ADDENDUM NO. 2

Date: 22 October 2010

San Antonio Water System

Project Name: LIFT STATIONS REHABILITATION – PHASE 2

Project No.: 06-2503

Solicitation No.: B-10-048-DD

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.

A. Bidding and Contract Requirement Revisions:

Item 1: Invitation to Bidders (IV-1), paragraph 3

a) DELETE the following sentence:

“For questions regarding this solicitation, technical questions or additional information, please contact Diana W. Dwyer, Contract Administrator, in writing via email to: ddwyer@saws.org or by fax to (210) 233-5218 until 4:00 PM (CST) on October 18, 2010. Answers to the questions will be posted to the web site by 4:00 PM (CST) on October 21, 2010 as a separate document or included as part of an addendum”

and REPLACE with the following (changes to original text are indicated by underlining):

“For questions regarding this solicitation, technical questions or additional information, please contact Diana W. Dwyer, Contract Administrator, in writing via email to: ddwyer@saws.org or by fax to (210) 233-5218 until 4:00 PM (CST) on October 18, 2010. Answers to the questions will be posted to the web site by 4:00 PM (CST) on October 25, 2010 as a separate document or included as part of an addendum”

Item 2: Specification Section 09917, Structural Lining-Corrosion Protection for Underground Concrete Structures

a) DELETE Article 2.01. E. on page 009917-2 in its entirety and REPLACE with the following:

“E. Mortar mix must have at least ten (10) years of successful performance in similar applications and be supplied by an ISO 9001 certified manufacturer. Manufacturer's ISO 9001 certificate shall be submitted to ENGINEER and OWNER.”

Item 3: Specification Section 01010, Summary of Work

a) Clarification: Generators are not proposed at LS# 023, LS #074, LS #156 and LS 218.

b) Clarification: L# 170 (as indicated on Drawing Sheet 057 of 246), LS #180 (as indicated on Drawing Sheet 083 of 246), and LS #192 (as indicated on Drawing Sheet 089 of 246) will require generators.

c) DELETE Article 1.02. B. 3. gg. on page 01010-8 in its entirety and REPLACE with the following:

“gg. Standby Emergency Generators. Emergency generators with automatic transfer switches will be installed at the following lift stations: LS# 057, LS# 148, LS# 165, LS# 170, LS# 175, LS #180, LS # 192, LS# 208, LS# 209, LS# 226, LS# 230, LS# 231, LS# 236, LS# 240. The automatic transfer switch will be housed in a NEMA 4X, 316 SS enclosure and be located on the support rack. Generator enclosures shall have 36” of clearance on both sides for maintenance access.”
B. Drawing Revisions:

Item 1: LS# 148: Electrical Site Plan and One Line Diagram
   a) Clarification: New 480/277V, 3φ, 4W is not required. Existing 120/240V, 1φ, 3W to remain. Rotary phase converter shall be installed.
   b) DELETE Sheet E-148-1, Sheet 036 of 246 and REPLACE with attached revised sheet dated 10/21/2010.
   c) DELETE Sheet E-148-2, Sheet 037 of 246 and REPLACE with attached revised sheet dated 10/21/2010.
   d) DELETE Sheet E-148-3, Sheet 038 of 246 and REPLACE with attached revised sheet dated 10/21/2010.

Item 2: LS# 206: Electrical Site Plan and One Line Diagram
   a) Clarification: New 480/277V, 3φ, 4W is not required. Existing 120/240V, 1φ, 3W to remain. Rotary phase converter shall be installed.
   b) DELETE Sheet E-206-1, Sheet 103 of 246 and REPLACE with attached revised sheet dated 10/21/2010.
   c) DELETE Sheet E-206-2, Sheet 104 of 246 and REPLACE with attached revised sheet dated 10/21/2010.

Item 3: LS# 223: Electrical Site Plan and One Line Diagram
   a) Clarification: Drawing has been revised for combined Soft Start-PCP cabinet location and other electrical revisions, including service voltage change.
   b) DELETE Sheet E-223-1, Sheet 134 of 246 and REPLACE with attached revised sheet dated 10/21/2010.
   c) DELETE Sheet E-223-2, Sheet 135 of 246 and REPLACE with attached revised sheet dated 10/21/2010.
   d) DELETE Sheet E-223-3, Sheet 136 of 246 and REPLACE with attached revised sheet dated 10/21/2010.
   e) DELETE Sheet E-223-4, Sheet 137 of 246 and REPLACE with attached revised sheet dated 10/21/2010.
   f) DELETE Sheet E-223-8, Sheet 141 of 246 and REPLACE with attached revised sheet dated 10/21/2010.

Item 4: LS# 238: Electrical Site Plan and One Line Diagram
   a) Provide Hoffman NEMA 4X 316 Stainless Steel 62" x 48" x 12" free standing enclosure and combine both the control panel and soft starters into one enclosure, in lieu of 2 separate enclosures as currently specified and shown on drawings. Locate combined Soft Start-PCP enclosure in same location as existing autodialer and PCP cabinets. Re-direct respective conduits to this combined location.

C. Questions Received Prior to the Deadline of 4:00 PM On October 18, 2010:

Q16: Spool pieces from inside wet well to outside wet well are often depicted as FLxFL. In conjunction with these FLxFL spool pieces the contractor is to use Link Seal Systems to seal the pipe to the cored or wall-sleeved hole. The flange end will not pass thru the appropriate size holes for Link Seals to seal. Will we be able to use Flange x Plain End DI pipe with an Ebaa Mega Flange (Restrained Flange Coupling Adapter) to connect to the new or existing flange outside the wetwell. (Submittal Info Attached).

Penetration hole may need to be the size of the pipe plus the link seal (not the flange). Yes, contractors are allowed to use FL x PE DI pipe w/restrained flange coupling adapter for DI pipe.
Q17: I don't see a specification section that details the types of flexible couplings required outside many of the wet well walls (ie alloy bolts vs stainless steel). Can you provide clarification?

Followers: A283, Gr C or Equivalent
Middle Ring: AISI 1020 Carbon Steel or Equivalent
Bolts/Nuts: 316 Stainless Steel
Stops: 316 Stainless Steel
Gaskets: Grade 42 Buna N
Coating: Fusion-Bonded Epoxy

Q18: Will all Pipe Penetrations in the concrete slab require link seal?

No. Link seal is only required for the Pump discharge/suction pipes.

Q19: What size will the emergency By-Pass connections need to be? SAWS bypass trucks typically use either 3 or 4 inch connections, which size will be required?

The By-pass pumping system will require a 4” branch w/ gate valve and a quick-disconnect male adaptor fitting w/dust cap.

Q20: Many of the LS improvements detail a 1” PVC line from the proposed 2x1 Sewage CARV’s. These 1” lines route to the Lift Station and typically penetrate the top slab. Will a cored hole with Link Seal be required (can we assume the same for every occurrence)?

A cored hole for the CARV pvc line will be required. A link seal will not be required as long as the pipe is grouted or sealed with an approved method/product. Also, please refer to Q18 in Addendum No. 2.

Q21: What type of pipe would you like beyond the meter box and customer shut-off valve (Copper or Sch80 PVC)?

Pipe shall be PVC Sch 80. Shut- off valve shall be Brass or Copper.

Q22: What type of pipe would you like above grade at the Emergency Eyewash/Showers? (Galvanized Steel Pipe or Sch 80 PVC)?

Pipe shall be made of PVC Sch 80.

Q23: At various sites the use of Spigot x Spigot Flexible Couplings (Dressers) are sited on the discharge/suction lines. Will restraint rods be required over these flexible couplings (FLxPE to Flex Cplg to PExFL)?

Restraint rods may be used as necessary.

Q24: The majority of sites require rising stem Gate Valves (we are assuming OS&Y) there are a few sites that do not state rising (OS&Y) stem gate valves. Can we assume that all sites will require OS&Y valves on the main header piping and NRS valves for the emergency by pass valve

Gate valves shall be of a Non Rising Stem (NRS).

Q25: Plans state 316SS bolts and nuts to be used inside the wetwell, Will 316SS bolts and nuts be required on the piping outside the wet well or will black bolts be acceptable

Stainless Steel 316 bolts and nuts will be required for inside and outside pipe, valves and fittings.
Q26: Section 11312-3 2.01A2 allows for “ENGINEER/OWNER approved equal” on the submersible pumps. (The other pump sections make a similar statement.) I cannot locate a procedure in the specification documents that allows for ENGINEER/OWNER approved equal prior to bid letting. Section 1600 addresses post-bid submittal by the Contractor for Comparable Product Requests.

Most general contractors will not accept bids on products that are not named or listed by specification. SAWS will lose the advantage of competitive bidding with post-bid approval for equal products.

Is there a procedure whereby [Bidder] may submit and receive ENGINEER/OWNER approval prior to the bid opening?

*Please Refer to Response to Q7 in Addendum No. 1.*

Q27: L.S. #175 Cedar Creek, L.S. #203 Mission Foundation, #221 Heritage Elementary,#226 Marshall Rd. & #231 Costco do not have enough information on the drawings to establish the proposed depth of the lift stations. Please provide Lift Station Depths.

- LS#175, Overall depth approx. = 12 ft
- LS#203, Overall depth approx. = 10 ft
- LS#221, Overall depth approx. = 13 ft
- LS#226, Overall depth approx. = 15 ft
- LS#231, Overall depth approx. = 17 ft

Q28: Lift Station #230 Nickel and Dime does not have a note to be coated per Spec Section 09917. And does [not] reference Note #2 (Comment on all other lift stations) regarding “……..Contractor shall repair any wet well cracks, seal joints ……..” Is this correct? Or is the Wet Well / Lift Station to be coated per Spec Section 09917 and repaired per Note #2?

*The existing wet well is already coated.*

Q29: Is SAWS looking for a 10 year warranty on the Structural Lining?

Yes. Note, Addendum No. 2 clarifies this requirement – see Item 1, A. Bidding and Contract Requirement Revisions for more details.

Q30: Drawing E-12 [E-10-S] Drawing, which is typical of the List Station SCADA PANEL DETAILS, has the PLC’s I/O wired to terminal blocks. With the M340 as an alternate can the M340 PLC’s be wired to terminal blocks also?

*If the Modicon M340 is to be substituted for the specified Allen Bradley, yes it should use terminal block connections also. If there are any variations between the PLC I/O’s specified and the PLC I/O supplied or substituted, the contractor is responsible for providing additional terminal blocks, mounting devices, etc., to provide an equivalent installation to that specified in every respect and with same number of spare terminals. During construction, indicate any variations between the two manufacturers with the product submittals. Provide in accordance with specification 16901. This may similarly apply to plan sheets E-10-S, E-11-S, E-10-H, E-11-H.*

Q31: What material does the emergency By Pass need to be? Alum, SS, Brass

*The quick-disconnect male fitting and the dust cap shall be Aluminum, the Y-fitting and gate valve shall be flanged Ductile Iron.*
Q32: Panels 223 and 238 have new Benshaw soft starters in separate enclosures. We often put the soft starters in the same enclosure as the main controls. Is this a possibility for these two panels?

Yes, except LS #192 shall remain same as currently shown, due to it is existing and in the floodplain. For LS #192, provide Hoffman NEMA 4X 316 Stainless Steel 62” x 48” x 12” free standing enclosure and combine both the control panel and soft starters into one enclosure, in lieu of 2 separate enclosures as currently specified and shown on drawings. For LS #238, locate combined Soft Start-PCP enclosure in same location as existing autodialer and PCP cabinets; re-direct respective conduits to this combined location. This may similarly apply to plan sheets E-223-1, E-223-3, E-223-4, E-238-1 & E-238-4. Note, Addendum No. 2 also addresses Q32 – see Item 3 and Item 4, B. Drawing Revisions for more details.

Q33: Will SAWS please consider an addendum for Allen Bradley software part number 9324-RLD250ENE Lite Edition which is equal to Full Edition (9324-RLD600ENE) for the Compact Logix PLC family?

<table>
<thead>
<tr>
<th>RSLogix 5000</th>
<th>Lite Edition 9324-RLD250ENE</th>
<th>Full Edition 9324-RLD600xxE</th>
</tr>
</thead>
<tbody>
<tr>
<td>Editions and options</td>
<td>Compact and FlexLogix only</td>
<td>All @ v10 or later</td>
</tr>
<tr>
<td>Ladder Editor</td>
<td>Fully supported</td>
<td>Fully supported</td>
</tr>
<tr>
<td>Function Block Diagram 9324-RLDFBDENE</td>
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<tr>
<td>Sequential Function Chart 9324-RLDSFCE</td>
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<td>Fully supported</td>
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<tr>
<td>Structured Text 9324-RLDSTXE</td>
<td>Fully supported</td>
<td>Fully supported</td>
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</tbody>
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The Full Edition version will be required; the Lite Edition will not be acceptable as equal.

Q34: Will SAWS please consider an addendum to allow the Allen Bradley PLC to communicate modbus with the PLC CPU serial port instead of the Prosoft Module?

Communications
1. Allen Bradley:
   a. Modbus communication shall be provided with the use of ProSoft Technology Inc. MVI69-MCM module. The module shall interconnect via RS232 cable.

2. Modicon M340:
   a. Modbus RS232 communication ports shall be provided using the PLC CPU serial ports.

   The specified Allen Bradley PLC will be required to communicate via the Prosoft Module modbus with the PLC CPU serial port and not by modbus. If the specified Allen Bradley PLC is to be used on this project, the Prosoft Module will be required.

Q35: Submersible Level Transducer specified can it be replaced with a Flowline Echospan LU-(81to84)-5101 model Narrow Beam Ultrasonic level transducer? These would provide a non-contact level control system which can be utilized in tight space with its 3” beam.

Ultrasonic transducers will not be used on this project.

Q36: Level Switch- can a SJE Pump Master Control Float switch be used in place of the specified float switches?

SJE Pump Master float switch may be used as long as it is mercury free and meets all the requirements of the Technical Specifications and Plan Drawings of the Contract Documents.
Q37: Terminal Blocks – Can Entrelec High Density Terminal blocks be used instead of the specified Phoenix?

Entrelec High Density Terminal blocks may be used if it meets all the requirements of the Technical Specifications and Plan Drawings of the Contract Documents.

Q38: Mini Power Zone – Can Siemens Sentron 1LPC010SS be used? These have been installed on many other SAWS lift Stations.

As long as the Siemens Sentron 1LPC010SS is in a 316 SS enclosure and meets all the requirements of the Technical Specifications and Plan Drawings of the Contract Documents.

Q39: The MDS P70 enclosure will not work with the MDS TransNet Radio it must be the P60 Enclosure as per the manufacturer.

Per the Plan Drawings of the Contract Drawings, a P70 enclosure will be required. Please note, the manufacturer's product date sheets state either the P70 or P60 enclosure is suitable with the MDS TransNET 900 radio.

Q40: Some of the Electrical Rack Canopy's show 36” overhang, SAWS specifications typically require it should be a 4 foot overhang measured from the front of any Enclosure on the rack.

Provide a 4 foot overhang measured from the front of the deepest equipment panel unless this interferes with the wetwell, pump pad, etc.

Q41: Lift Station #061 and #180 there is no direction whether we reuse the existing Scada Enclosure or Provide a New Enclosure. The Electrical drawings do detail a New Allen Bradley PLC and controls for the sites, what enclosure will house the equipment at these sites?

There are no existing SCADA enclosures at these sites. New SCADA Panels must be provided.

Q42: Timing Relay – Can an Idec RTE-P2-AF20 Be used in pump control panel?

As long as the Idec RTE-P2-AF20 meets all the requirements of the Technical Specifications and Plan Drawings of the Contract Documents, it may be used.

Q43: Also notice pump control panel calls out for 2 pole SQ D JCK relays when 4 pole relay could be used to accommodate all inputs signals for SCADA. So is it possible to use 4 pole Idec Relays RU4SA110 instead?

Provide relays as shown on the Plan Drawings of the Contract Documents.

Q44: In the SCADA panel it calls out to use Idec 2 pole relays for interposing relay, can 1 pole RH1B-UL-120 be used in its place to save space?

Provide 2 pole relays as shown on the Plan Drawings of the Contract Documents.

Q45: Heat tracing is specified for instrument process sensing lines, we have been involved in installations for multiple SAWS lift station sites and this was deleted from the contract, can it be deleted from this project?

Heat tracing will be required for this project.

Q46: Site dimensions for each site are not clear, can they be provided?

Site plan sheets (for example, Sheet C-004-1) include a scale bar for each site.

Contractor needs to determine all dimensions from site visits. These will not be provided.
Q47: Lone Star International Corporation represents Ametek Drexelbrook, a manufacturer of wastewater process level monitoring equipment, and other related equipment. Drexelbrook is an American company based just north of Philadelphia. Regarding the subject project, we respectfully request that you consider Drexelbrook ultrasonics as an approved equal for use in monitoring the thirty-seven [37] liquid level applications. SAWS already uses Drexelbrook ultrasonic units.

I have attached pdf files for your review, and also for passing on to your engineers.

The Drexelbrook ultrasonic units are especially suited for use in lift stations where pipes can normally be a problem with other manufacturer’s ultrasonics. Using ultrasonics for monitoring lift station levels is advantages because it eliminates the need for a submersible level sensing device which can either 'clog up' or get sucked into a pump.

All Drexelbrook Ultrasonic Measurement Systems have “AUTOMATIC TANK PROFILING” which eliminates interfering signals from agitators and other internal vessel obstructions such as pipes or ladder rungs WITHOUT THE NEED TO EMPTY THE VESSEL AND WITHOUT OPERATOR INTERVENTION!

No other manufacturer in the market today has the ability to automatically ignore unwanted signals from obstructions that surface within the measurement energy beam. Only Drexelbrook possesses this patented feature.

Easily IGNORES PIPES AND OBSTRUCTIONS that are in the sonic beam path. Your cost for the Drexelbrook Units will be significantly less than anything SIEMENS/MILLTONICS has in comparison.

Submersible level transducers will be used for this project.

Q48: Please allow at least one more week for us to prepare our bid. We also need more time to submit questions. Currently, we are only being given 4 working days to visit every site, review the plans and specifications, and submit a complete list of questions. Given the number of sites included in the project, we just need more time to visit and evaluate conditions/potential issues at each location - particularly manhole locations and bypass system setup requirements. Additionally, we need more time to find MWDBE firms to meet the current goal - interested firms will likely want to visit the sites prior to quoting the project.

Please refer to Addendum No. 1 Item 1, Invitation to Bidders (IV-1), paragraph 5, B for updated bid date and time.

Q49: Please confirm that 8 portable project signs will sufficiently meet the spec regarding project signage.

Contractor shall be responsible for keeping a sign for each site under rehabilitation. Sign should not be relocated until the lift station rehabilitation is complete, operational and accepted by the Owner. Note that Contractor shall be mobilized at no more than 8 lift stations at any time, reference Article 1.08. B of Specification 01010 of the Summary of Work.

Q50: Please confirm the warranty and maintenance bond for each site will begin after acceptance testing at that location.

Refer to Article IX, 9.2 on Page GC 35 of the General Conditions of the Contract Documents for provisions related to Partial Acceptance and Warranty related to Partially Accepted work.

Q51: Please add an allowance to the bid form for lab testing. Typically, estimates for testing costs are very conservative, both by the contractor and the testing labs quoting the project. An allowance ensures that SAWS pays only actual test costs and gets the savings for underruns.

All tests required shall be included as a part of the lift station unit price.
Q52: Can you provide a bid item and quantity for the crack repairs in the lift station walls. As currently stated on the plans, each bidder must guess at the actual linear footage of cracks, since we cannot lower and investigate each wetwell for an accurate takeoff. If the bid item underruns or is not used, SAWS saves the cost of the bid item in lieu of the contractor.

Contractor shall be responsible for repair of existing wetwell cracks, seal joints and penetrations prior to wetwell coating and shall be included as a part of the lift station unit price. Based on previous field inspections, there were no significant cracks or aggregate/rebar exposure; contractor shall expect to provide typical surface preparation as indicated in the specifications and per the Manufacturer’s recommendations for wetwell coating.

Q53: Is new electrical service placed in the contractors name for billing to the contractor? Since each location is already pumping sewage for SAWS, why not apply for new service in SAWS name? Contractors will just add utility charges to our bid and markup.

Any new electrical services will not be required to be placed in the Contractor’s name. Please refer to Section 16402 Electrical Service of the Technical Specifications.

Q54: If new electrical service must be placed in contractors name, when does SAWS assume responsibility for utility costs? Can you provide an average KW-Hr usage at each site as a basis for adding power consumption cost to our bid?

Please see response to Q53 in Addendum No. 2.

Q55: The plans include several standard traffic control plans. Which traffic plan will be required at each location, if any.

Contractor is responsible for setting up and maintaining any traffic handling devices, detours, flagging operations, etc. necessary to perform the work.

Q56: Please confirm contractor can use existing power for bypass pumping.

Contractor shall be responsible for any necessary power supply for the By-pass/flow management system.

Q57: Please clarify the pipe insulation requirements? Does DIP get insulated?

Plan drawings and contact documents do not call/specify for pipe insulation.

Q58: There are several lift stations where the elevation for the bottom of the wetwell is not given. Please provide the wetwell bottom elevation for all lift stations for piping and coating considerations. Do we coat the bottom floor of the wetwells?

Please refer to Q27 in Addendum No. 2 for missing lift stations overall depth.

Q59: Can materials be stored inside the fenced site at lift station sites while construction is underway at that site?

Yes. Contractor is responsible for safeguarding his/her own equipment and materials and Contractor is responsible for site repair/restoration due to damages caused by Contractor. Contractor shall comply with all requirements of the Contract Documents.

Q60: Can note 13 under the traffic control be modified to the following or some equivalent. “The contractor shall broom sweep streets bordering only sites where construction is underway and as directed by the inspector.” There are many sites for from streets, and many sites where the construction work would not generate the need for street sweeping.

The note will not be revised. Contractor shall perform necessary site housekeeping as required.
Q61: Are bollards required @ LS 061 – Sheet 028?

Yes, Bollards are required as indicated on plan sheet E-061-1, sheet 028 of 246. Location will be verified by SAWS inspector. Refer to Detail B on sheet E-3.

Q62: Note #6, Sheet 4, Is this referring to different contract than this?

Yes, this is referring to the City of San Antonio E. Lubbock Street Improvements project.

Q63: Currently the specifications list on two manufactures for pumps. Are they the only two manufactures allowed to bid this project? If not could you provide acceptable manufactures?

Please refer to Q6 in Addendum No. 1 for response.

Q64: Section 01010-8 paragraph gg Standby Emergency Generators.
The above paragraph categorizes the lift stations where generators are to be installed.

There are four (4) stations in the list that are in conflict with the single line drawings, LS# 023, LS #074, LS #156 and LS 218 are: in questions. All four of the lift stations are shown on the single line drawings to have a manual transfer switch and no generator. Please clarify if the above listed lift stations are to have generator and ATS and what size.

Generators are not proposed at LS# 023, LS #074, LS #156 and LS 218. L# 170 (as indicated on Drawing Sheet 057/246), LS #180 (as indicated on Drawing Sheet 083/246), and LS #192 (as indicated on Drawing Sheet 089/246) will require generators. Note, Addendum No. 2 also addresses Q64 – see Item 2, Specification Section 01010, Summary of Work for more details.

Q65: Section 16100 Emergency Generator - Diesel and Section 16101 Emergency Generator - Natural Gas are both included in the project documents, Please clarify if the generators’ are to be natural gas or diesel.

Yes, one lift station (LS #231) requires natural gas and the others will be diesel.

This Addendum, including these 10 pages, is 20 pages with attachments 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 with and attached to his/her bid.

Approved by ENGINEER
WESTON SOLUTIONS, INC.
TEXAS REGISTERED ENGINEERING FIRM F-3123
The undersigned acknowledges receipt of this Addendum No. 2 and the bid submitted herewith is in accordance with the information and stipulations set forth.

________________________  ____________________________

Date  Signature of Bidder

END OF ADDENDUM