SAN ANTONIO WATER SYSTEM
2013 SMALL DIAMETER REHAB PROGRAM – PROJECT 2
SAWS JOB NO. 13-4807
SAWS SOLICITATION NO. B-13-023-DD

ADDENDUM NO. 1
May 8, 2013

This addendum, applicable to work referenced above, is an amendment to the bidding and specification documents and as such shall be a part of and included in the Contract Documents. Acknowledge receipt of this addendum by entering the addendum number and issue date in the spaces provided on all submitted copies of the proposal.

Addenda Purpose:

1.0 TECHNICAL SPECIFICATION:

REMOVE Supplemental Conditions, in its ENTIRETY and REPLACE with the attached revised Special Conditions.

REMOVE Specification Item 910 – Manhole Rehabilitation, in its ENTIRETY and REPLACE with the attached revised Specification Item 910.

2.0 TO ANSWER QUESTIONS SUBMITTED IN WRITING:

Q1. A point of clarification if quoting 4600 Series (gray) is the ASTM D3350 cell class is PE445574E. The spec calls for PE345434C (C = black pipe).

The spec also requires the pipe to have UV protection. They should be made aware that 4600 has UV protection sufficient for 2 years outdoor storage (see attached data sheet)

Finally, I'm not sure how they determined pipe stiffness and DR values. There appears to be a disconnect in the spec. DR 17 and 19 are frequently used for pipe bursting projects. However, they mention a pipe stiffness of 115 psi required for 8" and 10". ASTM F714 indicates the pipe stiffness for modulus cell 5 (PE445574E) DR 17 is 120 – 175 psi. Furthermore, using the equation in ASTM F714 to calculate pipe stiffness gives a short-term pipe stiffness for DR 17 of ~131 psi. However, for DR 19, the calculation shows ~92 psi. I would add that blanket stiffness requirements, while ignoring other key parameters such as strain tolerance, can lead to inappropriately over design or under design depending on pipe material. For instance some plastics like PVC have a higher modulus (and hence higher stiffness) but can generally tolerate much less strain (and thus less deformation) than PE. The engineer should verify the DR requirements for the project.

A1. Pipe should be gray and IPS DR 19 for depths of 0' – 16.0' and DR 17 for depths >16.1.

3.0 NON-MANDATORY PRE-BID MEETING:

Meeting Notes are attached for information only. The pre-bid meeting sign-in sheet has been posted previously on the SAWS website.

ACKNOWLEDGEMENT BY BIDDER

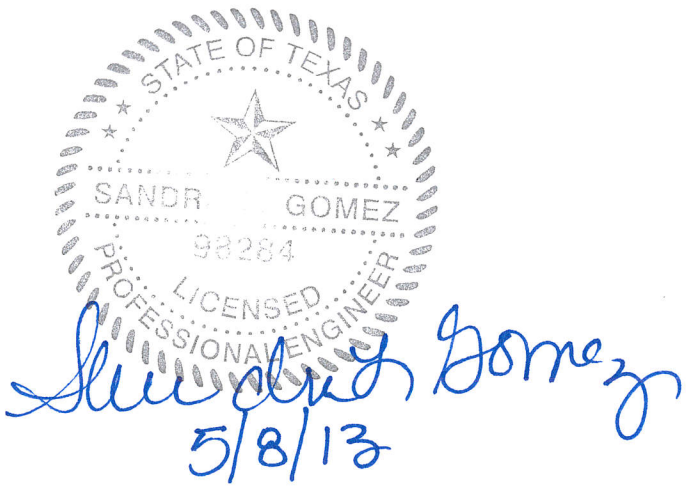
Each bidder is requested to acknowledge receipt of this Addendum No. 1 by his/her signature affixed hereto and to file same and attach with his/her bid.

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

_____ _____

DATE SIGNATURE

END OF ADDENDUM NO. 1



SUPPLEMENTAL CONDITIONS

1. Add the following to Article IV. Contract Administration, Section 4.4 of the General Conditions:

   "**CONTRACTORS** – The Contractor shall perform the Work with its own organization or at least 40% of the total original contract price.

   The term to "perform the Work with its own organization" is defined herein as utilizing only:

   - Workers employed and paid directly by the Contractor or a wholly owned subsidiary of the contractor.
   - Equipment owned by the contractor or its wholly owned subsidiary.
   - Rented or leased equipment operated by the Contractor's, or its wholly owned subsidiaries, employees.
   - For purposes of determining the value of the Work self-performed, the amount shall include all materials incorporated into the Work where the majority of the value of the Work involved in incorporating the material is performed by the Contractor's own Organization, including wholly owned subsidiary; and
   - Labor provided by staff leasing firms licensed under Chapter 91 of the Texas Labor code for non-supervisory personnel if the contractor or wholly owned subsidiary maintains direct control over the labor."

   The remaining sections of Article IV shall remain the same.

2. Replace Article V. Contract Responsibilities, Section 5.3.7 of the General Conditions in entirety with the following:

   "Permits – SAWS is responsible for obtaining all necessary City of San Antonio (CoSA) street cut and CoSA right-of-way permits. The Contractor is solely responsible for obtaining all other necessary permits and inspections (including review fees, inspections, and licenses). Cost of obtaining and fulfilling these permits are the responsibility of the Contractor and are subsidiary to various items in the project, unless a separate bid item for such is included in the bid proposal.

   A. City of San Antonio Right-of-Way Use Permits. SAWS will pay only for the first permit of each project that is within the right-of-way of COSA. If a permit extension is required, the Contractor must notify SAWS a minimum of 10 working days prior to the expiration date of the permit. If the permit expires and needs to be reapplied for, the Contractor will be required to reimburse SAWS for the cost of the permit. In addition, the Contractor is responsible to reimburse SAWS for all permit fines or fees

that are associated with improper traffic control, barricades, safety issues, or violations issued by the COSA under the approved permit. SAWS retains the right to withhold future work orders until all permit fines and/or expired permit fees are reimbursed to SAWS.

B. Railroad Permits. The Contractor shall be aware that portions of the work being performed may be within the Union Pacific Railroad's ('the Railroad') right-of-way (ROW). The Contractor must submit a written scheduling request to the Railroad's scheduling agent. The Contractor's written request must be delivered to the Railroad's scheduling agent:

Mr. John Van Gelder
Assistant Manager
Real Estate Department
Union Pacific Railroad Company
1400 Douglas Street, Stop 1690
Omaha, NE 68179-1690
Fax: 402-544-8532

The Railroad may provide, at the Contractor's expense, an inspector and flagman to oversee the work within the railroad ROW. No payment shall be made for the efforts expended by the Contractor with the Railroad. The Contractor is responsible for meeting all requirements of the Railroad. The costs for services described herewith shall not be paid separately, but shall be included in the relevant bid items established in the bid proposal.

The Contractor shall at all times abide by the conditions outlined in the Pipeline Crossing Agreement between SAWS and the Railroad. SAWS will furnish a copy of the Pipeline Crossing Agreement to the Contractor upon execution or at the pre-construction meeting, whichever comes first.

SAWS will pay for the License Fee, as well as obtain the License from the Railroad.

At all times during construction, installation and repair or removal of a pipeline or wire line the Contractor must obtain and maintain Railroad Protective Liability Insurance written on ISO occurrence form CG 00 35 12 04 (or a substitute form providing equivalent coverage) on behalf of the Railroad as named insured, with a limit of $2,000,000.00 per occurrence and an aggregate of $6,000,000.00. A binder stating that the policy is in place must be submitted to the Railroad, as well as the SAWS' Risk Manager before the work may be commenced and until the original policy is forwarded to the Railroad."

3. Add the following to Article V. Contract Responsibilities, Section 5.15 of the General Conditions:

   "The Contractor will be supplied with the appropriate benchmark information, but construction staking will be the responsibility of the Contractor. Detailed transfers of elevation, line and grades to structures and other features of the Work shall be the responsibility of the Contractor. The Contractor shall be responsible for providing SAWS with a copy of cut sheets for sanitary sewer lines prior to excavation."

4. Replace Article VIII. Contract Time Completion, Section 8.1 in entirety with the following:

   "The Work called for in each Work Order of this Contract shall be commenced by Contractor within 48 hours after issuance of each Work Order by SAWS. SAWS reserves the right to change this time frame if a special situation shall arise on a work order. Under no circumstances shall the Work commence prior to Contractor's receipt of a SAWS issued Work Order. Computation of Work Order Time will begin 48 hours after issuance of a Work Order unless specified otherwise in the Work Order.

   Prior to commencement of work and before the 48 hour period as referenced above, a project pre construction meeting will be held for each work order that is issued. Commencement of work on a work order prior to a project preconstruction meeting will not be allowed."

5. Liquidated Damages – for purpose of this work order contract, the Liquidated Damages will be assessed at $350 per day per work order.

6. Add the following to Article IX. Project Completion and Acceptance, Section 9.1.6 of the General Conditions:

   "In addition, all TWDB required closeout documents must be received by the TWDB project representative prior to TWDB authorizing the release of retainage."

ITEM 910
MANHOLE REHABILITATION SPECIFICATION

910.1 Description

This item shall govern rehabilitation of manholes complete and in place and the materials used therein, including cleaning, interior surface restoration, priming the prepared surface and coating (including bench and invert of the manhole). It shall also include all required by-pass pumping necessary to complete the work.

910.2 Certification

Manufacturer shall certify that Applicator has been trained and approved in the handling, mixing and application of the products to be used. Equipment to be used for applying the products by the Applicator shall be certified and approved by the Manufacturer. At least five (5) recent references of Applicator indicating successful application of proposed liner on project of similar size and scope shall be submitted by Contractor. *Only manhole rehabilitation products approved by the SAWS Standards Committee shall be used. All contractors doing this work must have a minimum of 15,000 vertical feet installed within the State of Texas.*

The Contractor shall submit descriptive information including technical data sheets and ASTM test results on each product proposed indicating that the product conforms to and it is suitable for its intended use per these specifications. *All required submittals must be satisfactory to SAWS.*

910.3 Surface Preparation

Proper surface preparation procedures must be followed to ensure adequate bond strength to any surface to be coated. Applicator shall inspect all surfaces specified to receive a liner prior to surface preparation. Applicator shall notify Owner of any noticeable disparity in the surfaces which may interfere with the proper preparation or application of the repair mortar and/or liner(s). Concrete that is not sound or or has been damaged by chemical exposure shall be removed to a sound, concrete surface. All contaminants including: all oils, grease, incompatible existing coatings, waxes, form release, curing compounds, efflorescence, sealers, salts, or other contaminants shall be removed. Surface preparation methods(s) should be based upon the conditions of the substrate and the requirements of the liner to be applied.

Surface to receive liner shall be cleaned and abraded to produce a sound concrete surface with adequate profile and porosity to provide a strong bond between the protective coating and substrate. High pressure cleaning with a minimum of 4,000 psi, and 4 gallons per minute using a rotating pencil nozzle, shall be used to clean and free all foreign material within the manhole. Detergent water and cleaning or muratic acid shall be used when grease and oil are present. All materials resulting from the cleaning of the manhole shall be removed prior to application of coating.

Active water infiltration shall be stopped by using a cementitious water plug or hydroactive grout such as Strong-Seal Strong-Plug, Quadex Hydra-Plug or approved equal, which is compatible

with the specified coating. Prepared surfaces should be tested after cleaning but prior to application of the coating, if a specific pH or moisture content of the concrete is required according to manufacturer's recommendations.

910.4 Product Handling

Protective-coating materials are to be handled according to their material safety data sheets. Materials are to be kept dry, protected from weather and stored under cover.

Repair/under-coat materials must be accepted and approved by the protective coating manufacturer for compatibility with the specified liner and shall be used to fill voids, structurally reinforce and/or rebuild surfaces, etc. as determined necessary by the engineer and liner applicator.

910.5 Materials and Components

(1) Concrete: Concrete shall conform to City of San Antonio (CoSA) Standard Specifications for Public Works Constructed dated October 1995. Item 300- Concrete (concrete class "A").

(2) Mortar shall be composed of one part Portland Cement, one part masonry cement (or ¼ part hydrated lime) and masonry sand equal to 2-1/2 to 3 times the sum of the volumes of the cements and lime used.

(3) Unless otherwise specified, all grouting shall be done with non-shrinking grout. Non-shrinking Grout: Non-shrinking grout shall be furnished factory premixed so only water is added at the job site. Grout shall be mixed in a mechanical mixer. No more water shall be used than is necessary to produce a flowable grout. All proportioning and mixing of the components shall be in accordance with manufacturer's recommendations.

(4) Reinforcement: Reinforcing steel shall conform to the requirements of COSA Item 301-Reinforcing Steel.

(5) Brick: Replacement brick for ring adjustment courses shall be of first quality, sound, kiln fired, new unbroken brick.

(6) For rehabilitation of existing manholes, apply a combination of cementitious coating and epoxy coating, with the cementitious coating first, followed by the epoxy coating. Lafarge SewperCoat 2000 HR regular, with the required one inch thick application, is the only product yet approved which satisfies the requirement of applying the combination of both the cementitious coating and epoxy coating. Approved materials are as follows:

Cementitious coating: With required one inch thick application.

- Permacast CR-5000
- Strong - Seal MS-2C
- Standard Cement Material Inc. Reliner

- Quadex Aluminaliner

Epoxy coating: With specified thickness application.

- Raven 405 Series High Build Epoxy Liner: Required thickness 125 mils
- Spray Wall Polyurethane System: Required thickness 150 mils

910.6 Liner Application

Application procedures shall conform to the recommendations of the liner manufacturer, including material handling, mixing, environmental controls during application, safety, and equipment. The liner application equipment shall be specifically designed to accurately apply the specified liner materials and shall be regularly maintained and proper working order. The liner material must be applied by a Certified Applicator of the liner manufacturer. The liner shall be applied to minimum thickness or as specified by the Engineer according to the Owner's requirements and manufacturer's recommendations. Temperature of the surface to be coated shall be maintained between 40 deg F and 120 deg F during application. Prior to and during application, care should be taken to avoid exposure of direct sunlight or other intense heat source to the structure being coated. Where varying surface temperatures do exist, care should be taken to apply the liner when the temperature is falling versus rising (later afternoon into evening versus early morning into afternoon).

910.7 Measurement

Manhole Rehabilitation shall be measured by vertical feet of manhole depth. Sewer Structure Rehabilitation (Noncircular Manholes, and Manholes Greater than 4 ft. in Diameter) shall be measured by the square feet of area to be rehabilitated.

910.8 Testing

Contractor shall perform testing for manhole rehabilitation – structural/low sulfate, and structural lining/moderate sulfate shall consist of the following:

1. Visually verify the absence of leaks.
2. Perform an exfiltration test.
   a. For manholes 0 to 6 foot deep, if water loss is 1-inch or less in five minutes, manhole passes the exfiltration test.
   b. For manholes over 6 foot deep, if water loss is 1-inch or less plus 1/8-inch per additional foot of depth in five minutes, manhole passes the exfiltration test.
3. Perform a vacuum test conforming to SAWS Standard Specifications for Construction, Item 852.4, at randomly selected manhole on every five manholes that are rehabilitated.
4. For every five (5) manholes that are rehabilitated, one manhole shall be inspected using high-voltage holiday detection equipment. All detected holidays shall be marked and repaired by abrading the coating surface with grit disk paper or other hand tooling method. After abrading and cleaning, additional protective coating

material shall be applied to the repair area. All touch-up repair procedures shall follow the protective coating manufacturer's recommendations.

If a manhole fails to pass one of the above tests, it shall be repaired in accordance with the manufacturer's recommendation and re-tested. It shall not be accepted until it passes all tests. All repairs and re-testing shall be at no additional cost to SAWS. If more than 20 percent (20%) of the manholes fail to pass any testing requirement, all manholes shall be vacuum tested and holiday tested as appropriate at no additional cost to SAWS.

910.9 Warranty

Contractor shall warrant all work against defects in materials and workmanship for a period of two (2) years, unless otherwise noted, from the date of final acceptance of the projects. Applicator shall, within a reasonable time after receipt of written notice thereof, repair defects in material or workmanship which may develop during said two (2) year period, and any damage to other work caused by such defects or the repairing of same, at their own expense and without cost to the Owner.

910.10 Payment

This item shall be paid for by square foot at the unit price bid or by the vertical foot of depth for the unit price bid for "Manhole Rehabilitation." Payment shall be full compensation for materials, labor, equipment, tools, testing, and any incidentals necessary to complete the work including the bench, invert, and all interior surfaces of the manhole. Payment will be made under the following:

Pay Item (910.1): Manhole Rehabilitation (Standard Manholes 4 ft diameter) per Vertical Feet.

NON-MANDATORY PRE-BID MEETING NOTES
SAN ANTONIO WATER SYSTEM
2013 SMALL DIAMETER REHAB PROGRAM – PROJECT 2
SAWS JOB NO. 13-4807
SAWS SOLICITATION NO. B-13-023-DD

I. MEETING TIME/PLACE

- Tuesday, April 30, 2013, 10:00 a.m.
- SAWS, Customer Service Building, Tower II, Conference Room CR-C137

II. PROJECT DISCUSSION

1. Duration of the contract is 365 days or until funds are exhausted, whichever comes first.
2. Cost estimate is $6 Million and liquidated damages are $350 per day per work order.
3. Bid Opening is May 17, 2013 at 10:00 a.m.
4. Questions can be submitted to Diana Dwyer until 4:00 p.m. on May 2, 2013.
5. Answers to questions will be posted to web site by 4:00 p.m. on May 9, 2013, as part of addendum.
6. This project will be TWDB funded, therefore TWDB forms included in contract documents are required to be completed and returned with the bid packet as identified on the bid checklist.
7. A minimum of 40% of work must be performed by Prime Contractor's own crews (see Page SS-1, Supplemental Condition No. 1, of Contract Documents).
8. Bidders will need to include a Record of Performance Submittal with their bids as stated in Section II. Terms and Conditions of SC-1.0 Scope of Work in the Special Conditions.
9. 48- Hour mobilization on all work orders. Mobilization will not be paid separately. It shall be considered subsidiary to other bid items.
10. The contractor shall make available up to 4 crews. Multiple work orders will be issued at once and the contractor is expected to maintain work on each work order until it's complete.
11. Work orders will have aggressive timelines so duration will be short for all work orders.
12. Flow Management such as bypass pumping is subsidiary to other bid items.
13. Please be familiar with SAWS standard specs and the special specs for this contract.

III. QUESTIONS DISCUSSED AT PRE-BID MEETING (NOT RECEIVED IN WRITING BY SAWS)

1. Will plates be allowed?
   Yes, no trenches are to be left open over-night. If a permanent backfill is not made, the trench must be temporarily backfilled and plated. There are no compaction or material requirements for temporary backfill.
2. Who is the area inspector?
   The area inspector is Frank DeLeon.
3. Will the same inspector be on the job?
   No. There may be different inspectors for each work order.
4. Will SAWS obtain the ROW permits?
   Yes, SAWS will obtain the ROW permits.
5. Are bid items all inclusive?
   For point repairs and obstruction removals, yes. The unit price bid should include all materials and necessities to complete the work.
6. Will the contractor work weekends?
   The contractor is not required to work weekends but may do so by requesting weekend work following the proper procedures.
7. Will SAWS pay for anything else other than the line items identified on the bid proposal?
   Any situation or items encountered that deviate from the plans/specs will be evaluated on a case by case basis.
8. How are issues that arise during construction addressed if they are beyond the scope?
   The contractor shall submit an RFI and a response will be provided in a timely manner.