## Questions & Answers - 1

**Project** 629-01 - International Drive Booster Pump Station

**Buying Organization** Grand Strand Water & Sewer Authority

No	Question/Answer	Question Date
Q1	<ul> <li>Question: Tie-In to the Exist. Water Lines</li> <li>1. Can the Existing Lines be tied into without Line Stops? If so how many days can each line be left out of service for dewatering and pumping using the existing valves?</li> <li>2. The 5 ft. Vegetative Buffer doesn't require any scope of services from the contractor, correct?</li> <li>Answer: 1.Response: Line stops are not required to make existing system connections. Existing lines can be out of service for a maximum of 24 hours. Both lines cannot be out of service at the same time.</li> </ul>	01/27/2021
	Outages shall be coordinated with Owner.  2.Response: That is correct. The 5-ft vegetative buffer does not require any scope of services from the Contractor.	
Q2	Question: Overhead Crane  Per Section 41 22 00, 2.2-A-5 States "Crane Operating Temperature: 5 to 200 degrees F" Can this be modified to 5-104 degrees F? temperatures above 104 will call for special equipment that will most likely not be needed for this application.	02/01/2021
	<b>Answer:</b> Response: A reduction in the overhead crane operating temperature is acceptable.	
Q3	Question: Overhead Crane Section 41 22 00, 2.2-B requires an enclosed track. The manufacture max for enclosed track systems is standard at 2000 kg (4409 lb.) which will not meet the 3-ton requirement per spec 2.2-6-C. If a 3-ton crane is needed can a standard structural steel system be substituted?	02/01/2021
	<b>Answer:</b> Response: The 3-ton crane specified is required. A standard Structural Steel System is acceptable provided that all clearances and dimensions are maintained. Any adjustments to maintain proper clearances will be the responsibility of the contractor.	
Q4	Question: Overhead Crane Section 41 22 00, 2.2-C-1 calls for a Tractor Drive system. If the design is changed to a standard beam to achieve a 3-ton capacity, tractor drives won't be necessary and would allow better end approach. If design is changed to a standard beam 3-ton capacity, can the Tractor Drive requirement be removed?  Answer: Response: If a standard beam is used, then the Tractor Drive requirement can be removed	02/01/2021
	and replaced with an appropriate drive mechanism.	
Q5	Question: Masonry Block  2.We need a clarification on the Omni Block as it pertains to the structural drawings and details. Does the Omni block need to be rated/priced as a seismic unit/s? Please see if you can get this clarified as soon as possible so we can make sure our quote is reflected correctly before we send it out. Thanks and have a great finish to your week!	02/03/2021
	Answer: Response: Use the Standard Weight, SYSTEM 12 Omiblock.	

No	Question/Answer	Question Date
Q6	Question: Bid Questions:  3. Is the Mulch covering intended to be the final cover for the entire width and length of the 42" Water Line?  4. Where is Bid Item No. 88, Rip Rap, 1000 Tons intended or possibly to be placed/used?  5. The Bid Documents state that EPA Form 5700-52A must be attached with Bid. This appears to be a reporting form, so what should we fill out on the form for the Bid?  Answer: 3.Response: No. Permanent seeding shall be required per the plans.  4.Response: Bid Item 88 is to be used solely by the direction of the Engineer and will require a work change directive. Intended use and placement of bid item is contingent upon need, if such need arises.	02/04/2021
	5.Response: The Contractor is not responsible for providing EPA Form 5700-52A as part of the bid	
	package. This form if the responsibility of the Owner and will be provided to the respective party at the end of the federal fiscal year.	
Q7	Question: Bid form items  4.Bid Item 87 – (item WW under Section 01 15 00 Measurement and Payment – the 250 CY of Concrete is very broadcan a more defined use of the concrete be givenis it reinforced? Is it formed? Is it walls or structural slabs? Please define in more detail.	02/04/2021
	Answer: Response: Bid Item 87 is to be used solely by the direction of the Engineer and will require a	
	work change directive. Intended use and placement of bid item is contingent upon need, if such need	
	arises. Reinforcement is not to be included in this bid item, only formed concrete.	
Q8	Question: Air Release Detail 6. Can you provide a Typical Detail for the 4" ARV.	02/04/2021
	<b>Answer:</b> Response: Bid Item 44 – 4" Air Release Valve shall be bid as a 2" Air Release Valve per detail D on CU901.	
Q9	Question: Electrical  1. There are references to bonding to lightning protection system but I don't see a requirement for a lightning protection system. Can you verify if this is required?	02/08/2021
	Answer: Response: While there are references to lightning protection systems in the grounding and	
	bonding specifications, we did not explicitly include design for a lightning protection system. We	
	typically require, at minimum, surge suppression and lightning arrestors for the main service entrance,	
	the pump control panel, and the SCADA RTU, among other equipment where applicable. In this case	
	the owner is responsible for the SCADA RTU, so we will just require this on the feed into the main	
	distribution panel and the pump control panel. Specification 26 43 13 details more information on the	
	requirements for surge suppression.	

No	Question/Answer	Question Date
Q10	Question: DHEC and EPA Forms  The bid checklist shows the following forms to be submitted with the bid:	02/08/2021
	Form 5700-52A, Form 2323, Form 2556, Form 3590, Form 3591, Form 3592	
	Please clarify which documents are to be submitted with the bid versus after the bid as an apparent low bidder. Forms such as DHEC 2323 and DHEC 3592 request for information that will not be available until post award.	
	Answer: Response: EPA Form 5700-52A is the responsibility of the Owner and does not have to be	
	provided by the Contractor. Only the apparent low bidder will need to submit DHEC Forms 2323, 2556,	
	3590, 3591, and 3592. Once the apparent low bidder is decided, these documents will be requested for review.	
Q11	Question: Pipe clarification  The schedule of bid items calls the PVC out as DR 25, However in the Grand Strand Water System Standards and Specifications, page 28, DR 18 Class 150 is acceptable can you confirm either is acceptable for the bid item?	02/08/2021
	Answer: Response: C900 DR25 PVC pipe shall be provided for bid items 11-15 as stated in the	
	schedule of bid items and as specified in 01 15 00 – Measurement and Payment.	
Q12	Question: Pipe clarification Section 40 05 19, 2.1-B: states pipe 14"- 24" should be CL 250, but on the schedule of bid items the 24"- 42" DIP states CL 150. Could you clarify which is correct?	02/08/2021
	<b>Answer:</b> Response: Bid Item 16 shall be 24" Class 250 DIP. All other diameters shall be bid as specified.	
Q13	Question: EPA Forms required? In the ITB, #9 states Forms 6100-2, 6100-3, and 6100-4 are required with our bid. However, in Appendix A, TOC and Section #1, a note states that these forms are "suspended". Please clarify whether they are required to be submitted with our bid or not. Thank you	02/09/2021
	Answer: Response: EPA Forms 6100-2, 6100-3, and 6100-4 have been suspended and are not	
	required to be submitted by the Contractor.	
Q14	Question: Section 011000  Can you provide scope if supplies for the owner purchased equipment? When is the estimated date of equipment arrival to the job site?	02/10/2021
	Answer: Response: A scope of supplies for all Owner purchased equipment will be provided to the	
	awarded Contractor. All pumps and VFDs have been purchased and are expected to be on site in May	
	2021. All other Owner purchased equipment is currently under review by the Engineer and is estimated	
	to be delivered in Fall 2021.	

No	Question/Answer	Question Date
Q15	Question: Hoist & Electrical 7. Can you provide a spec on monorail & hoist? 8. Who is furnishing and installing the 54' tower, cable and antenna? 9. Is all electrical surface mounted on the walls and ceiling in the building? Verify. 10. Detail 2 of E-952, states one set of 5-4" PVC 90's then it says 1-4" set for future use. Does this mean only "one" extra 4" stubbed out or another set of 5-4" stubs?  Answer: 7.Response: See specification 41 22 00 – Hoists and Cranes. This is a performance specification; no specific Manufacturer or Model number is specified.  8.Response: The antenna and cable will be furnished and installed by the Owner. Everything else, including the tower, tower accessories, empty conduit (capped with pullstring), and structural concrete foundation per Manufacturer's recommendations, is the responsibility of the Contractor to furnish & install.	02/10/2021
	9.Response: All electrical conduit, raceways, and junction boxes shall be concealed in walls where possible. Surface mounted devices and equipment is acceptable.	
	10.Response: The intention is to have (5) 4" conduits for the power feed shown on the plans and risers. There should be (1) extra 4" conduit stubbed out, capped with pullstring, as a future spare. There will be a total of (6) 4" conduits in addition to the other small conduits for controls and block heater/battery charger power.	
Q16	Question: Pipe Bedding  Details on Sheet CU902 denote no pipe bedding material. Is there any requirements for pipe bedding material such as #57 stone?  Answer: Response: Bedding material shall consist of suitable native soils.	02/10/2021
Q17	Question: Misc. Pump Station Piping Can you please clarify what items/lines should be included in Misc. Pump Station Piping bid item?  Answer: Response: Bid Item 19 – Misc. Pump Station Piping shall include all piping not included in Bid Items 11 through 18.	02/10/2021
Q18	Question: Rip-Rap (As directed by Engineer) Can you please clarify where or for what use the potential 1,000 Tons of Rip-Rap (As directed by Engineer) would be used?  Answer: Response: See response to Q6.	02/10/2021
Q19	Question: Interior Finishes Sheet A-101 seems to indicate floor striping below the overhead door and inside the bollards. Is there a finish schedule available for the striping?  Answer: Response: The striping for the floor is to be a Sherwin Williams B70W08161 - Armorseal 8100 Water - Based Epoxy Floor Coating. Provide 2 coats. Color has not been specified at this time; Architect will provide color during construction.	02/10/2021

No	Question/Answer	Question Date
Q20	Question: Interior Finishes Sheet S-301, metal decking, indicates painting for the interior roofing system. Does this include the trusses, roof deck, and G.W.B ceiling?	02/10/2021
	<b>Answer:</b> Response: Only the interior of the roof (ceiling and below) is to be painted. The Roof deck and trusses do not need to be painted.	
Q21	Question: Building Information Section 2/ A-103 shows aluminum fascia and soffit. Sheets A-105 show PVC fascia and fiber cement soffit panels. Can you please clarify.	02/10/2021
	Answer: Response: Follow the details on Sheet A-105.	
Q22	Question: Bell Restraints Reference Note 4 on CU-101what BID ITEM should this be included under?	02/11/2021
	Answer: Response: Please include in Bid Item 9 and 10, respectively.	
Q23	Question: Pipe Restraints  Per Detail J/CU-902 on Drwg CU-902 - The table is for ductile iron pipeplease confirm the guidelines for the restraints are also required for this project with the PVC pipelines.	02/11/2021
	<b>Answer:</b> Response: The restrained joint lengths calculated in Detail J on CU902 account for both ductile iron pipe and PVC pipe.	
Q24	Question: Owner Supplied Equipment Will equipment shop drawings be provided prior to bid for all Owner supplied equipment?	02/11/2021
	<b>Answer:</b> Response: No. Equipment shop drawings for all Owner supplied equipment will be provided to the awarded Contractor.	
Q25	Question: Vapor Retarders  Spec 03 30 00 - 8 of 26, 2.8 Vapor Retarders, A. This calls for 10 mil polyethylene. Spec 07 26 00 –  Under Slab Vapor Retarder, 2.1.B.3 calls for 15 mils. Please clarify.	02/11/2021
	Answer: Response: Install 15 mil. vapor barrier.	
Q26	Question: Concrete Strength  Spec 03 30 00 - 20 of 26, Part C Equipment Bases and Foundations, item 3 - Minimum Compressive  Strength: 4000 psi at 28 days. Drawing S-300 Concrete note 3 requires 4500 psi for "All Other  Concrete". Please clarify.	02/11/2021
	Answer: Response: 4,000 PSI concrete is acceptable.	
Q27	Question: Mortar Spec. 04 22 00 - 3 of 7 - 2.03 Accessories, C. Mortar and Grout: As specified under Section 04065. We do not find Specification section 04065. Please provide specifications for mortar and related mortar accessories.	02/11/2021
	Answer: Response: See attached specification 04065 - Mortar and Grout.	
Q28	Question: CMU Spec 04 22 00 04 22 00 – Please clarify the requirement for CMU, whether normal weight or lightweight.	02/11/2021
	Answer: Response: Use normal weight block.	

No	Question/Answer	Question Date
Q29	Question: Drawing A-101-Interior Slab Markings  Drwg. A-101: Please clarify line size, color, specifications, etc. for interior slab markings at rollup door.	02/11/2021
	Answer: Response: The striping for the floor is to be a Sherwin Williams B70W08161 - Armorseal 8100	
	Water - Based Epoxy Floor Coating. Provide 2 coats. Color has not been specified at this time;	
	Architect will provide color during construction.	
Q30	Question: Drawing A-102- Door Schedule A-102: Door Schedule calls for 7-0 HM doors with frame head height of 2". A 4" frame head height will be needed to abut CMU at 7'-4". Please clarify.  Answer: Response: 4" high hollow metal frame is appropriate and should be used.	02/11/2021
	Allswel. Response. 4 High hollow metal frame is appropriate and should be used.	
Q31	Question: Drawing S-200 - Details S-200: Reference details entitled "Typical Stepped Bond Beam @ Sloped Wall". A) This detail calls for a continuous 3/8" x 4" plate for the rakes whereas 2/S201 outlines an epoxy bolt and clip system for the rakes. Please clarify outrigger fastening details if plate is the requirement. B) Since all walls are shown on structural and architectural drawings, it appears Note 14 is not applicable. I.e., #5 Bars at 16" o.c.,) Please confirm.	02/11/2021
	<b>Answer:</b> Response: Both details are applicable. Outriggers shall be installed through the plate as detailed.	
Q32	Question: Water Supply Will Owner provide necessary water for line fill, testing, etc. for the new system piping?	02/11/2021
	Answer: Response: The Owner will provide the necessary water to fill line and test.	
Q33	Question: Sections 1/A-105 and 2/A-105 Sections 1/A-105 & 2/A-105: A) Please confirm insulation is to extend to back of fascia as shown. B) We find no provision for a frieze member to conceal irregularities where fiber cement soffit meets CMU. Please clarify requirements to seal soffit to CMU.	02/11/2021
	Answer: Response: Insulation is to be extended to the back of the facia framing. Soffit vents are	
	necessary to provide roof ventilation. Install continuous ¾" plywood on framing to support facia trim and	
	provide blocking as necessary to support soffit panels. Trim can be held back +/- 1/4" for installation of	
	backer rod and sealant.	
Q34	Question: Drawing S-301  Drwg. S-301: A) Masonry note 15 refers to architectural drawings for locations of masonry control joints. Other than spacing, control joints, details, sealants, etc., are not shown by these drawings. Please clarify control joint details. B) Masonry note 19 references architectural drawings and/or building codes for additional requirements. Please provide fire rating requirement for exterior masonry walls.	02/11/2021
	Answer: Response: Follow manufacturers recommendation – provide 4-0" from each corner on each	
	side	
Q35	Question: Drawing S-200 - Bollard Detail  Drwg. S-200: Please confirm Typical Bollard Detail (Light Impact) is not applicable to this project.	02/11/2021
	Answer: Response: Light weight impact bollards are acceptable. Install per the detail.	

No	Question/Answer	Question Date
Q36	Question: Fire Extinguishers  Please confirm fire extinguishers and related fire extinguisher cabinets will not be required for this project.	02/11/2021
	Answer: Response: Fire extinguisher cabinets are not required, however, provide (1) one bracket	
	mounted fire extinguisher located on the wall adjacent to the overhead door #1. Provide a Class ABC, 10lb Fire Extinguisher.	
Q37	Question: Drawing C-201 - Natural Buffers C-201: Unless disturbed by construction, please confirm bidders are not to include any work where "natural buffers" are shown.	02/11/2021
	Answer: Response: See response to Q1.	
Q38	Question: Bid Item 65 - Antenna Tower  Bid Item 65 Antenna Tower — Please provide foundation details including dimensions, reinforcement, base plate, anchor bolts, grout, concrete strength, etc.	02/11/2021
	<b>Answer:</b> Response: As noted on E-101, the foundation for the antenna tower shall be provided and installed per the Manufacturer's recommendations.	
Q39	Question: Anchor Bolts  Please provide requirements, specifications, etc. for anchor bolt size, type, quantity, etc. for new pumps bases.	02/11/2021
	Answer: Response: The pump manufacturer shall provide the size and spacing for the bolts. Contractor	
	shall coordinate final placement with pump manufacturer.	
Q40	Question: Drawing D-102 - Concrete Encasement  Drawing D-102 - Please clarify Keyed Notes "B", 6" Minimum Concrete Encasement. Detail B/D-101 calls for concrete encasement to terminate at subgrades to grade beam and building slab.	02/11/2021
	Answer: Response: See Note 3 on D-102. Bid as specified.	
Q41	Question: Drwg. Sections on S-200, S-201 & S-202  Drawing Sections on S-200, S-201 & S-202 – CMU bond beams are shown with 2 continuous #5 bars.  Based on Omni literature, "If structural engineering calls for two rebar solid-grouted top-of-wall then a standard bond beam block would be substituted for the Omni Block shown. Alternatively, some builders leave the interior cells void of insulation in the top two courses, lay a single rebar in each and then solid grout both courses. This option provides a layer of insulation in the exterior cells of those two courses." Please clarify which method will be required for east and west walls and for the rakes on north and south walls.	02/11/2021
	Answer: Response: Utilize the standard bond beam at the top of the wall and install the 2 continuous	
	#5 bars. Omitting the insulation at this course is acceptable.	
Q42	Question: Drawing A-105, Detail 1  Drawing A-105 – Detail 1 – Reference grouted masonry shown each side of the steel beam lintel. We typically see weld-on masonry ties extending into mortar joints. Please provide specification for weld-on ties, tie spacing, etc.	02/11/2021
	Answer: Response: Provide "weld-on" or "screw-on" beam anchors with adjustable masonry ties at 16"	
	o.c.	

No	Question/Answer	Question Date
Q43	Question: Drawing A-105, Detail 2 Drawing A-105 – Detail 2 – Please provide specification, size, spacing, etc. for blocking shown below the standing seam roof.  Answer: Response: The blocking shown is part of the Ventilated Nailable Insulation Panel and is port of a single product. Size and spacing are standard as established by the Manufacturer.	02/11/2021
Q44	Question: Drawing A-105  Drawing A-105 – Both sections show 5/8" exterior gypsum board being sealed to CMU. Please clarify width of sealant so backer rod can be sized properly. Additionally, J/Bead is specified, but not shown in these details. Please confirm J/Bead will be required along the ceiling perimeter.  Answer: Response: The J-bead is required at the perimeter of the ceiling. Panels are to be held back +/- 1/4" for installation of backer rod and sealant.	02/11/2021
Q45	Question: EPA Form 5700-52A  EPA FORM 5700-52A: Reference Section 00300 – Special and General Contract Requirements, Item #9 – EPA Forms to be submitted with the Bid Submittal Package – FORM 5700-52A. See also DHEC Form 2323 attachment Form 3591, mid-page – "We agree to submit MBE/WBE utilization reports (U.S. EPA Form 5700-52A or equivalent).  Reviewing Form 5700-52A, it appears this form is to be completed and submitted by the Owner under its assistance agreements with the State Revolving Fund.  Please confirm the Contractor is NOT responsible for completing form 5700-52A and submitting with its bid submittal package.  Answer: Response: See response to Q10.	02/11/2021
Q46	Question: EPA Forms 6100-2, 6100-3, and 6100-4 EPA FORMS 6100-2, 6100-3, and 6100-4: Reference Section 00300 – Special and General Contract Requirements, Item #9 – EPA Forms to be submitted with the Bid Submittal Package – FORMS 6100-2, 6100-3, and 6100-4.  Reference Appendix A – Federal Funds – Mandatory Supplemental General Conditions for the SC SRF, pages 2 & 3. Per these documents, EPA Forms 6100-2, 6100-3, and 6100-4 are "suspended".  Please confirm that Contractor is not required to submit any of the three "6100" series forms listed above with its bid submittal package.  Answer: Response: See response to Q13.	02/11/2021
Q47	Question: Building Information Is the masonry to be all standard smooth 8" block with rigid insulation and 4" block veneer. Drawings differ as too a 12" block insulated. Specs list Omni Block or comparable. With their EPS inserts as insulation.  Answer: Response: The building is to utilize the System 12 Omniblock in lieu of standard block and block veneer.	02/11/2021

No	Question/Answer	Question Date
Q48	Question: Antenna Tower On sheet E-101 the plans call for a Trylon T400 54' tower. Could you please clarify if any accessories are needed for the tower such as ladder encasement, fall protect, etc. ? Could you also please provide details on the mounting method and hardware needed?  Answer: Response: The Contractor shall provide a Trylon S100 SuperTitan 50-ft tower or approved equal. The following accessories for the tower are to be provided by the Contractor: anti-climb shield, grounding kit, lightning rod, and TX line brackets. All details regarding the mounting method and hardware needed for the tower shall be per the Manufacturer's recommendations.	02/11/2021
Q49	Question: Question 49 Paragraph 2.1.A of Spec Section 26 04 44A (Pump Station Control Panel) indicates that the Pump Control Panel is to have a "hinged inner door". Are the specified switches and indicator lights to be mounted inside the Pump Control Panel on the "hinged inner door" or do they mount on the front door of the Pump Control Panel for easy access by operating personnel? Please clarify.  Answer: Response: The specified switches and indicator lights shall be mounted on the hinged inner door.	02/16/2021
Q50	Question: Question 50  Paragraph 3.2.A.4.c of Spec Section 40 70 23 (Process Control Narratives) indicates that "In AUTO, the operator enters the desired downstream pressure and desired pump assignments". How does the operator physically do this? I do not see that a local Operator Interface Terminal, such as an Allen-Bradley PanelView is specified. Is the Set Point to be entered remotely from the WTP SCADA System? Will the RTU and SCADA work being provided by the Owner be furnished prior to completion of the project by the Contractor? If not, how would be acceptance testing of the initial installation be performed?	02/16/2021
	Answer: Response: The intention is for the Owner to control everything through the SCADA HMI, which would include any set points. Any other manual operations of the pumps can be accomplished in the pump control panel. The Owner shall be responsible for the operation, control settings, and set points for this booster pump station. The installation of the RTU and SCADA work being provided by the Owner will be coordinated with the Contractor during construction, along with acceptance testing for the initial installation.	
Q51	Question: Question 51  There is concern about the placement of the insertion flowmeter in the vault on the discharge side of the pumps as shown on Drawing D-001 and associated details on D-201. The sales rep. says that when more than one pump is running, the velocity profile in the pipe can degrade the flow reading by as much as 30%. The sales rep. strongly recommends that the insertion flowmeter and vault be placed on the suction side of the pumps in order to improve the accuracy of the flow measurement.	02/16/2021
	Answer: Response: Bid project as specified.	

No	Question/Answer	Question Date
Q52	Question: Question 52  Spec Section 40 71 13, Paragraph 2.3.B indicates that "Grounding Rings" are to be supplied with the "Insertion" Magnetic Flowmeter. This paragraph should be deleted. Grounding rings are only used with between the flanges of full body magnetic flowmeters; they are not applicable to Insertion Magnetic Flowmeters. Is there some other purpose for the grounding rings? Per my previous question, for accurate flow measurement in this specific application, this flowmeter should be a full body Magmeter; not an Insertion Magmeter.	02/16/2021
	<b>Answer:</b> Response: Specification section 40 71 13, Paragraph 2.3.B states, "Provide grounding rings, as per manufacturer's recommendations, if required." Since an insertion flow meter is being specified, ground rings are not required, therefore, grounding rings shall not be provided. Bonding to the pipe itself is sufficient for this application. See grounding detail on sheet E-952.	