".

4. Case IV - The trench shall be backfilled from the spring line to a point one 12-inches above the top of the pipe with earth material free from rock and acceptable to the Engineer, it shall be carefully and solidly tamped by approved mechanical methods. The remainder of the trench shall be backfilled to the height indicated in the "State Maintained Streets and Roads Pavement Replacement Detail" in the Contract Drawings, with material free from rock and acceptable to the Engineer; said material shall be mechanically tamped in approximately six-inch layers to obtain the maximum possible compaction. The backfilling method is NOT a separate pay item. A 12-inch layer of dense graded aggregate shall be placed over the compacted earth backfill when a bituminous or concrete surface street or road has been trenched. The 12-inch layer of stone is not a separate pay item but such expense will be borne by the Contractor.

D. Excavated materials from trenches and tunnels, in excess of quantity required for trench backfill, shall be disposed of by the Contractor. The Contractor may contact the Owner regarding the location of a suitable disposal site; however, if the Owner cannot recommend a site, it shall be the responsibility of the Contractor to

obtain locations or permits for the disposal of the waste material. Unit prices for the various pipe sizes shall include the cost of disposing of excess excavated materials, as set forth herein, no additional compensation being allowed for hauling or overhaul.

### **3.08 CRUSHED STONE BACKFILL**

A. The Class I granular material used in Case II and Case III backfill situations shall be No. 9 Crushed Stone aggregate (No.9 Stone). Granular material will not be paid for as a separate bid item.

B. The twelve inches 12-inch of crushed stone backfill that is required in "City and County Maintained Streets, Roads and Driveway Pavement Replacement" or "State Maintained Streets and Roads Pavement Replacement" will not be paid for under the provisions of this article.

### **3.09 BITUMINOUS PAVEMENT REPLACEMENT**

A. Sections of pavement shall be replaced as required to install the pipelines under the work of this Section. Disturbed pavement shall be reconstructed to original lines and grades with bituminous binder as detailed on the Drawings and in such manner as to leave all such 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.

C. Backfilling of trenches shall be in accordance with the applicable portions of this section.

D. Bituminous concrete binder shall be one course construction in accordance with applicable provisions of the Kentucky Department of Highways Standard Specifications, Section 402. Placement and compaction of binder course shall be in accordance with Section 402 of the Kentucky Department of Highways Standard Specifications. Minimum thickness after compaction shall be as shown on the Drawings.

E. Bituminous pavement replacement will not be paid for as a separate bid item.

### **3.10 CRUSHED STONE SURFACE REPLACEMENT**

The Class II granular material used in Case II backfill situations shall be dense graded aggregate (D.G.A.). Granular material will be included in the unit price per linear foot for "Water Mains".

### **3.11 CONCRETE SEPARATOR FOR UTILITY CROSSING OR CASING PIPE WATER/SAN. SEWER CROSSING**

A. At locations shown on the Contract Drawings, or as required by the Specifications and Contract Drawings, concrete separator shall be used when the clearance between the proposed water main and any existing non-contaminating utility pipe is one (1) foot or less. Utility pipe includes underground gas, telephone and electrical conduit, storm sewers, or any other underground utility pipe.

B. There are two cases of non-contaminating utility crossing encasement. Case I is applicable when the proposed water main is below the existing utility line. Case II is applicable when the proposed water main is laid above the utility line. In either case, the concrete shall extend to at least the spring line of each pipe involved.

C. When a water main crosses an existing sanitary sewer line, either above or below and less than two feet vertical or ten feet horizontal separation, the water main shall be encased as shown on the Standard Details, or as required by the Specifications and Contract Documents.



D. Concrete shall be Class B (2500 psi) and shall be mixed sufficiently wet to permit it to flow between the pipes to form a continuous bridge. In tamping the concrete, care shall be taken not to disturb the grade or line of either pipe or damage the joints.

### **3.12 CONCRETE FOR CREEK CROSSING (Polyethelene and Type C Creek Crossing)**

A. At locations shown on the Contract Drawings, or as required by the Specifications and Contract Drawings, concrete encasement shall be used when the water main crosses a stream or creek which is in rock or as directed by the Engineer.

B. All creek crossings (Polyethelene and Type C) shall be constructed as per the detail shown on the Contract Drawings.

C. Concrete shall be Class B (3000 psi) and shall be mixed sufficiently wet to permit flow around the pipe and to form a continuous bed. In tamping the concrete, care shall be taken not to disturb the grade or line of the pipe or injure the joints. Concrete shall be protected from excess water.

D. Concrete placed outside the specified limits or without authorization from the Engineer will not be subject to payment. Concrete will be paid under the pay items "Polyethelene and Creek Crossing Type C."

### **3.13 TESTING OF WATER MAINS**

The completed work shall comply with the provisions listed below, or similar requirements which will insure equal or better results:

A. Before any allowable leakage calculation are performed the pipeline being tested must pass the hydrostatically test.

B. The pipe shall be hydrostatically tested at 1.5 times the design pressure at the point of testing. The duration of the test(s) shall be at least 2 hours during which time the pressure shall not fall more than 5 psi. The pipe shall be tested for allowable leakage according to AWWA C-600 (latest revision) concurrently with the pressure test.

C. Where practicable, pipelines shall be tested between line valves or plugs in lengths of not more than 3000 feet. Testing shall proceed from the source of water toward the termination of the line. The line shall be tested upon the completion of the first 3000 feet. After the completion of two consecutive tests without failure, the Contractor, at his option and with the Engineer's approval, may discontinue testing until the system is complete.

D. Duration of test shall be not less than 2 hours.

E. Lines which fail to meet tests shall be repaired and retested as necessary until test requirements are complied with.

F. All pipe, fittings and other materials found to be defective under test shall be removed and replaced at the Contractor's expense.

G. Test pressures shall not be less than 1.5 times the working pressure at the highest point along the test section, not exceed pipe or thrust restraint design pressure, not vary more than  $\pm 5$  psi and not exceed twice the rated pressure of the valves when the pressure boundary of the test sections include closed gate valves.

H. Before applying the specified test pressure, air shall be expelled completely from the pipes and valves. If permanent air vents are not located at high points within the test section, the Contractor shall install corporation cocks at such points so that the air can be expelled as the line is filled with water.



### 3.14 LEAKAGE TEST

A. The leakage shall be defined as the quantity of water that must be supplied to the tested section 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.

B. The allowable leakage shall not be greater than that determined by the following formula:

$$L = \frac{SD(P)}{133,200}^{1/2}$$

Where L is the allowable leakage in gallons per hour; S is the length of the pipeline tested; D is the nominal diameter of the pipe, in inches; and P is the average test pressure during the leakage test, in pounds per square inch gage.

C. All visible leaks are to be repaired regardless of the amount of leakage.

### 3.15 DISINFECTION OF WATER LINES

A. New potable water lines shall not be placed into service, either temporarily or permanently, until they have been thoroughly disinfected in accordance with the following requirements and to the satisfaction of the OWNER.

B. After pressure testing, a solution of hypochlorite using HTH or equal shall be introduced into the section of the line being disinfected sufficient to insure a chlorine dosage of at least 50 parts per million (PPM) in the water main. While the solution is being applied, the water should be allowed to escape at the ends of the line until tests indicate that a chlorine concentration of at least 50 PPM has been obtained throughout the pipe. Open and close all valves and cocks while chlorinating agent is in the piping system. The chlorinated water shall remain in the pipe for 24 hours. Disinfection shall be repeated until a minimum chlorine residual of 25 PPM is measured after 24 hours. Once a chlorine residual of 25 PPM is obtained after 24 hours, the water main shall be thoroughly flushed until the residual chlorine content is not greater than 1.0 PPM.

C. Following disinfection of the line, bacteriological samples shall be collected and analyzed in accordance with the requirements of Kentucky Department of Natural Resources and Environmental Protection. When the samples have been tested and reported safe from contamination, the water line may be connected to the system. The Contractor shall provide to OWNER written documentation that the water sample passed the bacteriological test and is safe.

D. All sampling shall be taken in the presence of the Engineer or his representative.

E. The contractor shall compensate the owner for all water used in flushing, testing and sterilization.

### 3.16 PLACEMENT OF TRACING WIRE

Detectable underground copper tracing wire shall be installed with all utility lines. Insulated copper trace wire shall be attached to the top of the pipe with adhesive tape or other suitable devices. At each hydrant, valve, and end of new pipe installation, the trace wire shall be daylighted and the ends connected together with split bolt connectors covered with waterproof tape or wrap. For long runs of pipe, the maximum unbroken length of the trace wire shall be 2500 feet. Underground splicing shall be made using brass split bolt electrical connectors. The trace wire shall be #12 AWG THWN copper.

### **3.17 PLACEMENT OF IDENTIFICATION TAPE**

A. The placement of detectable underground marking tape shall be installed over all utility lines. Care shall be taken to insure that the buried marking tape is not broken when installed. SEE SECTION 01600 MATERIAL AND EQUIPMENT for APPROVED MANUFACTURE.

B. The identification tape shall bear the printed identification of the utility line below it, such as "CAUTION - BURIED WATER LINE BELOW". Tape shall be reverse printed, surface printing will not be acceptable. The tape shall be visible in all types and colors of soil and provide maximum color contrast to the soil. The tape shall meet the APWA color code, and shall be two (2) inches in width. Colors are: yellow - gas, green - sewer, red - electric, blue - water, orange - telephone, brown - force main.

C. The tape shall be the last equipment installed in the ditch so as to be first out. The tape shall be buried 4 - 6 inches below top of grade. After trench backfilling, the tape shall be placed in the backfill and allowed to settle into place with the backfill. The tape may be plowed in after final settlement, installed with a tool during the trench backfilling process, unrolled before final restoration or installed in any other way acceptable to the Owner or his agent or Engineer.

### **3.18 CLEAN-UP**

Upon completion of the installation of the piping and appurtenances, the Contractor shall remove all debris and surplus construction materials resulting from the work. The Contractor shall grade the ground along each side of pipe trenches in a uniform and neat manner leaving the construction area in a shape as near as possible to the original ground line.

### **3.19 CONNECTING TO THE WATER SYSTEM**

Unless otherwise directed by the OWNER, the CONTRACTOR shall connect the new water main to the existing water system. The CONTRACTOR shall notify the OWNER when the connection is to be made so that representatives of the OWNER may operate existing valves and witness the connection. A minimum notice of at least 24 hours in advance of the connection shall be given to the UTILITY. The Contractor shall coordinate all connections and other work which require disruption of water service so as to minimize the amount of time the affected water lines are out of service.

- END OF SECTION -

**SECTION 02626****CUSTOMER METER SERVICE AND SERVICE TUBING****PART 1 GENERAL****1.01 SUMMARY**

- A. This Section includes service pipelines constructed of CTS polyethelene tubing as shown on the Contract Drawings, complete with fittings and accessories.
- B. Certain features of the CTS tubing shall be as scheduled.
- C. The Contractor shall furnish all labor, tools, equipment, and materials necessary to complete the meter service connections as shown on the Contract Drawings and herein specified.

**1.02 REFERENCES**

- A. Materials and installation shall be in accordance with the latest revisions of the following codes, standards and specifications, except where more stringent requirements have been specified herein:
  - 1. American Society for Testing and Materials (ASTM)
  - 2. American Water Works Association (AWWA)

**1.03 SUBMITTALS**

- A. In addition to those submittals identified in the General Provisions, the following items shall be submitted:
  - 1. Manufacturer's certification that all materials furnished are in compliance with the applicable requirements of the referenced standards and this specification.
  - 2. Layout drawings showing the location of copper tube including details of the support system, sleeves, unions and appurtenances.

**PART 2 PRODUCTS****2.01 SERVICE CLAMPS**

All service connections of all sizes shall be made through the use of service clamps or saddles. Service saddles shall have ductile iron body, double strapped with O-ring resilient gasket, suitable for use on ductile iron pipe or PVC pipe, and tapped with same threads as the corporation stops. Saddles for all mains shall be double strap type saddles and have a maximum working pressure of 350 psi SEE SECTION 01600 MATERIAL AND EQUIPMENT for APPROVED MANUFACTURE.



## 2.02 CORPORATION STOPS

Corporation stops for use in service clamps shall be equal for 3/4", 1" and 2" service tubing and have a maximum working pressure of 350 psi. Corporation stops shall have iron pipe threads with compression coupling connection for copper tubing outlets. A rigid stainless steel insert stiffener shall be used inside the PE tubing, when encountered. SEE SECTION 01600 MATERIAL AND EQUIPMENT for APPROVED MANUFACTURE.

## 2.03 SERVICE TUBING 3/4", 1" AND 2" POLYETHYLENE TUBING (CTS SERVICE TUBING)

A. Pipe shall be made from virgin, ultra-high molecular weight polyethylene resin meeting the requirements of Type III, Class C, Category P34 polyethylene as defined by ASTM D-1248, latest revision, "Polyethylene Plastics Molding and Extrusion Materials". **All service tubing for Bracken County Water District shall be 3/4" unless otherwise noted.**

B. Dimensions and tolerances shall meet the values as listed in AWWA C-901, latest revision, "Polyethylene (PE) Pressure Pipe Tubing and Fittings". Standard dimension ratio shall be DR-7.3 (OD base), Pressure Class 200 psi.

C. Pipe shall be rated for use with water at 73.4 degrees F. at a hydrostatic design stress of 630 psi and a maximum working pressure of 200 psi. The pipe shall sustain a water pressure as defined in ASTM D 1598 for 1000 hours with water at 73.4 degrees F.

D. Surface shall be homogeneous inside and out and completely free of irregularity. Random testing shall be performed at intervals during all production runs to assure uniformity in all respects. The tubing shall carry the National Sanitation Foundation seal of approval for drinking water.

E. Pipe shall be marked in lettering at intervals of not more than five (5) feet and such marking shall include nominal size; manufacturer's name or trademark; pressure rating for water at 73.4 degrees F., 200 psi; applicable ASTM specification; ASTM material specification, PE 3406; standard dimension ratio, DR-7.3; the National Sanitation Foundation Seal of Approval (NSF mark) and production code.

F. Pipe shall be guaranteed in writing against rot, corrosion and defects for 50 years from date of installation, with pipe replacement and labor cost warranted in writing for 25 years from date of installation.

## 2.04 COPPER SERVICE TUBING (not in this contract)

A. Buried, Exterior - Copper Pipe: Type K hard drawn copper per ASTM B-88. Fittings: Wrought copper or cast brass. Joints: Lead free, tin-silver solder.

B. Buried, Below Slab: Copper Pipe, 2" and Smaller: Type K soft drawn copper per ASTM B-88. Fittings and joints shall not be permitted below slab.

C. Buried: Copper Pipe, 2" and Smaller: Type K soft drawn copper per ASTM B-88. Fittings and joints shall not be permitted in the service tubing.

D. All solder joints shall be soldered with an approved, lead free tin-silver solder. Acid core solder shall not be used.

E. Copper tube shall be as specified herein unless otherwise shown on the Contract Drawings or in the pipe schedule.

F. Copper tube shall conform to the following standards:

	<u>ASTM</u>
Seamless Copper Water Tube	B88
Copper Drainage Tube (DWV)	B306
Seamless Copper Tube, Bright Annealed	B68

1. Seamless copper water tube shall be used for hot and cold water and compressed air.
    - a. Type K where installed in concrete, underground or when immersed in liquids.
    - b. Type L where exposed and in concealed locations inside structures.
    - c. Soft temper when installed in concrete or underground.
    - d. Hard temper when installed in exposed and concealed locations.
  2. Copper drainage tube will be permitted only for sanitary waste, drain and vent piping above ground and inside structures.
  3. Bright annealed seamless copper tube shall be used for liquid fuel and refrigerant and all small (3/8 inch and smaller) tubing unless otherwise specified.
- G. Wall thickness shall be at least equal to Type K seamless copper water tube unless heavier walls are specified.

## **2.05 METER SETTING EQUIPMENT**

A. Meters shall be placed inside meter boxes using coppersetters with 3/4" or 1" saddle nut connection for the meter. SEE SECTION 01600 MATERIAL AND EQUIPMENT for APPROVED MANUFACTURE. All coppersetters shall have a ball angle meter valve (lockable) stop at the meter inlet and dual check valve on the outlet. coppersetters shall be 12 inches in height with connections for the appropriate service tubing and have a maximum working pressure of 300 psi. .

B. For larger meters (1-1/2" and 2") the meters shall be installed with ball meter valves on inlet side and the meter outlet side. Meters shall be placed on concrete block or equivalent support inside the meter box.

C. For individual meter with pressure reducing valves or more than one meter the coppersetters shall be the Tandem type coppersetters as manufactured by Ford, Mueller or Engineer approved equal and 12 inches in height and placed in meter boxes with 18" I.D.

E. A rigid stainless steel insert stiffener shall be used inside the PE tubing at all connections to the coppersetters.

## **2.06 SERVICE METERS**

The service meter main body shall be of high grade bronze, with hinges, single lid cover and raised characters cast on the body indicating the direction of flow. Meter shall have a working pressure rating of

150 psi. The register shall be straight reading gallon type. The register unit shall be hermetically sealed, and driven by permanent magnets. The register shall have a center sweep hand and a test circle shall be divided into 100 equal parts and include a flow finder. The register shall carry a minimum 10-year warranty.

The meters shall be manufactured by **Badger**. The entire unit is to be pre-assembled in a workmanlike manner with all components fitted snugly into the box and fastened to prevent movement. All joints shall be sealed with Teflon tape. The inlet and outlet is to be equipped with compression couplings.

## 2.08 METER BOXES

Meter boxes shall be plastic or "Ultra-Rib" circular with dimension as shown on the Drawings. The meter box cover where installation is to be in roadways or sidewalks and shall have heavy duty lid for light vehicular traffic. The meter box where installation is to be roadways or sidewalks shall be of concrete construction for vehicular traffic. The meter box, cover and meter setting shall be constructed as shown on the drawings or as directed by the Owner or Engineer. SEE SECTION 01600 MATERIAL AND EQUIPMENT for APPROVED MANUFACTURE.

## 2.08 ACCESSORIES

### A. Fittings and Couplings

1. Fittings for copper tube shall be wrought copper or cast bronze for soldered joints and brass for flared joints.
2. Flexible couplings as shown or required for copper tube shall be flexible metal hose couplings.

### B. Joints

1. Joints for seamless copper water tube to be installed in concrete and underground shall be flared type and shall have threads in accordance with AWWA C 800.
2. Joints for seamless copper water tube and copper drainage tube installed exposed and inside structures shall be soldered.
  - a. Solder and flux used in joints of water lines, shall contain no more than 0.2% lead.
  - b. Solder shall be Tin-Silver or approved equal.
  - c. Solder flux shall be as recommended by the solder manufacturer.
3. Joints for bright annealed seamless copper tube used in liquid fuel lines shall have flared joints, approved by Underwriter's Laboratories.
4. Joints for small tubing (3/8 inch and smaller) shall be of the locking type compression fittings or soldered as shown in the piping schedule and as directed.

## PART 3 - EXECUTION

### 3.01 INSTALLATION OF METER SERVICES



All customer meter services shall be reconnected at the closest distance from the existing service line. All locations of the meters shown on the plans are approximate locations. The Owner reserves the right to change the location of the connections from the existing line to the new main.

### **3.02 INSTALLATION OF SERVICE TUBING**

A. All service tubing installed beneath bituminous or concrete roads shall be jacked under the roads. When State maintained roads are being jacked and rock is encountered, permission to open cut the road shall be obtained by the Contractor from the Department of Transportation's District Permit Engineer. If permission is refused, the Contractor shall attempt to jack at another location and shall continue to do so until a successful crossing is obtained.

B. Minimum cover for all service lines shall be 36 inches (at all locations) when within the proposed and existing highway right-of-way and construction easements. Additional cover may be required at proposed drainage ditch, storm sewer, or other noted locations.

### **3.03 BACKFILLING SERVICE TUBING**

When service tubing is laid in an open cut across a road of any type surface (crushed stone, bituminous or concrete), the backfill shall consist of Class II granular material (dense graded aggregate) and shall be placed full depth. Payment for Class II material used will not be paid as a separate pay item, but will be included in the price for installing the service tubing.

### **3.04 INSTALLATION OF COPPER TUBING (not in contract)**

- A. Install copper tubing, fittings, specials, and accessories in accordance with the applicable configuration shown on the Contract Drawings and the provisions of the Sections entitled "Trenching, Backfilling and Compacting" and "Pipeline Installation".
- B. Exposed copper tube shall be carefully erected and neatly arranged.
  - 1. Copper tube shall be run parallel with walls inside structures and shall be pitched to drain.
  - 2. Drain valves shall be installed at the low points of liquid filled systems.
  - 3. Valved fill connections shall be provided for closed systems.
- C. Copper tube installed for a compressed air or gas system shall be pitched in the direction of flow.
  - 1. Connections shall be at the top of the main.
  - 2. Low points of the system shall have drip pipes not less than 12 inches long and drain pet-cocks unless automatic moisture traps are shown.
- D. Unions shall be provided on copper tube systems with soldered joints.
  - 1. Unions shall be located at control valves, solenoid valves, moisture and steam traps, other items of connected equipment and as shown on Contract Drawings.
  - 2. Unions shall be of cast bronze or brass construction.
  - 3. Dielectric unions shall be used when connecting copper tube to ferrous metals.

- E. Copper tubing shall be supported and anchored in place by the use of copper or brass units spaced not greater than 10 feet on center and each side of each change of direction.

### **3.05 FIELD TESTING AND CHLORINATION**

- A. Perform hydrostatic and leakage tests in accordance with the applicable provisions of the Section entitled "Leakage Tests", at the test pressure specified or scheduled.
- B. Disinfect piping and appurtenances in accordance with the Section entitled "Chlorination", where specified or scheduled.

-END OF SECTION-

**SECTION 02630**  
**TAPPED CONNECTIONS**

**PART 1 GENERAL**

**1.01 SUMMARY**

- A. This Section includes tapping and installing of corporation stops and valves on existing or newly installed pipes without interruption of service, as shown on the Contract Drawings, complete with connections and accessories.
- B. Installing of curb stops and boxes where specified or directed.

**1.02 REFERENCES**

- A. Materials and installation shall be in accordance with the latest revisions of the following codes, standards and specifications, except where more stringent requirements have been specified herein:
  - 1. American Water Works Association (AWWA)

**1.03 SUBMITTALS**

- A. In addition to those submittals identified in the General Provisions, the following items shall be submitted:
  - 1. Detail drawings for each size corporation stop, curb stop, tapping sleeve and valve, and service box.

**PART 2 PRODUCTS**

**2.01 CORPORATION STOPS**

- A. Corporation stops shall be threaded to conform to AWWA C800 with standard corporation stop thread at the inlet. The outlet shall be fitted with coupling nut for flared tube service unless otherwise specified.

SEE SECTION 01600 MATERIAL AND EQUIPMENT for APPROVED MANUFACTURE.



**2.02 CURB STOPS**

- A. Curb stops shall be threaded to conform to AWWA C 800 with coupling nuts for flared tube service.
  - 1.  $\frac{3}{4}$ -inch shall be of the inverted new type.
  - 2. 1-inch to 2-inch shall be of the plug-type with "O" ring seals to withstand a minimum working pressure of 175 psi.
  - 3. SEE SECTION 01600 MATERIAL AND EQUIPMENT for APPROVED MANUFACTURE.

**2.03 SERVICE CLAMPS**

- A. Service clamps shall be designed for use on the type of pipe to which the connection is being made.
  - 1. Ductile iron and asbestos-cement service clamps shall be the double strap type with neoprene gaskets.
  - 2. Polyvinyl chloride pipe service clamps shall be of a full circle design with a minimum width of 2 inches.
  - 3. Prestressed concrete pipe service clamps shall be made by or approved for use by the pipe manufacturer.
  - 4. SEE SECTION 01600 MATERIAL AND EQUIPMENT for APPROVED MANUFACTURE.

**2.04 SERVICE BOXES**

- A. Service boxes shall be constructed of cast iron and sized for the curb stop upon which it is being installed.
  - 1. Stationary shut-off rod shall be provided unless otherwise specified.
  - 2. Boxes shall be telescopic with a minimum of 1-foot adjustment.
  - 3. SEE SECTION 01600 MATERIAL AND EQUIPMENT for APPROVED MANUFACTURE.

## 2.05 TAPPING SLEEVES AND VALVES

- A. Tapping sleeves and valves shall be used for connections larger than 2 inches.
  - 1. Tapping sleeves shall be designed and sized in accordance with the recommendations of the manufacturer.
  - 2. Working pressure shall be 200 psi unless higher pressures are scheduled.
  - 3. The seal of the tapping sleeve shall be mechanical joint or low lead 2.5% or less. Low lead as conforming to current regulations.
  - 4. Valves for tapping sleeves shall be designed for the intended service and shall conform to the requirements of the Section entitled "Valves".
  - 5. SEE SECTION 01600 MATERIAL AND EQUIPMENT for APPROVED MANUFACTURE.

## PART 3 EXECUTION

### 3.01 INSTALLATION

- A. Install connections and accessories under the direction of personnel who have performed at least ten similar connections in accordance with the configuration shown on the Contract Drawings and the applicable provisions of the referenced Standards.
  - 1. Threaded taps shall be made using a machine designed for cutting, threading and inserting the corporation without interruption of service.
    - a. Teflon tape may be used on corporation threads.
  - 2. Tapping sleeve connections shall be made using a machine to cut and remove the segment through the valve without interruption of service.
- B. Service boxes shall be set plumb and shall be independently supported on two bricks so no weight will be transmitted to the curb stop or carrier pipe.
- C. Service clamps and tapping sleeves installed on prestressed concrete pipe shall be encased in a minimum of 2 inches of concrete mortar after installation.

-END OF SECTION-

**SECTION 02640****VALVES****PART 1 - GENERAL****1.01 WORK INCLUDED**

A. The Contractor shall furnish and install valves and miscellaneous piping appurtenances, as indicated on the Drawings and as herein specified.

B. The Drawings and Specifications direct attention to certain features of the equipment, but do not purport to cover all the details of their design. The equipment furnished shall be designed and constructed equal to the high quality equipment manufactured by such firms as are mentioned hereinafter, or as permitted by the Engineer. The Contractor shall furnish and install the equipment complete in all details and ready for operation.

C. Electrical work and equipment specified herein shall conform to the requirements of the applicable electrical sections.

D. Enclosures shall be of a suitable type for the atmospheres in which they are installed.

E. Sizes and capacities not specified herein are indicated on the Drawings.

F. Valves required within pre-engineered pump stations are not covered by this specification section.

**PART 2 - PRODUCTS****2.01 BUTTERFLY VALVES (Not in Contract)**

A. Butterfly valves and operators shall conform to the AWWA Standard Specifications for rubber seated butterfly valves, Designation C504, Class 150, except as hereinafter specified. Valves shall have a minimum 150 psi pressure rating.

B. All butterfly valves shall be of cast iron body per ASTM A-126, Class B. Valve discs shall be of ductile iron per ASTM A-536 and provide uninterrupted 360 degree seating edge. Permanently self-lubricating body bushings shall be provided and shall be sized to withstand bearing loads. Valve shafts shall be Type 304 stainless steel with V-type packing. O-ring seals are not acceptable.

C. Valve seats shall be full resilient seats of Buna - N or Hycar and retained in the body or on the disc edge. If the resilient seat is in the body, the disc shall conform to ASTM A-436 Type 1 (Ni-Resist) or gray/ductile iron with corrosion resistant seating surface. If the resilient seat is mounted on the disc edge, it shall be securely attached with Type 304 stainless steel retaining ring or pins. The disc seating edge shall be Type 316 stainless steel.

D. Valve operators shall be electric actuators as specified elsewhere in the specifications. The valve shaft and actuators shall be designed for both torsional and shearing stresses when the valve is operated under its greatest torque.

E. All valves shall conform with the latest revision of AWWA Standard for Butterfly Valves for Ordinary Water Service, AWWA C504. SEE SECTION 01600 MATERIAL AND EQUIPMENT for APPROVED MANUFACTURE.



## 2.02 GATE VALVES AND BOXES

A. All gate valves shall be of the resilient seat wedge, iron body, non-rising stem, fully bronze mounted with O-ring seals. Valves shall be of standard manufacture and of the highest quality both as to materials and workmanship and shall conform to the latest revisions of AWWA Specification C-500. Valves shall have a rated working pressure of 250 psi.

B. Gate valves for buried service shall be furnished with mechanical joint end connections, unless otherwise shown on the plans or specified herein. The end connections 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" 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 plans. 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. Valve boxes shall be cast iron, two-piece, screw type (as shown on the drawings) with drop-cover marked "Water". 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. A concrete pad shall be placed around the valve box cover as shown on the drawings. **This pad shall include valve box protector ring with copper locator pin.**

G. The Contractor shall furnish two (2) T-operating wrenches in the lengths necessary to operate the buried gate valves for an operator of average height in a normal working position.

H. Gate valves for installation in building, drywells, pits or vaults shall be flanged ANSI B16.1, Class 125 with handwheel operator, non-rising stem or OS&Y as indicated on the drawings.

I. Gate valves installed with tapping sleeves shall have a mechanical joint outlet and a flanged joint connection to the sleeves.

J. All valves shall conform with the latest revision of AWWA Standard for Gate Valves for Ordinary Water Works Service, AWWA C500. SEE SECTION 01600 MATERIAL AND EQUIPMENT for APPROVED MANUFACTURE.

K. All 24" or larger gate valves shall be supplied with spur gearing and grease case.

L. All gate valves shall receive a two part thermosetting epoxy protective coating both inside and outside of the valve and shall be listed for use as with potable water by the Federal EPA. The epoxy coating shall meet or exceed ANSI/AWWA C550 Standard and ASTM D1763 Standard.

## 2.03 CONTROL VALVE (Not in Contract)

A. The control valve is an automatic pilot controlled, hydraulically operated, diaphragm actuated globe valve in the oblique (Y) pattern design. A 3-way solenoid pilot valve either applies upstream pressure to the upper control chamber to close the main valve or vents the upper control chamber to atmosphere allowing the main valve to open. The solenoid and a limit switch assembly on the main valve are electrically synchronized with the telemetry controls to allow the valve to open or close to fill the tank.

B. In the event of a power failure the valve will open immediately, regardless of the operational mode of the valve at the time of the power failure.

C. The main valve shall be a center guided diaphragm actuated globe valve of oblique (Y) pattern design. The body and cover shall be cast iron, ASTM A 126 Class B, with bronze seat. The internal and external surfaces of the valve body shall be fusion bonded coated. End connections shall meet the ANSI, or other internationally recognized standard required. The body shall have a replaceable non-threaded seat ring that is held in place by set screws which tighten into a body groove. This seat should be accessible and serviceable without removing the valve from the pipeline. The seat area shall have a flow opening with no stem guides, bearings or supporting ribs.

D. The actuator assembly shall be a double chamber design with a separating partition between the lower surface of the diaphragm and the main valve. The entire actuator assembly consisting of the seal disk, valve shaft, bearing, diaphragm assembly, separating partition and top cover must be removable from the valve as a single unit. The control chamber between the diaphragm and the separating partition shall be capable of being open to or isolated from the valve internal body pressure. The stainless steel valve shaft shall be guided throughout its travel by a bearing in the separating partition. The replaceable resilient seal shall be rectangular in cross section and contained on three and one half sides. A lip shall be provided on the seal disk outside edge to lock the seal in place. The actuator assembly must be capable of accepting a V-port throttling plug by simply bolting the device to the seal disk.

E. The electric solenoid valve shall be a 3-way solenoid with a manual override system to allow the valve to be operated manually should electrical power be unavailable. The solenoid and limit switch shall be properly rated for the intended service. Liquid to the pilot must be filtered and a cock valve must be provided to isolate the control loop.

F. SEE SECTION 01600 MATERIAL AND EQUIPMENT for APPROVED MANUFACTURE.

#### 2.04 DUAL DISK VALVE (Not in Contract)

A. Dual Disc Check Valves shall be suitable for pressures up to 250 psig water service. The check valve shall be of the dual disc, wafer style with torsion spring induced closure. The valves shall be provided for installation between ANSI B16.1 Class 125 iron flanges.

B. The body shall be of one piece construction incorporating a vulcanized synthetic seal. Seal design must allow for positive seating at both high and low pressures. This shall be achieved by a minimal seal contact at low pressure with progressively increased contact at higher pressures. The disc shall fully overlap the synthetic seal, preventing pressure indentations. Opening and closing of the valve must utilize a lift and

pivot action to prevent seal wear and ensure long seal life. The stop and pivot pins shall be stabilized by the use of synthetic spheres to prevent wear due to vibration during operating conditions.

C. The valve body shall be constructed of ASTM A536 Grade 65-45-12 ductile iron. The disc shall be constructed of ASTM B584, Alloy C83600 (2"-12") cast bronze or ASTM B148, Alloy C95200 (14" and larger) cast aluminum bronze. The disc pins and stop pins shall be Type 316 stainless steel. The torsion spring shall be ASTM A313 Type 316 stainless steel up to 16 in. sizes and ASTM A313 Type 17-7 PH on 18 in. and larger sizes. The seal shall be Buna - N per ASTM D2000-BG or Viton per D2000-CA.

D. End connections shall be full diameter threaded flanges.

E. The valves shall be hydrostatically tested at 1.5 times their rated cold working pressure. A seat closure test at the valve rating shall be conducted to demonstrate zero leakage. The manufacturer shall provide test certificates, dimensional drawings, parts list drawings, and operation and maintenance manuals.

F. The exterior of the valve shall be coated with a universal alkyl primer.



G. SEE SECTION 01600 MATERIAL AND EQUIPMENT for APPROVED MANUFACTURE

## **2.05 CHECK VALVES (Not in Contract)**

A. The check valves shall be a swing check valve with flanged ends; lever and weight and function to prevent reverse flow. The valve shall be tight seating when closed and full ported when open. The hinged shaft shall be completely out of the water way employing a disc with a convex shape facing the normal flow. The valve shall be manufactured where the closing of the valve will not cause water hammer and minimize disc slam. The valve shall be capable of a tight seal at pressures above 5 psi.

B. The valve body shall be cast iron with a bronze seat ring. The valve disc shall be cast iron and suspended from a non-corrosive shaft. Valves shall be rated at a minimum working pressure of 175 psi.

C. SEE SECTION 01600 MATERIAL AND EQUIPMENT for APPROVED MANUFACTURE

## **2.06 TAPPING VALVES AND SLEEVES**

A. Tapping valves and sleeves shall be installed in the locations shown the Contract Drawings. The valves shall be a resilient seat wedge, iron body, non-rising stem, gate valve with a mechanical joint outlet and a flanged joint connection to the sleeves. They shall be provided with a valve box, counterclockwise opening and installed as described in detail on the plans.

B. Tapping Sleeves: Tapping sleeves of the sizes indicated for connection to existing main shall be the cast gray, ductile, or malleable-iron, split-sleeve type with flanged outlet, and with bolts, follower rings and gaskets on each end of the sleeve or wrap/bolted stainless steel. Construction shall be suitable for a maximum working pressure of 200 psi. Bolts shall have hexagonal heads and nuts. Longitudinal gaskets and mechanical joints with gaskets shall be as recommended by the manufacturer of the sleeve. When using grooved mechanical tee, it shall consist of an upper housing with full locating collar for rigid positioning which engages a machine-cut hole in pipe, encasing an elastomeric gasket which conforms to the pipe outside diameter around the hole and a lower housing with positioning lugs, secured together during assembly by nuts and bolts as specified, pretorqued to 50 foot-pound. **Tapping Sleeves for the Bracken County project shall be the stainless steel bolted sleeve.**

C. SEE SECTION 01600 MATERIAL AND EQUIPMENT for APPROVED MANUFACTURE

D. Tapping valves shall be suitable for a maximum working pressure of 200 psi with 125 lb. flanges

## **2.07 CUSTOMER SERVICE PRESSURE REDUCING VALVE (Not in Contract)**

A. The individual customer service pressure reducing valve shall be hydraulically operated, spring loaded, diaphragm type control regulator. The valve shall be held open by the force of the compression spring above the diaphragm and shall maintain a constant delivery pressure downstream without shock or water hammer. Adjustments shall be made by an adjusting screw on top of the valve. Setting shall be as shown on the plans. The valve shall have a cast brass or bronze body and cover per ASTM B-62, stainless steel seat (Stainless Steel 303) and adjustment ranges of 40 to 300 psi.

B. The individual pressure reducing valve shall be equipped with a built-in by-pass to prevent a closed system on the customer's side of the meter service.

C. All valves shall be preceded by a strainer provided by the valve manufacturer and have a maximum working pressure the same as the pressure reducing valve.

D. SEE SECTION 01600 MATERIAL AND EQUIPMENT for APPROVED MANUFACTURE



## 2.08 MAIN LINE PRESSURE REDUCING VALVE (Not in Contract)

A. The pressure reducing valve shall maintain a constant downstream pressure regardless of varying inlet pressure. This valve shall be a hydraulically operated, diaphragm actuated, globe pattern valve. It shall contain a resilient, synthetic rubber disc, having a rectangular cross section, contained on three and one-half sides by a disc retainer and forming a tight seal against a single removable seat insert. The diaphragm assembly containing a valve stem shall be fully guided at both ends by a bearing in the valve cover and integral bearing in the valve seat. This diaphragm assembly shall be the only moving part and shall form a sealed chamber in the upper portion of the valve, separating operating pressure from line pressure. The diaphragm shall consist of nylon fabric bonded with synthetic rubber and shall not be used as a seating surface. Packing glands and/or stuffing boxes are not permitted and there shall be no pistons operating the valve or pilot controls. All necessary repairs shall be possible without removing valve from the line.

B. The main valve body and cover shall be Cast Iron per ASTM A48, and the main valve trim shall be 303 stainless steel. The valve shall come equipped with a valve position indicator. The valve shall be equipped with a flow clean strainer, closing speed control, opening speed control and flow stabilizer. The valve shall be equipped with a V-port diaphragm plug for low flow conditions or approved equal by the Engineer.

C. The pilot control shall be a direct acting, adjustable, spring loaded, normally open, diaphragm valve, designed to permit flow when controlled pressure is less than the spring setting. The control system shall include a fixed orifice. The pilot control valve trim shall be 303 stainless steel.

D. The valve shall have a maximum working pressure rating as stated on the Drawings.

E. SEE SECTION 01600 MATERIAL AND EQUIPMENT for APPROVED MANUFACTURE

## 2.09 AIR RELEASE VALVE

A. The valve shall have a 1" screwed inlet diameter with a 1" corporation stop and a minimum of 3/32" size orifice. The body and cover shall be constructed of cast iron while the float shall be stainless steel. All internal parts, such as lever pins, retaining rings, screws, etc. shall be of stainless steel or bronze construction. Valves shall be suitable for use in lines with an operating pressure up to 175 psi. SEE SECTION 01600 MATERIAL AND EQUIPMENT for APPROVED MANUFACTURE

B. A service clamp shall be used to connect the air release valve to the water main. Service clamps and corporation stops shall be those as previously specified in Section 02650, except the corporation stops shall have a female IP thread outlet. All air releases shall contain a ball valve within the meter box for easy maintenance.

C. The air release valve box shall be a standard meter box with dimensions of 18" I.D. and a height of 36". The valve box cover shall be a standard water meter box cover.

## 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 set plumb and supported adequately in conformance with the instructions of the manufacturer. Valves mounted on the face of concrete shall be shimmed vertically and grouted in place. Valves in the control piping shall be installed so as to be easily accessible.

### **3.02 INTERIOR PIPING INSTALLATION**

A. It shall be the Contractor's responsibility to furnish a complete system of pipe supports, to provide expansion joints and to anchor all piping. The pipe support system shall be installed complete with all necessary inserts, bolts, nuts, rods, washers, miscellaneous steel, and other accessories.

B. In some instances, expansion joints have been shown on the drawings, but no attempt has been made to indicate every expansion joint for piping included under this portion of the specifications. Portions of the piping are shown on the detail drawings. Some of the piping, however, is shown only on the schematics.

C. Reaction Anchorage and Blocking: All piping exposed in interior locations and subject to internal pressure in which flexible connectors are used shall be blocked, anchored, or harnessed, as shown on the drawings, or as directed by the Engineer to preclude separation of joints.

### **3.03 PAINTING**

Field painting is specified in elsewhere in these specifications.

- END OF SECTION -

**SECTION 02645****HYDRANT ASSEMBLY****PART 1 - GENERAL****1.01 SCOPE**

The Contractor shall furnish and install, where shown on the plans and additional locations as directed by the Owner, hydrant assemblies and blow-hydrants manufactured and equipped as described below.

**Existing hydrant assemblies that are removed from service are to be returned to the owner, Bracken County Water District, at their offices at 1324 Brooksville Germantown Road, Brooksville, Kentucky.**

**PART 2 - PRODUCTS****2.01 FLUSHING HYDRANT ASSEMBLY**

A. Hydrants shall conform in all respects to the requirements of AWWA C502. All hydrants shall have 6-inch mechanical joint shoe connection, two (2) 2-1/2" hose outlets, one (1) 4-1/2" pumper nozzle with caps. Connection threads and operation nuts shall conform to National Standard Specifications as adopted by National Board of Fire Underwriters. The hydrant shall be equipped with safety flanges designed to prevent barrel breakage when struck by a vehicle and an auxiliary gate valve.

B. Each hydrant shall be fully bronze mounted with the main valve having a threaded bronze seat ring assembly of such design that it is easily removable by unscrewing from a threaded bronze drain ring. Bronze drain ring shall have multiple ports providing positive automatic drainage as the main valve is opened or closed. Drainage waterways shall be completely bronze to prevent rust or corrosion.

C. Operating stems shall be equipped with anti-friction thrust bearing to reduce operating torque and assure easy opening. Stops shall be provided to limit stem travel. Stem threads shall be enclosed in a permanently sealed lubricant reservoir protected from weather and the waterway with O-ring seals.

D. Hydrants shall be designed for 250 psi working pressure and shop tested to 400 psi pressure with main valve both opened and closed. Under test the valve shall not leak, the automatic drain shall function and there shall be no leakage into the bonnet. Hydrants shall have a UL/FM approved rating.

E. Each hydrant shall be installed with an auxiliary shut-off valve and valve box; valve box cover shall be marked "WATER" as required. Hydrants shall be secured to the shut-off valve by AWWA approved restraint joints, rodding with four (4) equally spaced all thread rods and "Duc-Lugs", or other equally approved method.

F. Inlet cover depth shall be 36" and the minimum dimension from ground to centerline of lowest opening shall be 18". Hydrants shall be supported on a poured-in-place concrete thrust block and provided with a drainage pit as indicated on Standard Detail Sheet.

G. All hydrants shall receive two (2) field coats of Koppers Company, Inc. Glamortex enamel (red). The Owner shall be furnished with two (2) hydrant barrel wrenches, four (4) spanner wrenches and two (2) operating nut wrenches.

H. Below ground hydrants shall be flush type with the upper barrel and nozzles contained in a cast iron box with a non locking lid.

I. SEE SECTION 01600 MATERIAL AND EQUIPMENT for APPROVED MANUFACTURE



J. Hydrant assemblies shall include the isolation valve and both valve and hydrant shall have a UL/FM approved rating.

## **2.02 BLOW-OFF ASSEMBLY (Not in Contract)**

The underground blow off assembly shall be a gate valve, ninety degree fitting and pvc cap sized to fit the end of the pipe at surface level as shown on the standard detail drawings.

## **2.02 BLOW OFF HYDRANT**

- A. 3-inch Hydrants shall be self-draining, non-freezing, compression type with 2½" main valve opening. Inlet connection shall be MJ. Outlet shall be 2" IP. Hydrants shall be post type SEE SECTION 01600 MATERIAL AND EQUIPMENT for APPROVED MANUFACTURE.
- B. Hydrants shall have a ductile iron pipe riser with a cast iron stock top, and non-turning operating rod. Principal interior operating parts shall be brass and removable from the hydrant for servicing without excavating the hydrant.
- C. Flushing assembly installation shall also include all excavation, backfill, thrust blocking, and #9 crushed stone.

## **PART 3 – EXECUTION**

### **3.01 INSTALLATION**

A. Hydrants shall be located as shown on the drawings unless otherwise specified by the Owner. Each hydrant shall be connected to the main with a 6-inch branch line having at least as much cover as the distribution main. Hydrants shall be set plumb with pumper nozzle facing the roadway and the cast-iron valve box set flush with the finished surrounding grade. Except where approved otherwise, the backfill around hydrants shall be thoroughly compacted to the finished gradeline immediately after installation to obtain beneficial use of the hydrant as soon as practicable. All hydrants shall be provided with a shut-off valve in the hydrant lateral as shown. All hydrants shall be installed in accordance with the manufacturer's directions and as detailed on the Contract Drawings.

B. Blow-off hydrants shall be located as shown on the drawings unless otherwise specified by the Utility. Each blow-off hydrant shall be connected to the main with at least as much cover as the distribution main. Blow-off hydrants shall be set plumb with nozzle facing the roadway and with the box cover set flush with the finished surrounding grade. The backfill around each hydrant shall be thoroughly compacted to the finished gradeline immediately after installation to obtain beneficial use of the hydrant as soon as practicable. All blow-off hydrants shall be provided with a shut-off valve in the lateral as shown.

- END OF SECTION -

**SECTION 02700**  
**SITE RESTORATION**

**PART 1 - GENERAL**

**1.01 CLEAN-UP**

Upon completion of the installation of the water main and appurtenances, the Contractor shall remove all debris and surplus construction materials resulting from his work. The Contractor shall grade the ground along each side of the pipe trench and/or structure in a uniform and neat manner leaving the construction area in a shape as near as possible to the original ground line.

**PART 2 - PRODUCTS**

**2.01 SEEDING**

A. All graded areas shall be seeded at the rate of six (6) pounds of seed per 1,000 square feet. The mixture shall consist of:

Kentucky 31 Fescue	60%
Creeping Red Fescue	20%
Annual Rye Grass	20%

B. After seed has been distributed, the Contractor shall cover areas with straw to a depth of 1-1/2". Any necessary re-seeding or repairing shall be accomplished by the Contractor before final acceptance. Seeding is not a pay item.

**PART 3 - EXECUTION**

**3.01 SITE RESTORATION**

A. After installation of water lines, the construction site will be restored to its original condition or better. All paved streets, roads, sidewalks, curbs, etc. removed or disturbed during construction shall be replaced, and all materials and workmanship shall conform to standard practices and specifications of the Owner, and/or to the Kentucky Department of Highways requirements, and specifications, whichever applies. Gravel, cinder or dirt streets, drives and shoulders shall be replaced and sufficiently compacted to provide a surface suitable for carrying the type of traffic normally imposed at the location.

B. All seeded areas shall be watered daily during the germination period, unless rain supplies the required moisture. The Contractor shall replace, at his own expense, trees, shrubs, etc. disturbed during construction.

C. The Contractor shall remove from the site all equipment, unused materials and other items at his expense. The construction site shall be left in a neat, orderly condition, clear of all unsightly items, before the Work is finally accepted.

- END OF SECTION -

**SECTION 02900****SEEDING AND SODDING****PART 1 - GENERAL****1.01 DESCRIPTION OF WORK**

- A. Landscape development work in this phase shall consist of the installation of ground cover and lawns. "Planting Area" means all areas to be planted with ground cover, erosion control plantings and/or lawns.

**1.02 RELATED WORK**

- A. Subgrade elevations, excavation, fillings, and grading required to establish elevations shown on Drawings are not specified in this Section. Refer to this Division, Section 02200.
- B. Erosion and sediment control are included in this Division, Section 02270.

**1.03 SCOPE**

Furnish all material, labor, transportation and equipment to properly complete the landscaping and turfing of the planting areas, or reasonably implied to complete the construction. Included as a part of the work of this Section, but not necessarily limited by it, are the following items.

- A. Clear and remove from the planting areas all debris, surface growth, or other undesirable material.
- B. Fine grading of all turf and planting areas, including the addition of amended topsoil if required.
- C. Topsoil shall be placed to a minimum compacted depth of 6 inches and on all disturbed areas.
- D. Vinca and/or Vetch shall be planted on all slopes steeper than 4:1, or as otherwise shown on the Drawings.
- E. Furnishing and installation of all lawns and ground covers.
- F. Providing maintenance throughout establishment.
- G. Cleanup and weeding of all landscaped areas.
- H. Seed and mulch all disturbed areas with slopes shallower than 4:1, with grass seed.
- I. Seed and mulch all disturbed areas with slopes steeper than 4:1 with crown vetch.

**1.04 SPECIAL REQUIREMENTS**

- A. All scaled dimensions on the Drawing are approximate. Before proceeding with any work, the Contractor shall carefully check and verify all dimensions, quantities and grade elevations, and shall immediately inform the Engineer of any discrepancies.



- B. During the construction and maintenance period, the contractor shall take every precaution and avoid damage to any underground facilities. The Contractor shall be held responsible for any and all damage to such facilities and shall repair the same at no cost to the Owner.
- C. When conditions are such, by reason of drought, high wind, excessive moisture, or other factors, that satisfactory results are not reasonably attainable, the work shall be stopped and shall be resumed only when conditions are again favorable.
- D. Grading and soil preparation work shall be performed only during periods when beneficial and optimum results may be obtained. If the moisture content of the soil should reach such a level that working it would destroy the soil structure, spreading, grading and tilling operations shall be suspended until the moisture content reaches acceptable levels and the desired results are attainable.

## **PART 2 - MATERIALS**

### **2.01 GENERAL**

- A. All materials shall be of standard, approved and first grade quality and shall be in prime condition when installed and accepted. Any commercially processed or packaged material shall be delivered to the site in the original unopened container bearing the manufacturer's guaranteed analysis.

### **2.02 TOPSOIL**

- A. Topsoil shall be fertile, friable, natural topsoil typical of topsoil of the locality, and shall be obtained from a well drained site that is free of flooding. It shall be without admixture of subsoil or slag and free of stones, lumps, plants or their roots, sticks, clay, peat and other extraneous matter and shall not be delivered to the site or used while in a frozen or muddy condition.
- B. At least 10 days prior to anticipated start of topsoiling operations a 1 pint sample of topsoil material shall be delivered to the Engineer for testing and approval. Based on tests performed by the Engineer, the topsoil shall be identified as acceptable, acceptable with certain fertilizer and limestone applications or unacceptable. If the topsoil is found acceptable the fertilizer and lime requirements will be as specified or as recommended by the Engineer. If the topsoil is found unacceptable, the Contractor shall be responsible for identifying another source of topsoil and shall incur all expenses associated with testing additional samples. All topsoil incorporated into the site work shall match the sample provided to the Engineer for testing.

### **2.03 SOIL CONDITIONERS AND FERTILIZERS**

- A. Soil conditioners may include any or all of the specific conditioners herein specified and shall be applied at rates indicated on the Drawings or in the Special Conditions.
- B. Manure: Manure shall consist of ground, well composted steer manure as taken from feeding pens, which is screened to pass through a one inch screen and which is free of weed seeds, dirt, sawdust, shavings, straw, refuse, harmful chemicals and other foreign matter. The material shall be composted no less than 180 days and no more than one year. The manure shall be subject to inspection prior to delivery.
- C. Lignin Based Soil Conditioners: Lignin based soil conditioners shall be an organic based soil conditioner manufactured under a process which by action of sulphuric acid and hot gases separates cellulose from wood, leaving long lasting lignin particles.

The material shall have the following analysis:

pH	5.5%
Moisture	15.5%
Ash	1.9%
Organic Matter	84.6%
Total Nitrogen	1.0%
Total Phosphoric Acid	0.05%
Total Potash	0.05%

As "Loamite Soil Amendment" or equal in quality.

- D. Redwood Shavings: Redwood shavings shall be leached and nitrogen fortified with the residual nitrogen content of 1%.
- E. Fertilizer: Fertilizer shall be a commercial grade pelleted or chip type, as "Agriform Blue Chip", or equal, uniform in composition, dry and free flowing, of the following analysis.

Nitrogen	24.0% minimum
Nitroform	14.0% minimum
Phosphoric Acid	24.0% minimum
Potash	8.0% minimum
Iron (metallic)	0.4% minimum

Particle size not less than 2% through a number 48 mesh.

And/or

Commercial fertilizers with an analysis of 1584 or approved substitute as required by the specifications.

Fertilizer shall be delivered to the site in the original unopened container bearing the manufacturer's guaranteed analysis. Any fertilizer that becomes caked or damaged, making it unsuitable for use, will not be accepted.

- F. Peat Moss: Peat moss shall be a commercial baled Canadian sphagnum material with a pH of 4.5 to 5.5. The moss shall be free of woody material and minerals or foreign matter harmful to plant life. As "Sunshine" brand or equal.

## 2.04 GRASS SEED

- A. The seed mixture to be sown shall be in the following proportions:

Common Name	Proportion By Weight	% of Purity	% of Germination
Kentucky Bluegrass	40	90	85
Chewings Fescue	25	90	85
Italian Rye Grass	20	90	85
Red Top	10	90	85
White Clover	5	95	90

- B. All seed shall be fresh and clean and shall be delivered mixed, in unopened packages, bearing a guaranteed analysis of the seed and mixture.
- C. Germination must be certified to conform to the following minimums: 90% pure and 85% germination.

## 2.05 CROWN VETCH (Crown vetch slopes of 3:1 or greater)

The seed mixture to be sown shall be in the following proportions:

<u>Common Name</u>	<u>Botanical Name</u>	<u>Proportion By Weight</u>	<u>Percent Purity</u>	<u>Percent Of Germination</u>
Penngift Crown Vetch (inoculated)	Coronilla Vetchii "Pennfit"	75%	90%	90%

## 2.06 SOD

- A. Sod shall be well-rooted Kentucky Bluegrass (*Poa pratensis*) completely free of noxious weeds. It shall be mowed to a height not to exceed 3" before lifting, and shall be of uniform thickness, with not over 1-1/2" or less than 1" of soil.
- B. Nursery sod shall meet applicable requirements set out above and shall be a variety or blend of Kentucky Bluegrass. It shall comply with nursery inspections and plant quarantine regulations of the states of origin and destination as well as with Federal regulations governing interstate movement of nursery stock. A valid copy of the certification of nursery inspection shall accompany each shipment.

## PART 3 - EXECUTION

### 3.01 GRADING AND SOIL PREPARATION

- A. Final Grades: After the foregoing specified deep watering, minor modifications to grade may be required to establish the final grade. These areas shall not be worked until the moisture content has been reduced to a point where working it will not destroy the soil structure.
  - 1. Finish grading shall insure proper drainage of the site.
  - 2. All areas shall be graded so that the final grades will be one inch below adjacent paved areas, sidewalks, valve boxes, headers, cleanouts, drains, manholes, etc.
  - 3. Surface drainage shall be away from all building foundations.
  - 4. Eliminate all erosion scars.
  - 5. The Contractor shall request an inspection by the Engineer for approval of the final grades and elevations before planting operations shall begin.
- B. Lawn: Lawns will be planted by seeding.



1. After preparation of soil in accordance with section on "Grading and Soil Preparation," the areas to be planted to lawn shall be rolled, raked, and floated to finish grade by any method acceptable to the Owner, with the finish grade being smooth and even, free of rocks and clods, and reasonably well firmed. Prior to planting, the surface of the area shall be sufficiently loose and friable to receive the seeds, or sod.
2. Pre-Fertilization: Just prior to the planting of turf, evenly broadcast 15 pounds per thousand square feet of commercial fertilizer, 24/24/8, as specified under materials.
3. Method
  - a. This work consists of furnishing all labor, equipment and materials and in performing all operations in connection with the fertilizing and seeding of all the finished graded areas not specified to be sodded or occupied by structures, roads, concrete slabs, sidewalks, walls, etc., and including grassed areas destroyed or damaged by the Contractor.
  - b. The areas to be seeded shall be thoroughly tilled to a depth of at least 4" by discing, harrowing, or other approved methods until the condition of the soil is acceptable to the Engineer. After harrowing or discing, the seed bed shall be dragged and/or hand raked to finished grade.
  - c. Fertilizer shall be 25 lbs. of 10/20/10 or equivalent per 1,000 square feet. The incorporation of the fertilizer and the agricultural lime may be a part of the tillage operation and shall be applied to less than 24 hours nor more than 48 hours before the seed is to be sown.
  - d. Seed shall be broadcast either by hand or approved sowing equipment at the rate of six pounds per 1,000 square feet, uniformly distributed over the area. Broadcasting seeding during high winds will not be permitted. The seed shall be drilled or raked into a depth of approximately 1/2 inch and the seeded areas shall be lightly raked to cover the seed and rolled. Drill seeding shall be done with approved equipment with drills not more than 3 inches apart. All ridges shall be smoothed out, and all furrows and wheel tracks likely to develop into washes, shall be removed.
  - e. Seed may be sown during the following periods:  
 February 1 to April 15  
 August 15 to October 15
  - f. Seed may not be sown at any other time except with the written approval of the Engineer.
  - g. After the seed has been sown, the areas so seeded shall be mulched with clean straw at the rate of one (1) bale per 2,000 feet (approximately 1 inch loose depth). Mulch on slopes shall be held in place with binder twine staked down at approximately 18 inch centers or by other equally acceptable means.
  - h. Areas seeded shall be protected until a uniform stand develops, when it will be accepted and the Contractor relieved of further responsibility for maintenance. Displaced mulch shall be replaced or any damage to the seeded area shall be repaired promptly, both in a manner to cause minimum disturbance to the

existing stand of grass. If necessary to obtain a uniform stand, the Contractor shall refertilize, reseed and remulch as needed. Scattered bare spots up to one (1) square yard in size will be allowed up to a maximum of 10 percent of any area.

- i. Payment for seeding and mulching shall be included in the lump sum bid.
- 4. Top Dressing: Top dressing may be applied at the option of the Contractor.
- 5. Initial Watering: Immediately following planting or top dressing, if applied, apply a light, fine mist spray to anchor the seed, stolons, and/or dressing to the soil, forming a protective crust to prevent wind erosion and drying of the seed or stolons. The lawn areas shall be kept moist, but not glistening wet, until full germination.
- 6. Final Compaction: Fully germinated lawn areas shall be allowed to dry sufficiently to permit rolling with approximately two hundred to three hundred pound water weighted roller to satisfactorily compact the soil around the grass roots and to provide a firm, smooth mowing surface.
- C. Sodding:
  - 1. Sod shall be placed as shown on the Drawings.
  - 2. Edges of sod shall be cut cleanly, either by hand or machine, to a uniform thickness of 1-1/2 inches or more, depending on the nature of the sod, so that practically all of the dense root system of the grasses is retained. The roots shall be exposed in the sod strip to allow the sod to be handled without undue tearing or breaking. The sod strip shall be of a uniform width of no less than 16 inches and no less than 2 feet in length. Sod shall be free from all primary noxious weeds in accordance with Section 827.11 of KDOH Standard Specifications for Road and Bridge Construction. Acceptance in the field before cutting shall not preclude rejection when delivered to the site if such contamination is found.

### 3.03 ESTABLISHMENT AND MAINTENANCE PERIOD

- A. The Contractor shall continuously maintain all areas involved in this contract during the progress of the work and during the establishment period until final acceptance of the work by the Owner.
- B. The contractual establishment period shall be for no less than 30 continuous calendar days.
- C. The contractual establishment period begins on the first day after all planting in this project is completed and accepted and the planted areas are brought to a neat, clean and weed free condition.
- D. Any day upon which no work will be required, as determined by the Engineer will be credited as one of the plant establishment working days regardless of whether or not the Contractor performs plant establishment work.
- E. Any day when the Contractor fails to adequately maintain plantings, replace unsuitable plants or do weed control or other work, as determined necessary by the Engineer, will not be credited as one of the plant establishment working days.

- F. Improper maintenance or possible poor condition of any planting at the termination of the scheduled establishment period may cause postponement of the final completion date of the contract. Maintenance shall be continued by the Contractor until all work is acceptable.
- G. In order to carry out the plant establishment work, the Contractor shall furnish sufficient men and adequate equipment to perform the work during the plant establishment period.
- H. Maintenance shall be according to the following standards:
  - 1. All areas shall be kept free of debris and all planted areas shall be weeded and cultivated at intervals of not more than ten days. Watering, mowing, rolling, edging, trimming, fertilization, spraying and pest control, as may be required, shall be included in the establishment period.
  - 2. The Contractor shall be responsible for maintaining adequate protection of the area. Damaged areas shall be repaired at the Contractor's expense.
  - 3. Between the 15th day and the 20th day of the establishment period, the Contractor shall reseed or resod all spots or areas within the lawn where normal turf growth is not evident.
  - 4. Post fertilize all lawns in planted areas at the end of 30 days of maintenance at the rate of 13 pounds per thousand square feet using fertilizer with the analysis 1584 evenly applied and thoroughly watered in.
  - 5. Mowing of turf will commence when the grass has reached a height of two inches. The height of cut will be 1 1/2 inches. Mowing will be done on an as needed basis. Turf must be well established and free of bare spots and weeds to the satisfaction of the Owner prior to final acceptance.

### **3.04 GUARANTEE AND REPLACEMENT**

Note: The following guarantees have no affect on the one year guarantee on labor and workmanship.

- A. Any material found to be dead, missing, or in poor condition during the establishment period shall be replaced immediately. The Engineer shall be the sole judge as to the condition of material. Material found to be dead or in poor condition within the guarantee period shall be replaced by the Contractor within 15 days of written notification by the Owner.
- B. Replacement shall be made to the same specifications required for original plantings.
- C. Material and labor involved in the replacing of materials shall be supplied by the Contractor at no additional cost to the Owner.

### **3.05 INSPECTIONS**

Normal progress inspections shall be requested from the Engineer at least 48 hours in advance of an anticipated inspection. An inspection will be made by the Engineer on each of the steps listed below. The Contractor will not be permitted to initiate the succeeding steps of work until he has received written approval to proceed by the inspector.

- A. Immediately prior to the commencement of work of this section.
- B. Installation of all ground covers.



02900-8

- C. Planting of all lawn areas.
- D. Final inspection.
- E. Final acceptance of the project.

- END OF SECTION -