



**SAN ANTONIO WATER SYSTEM  
REGIONAL CARRIZO PROJECT  
BUCKHORN WELLFIELD COLLECTION PROJECT  
SAWS JOB NO. 03-8518-207  
SOLICITATION NO. B-12-021-DB**

**ADDENDUM NO. 1  
MAY 4, 2012**

**TO BIDDER OF RECORD:**

**The following changes, additions, and/or deletions are hereby made a part of the Contract Documents for the construction of the Regional Carrizo Project - Buckhorn Wellfield Collection Project, for the San Antonio Water System, San Antonio, Texas, dated April 2012, as fully and completely as if the same were full set forth therein.**

**BIDDING AND CONTRACT REQUIREMENTS**

1. INVITATION TO BIDDERS: Bids will not be accepted from any company not represented at the Mandatory Pre-Bid meeting held at SAWS on April 30, 2012, at 10:00 a.m. The represented companies are included in the sign-in sheet attached to the end of this addendum.
2. BID PROPOSAL, PROPOSAL CERTIFICATION, GOOD FAITH EFFORT PLAN, SMWB REPORTING REQUIREMENTS, CONFLICT OF INTEREST: REPLACE these sections in their entirety with the attached sections.
3. SUPPLEMENTARY CONDITIONS: REPLACE this section in its entirety with the attached section.
4. SPECIAL CONDITIONS:
  - a. ADD the following sentence to the end of Additional Conditions, 1) "The Contractor shall provide to SAWS copies of all agreements between the Contractor and property owners for obtaining of staging area and any additional easements or working areas."
  - b. ADD the following to the end of this section "8) Special Provisions for unsecured easements: SAWS may not obtain possession of pipeline easements for the Bebe Lateral pipeline, shown on Sheets 65, 66, 67, and 68 of the Drawings, until January 31, 2013, and in no event shall failure by SAWS to obtain such possession until January 31, 2013 be cause for change order or claim for delay or other costs, related to the prosecution of the Work, provided, however, the

foregoing shall not be deemed to infer that SAWS will automatically be subject to change order or claim for delay or other costs if SAWS fails to obtain such possession by January 31, 2013. Potential bidders are advised that construction locations shall be coordinated with and approved by owner prior to the start of construction.”

## **TECHNICAL SPECIFICATIONS**

### **1. SECTION 01110 SUMMARY OF WORK:**

- a. Paragraph 1.03.B: ADD “7. Bebe Well – this is an active well site owned and operated by the Gonzales County Water Supply Corporation.”
- b. Paragraph 1.03.C.1: DELETE “Final project completion is anticipated on August 17, 2012. It is expected that work at Wells WG-14, WG-02, WG-15, WG-08, and WG-07 will not be complete prior to award of bid for this Contract, and work at Wells WG-08 and WG-07 will not be complete prior to construction notice to proceed for this Contract.” AND REPLACE WITH “Final project completion is anticipated on August 29, 2012. It is expected that work at Wells WG-06, WG-14, WG-02, WG-15, WG-08, and WG-07 will not be complete prior to award of bid and construction notice to proceed for this Contract.”
- c. Paragraph 1.03.C.1: ADD the following to the end of the paragraph “The Contractor shall not be allowed to begin work at individual well sites until the Well Drilling and Roadways Construction Project contractor has demobilized from that well site. This shall not be a cause for change order or claim for delay or other costs by the Contractor.”
- d. Paragraph 1.04.C.4: ADD the following to the end of the paragraph “If permanent power has not been provided by the above listed date, the Contractor shall continue to provide temporary power until permanent power is available. This shall not be a cause for change order or claim for delay or other costs by the Contractor.”
- e. Paragraph 1.03.C.5: DELETE “If the Water Supply Pipeline has not achieved substantial completion by the above listed date, the Contractor shall coordinate with the Owner for staggered testing of wells and disposal of test water within the wellfield.” AND REPLACE WITH “If the Water Supply Pipeline has not achieved substantial completion by the above listed date, or if this date will not allow the Contractor to meet the required project schedule, the Contractor shall coordinate with the Owner for either a no-cost contract time extension or staggered testing of wells and disposal of test water within the wellfield. The Contractor shall obtain all approvals and permits for this alternate testing operation. This shall not be a cause for change order or claim for delay or other costs by the Contractor.”
- f. Paragraph 1.03.C.6: ADD the following to the end of the paragraph “Contractor may also supply temporary water from other sources to meet the needs of the Gonzales County Water Supply Corporation (GCWSC), subject

to the approval of the GCWSC. The Contractor shall be responsible for determining the means to provide water to the Bebe site and to limit downtime. The Contractor shall obtain all approvals and permits for work at the Bebe site.”

2. SECTION 01270 MEASUREMENT AND PAYMENT: REPLACE this section in its entirety with the attached section.
3. SECTION 01500 CONSTRUCTION FACILITIES AND TEMPORARY CONTROLS:
  - a. Paragraph 1.02.A.1: ADD the following sentence to the end of the paragraph “The Contractor shall submit copies of all agreements to the Owner.”
  - b. Paragraph 1.02.A.2: ADD the following sentence to the end of the paragraph “The Contractor shall submit copies of all agreements to the Owner.”
  - c. Paragraph 1.04.E.: ADD the following “5. The Contractor is required to provide any permits, equipment, appurtenances, piping, and electrical required for providing construction water. The Contractor shall meter all construction water and provide the amount used to SAWS. Reporting frequency shall be as determined by SAWS.”
  - d. Paragraph 1.08.C.8: DELETE “under the provisions for changes and extra work” AND REPLACE WITH “at the expense of the Contractor.”
4. SECTION 01751 STARTING OF SYSTEMS:
  - a. Paragraph 1.03.B: ADD the following to the end of the paragraph “The Contractor shall develop the testing plan, subject to the approval of the Owner and Consultant. The Contractor shall operate a minimum of one well and a maximum of eight wells during the testing period, and shall alternate operation of combinations of various wells including the Bebe well so that all wells are tested for equal operating times, or as required by the Consultant.”
5. SECTION 02205 FLEXIBLE BASE:
  - a. Paragraph 1.02.A: ADD “4. TXDOT Item 251, Reworking Base Courses.”
  - b. Paragraph 3.01: ADD “B. The full depth of existing flexible base roadways shall be scarified before placing the proposed layer of flexible base. The full depth scarifying of existing flexible base shall be for the full width of existing roadway (16 ft minimum), and done in accordance with TxDOT Item 251 – Reworking Base Courses. The Scarifying shall be Type D – Scarifying and Reshaping as defined in 251.4.A.4 and 251.4.B.5. Compaction of the scarified flexible base material shall be Density Controlled as defined in 251.4.C.2.”
6. SECTION 02317 EXCAVATING, BACKFILLING, AND COMPACTION FOR UTILITIES:
  - a. Paragraph 2.01.B.2: DELETE “3.07” AND REPLACE WITH “3.06”.
  - b. Paragraph 3.04.5: ADD to the beginning of the paragraph “If the Owner has concerns regarding the quality of the pipe installation, deflection testing shall

be required. The method of testing shall be determined by the Contractor and pipe manufacturer/supplier, subject to the approval of the Owner."

- c. Paragraph 3.05.B.3: DELETE "paid at the Contract Unit Price for subgrade filler" AND REPLACE WITH "considered incidental to the Contract."
- d. Paragraph 3.06.H: DELETE "90 percent" AND REPLACE WITH "98 percent".
- e. Paragraph 3.06.I: DELETE "90 percent" AND REPLACE WITH "98 percent".

7. SECTION 02318 TRENCH SAFETY SYSTEM:

- a. Paragraph 1.05.A: AFTER "Owner" ADD "and Consultant".
- b. Paragraph 1.05.B: AFTER "Owner" in two locations, ADD "or Consultant".

8. SECTION 02319 CONTROL OF GROUND WATER AND SURFACE WATER:

- a. Paragraph 1.04.I: DELETE "form" AND REPLACE WITH "from".

9. SECTION 02360 NATIVE GRASSLAND SEEDING AND PLANTING FOR VEGETATION RESTORATION:

- a. Paragraph 1.01.A: ADD the following to the end of the paragraph "This is for seeding of properties along the south side of CR 123. All other seeding shall be in accordance with Section 02910, Site Restoration."
- b. Paragraphs 2.02.I and 2.02.J: DELETE these paragraphs and REPLACE WITH "2.02.I. September 15 to March 1: Add 1.5 pounds per 1000 square feet (0.75 kilogram per 100 square meters) of cool season cover crop to grass and wildflower mixture."

10. SECTION 02400 AUGER BORING:

- a. Paragraph 1.04: ADD "I. Jacking and Receiving Pit sizes shown on the Drawings are approximate only. Contractor shall determine actual required sizes based on his operations. No additional compensation shall be provided to the Contractor for differing pit sizes."

11. SECTION 02573 MISCELLANEOUS STAINLESS STEEL PIPE:

- a. Paragraph 3.02.A.3: DELETE "Immediately before application of the primer, abrasive blasting shall be performed using sand, metallurgical slag, or a combination of steel grit and shot to produce a surface in conformance with SSPC-SP6. Steel grit shall comprise at least 60 percent of the working mix of abrasive, if a centrifugal wheel abrasive blaster is used." AND REPLACE WITH "Immediately before application of the primer, abrasive blasting shall be performed using sand or metallurgical slag to produce a surface in conformance with SSPC-SP6."
- b. Paragraph 3.04.A.1: AFTER "...storage primer may be power tool cleaned" ADD "with stainless steel power tools".

12. SECTION 02634 HIGH DENSITY POLYETHYLENE (HDPE) PRESSURE PIPE AND FITTINGS (ASTM F714, MODIFIED):

- a. Paragraph 1.07.E.2: DELETE the text in this paragraph and REPLACE WITH "If the Owner has concerns regarding the quality of the pipe installation, deflection testing shall be required. The method of testing shall be determined by the Contractor and pipe manufacturer/supplier, subject to the approval of the Owner. If required, tests will be conducted at 25-foot intervals."
- b. Paragraph 2.02.B Pipe Deflection: RENUMBER paragraph 2.02.D Pipe Deflection. ADD the following sentence to the end of the paragraph "If the Owner has concerns regarding the quality of the pipe installation, deflection testing shall be required. The method of testing shall be determined by the Contractor and pipe manufacturer/supplier, subject to the approval of the Owner."
- c. Paragraph 2.02.D Closures and Correction Pieces: RENUMBER paragraph 2.02.E Closures and Correction Pieces.
- d. Paragraph 2.03, Pipe: In the third paragraph after "four" ADD "or six".
- e. Paragraph 3.01.P: DELETE "during cooler hours of the day". ADD "Allow pipe to cool prior to making any connections to flanges, existing pipeline systems, or structures."

13. SECTION 02910 SITE RESTORATION:

- a. Paragraph 1.01.A.2.a: DELETE this paragraph and REPLACE WITH "1.01.A.2.a. Restore soils to original grade along roadways, pipelines, at well sites, and for all other disturbed areas. Seed all restored areas."
- b. Paragraph 2.01.A.1: ADD the following sentence to the end of the paragraph "Submit written certification that all products proposed for use are not harmful to cattle and other grazing animals."
- c. Paragraph 3.05.F: DELETE this paragraph and REPLACE WITH "3.05.F. Contractor is responsible for water for irrigation of restored areas. Contractor is responsible for coordinating with Owner's Representative for water availability. Seeded areas shall immediately be watered as needed and in the manner and quantity as directed by the Engineer or Owner's Representative. Water applications shall insure that the seedbed is maintained in a moist condition favorable for the growth of grass. Watering shall continue until minimum coverage is achieved and accepted by the Engineer or Owner's Representative. Watering may be postponed immediately after a 1/2 inch or greater rainfall on the site but shall be resumed before the soil dries out."

14. SECTION 02930 EROSION CONTROL MATTING:

- a. Paragraph 1.04.A: ADD the following sentence to the end of the paragraph "Submit written certification that all products proposed for use are not harmful to cattle and other grazing animals."
- b. Paragraph 2.01.A: ADD the following sentence to the end of the paragraph "Shaded cells in Table 2 indicate the applications where the product can be used."
- c. Paragraph 3.03: DELETE the word "MOWING".
- d. Paragraph 3.03.C: DELETE this paragraph in its entirety.

15. SECTION 03400 PRECAST CONCRETE:

- a. Section 03400, Para 1.02.A; ADD the following paragraph: "4. Certification that design conforms to the latest edition of ASTM C858 - Underground Precast Concrete Structures and support loads in accordance with ASTM C857 - Minimum Structural Design Loading for Underground Precast Concrete Utility Structures."
- b. Section 03400, Para 2.03.A; REPLACE the existing paragraph with the following:

"A. Precast Concrete Vaults:

- 1. Precast concrete vaults shall comply with ASTM C858 except as modified herein.
- 2. Design live loads shall be in accordance with ASTM C857. Design precast concrete vaults to withstand site soil conditions and traffic loading of A-16 per Table 1 of ASTM C857 with a 30 percent increase due to impact. Soil lateral loads shall be as determined by ASTM C857. Alternate design by the strength design method shall include a load of 1.7 times the lateral earth or hydrostatic pressures. Also see the design loads described in the General Structural Notes on the drawings.
- 3. Design shall also comply with the following restrictions:
  - a. The maximum reinforcing ratio allowed is one-half the reinforcement ratio that produces a balanced strain condition.
  - b. Earth pressure shall be converted to a horizontal pressure using a coefficient pressure at rest of 0.5 and not a coefficient of active pressure.
  - c. Include a live load surcharge of 2 feet of soil in the design of the walls.
- 4. Precast vault construction shall be in the form of monolithic walls or horizontal sections. Do not use panel walls.
- 5. Minimum wall thickness shall be 6 inches. Design knockout wall panels to accommodate loading pressures defined above.

6. Design and construct walls to be watertight. Groundwater shall be assumed to be at ground surface.
7. Provide openings in vaults for pipes and access openings as shown. Coordinate pipe openings to accommodate a modular mechanical seal assembly for specific pipe sizes shown on the drawings to achieve watertight penetrations.
8. Roof hatch shall be plumbed to discharge off structure."

16. SECTION 09902 PAINTING (SHORT FORM):

- a. Paragraph 1.01.A: ADD "4. American Water Works Association (AWWA) C213, Fusion-Bonded Epoxy Coating for the Interior and Exterior of Steel Water Pipelines."
- b. Paragraph 1.07.B: ADD the following to the end of the sentence "in accordance with AWWA C213 and the coating manufacturer's recommendations."
- c. Paragraph 2.04.B, Fusion Bonded Coating: DELETE "100 percent solids, thermosetting, fusion bonded, dry powder epoxy or polyurethane resin, suitable for the intended service" AND REPLACE WITH "100 percent solids, thermosetting, fusion bonded, dry powder epoxy resin, suitable for the intended service, and NSF 61 approved for potable water contact."
- d. Paragraph 3.10: ADD "E. Plastic and FRP Surface Preparation: Hand sand plastic surfaces to be coated with medium grit sandpaper to provide tooth for coating system. Large areas may be power sanded or brush-off blasted, provided sufficient controls are employed so surface is roughened without removing excess material."
- e. Paragraph 3.19: ADD "F. System No. 25 Exposed FRP, PVC: Surface Preparation shall be in accordance with the paragraph Plastic and FRP Surface Preparation; Paint material shall be acrylic latex; Minimum coats, cover shall be 2 coats, 320 SFPGPC."
- f. Paragraph 3.22.C.3: CHANGE "EFE" to "FBE".
- g. Paragraph 3.22.F.1: DELETE "Surfaces of sleeve-couplings, abovegrade steel pipe, valves, fittings, and wellhead facilities and repairs to well casing and pump columns during and post-installation." AND REPLACE WITH "Surfaces of sleeve couplings, abovegrade steel pipe, valves, fittings, discharge head, wellhead facilities, and repairs to well casing and pump columns coatings. Repairs to well casing and pump column coatings during and post-installation shall be in accordance with AWWA C213 and the manufacturer's recommendations."
- h. Paragraph 3.22: ADD "H. System 25 Exposed FRP, PVC: Use on all exposed to view PVC and CPVC surfaces, and FRP surfaces without integral UV-resistant gel coat."

17. SECTION 11212 VERTICAL TURBINE PUMPS:

- a. Paragraph 1.02.A.1: REPLACE, "...ANSI/HI 2.1-2.5-1994...", with, "...ANSI/HI 2.1-2.5-2008..."
- b. Paragraph 1.02.A.2: REPLACE, "...ANSI/HI 2.6-1994...", with, "...ANSI/HI 2.6-2000..."
- c. Paragraph 1.02.A.3: REPLACE, "...ANSI/HI 9.1-9.5-1994...", with, "...ANSI/HI 9.1-9.5-2000..."
- d. Paragraph 1.02.A.4: REPLACE, "...ANSI/AWWA E101-88...", with, "...ANSI/AWWA E103-07..."
- e. Paragraph 1.04.A.1: REPLACE, "...ANSI/HI 2.1-2.5-1994...", with, "...ANSI/HI 2.1-2.5-2008...", and, "...ANSI/AWWA E101-88...", with, "...ANSI/AWWA E103-07..."
- f. Paragraph 1.05.C.1: REPLACE, "...ANSI/HI 2.1-2.5-1994...", with, "...ANSI/HI 2.1-2.5-2008..."
- g. Paragraph 1.02.C.2: REPLACE, "...ANSI/HI 2.6-1994...", with, "...ANSI/HI 2.6-2000..."
- h. Paragraph 1.02.C.3: REPLACE, "...ANSI/HI 9.1-9.5-1994...", with, "...ANSI/HI 9.1-9.5-2000..."
- i. Paragraph 1.02.C.4: REPLACE, "...ANSI/AWWA E101-88...", with, "...ANSI/AWWA E103-07..."
- j. Paragraph 1.09.A: REPLACE, "...ANSI/HI 2.6-1994...", with, "...ANSI/HI 2.6-2000...", and, "...ANSI/HI 9.1-9.5-1994...", with, "...ANSI/HI 9.1-9.5-2000..."
- k. Paragraph 1.09.C: REPLACE, "...ANSI/HI 2.6-1994...", with, "...ANSI/HI 2.6-2000...", and, "...ANSI/HI 9.1-9.5-1994...", with, "...ANSI/HI 9.1-9.5-2000..."
- l. Paragraph 1.09.D: REPLACE first sentence with, "Witnessed factory tests are required for all pumps using the corresponding motor proposed for each installation."
- m. Paragraph 1.09.D: ADD, "All cost to perform the factory tests will be borne by the Contractor."
- n. Paragraph 1.10.A.2: ADD, "j. Pump column bumpers."
- o. Paragraph 2.01.C: REPLACE, "...ANSI/HI 2.1-2.5-1994...", with, "...ANSI/HI 2.1-2.5-2008..."
- p. Paragraph 2.02.C.6: REPLACE, "Minimum Efficiency...", with, "Minimum Bowl Assembly Efficiency..."
- q. Paragraph 2.03: ADD, "8. Two-piece, non-metallic bumpers shall be provided that securely attached to the column pipe to prevent the pipe from contacting the well casing. The O.D. of the bumpers shall be 1/2-inch to 1 1/2-inch greater diameter than the largest diameter of the column pipe."
- r. Paragraph 2.03.E.1: REPLACE, "...ASTM A436...", with, "ASTM A46 or Grade 316 stainless steel..."
- s. Paragraph 2.03.F: ADD, "Bolted connections shall be electrically isolated from the components being connected."
- t. Paragraph 2.03.G.1: REPLACE, "...ASTM A436...", with, "ASTM A46 or Grade 316 stainless steel..."



- u. Paragraph 2.05.D: REPLACE, "Column Pipe:", with, "Column Pipe and Discharge Head:".
- v. Paragraph 3.01.A: REPLACE, "...ANSI/HI 2.1-2.5-1994...", with, "...ANSI/HI 2.1-2.5-2008...".
- w. Paragraph 3.01: ADD, "L. Two-piece, non-metallic bumpers shall be securely attached to each section of column pipe to prevent the pipe from contacting the well casing. The bumpers shall be installed immediately adjacent to the flanged connection."
- x. Paragraph 3.02.A: ADD, "4. Testing shall be performed in accordance with NSI/HI 2.6-2000."

18. SECTION 13401 PROCESS INSTRUMENTATION AND CONTROL SYSTEMS (PICS):

- a. Throughout this Section, CHANGE "Marchalling Panel" to "Marshalling Panel".

19. SECTION 13956 RADIO TOWERS:

- a. Paragraph 1.02.A: CHANGE "2006" to "2009".
- b. Paragraph 1.02.D: CHANGE "II" to "I".
- c. Paragraph 1.02.E.1: CHANGE "130" to "95".
- d. Paragraph 1.02.E.2: CHANGE "D" to "C".
- e. Paragraph 1.02.F.1.a: CHANGE "0.16 g" to "0.10g".
- f. Paragraph 1.02.F.1.b: CHANGE "0.06g" to "0.03g".
- g. Paragraph 1.03.A.2: DELETE this paragraph in its entirety.
- h. Paragraph 1.03.A.3: DELETE "where adequate geotechnical information is not available as described above".
- i. Paragraph 3.03.C: DELETE ", Observation".
- j. Paragraph 3.04.A: DELETE ", Observation".
- k. Paragraph 3.04.B: DELETE ", Observation".

20. SECTION 15200 PROCESS PIPING - GENERAL:

- a. Paragraph 2.05.E.1.d: ADD, "2). Bermad;; Model 820.  
3) Singer."
- b. Paragraph 2.05.E.2.f: ADD, "3). Bermad; Model 740."
- c. Paragraph 2.05.E.3.d: ADD, "3). Bermad; Model 730."
- d. Paragraph 2.05.E.7.c: REPLACE with, "Manufacturer and Product:
  1. Cla-Val; Model 40-01, Globe Style.
  2. Bermad; Model 770-55-U
  3. Singer."

e. Paragraph 3.08.E: DELETE this paragraph in its entirety.

21. SECTION 16988 SECURITY SYSTEMS:

- a. Paragraph 2.03: ADD "H. Manufacturer: Optex, Model SIP-3020 or equal."
- b. ADD "2.07 INTRUSION SWITCH, DOOR, A. Manufacturer: Omron, Model ZE-N22-2S or equal."
- c. Paragraph 3.05: CHANGE "1-year warranty" to "2-year warranty".

**DRAWINGS**

- 1. SHEET 18 of 160, LINE A PLAN & PROFILE, STA 5+00 - 17+00: ADD to the end of Note 2: "Contractor shall verify tie-in location and elevation prior to construction."
- 2. SHEET 58 of 160, LINE D PLAN & PROFILE, STA 57+00 - 69+00: REPLACE this sheet in its entirety.
- 3. SHEET 65 of 160, LATERAL BEBE PLAN, STA 10+00 - 35+00: For callout at Sta 25+05, CHANGE "ND" to "END".
- 4. SHEET 81 of 160, LATERAL WG07 PLAN, STA 22+00 - END: REPLACE this sheet in its entirety.
- 5. SHEET 89 of 160, ROADWAY PLAN WG02, STA 24+14 - END: ADD the following note "An existing overflow section was constructed along Roadway WG-02 from Station 45+50 to Station 46+80. Proposed Typical Access Road Section 2 will not be constructed within these station limits."
- 6. SHEET 90 of 160, ROADWAY PLAN WG14, STA 0+00 - 40+00: CL Forest Oil/WG-14 callouts referencing Typical Access Roadway Section 4 shall reference Typical Access Roadway Section 5.
- 7. SHEET 91 of 160, ROADWAY PLAN WG14, STA 40+00 - END: CL Forest Oil/WG-14 callouts referencing Typical Access Roadway Section 4 shall reference Typical Access Roadway Section 5.
- 8. SHEET 103 of 160, PRODUCTION WELL WG-02  
CIVIL/MECHANICAL/ELECTRICAL SITE PLAN: CHANGE callout shown for concrete pad to be sloped from "127B" to "125".
- 9. SHEET 116 of 160, PRODUCTION WELL BEBE  
CIVIL/MECHANICAL/ELECTRICAL SITE PLAN: CHANGE callout shown for concrete pad to be sloped from "127B" to "125A". ADD note "6. Contractor shall provide all removed and salvageable equipment to the Gonzales County Water Supply Corporation. Contractor shall dispose of all equipment and materials not required by the Gonzales County Water Supply Corporation."
- 10. SHEET 116 of 160, PRODUCTION WELL BEBE  
CIVIL/MECHANICAL/ELECTRICAL SITE PLAN; ADD the following note: "6. SITE SURFACE MATERIAL AS INDICATED ON THE TYPICAL WELL SITE IS NOT REQUIRED AT THIS SITE."

11. SHEET 123 of 160, PIPING DETAILS: ADD the following to the end of Note 2  
"Contractor shall coordinate this work with the Schertz-Seguin Local Government Corporation (SSLGC) and the SSLGC Water Treatment Plant contractor."
12. SHEET 124 of 160, CIVIL/ROADWAY DETAILS: Typical Access Road Section 4 on bottom left of drawings shall be labeled as Typical Access Road Section 5.
13. SHEET 125B of 160, BEBE WELLHEAD SECTIONS (INCLUDING INSTRUMENT LAYOUT): Each location where "PAVING SURFACE" is indicated on Sections A and B, ADD "SEE NOTE 5".
14. SHEET 125B of 160, BEBE WELLHEAD SECTIONS (INCLUDING INSTRUMENT LAYOUT): ADD the following note: "5. IN LIEU OF PAVING AT BEBE WELL SITE, EXCEPT WHERE SHOWN ON THE SITE PLAN ON DRAWING 116, PROVIDE A MINIMUM 12" THICK CLAY LINER ABOVE THE GRANULAR FILL, EXTENDING FROM THE EDGE OF THE STRUCTURE TO 2'-0" BEYOND THE LIMITS OF THE EXCAVATION."
15. SHEET 127 of 160, ENERGY DISSIPATOR STRUCTURAL PLAN AND SECTION: Each location where "PAVING SURFACE" is indicated on Sections A and B, ADD "SEE NOTE 3".
16. SHEET 127 of 160, ENERGY DISSIPATOR STRUCTURAL PLAN AND SECTION: ADD the following note: "3. IN LIEU OF PAVING AT BEBE WELL SITE, PROVIDE A MINIMUM 12" THICK CLAY LINER ABOVE THE GRANULAR FILL, EXTENDING FROM THE EDGE OF THE STRUCTURE TO 2'-0" BEYOND THE LIMITS OF THE EXCAVATION."
17. SHEET 127A of 160, CANOPY PLAN, SECTION & DETAILS: Each location where "PAVING SURFACE" is indicated on Detail 1 ADD "SEE NOTE 4".
18. SHEET 127A of 160, CANOPY PLAN, SECTION & DETAILS: ADD the following note: "4. IN LIEU OF PAVING AT BEBE WELL SITE, PROVIDE A MINIMUM 12" THICK CLAY LINER ABOVE THE GRANULAR FILL, EXTENDING FROM THE EDGE OF THE STRUCTURE TO 2'-0" BEYOND THE LIMITS OF THE EXCAVATION."
19. SHEET 127B of 160, TRANSFORMER PAD: Where "PAVING, SEE SITE PLANS" is indicated on Detail 2 ADD "AND NOTE 5".
20. SHEET 127B of 160, TRANSFORMER PAD: ADD the following note: "5. IN LIEU OF PAVING AT BEBE WELL SITE, PROVIDE A MINIMUM 12" THICK CLAY LINER ABOVE THE GRANULAR FILL, EXTENDING FROM THE EDGE OF THE STRUCTURE TO 2'-0" BEYOND THE LIMITS OF THE EXCAVATION."
21. SHEET 134 of 160, CIVIL STANDARD DETAILS: REPLACE this sheet in its entirety.
22. SHEET 134A of 160, CIVIL STANDARD DETAILS: ADD this sheet.
23. SHEET 137 of 160, CIVIL STANDARD DETAILS, DETAIL 2009A: ADD note "8. Provide dual combination air release valves, each connected to same vent pipe, for all V741 valves as specified."

24. SHEET 143 of 160, CATHODIC PROTECTION STANDARD DETAILS, DETAIL 13925: DELETE "1/32" SPIRAL WOUND MYLAR,".

ALL BIDDERS SHALL ACKNOWLEDGE RECEIPT OF ADDENDUM NO. 1 IN THE BID FORM AND BY HIS/HER SIGNATURE AFFIXED HERETO AND TO FILE SAME AS AN ATTACHMENT TO HIS/HER BID. BID FORMS SUBMITTED WITHOUT THIS ACKNOWLEDGEMENT WILL BE CONSIDERED INFORMAL.


CH2M HILL

TBPE Firm No. 2297



Stephen Bianchetta, P.E.



  
5-4-12

**ACKNOWLEDGEMENT BY BIDDER**

THE UNDERSIGNED ACKNOWLEDGES RECEIPT OF THIS ADDENDUM NO. 1 AND THE BID SUBMITTED HERewith IS IN ACCORDANCE WITH THE INFORMATION AND STIPULATION SET FORTH.

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Date

Signature of Bidder

Appended hereto and part of Addendum No. 1 are:

1. BID PROPOSAL, PROPOSAL CERTIFICATION, GOOD FAITH EFFORT PLAN, SMWB REPORTING REQUIREMENTS, CONFLICT OF INTEREST
2. SUPPLEMENTARY CONDITIONS
3. SECTION 01270 MEASUREMENT AND PAYMENT
4. SHEET 58 OF 160, LINE D PLAN & PROFILE, STA 57+00 - 69+00
5. SHEET 81 OF 160, LATERAL WG07 PLAN, STA 22+00 - END
6. SHEET 134 OF 160, CIVIL STANDARD DETAILS
7. SHEET 134A OF 160, CIVIL STANDARD DETAILS
8. Contractor Questions and Clarifications
9. Pre-bid Meeting Sign-in Sheet

**BID PROPOSAL**

PROPOSAL OF \_\_\_\_\_, a  
 corporation, a partnership consisting of \_\_\_\_\_,  
 an individual doing business as \_\_\_\_\_,

**THE SAN ANTONIO WATER SYSTEM:**

Pursuant to Instructions and Invitations to Bidders, the undersigned proposes to furnish all labor and materials as specified and perform all work required for the execution of the REGIONAL CARRIZO PROJECT, BUCKHORN WELLFIELD COLLECTION PROJECT, San Antonio Water System Job Number 03-8518-207 in accordance with the Plans and Specifications for the following prices to wit:

**BID SCHEDULE - UNIT PRICE**

Schedule of prices for CONSTRUCTION OF REGIONAL CARRIZO PROJECT, BUCKHORN WELL FIELD COLLECTION PROJECT in accordance with the Contract Documents. Bidder must complete entire schedule.

<b>Item No.</b>	<b>Item Description (Unit Price to be Written in Words)</b>	<b>Estimated Quantity</b>	<b>Unit</b>	<b>Unit Price (Figures)</b>	<b>Total Price (Figures)</b>
1.	Furnish and Install Pump and Appurtenances, (excluding Motors) _____ Dollars and _____ Cents	10	EA	\$_____	\$_____
2.	Construct Sealed Wellhead and Install Artesian Well Components _____ Dollars and _____ Cents	10	EA	\$_____	\$_____
3.	Furnish and Install Pump Motor _____ Dollars and _____ Cents	10	EA	\$_____	\$_____

Item No.	Item Description (Unit Price to be Written in Words)	Estimated Quantity	Unit	Unit Price (Figures)	Total Price (Figures)
4.	Furnish and Install 8-Inch Diameter Pump Column  _____ Dollars and _____ Cents	2,110	LF	\$_____	\$_____
5.	Construct Bebe Well Site  _____ Dollars and _____ Cents	1	LS	<u>\$XXXXXXX</u>	\$_____
6.	Construct WG Production Well Sites other than WG-10  _____ Dollars and _____ Cents	8	EA	\$_____	\$_____
7.	Construct WG-10 Production Well Site and Wellfield Antenna Site  _____ Dollars and _____ Cents	1	LS	<u>\$XXXXXXX</u>	\$_____
8.	Marshalling Panel at WG-10  _____ Dollars and _____ Cents	1	LS	<u>\$XXXXXXX</u>	\$_____
9.	SSLGC WTP Flow Metering Station  _____ Dollars and _____ Cents	1	LS	<u>\$XXXXXXX</u>	\$_____
10.	Existing Monitoring Well Sites Improvements  _____ Dollars and _____ Cents	1	LS	<u>\$XXXXXXX</u>	\$_____
11.	Testing, Startup, and Commissioning  _____ Dollars and _____ Cents	1	LS	<u>\$XXXXXXX</u>	\$_____

Item No.	Item Description (Unit Price to be Written in Words)	Estimated Quantity	Unit	Unit Price (Figures)	Total Price (Figures)
12.	Furnish and Install Cathodic Protection System  _____ Dollars and _____ Cents	1	LS	\$XXXXXXX	\$_____
13.	Trench Excavation Safety Protection  _____ Dollars and _____ Cents	81,129	LF	\$_____	\$_____
14.	18-inch HDPE DR 9 Water Main  _____ Dollars and _____ Cents	34,765	LF	\$_____	\$_____
15.	24-inch HDPE DR 9 Water Main  _____ Dollars and _____ Cents	34,364	LF	\$_____	\$_____
16.	30-inch HDPE DR 9 Water Main  _____ Dollars and _____ Cents	9,256	LF	\$_____	\$_____
17.	36-inch HDPE DR 11 Water Main  _____ Dollars and _____ Cents	2,744	LF	\$_____	\$_____
18.	Auger Boring with 36-inch Steel Casing  _____ Dollars and _____ Cents	110	LF	\$_____	\$_____
19.	Auger Boring with 54-inch Steel Casing  _____ Dollars and _____ Cents	43	LF	\$_____	\$_____

Item No.	Item Description (Unit Price to be Written in Words)	Estimated Quantity	Unit	Unit Price (Figures)	Total Price (Figures)
20.	18-inch Butterfly Valves _____ Dollars and _____ Cents	10	EA	\$_____	\$_____
21.	24-inch Butterfly Valves _____ Dollars and _____ Cents	4	EA	\$_____	\$_____
22.	30-inch Butterfly Valves _____ Dollars and _____ Cents	1	EA	\$_____	\$_____
23.	4-inch Combination Air Valve Assemblies _____ Dollars and _____ Cents	10	EA	\$_____	\$_____
24.	6-Inch Combination Air Valve Assemblies _____ Dollars and _____ Cents	16	EA	\$_____	\$_____
25.	8-Inch Combination Air Valve Assemblies _____ Dollars and _____ Cents	2	EA	\$_____	\$_____
26.	Pipe Drain Structures _____ Dollars and _____ Cents	21	EA	\$_____	\$_____
27.	Tie-ins _____ Dollars and _____ Cents	1	LS	<u>\$XXXXXX</u>	\$_____



Item No.	Item Description (Unit Price to be Written in Words)	Estimated Quantity	Unit	Unit Price (Figures)	Total Price (Figures)
28.	Hydrostatic Testing _____ Dollars and _____ Cents	1	LS	\$XXXXXXX	\$_____
29.	Furnish and Install Geogrid Fabric Underlayment for Access Road _____ Dollars and _____ Cents	11,680	LF	\$_____	\$_____
30.	Construct Cement-Stabilized Base Access Roads _____ Dollars and _____ Cents	790	LF	\$_____	\$_____
31.	Add 6-Inch Flexible Base to Existing Access Roads _____ Dollars and _____ Cents	32,910	LF	\$_____	\$_____
32.	Construct 12-Inch Flexible Base Access Roads _____ Dollars and _____ Cents	10,890	LF	\$_____	\$_____
33.	2-Course Surface Treatment for Access Roads _____ Dollars and _____ Cents	43,800	LF	\$_____	\$_____
34.	Barricades, Signs and Traffic Handling _____ Dollars and _____ Cents	15	MO	\$_____	\$_____
35.	Construct Stream Crossing WG02-1 _____ Dollars and _____ Cents	1	LS	\$XXXXXXX	\$_____

<b>Item No.</b>	<b>Item Description (Unit Price to be Written in Words)</b>	<b>Estimated Quantity</b>	<b>Unit</b>	<b>Unit Price (Figures)</b>	<b>Total Price (Figures)</b>
36.	Construct Stream Crossing WG08-1 _____ Dollars and _____ Cents	1	LS	\$XXXXXXX	\$_____
37.	Construct Stream Crossing WG08-4 _____ Dollars and _____ Cents	1	LS	\$XXXXXXX	\$_____
38.	Construct Stream Crossing WG07-3 _____ Dollars and _____ Cents	1	LS	\$XXXXXXX	\$_____
39.	Construct Stream Crossing WG15-4 _____ Dollars and _____ Cents	1	LS	\$XXXXXXX	\$_____
40.	Construct Stream Crossing WG15-5 _____ Dollars and _____ Cents	1	LS	\$XXXXXXX	\$_____
41.	SWPPP Plan and Execution _____ Dollars and _____ Cents	1	LS	\$XXXXXXX	\$_____
42.	Management of Contaminated Soil _____ Dollars and _____ Cents	10	CY	\$_____	\$_____
43.	Management of Contaminated Water _____ Dollars and _____ Cents	1,000	GAL	\$_____	\$_____
<b>A. SUBTOTAL BASE BID AMOUNT</b>					
_____ Dollars					
and _____ Cents					\$_____

Item No.	Item Description (Unit Price to be Written in Words)	Estimated Quantity	Unit	Unit Price (Figures)	Total Price (Figures)
100.	Mobilization and Demobilization: this item includes project move-in and move-out of personnel and equipment, for work; shall include furnishing all labor, materials, tools, equipment and incidentals required to mobilize, demobilize, bond and insure the Work, and obtain and pay for all permits for the REGIONAL CARRIZO PROJECT, BUCKHORN WELLFIELD COLLECTION PROJECT, in accordance with the Contract Documents, complete in place.  _____ Percent (Maximum of 10% of the <u>Line Item "A"</u> Sub-total Base Bid amount)	1	LS	\$XXXXXXX	\$_____
101.	Preparing Right-of-Way: This item includes removal and disposing of all obstructions from the right-of-way and from designated easements where removal of such obstructions is not otherwise provided for in the Drawings and Specifications. Work shall include furnishing all labor, materials, tools, equipment, incidentals required, complete in place.  _____ Percent (Maximum of 5% of the <u>Line Item "A"</u> Sub-total Base Bid amount)	1	LS	\$XXXXXXX	\$_____
TOTAL BID AMOUNT (Line Item "A", Mobilization and Demobilization & Preparing Right-of-Way)  _____ Dollars and _____ Cents				\$_____	

Mobilization and Demobilization lump sum bid shall be limited to a maximum 10 percent of the Line Item "A" Subtotal Base Bid amount. Preparing Right-of-Way lump sum bid shall be limited to a maximum of 5 percent of the Line Item "A" Subtotal Base Bid Amount. The Line Item "A" Subtotal base bid is defined as all bid items EXCLUDING Item 100, Mobilization and Demobilization and Item 101, Preparing Right-of-Way. In the event of a discrepancy between the written percentage and dollar amount shown for Mobilization and Demobilization and Preparing Right-of-Way bid items, the bid item's written percentage will govern. If the percentage written exceeds the allowable maximum stated for Mobilization and Demobilization and/or Preparing Right-of-Way, SAWS reserves the right to cap the amount at the percentages shown and adjust the extensions of the bid items accordingly.

\_\_\_\_\_  
BIDDER'S SIGNATURE AND TITLE

\_\_\_\_\_  
FIRM'S NAME

\_\_\_\_\_  
FIRM'S ADDRESS

\_\_\_\_\_  
FIRM'S PHONE NO. / FAX NO.

\_\_\_\_\_  
FIRM'S EMAIL ADDRESS

The Contractor herein acknowledges receipt of the following:  
Addendum Nos. \_\_\_\_\_

OWNER RESERVES THE RIGHT TO ACCEPT THE OVERALL MOST RESPONSIBLE BID.

The bidder offers to construct the Project in accordance with the Contract Documents for the contract price, and to achieve substantial completion of the Project within **420** calendar days after the start date, and to achieve final completion of the Project within **450** calendar days after the start date, as set forth in the Authorization to Proceed. **The bidder understands and accepts the provisions of the Contract Documents relating to liquidated damages of the project if not completed on time.** Complete the additional requirements of the Proposal which are included on the following pages.

**PROPOSAL CERTIFICATION**

Accompanying this proposal is a Bid Bond or Certified or Cashier's, Check on a State or National Bank payable to the Order of the San Antonio Water System for \_\_\_\_\_ dollars (\$\_\_\_\_\_), which amount represents five percent (5%) of the total bid price. Said bond or check is to be returned to the Bidder unless the proposal is accepted and the Bidder fails to execute and file a contract within 10 calendar days after the award of the Contract, in which case the check shall become the property of said San Antonio Water System, and shall be considered as payment for damages due to delay and other inconveniences suffered by said San Antonio Water System due to the failure of the Bidder to execute the contract. The San Antonio Water System reserves the right to reject any and all bids.

It is anticipated that the Owner will act on this proposal within 60 calendar days after the bid opening. Upon acceptance and award of the contract to the undersigned by the Owner, the undersigned shall execute standard San Antonio Water System Contract Documents and make Performance and Payment Bonds for the full amount of the contract within 10 calendar days after the award of the Contract to secure proper compliance with the terms and provisions of the contract, to insure and guarantee the work until final completion and acceptance, and the guarantee period stipulated, and to guarantee payment of all lawful claims for labor performed and materials furnished in the fulfillment of the contract.

It is anticipated that the Owner will provide written Authorization to Proceed within 30 days after the award of the Contract.

The Contractor hereby agrees to commence work under this Contract within seven (7) calendar days after issuance by the SAWS of the written Authorization to Proceed. Under no circumstances shall the work commence prior to Contractor's receipt of SAWS issued, written Authorization to Proceed. Work shall be Substantially Complete within 420 calendar days after the start date, and Final Completion shall occur within 450 calendar days after the start date, as set forth in the Authorization to Proceed.

The undersigned certifies that the bid prices contained in the proposal have been carefully checked and are submitted as correct and final.

In completing the work contained in this proposal the undersigned certifies that bidder's practices and policies do not discriminate on the grounds of race, color, religion, sex or national origin and that the bidder will affirmatively cooperate in the implementation of these policies and practices.

Signed:

\_\_\_\_\_  
Company Representative

\_\_\_\_\_  
Company Name

\_\_\_\_\_  
Address

Please return bidder's check to:

\_\_\_\_\_  
Company Name

\_\_\_\_\_  
Address



EXHIBIT "B"

# Good Faith Effort Plan for Construction SUBCONTRACTS for

NAME OF PROJECT: \_\_\_\_\_

SECTION A - CONTRACTOR INFORMATION:

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

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

City: \_\_\_\_\_ State: \_\_\_\_\_ Zip: \_\_\_\_\_

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

Email Address: \_\_\_\_\_ Fax: \_\_\_\_\_

Is your firm Certified: Yes \_\_\_\_\_ No: \_\_\_\_\_ Certification Agency that granted SMWB certificate/s: \_\_\_\_\_

Type of Certification: \_\_\_\_\_ SBE \_\_\_\_\_ WBE \_\_\_\_\_ MBE

1. List ALL SUBCONTRACTORS/SUPPLIERS that will be utilized on this project/contract.

Name & Address of Company	Scope of Work/Supplies to be Performed/Provided by Firm	Estimated Contract (dollar) Amount on this Project	Certification Type & Certification Agency
1.			
2.			
3.			
4.			
5.			

**SECTION B. – SMWB COMMITMENTS**

The SMWB goal on this project is 17 %

1. The undersigned proposer has satisfied the requirements of the BID specification in the following manner (please check the appropriate space):

\_\_\_\_\_ The proposer is committed to a minimum of 17 % SMWB utilization on this contract.

\_\_\_\_\_ The proposer, (if unable to meet the SMWB goal of 17%), is committed to a minimum of \_\_\_\_\_% SMWB utilization on this contract. *(If contractor is unable to meet the goal, please fill out Section C and submit documentation demonstrating good faith efforts).*

2. Name and phone number of person appointed to coordinate and administer the SMWB requirements on this project.

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

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

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

**IF THE SMWB GOAL WAS MET, PROCEED TO AFFIRMATION AND SIGN THE GFEP. IF GOAL WAS NOT MET, PROCEED TO SECTION C.**

**SECTION C – GOOD FAITH EFFORTS (Fill out only if the SMWB goal was not achieved).**

1. List all firms you contacted with subcontracting/supply opportunities for this project that will not be utilized for the contract by choice of the proposer, subcontractor, or supplier. Written notices to firms contacted by the proposer for specific scopes of work identified for subcontracting/supply opportunities must be provided to subcontractor/supplier **not less than five (5) business days prior to bid/proposal due date**. The following information is required for all firms that were contacted of subcontracting/supply opportunities.

Name & Address of Company	Scope of Work/Supplies to be Performed/Provided by Firm	Is Firm SMWB Certified?	Date Written Notice was Sent & Method (Fax, Letter, E-Mail, etc.)	Reason Agreement was not reached?
1.				
2.				
3.				
4.				
5.				
6.				
7.				

(Use additional sheets as needed)

In order to verify a proposer's good faith efforts, please provide to SAWS copies of the written notices to all firms contacted by the proposer for specific scopes of work identified in relation to the subcontracting/supply opportunities in the above named project. Copies of said notices must be provided to the SMWB Program Manager within five (5) business days after the response is due. Such notices shall include information on the plans, specifications, and scope of work.

2. Did you attend the pre-bid conference scheduled for this project? \_\_\_\_ Yes \_\_\_\_ No

3. List all SMWB listings or directories, contractor associations, and/or any other associations utilized to solicit SMWB Subcontractors/suppliers.

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4. Discuss efforts made to define additional elements of the work proposed to be performed by SMWBs in order to increase the likelihood of achieving the goal:

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5. Indicate advertisement mediums used for soliciting bids from SMWBs. (Please attach a copy of the advertisement(s):

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**AFFIRMATION**

I hereby affirm that the above information is true and complete to the best of my knowledge. I further understand and agree that, this document shall be attached thereto and become a binding part of the contract.

Name and Title of Authorized Official:

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

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

Signature: \_\_\_\_\_ Date: \_\_\_\_\_

**NOTE:**

This Good Faith Effort Plan is reviewed by SAWS Contracting Department. For questions and/or clarifications, please contact Marisol V. Robles, SMWB Manager, at 210-233-3420.



## **DEFINITIONS:**

**Prime Consultant/Contractor:** Any person, firm partnership, corporation, association or joint venture which has been awarded a San Antonio Water System contract.

**Subconsultants/contractor:** Any named person, firm partnership, corporation, association or joint venture identified as providing work, labor, services, supplies, equipment, materials or any combination of the foregoing under contract with a prime consultant/contractor on a San Antonio Water System contract.

**Small, Minority and Woman Business (SMWB):** All business structures Certified by the Small Business Administration, Texas State Comptroller's Office, or the South Central Texas Regional Certification Agency that are 51% owned, operated, and controlled by a Small Business Enterprise, a Minority Business Enterprise, or a Woman-owned Business Enterprise.

**Small Business Enterprise (SBE):** A business structure that is Certified by the Small Business Administration, Texas State Comptroller's Office or the South Central Texas Regional Certification Agency as being 51% owned, operated and controlled by someone who is legally residing in or a citizen of the United States, and the business structure meets the U.S. Small Business Administration's (SBA) size standard for a small business within the appropriate industry category

**Minority Business Enterprise (MBE):** A business structure that is Certified by the Small Business Administration, Texas State Comptroller's Office or the South Central Texas Regional Certification Agency as being 51% owned, operated, and controlled by an ethnic minority group member(s) who is legally residing in or a citizen of the United States. For purposes of the SMWB program, the following are recognized as minority groups:

- a. **African American** – Persons having origins in any of the black racial groups of Africa as well as those identified as Jamaican, Trinidadian or West Indian.
- b. **Hispanic American** – Persons of Mexican, Puerto Rican, Cuban, Spanish or Central or South American origin.
- c. **Asian-Pacific American** – Persons having origins in any of the original peoples of the Far East, Southeast Asia, the Indian subcontinent or the Pacific Islands.
- d. **Asian-Indian American** – Persons whose origins are from India, Pakistan, Bangladesh or Sri Lanka.
- e. **American Indian/Native American** – Persons having no less than 1/16 percentage origin in any of the American Indian Tribes, as recognized by the U.S. Department of the Interior's Bureau of Indian Affairs and as demonstrated by possession of personal tribal role documents.

**Women Business Enterprise (WBE):** A business structure that is Certified by the Small Business Administration, Texas State Comptroller's Office or the South Central Texas Regional Certification Agency as being 51% owned, operated and controlled by a woman or women who are legally residing in or citizens of the United States.

**African American Business Enterprise (AABE):** A business structure that is Certified by the Small Business Administration, Texas State Comptroller's Office or the South Central Texas Regional Certification Agency as being 51% owned, operated and controlled by African American minority group member(s) who are legally residing in or are citizens of the United States.

**Joint Venture:** A limited association of two or more persons to carry out a single business enterprise for profit, for which purpose they combine their property, money, efforts, skills and knowledge.

**Contractor's Payment to Sub-Contractors:**

The contractor will be required to report the actual payments to all subcontractors, utilizing the Sub-contracting Payment and Utilization Reporting (S.P.U.R.) System, in the time intervals and format prescribed by SAWS. This information will be utilized for SMWB participation tracking purposes. Any unjustified failure to comply with the committed SWMB levels may be considered breach of contract.

**Web Submittal of Subcontractor Payment Reports:**

The Contractor is required to electronically submit monthly subcontractor payment information utilizing the Sub-contracting Payment and Utilization Reporting (S.P.U.R.) System, beginning with the first SAWS payment for services under the contract, and with every payment thereafter (for the duration of the contract).

Electronic submittal of monthly subcontractor payment information will be accessed through a link on SAWS' "Business Center" web page.

The Contractor and all subcontractors will be provided a unique log-in credential and password to access the SAWS subcontractor payment reporting system. The link may also be accessed through the following internet address: <https://saws.smwbe.com/>

## **SMWB Reporting Requirements**

The contractor will be required to report the actual payments to all subcontractors, utilizing the Subcontractor Payment and Utilization Reporting (S.P.U.R.) System, in the time intervals and format prescribed by SAWS. This information will be utilized for SMWB participation tracking purposes. Any unjustified failure to comply with the committed SWMB levels may be considered breach of contract.

## **Web Submittal of Subcontractor Payment Reports**

The Contractor is required to electronically submit monthly subcontractor payment information utilizing the Subcontractor Payment and Utilization Reporting (S.P.U.R.) System, beginning with the first SAWS payment for services under the contract, and with every payment thereafter (for the duration of the contract).

Electronic submittal of monthly subcontractor payment information will be accessed through a link on SAWS' "Business Center" web page. The Contractor and all subcontractors will be provided a unique log-in credential and password to access the SAWS subcontractor payment reporting system. The link may also be accessed through the following internet address: <https://saws.smwbe.com/>

Training on the use of the system will be provided by SAWS. After the prime receives payment from SAWS, electronic submittals will require data entry of the amount paid to each subcontractor listed on the Contractor's Good Faith Effort Plan.

Respondents and/or their agents may contact Marisol V. Robles, SMWB Program Manager, at 210-233-3420 for assistance or clarification with issues specifically related to the Small, Minority, and Woman-owned Business (SMWB) Program policy and/or completion of the *Good Faith Effort Plan*, and S.P.U.R. System reporting.

## CONFLICT OF INTEREST QUESTIONNAIRE NOTE:

“Effective January 1, 2006, Chapter 176 of the Texas local Government Code requires that persons, or their agents, who seek to contract for the sale or purchase of property, goods, or services with SAWS shall file a completed conflict of interest questionnaire with the SAWS Manager of Contract Administration no later than the 7<sup>th</sup> business day after the date that the person: (1) begins contract discussions or negotiations with SAWS; or (2) submits to SAWS an application, response to a request for proposals or bids, correspondence, or another writing related to a potential agreement with SAWS. The Conflict of Business questionnaire is attached on the following page and is available from the Texas Ethics Commission at [www.ethics.state.tx.us](http://www.ethics.state.tx.us). Completed Conflict of Interest questionnaires should be included with your bid or may be delivered by hand, within 7 business days of the bid opening, to the Manager of Contract Administration. If mailing a completed Conflict of Interest questionnaire, mail to: David Gonzales, Manager, Contract Administration, 2800 U.S. Hwy 281 North, San Antonio, TX 78212. If delivering a completed Conflict of Interest questionnaire, deliver to Contract Administration, Tower 2, 1<sup>st</sup> Floor, Room 171, 2800 U.S. Hwy 281 North, San Antonio, TX 78212. Please consult your own legal advisor if you have questions regarding the statute or form.”

# CONFLICT OF INTEREST QUESTIONNAIRE

## FORM CIQ

For vendor or other person doing business with local governmental entity

This questionnaire reflects changes made to the law by H.B. 1491, 80th Leg., Regular Session.

This questionnaire is being filed in accordance with Chapter 176, Local Government Code by a person who has a business relationship as defined by Section 176.001(1-a) with a local governmental entity and the person meets requirements under Section 176.006(a).

By law this questionnaire must be filed with the records administrator of the local governmental entity not later than the 7th business day after the date the person becomes aware of facts that require the statement to be filed. See Section 176.006, Local Government Code.

A person commits an offense if the person knowingly violates Section 176.006, Local Government Code. An offense under this section is a Class C misdemeanor.

### OFFICE USE ONLY

Date Received

**1** Name of person who has a business relationship with local governmental entity.

**2**  Check this box if you are filing an update to a previously filed questionnaire.

(The law requires that you file an updated completed questionnaire with the appropriate filing authority not later than the 7th business day after the date the originally filed questionnaire becomes incomplete or inaccurate.)

**3** Name of local government officer with whom filer has employment or business relationship.

\_\_\_\_\_  
Name of Officer

This section (item 3 including subparts A, B, C & D) must be completed for each officer with whom the filer has an employment or other business relationship as defined by Section 176.001(1-a), Local Government Code. Attach additional pages to this Form CIQ as necessary.

A. Is the local government officer named in this section receiving or likely to receive taxable income, other than investment income, from the filer of the questionnaire?

Yes       No

B. Is the filer of the questionnaire receiving or likely to receive taxable income, other than investment income, from or at the direction of the local government officer named in this section AND the taxable income is not received from the local governmental entity?

Yes       No

C. Is the filer of this questionnaire employed by a corporation or other business entity with respect to which the local government officer serves as an officer or director, or holds an ownership of 10 percent or more?

Yes       No

D. Describe each employment or business relationship with the local government officer named in this section.

**4**

\_\_\_\_\_  
Signature of person doing business with the governmental entity

\_\_\_\_\_  
Date

## SUPPLEMENTARY CONDITIONS

SCOPE. The Supplementary Conditions amend the General Conditions and the other provisions of the Contract Documents as indicated herein. All provisions which are not so amended or supplemented remain in full force and effect.

### INSTRUCTION TO BIDDERS

Page IB 7: Add the following sentence as subparagraph (f) to the end of paragraph 23: “Reservation of Rights: SAWS reserves its right to ask for additional projects or clarification of information submitted to complete the review of or establish a bidder’s record of performance.”

Article I. CONTRACT DEFINITIONS. Add the following to the first statement.

“The word or words in all caps or first letter capitalized shall have the same intent and meaning.”

Add the following definitions to Article I of the General Conditions:

“54. Agents – Agents shall include any consultant, or professional hired by OWNER to represent them in any way regarding this Construction Contract.”

### Article II. LEGAL REQUIREMENTS AND RESPONSIBILITIES

2.3 INDEMNIFICATION – Add CH2M HILL to list of indemnification by Contractor.

### Article IV. CONTRACT ADMINISTRATION

4.11 Protection of Private Property. After sub-paragraph .2 add the following new paragraph:

“.3 No trees shall be removed outside the permanent easement, except where authorized by the Owner. Whenever practicable, Contractor shall tunnel beneath trees in yards and park when on or near the line of trench, hand excavation shall be employed as necessary to prevent injury to trees. Trees left standing shall be adequately protected against damage from construction operations.”

“.4 Access gates: The Contractor shall maintain the status of all internal and external gates at all times during the project. The Contractor shall be subject to financial penalty of \$1,000 per occurrence for violations of this condition.”

Article V. CONTRACT RESPONSIBILITIES.

5.2.1 a. Delete entire sentence.

5.2.3 Materials Testing. Delete Article 5.2.3 and sub-paragraphs in its entirety. Materials testing is defined in Specification Section 01451, Quality Control. All materials testing shall be considered incidental to the Contract, and shall be provided by and paid for by the Contractor.

Add the following sub-paragraph:

“5.3.6 Staking. The Contractor will be responsible for all necessary staking.”

“5.3.7 Permits. Unless otherwise provided, Contractor shall obtain and pay for all construction permits, inspections, and licenses from Bid Item 100 “Mobilization and Demobilization.” 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. Contractor shall pay all charges of utility owner’s for connections to the Work.”

5.4 Amend Section 5.4 by striking the first two sentences and replacing with the following:

“The Contractor shall keep on site pursuant to this Project during its progress a competent full time Superintendent who is a direct employee of the prime contractor and any necessary assistants, all satisfactory to the Owner. The appointment of a designee in lieu of a full time superintendent shall not be allowed as part of this provision, therefore any reference to “designee” shall not be applicable.”

5.7 Contractor’s Insurance Requirements.

5.7.1.5 Replace the first sentence as follows:

“An Umbrella Liability (UL) insurance in the amount of \$10,000,000.00.”

Add the following insurance requirements:

“5.7.1.9 Professional Liability Insurance: This insurance shall be required only in cases where the Contract Documents specifically require that Contractor provide for design services to be performed by a professional engineer with appropriate expertise in accordance with applicable laws and regulations, licensed or registered in the State of Texas, and that the Shop Drawings or other evidence of design bear the seal and signature of that professional engineer. This insurance shall provide protection against claims by a negligent error, omission, or act for

which the insured party is legally liable; such professional liability insurance shall provide coverage in the amount of \$3,000,000 which shall be maintained throughout the duration of the Project and for one year after Substantial Completion.

In the event that the professional design services are performed by an independent consultant or Subcontractor engaged by Contractor, this insurance shall be furnished and maintained by the independent consultant or Subcontractor. In the event that the professional design services are performed by a member of Contractor's organization, this insurance shall be furnished and maintained by Contractor.

A certificate of insurance for such professional liability insurance coverage, including the amount, duration, and name of the insured party, shall be delivered to Owner and Consultant."

Add the following at the end of the section.

"5.7.8. With respect to all insurance, Contractor shall include as additional insured and waive all rights and insurer shall waive all rights of subrogation against CH2M HILL and their respective officers, directors, partners, employees, subconsultants and agents."

- 5.9. Delete paragraph 5.9.4 in its entirety and replace as follows:  
 "The Contractor shall be responsible for disposing of all non-hazardous material as the term is defined in Article I herein including old concrete or any other non-hazardous material which is required to be removed from the project in accordance with local, state and federal regulations. All completed bills of lading, manifests or other shipping documents for this material will be provided to SAWS at no additional cost to the Owner. Such material shall not be deposited in any sanitary sewer, creek, river, water course or municipal separate, storm sewer system, (MS4) as the term is defined herein."

Delete paragraph 5.9.5 in its entirety and replace as follows:  
 "Contractor will advise SAWS of final disposition of hazardous wastes prior to hazardous waste disposal, and provide documentation at that time which shows transporters and disposal facilities are permitted for their respective activities. All completed hazardous waste manifests will be provided to SAWS with no additional cost to the Owner."



5.10 Amend Section 5.10 by replacing the last two sentences as follows:  
 “Testing, inspection and certifications specified in the Technical Sections of these Contract Documents shall be paid by the Contractor and shall be by agencies agreeable to SAWS. This provision shall take precedence even if indicated otherwise in other sections of the Contract Documents. Should the material or Work fail to comply with the requirements of the Contract Documents, the Contractor shall bear all costs of the special testing, inspection, or approval as well as the cost of replacement of any unsatisfactory material or Work as provided by Paragraph 5.11.”

5.12 Delete Section 5.12 in its entirety and replace with the following:

“5.12. EQUAL MATERIALS. The manufacturers and suppliers of materials specifically listed in the Contract Documents shall be provided without exception. After the Contract has been executed, the CONTRACTOR may submit an “or equal” material to OWNER for review. The OWNER reserves the rights to reject all submitted or equal materials.”

5.13 SHOP DRAWINGS AND SAMPLES. Delete Article 5.13 in its entirety and replace with the following:

“5.13. Shop Drawings and Samples. Requirements for shop drawings, samples, and submittal procedures shall be as specified in Section 01330, Submittals. Fabrication that proceeds prior to acceptance of submittals by Consultant shall be at Contractor’s risk.”

5.16 Construction Stakes. Delete this section in its entirety. Project controls shall be provided as detailed in specification Section 01720, Field Engineering. All construction staking shall be provided by the Contractor.

5.17 Add the following subparagraph:

“All existing underground utilities shown on the Plans are approximate, based on available information. It shall be the Contractor’s responsibility to determine the exact location and elevation of existing utilities prior to construction and notify SAWS Inspector and the Engineer of any conflicts with proposed work. Contractor shall use utility location methods such as vacuum potholing, that minimize the disturbance and possibility of damage to SAWS facilities.

The Contractor is responsible for maintaining, supporting, and protecting the integrity of underground utilities and power poles during construction. It shall be the Contractor’s responsibility to excavate over, under and around such utility, and if necessary, provide a temporary building during construction so as to maintain continuous service while constructing the

proposed SAWS facilities. It will be the Contractor's responsibility to backfill around the utility facility and to complete construction in a manner such as to leave the utility facility securely bedded in its original position. All this Work will be at no additional cost to the SAWS.

Where overhead power lines are in close proximity to the proposed work, the Contractor shall be in accordance with the requirements established by Chapter 752, Texas Health and Safety Code."

5.24 USE OF EXPLOSIVES. Delete this section in its entirety and replace with the following paragraph:

"5.24. USE OF EXPLOSIVES. The use of explosives of any kind for this project is strictly prohibited."

#### Article VI. CONTRACT CHANGES

6.2.1 a) Add the following sentence to the end of this paragraph: "No bid items for this project will be considered Major Bid Items."

#### Article VII. CONTRACT PAYMENTS

7.2 Add the following paragraph at the end of Section 7.2:

"Payment for delivered or stored items will be allowed for major equipment and materials. No partial payments will be made for materials and equipment delivered or stored unless Shop Drawings or preliminary operation and maintenance manuals are acceptable to the Owner. Only approved materials stored on the job site will be eligible for partial payments. All partial payments shall be approved by the Owner. Materials that will not be paid for separately include, but are not limited to, bulk quantities such as nails, fasteners, conduits, conductors, concrete steel reinforcement, formwork, sand and gravel.

The Contractor's request for payments for materials stored on the job site shall include copies of paid invoices provided by approved supply sources in accordance with the General Conditions of the Contract. Payment for materials stored on the job site shall be based upon costs listed in the supplier's paid invoices and shall be in accordance with the General Conditions of the Contract.

A maximum payment of 85 percent will be allowed for stored items, the remaining 15 percent will be paid upon delivery of the approved O&M manuals. Equipment and materials shall not be installed or put into place before O&M manuals have been received.

Payment for installed equipment shall not be more than 85 percent of the installed cost until the training materials have been submitted and training has been completed to the satisfaction of Owner.”

Article VIII. CONTRACT COMPLETION TIME

8.3 Add the following at the end of Section 8.3:

“.3 WEATHER DELAY CLAUSE - SAWS includes weather delay days when determining the total number of days allowed for each contract. Any additional days beyond those specified in 8.3 must be formally requested in writing with the next monthly payment invoice and justified by the contractor with daily logs or NO ADDITIONAL DAYS WILL BE GRANTED.

.1 Pursuant to the Contract, Contractor may be granted an extension of time because of unusual inclement weather, including but not limited to unusual rainfall events, which are beyond the Normal Rainfall recorded and expected for the project area. However, the Contractor will not be granted an extension of time for “Normal Rainfall”, as described in 8.3.

.2 "Unusual Inclement Weather" is defined as a rain event or other weather related event which occurs at the site and is of sufficient magnitude, as determined by the COI, to prevent Contractor from performing work critical to maintaining the Progress Schedule. If rain is the basis for the Unusual Inclement Weather event it must at a minimum exceed the Normal Rainfall as defined herein.

.3 Baseline Rain Day Determination. “Normal Rainfall”, based on the National Oceanic and Atmospheric Administration (NOAA) or similar data for the project area, is considered a part of the Calendar Day Contract, and is not a justification for an extension of time. Listed below are the number of days in each month for which no compensatory days for rainfall events (“Rain Days”) in such months may be claimed:

January.....	2 days
February.....	3 days
March.....	4 days
April.....	3 days
May.....	4 days
June.....	6 days
July.....	3 days

August..... 4 days  
 September..... 5 days  
 October..... 5 days  
 November..... 5 days  
 December..... 3 days

“Rain Days” in addition to the baseline “Rain Day” determination described above will be measured with the Owner’s Representative’s approval at the San Antonio Airport or the jobsite.

- .4 Contractor may receive credit in any month for Unusual Inclement Weather, and specifically for any Rain Days in that month which exceed the number of Rain Days allocated to that month, if a Claim is made in accordance with paragraph 8.3 and the weather event meets the definition for "Unusual Inclement Weather", and as applicable, “Rain Day” and such claimed day is a day on which Work critical to maintaining the Progress Schedule is scheduled to be performed and is otherwise capable of being performed.”

8.6 Add the following sentence to the first paragraph of Section 8.6:

“For purposes of assessing liquidated damages, the amount of the contract noted on the table below is defined as the original contract sum awarded.”

8.6 Delete schedule “Amount of Liquidated Damage” and replace as follows:

- |   |  |
|---|--|
| <ul style="list-style-type: none"> <li>1. Completion of all work at Well WG-10 and completion and acceptance of the pipelines from WG-10 to the tie-in point of the 36” Supply Pipeline, to allow testing water to be provided to the 36” Supply Pipeline from Well WG-10, Substantial Completion after June 30, 2013.</li> <li>2. Substantial Completion for all other Work less than 60 days past the contract performance period.</li> <li>3. Substantial Completion 60 days or more and less than 120 days past the contract performance period; Final Completion less than 120 days past the contract performance period.</li> </ul> | <p>\$600.00/day; additive to other liquidated damages.</p> <p>\$600.00/day; additive to other liquidated damages.</p> <p>\$1,500.00/day; additive to other liquidated damages.</p> |
|---|--|

- 4. Substantial Completion 120 days or more past the contract performance period; \$3,500.00/day;  
Final Completion 120 days or more past the contract performance period. additive to other liquidated damages.

Article IX. PROJECT COMPLETION AND ACCEPTANCE

9.2 PARTIAL ACCEPTANCE. Add the following paragraph:

“9.2.3 Substantial Completion.

- 1. Substantial Completion of the Project will be considered only after the Work has been inspected, tested, placed into operation, and made ready for the Owner’s continuous use as intended.
- 2. To be considered substantially complete, the following portions of the Work must be operational and ready for Owner's continuous use as intended:

Successful System Testing

All wellfield collection piping, well site facilities, wellfield access roads, tie-ins, and all other components of the project

- 3. Portions of the Work not essential which can be completed without interruption of Owner’s operation, may be completed after the Work is accepted as substantially complete, and may include the following items:

- (1) Minor Clean Up Work
- (2) Final Grading
- (3) Landscaping

Contract time will continue to be charged against the Contractor until the Owner approves Final Acceptance of the Project.”

**END OF SECTION**

**SECTION 01270**  
**MEASUREMENT AND PAYMENT**

**PART 1 GENERAL**

1.01 DESCRIPTION OF WORK

- A. This section defines the method, which will be used to determine the quantities of work performed, or materials supplied, and establishes the basis upon which payment will be made. Descriptions included in items are provided as a general indication of work required on bid items and shown on the drawings. It shall be understood that the Contractor is required to complete the installation of this project in accordance with contract documents, whether or not such work is listed herein.

1.02 SUBMITTALS

- A. Informational Submittals:
1. Schedule of Values.
  2. Schedule of Estimated Progress Payments:
    - a. Submit with initially acceptable Schedule of Values.
    - b. Submit adjustments thereto with Application for Payment.
  3. Application for Payment.
  4. Final Application for Payment.

1.03 SCHEDULE OF VALUES

- A. Within 10 calendar days following the Notice to Proceed, the Contractor shall submit to the Owner, in triplicate, a tentative Schedule of Values (a detailed breakdown of the bid) including a breakdown of each lump sum bid item, which in turn shall be used to verify partial payment estimates and which may be used to verify cost of credits and change orders.
1. Upon request, Contractor shall support values given with data that will substantiate the amounts.
  2. No payment will be made until Schedule of Values has been accepted by the Owner.
  3. Each partial payment request by the Contractor shall include the accepted Schedule of Values, modified to indicate the total quantity and price of work completed to the date of the request.
  4. The accepted Schedule of Values will also be used as a guide in determining the value of work involved in Change Orders.

5. It is the Owner's intent that the accepted Schedule of Values can also be used as a fair and expedient method of deleting items from the Work, should the Owner so desire. Therefore, it is the Contractor's responsibility to make the schedule as detailed and the line items and their corresponding values as equitably determined and presented as possible.
- B. Prepare a separate Schedule of Values for each schedule of the Work under the Agreement.
  - C. Upon request of Owner, provide documentation to support the accuracy of the Schedule of Values.
  - D. Unit Price Work: Reflect unit price quantity and price breakdown from conformed Bid Form.
  - E. Lump Sum Work:
    1. Reflect Schedule of Values format included in conformed Bid Form, specified allowances, alternates, and equipment selected by Owner, as applicable.
    2. List bonds and insurance premiums, mobilization, demobilization, preliminary and detailed progress schedule preparation, facility startup, and contract closeout separately.
    3. Break down by Division 2 through 16 for each Project facility and item.
  - F. An unbalanced or front-end loaded schedule will not be acceptable.
  - G. Summation of the complete Schedule of Values representing all the Work shall equal the Contract Price.
  - H. Submit quantities of designated materials. List quantities of materials specified under unit price allowances.
  - I. Payment of materials stored on-site and/or off-site will be limited to those materials listed in a schedule of unit material values and based on supplier's invoices to Contractor.
  - J. Preparing Schedule of Values:
    1. Such items as Bond premiums, temporary facilities and controls, and equipment storage should be listed separately in the Schedule of Values, provided the costs can be substantiated. Overhead and profit shall not be listed as separate items.
    2. Subdivide costs of products to be installed under the lump sum items into separate line items under each section listing.
      - a. Continue the breakdown for the various sections, providing details as required by the Owner.

- b. Provide adequate detail to allow easy determination of the percentage of work completed for each item.
- c. Separate product costs and installation costs.
  - 1) Product costs include cost for product, delivery and unloading costs, royalties and patent fees, taxes, and other costs paid directly to the supplier or vendor.
  - 2) Installation costs include cost for the supervision, labor, and equipment for field fabrication, erection, installation, startup, initial operation, and Contractor's overhead and profit.
- 3. "Lump sum," "miscellaneous," and other such general entries in the schedule shall be avoided whenever possible.
- 4. Break down costs to list major products or operations for each line item which has an installed value of more than \$5,000.00.
- 5. Round off figures to nearest hundred dollars.
- 6. Make sum of total costs for all items listed in the Schedule of Values equal the Contract Price. No additional payment will be allowed if the quantities shown on the Schedule of Values are less than those actually required to accomplish the Work, unless the quantities are altered by a change order.
- 7. Breakdown of items may not be altered without the written approval of the Owner.

K. Preparing Schedule of Unit Material Values:

- 1. Submit separate schedule of unit prices for materials to be stored on which partial payments will be made.
- 2. Make a submittal form parallel to the Schedule of Values, with line items identified the same as line items in the Schedule of Values.
- 3. Include in unit prices only:
  - a. Cost of material.
  - b. Delivery and unloading at Site.
  - c. Other costs paid directly to the supplier or vendor.
  - d. Ensure that the unit prices multiplied by the quantity given equals the material cost of that item in the Schedule of Values.

L. Review and Resubmittal:

- 1. After review by the Owner, revise and resubmit the Schedule of Values or material values, if required, until Schedule of Values is accepted by the Owner.
  - a. The tentative Schedule of Values will be reviewed by the Owner to determine whether, in his judgment, it is sufficiently detailed for the purpose intended. The Owner will also evaluate the schedule to determine whether, in his judgment, the prices included are "unbalanced" or "front-end loaded", in an effort to



inflate the prices of those items of Work to be completed in the early stages of the Work.

- b. The Owner shall provide the Contractor with his comments and may request additional information from the Contractor to justify certain item quantities and prices. On the basis of the Owner's comments, the Contractor shall revise and resubmit the tentative Schedule of Values for further review and acceptance. Resubmit revised schedules in the same manner as the original schedules.
- c. Once the tentative Schedule of Values is accepted by the Owner, it shall become the Schedule of Values to be used in determining partial payment estimates, and may be used to verify costs of credits and change orders.
- d. Initial Application for Payment and subsequent Applications for Payment will not be processed until Schedule of Values and Construction Critical Path Method (CPM) Schedule are accepted by Owner.

#### 1.04 SCHEDULE OF ESTIMATED PROGRESS PAYMENTS

- A. Show estimated payment requests throughout Contract Times aggregating initial Contract Price.
- B. Base estimated progress payments on initially acceptable progress schedule. Adjust to reflect subsequent adjustments in progress schedule and Contract Price as reflected by modifications to the Contract Documents.

#### 1.05 MEASUREMENT – GENERAL

- A. Weighing, measuring, and metering devices used to measure quantity of materials for Work shall be suitable for purpose intended and conform to tolerances and specifications as specified in National Institute of Standards and Technology, Handbook 44.
- B. Whenever pay quantities of material are determined by weight, material shall be weighed on scales furnished by Contractor and certified accurate by state agency responsible. Weight or load slip shall be obtained from weigher and delivered to Owner's representative at point of delivery of material.
- C. If material is shipped by rail, car weights will be accepted provided that actual weight of material only will be paid for and not minimum car weight used for assessing freight tariff, and provided further that car weights will not be acceptable for material to be passed through mixing plants.
- D. Vehicles used to haul material being paid for by weight shall be weighed empty daily and at such additional times as required by Owner. Each vehicle shall bear a plainly legible identification mark.

- E. Materials that are specified for measurement by the cubic yard measured in the vehicle shall be hauled in vehicles of such type and size that actual contents may be readily and accurately determined. Unless all vehicles are of uniform capacity, each vehicle must bear a plainly legible identification mark indicating its water level capacity. Vehicles shall be loaded to at least their water level capacity. Loads hauled in vehicles not meeting above requirements or loads of a quantity less than the capacity of the vehicle, measured after being leveled off as above provided, will be subject to rejection, and no compensation will be allowed for such material.
- F. Quantities will be based on ground profiles shown.
- G. Where measurement of quantities depends on elevations of existing ground, elevations obtained during construction will be compared with those shown on Drawings. Variations of one foot or less will be ignored, and profiles shown on Drawings will be used for determining quantities.
- H. Units of measure shown on Bid Proposal shall be as follows, unless specified otherwise.

<b><u>Item</u></b>	<b><u>Method of Measurement</u></b>
AC	Acre – Field Measure
CY	Cubic Yard – Field Measure within limits specified or shown
CY-VM	Cubic Yard – Measured in Vehicle by Volume
EA	Each – Field Count
GAL	Gallon – Field Measure
HR	Hour
LB	Pound(s) – Weight Measure by Scale
LF	Linear Foot – Field Measure
LS	Lump Sum – Unit is one; no measurement will be made
SF	Square Foot
SY	Square Yard
TON	Ton – Weight Measure by Scale (2,000 pounds)

## 1.06 ESTIMATED QUANTITIES

- A. The quantities shown are approximate and are given only as a basis of calculation upon which the award of the Contract is to be made. The Owner/Engineer does not assume any responsibility for the final quantities, nor shall the Contractor claim misunderstanding because of such estimate of quantities. Final payment will be made only for satisfactorily completed quantity of each item.

## 1.07 WORK OUTSIDE AUTHORIZED LIMITS

- A. No payment will be made for work constructed outside the authorized limits of work.

## 1.08 MEASUREMENT STANDARDS

- A. Unless otherwise specified for the particular items involved, all measurements of distance shall be taken horizontally or vertically.

## 1.09 AREA MEASUREMENTS

- A. In the measurement of items to be paid for on the basis of area of finished work, the lengths and/or widths to be used in the calculations shall be the final dimensions measured along the surface of the completed work within the neat lines shown or designated.

## 1.10 LUMP SUM ITEMS

- A. Where payment for items is shown to be paid for on a lump sum basis, no separate payment will be made for any item of work required to complete the lump sum items. Lump sum contracts shall be complete, tested and fully operable prior to request for final payment.

## 1.11 UNIT PRICE ITEM

- A. Separate payment will be made for the items of work described herein and listed on the Bid Form. Any related work not specifically listed, but required for satisfactory completion of the work shall be considered to be included in the scope of the appropriate listed work items.
- B. No separate payment will be made for the following items and the cost of such work shall be included in the applicable pay items of work. Final payments shall not be requested by the Contractor or made by the Owner until as-built (record) drawings have been submitted and approved by the Owner.
1. Shop Drawings, working drawings.
  2. Clearing, grubbing, and grading, except as hereinafter specified.
  3. Replacement of unpaved roadways, and shrubbery plots.

4. Cleanup and miscellaneous work.
5. As-built record drawings.

#### 1.12 PAYMENT

##### A. General:

1. Progress payments will be made monthly.
2. The date for Contractor's submission of monthly Application for Payment shall be established at the Preconstruction Conference.

##### B. Payment for all the Work shown or specified in the Contract Documents is included in the Contract Price.

#### 1.13 NONPAYMENT FOR REJECTED OR UNUSED PRODUCTS

##### A. Payment will not be made for the following:

1. Loading, hauling, and disposing of rejected material.
2. Quantities of material wasted or disposed of in a manner not called for under the Contract Documents.
3. Rejected loads of material, including material rejected after it has been placed by reason of failure of the Contractor to conform to provisions of the Contract Documents.
4. Material not unloaded from transporting vehicle.
5. Defective work not accepted by Owner.
6. Material remaining on hand after completion of Work.

#### 1.14 PARTIAL PAYMENT FOR STORED MATERIALS AND EQUIPMENT

##### A. Partial Payment: No partial payments will be made for materials and equipment delivered or stored unless Shop Drawings or preliminary operation and maintenance manuals are acceptable to Owner.

##### B. Final Payment: Will be made only for products incorporated in the Work; remaining products, for which partial payments have been made, shall revert to the Contractor unless otherwise agreed, and partial payments made for those items will be deducted from the final payment.

## 1.15 MEASUREMENT AND PAYMENT

### A. Well Site, Wellfield, and Roadway Construction:

1. Item No. 1 – Furnish and Install Pump and Appurtenances, including Cables, Discharge Heads, etc. (excluding Motors):
  - a. Description: The Contractor shall provide all labor, supervision, tools, equipment, and materials necessary to install the Pump and Appurtenances, including Cables, Discharge Heads, etc. (excluding Motors). This item includes all work associated with installing the pump and appurtenances. The work includes providing all materials, labor, supervision, equipment, tools, and all other incidentals necessary to complete the work in place, and restore the site to its original condition.
  - b. Measurement: Measurement of the item “Furnish and Install Pump and Appurtenances, including Cables, Discharge Heads, etc. (excluding Motors)” will be based on the number of pumps installed, tested, and accepted, all in accordance with the Contract Documents.
  - c. Payment: Payment for installing the pump shall be at the unit price per each pump indicated in the Bid Proposal, which price shall constitute full compensation for the completed work all in accordance with the Contract Documents. This includes, but is not limited to, all materials, tools, labor, equipment, supplies, permits, removal and disposal of waste or excess materials, etc., necessary to have the pump installed, tested, and accepted, and ready for use as its intended purpose.
2. Item No. 2 – Construct Sealed Wellhead and Install Artesian Well Components:
  - a. Description: The Contractor shall provide all labor, supervision, tools, equipment, and materials necessary to construct Sealed Wellhead and install Artesian Well Components as shown on Drawings. This item includes all work associated with constructing the sealed wellheads. This item does not include costs for standard nonsealed wellhead construction included elsewhere.
  - b. Measurement: Measurement of the item “Construct Sealed Wellhead and Install Artesian Well Components” will be based on the number of artesian wells as shown in Drawings.
  - c. Payment: Payment for this item is for each sealed wellhead installed by the Contractor.

3. Item No. 3 – Furnish and Install Pump Motor:
  - a. Description: The Contractor shall provide all labor, supervision, tools, equipment, and materials necessary to install the motor for pump. This item includes all work associated with installing the motor. The work includes providing all materials, labor, supervision, equipment, tools, and all other incidentals necessary to complete the work in place and restore the Site to its original condition.
  - b. Measurement: Measurement of the item “Furnish and Install Pump Motor” will be based on the number of motors installed, tested and accepted, all in accordance with the Contract Documents.
  - c. Payment: Payment for installing the motor shall be at the unit price per each motor indicated in the Bid Proposal, which price shall constitute full compensation for the completed Work all in accordance with the Contract Documents. This includes, but is not limited to, all materials, tools, labor, equipment, supplies, permits, removal and disposal of waste or excess materials, etc., necessary to have the motor installed, tested, and accepted, and ready for use as its intended purpose.
4. Item No. 4 – Furnish and Install 8-Inch Diameter Pump Column:
  - a. Description: This item includes all work associated with furnishing and installing 8-inch diameter pump column, shafts, bearings and other components. The work including providing all materials, labor, supervision, equipment, tools, and all other incidentals necessary to complete the work in place and restore the Site to its original condition.
  - b. Measurement: Measurement of the item “Furnish and Install 8-inch Diameter Pump Column” will be based on the number of linear feet of pump column installed, tested, and accepted, all in accordance with the Contract Documents.
  - c. Payment: Payment for furnishing and installing 8-inch diameter pump column shall be at the unit price per linear foot indicated in the Bid Proposal, which price shall constitute full compensation for the completed work all in accordance with the Contract Documents. This includes, but is not limited to, all material, tools, labor, equipment, supplies, permits, removal and disposal of waste or excess materials, etc., necessary to have the 8-inch diameter pump column installed, tested, accepted, and ready for use as its intended purpose.
5. Item No. 5 – Construct Bebe Well Site:
  - a. Description: The Contractor shall provide all labor, supervision, tools, equipment, and materials necessary to construct the Bebe well site. This item includes all work associated with removal of existing well equipment, delivery to the Owner or disposal of existing well equipment as determined by the Owner, locating all

- existing utilities, protecting existing facilities, coordinating with the Gonzales County Water Supply Corporation, removal and disposal of existing vegetation, site excavation, and embankment as required for site grading, compaction of subgrade, overexcavation and replacement with imported material, riprap, erosion control mat, grading of surrounding perimeter areas outside of fencing to provide required drainage, chain link fencing with barbed wire, gates, weed barrier, energy dissipater structure, gravel, flexible base, geogrid, paving surface treatment, driveway and culvert, bollards, concrete pads, piping, fittings, valves, electrical, instrumentation, transformer pad, antenna tower, and all appurtenances, coordinating with power utility and paying associated fees to obtain permanent power, providing any required temporary power, providing any required temporary water to the Gonzales County Water Supply Corporation including obtaining approval from TCEQ for providing water, coordinating with other Contractors, Owner, and Consultant, and obtaining all approvals and permits. Includes provision of all materials, labor, supervision, equipment, tools, and all other incidentals necessary to complete the work in-place and restore the site to its original condition.
- b. Measurement: Measurement of the item “Construct Bebe Well Site” will be based on the completion of the site constructed in accordance with the Contract Documents.
  - c. Payment: Payment for installing the well site shall be lump sum as indicated in the Bid Proposal, which price shall constitute full compensation for the completed work, all in accordance with the Contract Documents. This includes, but is not limited to, all materials, tools, labor, equipment, supplies, permits, removal and disposal of waste or excess materials, etc., necessary to have the well site ready for use as its intended purpose.
6. Item No. 6 – Construct WG Production Well Sites other than WG-10:
- a. Description: The Contractor shall provide all labor, supervision, tools, equipment, and materials necessary to construct the production well sites other than WG-10. This item includes all work associated with removal and disposal of existing vegetation, site excavation, and embankment as required for site grading, compaction of subgrade, overexcavation and replacement with imported material, riprap, erosion control mat, grading of surrounding perimeter areas outside of fencing to provide required drainage, chain link fencing with barbed wire, gates, weed barrier, energy dissipater structure, gravel, flexible base, geogrid, paving surface treatment, well site driveway, bollards, concrete pads, piping, fittings, valves, electrical, instrumentation, transformer pad, antenna tower, and all appurtenances, coordinating with power utility and paying associated fees to obtain permanent

- power, and providing any required temporary power, coordinating with other Contractors, Owner, and Consultant, and obtaining all approvals and permits. Includes provision of all materials, labor, supervision, equipment, tools, and all other incidentals necessary to complete the work in place and restore the site to its original condition.
- b. Measurement: Measurement of the item “Construct WG Production Well Sites other than WG-10” will be based on the completion of each site constructed in accordance with the Contract Documents.
  - c. Payment: Payment for installing the well site shall be at the unit price per each well site indicated in the Bid Proposal, which price shall constitute full compensation for the completed work, all in accordance with the Contract Documents. This includes, but is not limited to, all materials, tools, labor, equipment, supplies, permits, removal and disposal of waste or excess materials, etc., necessary to have the well sites ready for use as its intended purpose.
7. Item No. 7 – Construct WG-10 Production Well Site and Wellfield Antenna Site:
- a. Description: The Contractor shall provide all labor, supervision, tools, equipment, and materials necessary to construct the WG-10 Production Well Site and Wellfield Antenna Site. This item includes all work associated with removal and disposal of existing vegetation, site excavation, and embankment as required for site grading, compaction of subgrade, overexcavation and replacement with imported material, riprap, erosion control mat, grading of surrounding perimeter areas outside of fencing to provide required drainage, chain link fencing with barbed wire, gates, weed barrier, energy dissipater structure, gravel, flexible base, geogrid, paving surface treatment, driveways, bollards, concrete pads, piping, fittings, valves, electrical, instrumentation, electrical building, and all appurtenances, coordinating with power utility and paying associated fees to obtain permanent power, and providing any required temporary power, coordinating with other Contractors, Owner, and Consultant, and obtaining all approvals and permits. Includes provision of all materials, labor, supervision, equipment, tools, and all other incidentals necessary to complete the work in place and restore the site to its original condition. The marshalling panel will be provided under a separate bid item. This item does not include the 120-foot antenna tower which is to be provided by others; however, Contractor shall provide coordination for installation of the 120-foot antenna tower and for all other equipment provided by others.
  - b. Measurement: Measurement of the item “Construct WG-10 Production Well Site and Wellfield Antenna Site” will be based



- on the completion of each site constructed in accordance with the Contract Documents.
- c. Payment: Payment for “Construct WG-10 Production Well Site and Wellfield Antenna Site” shall be lump sum as indicated in the Bid Proposal, which price shall constitute full compensation for the completed work, all in accordance with the Contract Documents. This includes, but is not limited to, all materials, tools, labor, equipment, supplies, permits, removal and disposal of waste or excess materials, etc., necessary to have the well site ready for use as its intended purpose.
8. Item No. 8 – Marshalling Panel at WG-10:
    - a. Description: Description: The Marshalling Panel shall be provided by Hierholzer Engineering (HEI), (830)372-4808, P.O. Box 300, Seguin, TX 78156-0300. The Owner (SAWS) will pay for the cost of the panel through the SSLGC WTP Expansion project. The Contractor shall provide all required coordination with HEI for installation, testing, and acceptance of this panel. The Contractor shall prepare all submittals, operation and maintenance manuals, and warranties. The Contractor shall coordinate all required testing. The Contractor shall inspect and approve the panel installation. The Contractor shall also furnish any items not provided by HEI to provide a complete and operable system. The Contractor shall provide all labor, supervision, tools, equipment, and materials necessary for installation of the Marshalling Panel at Well WG-10. This item includes all associated electrical and instrumentation and control, testing, and all appurtenances, including provision of all materials, labor, supervision, equipment, tools, and all other incidentals necessary to complete the work in place and restore the site to its original condition. This item does not include other improvements at WG-10 Production Well Site and Wellfield Antenna Site, which are included in Item 7.
    - b. Measurement: Measurement of the item “Marshalling Panel at WG-10” will be based on the completion of the panel in accordance with the Contract Documents.
    - c. Payment: Payment for “Marshalling Panel at WG-10” shall be lump sum as indicated in the Bid Proposal, which price shall constitute full compensation for the completed work, all in accordance with the Contract Documents. This includes, but is not limited to, all materials, tools, labor, equipment, supplies, permits, removal and disposal of waste or excess materials, etc., necessary to have the marshalling panel ready for use as its intended purpose.
  9. Item No. 9 – SSLGC WTP Flow Metering Station:
    - a. Description: The Contractor shall provide all labor, supervision, tools, equipment, and materials necessary to construct the SSLGC WTP Flow Metering Station. This item includes all work

associated with removal and disposal of existing vegetation, site excavation, and embankment as required for site grading, compaction of subgrade, overexcavation and replacement with imported material, riprap, erosion control mat, grading of surrounding perimeter areas outside of fencing to provide required drainage, chain link fencing with barbed wire, gates, weed barrier, gravel, flexible base, geogrid, paving surface treatment, driveways, bollards, concrete pads, piping, fittings, valves, flow meters, and all appurtenances, including provision of all materials, labor, supervision, equipment, tools, and all other incidentals necessary to complete the work in place and restore the site to its original condition. This item does not include associated electrical, instrumentation, and SCADA for the flow meters at the SSLGC WTP Flow Metering Station, which shall be provided by others. The Contractor shall coordinate with SSLGC and the SSLGC WTP contractor for this installation, and obtain all approvals and permits.

- b. Measurement: Measurement of the item “SSLGC WTP Flow Metering Station” will be based on the completion of the site constructed in accordance with the Contract Documents.

- c. Payment: Payment for “SSLGC WTP Flow Metering Station” shall be lump sum as indicated in the Bid Proposal, which price shall constitute full compensation for the completed work, all in accordance with the Contract Documents. This includes, but is not limited to, all materials, tools, labor, equipment, supplies, permits, removal and disposal of waste or excess materials, etc., necessary to have the site ready for use as its intended purpose.
10. Item No. 10 – Existing Monitoring Well Sites Improvements:
- a. Description: The Contractor shall provide and install the following monitoring well level monitoring and data logging devices: 11 each In-Situ Inc., Level Troll 700 level transducers equipped for gauge pressure range of 100 PSI; 11 each In-Situ Inc., suspension cable with a length of 250 feet each; 11 each In-Situ Inc., RuggedCable systems with a length of 250 feet each; 11 each In-Situ Inc., TROLL-Battery Pack with 10-year battery life; 1 each In-Situ Inc., Win-Situ- Mobile Software; 1 each In-Situ Inc., RuggedReader Handheld PC with Lithium-ion Rechargeable battery and charger; 1 each In-Situ Inc., Win-Situ-5 Software; 1 each In-Situ Inc., TROLL-Com Communication Interface. This includes all labor, supervision, tools, equipment, and materials necessary to replace the transducers in the existing monitoring well sites. This item also includes all labor for cleanup of each site and placement of flexible base material to a 10-inch compacted thickness, in accordance with the specifications and the typical roadway section, including geogrid and compacted subgrade. Four of the sites have an area of 20’ x 20’, and two sites have an area of 110’ x 110’.
- b. Measurement: Measurement of the item “Existing Monitoring Well Sites Improvements” will be based on the completion of each site constructed in accordance with the Contract Documents.
- c. Payment: Payment for “Existing Monitoring Well Sites Improvements” shall be at the lump sum as indicated in the Bid Proposal, which price shall constitute full compensation for the completed work, all in accordance with the Contract Documents. This includes, but is not limited to, all materials, tools, labor, equipment, supplies, permits, removal and disposal of waste or excess materials, etc., necessary to have the monitoring well sites ready for use as its intended purpose.
11. Item No. 11 - Testing, Startup, and Commissioning:
- a. Description: This item includes all work associated with testing, startup, and commissioning of the entire system and all components. The Work includes providing all materials, labor, supervision, equipment, tools, and all other incidentals necessary to complete the work in-place and restore the site to its original condition. This item shall also include coordination with Owner,

- Owner's representatives, agencies, and other contractors as required for testing, startup, and commissioning.
- b. Measurement: Measurement of the item "Testing, Startup, and Commissioning" will be based on a lump sum after well field system is installed, tested, commissioned, and accepted, all in accordance with the Contract Documents.
  - c. Payment: Payment for testing, startup, and commissioning shall be by the lump sum indicated in the Bid Proposal, which price shall constitute full compensation for the completed work all in accordance with the Contract Documents. This includes, but is not limited to, all materials, tools, labor, equipment, supplies, permits, removal and disposal of waste or excess materials, etc., necessary to have the entire system and all components installed, tested, commissioned, and accepted, and ready for use as its intended purpose.
12. Item No. 12 – Furnish and Install Cathodic Protection System:
- a. Description: This item includes all work associated with furnishing and installing cathodic protection system for all piping and valves. The work includes providing all materials, labor, supervision, equipment, tools, and all other incidentals necessary to complete the work in place and restore the site to its original condition.
  - b. Measurement: Measurement of the item "Furnish and Install Cathodic Protection System" will be based on a lump sum after corrosion protection system is installed, tested, and accepted, all in accordance with the Contract Documents.
  - c. Payment: Payment for furnishing and installing cathodic protection system shall be by the lump sum indicated in the Bid Proposal, which price shall constitute full compensation for the completed Work all in accordance with the Contract Documents. This includes, but is not limited to, all materials, tools, labor, equipment, supplies, permits, removal and disposal of waste or excess materials, etc., necessary to have the corrosion protection system installed, tested, accepted, and ready for use.
13. Item No. 13 – Trench Excavation Safety Protection:
- a. Description: This item shall govern trench excavation safety protection required for the installation of all trench excavation protection systems to be utilized in the project, and including all additional excavation and backfill required by the protection system. The work includes providing all materials, labor, supervision, equipment, tools, and all other incidentals necessary to complete the work in place and restore the site to its original condition. Such work shall include sloping, sheeting, trench boxes or trench shields, sheet piling, cribbing, bracing, shoring, and temporary pumping or diversion and recapture of storm water to provide adequate drainage. The work shall also include any

- overexcavation and additional backfill necessary to accommodate the trench protection system, as well as any jacking or removal of jacks and trench supports after completion.
- b. Measurement: Trench excavation safety protection shall be measured along the centerline of the pipeline, providing the trench width is not greater than 15 feet.
  - c. Payment: Payment shall be made at the unit price bid per linear foot regardless of the depth of trench, which price shall constitute full compensation for the completed Work all in accordance with the Contract Documents.
14. Item No. 14 – 18-inch HDPE DR 9 Water Main:
- a. Description: The Contractor shall provide all labor, supervision, tools, equipment, and materials necessary to make the water main (carrier pipe) complete and operable. This shall include, but not be limited to acquisition of the pipe, transportation of the pipe to the site, unloading the pipe from the trucks, excavation of the trench, overexcavation and replacement with subgrade filler, lowering the carrier pipe into the trench, coupling/welding of the pipe, backfilling, compaction, site restoration as specified, and hauling and disposal of surplus excavated material. Installation of concrete arch encasement and erosion control mat as shown on the Drawings will be considered incidental to this item.
  - b. Measurement: 18-inch HDPE DR 9 water main shall be measured by the horizontal linear foot as shown on the plan stationing for each type as follows:
    - 1) From the centerline intersection of runs and branches of tees to the end of the valve of a dead end run.
    - 2) Between the centerline intersection of runs and branches of tees. Where the branch is plugged for future connection, the measurement will include the horizontal plan length of the branch or branches of the fitting as shown in the plan stationing.
    - 3) The measurement of each line of pipe shall be continuous and shall include the horizontal plan lengths, as shown in the plan stationing, of all fittings and valves between the ends, except that the horizontal length of reducers will be divided equally between the connected pipe sizes.
  - c. Payment: Payment for 18-inch HDPE DR 9 water main installed will be made at the unit price bid per horizontal linear foot of pipe, as shown in the plan stationing, for the pipe installed by:
    - 1) The open cut method.
    - 2) Installed by auger boring.
15. Item No. 15 – 24-Inch HDPE DR 9 Water Main:
- a. Description: The Contractor shall provide all labor, supervision, tools, equipment, and materials necessary to make the water main (carrier pipe) complete and operable. This shall include, but not be

- limited to acquisition of the pipe, transportation of the pipe to the site, unloading the pipe from the trucks, excavation of the trench, overexcavation and replacement with subgrade filler, lowering the carrier pipe into the trench, coupling/welding of the pipe, backfilling, compaction, site restoration as specified, and hauling and disposal of surplus excavated material. Installation of concrete arch encasement and erosion control mat as shown on the Drawings will be considered incidental to this item.
- b. Measurement: 24-inch HDPE DR 9 water main shall be measured by the horizontal linear foot as shown on the plan stationing for each type as follows:
- 1) From the centerline intersection of runs and branches of tees to the end of the valve of a dead end run.
  - 2) Between the centerline intersection of runs and branches of tees. Where the branch is plugged for future connection, the measurement will include the horizontal plan length of the branch or branches of the fitting as shown in the plan stationing.
  - 3) The measurement of each line of pipe shall be continuous and shall include the horizontal plan lengths, as shown in the plan stationing, of all fittings and valves between the ends, except that the horizontal length of reducers will be divided equally between the connected pipe sizes.
- c. Payment: Payment for 24-inch HDPE DR 9 water main installed will be made at the unit price bid per horizontal linear foot of pipe, as shown in the plan stationing, for pipe installed by:
- 1) The open cut method.
  - 2) Installed by auger boring.
16. Item No. 16 – 30-Inch HDPE DR 9 Water Main:
- a. Description: The Contractor shall provide all labor, supervision, tools, equipment, and materials necessary to make the water main (carrier pipe) complete and operable. This shall include, but not be limited to acquisition of the pipe, transportation of the pipe to the site, unloading the pipe from the trucks, excavation of the trench, overexcavation and replacement with subgrade filler, lowering the carrier pipe into the trench, coupling/welding of the pipe, backfilling, compaction, site restoration as specified, and hauling and disposal of surplus excavated material. Installation of concrete arch encasement and erosion control mat as shown on the Drawings will be considered incidental to this item.
- b. Measurement: 30-inch HDPE DR 9 water main shall be measured by the horizontal linear foot, as shown on the plan stationing, for each type as follows:
- 1) From the centerline intersection of runs and branches of tees to the end of the valve of a dead end run.

- 2) Between the centerline intersection of runs and branches of tees. Where the branch is plugged for future connection, the measurement will include the horizontal length, as shown on the plan stationing, of the branch or branches of the fitting.
  - 3) The measurement of each line of pipe shall be continuous and shall include the horizontal lengths, as shown on the plan stationing, of all fittings and valves between the ends, except that the horizontal length of reducers will be divided equally between the connected pipe sizes.
- c. Payment: Payment for 30-inch HDPE DR 9 water main installed will be made at the unit price bid per horizontal linear foot of pipe, as shown on the plan stationing, for pipe installed by:
- 1) The open cut method.
  - 2) Installed by auger boring.
17. Item No. 17 – 36-Inch HDPE DR 11 Water Main:
- a. Description: The Contractor shall provide all labor, supervision, tools, equipment, and materials necessary to make the water main (carrier pipe) complete and operable. This shall include, but not be limited to acquisition of the pipe, transportation of the pipe to the site, unloading the pipe from the trucks, excavation of the trench, overexcavation and replacement with subgrade filler, lowering the carrier pipe into the trench, coupling/welding of the pipe, backfilling, compaction, site restoration as specified, and hauling and disposal of surplus excavated material. Installation of concrete arch encasement and erosion control mat as shown on the Drawings will be considered incidental to this item.
- b. Measurement: 36-inch HDPE DR 11 water main shall be measured by the horizontal linear foot, as shown on the plan stationing, for each type as follows:
- 1) From the centerline intersection of runs and branches of tees to the end of the valve of a dead end run.
  - 2) Between the centerline intersection of runs and branches of tees. Where the branch is plugged for future connection, the measurement will include the horizontal length, as shown on the plan stationing, of the branch or branches of the fitting.
  - 3) The measurement of each line of pipe shall be continuous and shall include the horizontal lengths, as shown on the plan stationing, of all fittings and valves between the ends, except that the horizontal length of reducers will be divided equally between the connected pipe sizes.
- c. Payment: Payment for 36-inch HDPE DR 11 water main installed will be made at the unit price bid per horizontal linear foot of pipe, as shown on the plan stationing, for pipe installed by:
- 1) The open cut method.
  - 2) Installed by auger boring.
18. Item No. 18 – Auger Boring with 36-Inch Steel Casing:

- a. Description: This item includes all work associated with furnishing and installing 36-inch casing pipe by the method of auger boring as shown in the Drawings and specifications. The work includes providing all materials, labor, supervision, equipment, tools, and all other incidentals necessary to complete the work in place and restore the site as specified. This work does not include installation of the carrier pipe into the casing. This work does include performing the necessary geotechnical investigations as included in the Contract Documents and which shall be considered incidental to this bid item.
  - b. Measurement: Quantities for jacking or boring with 36-inch steel casing shall be determined by the horizontal linear foot, as shown on the plan stationing, for the type shown in the Drawings, as measured from the face of the jacking pit to the face of the receiving pit.
  - c. Payment: Payment shall be made at the contract unit price per horizontal linear foot, as shown on the plan stationing, for the type shown in the Drawings. Carrier pipe is not paid in this item, but is paid for under other applicable items.
19. Item No. 19 - Auger Boring with 54-Inch Steel Casing:
- a. Description: This item includes all work associated with furnishing and installing 54-inch casing pipe by the method of auger boring as shown in the Drawings and specifications. The work includes providing all materials, labor, supervision, equipment, tools, and all other incidentals necessary to complete the work in place and restore the site as specified. This work does not include installation of the carrier pipe into the casing. This work does include performing the necessary geotechnical investigations as included in the Contract Documents and which shall be considered incidental to this bid item.
  - b. Measurement: Quantities for auger boring with 54-inch steel casing pipe shall be determined by the horizontal linear foot, as shown on the plan stationing, for the type shown in the Drawings, as measured from the face of the jacking pit to the face of the receiving pit.
  - c. Payment: Payment shall be made at the contract unit price per horizontal linear foot, as shown on the plan stationing, for the type shown in the Drawings. Carrier pipe is not paid in this item, but is paid for under other applicable items.
20. Item No. 20 – 18-Inch Butterfly Valves:
- a. Description: This item shall consist of furnishing 18-inch butterfly valves and valve vaults of the type shown on the Drawings and in the specifications and providing all materials, tools, equipment, labor, and supervision necessary to provide a complete installation capable of supporting the operation of the water system. Such work shall include, but not be limited to excavation, installation of



- the valve vault, stainless steel and HDPE piping, valve and supports, couplings, placement of select fill, compaction, and all other required work.
- b. Measurement: 18-inch butterfly valve and valve vault installation will be measured by the unit of each assembly of the various butterfly valves and valve vaults shown on the Drawings.
  - c. Payment: Payment for this item will be made at the contract unit price bid for each assembly of the various butterfly valves and valve vaults shown on the Drawings.
21. Item No. 21 – 24-Inch Butterfly Valves:
- a. Description: This item shall consist of furnishing 24-inch butterfly valves and valve vaults of the type shown on the Drawings and in the specifications and providing all materials, tools, equipment, labor, and supervision necessary to provide a complete installation capable of supporting the operation of the water system. Such work shall include, but not be limited to excavation, installation of the valve vault, stainless steel and HDPE piping, valve and supports, couplings, placement of select fill, compaction, and all other required work.
  - b. Measurement: 24-inch butterfly valve and valve vault installation will be measured by the unit of each assembly of the various butterfly valves and valve vaults shown on the Drawings.
  - c. Payment: Payment for this item will be made at the contract unit price bid for each assembly of the various butterfly valves and valve vaults shown on the Drawings.
22. Item No. 22 – 30-Inch Butterfly Valves:
- a. Description: This item shall consist of furnishing 30-inch butterfly valves and valve vaults of the type shown on the Drawings and in the specifications and providing all materials, tools, equipment, labor, and supervision necessary to provide a complete installation capable of supporting the operation of the water system. Such work shall include, but not be limited to excavation, installation of the valve vault, stainless steel and HDPE piping, valve and supports, couplings, placement of select fill, compaction, and all other required work.
  - b. Measurement: 30-inch butterfly valve and valve vault installation will be measured by the unit of each assembly of the various butterfly valves and valve vaults shown on the Drawings.
  - c. Payment: Payment for this item will be made at the contract unit price bid for each assembly of the various butterfly valves and valve vaults shown on the Drawings.
23. Item No. 23 – 4-Inch Combination Air Valve Assemblies:
- a. Description: This item shall consist of the work required to furnish and install 4-inch combination air valve assemblies in accordance with the Drawings and Specifications. Such work shall include excavation, installation of the vault, installation of the air

- valve assembly and all other piping and valves and supports, stainless steel and HDPE piping, couplings, placement of selected embedment material, backfill and compaction, and hauling and disposal of surplus excavated materials. Any dual combination air release valves furnished under this item (V741 valves) shall be considered to be a single installation.
- b. Measurement: 4-inch combination air valve assemblies will be measured by the unit of each such assembly installed.
  - c. Payment: Payment for 4-inch combination air valve assemblies will be made at the unit price bid for each such assembly installed.
24. Item No. 24 – 6-Inch Combination Air Valve Assemblies:
- a. Description: This item shall consist of the work required to furnish and install 6-inch combination air valve assemblies in accordance with the Drawings and Specifications. Such work shall include excavation, installation of the vault, installation of the air valve assembly and all other piping and valves and supports, stainless steel and HDPE piping, couplings, placement of selected embedment material, backfill and compaction, and hauling and disposal of surplus excavated materials.
  - b. Measurement: 6-inch combination air valve assemblies will be measured by the unit of each such assembly installed.
  - c. Payment: Payment for 6-inch combination air valve assemblies will be made at the unit price bid for each such assembly installed.
25. Item No. 25 – 8-Inch Combination Air Valve Assemblies:
- a. Description: This item shall consist of the work required to furnish and install 8-inch combination air valve assemblies in accordance with the Drawings and Specifications. Such work shall include excavation, installation of the vault, installation of the air valve assembly and all other piping and valves and supports, stainless steel and HDPE piping, couplings, placement of selected embedment material, backfill and compaction, and hauling and disposal of surplus excavated materials.
  - b. Measurement: 8-inch combination air valve assemblies will be measured by the unit of each such assembly installed.
  - c. Payment: Payment for 8-inch combination air valve assemblies will be made at the unit price bid for each such assembly installed.
26. Item No. 26 – Pipe Drain Structures:
- a. Description: This item shall consist of furnishing pipe drain structures and valve vaults of the type shown on the Drawings and in the specifications and providing all materials, tools, equipment, labor, and supervision necessary to provide a complete installation capable of supporting the operation of the water system. Such work shall include, but not be limited to excavation, installation of the valve vault, stainless steel and HDPE piping of the sizes shown on the Drawings, gate valve and supports, couplings, placement of select fill, compaction, and all other required work.

- b. Measurement: Pipe Drain Structures will be measured by the unit of each such assembly installed.
  - c. Payment: Payment for Pipe Drain Structures will be made at the unit price bid for each such assembly installed.
27. Item No. 27 – Tie-ins:
- a. Description: The Contractor shall provide all labor, supervision, tools, equipment, and materials necessary to remove pipe and fittings, provide and install pipe sections, fittings, special fittings, temporary blind flanges, thrust blocking, and other incidentals to complete the tie-in, including inspection of the tie-in, if completed by others.
  - b. Measurement: Tie-in shall be measured by the unit of measure lump sum for completing all tie-ins shown on the Drawings.
  - c. Payment: Payment for this item will be at the Contract lump sum bid price for tie-ins and will not be made until all tie-ins have been successfully completed.
28. Item No. 28 - Hydrostatic Testing:
- a. Description: This item shall govern the hydrostatic testing of all project water mains in accordance with Project Specifications.
  - b. Measurement: Hydrostatic testing will be measured by the unit of measure lump sum as indicated on the Drawings.
  - c. Payment: Payment for the hydrostatic testing will be made at the contract lump sum bid for "Hydrostatic Testing" and will not be made until entire project water main has been successfully tested and accepted.
29. Item No. 29 – Furnish and Install Geogrid Fabric Underlayment for Access Roads:
- a. Description: The Contractor shall provide all labor, supervision, tools, equipment, and materials necessary to install the geogrid fabric underlayment across the full width (16-feet) of flexible base access road and cement stabilized base access road. The Forest Oil Road has an existing width of 19 feet, and geogrid shall be placed across the full width. Geogrid shall be placed the full width of all access road radius, driveway radius, and intersection radius.
  - b. Measurement: Measurement of the item “Furnish and Install Geogrid Fabric Underlayment for Access Roads” will be by the linear foot, based upon centerline station, of geogrid fabric underlayment installed across the full width (16-feet) of flexible base access road and cement stabilized base access road in accordance with the Contract Documents. Any quantities associated with access road radius, driveway radius, and intersection radius will be considered incidental to this item.
  - c. Payment: Payment for installing the geogrid fabric underlayment as specified shall be at the unit price per linear foot indicated in the Bid Proposal, which price shall constitute full compensation

for the completed Work all in accordance with the Contract Documents. This includes, but is not limited to, all materials, tools, labor, equipment, supplies, permits, removal and disposal of waste or excess materials, etc., necessary to have the geogrid fabric underlayment ready for use as its intended purpose. Any areas damaged during construction must be replaced by the contractor before project completion at no additional cost.

30. Item No. 30 – Construct Cement-Stabilized Base Access Roads:
- a. Description: The Contractor shall provide all labor, supervision, tools, equipment, and materials necessary to construct cement stabilized base access roads, ditches, removal of any required existing flexible base roads to allow placement of the cement-stabilized base access roads, placement of any fill and backfill, overexcavation and replacement with imported material, in accordance with the Specifications and Drawings.
  - b. Measurement: Measurement of the item “Construct Cement-Stabilized Base Access Roads” will be by the linear foot, based upon centerline station, in its final position in accordance with the Contract Documents. Any quantities associated with access road radius, driveway radius, and intersection radius will be considered incidental to this item.
  - c. Payment: Payment for constructing the cement-stabilized base access roads as specified shall be at the unit price per linear foot indicated in the Bid Proposal, which price shall be full compensation for the completed Work all in accordance with the Contract Documents. This includes, but is not limited to, all materials, cement, flexible base, rolling, compacting, tools, labor, equipment, supplies, permits, removal and disposal of waste or excess materials, etc., necessary to have the cement-stabilized base access road ready for use as its intended purpose. Sprinkling and rolling, including proof-rolling, will not be paid for directly but will be subsidiary to this item. Payment for establishing permanent vegetation, including, but not limited to, topsoil, seeding and watering, as shown in the roadway typical sections, shall be subsidiary to this item, unless specified otherwise. Removal of any existing flexible base access roads required for installation of cement-stabilized base access roads will be considered subsidiary to this item. Any areas damaged during construction must be replaced by the contractor before project completion at no additional cost.
31. Item No. 31 – Add 6-Inch Flexible Base to Existing Access Roads:
- a. Description: The Contractor shall provide all labor, supervision, tools, equipment, and materials necessary to add 6 inches of flexible base to existing access roads, and any necessary reworking of existing roads.

- b. Measurement: Measurement of the item “Add 6-inch Flexible Base to Existing Access Roads” will be by the linear foot, based upon centerline station, in its final position in accordance with the Contract Documents. Any quantities associated with access road radius, driveway radius, and intersection radius will be considered incidental to this item.
  - c. Payment: Payment for constructing the flexible base access roads as specified shall be at the unit price per linear foot indicated in the Bid Proposal, which price shall be full compensation for the completed Work all in accordance with the Contract Documents. This includes, but is not limited to, all authorized excavation, drying, undercutting subgrade and reworking or repairing the undercut material, overexcavation and replacement with imported material, hauling, disposal of material not used elsewhere on the Project, scarification, compaction, furnishing embankment, placing, compaction, flexible base, reworking and replacement of existing base material, removal and disposal of waste or excess material, all materials, tools, labor, equipment, supplies, permits, etc., necessary to have the flexible base access road ready for use as its intended purpose. All sprinkling and rolling will not be paid for directly but will be subsidiary to this item. No additional payment will be made for thickness or width exceeding the minimum provided on the plans. The price is full compensating for furnishing and disposing of materials, blading, brooming, scarifying, salvaging, replacing, stockpiling, reshaping, refinishing, compacting, finishing, curing, and equipment, labor, tools, and incidentals. Any areas damaged during construction must be replaced by the contractor before project completion at no additional cost.
32. Item No. 32 – Construct 12-Inch Flexible Base Access Roads:
- a. Description: The Contractor shall provide all labor, supervision, tools, equipment, and materials necessary to construct the 12-inch flexible base access roads, ditches, and placement of any fill and backfill.
  - b. Measurement: Measurement of the item “Construct 12-inch Flexible Base Access Roads” will be by the linear foot, based upon centerline station, in its final position in accordance with the Contract Documents. Any quantities associated with access road radius, driveway radius, and intersection radius will be considered incidental to this item.
  - c. Payment: Payment for constructing the flexible base access roads as specified shall be at the unit price per linear foot indicated in the Bid Proposal, which price shall be full compensation for the completed Work all in accordance with the Contract Documents. This includes, but is not limited to, all authorized excavation, drying, undercutting subgrade and reworking or repairing the

undercut material, overexcavation and replacement with imported material, hauling, disposal of material not used elsewhere on the Project, scarification, compaction, furnishing embankment, placing, compaction, flexible base, removal and disposal of waste or excess material, all materials, tools, labor, equipment, supplies, permits, etc., necessary to have the flexible base access road ready for use as its intended purpose. All sprinkling and rolling will not be paid for directly but will be subsidiary to this item. Payment for establishing permanent vegetation, including, but not limited to, topsoil, seeding and watering, as shown in the roadway typical sections, shall be subsidiary to this item, unless specified otherwise. No additional payment will be made for thickness or width exceeding the minimum provided on the plans. The price is full compensating for furnishing and disposing of materials, blading, brooming, scarifying, salvaging, replacing, stockpiling, reshaping, refinishing, compacting, finishing, curing, and equipment, labor, tools, and incidentals. Any areas damaged during construction must be replaced by the contractor before project completion at no additional cost.

33. Item No. 33 – 2-Course Surface Treatment for Access Roads:
- a. Description: The Contractor shall provide all labor, supervision, tools, equipment, and materials necessary to construct the 2-course surface treatment on all existing and new flexible base and cement-stabilized base access roads, drives, and intersections.
  - b. Measurement: Measurement of the item “2-Course Surface Treatment for Access Roads” will be by the linear foot, based upon centerline station, in its final position in accordance with the Contract Documents. Any quantities associated with access road radius, driveway radius, and intersection radius will be considered incidental to this item.
  - c. Payment: Payment for the item “2-Course Surface Treatment” shall be at the unit price per linear foot indicated in the Bid Proposal, which price shall be full compensation for the completed Work all in accordance with the Contract Documents. This includes, but is not limited to, all materials, tools, labor, equipment, supplies, permits, etc., necessary to have the 2-course surface treatment ready for use as its intended purpose. Any areas damaged during construction must be replaced by the contractor before project completion at no additional cost.
34. Item No. 34 – Barricades, Signs and Traffic Handling:
- a. Description: Provide, install, move, replace, maintain, clean, and remove upon completion of work all barricades, signs, cones, lights, and other traffic control devices used for traffic handling as indicated on the Drawings and as directed.
  - b. Measurement: Measurement of the item “Barricades, Signs and Traffic Handling” will be based on the number of months used, all in accordance with the Contract Documents.

- c. Payment: The work performed and materials furnished in accordance with this item and measured as provided under “Measurement” will be paid for at the unit price bid for “Barricades, Sign and Traffic Handling”. This price is full compensation for installation, maintenance, adjustments, replacements, removal, materials, equipment, labor, tools, and incidentals.
- 1) Initiation of Payment: Payment for this item will begin on the first estimate after barricades, signs, and traffic handling devices have been installed in accordance with the TCP and construction has begun. Installation of the Project limit advance warning signs along is not considered the beginning of construction.
  - 2) Paid Months: Monthly payment will be made each succeeding month for this item provided the barricades, signs, and traffic handling devices have been installed and maintained in accordance with the TCP until the Contract amount has been paid. If within the time frame established by the Consultant, the Contractor fails to provide or properly maintain signs and barricades in compliance with the Contract requirements, as determined by the Consultant, the Contractor will be considered in noncompliance with this item. No payment will be made for the months in question, and the total final payment quantity will be reduced by the number of months the Contractor was in noncompliance.
  - 3) Total Payment Quantity: The quantity paid under this item will not exceed the total quantity shown in the Drawings except as modified by change order and as adjusted by “Paid Months” section above. An overrun of the bid quantities will not be allowed for approving designs; testing; material shortages; closed construction seasons; curing periods; establishment, performance test and maintenance periods; failure to complete the work in the number of months allotted; nor delays caused directly or indirectly by requirement of the Contract.
  - 4) Law Enforcement: Law enforcement required for work done within TxDOT, County, City, or other right-of-way will not be paid for separately, but will be considered subsidiary to this pay item.

35. Item No. 35 – Construct Stream Crossing WG02-1:
- a. Description: The Contractor shall provide all labor, supervision, tools, equipment, and materials necessary to construct Stream Crossing WG02-1, as shown on the Drawings and specified, including removing any existing flexible base roadway to allow installation of stream crossing, furnishing and installation of corrugated metal pipes, materials for constructing corrugated metal pipe culverts, excavation, overexcavation and replacement with imported material, backfilling, compaction, and furnishing and installation of riprap, cement stabilized base roadway, and concrete roadway. Contractor shall also install low water warning signs ahead of crossing. Signs shall meet State of Texas standards.
  - b. Measurement: Measurement of this item will be by lump sum for stream crossing completed in its final position in accordance with the Contract Documents.
  - c. Payment: The work performed and the materials furnished in accordance with this item shall be paid for at the contract lump sum price for “Construct Stream Crossing WG02-1”. The price is full compensation for furnishing, hauling, placing, and joining pipes; excavation; furnishing, installation, and compaction of backfill; furnishing and installation of cement-stabilized roadways; furnishing and installation of concrete roadways; furnishing and installation of slotted curbs; furnishing and installation of riprap; and equipment, labor, tools, and incidentals, and all other items included in the Contract Documents.
36. Item No. 36 – Construct Stream Crossing WG08-1:
- a. Description: The Contractor shall provide all labor, supervision, tools, equipment, and materials necessary to construct Stream Crossing WG08-1, as shown on the Drawings and specified, including removing any existing flexible base roadway to allow installation of stream crossing, furnishing and installation of corrugated metal pipes, materials for constructing corrugated metal pipe culverts, excavation, overexcavation and replacement with imported material, backfilling, compaction, and furnishing and installation of riprap, cement stabilized base roadway, and concrete roadway. Contractor shall also install low water warning signs ahead of crossing. Signs shall meet State of Texas standards.
  - b. Measurement: Measurement of this item will be by lump sum for stream crossing completed in its final position in accordance with the Contract Documents.
  - c. Payment: The work performed and the materials furnished in accordance with this item shall be paid for at the contract lump sum price for “Construct Stream Crossing WG08-1”. The price is full compensation for furnishing, hauling, placing, and joining pipes; excavation; furnishing, installation, and compaction of backfill; furnishing and installation of cement-stabilized



- roadways; furnishing and installation of concrete roadways; furnishing and installation of slotted curbs; furnishing and installation of riprap; and equipment, labor, tools, and incidentals, and all other items included in the Contract Documents.
37. Item No. 37 – Construct Stream Crossing WG08-4:
- a. Description: The Contractor shall provide all labor, supervision, tools, equipment, and materials necessary to construct Stream Crossing WG08-4, as shown on the Drawings and specified, including removing any existing flexible base roadway to allow installation of stream crossing, furnishing and installation of corrugated metal pipes, materials for constructing corrugated metal pipe culverts, excavation, backfilling, compaction, and furnishing and installation of riprap, cement stabilized base roadway, and concrete roadway. Contractor shall also install low water warning signs ahead of crossing. Signs shall meet State of Texas standards.
  - b. Measurement: Measurement of this item will be by lump sum for stream crossing completed in its final position in accordance with the Contract Documents.
  - c. Payment: The work performed and the materials furnished in accordance with this item shall be paid for at the contract lump sum price for “Construct Stream Crossing WG08-4”. The price is full compensation for furnishing, hauling, placing, and joining pipes; excavation; overexcavation and replacement with imported material, furnishing, installation, and compaction of backfill; furnishing and installation of cement-stabilized roadways; furnishing and installation of concrete roadways; furnishing and installation of slotted curbs; furnishing and installation of riprap; and equipment, labor, tools, and incidentals, and all other items included in the Contract Documents.
38. Item No. 38 – Construct Stream Crossing WG07-3:
- a. Description: The Contractor shall provide all labor, supervision, tools, equipment, and materials necessary to construct Stream Crossing WG07-3, as shown on the drawings and specified, including removing any existing flexible base roadway to allow installation of stream crossing, furnishing and installation of corrugated metal pipes, materials for constructing corrugated metal pipe culverts, excavation, backfilling, compaction, and furnishing and installation of riprap, cement stabilized base roadway, and concrete roadway. Contractor shall also install low water warning signs ahead of crossing. Signs shall meet State of Texas standards.
  - b. Measurement: Measurement of this item will be by lump sum for stream crossing completed in its final position in accordance with the Contract Documents.

- c. Payment: The work performed and the materials furnished in accordance with this item shall be paid for at the contract lump sum price for “Construct Stream Crossing WG07-3”. The price is full compensation for furnishing, hauling, placing, and joining pipes; excavation; overexcavation and replacement with imported material, furnishing, installation, and compaction of backfill; furnishing and installation of cement-stabilized roadways; furnishing and installation of concrete roadways; furnishing and installation of slotted curbs; furnishing and installation of riprap; and equipment, labor, tools, and incidentals, and all other items included in the Contract Documents.
39. Item No. 39 – Construct Stream Crossing WG15-4:
- a. Description: The Contractor shall provide all labor, supervision, tools, equipment, and materials necessary to construct Stream Crossing WG15-4, as shown on the Drawings and specified, including removing any existing flexible base roadway to allow installation of stream crossing, furnishing and installation of corrugated metal pipes, materials for constructing corrugated metal pipe culverts, excavation, backfilling, compaction, and furnishing and installation of riprap, cement stabilized base roadway, and concrete roadway. Contractor shall also install low water warning signs ahead of crossing. Signs shall meet State of Texas standards.
- b. Measurement: Measurement of this item will be by lump sum for stream crossing completed in its final position in accordance with the Contract Documents.
- c. Payment: The work performed and the materials furnished in accordance with this item shall be paid for at the contract lump sum price for “Construct Stream Crossing WG15-4”. The price is full compensation for furnishing, hauling, placing, and joining pipes; excavation; overexcavation and replacement with imported material, furnishing, installation, and compaction of backfill; furnishing and installation of cement-stabilized roadways; furnishing and installation of concrete roadways; furnishing and installation of slotted curbs; furnishing and installation of riprap; and equipment, labor, tools, and incidentals, and all other items included in the Contract Documents.

40. Item No. 40 – Construct Stream Crossing WG15-5:
- a. Description: The Contractor shall provide all labor, supervision, tools, equipment, and materials necessary to construct Stream Crossing WG15-5, as shown on the Drawings and specified, including removing any existing flexible base roadway to allow installation of stream crossing, furnishing and installation of corrugated metal pipes, materials for constructing corrugated metal pipe culverts, excavation, backfilling, compaction, and furnishing and installation of riprap, cement stabilized base roadway, and concrete roadway. Contractor shall also install low water warning signs ahead of crossing. Signs shall meet State of Texas standards.
  - b. Measurement: Measurement of this item will be by lump sum for stream crossing completed in its final position in accordance with the Contract Documents.
  - c. Payment: The work performed and the materials furnished in accordance with this item shall be paid for at the contract lump sum price for “Construct Stream Crossing WG15-5”. The price is full compensation for furnishing, hauling, placing, and joining pipes; excavation; overexcavation and replacement with imported material, furnishing, installation, and compaction of backfill; furnishing and installation of cement-stabilized roadways; furnishing and installation of concrete roadways; furnishing and installation of slotted curbs; furnishing and installation of riprap; and equipment, labor, tools, and incidentals.
41. Item No. 41 – SWPPP Plan and Execution:
- a. Description: This item shall govern preparation, maintenance, and implementation of the SWPPP, and complying with Texas Commission on Environmental Quality (TCEQ) regulations; Texas Pollution Discharge Elimination System (TPDES) General Permit requirements (Permit No. TXR150000), and the City of San Antonio Stormwater Compliance with Construction Activity Ordinance 94002 to include submittal and termination of permit notifications. The Contractor shall be the operator as defined by TPDES General Permit. The Contractor shall comply with all TPDES General Permit requirements to include preparation, maintenance, and implementation of the SWPPP. The Contractor shall submit all notifications and pay all associated fees required by the TPDES General Permit. The Contractor shall provide the Owner copies of any submitted notifications and associated fee checks. The Contractor’s temporary control measures shall be installed and maintained throughout the construction contract and coordinated with proposed or existing permanent pollution control features to ensure effective and continuous water pollution control throughout the construction and post construction period. The Contractor shall maintain and inspect the temporary control

measures in accordance with the TPDES General Permit requirements. The control measures may include, but not be limited to: sediment control fences, inlet protection, baled hay, rock filter dams, dikes, swales, construction exits, soil retention blanket, sediment traps and basins, or non-structural water pollution controls. The Contractor is responsible for any type of disastrous event resulting from negligence in providing the appropriate devices to prevent the contamination of stormwater sewers and flooding on the roadway and private properties, in an event of a rainstorm. The Contractor shall provide control measures to prevent or minimize the impact to the existing municipal separate storm water system. This SWPPP is to be adjusted and updated as the Project progresses to meet compliance with permit and ordinance. Contractor shall be responsible for the removal and appropriate disposal of any project control measures not incorporated as a permanent control when final stabilization has been obtained on the Project.

- b. Measurement: Measurement of the item "SWPPP Plan and Execution" will be measured by the lump sum.
  - c. Payment: The work performed and the materials furnished as prescribed by this item will be paid for at the contract lump sum price for "SWPPP Plan and Execution". The amount paid shall not be greater than the contract lump sum price, and will be paid as follows:
    - 1) When the plan has been completed, accepted, and provided to the Owner, 10 percent of the lump sum price will be paid.
    - 2) Upon initial installation of control devices required by the plan, up to 20 percent of the lump sum price will be eligible for payment.
    - 3) As approved for payment by the Inspector monthly and until removal, up to 50 percent of the lump sum price will be eligible for payment. Payments shall be monthly in approximate equal amounts based on the number of months remaining in the contract after completed and accepted initial installation indicated above.
    - 4) When control devices have been removed after the completion of all work and in accordance with the specifications, and required documentation and records are filed, up to 90 percent of the lump sum price will be eligible for payment.
    - 5) When the required notice of termination has been filed with the TCEQ, 100 percent of the lump sum price will be paid.
42. Item No. 42: Management of Contaminated Soil:
- a. Description: This item shall govern all aspects of management of contaminated soil. The Contractor shall be responsible for

- screening, sampling, testing, removal, segregation, transportation and ultimate disposal of contaminated soil encountered at the site.
- b. Measurement: This item shall be measured by the cubic yard (CY) of soil managed as approved by the Consultant.
  - c. Payment: This item shall be paid for at the unit price indicated in the bid schedule.
43. Item No. 43: Management of Contaminated Water:
- a. Description: This item shall govern all aspects of management of contaminated water. The Contractor shall be responsible for screening, sampling, testing, removal, segregation, transportation and ultimate disposal of contaminated water encountered at the site.
  - b. Measurement: This item shall be measured by the gallon (GAL) of water managed as approved by the Consultant.
  - c. Payment: This item shall be paid for at the unit price indicated in the bid schedule.
44. Item No. 100 – Mobilization and Demobilization:
- a. Description: This item shall govern the mobilization of personnel, equipment and supplies at the project site in preparation for the beginning work on contract items and the acquisition of insurance, bonds, owner indemnification, and permits. Mobilization shall include, but not be limited to, pre-construction videotape of site and roadways, the movement of equipment, personnel, material, supplies, etc., to the project site and the establishment of temporary offices, preparation of work plans and general submittals, security, temporary fencing and gates for the staging area, and establishment of other facilities necessary to the start of the work. This item shall include obtaining all permits, including Gonzales County, Texas Department of Transportation, Texas Commission on Environmental Quality, and all other permits. This item shall also include complete demobilization from the project. Demobilization shall include, but not be limited to, the removal of equipment, personnel, material, supplies, temporary offices, temporary fences and gates, etc., from all work areas and restoration of areas and temporary crossings to a condition that is acceptable to the Owner.
  - b. Measurement: Measurement of the item, “Mobilization and Demobilization” will be by the lump sum as the work progresses. "Mobilization and Demobilization" lump sum bid shall be limited to a maximum 10 percent of the adjusted contract amount bid. The adjusted contract amount is defined as the total contract amount less the lump sum bid total for “Mobilization and Demobilization” and “Preparing Right-of-Way”. The sum total form Mobilization and Demobilization (Bid Item 100) and Preparing Right-of-Way (Bid Item 101) shall not exceed 15 percent of the adjusted contract

amount. A bid with said sum that exceeds said amount shall be considered unbalanced and shall be rejected.

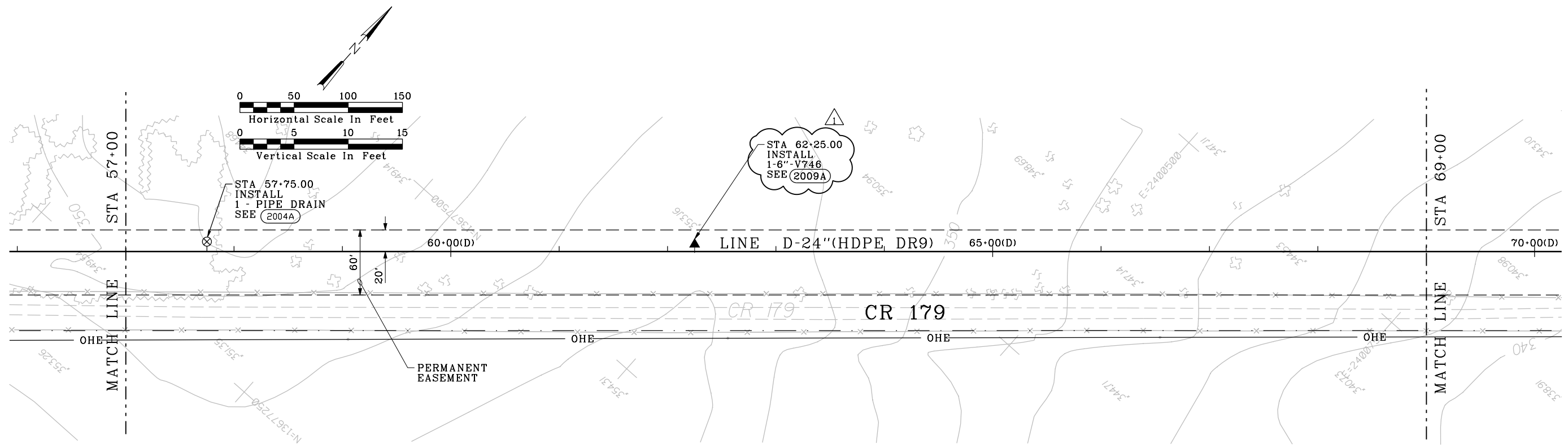
- c. Payment: Partial payments of the lump sum bid for “Mobilization and Demobilization” will be as follows:
- 1) When 1 percent of the adjusted contract amount for construction items (which is defined as the total contract amount less the lump sum bid for Mobilization and Demobilization and Preparing Right-of-Way) is earned, 50 percent of the Mobilization and Demobilization lump sum bid will be paid. Insurance and bonds will be paid on the initial request for payment under a sub-heading to mobilization entitled "Insurance and Bonds".
  - 2) When 5 percent of the adjusted contract amount for construction items is earned, 75 percent of the Mobilization and Demobilization lump sum bid or 10 percent of the total contract amount, whichever is less, will be deducted from the above amount.
  - 3) When 10 percent of the adjusted contract amount for construction items is earned, 90 percent of the Mobilization and Demobilization lump sum bid or 15 percent of the total contract amount, whichever is less, will be paid. Previous payments under this item will be deducted from the above amount.
  - 4) Upon completion of all work, demobilization, and acceptance thereof under this contract, payment for the remainder of the lump sum bid for Mobilization and Demobilization will be made.
  - 5) Mobilization payment will be factored by 50 percent until all of these submittals have been made and approved by SAWS: Health and Safety Plan, Quality Control/Quality Assurance Plan, Pre-Construction Video/photography, and Construction Schedule.
45. Item No. 101 – Preparing Right-of-Way:
- a. Description: This item shall govern preparing the right-of-way for construction operations by removing and disposing of all obstructions from the right-of-way and from designated easements where removal of such obstructions is not otherwise provided for in the Drawings and Specifications. All material shall be considered non-salvageable, and shall be removed from the site and disposed of by the Contractor. It shall include the furnishing of all materials, equipment, tools, labor, supervision, and incidentals necessary to complete the work.
  - b. Measurement: Measurement of the item "Preparing Right-of-Way" will be by the lump sum. "Preparing Right-of-Way" lump sum bid shall be limited to a maximum of 5 percent of the total contract amount bid.

- c. Payment: This item will be paid for at the contract lump sum price for "Preparing Right-of-Way". The lump sum price will be paid proportionate to the length of pipeline installed, length of access road installed, and number of well sites installed and the total length of pipeline, access roads, and well sites bid in the project. Preparing right-of-way payment will be factored by 50 percent until all of these submittals have been made and approved by SAWS: Health and Safety Plan, Quality Control/Quality Assurance Plan, Pre-Construction Video/photography, and Construction Schedule. Ten percent of the payment will be withheld until final construction payment.

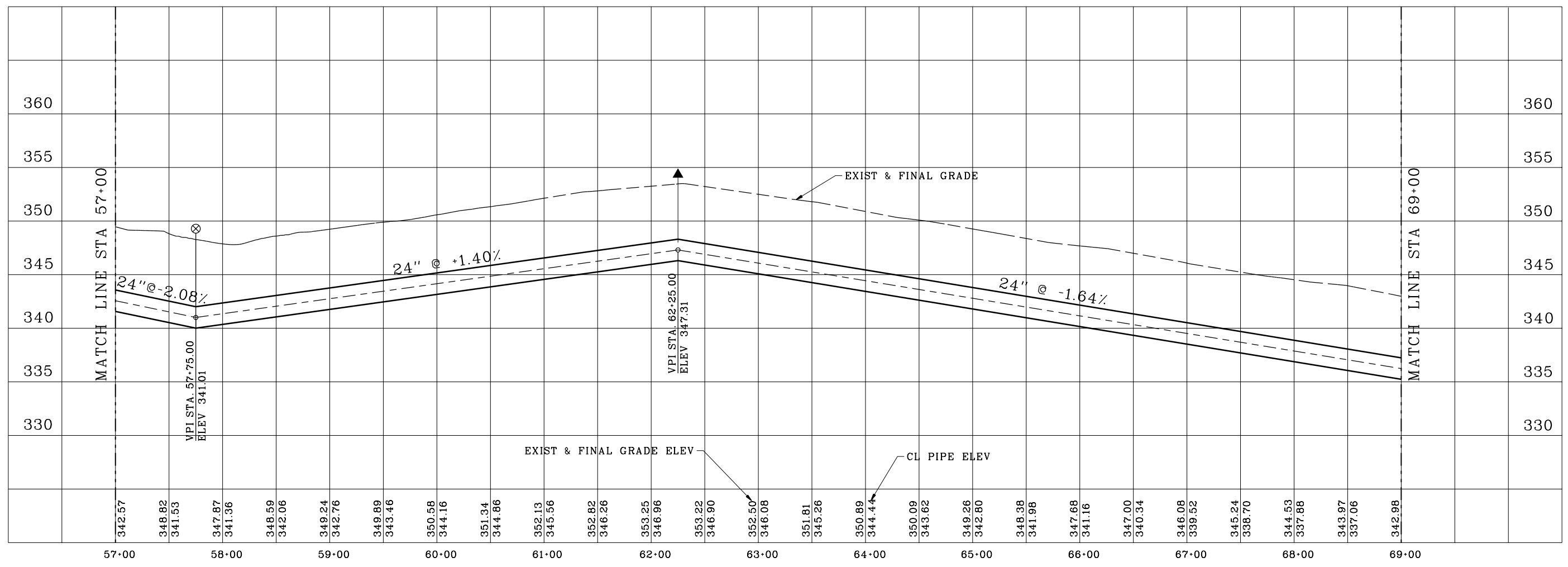
**PART 2 PRODUCTS (NOT USED)**

**PART 3 EXECUTION (NOT USED)**

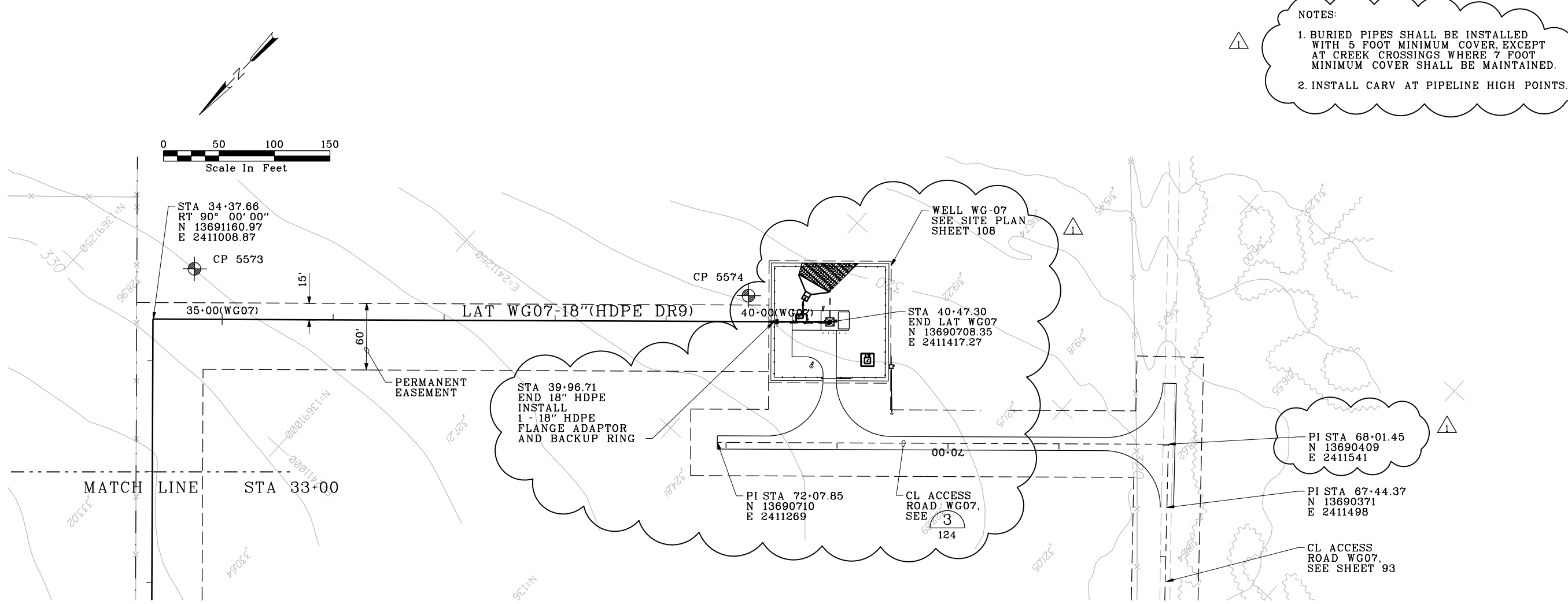
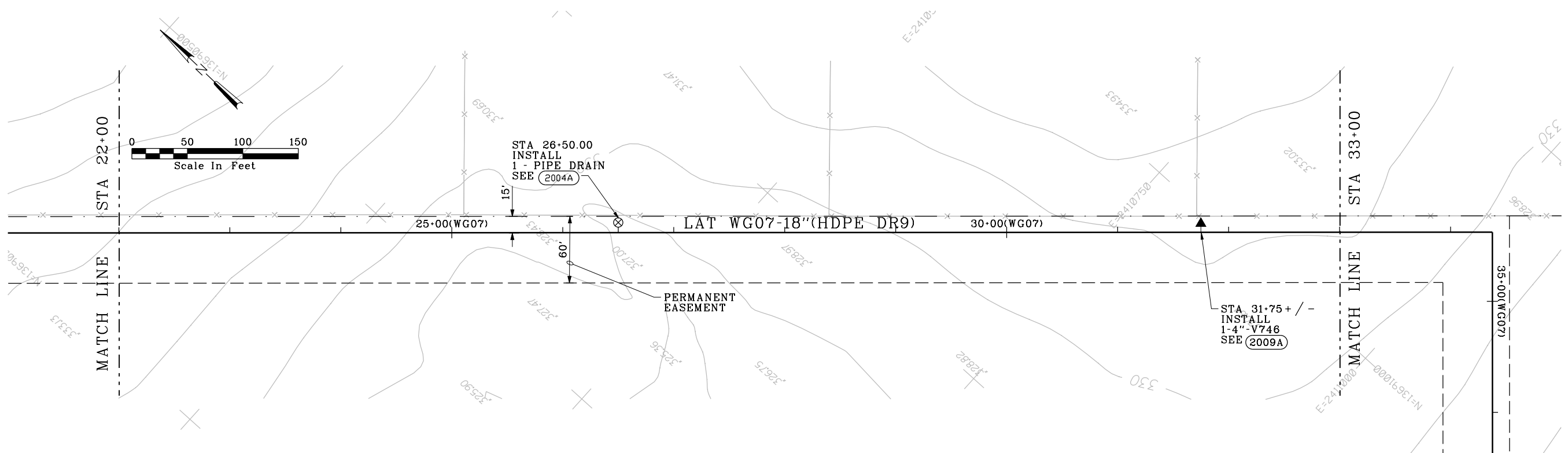
**END OF SECTION**



NOTE:  
BURIED PIPES SHALL BE INSTALLED WITH 5 FOOT MINIMUM COVER, EXCEPT AT CREEK CROSSINGS WHERE 7 FOOT MINIMUM COVER SHALL BE MAINTAINED.

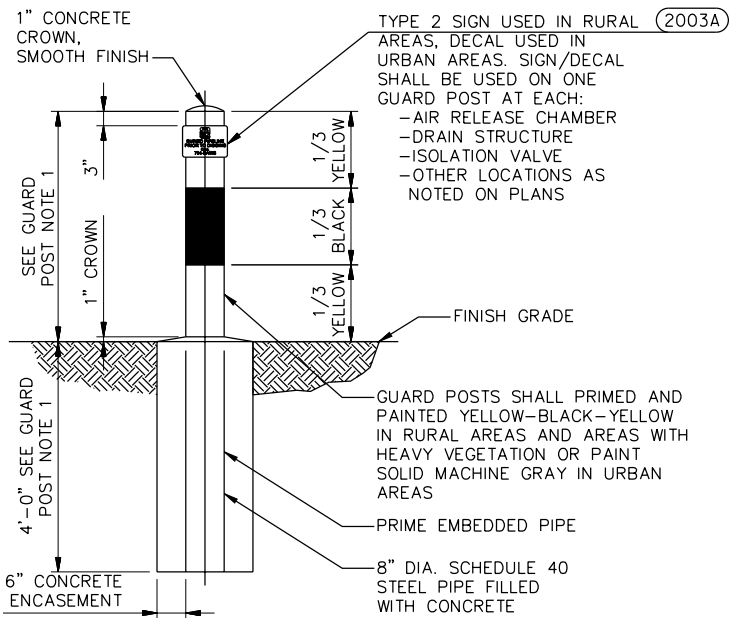






**NOTES:**

1. BURIED PIPES SHALL BE INSTALLED WITH 5 FOOT MINIMUM COVER, EXCEPT AT CREEK CROSSINGS WHERE 7 FOOT MINIMUM COVER SHALL BE MAINTAINED.
2. INSTALL CARV AT PIPELINE HIGH POINTS.

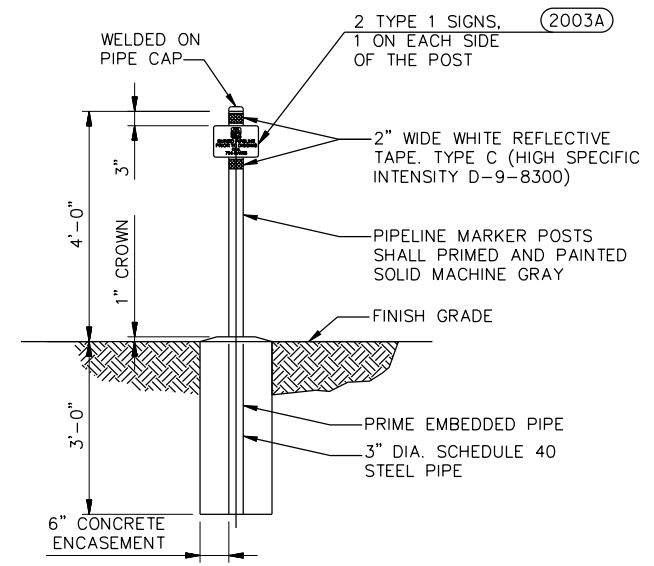


**GUARD POST NOTES:**

1. GUARD POST HEIGHT 4'-0" ABOVE GRADE FOR ISOLATION VALVE AND 8'-0" FOR ALL OTHER LOCATIONS, UNLESS NOTED OTHERWISE ON THE PLAN AND PROFILE SHEET.
2. GUARD POSTS TO BE USED AT LOCATIONS AS DETAILED ON THE PLANS, AND AS SHOWN IN THE STANDARD DETAILS.
3. ALL CONCRETE SHALL HAVE A MINIMUM COMPRESSIVE STRENGTH OF 3000 PSI UNLESS OTHERWISE INDICATED.

**GUARD POST**  
NTS

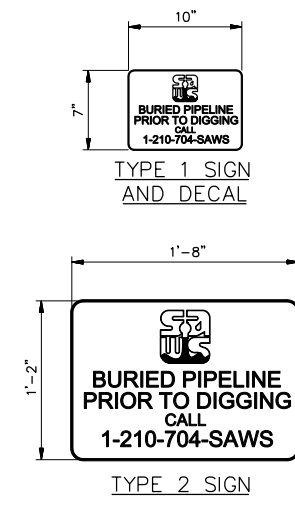
2001A



PIPELINE MARKER POSTS SHALL BE INSTALLED AT EACH SIDE OF WHERE THE PIPE CROSSES ROADWAYS, RAILROADS, MAJOR SURFACE WATER CHANNELS AND OTHER LOCATIONS AS INDICATED ON PLANS. ONE SIGN SHALL BE INSTALLED AT WHERE THE PIPE CROSSES PROPERTY LINES AND AT ANY OTHER LOCATIONS SHOWN ON THE PLAN SHEETS.

**PIPELINE MARKER**  
NTS

2002A



- SIGN/DECAL NOTES:**
1. SIGNS AND DECALS SHALL BE WHITE BACKGROUND WITH DARK BLUE LETTERING. FINISH SHALL BE DESIGNED FOR LONG TERM OUTDOOR USE AND SHALL BE UV RESISTANT AND WATER DAMAGE RESISTANT.
  2. SIGNS SHALL BE FABRICATED FROM 14 GAUGE ALUMINUM. PREDRILL SIGNS FOR MOUNTING BOLTS.
  3. BLUE LETTERING SHALL BE 2 MIL CAST VINYL BY ARKON OR EQUAL.
  4. SIGNS SHALL BE MOUNTED TO MARKER POSTS WITH 2-3/8" DIA. THROUGH-BOLTS AND TAMPER-PROOF NUTS. SIGNS SHALL BE MOUNTED TO GUARD POSTS WITH STAINLESS STEEL BANDING.

**SIGNAGE**  
NTS

2003A

PIPE DRAIN STRUCTURE TYPE 1, STD DETAIL 2004A MOVED TO SHEET 134A

SB	App.	Design Firm
1	Revisions	Job No.
06/02/12	Date	317470
No.	Date	

THE SEAL APPEARING ON THIS DOCUMENT WAS AUTHORIZED BY THE STATE OF TEXAS ON FEBRUARY 28, 2012. ALTERATION OF A SEAL WITHOUT PROPER NOTIFICATION TO THE BOARD OF PROFESSIONAL ENGINEERS IS AN OFFENSE UNDER THE PRACTICE ACT.

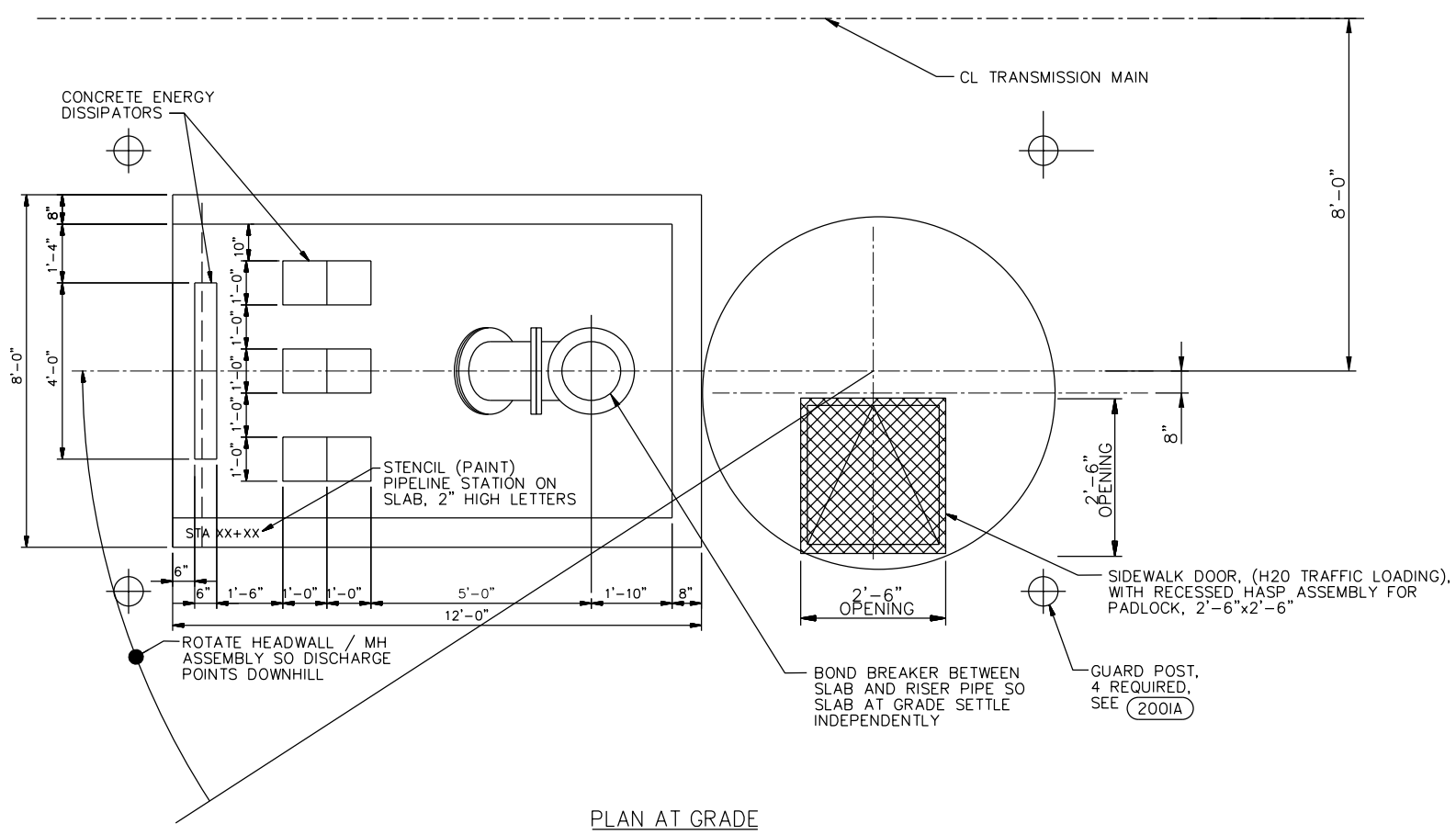
Date: FEB 2012  
Designed by: SB  
Drawn by: WB  
Checked by: SW  
Scale: 1" = 10'-0"

**CH2MHILL**  
CH2M HILL, INC.  
REG. NO.: F-2297

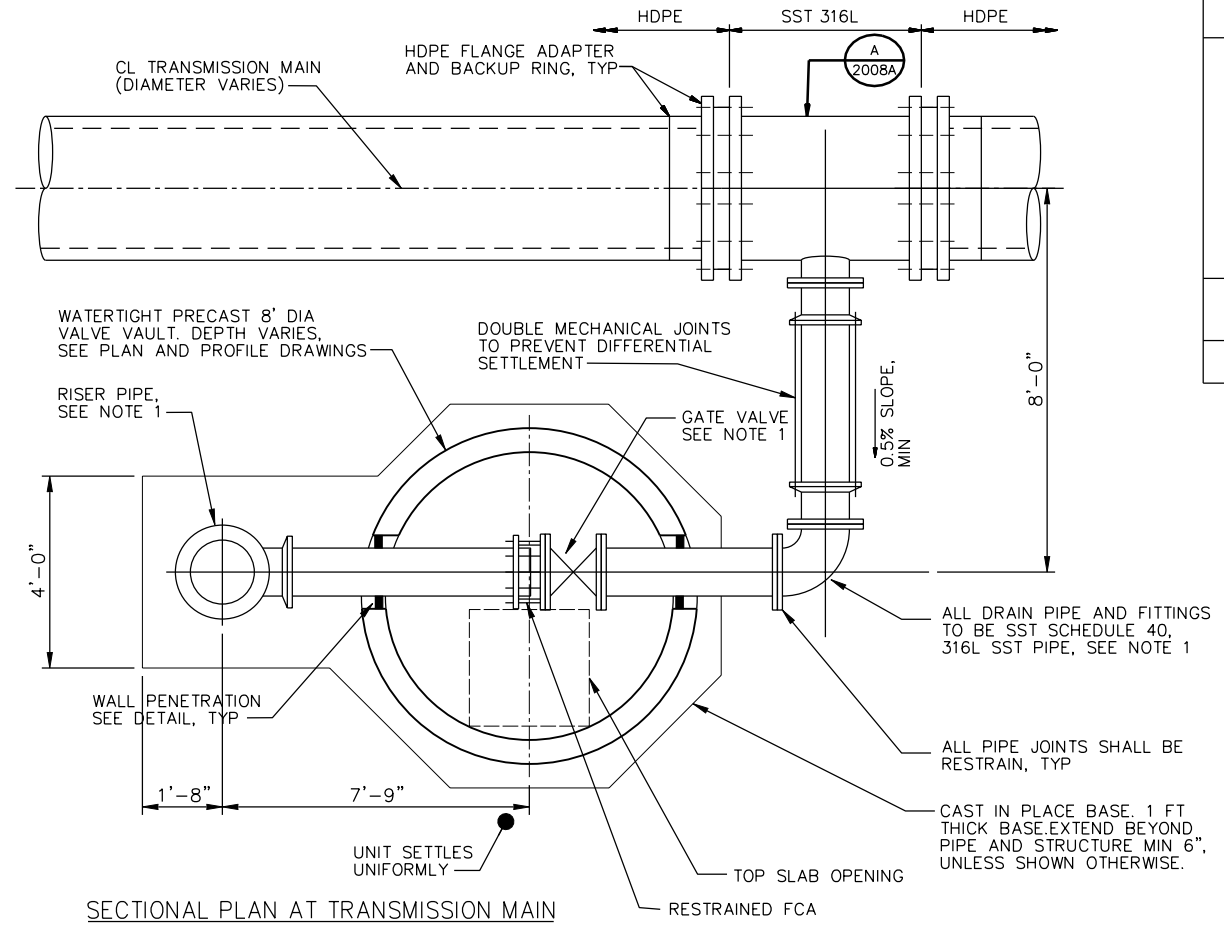
**SAN ANTONIO WATER SYSTEM**  
**BLACK & VEATCH**  
Building a world of difference  
PROFESSIONAL ENGINEER

SAWS Job No. 03-8518-207  
REGIONAL CARRIZO PROGRAM: BUCKHORN  
WELLFIELD COLLECTION PROJECT  
CIVIL STANDARD DETAILS

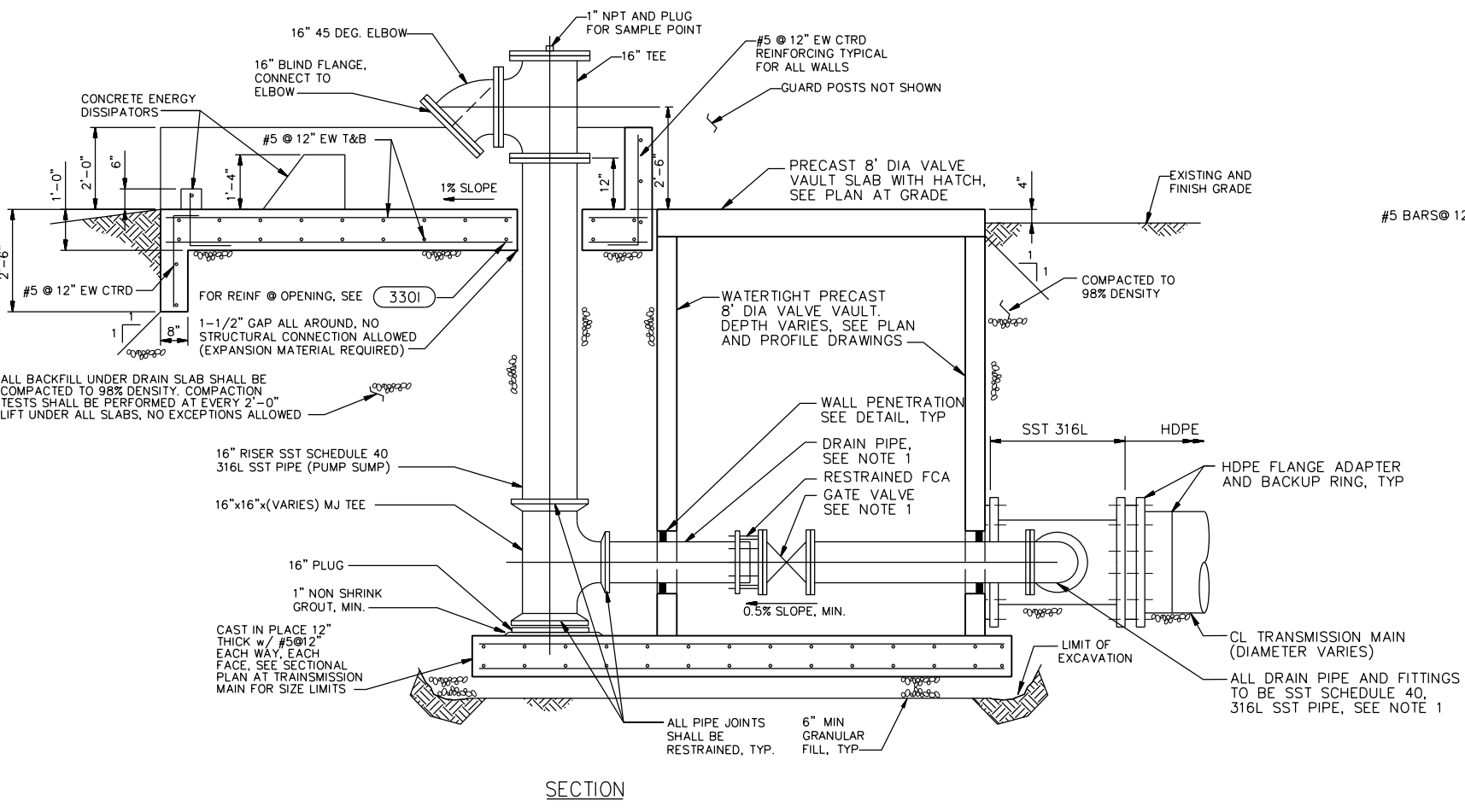
Sheet 134 of 160



PLAN AT GRADE

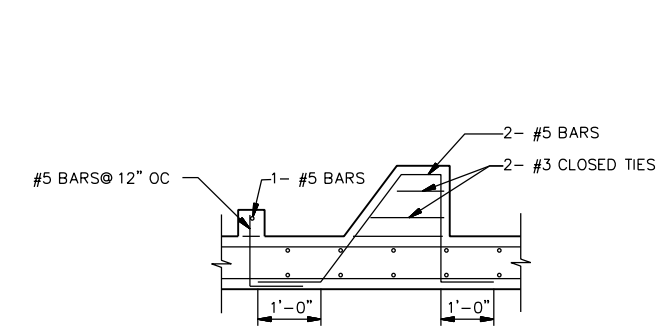


SECTIONAL PLAN AT TRANSMISSION MAIN

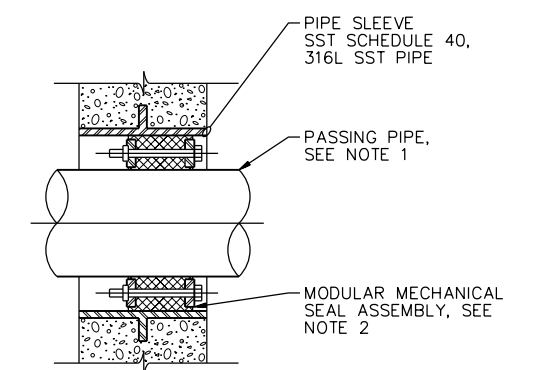


SECTION

PIPE DRAIN STRUCTURE TYPE 1  
NTS



ENERGY DISSIPATOR REINFORCING



WALL PENETRATION DETAIL

NOTE:

- FOR TRANSMISSION PIPE SIZES OF 18" OR SMALLER, THE DRAIN PIPING AND VALVE SHALL BE 12". FOR TRANSMISSION PIPE SIZES LARGER THAN 18", THE PIPING AND VALVE SHALL BE 16". ALL RISER PIPE SHALL BE 16".
- MODULAR MECHANICAL SEAL SHALL MEET THE FOLLOWING REQUIREMENT:
  - TYPE: INTERCONNECTED SYNTHETIC RUBBER LINKS SHAPED AND SIZED TO CONTINUOUSLY FILL ANNULAR SPACE BETWEEN PIPE AND WALL SLEEVE OPENING.
  - FABRICATION:
    - ASSEMBLE INTERCONNECTED RUBBER LINKS WITH ASTM A276, TYPE 316 SST BOLTS AND NUTS.
    - PRESSURE PLATES SHALL BE REINFORCED NYLON POLYMER.
  - SIZE: ACCORDING TO MANUFACTURER'S INSTRUCTIONS FOR SIZE OF PIPES SHOWN TO PROVIDE A WATERTIGHT SEAL BETWEEN PIPE AND WALL SLEEVE OPENING, AND TO WITHSTAND A HYDROSTATIC HEAD OF 40 FEET OF WATER.
  - MANUFACTURER: THUNDERLINE CORP., LINK-SEAL DIVISION.

App.	Design Firm Job No. 317470
Revisions	THE SEAL APPEARING ON THIS DOCUMENT WAS AUTHORIZED BY THE BOARD OF PROFESSIONAL ENGINEERS ON MAY 3, 2012 IN CONNECTION WITH THE REVISION OF A PROJECT. ANY FURTHER MODIFICATION TO THIS DOCUMENT WITHOUT PROPER NOTIFICATION TO THE BOARD OF PROFESSIONAL ENGINEERS IS AN OFFENSE UNDER THE PRACTICE ACT.
No.	Date

Date:	FEB 2012
Designed by:	SB
Drawn by:	WB
Checked by:	SW
Scale:	AS SHOWN ORIGINAL DRAWING

**CH2MHILL**  
CH2M HILL, INC  
REG. NO.: F-2297

**SAN ANTONIO WATER SYSTEM**  
BLACK & VEATCH  
Building a world of difference  
PROFESSIONAL ENGINEER

SAWS Job No. 03-8518-207  
REGIONAL CARRIZO PROGRAM: BUCKHORN  
WELLFIELD COLLECTION PROJECT  
CIVIL STANDARD DETAILS

2004A

## CONTRACTOR QUESTIONS AND CLARIFICATIONS

1. **Question:** *In the Supplementary Conditions; Instruction to Bidders; Page IB-7, Subparagraph 23.(d) is replaced with the requirement of three (3) similar water well pump and piping projects completed within the last 5 years. Western Summit Constructors, Inc. (WSCI) is an extremely experienced plant and pipeline constructor, but we cannot meet these requirements as stated. If we use an exclusive subcontractor for the well pump work and ourselves for the pipeline work, will we be considered qualified provided each entity meets the individual requirements?*

**Clarification:** Refer to Addendum #1 where this provision in the Supplementary Conditions has been deleted. The original provisions included in the Instructions to Bidders shall apply.

2. **Question:** *Bermad Incorporated (Houston, TX USA) would like to offer competitive price quotations on the Self-regulated Automatic Control Valves listed in the specifications. We can offer an equal or better to the pressure reducing (V716), pressure relief (V730), flow control (V771) and pump control (V732) valves manufacturers listed in the Buckhorn Wellfield Collection Project specifications. Bermad Inc. has supplied self-regulating control valves to SAWS. Is it possible to be listed as an acceptable manufacturer and production on Solicitation No. B-12-021-DB in an addendum for the valves listed above.*

**Clarification:** Bermad valves have been accepted for type V716, V732, V730, and V771, as detailed in Addendum #1.

3. **Question:** *The proposal bid item #26 calls for (21) Pipe Drain Structures. The Plans detail that there are drains proceeding from (2) 36" HDPE RW Lines; (3) 30" HDPE RW Lines; (8) 24" HDPE RW Lines; (8) 18" HDPE RW Lines. On the RW Plan & Profile sheets there is no indication as to what size the drain line should be. Detail 2004A on Sheet 134 was not drawn to scale and does not indicate the drain pipe size. Nor does the detail show a profile view so as to determine the riser pipe's configuration (it also appears to increase in size at the splash pad). Can you clarify what size drain is required for each size HDPE RW Line? Can you provide a profile view of detail 2004A on Sheet 134 so as to clarify configuration and possible increase in size?*

**Clarification:** Refer to Sheets 134 and 134A included in Addendum #1.

4. **Question:** *Possible to substitute the Tnemec 141 coating for the Scotchkote 134, the Tnemec 141 coating is NSF61 approved.*

**Clarification:** The Tnemec 141 coating is a polyamide epoxy. The coating must be a fusion bonded epoxy as specified.

5. **Question:** *Will the discharge head require any coating?*

**Clarification:** Yes, a fusion bonded epoxy is required as detailed in Addendum #1.

6. **Question:** *Can we provide 316 stainless steel pumps bowl assembly instead of supplying Ni-resist Austenitic bowls and impellers?*

**Clarification:** This may be supplied if the specification is met regarding performance and supplier, as detailed in Addendum #1.

7. **Question:** *There is a requirement in the Bid Documents that the General Contractor must self perform, at a minimum, 40% of the work on this project. While the intent that the GC not be a "Broker" is clearly understood, we feel that this project would benefit from a contractor with Contract and Construction Management qualifications, rather than the "Hands On" experience of such specialized areas of construction as Pipeline, Well Pump & Column Placement, or Electrical & Instrumentation. Coordination, management and scheduling of these Specialty Contracts, along with the interaction of existing contracts, Government entities, and the Private sector make this contract a complex and challenging endeavor. We request that SAWS De-Emphasize the 40% self performance criteria, and place greater emphasis on Construction Management qualifications for this important project.*

**Clarification:** The requirement will remain as currently included in the specifications.

8. **Question:** *ISCO Industries, acting as a potential supplier of HDPE pipe and fittings, is requesting a revision to the specifications regarding allowable deflection of HDPE pipe for both the Water Supply Pipeline and the Buckhorn Wellfield Collection Project of the Regional Carrizo Pipeline projects. We have received some exceptions from pipe manufacturers to section 02634, 2.02 Pipe Design Criteria, Letter B. Pipe Deflection. We would like to ask that the requirements for measuring deflection be removed from the specs and replaced with a section similar to the guidelines shown in AWWA M55. We have attached a letter from a pipe manufacturer as well as excerpts developed under AWWA M55 that detail the nature of the exceptions.*

**Clarification:** Refer to Addendum #1 for specification edits. The Owner will reserve the right to require deflection testing if there are concerns with the quality of installation.

9. **Question:** *I am needing some information pertaining to the tie in to the existing security system. What kind of system is existing?*

**Clarification:** Any modifications to existing system to integrate the new components will be performed by the Owner with technical support from the Contractor. The Contractor will be required to coordinate with SAWS for this work, and to perform the security installation associated with this contract.

10. **Question:** *Can the installing company certify installed equipment meet manufacturers specs?*

**Clarification:** The manufacturer's representative is required to provide a Certificate of Proper Installation as specified.

11. **Question:** *Section 16988 what recommended manufacturer for the motion sensors, not listed in the specs.*

**Clarification:** The recommended manufacturer is Optex, Model SIP-3020 or equal. Refer to Addendum #1.

**12. Question:** *Section 16988 what recommended manufacturer for the intrusion switch, door, not listed in the specs.*

**Clarification:** The recommended manufacturer is Omron, Model ZE-N2S or equal. Refer to Addendum #1.

**13. Question:** *Can I bid only section 16988 security systems?*

**Clarification:** SAWS will not accept bids for individual Specifications sections. SAWS will only accept bids for the entire project. Any subcontractors would have to provide their bid information to the Prime Contractor.

**14. Question:** *What is the existing video management software and the security management software is that referenced in section 16988 2.04 e. applications supported?*

**Clarification:** See response to Question #9.

**15. Question:** *Is the wireless network being provided by others?*

**Clarification:** Yes.

**16. Question:** *I am reviewing the specifications and again there seem to be some conflicts; some more important than others. A major one being that ValMatic has been excluded from the Butterfly Valve spec (2.05 C). The spec reads as the old Pratt/Mueller spec with the seat bonded (Glued) in the body rather than the most current spec (Previous to this one) which has the seat mechanically retained on the disc using a stainless steel clamp ring and Stainless steel cap screws (Page 15202-7 Section 1. General a. 2). On page 15202-8 2. B, Pratt, DeZurik and Mueller are named. Pratt and Mueller are the same valve since Mueller bought Pratt some years ago. On Page 15202-10E. Self-Regulating Automatic Control Valves 1. d. Manufacturer: Only Cla is named. We would ask that you put Singer back in. Singer is named in section 2. f Dual chamber pump control valves. On Page 15202-147. Flow Control Valves..... Could we also put Singer back in? It now names Cla only.*

**Clarification:** ValMatic will be considering for Type V504 Butterfly, as allowed by the current contract documents. The option of bonding the seat to the body is allowed by the current AWWA C504 standard and is required for this project. For self-regulating automatic control valves and pump control valves, Singer will be evaluated for this application, as detailed in Addendum #1.

**17. Question:** *For the HDPE pipe, under section 02634, 2.03 Materials, Pipe, the specification states the pipe "Shall have four, equally spaced, blue color stripes co-extruded into the pipe outside surface." Would Six stripes instead of Four be acceptable?*

**Clarification:** Yes, refer to Addendum #1.

18. **Question:** *On detail 2004 (Pipe Drain) what is the size of that line coming from the main? Detail on sheet 134 does not indicate the size.*

**Clarification:** Refer to Sheets 134 and 134A included in Addendum #1.

19. **Question:** *sheet 125 & 127: details shows 9' over excavation for all concrete slabs. Confirm granular fill must be used as backfill within over excavation limits*

**Clarification:** Yes, this is confirmed. These are the recommendations included in the geotechnical report.

20. **Question:** *Spec. 11212 Par. 3.01K: "A pump installer licensed in the state of Texas shall perform installation of in-well pump components". Confirm intent of paragraph is intended for motor, column, pump, and wellhead*

**Clarification:** Only in-well components will need to be installed by a pump installer licensed in the state of Texas. The discharge head and lineshaft motor are excluded from this requirement.

21. **Question:** *Plan sheet 116 & 121: Typical well site plan shows site to be covered with typical roadway material per detail 3/124. Does this apply to BEBE site within limits of existing well site fence limits?*

**Clarification:** The Bebe site does not require the typical roadway material. See Addendum #1.

22. **Question:** *Plan sheet 121: note on plan to provide brass benchmark cast into slab. Confirm owner will provide required survey and record of benchmark once slab is complete.*

**Clarification:** The Contractor is required to provide all survey in accordance with the Specifications.

23. **Question:** *Plan sheets 98 – 102B: stream crossings reference detail 4/124, detail calls for compacted subgrade material up to cement stabilized base around corrugated metal pipe. Confirm suitable native backfill can be utilized and a structural material is not required.*

**Clarification:** Section 02598 Corrugated Metal Pipe and Safety End Treatments references TxDOT Items 460 – Corrugated Metal Pipe, and Item 400 – Excavation and Backfill for Structures. Item 400 includes the bedding and backfill around the corrugated pipe. There is a requirement for granular bedding material. The compacted backfill can be from native material, as long as it is suitable and meets the specification requirements. Item 400 includes general requirements for backfill. A structural material is not required.

24. **Question:** *Plan sheets 98 – 102B: stream crossings reference detail 4/124, detail calls for compacted subgrade material up to cement stabilized base. Confirm native backfill can be utilized and a structural material is not required.*

**Clarification:** Native backfill can be used as long as it meets the specification requirements. TxDOT Item 400 includes general requirements for backfill. A structural material is not required. Refer to response to Question #23.

25. **Question:** *Plan sheet 128 DTL 2: New power pole will be provided and installed by power company. Confirm all material, labor and equipment provided by electrical company will be directly compensated by owner and is not to be included in bid.*

**Clarification:** This is correct.

26. **Question:** *Spec. 02335 Par. 3.01D: "Remove and replace or recompact weak zones in accordance with paragraph 3.05". How will additional over excavated material removal and replacement be compensated?*

**Clarification:** This is included as an incidental cost in the applicable bid items. Refer to Section 01270 Measurement and Payment included in Addendum #1.

27. **Question:** *Specification Section 01322.1.03.D indicates that the pre-construction videotape condition survey is to be created by an independent company. Section 2.01B. requires that the quality of the video shall be professional. Does SAWS require that the pre-construction video be prepared by a professional videography firm?*

**Clarification:** Yes, the requirements of the specification shall apply.

28. **Question:** *Specification 01330-7, Item 20, a). Regarding charging the Contractor \$2,000 per submittal for resubmittal of shop drawings, is the Engineer willing to work with the Contractor and provide "Approved As Noted" responses or are submittals going to be merely marked "Revise and Resubmit"? Small, minor technicalities can easily force resubmittals to the point where the Contractor is being charged \$2,000 for resubmittals.*

**Clarification:** It is the Owner's intent to move the project forward as efficiently as practical while still maintaining quality of the components and documentation of what is installed. Submittals that are complete and clear with minor corrections by the Owner will generally be given the status of "Exceptions Noted".

29. **Question:** *Specification 01330-7, Item 20, b). Regarding charging the Contractor \$2,000 per submittal requested to be expedited with a 7 day turnaround, why is there additional charge for this? Is the Engineer planning on expending twice as much effort to review the submittal, or does the review merely occur faster?*

**Clarification:** This specification is a program standard; this price is to cover the cost of additional resources that would be required to complete the review in a short timeframe.

30. **Question:** *Specification 01330-7, Item 20, c). Regarding charging the Contractor \$2,000 per submittal requested to be reviewed after the 50% point of time of the Contract, what is this for?*



*Paving, or example, sometimes does not happen until later in the project, and should not be penalized for submission before it is going to actually occur.*

**Clarification:** This specification is a program standard; the schedule of when submittals will be provided is established with the construction schedule and schedule of submittals, which will be reviewed and accepted by the Owner.

31. **Question:** *TOC-4 DRAWINGS (BOUND SEPARATELY). Language refers to many different entities having Standard Specifications that may affect the project, and that if there is a conflict between these standards and the Project Documents, the most stringent shall apply. Shouldn't the Project Documents govern the Project, as the Engineer should be responsible to check conflicts with other standards during the design phase of the Project?*

**Clarification:** The Engineer has reviewed the referenced documents and checked for conflicts.

32. **Question:** *Specification 01720-1, 1.02, E.1. Specification indicates the Contractor is responsible for survey locating the well field access roads. I assume this is horizontal location and not vertical cuts/fills? Please verify.*

**Clarification:** The Contractor is responsible for all surveying and construction staking for the project, including the horizontal location of the well field access roads. For the well field access roads, the Contractor is also responsible for vertical cuts/fills at the stream crossings.

33. **Question:** *The specifications indicate that water for construction operations, supply of the Field Office Trailer, and for filling and testing of the pipeline can be obtained by drilling wells at the Buckhorn site. Can you provide any other information regarding this subject?*

**Clarification:** This is included in Section 01500 Construction Facilities and Temporary Controls, paragraph 1.04.E. There are existing available monitoring wells as shown on Sheet 11 that can be used for construction water supply. The wells completed under a separate contract, to be equipped with pumps under this contract, may also be used after approval of the Owner. The Contractor also may drill temporary water supply wells as included in this section. The Contractor is required to provide, at his expense, any permits, equipment, appurtenances, piping, electrical, etc., required for providing construction water, in accordance with Gonzales County Underground Water Conservation District.

34. **Question:** *Specification 02317-10 and 02317-21. Specification indicates Contractor shall establish existing (original) and final grades along the pipeline alignment, and to verify this. Is the Owner/Engineer going to have the Contractor survey the entire route pre-construction and post-construction to verify this?*

**Clarification:** Yes, the Contractor is responsible for all surveying and construction staking for the project as specified. Refer to General Notes, Supplementary Conditions, and various technical specifications.

35. **Question:** *Specifications require a test section of pipeline to be installed. It states to install 500 LF of pipe, wait 48 hours, check deflection, remove pipe, and check embedment. Does this really need to happen for a small diameter water line at minimal cover? How is deflection to be checked?*

**Clarification:** The test section is required. Deflection testing will only be required if the Owner has concerns regarding the pipe installation. The method will be determined by the Contractor and pipe manufacturer. Refer to Addendum #1.

36. **Question:** *Specification 02360. What type of seeding is going to be required for this project? Are plantings going to be required?*

**Clarification:** This specification is only required for seeding of properties along the south side of CR 123. Native species are required for seeding and plantings as specified. Method of seeding shall be determined by Contractor, as long as it achieves consistent distribution and proper seed to soil contact. Plantings may be required in order to establish a sustainable native grassland area.

37. **Question:** *Specification 02360. Specification indicates that the revegetation needs to be watered by temporary irrigation systems. How is this to be accomplished in such a remote project location?*

**Clarification:** Water is available as stated in Specification Section 01500 Construction Facilities and Temporary Controls.

38. **Question:** *Specification 02300. Specification requires geotechnical field investigation for the tunnels/bores. There are only 153 LF of tunnels/bores for a water line, does this really need to be done?*

**Clarification:** Yes, this is required as specified.

39. **Question:** *Specification 02400. This specification seems a bit overdone for 153 LF of tunnels/bores for a water line. Is there any way the specification can be made more realistic for this type of application?*

**Clarification:** The requirements of the specification apply.

40. **Question:** *Specification 02634. Specification requires the pipe supplier qualifications to be submitted with the bid. Can the pipe supplier qualifications be submitted by the Apparent Low Bidder post-bid? The Contractor may not know who the most competitive pipe supplier will be until minutes before the bid cut-off time.*

**Clarification:** Yes.

41. **Question:** *Specification 02634-13. Specification indicates the position of the pipe shall be verified by instrument control at every joint. Does this mean that the Contractor has to survey each joint of pipe for horizontal and vertical location? If yes, why considering it is a water line?*

**Clarification:** This is required as specified.

42. **Question:** *Specification 02634-15. Specification indicates the pipe shall be covered with backfill immediately after installation during cooler hours of the day. Does it need to be backfilled immediately, or during cooler hours of the day? If during cooler hours of the day, does that mean the Contractor will be forced to leave trench open and only backfill at night or in the morning?*

**Clarification:** Refer to Addendum #1.

43. **Question:** *Specification 02634-15. Specification indicates that deflection of pipe shall be measured at least 72 hours after backfill and shall be measured for deflection at 25-foot intervals. How is the deflection to be measured? Will the Contractor be required to run something through the installed pipe to check deflection somehow? Why?*

**Clarification:** Refer to Addendum #1. Deflection testing will only be required if the Owner has concerns with the installation. The method will be determined by the Contractor and pipe manufacturer.

44. **Question:** *Specification 02910. Will the Contractor be required to drill seed, broadcast seed, or hydromulch?*

**Clarification:** Any method that achieves consistent distribution and proper seed to soil contact can be used.

45. **Question:** *Specification 02910-4, 3.04, B. Specification states to place erosion control blankets or turf reinforcement mats over all areas to be revegetated. Is the Contractor going to be required to install the blankets/ matting over the entire pipeline? If so, can a Bid Item be added for this work?*

**Clarification:** Yes; it is included in other applicable bid items, such as pipe installation.

46. **Question:** *Specification 02910-5, 3.04, D. Specification requires installation of FGM (Flexible Growth Medium) at different application rates for different slopes. What is this, why is it used, and can Bid Items be added for the different slope requirements and different application rates?*

**Clarification:** FGM accelerates seed germination. It is included in other applicable bid items, such as pipe installation.

47. **Question:** *Specification 02910-6, 3.05, F. Specification indicates to provide watering of newly planted grass seed for at least 60 days from planting at a rate of 1 inch of water per week, or until grass is established, and to use a temporary irrigation system. Does this requirement seem*

*reasonable in such a remote project location? How is the Contractor supposed to set up a temporary irrigation system? Is this a responsible use of water, a scarce resource?*

**Clarification:** Water is available as stated in Section 01500 Construction Facilities and Temporary Controls. Refer to Addendum #1 for watering requirements.

48. **Question:** *Specification 02930-3. Specification indicates Erosion Control Blankets and Turf Reinforcement Mats to be installed, different types for different slopes. Can Bid Items be added for these different applications?*

**Clarification:** These are included in other applicable bid items, such as pipe installation.

49. **Question:** *The specifications indicate that the right-of-way must be mowed and maintained. Is the Contractor going to actually be asked to mow this amount of right-of-way in such a remote location?*

**Clarification:** Refer to Addendum #1.

SAWS Regional Carrizo Project

**PRE-BID CONFERENCE SIGN-IN SHEET**

Project: Buckhorn Wellfield Collection Project

SAWS Job #03-8518-207

Date: April 30, 2012

Location: SAWS Tower II, CR154

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SAWS Regional Carrizo Project

**PRE-BID CONFERENCE SIGN-IN SHEET**

Project: Buckhorn Wellfield Collection Project

SAWS Job #03-8518-207

Date: April 30, 2012

Location: SAWS Tower II, CR154

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SAWS Regional Carrizo Project

**PRE-BID CONFERENCE SIGN-IN SHEET**

Project: Buckhorn Wellfield Collection Project

SAWS Job #03-8518-207

Date: April 30, 2012

Location: SAWS Tower II, CR154

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