SAN ANTONIO WATER SYSTEM
ANNUAL 2010 OPEN CUT SEWER
WORK ORDER CONSTRUCTION CONTRACT
SAWS Job No. 10-4512
SAWS Solicitation No. B-10-045-DD

ADDENDUM NO. 2
August 6, 2010

To Bidder of Record:

This addendum, applicable to work referenced above, is an amendment to the bidding documents 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 in the space provided in submitted copies of the proposal.

Item 1: **Invitation to Bidders**

Invitation to Bidders, REPLACE the following sentence at the beginning of Paragraph 3:

"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 10:00 a.m., August 10, 2010."

with the following sentence:

"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 10:00 a.m., August 11, 2010."

Item 2: **Bid Proposal**

Delete and replace with the attached revised Bid Proposal.

The following items have been removed:

852.1	20 EA – Sanitary Sewer Manhole (0'-6');
852.2	4 EA – Sanitary Sewer Drop Manhole (0'-6');
852.3	80 VF – Extra Depth Manholes (>6');

The following items have been added:

103.4	100 SF – Remove Misc Concrete;
200.1	100 SY – Flexible Base (4" Compacted Depth) (Type A);
507.2	100 LF – Temporary Chain Link Wire Fence (6 ft high);
518.3	2 EA – 6" Tree;
518.4	3 EA – 3" Tree;
852.1	15 EA – Sanitary Sewer Manhole, 4 ft Diameter (0'-6');
852.1	4 EA – Sanitary Sewer Manhole, 5 ft Diameter (0'-6');
852.1	1 EA – Sanitary Sewer Manhole, 6 ft Diameter (0'-6');
852.2	2 EA – Sanitary Sewer Drop Manhole, 4 ft Diameter (0'-6');
852.2	1 EA – Sanitary Sewer Drop Manhole, 5 ft Diameter (0'-6');
852.2	1 EA – Sanitary Sewer Drop Manhole, 6 ft Diameter (0'-6');
852.3	55 VF – Extra Depth Manholes, 4 ft Diameter (>6');
852.3	15 VF – Extra Depth Manholes, 5 ft Diameter (>6');
852.3	10 VF – Extra Depth Manholes, 6 ft Diameter (>6');

Item 3: **Special Conditions**

Add the following Special Condition to SC-5.2 General Notes:

"7. Trenches in alleys actively being used by vehicles (such as trash pickup, vehicle parking, etc.) shall be restored by grading and compacting to 98% or higher with a minimum of 4 inches of flex-base materials for the entire width of the alley. Flexible base materials for alley restoration shall be paid for under Item 200.1 Flexible Base (4" Compacted Depth) (Type A)."

Item 4: **Specification No. 910 Manhole Rehabilitation**

Attached Specification No. 910 – Manhole Rehabilitation shall be added to the contract documents.

Item 5: **Responses to Bidders Questions**

Question: "The bid proposal for the above referenced project does not include the manhole size (4', 5', 6') for items number 852.1, 852.2, and 852.3. Based on the sizes of pipe being installed I imagine that there will be differing sizes of manholes. Can the proposal be re-written to incorporate the sizes of manholes?"

Answer: Revised Bid Proposal is attached.

Item 6: **Mandatory Pre-Bid Meeting**

Meeting Notes are attached for information only. Per the Invitation to Bidders, only attendees to the Mandatory Pre-Bid Meeting are allowed to bid the project. The pre-bid meeting sign-in sheet has been posted previously on the SAWS website.

The remainder of the bid documents remains unchanged.

This Addendum, including this page, is twenty-nine (29) pages in its entirety.

Each bidder is requested to acknowledge receipt of this Addendum No. 2 by his/her signature affixed hereto and to file same as an attachment to his/her bid.

Jeffrey E. Reck, P.E.
Project Manager
LNV
TBPE Firm No. F-366

8-6-2010

The Undersigned acknowledges receipt of this Addendum No. 2 and the bid submitted herewith is in accordance with the information and stipulation set forth.

Date **Signature of Bidder**

END OF ADDENDUM

PROPOSAL

PROPOSAL OF _____, a corporation a

partnership consisting of _____

and an individual doing business as _____

TO THE SAN ANTONIO WATER SYSTEM:

Pursuant to Instruction and Invitations to Bidders, the undersigned proposes to furnish all labor and materials as specified and perform the work required for the construction of sanitary sewer mains by open-cut methods and required appurtenances for San Antonio Water System (SAWS) in accordance with the Plans and Specifications for the Annual 2010 Open-Cut Sewer Work Order Construction Contract, Job No. 10-4512. The undersigned acknowledges and understands that all 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 & Estimated Quantities (Unit Price to be written in words)	Unit Price (Figures)	Total Price (Figures)
103.1	100 LF – Remove Concrete Curb; per Linear Foot		
	_____ Dollars	$_____	$_____
	_____ Cents		
103.3	1000 SF – Remove Sidewalks and Driveways; per Square Foot		
	_____ Dollars	$_____	$_____
	_____ Cents		
103.4	100 SF – Remove Miscellaneous Concrete; per Square Foot		
	_____ Dollars	$_____	$_____
	_____ Cents		

Item No.	Description & Estimated Quantities (Unit Price to be written in words)	Unit Price (Figures)	Total Price (Figures)
200.1	100 SY – Flexible Base (4" Compacted Depth) (Type A); per Square Yard		
	_____ Dollars	$_____	$_____
	_____ Cents		
200.1	200 SY – Flexible Base (6" Compacted Depth) (Type A); per Square Yard		
	_____ Dollars	$_____	$_____
	_____ Cents		
202.1	60 GAL – Prime Coat; per Gallon		
	_____ Dollars	$_____	$_____
	_____ Cents		
203.1	20 GAL – Tack Coat; per Gallon		
	_____ Dollars	$_____	$_____
	_____ Cents		
205.4	3,000 SY – Hot Mix Asphaltic Concrete Pavement, Type D (2" Compacted Depth) per Square Yard		
	_____ Dollars	$_____	$_____
	_____ Cents		
206.1	200 SY – Asphalt Treated Base (10” Thick) per Square Yard		
	_____ Dollars	$_____	$_____
	_____ Cents		

Item No.	Description & Estimated Quantities (Unit Price to be written in words)	Unit Price (Figures)	Total Price (Figures)
209.1	3,000 SY – Salvage, Haul, Stockpile Asphalt Pavement (2" Depth) Per Square Yard		
	_____ Dollars	$_____	$_____
	_____ Cents		
500.1	100 LF – Concrete Curbing; per Linear Foot		
	_____ Dollars	$_____	$_____
	_____ Cents		
500.4	100 LF – Concrete Curb and Gutter; per Linear Foot		
	_____ Dollars	$_____	$_____
	_____ Cents		
502.1	25 SY – Concrete Sidewalks; per Square Yard		
	_____ Dollars	$_____	$_____
	_____ Cents		
503.1	50 SY – Portland Cement Concrete Driveway; per Square Yard		
	_____ Dollars	$_____	$_____
	_____ Cents		
503.2	50 SY – Portland Cement Concrete Driveway - Commercial; per Square Yard		
	_____ Dollars	$_____	$_____
	_____ Cents		

Item No.	Description & Estimated Quantities (Unit Price to be written in words)	Unit Price (Figures)	Total Price (Figures)
503.4	50 SY – Asphaltic Concrete Driveway; per Square Yard		
	_____ Dollars	$_____	$_____
	_____ Cents		
504.1	50 SY – Concrete Median; per Square Yard		
	_____ Dollars	$_____	$_____
	_____ Cents		
504.2	50 SY – Concrete Directional Island; per Square Yard		
	_____ Dollars	$_____	$_____
	_____ Cents		
505.1	60 SY – Concrete Riprap (5" Thick); per Square Yard		
	_____ Dollars	$_____	$_____
	_____ Cents		
506.1	40 CY – Concrete Retaining Walls-Combination Type; per Cubic Yard		
	_____ Dollars	$_____	$_____
	_____ Cents		
507.2	100 LF – Temporary Chain Link Wire Fence (6 ft high); per Linear Foot		
	_____ Dollars	$_____	$_____
	_____ Cents		

Item No.	Description & Estimated Quantities (Unit Price to be written in words)	Unit Price (Figures)	Total Price (Figures)
509.1	100 LF – Metal Beam Guard Rail; per Linear Foot		
	_____ Dollars _____ Cents	$_____	$_____
511.3	100 SY – Replacing with Hot Mix Asphaltic Concrete Pavement (3" Type D & 10" Type B); per Square Yard		
	_____ Dollars _____ Cents	$_____	$_____
511.3	100 SY – Replacing with Hot Mix Asphaltic Concrete Pavement (2" Type D & 6" Type B); per Square Yard		
	_____ Dollars _____ Cents	$_____	$_____
515	40 CY – Topsoil; per Cubic Yard		
	_____ Dollars _____ Cents	$_____	$_____
516.1	90 SY – Bermuda Sodding; per Square Yard		
	_____ Dollars _____ Cents	$_____	$_____
516.2	90 SY – St. Augustine Sodding; per Square Yard		
	_____ Dollars _____ Cents	$_____	$_____

Item No.	Description & Estimated Quantities (Unit Price to be written in words)	Unit Price (Figures)	Total Price (Figures)
518.1	10 EA – Shrubs; per Each		
	_____ Dollars	$_____	$_____
	_____ Cents		
518.2	60 SY – Landscaping/Flower Beds; per Square Yard		
	_____ Dollars	$_____	$_____
	_____ Cents		
518.3	2 EA – 6” Tree; per Each		
	_____ Dollars	$_____	$_____
	_____ Cents		
518.4	3 EA – 3” Tree; per Each		
	_____ Dollars	$_____	$_____
	_____ Cents		
520.1	100 SY – Hydromulch (Residential or Commercial); per Square Yard		
	_____ Dollars	$_____	$_____
	_____ Cents		
530.1	20 EA – Barricades, Signs and Traffic Handling; per Each (1 per work order)		
	_____ Dollars	$_____	$_____
	_____ Cents		

Item No.	Description & Estimated Quantities (Unit Price to be written in words)	Unit Price (Figures)	Total Price (Figures)
550.1	2,500 LF – Trench Excavation Safety Protection; per Linear Foot		
	_____ Dollars	$_____	$_____
	_____ Cents		
553	20 EA – Storm Water Pollution Prevention Plan (SWP3); per Each (1 per work order)		
	_____ Dollars	$_____	$_____
	_____ Cents		
805	20 EA – Traffic Control Plan; per Each (1 per work order, if required)		
	_____ Dollars	$_____	$_____
	_____ Cents		
812	50 LF – Adjust Waterline (6” Diameter); per Linear Foot		
	_____ Dollars	$_____	$_____
	_____ Cents		
812	50 LF – Adjust Waterline (8” Diameter); per Linear Foot		
	_____ Dollars	$_____	$_____
	_____ Cents		
812	50 LF – Adjust Waterline (12” Diameter); per Linear Foot		
	_____ Dollars	$_____	$_____
	_____ Cents		

Item No.	Description & Estimated Quantities (Unit Price to be written in words)	Unit Price (Figures)	Total Price (Figures)
812	50 LF – Adjust Waterline (16" Diameter); per Linear Foot		
	_____ Dollars	$_____	$_____
	_____ Cents		
812	50 LF – Adjust Waterline (20" Diameter); per Linear Foot		
	_____ Dollars	$_____	$_____
	_____ Cents		
812	50 LF – Adjust Waterline (24" Diameter); per Linear Foot		
	_____ Dollars	$_____	$_____
	_____ Cents		
824	25 LF – Adjust Water Service Line (3/4" or 1" Diameter); per Linear Foot		
	_____ Dollars	$_____	$_____
	_____ Cents		
824	25 LF – Adjust Water Service Line (1.5" or 2" Diameter); per Linear Foot		
	_____ Dollars	$_____	$_____
	_____ Cents		
824	25 LF – Adjust Water Service Line (3" or 4" Diameter); per Linear Foot		
	_____ Dollars	$_____	$_____
	_____ Cents		

Item No.	Description & Estimated Quantities (Unit Price to be written in words)	Unit Price (Figures)	Total Price (Figures)
833	2 EA – Existing Meter and Meter Box Relocation; per Each		
	_____ Dollars	$_____	$_____
	_____ Cents		
836	1 TON – Waterline Fittings (All sizes and types); per Ton		
	_____ Dollars	$_____	$_____
	_____ Cents		
848	1,500 LF - 8" PVC Gravity Sanitary Sewer Pipe (0'-6'); per Linear Foot		
	_____ Dollars	$_____	$_____
	_____ Cents		
848	700 LF - 8" PVC Gravity Sanitary Sewer Pipe (6'-10'); per Linear Foot		
	_____ Dollars	$_____	$_____
	_____ Cents		
848	600 LF - 8" PVC Gravity Sanitary Sewer Pipe (10'-14'); per Linear Foot		
	_____ Dollars	$_____	$_____
	_____ Cents		
848	1,000 LF - 10" PVC Gravity Sanitary Sewer Pipe (0'-6'); per Linear Foot		
	_____ Dollars	$_____	$_____
	_____ Cents		

Item No.	Description & Estimated Quantities (Unit Price to be written in words)	Unit Price (Figures)	Total Price (Figures)
848	800 LF - 10" PVC Gravity Sanitary Sewer Pipe (6'-10'); per Linear Foot		
	_____ Dollars	$_____	$_____
	_____ Cents		
848	500 LF - 10" PVC Gravity Sanitary Sewer Pipe (10'-14'); per Linear Foot		
	_____ Dollars	$_____	$_____
	_____ Cents		
848	900 LF - 12" PVC Gravity Sanitary Sewer Pipe (0'-6'); per Linear Foot		
	_____ Dollars	$_____	$_____
	_____ Cents		
848	600 LF - 12" PVC Gravity Sanitary Sewer Pipe (6'-10'); per Linear Foot		
	_____ Dollars	$_____	$_____
	_____ Cents		
848	300 LF - 12" PVC Gravity Sanitary Sewer Pipe (10'-14'); per Linear Foot		
	_____ Dollars	$_____	$_____
	_____ Cents		
848	400 LF - 15" PVC Gravity Sanitary Sewer Pipe (0'-6'); per Linear Foot		
	_____ Dollars	$_____	$_____
	_____ Cents		

Item No.	Description & Estimated Quantities (Unit Price to be written in words)	Unit Price (Figures)	Total Price (Figures)
848	300 LF - 15" PVC Gravity Sanitary Sewer Pipe (6'-10'); per Linear Foot _____ Dollars _____ Cents	$_____	$_____
848	200 LF - 15" PVC Gravity Sanitary Sewer Pipe (10'-14'); per Linear Foot _____ Dollars _____ Cents	$_____	$_____
848	500 LF - 18" PVC Gravity Sanitary Sewer Pipe (0'-6'); per Linear Foot _____ Dollars _____ Cents	$_____	$_____
848	400 LF - 18" PVC Gravity Sanitary Sewer Pipe (6'-10'); per Linear Foot _____ Dollars _____ Cents	$_____	$_____
848	300 LF - 18" PVC Gravity Sanitary Sewer Pipe (10'-14'); per Linear Foot _____ Dollars _____ Cents	$_____	$_____
848	400 LF - 21" PVC Gravity Sanitary Sewer Pipe (0'-6'); per Linear Foot _____ Dollars _____ Cents	$_____	$_____

Item No.	Description & Estimated Quantities (Unit Price to be written in words)	Unit Price (Figures)	Total Price (Figures)
848	300 LF - 21" PVC Gravity Sanitary Sewer Pipe (6'-10'); per Linear Foot		
	_____ Dollars	$_____	$_____
	_____ Cents		
848	200 LF - 21" PVC Gravity Sanitary Sewer Pipe (10'-14'); per Linear Foot		
	_____ Dollars	$_____	$_____
	_____ Cents		
848	300 LF - 24" PVC Gravity Sanitary Sewer Pipe (0'-6'); per Linear Foot		
	_____ Dollars	$_____	$_____
	_____ Cents		
848	400 LF - 24" PVC Gravity Sanitary Sewer Pipe (6'-10'); per Linear Foot		
	_____ Dollars	$_____	$_____
	_____ Cents		
848	200 LF - 24" PVC Gravity Sanitary Sewer Pipe (10'-14'); per Linear Foot		
	_____ Dollars	$_____	$_____
	_____ Cents		
851	5 EA - Adjusting Existing Manholes; per Each		
	_____ Dollars	$_____	$_____
	_____ Cents		

Item No.	Description & Estimated Quantities (Unit Price to be written in words)	Unit Price (Figures)	Total Price (Figures)
852.1	15 EA – Sanitary Sewer Manhole, 4 ft Diameter (0'-6'); per Each		
	_____ Dollars	$_____	$_____
	_____ Cents		
852.1	4 EA – Sanitary Sewer Manhole, 5 ft Diameter (0'-6'); per Each		
	_____ Dollars	$_____	$_____
	_____ Cents		
852.1	1 EA – Sanitary Sewer Manhole, 6 ft Diameter (0'-6'); per Each		
	_____ Dollars	$_____	$_____
	_____ Cents		
852.2	2 EA – Sanitary Sewer Drop Manhole, 4 ft Diameter (0'-6'); per Each		
	_____ Dollars	$_____	$_____
	_____ Cents		
852.2	1 EA – Sanitary Sewer Drop Manhole, 5 ft Diameter (0'-6'); per Each		
	_____ Dollars	$_____	$_____
	_____ Cents		
852.2	1 EA – Sanitary Sewer Drop Manhole, 6 ft Diameter (0'-6'); per Each		
	_____ Dollars	$_____	$_____
	_____ Cents		

Item No.	Description & Estimated Quantities (Unit Price to be written in words)	Unit Price (Figures)	Total Price (Figures)
852.3	55 VF – Extra Depth Manholes, 4 ft Diameter (>6'); per Vertical Foot		
	_____ Dollars	$_____	$_____
	_____ Cents		
852.3	15 VF – Extra Depth Manholes, 5 ft Diameter (>6'); per Vertical Foot		
	_____ Dollars	$_____	$_____
	_____ Cents		
852.3	10 VF – Extra Depth Manholes, 6 ft Diameter (>6'); per Vertical Foot		
	_____ Dollars	$_____	$_____
	_____ Cents		
854	1,500 LF – Sanitary Sewer Laterals; per Linear Foot		
	_____ Dollars	$_____	$_____
	_____ Cents		
854	200 LF – Yard Piping (Sanitary Sewer, 4"); per Linear Foot		
	_____ Dollars	$_____	$_____
	_____ Cents		
854.1	120 EA – Two-Way Sanitary Sewer Clean-out; per Each		
	_____ Dollars	$_____	$_____
	_____ Cents		

Item No.	Description & Estimated Quantities (Unit Price to be written in words)	Unit Price (Figures)	Total Price (Figures)
854.2	2 EA – Licensed Plumber and CoSA Plumbing Permit (for Rerouting Yard Sewer Piping); per Each		
	_____ Dollars	$_____	$_____
	_____ Cents		
855	15 EA – Reconstruction of Existing Manhole; per Each		
	_____ Dollars	$_____	$_____
	_____ Cents		
856.1	100 LF – Jacking, Boring, or Tunneling 24”; per Linear Foot		
	_____ Dollars	$_____	$_____
	_____ Cents		
856.1	100 LF – Jacking, Boring, or Tunneling 30”; per Linear Foot		
	_____ Dollars	$_____	$_____
	_____ Cents		
856.1	100 LF – Jacking, Boring, or Tunneling 36”; per Linear Foot		
	_____ Dollars	$_____	$_____
	_____ Cents		
856.1	100 LF – Jacking, Boring, or Tunneling 42”; per Linear Foot		
	_____ Dollars	$_____	$_____
	_____ Cents		

Item No.	Description & Estimated Quantities (Unit Price to be written in words)	Unit Price (Figures)	Total Price (Figures)
856.2	100 LF – 8”- 10” Carrier Pipe for Jacking, Boring, Tunneling; per Linear Foot		
	_____ Dollars	$_____	$_____
	_____ Cents		
856.2	100 LF – 12” Carrier Pipe for Jacking, Boring, Tunneling; per Linear Foot		
	_____ Dollars	$_____	$_____
	_____ Cents		
856.2	100 LF – 15” Carrier Pipe for Jacking, Boring, Tunneling; per Linear Foot		
	_____ Dollars	$_____	$_____
	_____ Cents		
856.2	100 LF – 18” Carrier Pipe for Jacking, Boring, Tunneling; per Linear Foot		
	_____ Dollars	$_____	$_____
	_____ Cents		
856.2	100 LF – 21” Carrier Pipe for Jacking, Boring, Tunneling; per Linear Foot		
	_____ Dollars	$_____	$_____
	_____ Cents		
856.2	100 LF – 24” Carrier Pipe for Jacking, Boring, Tunneling; per Linear Foot		
	_____ Dollars	$_____	$_____
	_____ Cents		

Item No.	Description & Estimated Quantities (Unit Price to be written in words)	Unit Price (Figures)	Total Price (Figures)
856.3	100 LF – Casing or Liner 24”; per Linear Foot		
	_____ Dollars	$_____	$_____
	_____ Cents		
856.3	100 LF – Casing or Liner 30”; per Linear Foot		
	_____ Dollars	$_____	$_____
	_____ Cents		
856.3	100 LF – Casing or Liner 36”; per Linear Foot		
	_____ Dollars	$_____	$_____
	_____ Cents		
856.3	100 LF – Casing or Liner 42”; per Linear Foot		
	_____ Dollars	$_____	$_____
	_____ Cents		
858	60 CY – Concrete Encasement, Cradles, Saddles and Collars; per Cubic Yard		
	_____ Dollars	$_____	$_____
	_____ Cents		
860	25 VF – Vertical Stacks; per Vertical Foot		
	_____ Dollars	$_____	$_____
	_____ Cents		

Item No.	Description & Estimated Quantities (Unit Price to be written in words)	Unit Price (Figures)	Total Price (Figures)
862	800 LF – Abandonment of Sanitary Sewer Main; per Linear Foot		
	_____ Dollars	$_____	$_____
	_____ Cents		
862	5 EA – Abandonment of Sanitary Sewer Manholes; per Each		
	_____ Dollars	$_____	$_____
	_____ Cents		
866	7,800 LF – Sewer Main Television Inspection (8” through 15” Diameter); per Linear Foot		
	_____ Dollars	$_____	$_____
	_____ Cents		
866	3,000 LF – Sewer Main Television Inspection (18” through 24” Diameter); per Linear Foot		
	_____ Dollars	$_____	$_____
	_____ Cents		
910.1	50 VF – Manhole Rehabilitation (Standard Manholes 4 ft. in Diameter); per Vertical Foot		
	_____ Dollars	$_____	$_____
	_____ Cents		
910.2	1,000 SF – Sewer Structure Rehabilitation (Non-circular Manholes, and Manholes greater than 4 ft in diameter); per Square Foot		
	_____ Dollars	$_____	$_____
	_____ Cents		

Item No.	Description & Estimated Quantities (Unit Price to be written in words)	Unit Price (Figures)	Total Price (Figures)
1000.1	1 EA – Lift Station Decommissioning (150 gpm or less pumping capacity); per Each		
	_____ Dollars _____ Cents	$_____	$_____
1000.2	1 EA – Lift Station Decommissioning (151 gpm to 500 gpm pumping capacity); per Each		
	_____ Dollars _____ Cents	$_____	$_____
1000.3	1 EA – Lift Station Decommissioning (501 gpm to 1000 gpm pumping capacity); per Each		
	_____ Dollars _____ Cents	$_____	$_____
1001	2 EA- Flow Management (24” diameter) including up to 1,000 linear feet of piping per Each (1 per work order)		
	_____ Dollars _____ Cents	$_____	$_____
1001.1	500 LF – Flow Management (24" Diameter) Flow Management Piping per Linear Foot Over 1000 LF; per Linear Foot		
	_____ Dollars _____ Cents	$_____	$_____
4438	250 CY – Flowable Fill; per Cubic Yard		
	_____ Dollars _____ Cents	$_____	$_____

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 from notice to proceed date or until funds are exhausted from the contract. **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 page.

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. Should the Contractor elect to use any materials other than those contained herein, they should be completely and clearly identified when making the product submittal. This will expedite the review process in which the Engineer decides whether the products meet the Contract requirements and the specific use foreseen by the Engineer. The purpose of this process is to expedite review, by the Engineer of Contractor product submittals.

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. Contractors may, when appropriate, elect to use any material that is considered to be equal (i.e. a product that has structural/physical properties that are equal to or greater than those of the specified project). *Documentation for products and installers seeking pre-approved status must be submitted* ***no less than 2 weeks*** *prior to proposal due date to allow time for adequate consideration. SAWS will advise of acceptance or rejection a minimum of three days prior to the proposal due date. 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 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 feet 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.

Pay Item (910.2): Sewer Structure Rehabilitation (Noncircular Manholes, and Manholes Greater than 4 ft. in Diameter) – per Square Feet.

MANDATORY PRE-BID MEETING NOTES
SAN ANTONIO WATER SYSTEM
ANNUAL 2010 OPEN CUT SEWER
WORK ORDER CONSTRUCTION CONTRACT
SAWS Job No. 10-4512
SAWS Solicitation No. B-10-045-DD

I. MEETING TIME/PLACE

- Tuesday, August 3, 2010 2:00 p.m.
- SAWS, Tower II, Conf. Rm. 137

III. INTRODUCTION AND SIGN-IN

Sandra L. Gomez, P.E.
San Antonio Water System

IV. PROJECT DISCUSSION

1. Work orders will be issued as requests are received from SAWS Operations.
2. Flow Management, including bypass pumping, for lines less than 24-inches are to be considered subsidiary to other bid items.
3. Line item for a Licensed Plumber includes COSA permitting, connecting laterals and installing yard piping within private property.
4. Work orders could include replace-in-place, new mains, new sewer manholes and possibly rerouting of mains.
5. Work orders could be issued in any part of San Antonio and would be emergency type projects.
6. Work orders are unspecified at this point. Work orders could be overflows or collapses so contractor can expect to setup bypass pumping or other means to manage flow and respond quickly
7. This is a work order type project, therefore quantities are approximate. All bid items may not be used and quantities may be adjusted.
8. A 48-Hour Mobilization will be required as all projects will be urgent emergency type projects.
9. No separate payment will be made for mobilization or preparation of right of way; these items will be considered subsidiary.
10. Bidders are to be familiar with SAWS Standard Specifications as well as these project specifications, special conditions and insurance requirements for the Annual 2010 Open Cut Work Order Construction Contract.
11. 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.

12. Work orders may include working near railroad. Requirements for working within railroad ROW are stated in the Special Conditions. Bidders shall be aware that railroad liability insurance will be required when working in railroad ROW.

V. QUESTIONS

- Is there a general idea of how many feet of construction will be in a work order?
  The linear footage in each work order will not be known until the work order is issued.
- How many crews will need to be available?
  A specific number of crews that will need to be available has not been specified. Section SC-4.1 of the Special Conditions states: "It is the Contractor's responsibility to provide enough work force to accomplish the work orders and workload assigned and complete the work in accordance with the provided schedule. Work orders issued during the term shall remain in effect until they are completed."
- What happens if there is additional money left over?
  The Bid Proposal and Special Conditions indicate: "The Open Cut Work Order Construction Contract initial Contract term will be for 365 calendar days from the notice to proceed, or until funds are exhausted from the contract, subject to funding and approval by the System's Board of Trustees."

VI. CLOSING COMMENTS

- Submit questions in writing by 4:00 PM (CST) on August 3, 2010 to Diana D. Dwyer at ddwyer@saws.org. Questions regarding the content or interpretation of the Bid Documents must be submitted in writing to be considered valid and to elicit a response.
- Bids are due prior to 10:00 AM, August 10, 2010 @ The Contract Administration Division, 2800 U.S. Hwy 281 North, Customer Center Building, Suite 171, San Antonio, Texas 78212
- Bids will be publicly opened and read aloud by the SAWS Contract Administration Division in Conference Suite 169, SAWS Customer Center Building.