



## 2014 Water Work Order Construction Project

Solicitation Number: B-14-067-DB

Job No.: 14-4005

### ADDENDUM #1

November 3, 2014

To Respondent of Record:

This addendum, applicable to work referenced above, is an amendment to the proposal and plans and specifications and as such will be a part of and included in the Contract Documents. Acknowledge receipt of this addendum by entering the Addendum number and issue date on the space provided in submitted copies of the proposal.

#### 1.0 Addendum Purpose

The purpose of this addendum is to issue revisions and clarifications for the 2014 Water Work Order Construction Project.

#### MODIFICATIONS TO THE SPECIFICATIONS

1. Invitation to Bidders – Remove paragraph 5 in its entirety and replace with the following:

**Sealed bids will be received** by the Contract Administration Division, 2800 U.S. Hwy 281 North, Customer Center Building, Suite 171, San Antonio, Texas 78212, **until 2:00 p.m., November 6, 2014**. Bids will then be publicly opened and read aloud in Contract Administration, Suite 169, Customer Center Building, 2800 U.S. Hwy 281 North, San Antonio, Texas. Each bid must be accompanied by a cashier's check, certified check, or bid bond in an amount not less than five percent of the total bid price.

2. Insert Special Specification 518.

3. Insert Special Specification 1040.

#### RESPONSES TO QUESTIONS

- The quantities on the plans seem to be incorrect. Actual pipe lengths appear to be longer than the stationing.**  
*Contractor shall be paid for all pipe installed per note on the plans.*
- Grout the 12" main? Do we have to? Specifications call for greater than 12" mains to be grouted.**  
*All sizes of water mains to be grouted per Spec. 9101.*
- Does the contract only address streets and not alleys? Are those conditions separated in this project?**  
*There is no separation of the conditions between water mains in streets or in alleys. The water main projects could exist in either streets or alleys.*
- There are several references in the specifications that state work will take place until all funds have been exhausted. What is the maximum dollar amount SAWS will commit to this contract?**  
*The engineering cost estimate for the project is \$1,645,000.00.*
- There are references in the specification that certain portions of this contract will be performed in the Union Pacific Railroad ROW. Will SAWS furnish plans prior to bid date on any work that will be performed in this ROW? They (Railroad) has very specific insurance and construction requirements and it would be a cost**

disadvantage to SAWS for Railroad costs to be incorporated into the total bid package costing the rate payer an unfair dollar burden.

*No plans will be furnished prior to the bid date on any work that will be performed in this ROW.*

6. **We have contacted several directional boring companies who feel the grades are too steep within the very short linear footage shown. They feel their equipment and the 12" HDPE pipe will be placed in too much of a strain to be successful. Will SAWS lengthen the entrance and exit points there by flattening out the grade percentage?**  
*There is a possibility of the entrance and exit points lengthen to flatten out the percent grade of the main. Per the design consultant the project can be constructed as laid out on the plans.*
7. **Under special conditions SC-2.0 Project Requirements b. States the bidder will have successfully completed 5000lf utilizing directional drill method. What importance is SAWS placing on this requirement? In other words if bidder No. 2 has this experience and the low bidder does not, will SAWS follow their specified criteria and award to bidder No.2?**  
*In order to submit a bid, bidders shall meet the minimum qualifications outlined in a. and b. of SC 2.0-Project Requirements. And, as indicated in the Instructions to Bidders #17, SAWS has the right to reject any and all bids. Therefore, SAWS may or may not award to bidder number 2.*
8. **Bid Item 813 "Water Service for Fire Line, All Sizes & Types"**  
**We need a length of pipe to quote. Will SAWS change this bid item to per foot bid in lieu of per each. With no pipe sizes, type of pipe or the length of pipe given a contractor will be unable to submit a balanced bid as it currently is.**  
*Yes the bid item 813 will be modified from EA to LF for all sizes and types. See revised Bid Proposal attached to this addendum, that should be utilized when submitting a bid*
9. **Will SAWS provide more detailed information under bid item 518.1 shrubs? What specifically is covered under this item as to type and size?**  
*This item is intended for the replacement of any existing shrubs that may be encountered during construction.*
10. **Same question under bid item 518.2 landscaping/flower bed. Is this mulch, gravel, granite etc... and what type or how many flowers per SY of coverage?**  
*This item is intended for the replacement of any existing flower beds that may be encountered during construction.*
11. **What type of trees will be furnished under 518.3 3" diameter and 6" diameter to price accurately?**  
*This item is intended for the replacement of any existing trees that may be encountered during construction.*
12. **Bid Item 552.1 Remove and relocate irrigation systems. What size is this and since it is being relocated can the same material be used?**  
*The same type of materials can be used, but all materials will be new to the project.*
13. **Would SAWS postpone the bid opening by 24 hours to November 6th?**  
*Yes, the date has been moved within this Addendum.*

#### **ACKNOWLEDGEMENT BY RESPONDENT**

Each Respondent shall acknowledge receipt of this Addendum No. 1 by noting such and signing the Price Proposal.

This undersigned acknowledges receipt of this Addendum No. 1 and the proposal submitted herewith is in accordance with the information and stipulations set forth.

\_\_\_\_\_  
Date

\_\_\_\_\_  
Signature of Respondent

END OF ADDENDUM

The seal appearing on this document was authorized by

ROBERT R. VILLARREAL, II  
on 11/3/2014



A handwritten signature in black ink, appearing to read "Robert R. Villarreal, II". The signature is written in a cursive style and is positioned above a horizontal line.

Robert R. Villarreal, II, P.E.  
San Antonio Water System

**SPECIAL SPECIFICATION ITEM 518  
TREES, PLANTS AND GROUND COVERS**

**PART 1 GENERAL**

**1.01** This item governs for the furnishing and planting of Trees, Plants, and Ground Covers as specified in the plans in the areas designated on the plans or as directed by the City of San Antonio Arborist.

**1.02 SECTION INCLUDES:**

The Contractor shall provide trees, plants and ground covers as shown and specified in the plans. The work includes:

- A. Soil preparation.
- B. Large specimen trees, small flowering trees, plants and ground covers.
- C. Planting mixes.
- D. Mulch and planting accessories.
- E. Existing tree care.
- F. Maintenance.
- G. Backfill for large and small trees.

**1.03 RELATED SECTIONS:**

Item 800 – Tree Survey  
Item 801 – Tree and Landscape Protection  
Item 802 – Tree Pruning, Soil Amending & Fertilization  
Item 803 - Tree Transplanting  
Item 804 – Sodding & Seeding

**1.04 QUALITY ASSURANCE:**

- A. Plant names indicated comply with "Standardized Plant Names" as adopted by the latest edition of the American Joint Committee of Horticultural Nomenclature. Names of varieties not listed conform generally with names accepted by the nursery trade. The Contractor shall provide stock true to botanical name and legibly tagged.
- B. The Contractor shall comply with sizing and grading standards of the latest edition of "American Standard for Nursery Stock". A plant shall be dimensioned as it stands in its natural position.
- C. All plants shall be nursery grown under climatic conditions similar to those in the locality of the project for a minimum of two (2) years.
- D. Stock furnished shall be at least the minimum size indicated. Larger stock is acceptable, at no additional cost to the Owner, and providing that the larger plants will not be cut back to sizes indicated. Provide plants indicated by two measurements so that only a maximum of 25% are of the minimum size indicated and 75% are of the maximum size indicated.
- E. The Contractor shall provide "specimen" plants with a special height, shape, or character of growth. Tag specimen trees or shrubs at the source of supply. The Engineer will inspect specimen selections at the source of supply for suitability and adaptability to selected location. When specimen plants cannot be purchased locally, provide sufficient photographs of the proposed specimen plants for approval.
- F. Plants may be inspected and approved at the place of growth, for compliance with specification requirements for quality, size and variety. Such approval shall not impair the right of inspection

and rejection upon delivery at the site or during the progress of the work.

**1.05 SUBMITTALS:**

- A. The Contractor shall submit the following materials certification: Topsoil source and pH value.
- B. The Contractor shall provide plant material record drawings:
  - 1. Legibly mark drawings to record actual construction.
  - 2. Indicate horizontal and vertical locations, referenced to permanent surface improvements.
  - 3. Identify field changes of dimension and detail and changes made by Change Order.

**1.06 DELIVERY, STORAGE AND HANDLING:**

- A. The Contractor shall take all precautions customary in good trade practice in preparing plants for moving. Workmanship that fails to meet the highest standards will be rejected. Dig, pack, transport and handle plants with care to ensure protection against injury. Inspection certificates required by law shall accompany each shipment invoice or order to stock and on arrival, the certificate shall be filed with the Engineer. Protect all plants from drying out. If plants cannot be planted immediately upon delivery, properly protect them with soil, wet peat moss, or in a manner acceptable to the Landscape Architect. Water heeled-in plantings daily. No plant shall be bound with rope or wire in a manner that could damage or break the branches.
- B. The Contractor shall cover plants transported on open vehicles with a protective covering to prevent wind burn.
- C. The Contractor shall provide dry, loose friable topsoil for planting bed mixes. Frozen or muddy topsoil is not acceptable.

**1.07 PROJECT CONDITIONS:**

- A. Work notification: The Contractor shall notify Engineer at least seven (7) working days prior to installation of plant material.
- B. The Contractor shall protect existing utilities, paving and other facilities from damage caused by landscaping operations.
- C. A complete list of plants, including a schedule of sizes, quantities, and other requirements is shown on the plans. In the event that quantity discrepancies or material omissions occur in the plant materials list, the planting plans shall govern. It is the Contractor's responsibility to verify all quantities.
- D. Any irrigation systems will be installed prior to planting. The Contractor shall locate, protect and maintain the irrigation system during planting operations. Repair irrigation system components damaged during planting operations at the Contractor's expense.

**1.08 WARRANTY:**

- A. The Contractor shall warrant plant material to remain alive and be in healthy, vigorous condition for a period of one (1) year after completion and acceptance of entire project for operation and maintenance. Inspection of plants will be made by the Engineer and/or City Arborist at completion of planting.
- B. The Contractor shall replace, in accordance with the plans and specifications, all plants that are dead or, as determined by the City Arborist, are in an unhealthy or unsightly condition, and have lost their natural shape due to dead branches, or other causes due to the Contractor's negligence. Until issuance of the Certificate of Substantial Completion the Contractor shall replace all damage or loss to trees, plants or ground covers caused by fires, floods, freezing rains, lightning storms, or winds over 75 mph, winter kill caused by extreme cold and severe

winter conditions, acts of vandalism or negligence. The cost of such replacement(s) is at the Contractor's expense. The Contractor shall warrant all replacement plants for one (1) year after completion and acceptance of the entire project for operation and maintenance.

- C. Warranty shall not include damage or loss to trees, plants or ground covers caused by fires, floods, freezing rains, lightning storms, or winds over 75 mph, winter kill caused by extreme cold and severe winter conditions not typical of planting area; acts of vandalism or negligence on the part of the Owner.
- D. The Contractor shall remove and immediately replace all plants, as determined by the Engineer and/or City Arborist, to be unsatisfactory during the initial planting installation.

#### **1.09 MEASUREMENT AND PAYMENT:**

Measurement shall be based on the number (Each) of satisfactorily planted and maintained Trees and Plants and the area (Square Yard) of satisfactorily planted and maintained Ground Cover. The accepted quantities shall be paid for at the contract unit price for the Tree, Plant, or Ground Cover type applicable in the bid list which shall be full compensation for the furnishing of all materials, labor, tools, equipment, and supplies (fertilizers, water, fungicides, topsoil, mulch, etc.) to plant the Trees, Plants or Ground Covers and maintain the Trees, Plants or Ground Covers until one year after final approval of the project as shown in plans or as directed by the Engineer or City Arborist.

### **PART 2 PRODUCTS**

#### **2.01 MATERIALS:**

- A. Plants: The Contractor shall provide plants typical of their species or variety; with normal, densely-developed branches and vigorous, fibrous root systems. Provide only sound, healthy, vigorous plants free from defects, disfiguring knots, sun scald injuries, frost cracks, abrasions of the bark, plant diseases, insect eggs, borers, and all forms of infestation. All plants shall have a fully developed form without voids and open spaces. Plants held in storage will be rejected if they show signs of growth during storage.
  - 1. The Contractor shall dig balled and burlapped plants with firm, natural balls of earth of sufficient diameter and depth to encompass the fibrous and feeding root system necessary for full recovery of the plant. Provide ball sizes complying with the latest edition of the "American Standard for Nursery Stock". Cracked or mushroomed balls are not acceptable. All trees shall be nursery grown.
  - 2. Container-grown stock: Plants shall be grown in a container for sufficient length of time for the root system to have developed to hold its soil together, firm and whole.
    - a. No plants shall be loose in the container.
    - b. Container stock shall not be pot bound.
  - 3. The Contractor shall provide tree species that mature at heights over 25'-0" with a single main trunk unless multitrunks are specified. Trees that have the main trunk forming a "Y" shape are not acceptable.
  - 4. Plants planted in rows shall be matched in form.
  - 5. Plants larger than those specified in the plant list may be used when acceptable to the City Arborist. If the use of larger plants is acceptable, increase the spread of roots or root ball in proportion to the size of the plant.
  - 6. The height of the trees, measured from the crown of the roots to the top of the top branch, shall not be less than the minimum size designated in the plant list.

7. Shrubs and small plants shall meet the requirements for spread and height indicated in the plant list.
  - a. The measurements for height shall be taken from the ground level to the average height of the top of the plant and not the longest branch.
  - b. Single stemmed or thin plants will not be accepted.
  - c. Side branches shall be generous, well twigged, and the plant as a whole well-bushed to the ground.
  - d. Plants shall be in a moist, vigorous condition, free from dead wood, bruises, or other root or branch injuries.

## **2.02 ACCESSORIES:**

- A. A minimum of six (6) inches of topsoil, after settling occurs, shall be furnished in all shrub beds and raised planters shall be filled with good friable topsoil as called for on the plans. Topsoil furnished shall be natural, fertile, friable soil, possessing characteristics of representative productive soils in the vicinity. It shall be obtained from naturally well drained areas. Topsoil shall be without admixture of sub-soil and free from nut grass (*Cyperus rotundus*) and other objectionable grass, weeds and toxic substances. Topsoil shall be approved by the City Arborist.
- B. Commercial fertilizer shall be Carefree, Vertagreen, or approved equal, organic fertilizer containing the following minimum percentages of available plant food by weight: 15-5-5 or 16-8-8 Nitrogen-Phosphorus. Mixed nitrogen, not less than 50% from organic source. Inorganic chemical nitrogen shall not be derived from the sodium form of nitrate or from the ammonia nitrate. It shall be delivered to the site in unopened containers, each bearing the manufacturer's guaranteed analysis. Any fertilizer which becomes caked or otherwise damaged, making it unsuitable for use, will not be accepted.
- C. Soil conditioner shall be two (2") inches of compost or approved equivalent as provided by Garden-Ville/Horticultural Products, Route 3, Box 210 TA, San Antonio, Texas 78218, (210) 651-6115 or City Arborist approved equal. Compost is to be worked into the first four (4") inches of topsoil.
- D. Sand shall be sharp, clean sand.
- E. Mulch shall be four (4) inches of native bark for surface dressing of shrub beds as provided by Garden-Ville/Horticultural Products, Route 3, Box 210 TA, San Antonio, Texas 78218, (210) 651-6115 or City Arborist approved equal or that shall be furnished from the onsite stockpile.
- F. Water shall be free of substances harmful to plant growth. Hoses or other methods of transportation shall be furnished by Contractor.
- G. Backfill shall be provided for each new large specimen tree and small tree as called out on the planting plan and shall be landscape Garden Mix as provided by Curlex Erosion Control Matting or equivalent as provided by Garden-Ville/Horticultural Products, Route 3, box 210 TA, San Antonio, Texas 78218, (210) 651-6115 or City Arborist approved equal.
- H. Edging shall be Shawtown Root Barrier Panels by NDS or equivalent to be provided on all sides of Bamboo Planting. For more information call (800) 726-1994.

## **PART 3 EXECUTION**

### **3.01 INSPECTION:**

- A. The Contractor shall examine proposed planting areas and conditions of installation. The Contractor shall not start planting work until unsatisfactory conditions are corrected.

- B. Any ground cover or shrub plantings that are having existing infestation of nut grass, Bermuda grass, Johnson grass or other objectionable grasses or weeds shall be first treated with "round up" as manufactured by Monsanto, or City Arborist approved equal. Treatment shall be in strict accordance to manufacturer's specifications and shall be accomplished to allow sufficient time for a complete kill prior to starting any soil preparation and planting in treated planting areas.
- C. Planting shall be performed only by experienced workmen familiar with planting procedures under the supervision of a qualified supervisor.
- D. Locate plants as indicated or as approved in the field after staking by the Contractor. If obstructions are encountered that are not shown on the plans, do not proceed with planting operations until alternate plant locations have been selected.
- E. The Contractor shall excavate circular plant pits with vertical sides, except for plants specifically indicated to be planted in beds. Provide shrub pits at least 12" greater than the diameter of the root system and 24" greater for trees. Depth of pit shall accommodate the root system. Scarify the bottom of the pit to a depth of 4". Remove excavated materials from the site.
- F. Soil Preparation: Soil used in planting shall be topsoil as hereinbefore specified, or suitable existing soil either of which shall be thoroughly mixed with the following materials and in the proper proportions: 1 cu. yd. topsoil; 6 cu. ft. shredded pine bark; 1/4 cu. yd. sand; 3 lbs sulfur; 6 lbs. fertilizer, as specified.

### **3.02 INSTALLATION:**

- A. The Contractor shall set plant material in the planting pit to proper grade and alignment. Set plants upright, plumb, and faced to give the best appearance or relationship to each other or adjacent structure. No filling will be permitted around trunks or stems. Backfill the pit with planting mixture. Do not use frozen or muddy mixtures for backfilling. Form a ring of soil around the edge of each planting pit to retain water.
- B. After balled and burlapped plants are set, muddle planting soil mixture around bases of balls and fill all voids. Remove all burlap, ropes and wires from the tops of balls.
- C. The planting beds for ground cover areas, outline of which are shown on the plans, shall be prepared in the following manner. Apply 6 lbs. of hereinbefore specified fertilizer per 100 sq. ft. area, 2" sand, 2" shredded native bark and then thoroughly till the area to a depth of 8" using a roto tiller or similar equipment that will thoroughly pulverize the soil and evenly mix in the fertilizer. Roots, stones, grade stakes or other objects 1" in maximum dimension or larger shall be removed from the beds and disposed of off the site. The Contractor shall space ground cover plants in accordance with indicated dimensions. Adjust spacing as necessary to evenly fill planting bed with indicated quantity of plants. Plant to within 12" of the trunks of trees and shrubs within planting bed and to within 6" of edge of bed.
- D. Mulching:
  - 1. The Contractor shall mulch existing trees, new trees and shrub planting pits and shrub beds with required mulching material three (3) inches deep immediately after planting. Thoroughly water mulched areas. After watering, rake mulch to provide a uniform finished surface.
  - 2. The Contractor shall mulch ground cover beds with required pine bark material 2" deep immediately after planting.
- E. Pruning:

The Contractor shall prune branches of deciduous stock, after planting, to balance the loss of roots and preserve the natural character appropriate to the particular plant requirements. In general, remove 1/4 to 1/3 of the leaf bearing buds, proportion in all cases shall be acceptable to the Landscape Architect. Remove or cut back broken, damaged, and unsymmetrical growth of new wood.



F. Care of Existing Trees:

Item 801 – Tree & Landscape Protection

Item 802 – Tree Pruning, Soil Amending & Fertilization

**3.03 MAINTENANCE:**

- A. The Contractor shall maintain plantings until completion and acceptance of the entire project.
- B. Maintenance shall include pruning, cultivating, weeding, watering and application of appropriate insecticides and fungicides necessary to maintain plants free of insects and disease.
  - 1. The Contractor shall re-set settled plants to proper grade and position. Restore planting saucer and adjacent material and remove dead material.
  - 2. The Contractor shall tighten and repair guy wires and stakes as required.
  - 3. The Contractor shall correct defective work as soon as possible after Deficiencies become apparent and weather and season permit.
  - 4. The Contractor shall water trees, plants and ground cover beds within the first twenty four (24) hours of initial planting, and not less than twice per week until final acceptance for operation and maintenance.

**3.04 ACCEPTANCE:**

- A. Site visit to determine acceptance of planted areas will be made by the City Arborist, upon the Contractor's request. **Provide notification at least ten (10) working days before requested inspection date.** Planted areas will be accepted provided all requirements, including maintenance, have been complied with and plant materials are alive and in a healthy, vigorous condition.
- B. Upon acceptance, the Owner will assume plant maintenance.

**3.05 CLEANING:**

- A. The Contractor shall perform cleaning during installation of the work and upon completion of the work. Remove from site all excess materials, soil, debris and equipment. Repair damage resulting from planting operations.

**SPECIAL SPECIFICATION ITEM NO. 1040  
TEMPORARY WATER MAIN**

**PART 1 – GENERAL**

**1.01 SCOPE OF WORK**

- A. This work shall consist of furnishing, installing, connecting, testing, supporting, restraining, disconnecting, and removing temporary water main of the sizes indicated in the Bid Proposal and in accordance with individual work order plans.
- B. This specification covers thrust-restrained Polyvinyl Chloride (PVC) Pipe, 2" – 16", with Iron Pipe Size (I.P.S.) outside diameters. Pipe is intended for use in applications such as pressure-rated potable water delivery systems and temporary above ground waterline.

**1.02 REFERENCES**

- A. To the extent referenced in this specification section, the standards and documents listed below are included, and made a part of this specification.
- B. In the event of a conflict, the requirements of this specification section shall prevail.
- C. Unless otherwise specified, references to documents shall mean the latest published edition of the referenced document in effect at the bid date of the project.
- D. ANSI/AWWA:
  - 1. ANSI/AWWA C651 - Disinfecting Water Mains.
- E. National Sanitation Foundation (NSF)
  - 1. NSF/ANSI 61 - Drinking Water System Components – Health Effects.
  - 2. NSF/ANSI 14 – Plastic Piping System Components and Related Materials.
- F. American Society of Testing and Materials (ASTM)
  - 1. ASTM D1784 – Standard Specification for Rigid PVC Compounds and Chlorinated PVC Compounds.
  - 2. ASTM D2241 – Standard Specification for Poly (Vinyl Chloride) (PVC) Pressure-Rated Pipe (SDR Series).
  - 3. ASTM D2387 – Standard Test Method for Obtaining Hydrostatic Design Basis for Thermoplastic Pipe Materials or Pressure Design Basis for Thermoplastic Pipe Products.
  - 4. ASTM D3139 – Standard Specification for Joints for Plastic Pressure Pipes Using Flexible Elastomeric Seals.

5. ASTM F477 – Standard Specification for Elastomeric Seals (Gaskets) for Joining Plastic Pipe.

### **1.03 SUBMITTALS**

#### **A. Quality Assurance / Control Submittals**

1. Provide affirmation that product shipped meets or exceeds the standards set forth in this specification. This shall be in the form of a written document from the manufacturer attesting to the manufacturing process meeting the standards.
2. Provide manufacturers recommended installation and pipe joining procedures for the products.
3. Submit product data for pipe including Product manufacturer's specifications, pipe and fittings materials of construction and dimensions of pipe and fittings.
4. Submit certification of conformance with NSF 61 by an acceptable certifying organization.

### **1.04 DELIVERY, STORAGE, AND HANDLING**

- A. Handle the pipe in accordance with the manufacturer's instructions using approved strapping and equipment rated for the loads encountered. Do not use chains, wire rope, forklifts or other methods or equipment that may gouge or damage the pipe or endanger persons or property. Field storage is to be in compliance with manufacturer's recommendations.
- B. Any pipe that has gouges, scrapes, or other damage to the pipe that results in a loss of 10% or more of the pipe wall thickness shall be removed and not used.
- C. Inspect the pipe for defects before installation and joining. Defective, damaged or unsound pipe will be rejected.

## **PART 2 – PRODUCTS**

### **2.01 PIPE**

- A. Products delivered under this specification shall be manufactured only from water distribution pipe and couplings conforming to ASTM 2241. The restrained joint pipe system shall also meet all short and long term pressure test requirements of ASTM D2241. Pipe, couplings, and locking splines shall be completely nonmetallic to eliminate corrosion problems.
- B. Pipe and couplings shall be made from unplasticized PVC compounds having a minimum cell classification of 12454, as defined in ASTM D1784. The compound shall qualify for a Hydrostatic Design Basis (HDB) of 4000 psi for water at 73.4°F, in accordance with the requirements of ASTM D2837.

- C. Restrained joint PVC pipe products shall have been tested and approved by NSF International. PVC pipe and coupling systems, size 2" through 16", up to Class 250 shall be listed in NSF 14. All products intended for contact with potable water shall be evaluated, tested, and certified for conformance with NSF 61 by an acceptable certifying organization. Copies of agency approval reports or product listings shall be provided to the Engineer.
- D. Nominal outside diameters and wall thicknesses of thrust-restrained pipe shall conform to the requirements of ASTM D2241. Thrust restrained pipe shall be furnished in sizes from 2" to 16" nominal diameter with minimum pressure class of 160 psi. Pipe to be used in a SAWS High Pressure Zone shall have a minimum pressure class of 200 psi.
- E. Pipe shall be furnished in standard lengths of 20 feet.

## **2.02 JOINTS**

- A. Pipe shall be joined using non-metallic couplings or Integral Bells to form a restrained system with maximum reliability and interchangeability. High-strength, flexible thermoplastic splines shall be inserted into mating, precision-machined grooves in the pipe, coupling and bell to provide full 360° restraint with evenly distributed loading.
- B. Temporary waterline service connections shall be installed using IPS service saddles compatible with Copper service connections as approved by SAWS. Service tubing shall be per SAWS Standard Specifications.
- B. Couplings shall be designed for use at or above the rated pressures of the pipe with which they are utilized, and shall incorporate twin elastomeric sealing gaskets meeting the requirements of ASTM F477. Joints shall be designed to meet the leakage test requirements of ASTM D3139.

## **2.03 WORKMANSHIP**

- A. Pipe and couplings shall be homogeneous throughout and free from voids, cracks, inclusions and other defects, and shall be as uniform as commercially practicable in color, density and other physical characteristics.

## **2.04 QUALITY CONTROL**

- A. Quality Control shall be in accordance with NSF requirements.

## **2.05 PIPE IDENTIFICATION**

- A. The pipe and couplings shall be legibly and permanently marked in accordance with the standards to which it is manufactured and shall include the following information, at a minimum:
  - 1. Nominal Size;
  - 2. Outside Diameter Size (I.P.S.)
  - 2. PVC;
  - 3. Standard Dimension Ratio and pressure rating;

4. Manufacturer's name or trademark and production record code;
5. ASTM designation D2241-09 (or latest edition)
6. Seal (mark) of the testing agency verifying the suitability of the pipe material for potable water service.

## **2.06 APPROVED MANUFACTURER**

- A. Certa-Lok Yelomine PVC restrained-joint pipe for temporary water main from CertainTeed Corporation, or approved equal.

## **PART 3 – EXECUTION**

### **3.01 JOINING METHODS**

- A. The pipe shall be joined per manufacturer's instructions.

### **3.02 INSTALLATION**

- A. Install temporary water main as shown on work order plans or as directed by the ENGINEER. Changes in layout may be made with prior approval of ENGINEER. Secure temporary water main with suitable anchoring devices as needed.
- B. Use approved traffic ramps for temporary water main crossings of existing streets. Cutting and restoring pavement shall only be allowed if approved by City of San Antonio and SAWS. Install valves on temporary water main at both ends of each road crossing.
- C. Ramp and maintain temporary water main pipe at residential driveway crossings with compacted temporary pavement free of potholes, bumps, irregularities, and depressions as shown on the work order plans or as directed by the ENGINEER.
- D. Ramp and maintain temporary water main at sidewalk crossings as shown on the work order plans or as directed by ENGINEER.
- E. Make connections to existing water mains as shown on work order plans.

### **3.03 TESTING**

- A. Hydrostatic leakage testing shall comply with SAWS Standard Specification Item No. 841. If the test section fails this test, the Contractor shall repair or replace all defective materials and/or workmanship at no additional cost to the Owner.

### **3.04 CLEANING AND DISINFECTING**

- A. Cleaning and disinfecting of temporary water mains for potable water systems shall be in accordance with AWWA C651 and SAWS Standard Specification Item No. 847.

- B. Upon completion, the system should be thoroughly flushed with fresh water, and retested to verify the disinfectant chlorine level has been reduced to potable drinking water concentrations in all service water tubing and branch lateral pipes.

## **PART 4 – MEASUREMENT AND PAYMENT**

### **4.01 MEASUREMENT**

- A. Temporary Water Main shall be measured by the linear foot for the size of temporary water main installed.
- B. Measurements will be from the center line intersection of runs and branches of tees to the end of the valve of a dead end run.
- C. Measurements will also be between the center line intersection of runs and branches of tees. Where the branch is plugged for future connection, the measurement will include the entire laying length of the branch or branches of the fitting.
- D. The measurement of each line of pipe of each size will be continuous and shall include the full laying lengths of all fittings and valves installed between the ends of such line except that the laying length of reducers will be divided equally between the connected pipe sizes. Lines leading to a tapping connection with an existing main will be measured to the center of the main tapped.

### **4.01 PAYMENT**

- A. Payment for Temporary Water Main will be made at the unit price bid per linear foot of pipe according to size installed. Such payment shall also include excavation, selected embedment material, backfill, compaction, polyethylene sleeve where required, hauling and disposition of surplus excavated material.
- B. Removed AC pipe shall be manifested and disposed in accordance with standards that may be obtained through the SAWS homepage at <http://www.saws.org>. Payment for disposal of AC pipe will be made at the unit price bid

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 the work required for the replacement of water distribution mains by open cut construction and required appurtenances for the San Antonio Water System (SAWS) in accordance with the plans and specifications for the 2014 Water Work Order Construction Project, Job No. 14-4005. The undersigned acknowledges and understands that some projects are unspecified at the time of bidding, all quantities are estimated, and it is the intent of this proposal and quantities herein to establish a unit price for various line items to be paid the Contractor by SAWS on an annual basis. No change in the unit price will be made, regardless of the actual quantity of the item of work performed. The work will be performed for the following prices to wit:

Item No.	Description (Unit Price to be written in Words)	Unit	Quantity	Unit Price (Figures)	Total Price (Figures)
103.1	Remove Concrete Curb  _____ Dollars and _____ Cents	LF	50	_____	_____
103.3	Remove Sidewalks and Driveways  _____ Dollars and _____ Cents	SF	200	_____	_____
103.4	Remove Miscellaneous Concrete  _____ Dollars and _____ Cents	SF	50	_____	_____
202.1	Prime Coat  _____ Dollars and _____ Cents	GAL	20	_____	_____
203.1	Tack Coat  _____ Dollars and _____ Cents	GAL	10	_____	_____
205.4	Hot Mix Asphaltic Pavement Type "D" (2" Pavement Thickness)  _____ Dollars and _____ Cents	SY	1000	_____	_____

BP-1

205.4	Hot Mix Asphaltic Pavement Type "D" (3" Pavement Thickness)	SY	1000	_____	_____
				<u>Dollars</u>	
	and _____			<u>Cents</u>	
206.1	Asphalt Treated Base (12" Compacted Depth)	SY	300	_____	_____
				<u>Dollars</u>	
	and _____			<u>Cents</u>	
208.1	Salvage, Haul, Stockpile Reclaimable Asphalt Pavement (2" Depth)	SY	1000	_____	_____
				<u>Dollars</u>	
	and _____			<u>Cents</u>	
208.1	Salvage, Haul, Stockpile Reclaimable Asphalt Pavement (3" Depth)	SY	1000	_____	_____
				<u>Dollars</u>	
	and _____			<u>Cents</u>	
247	Flexible Base – Type A, Grade 1 with 2% Cement (TxDOT Spec)	CY	25	_____	_____
				<u>Dollars</u>	
	and _____			<u>Cents</u>	
306.1	Structural Excavation	CY	30	_____	_____
				<u>Dollars</u>	
	and _____			<u>Cents</u>	
340	HMAC Pavement Type "C" (TxDOT Spec)	CY	25	_____	_____
				<u>Dollars</u>	
	and _____			<u>Cents</u>	
500.1	Concrete Curb	LF	25	_____	_____
				<u>Dollars</u>	
	and _____			<u>Cents</u>	
502.1	Concrete Sidewalks- Conventionally Formed	SY	15	_____	_____
				<u>Dollars</u>	
	and _____			<u>Cents</u>	
503.1	Concrete Driveway	SY	20	_____	_____
				<u>Dollars</u>	
	and _____			<u>Cents</u>	

BP-2



503.2	Concrete Driveway- Commercial	SY	20	_____	_____
	_____ Dollars				
	and _____ Cents				
503.4	Asphaltic Concrete Driveway	SY	20	_____	_____
	_____ Dollars				
	and _____ Cents				
503.5	Gravel Driveway	SY	20	_____	_____
	_____ Dollars				
	and _____ Cents				
504.1	Concrete Median	SY	10	_____	_____
	_____ Dollars				
	and _____ Cents				
504.2	Concrete Directional Island	SY	10	_____	_____
	_____ Dollars				
	and _____ Cents				
505.1	Concrete Riprap (5" Thick)	SY	10	_____	_____
	_____ Dollars				
	and _____ Cents				
506.1	Concrete Retaining Walls-Combination Type	CY	5	_____	_____
	_____ Dollars				
	and _____ Cents				
507.2	Temporary Chain Link Wire Fence	LF	25	_____	_____
	_____ Dollars				
	and _____ Cents				
507.4	Gates – Pedestrian	EA	1	_____	_____
	_____ Dollars				
	and _____ Cents				
507.5	Gates- Vehicular	EA	1	_____	_____
	_____ Dollars				
	and _____ Cents				
509.1	Metal Beam Guard Rail	LF	10	_____	_____
	_____ Dollars				
	and _____ Cents				

BP-3

510	Timber Guard Posts	EA	2	_____	_____
	_____ Dollars				
	and _____ Cents				
511.4	Replacing with Portland Cement Concrete Pavement – 16"	SY	10	_____	_____
	_____ Dollars				
	and _____ Cents				
513.1	Removing and Relocating Mailboxes	EA	1	_____	_____
	_____ Dollars				
	and _____ Cents				
513.3	Removing and Relocating Mailboxes (Masonry)	EA	1	_____	_____
	_____ Dollars				
	and _____ Cents				
515.1	Top Soil (3")	CY	50	_____	_____
	_____ Dollars				
	and _____ Cents				
516.1	Bermuda Sodding	SY	15	_____	_____
	_____ Dollars				
	and _____ Cents				
516.2	St. Augustine Sodding	SY	15	_____	_____
	_____ Dollars				
	and _____ Cents				
518.1	Shrubs	EA	5	_____	_____
	_____ Dollars				
	and _____ Cents				
518.2	Landscaping/Flower Beds	SY	15	_____	_____
	_____ Dollars				
	and _____ Cents				
518.3	Tree (3" Trunk Diameter)	EA	1	_____	_____
	_____ Dollars				
	and _____ Cents				
518.3	Tree (6" Trunk Diameter)	EA	1	_____	_____
	_____ Dollars				
	and _____ Cents				

BP-4

520.1	Hydromulching (Residential or Commercial)	SY	25	_____	_____
	_____ Dollars				
	and _____ Cents				
530.1	Barricades, Signs and Traffic Handling (1 per Work Order)	EA	5	_____	_____
	_____ Dollars				
	and _____ Cents				
535.1	4 Inch Wide Yellow Line	LF	20	_____	_____
	_____ Dollars				
	and _____ Cents				
535.2	4 Inch Wide White Line	LF	20	_____	_____
	_____ Dollars				
	and _____ Cents				
535.7	24 Inch Wide White Line	LF	20	_____	_____
	_____ Dollars				
	and _____ Cents				
537.6	Pavement Marker (Type I-C)	LF	10	_____	_____
	_____ Dollars				
	and _____ Cents				
537.8	Pavement Marker (Type II-A-A)	LF	10	_____	_____
	_____ Dollars				
	and _____ Cents				
550	Trench Excavation Safety Protection	LF	2000	_____	_____
	_____ Dollars				
	and _____ Cents				
551.1	Temporary Special Shoring	SF	100	_____	_____
	_____ Dollars				
	and _____ Cents				
552.1	Remove and Relocate Irrigation Systems	LF	20	_____	_____
	_____ Dollars				
	and _____ Cents				
553	Storm Water Pollution Prevention Plan (3W3P) (1 per Work Order)	EA	3	_____	_____
	_____ Dollars				
	and _____ Cents				

BP-5

554	Erosion Control Matting (Including Seeding)	SY	200	_____	_____
	_____ Dollars				
	and _____ Cents				
805	Traffic Control Plan (1 per Work Order, if required)	EA	5	_____	_____
	_____ Dollars				
	and _____ Cents				
809	Reinforced Concrete Vaults for Metered Fire Line Complete with DCDA, All Sizes & Types	EA	1	_____	_____
	_____ Dollars				
	and _____ Cents				
813	Water Service for Fire Line, All Sizes & Types	LF	35	_____	_____
	_____ Dollars				
	and _____ Cents				
814	12" DI Waterline (Pressure Class 350, Restrained)	LF	100	_____	_____
	_____ Dollars				
	and _____ Cents				
818	8" PVC Waterline (Restrained as Required)	LF	1000	_____	_____
	_____ Dollars				
	and _____ Cents				
818	12" PVC Waterline (Restrained as Required)	LF	500	_____	_____
	_____ Dollars				
	and _____ Cents				
818	16" PVC Waterline (Restrained as Required)	LF	400	_____	_____
	_____ Dollars				
	and _____ Cents				
818	20" PVC Waterline (Restrained as Required)	LF	200	_____	_____
	_____ Dollars				
	and _____ Cents				
818	24" PVC Waterline (Restrained as Required)	LF	200	_____	_____
	_____ Dollars				
	and _____ Cents				

822	Short Yard Piping	LF	100	_____	_____
	_____ Dollars				
	and _____ Cents				
822	Long Yard Piping	LF	100	_____	_____
	_____ Dollars				
	and _____ Cents				
823	Yard Piping – Direction Bore Method (All Sizes 3" Diameter and Smaller)	LF	20	_____	_____
	_____ Dollars				
	and _____ Cents				
824	Reconnect 3/4" Short Service	EA	5	_____	_____
	_____ Dollars				
	and _____ Cents				
824	Relay 3/4" Short Service	EA	5	_____	_____
	_____ Dollars				
	and _____ Cents				
824	Relay 3/4" Long Service	EA	5	_____	_____
	_____ Dollars				
	and _____ Cents				
824	New 3/4" Short Service	EA	5	_____	_____
	_____ Dollars				
	and _____ Cents				
824	New 3/4" Long Service	EA	5	_____	_____
	_____ Dollars				
	and _____ Cents				
824	Relay 1" Short Service	EA	3	_____	_____
	_____ Dollars				
	and _____ Cents				
824	Relay 1" Long Service	EA	3	_____	_____
	_____ Dollars				
	and _____ Cents				
824	New 1" Short Service	EA	2	_____	_____
	_____ Dollars				
	and _____ Cents				

BP-7

824	New 1" Long Service	EA	3	_____	_____
	_____ Dollars				
	and _____ Cents				
824	Relay 1 1/2" Short Service	EA	2	_____	_____
	_____ Dollars				
	and _____ Cents				
824	Relay 1 1/2" Long Service	EA	1	_____	_____
	_____ Dollars				
	and _____ Cents				
824	New 1 1/2" Short Service	EA	1	_____	_____
	_____ Dollars				
	and _____ Cents				
824	New 1 1/2" Long Service	EA	1	_____	_____
	_____ Dollars				
	and _____ Cents				
824	Relay 2" Short Service	EA	1	_____	_____
	_____ Dollars				
	and _____ Cents				
824	Relay 2" Long Service	EA	1	_____	_____
	_____ Dollars				
	and _____ Cents				
824	New 2" Short Service	EA	1	_____	_____
	_____ Dollars				
	and _____ Cents				
824	New 2" Long Service	EA	1	_____	_____
	_____ Dollars				
	and _____ Cents				
824	Relocate 3/4" Short Service	EA	1	_____	_____
	_____ Dollars				
	and _____ Cents				
824	Relocate 3/4" Long Service;	EA	1	_____	_____
	_____ Dollars				
	and _____ Cents				

BP-8

824	Relocate 1" Short Service	EA	1	_____	_____
	_____ Dollars				
	and _____ Cents				
824	Relocate 1" Long Service	EA	1	_____	_____
	_____ Dollars				
	and _____ Cents				
824	Relocate 1 1/2" Short Service	EA	1	_____	_____
	_____ Dollars				
	and _____ Cents				
824	Relocate 1 1/2" Long Service	EA	1	_____	_____
	_____ Dollars				
	and _____ Cents				
824	Relocate 2" Short Service	EA	1	_____	_____
	_____ Dollars				
	and _____ Cents				
824	Relocate 2" Long Service	EA	1	_____	_____
	_____ Dollars				
	and _____ Cents				
824	New 4" Short Service	EA	1	_____	_____
	_____ Dollars				
	and _____ Cents				
824	New 4" Long Service	EA	1	_____	_____
	_____ Dollars				
	and _____ Cents				
824	Relay 4" Short Service	EA	1	_____	_____
	_____ Dollars				
	and _____ Cents				
824	Relay 4" Long Service	EA	1	_____	_____
	_____ Dollars				
	and _____ Cents				
824	Relocate 4" Long Service	EA	1	_____	_____
	_____ Dollars				
	and _____ Cents				

BP-9

824	Relocate 4" Short Service	EA	1	_____	_____
	_____ Dollars				
	and _____ Cents				
824	New 6" Short Service	EA	1	_____	_____
	_____ Dollars				
	and _____ Cents				
824	New 6" Long Service	EA	1	_____	_____
	_____ Dollars				
	and _____ Cents				
824	Relay 6" Short Service	EA	1	_____	_____
	_____ Dollars				
	and _____ Cents				
824	Relay 6" Long Service	EA	1	_____	_____
	_____ Dollars				
	and _____ Cents				
824	Relocate 6" Long Service	EA	1	_____	_____
	_____ Dollars				
	and _____ Cents				
824	Relocate 6" Short Service	EA	1	_____	_____
	_____ Dollars				
	and _____ Cents				
824	New Unmetered 3/4" Short Service	EA	1	_____	_____
	_____ Dollars				
	and _____ Cents				
824	New Unmetered 3/4" Long Service	EA	1	_____	_____
	_____ Dollars				
	and _____ Cents				
824	New Unmetered 1" Short Service	EA	1	_____	_____
	_____ Dollars				
	and _____ Cents				
824	New Unmetered 1" Long Service	EA	1	_____	_____
	_____ Dollars				
	and _____ Cents				

BP-10



824	New Unmetered 1 1/2" Short Service	EA	1	_____	_____
	_____ Dollars				
	and _____ Cents				
824	New Unmetered 1 1/2" Long Service	EA	1	_____	_____
	_____ Dollars				
	and _____ Cents				
824	New Unmetered 2" Short Service	EA	1	_____	_____
	_____ Dollars				
	and _____ Cents				
824	New Unmetered 2" Long Service	EA	1	_____	_____
	_____ Dollars				
	and _____ Cents				
824	New Unmetered 4" Short Service	EA	1	_____	_____
	_____ Dollars				
	and _____ Cents				
824	New Unmetered 4" Long Service	EA	1	_____	_____
	_____ Dollars				
	and _____ Cents				
824	New Unmetered 6" Short Service	EA	1	_____	_____
	_____ Dollars				
	and _____ Cents				
824	New Unmetered 6" Long Service	EA	1	_____	_____
	_____ Dollars				
	and _____ Cents				
824	New 2" SCH 80 Conduit for Water Service	LF	100	_____	_____
	_____ Dollars				
	and _____ Cents				
824	2" Bore for 2" SCH 80 PVC Conduit for Water Service	LF	100	_____	_____
	_____ Dollars				
	and _____ Cents				
826	Valve Box Adjustment	EA	3	_____	_____
	_____ Dollars				
	and _____ Cents				

BP-11

828	6" Gate Valve	EA	1	_____	_____
	_____ Dollars				
	and _____ Cents				
828	8" Gate Valve	EA	4	_____	_____
	_____ Dollars				
	and _____ Cents				
828	10" Gate Valve	EA	1	_____	_____
	_____ Dollars				
	and _____ Cents				
828	12" Gate Valve	EA	3	_____	_____
	_____ Dollars				
	and _____ Cents				
828	16" Gate Valve	EA	2	_____	_____
	_____ Dollars				
	and _____ Cents				
830	20" Butterfly Valve	EA	1	_____	_____
	_____ Dollars				
	and _____ Cents				
830	24" Butterfly Valve	EA	1	_____	_____
	_____ Dollars				
	and _____ Cents				
831	8" x 6" Tee Cut In	EA	1	_____	_____
	_____ Dollars				
	and _____ Cents				
831	8" x 8" Tee Cut In	EA	1	_____	_____
	_____ Dollars				
	and _____ Cents				
831	8" x 10" Tee Cut In	EA	1	_____	_____
	_____ Dollars				
	and _____ Cents				
831	12" x 8" Tee Cut In	EA	1	_____	_____
	_____ Dollars				
	and _____ Cents				

BP-12

831	12" x 10" Tee Cut In	EA	1	_____	_____
	_____ Dollars				
	and _____ Cents				
831	12" x 12" Tee Cut In	EA	1	_____	_____
	_____ Dollars				
	and _____ Cents				
831	16" x 8" Tee Cut In	EA	1	_____	_____
	_____ Dollars				
	and _____ Cents				
831	16" x 12" Tee Cut In	EA	1	_____	_____
	_____ Dollars				
	and _____ Cents				
831	16" x 16" Tee Cut In	EA	1	_____	_____
	_____ Dollars				
	and _____ Cents				
831	20" x 8" Tee Cut In	EA	1	_____	_____
	_____ Dollars				
	and _____ Cents				
831	20" x 12" Tee Cut In	EA	1	_____	_____
	_____ Dollars				
	and _____ Cents				
831	20" x 16" Tee Cut In	EA	1	_____	_____
	_____ Dollars				
	and _____ Cents				
831	20" x 20" Tee Cut In	EA	1	_____	_____
	_____ Dollars				
	and _____ Cents				
831	24" x 8" Tee Cut In	EA	1	_____	_____
	_____ Dollars				
	and _____ Cents				
831	24" x 12" Tee Cut In	EA	1	_____	_____
	_____ Dollars				
	and _____ Cents				

BP-13

831	24" x 16" Tee Cut In	EA	1	_____	_____
	_____ Dollars				
	and _____ Cents				
831	24" x 20" Tee Cut In	EA	1	_____	_____
	_____ Dollars				
	and _____ Cents				
831	24" x 24" Tee Cut In;	EA	1	_____	_____
	_____ Dollars				
	and _____ Cents				
832	12" x 8" Tapping Sleeves and Valves	EA	1	_____	_____
	_____ Dollars				
	and _____ Cents				
832	16" x 8" Tapping Sleeves and Valves	EA	1	_____	_____
	_____ Dollars				
	and _____ Cents				
832	16" x 12" Tapping Sleeves and Valves	EA	1	_____	_____
	_____ Dollars				
	and _____ Cents				
832	20" x 8" Tapping Sleeves and Valves	EA	1	_____	_____
	_____ Dollars				
	and _____ Cents				
832	20" x 12" Tapping Sleeves and Valves	EA	1	_____	_____
	_____ Dollars				
	and _____ Cents				
832	20" x 16" Tapping Sleeves and Valves	EA	1	_____	_____
	_____ Dollars				
	and _____ Cents				
832	24" x 8" Tapping Sleeves and Valves	EA	1	_____	_____
	_____ Dollars				
	and _____ Cents				

BP-14

832	24" x 12" Tapping Sleeves and Valves	EA	1	_____	_____
				<u>Dollars</u>	
				and _____	<u>Cents</u>
832	24" x 16" Tapping Sleeves and Valves	EA	1	_____	_____
				<u>Dollars</u>	
				and _____	<u>Cents</u>
832	24" x 20" Tapping Sleeves and Valves	EA	1	_____	_____
				<u>Dollars</u>	
				and _____	<u>Cents</u>
832	24" x 30" Tapping Sleeves and Valves	EA	1	_____	_____
				<u>Dollars</u>	
				and _____	<u>Cents</u>
832	24" x 48" Tapping Sleeves and Valves	EA	1	_____	_____
				<u>Dollars</u>	
				and _____	<u>Cents</u>
833	Existing Meter and (New Meter) Box Relocation	EA	10	_____	_____
				<u>Dollars</u>	
				and _____	<u>Cents</u>
833	Meter Box	EA	10	_____	_____
				<u>Dollars</u>	
				and _____	<u>Cents</u>
834	Fire Hydrant	EA	4	_____	_____
				<u>Dollars</u>	
				and _____	<u>Cents</u>
836	Pipe Fittings (All Sizes & Types)	TON	6	_____	_____
				<u>Dollars</u>	
				and _____	<u>Cents</u>
840	8" Water Tie-In	EA	5	_____	_____
				<u>Dollars</u>	
				and _____	<u>Cents</u>

BP-15

840	12" Water Tie-In	EA	4	_____	_____
	_____ Dollars				
	and _____ Cents				
840	16" Water Tie-Ins	EA	4	_____	_____
	_____ Dollars				
	and _____ Cents				
840	20" Water Tie-Ins	EA	1	_____	_____
	_____ Dollars				
	and _____ Cents				
840	24" Water Tie-Ins	EA	1	_____	_____
	_____ Dollars				
	and _____ Cents				
841	Hydrostatic Testing	EA	5	_____	_____
	_____ Dollars				
	and _____ Cents				
844	2" Blow-off, Permanent	EA	2	_____	_____
	_____ Dollars				
	and _____ Cents				
844	2" Blow-off, Temporary	EA	2	_____	_____
	_____ Dollars				
	and _____ Cents				
844	4" Blow-off, Permanent	EA	1	_____	_____
	_____ Dollars				
	and _____ Cents				
844	4" Blow-off, Temporary	EA	1	_____	_____
	_____ Dollars				
	and _____ Cents				
846	1" Air Release Assemblies	EA	3	_____	_____
	_____ Dollars				
	and _____ Cents				
846	2" Air Release Assemblies	EA	1	_____	_____
	_____ Dollars				
	and _____ Cents				

BP-16

856.1	Jacking, Boring, or Tunneling 24"	LF	200	_____	_____
	_____ Dollars				
	and _____ Cents				
856.1	Jacking, Boring, or Tunneling 30"	LF	100	_____	_____
	_____ Dollars				
	and _____ Cents				
856.1	Jacking, Boring, or Tunneling 36"	LF	100	_____	_____
	_____ Dollars				
	and _____ Cents				
856.1	Jacking, Boring, or Tunneling 42"	LF	100	_____	_____
	_____ Dollars				
	and _____ Cents				
856.2	8" Carrier Pipe for Jacking, Boring, or Tunneling	LF	200	_____	_____
	_____ Dollars				
	and _____ Cents				
856.2	12" Carrier Pipe for Jacking, Boring, or Tunneling	LF	100	_____	_____
	_____ Dollars				
	and _____ Cents				
856.2	16" Carrier Pipe for Jacking, Boring, or Tunneling	LF	100	_____	_____
	_____ Dollars				
	and _____ Cents				
856.2	24" Carrier Pipe for Jacking, Boring, or Tunneling	LF	100	_____	_____
	_____ Dollars				
	and _____ Cents				
856.3	Steel Casing 24"	LF	200	_____	_____
	_____ Dollars				
	and _____ Cents				
856.3	Steel Casing 30"	LF	100	_____	_____
	_____ Dollars				
	and _____ Cents				
856.3	Steel Casing 36"	LF	100	_____	_____
	_____ Dollars				
	and _____ Cents				

856.3	Steel Casing 42"	LF	100	_____	_____
	_____ Dollars				
	and _____ Cents				
858	Concrete Encasement	CY	30	_____	_____
	_____ Dollars				
	and _____ Cents				
1015	3/4" & 1" Service Line Leak/Break Repair, all types	EA	1	_____	_____
	_____ Dollars				
	and _____ Cents				
1015	1.5" & 2" Service Line Leak/Break Repair, all types	EA	1	_____	_____
	_____ Dollars				
	and _____ Cents				
1020	6-inch Main Break/Leak Repair, all types	EA	1	_____	_____
	_____ Dollars				
	and _____ Cents				
1020	8-inch Main Break/Leak Repair, all types	EA	1	_____	_____
	_____ Dollars				
	and _____ Cents				
1020	10-inch Main Break/Leak Repair, all types	EA	1	_____	_____
	_____ Dollars				
	and _____ Cents				
1020	12-inch Main Break/Leak Repair, all types	EA	2	_____	_____
	_____ Dollars				
	and _____ Cents				
1020	16-inch Main Break/Leak Repair, all types	EA	1	_____	_____
	_____ Dollars				
	and _____ Cents				
1020	20-inch Main Break/Leak Repair, all types	EA	1	_____	_____
	_____ Dollars				
	and _____ Cents				



1020	24-inch Main Break/Leak Repair, all types	EA	1	_____	_____
				<u>Dollars</u>	
	and _____			<u>Cents</u>	
1040	4" Temporary Waterline (Restrained as Required)	LF	50	_____	_____
				<u>Dollars</u>	
	and _____			<u>Cents</u>	
1040	8" Temporary Waterline (Restrained as Required)	LF	50	_____	_____
				<u>Dollars</u>	
	and _____			<u>Cents</u>	
2026	Directional Drill 12" O.D. HDPE Pipe (DR 9)(200 PSI) (IPS)	LF	800	_____	_____
				<u>Dollars</u>	
	and _____			<u>Cents</u>	
3000	Removal, Transportation, and Disposal of A.C. Pipe (All Pipe Sizes)(Includes Asbestos Abatement Work Plan, if required)	LF	100	_____	_____
				<u>Dollars</u>	
	and _____			<u>Cents</u>	
4438	Flowable Backfill (TxDOT Spec.)	CY	100	_____	_____
				<u>Dollars</u>	
	and _____			<u>Cents</u>	
9101.1	Grout and Abandon Existing 12" Water Main	LF	1000	_____	_____
				<u>Dollars</u>	
	and _____			<u>Cents</u>	
9101.2	Existing 12" Steel Water Main Removal	LF	50	_____	_____
				<u>Dollars</u>	
	and _____			<u>Cents</u>	

TOTAL BID AMOUNT

\$ \_\_\_\_\_

\_\_\_\_\_ DOLLARS AND

\_\_\_\_\_ CENTS

\_\_\_\_\_  
BIDDER'S SIGNATURE & TITLE

\_\_\_\_\_  
FIRM'S NAME (TYPE OR PRINT)

\_\_\_\_\_  
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 complete the Project within **365** calendar days after the start date or until funds are exhausted, whichever comes first, 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 Bid Proposal which are included on the following pages.

