



120 MALABAR ROAD SE, PALM BAY, FL 32907-3009

(321) 952-3424

August 25, 2020

ADDENDUM #7

TO THE CONTRACT DOCUMENTS FOR THE CITY OF PALM BAY

Project Name & Number:

IFB # 39-0-2020/JG, South Regional Water Reclamation Facility Construction

FROM: City of Palm Bay
120 Malabar Road SE
Palm Bay, FL 32907

TO: All Parties Holding Specifications

The purpose of this addendum is to provide the following changes, modifications and/or additions to the contract documents and technical specifications.

QUESTIONS RECEIVED:

Q1. The bid documents show a fiberglass cover system over process channels, the grit tank and sludge holding tanks as detailed on dwg S-28. It appears the specification for these covers is detail on drawing S-28 and detailed in specification section 06600.

Hallsten would like to request approval to bid as an equivalent to the specified the fiberglass covers.

A1. Refer to Article 30 (Substitute Material and Equipment) of the Invitation for Bid document (starts on page 21).

Q2. Bebcu/Parkline is not Licensed for the State of FL. for fiberglass applications. And I believe the Building Manufacture must also have missile impact testing done on wall systems as well. This is a 2 x 4 board shot at wall. Can these specs be changed so we can meet the City standards?

A2. Refer to Article 30 (Substitute Material and Equipment) of the Invitation for Bid document (starts on page 21).

Q3. Question/Answer #15 in Addendum 3 requires the contractor to load and haul biosolids from the North Regional WRF or the North Regional WWTP to the site for initial startup of the plant.

First, if the City has a current biosolids hauling contract it would save the City money to not have the contractor include this pricing in the bid. But, if we are to include pricing, we need to know the volume of biosolids that we will be required to load and haul.

Also, can the biosolids be transferred to the transport vehicle via existing plant equipment and piping at the source location or will the contractor be required to provide temporary pumps and piping?

If we need to provide temporary pumps and/or piping, please provide details of the existing facilities, including tank sizes and heights, how close a tanker can get to the structures, and locations and sizes of piping connections if available.

A3. The City will use their own equipment to transfer it to the Contractor's truck. For bidding purposes assume a seed sludge volume of 20,000 gals. The Contractor is responsible to provide whatever seed sludge is required to start the process.

Note that this will seed one half of one train. Additional stages will be seeded internally from this first train.

Q4. The answer to Question #41 in Addendum 3 requiring a double wall containment piping system is in conflict with the notes in the elevation and plan on Drawing P-20 and the notes in the Chlorine Contact Tank Plan and Chemical Injection Quill Detail on Drawing P-18, all of which require ½" PVC Flex Hose in 2" PVC Containment Pipe. Please clarify which is required.

A4. Revise the notes in the elevation and plan on Drawing P-20 and the notes in the Chlorine Contact Tank Plan and Chemical Injection Quill Detail on Drawing P-18

From: "½" PVC Flex Hose in 2" PVC Containment Pipe:

To: "½" double wall containment pipe."

Q5. On sheet C-3 & C-4, there are a bunch of different phases shown-are we to clear the trees and vegetation from the entire site (phases 1-9) or just for phases 1A & 1B?

A5. See Addendum 3, A16.

Q6. Can we assume that the clearing of trees and vegetation will only be for the limits of the silt fence shown on sheet C-5?

A6. See Addendum 3, A16.

Q7. In the landscaping schedule on sheet C-39 the quantity of sod is listed at 80,000 SY which is ~16.5 acres-is that correct?

A7. Quantity shown is for the ultimate design. This project only includes the sod in the Phase 1 limits of clearing. This is the area within the silt fence shown on C-5. Approximate area for Phase one is 18,000 SY.

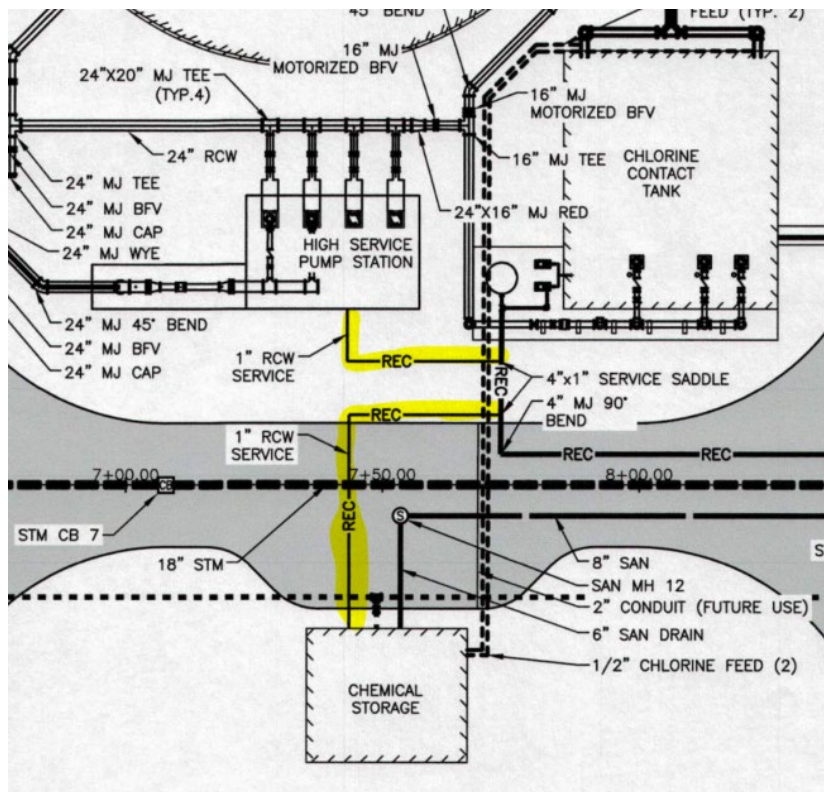
Q8. Please provide a grading plan sheet with the entire stormwater pond, sheet C15 only shows a portion of it and we need the existing elevations to determine the amount of earthwork that needs to be performed.

A8. Existing grade elevations are available on sheet C-3.

Q9. Is there a location on site to dispose of the spoils from the excavation of the stormwater pond, or must it be hauled off-site?

A9. See Addendum 4, A5.

- Q10.** I am requesting Basalt Engineering LLC's **BASALT FIBER REINFORCED POLYMER REBAR (BFRP REBAR)** listed as an equal or alternate to the specified rebar in section 03 20 00 of the **SOUTH REGIONAL WATER RECLAMATION FACILITY's** specifications.
- A10. Refer to Article 30 (Substitute Material and Equipment) of the Invitation for Bid document (starts on page 21).
- Q11.** Request to bid flat aluminum covers as an equivalent to the specified fiberglass covers.
- A11. Refer to Article 30 (Substitute Material and Equipment) of the Invitation for Bid document (starts on page 21).
- Q12.** Drawings C-16 and C-22 each show 1" RCW piping going to both the High Service Pump Station and Chemical Storage. Drawings P-20 and P-26 do not show any RCW piping required at either of these locations. Please clarify the requirements for RCW piping at each location.
- A12. Remove the 1" RCW shown on C-16 and C-22 highlighted below.



- Q13.** Specification 02300, Paragraph 3.03 E.3. states *“After the casing and carrier pipe have been installed and approved by the ENGINEER, the CONTRACTOR shall backfill the jacking pits, approach trenches or shafts. The jacking pits, approach trenches or shafts shall be considered as open cut trench and where they exceed the maximum allowable trench width the carrier pipe shall be backfilled as specified in Section 02226, Trenching, Backfilling and Compacting.”*

Regarding backfilling of trenches that exceed the maximum allowable trench width, Specification 02226, Paragraph 3.02 A. states *“To support the additional load of the backfill when the maximum trench width as specified for rigid pipe is exceeded, the CONTRACTOR shall install, at his expense, concrete encasement which shall*

completely surround the pipe and shall have a minimum thickness at any point of 1/4 of the outside diameter of the pipe or four (4) inches, whichever is greater, or at his expense, install another type bedding, approved by the ENGINEER. The concrete encasement shall consist of 3,000 psi strength concrete.”

Drawing C-26 shows the pits to be 20' x 20' and 10, x 20', both exceeding the maximum allowable trench width. Please confirm that we are to include in our bid the cost of concrete encasement for all of the carrier piping within the pits.

A13. Confirmed.

Q14. Portions of Specification 11500 regarding the extent of the piping systems to be supplied by the MBR System Supplier are in conflict with the Pipe Schedule on Drawing P-30:

- A. Note 1 below the Pipe Schedule states ***“MBR Permeate pumps, suction, and discharge piping shall be the responsibility of the MBR supplier. The MBR supplier shall be responsible for permeate piping to the 6 inch flanged tee connection at the permeate discharge manifold. The information shown on the pipe schedule pertains to the permeate discharge piping manifold downstream to the chlorine contact basin.”*** This indicates that the MBR supplier would be responsible for providing all of the suction pipe, fittings, valves, permeate flow meters and accessories between the SMUs and the Permeate Pumps and the discharge piping between the Permeate Pumps and the 16” x 6” tees on the permeate header in the trench. Everything beginning at the 16” x 6” tees downstream to the chlorine contact basin would be provided by the Contractor. But, 11500-1.01 B.4. & 5. only requires the MBR supplier scope to include in-basin permeate piping, permeate header piping and valves terminating with a permeate header isolation valve after the final SMU branch connection, MBR permeate control valves, and MBR permeate process instrumentation. Please clearly indicate the point at which the responsibility for the supply of the permeate suction and discharge piping systems changes from the MBR supplier to the Contractor.
- B. Note 2 below the Pipe Schedule states ***“WAS pumps, suction, and discharge piping shall be the responsibility of the MBR supplier. The MBR supplier shall be responsible for WAS piping to the 6 inch flanged tee connection at the WAS discharge manifold. The information shown on the pipe schedule pertains to the WAS discharge piping manifold downstream to the sludge holding basins.”*** This indicates that the MBR supplier would be responsible for providing all of the suction pipe, fittings, valves, and accessories between the 18” x 6” tees and the pumps, and all of the discharge pipe, fittings, valves, and accessories between the pumps and the 6” tee in the pipe trench. Everything beginning at the 6” tee downstream to the sludge holding basins would be provided by the contractor, except for the flowmeter. But, 11500-1.01 B.7. only requires the MBR supplier scope to include the WAS control valves and instrumentation and meters. Please clearly indicate the point at which the responsibility for the supply of the WAS suction and discharge piping systems changes from the MBR supplier to the Contractor.

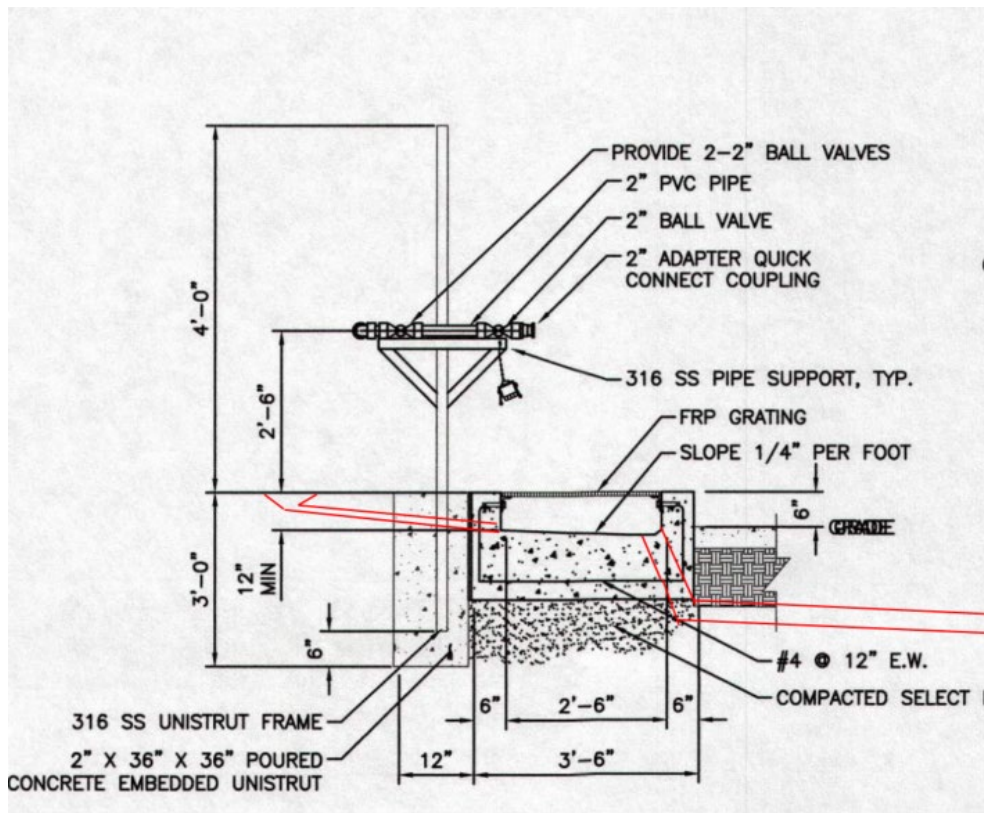
It is unclear from the Pipe Schedule and Specification 11500 whether the Contractor or MBR supplier is to provide the Process Air piping between the blowers and the drop pipes at the basins, but notes on Drawing P-14 appear to indicate that all of the stainless steel process air piping is to be provided by the MBR supplier. If the Contractor is to provide any of the process air piping, please clearly indicate the point at which the responsibility for the supply of the piping

changes from the MBR supplier to the Contractor.

- A14. A. The engineer's intent is that the MBR supplier scope include in-basin permeate piping, permeate header piping and valves terminating with a permeate header isolation valve after the final SMU branch connection, MBR permeate control valves, and MBR permeate process instrumentation. The Contractor is responsible for providing all equipment and materials necessary to complete the work. How acquisition of equipment is conveyed to subcontractors is the responsibility of the Contractor
- B. The engineer's intent is that the MBR Supplier will supply the WAS pump discharge piping through the floor. The first fitting below grade would be the responsibility of the Contractor to provide. The downstream meter should be provided loose to the Contractor. The Contractor is responsible for providing all equipment and materials necessary to complete the work. How acquisition of equipment is conveyed to subcontractors is the responsibility of the Contractor.

Q15. Drawing P-20 shows a 6" PVC Drain at the Chemical Storage Fill Station and a 1-1/4" drain from the emergency shower. The two Fill Station details do not show these drains. Please provide details of how to connect the piping at the fill station and any required concrete penetration details.

A15. Revise detail per mark-ups below:

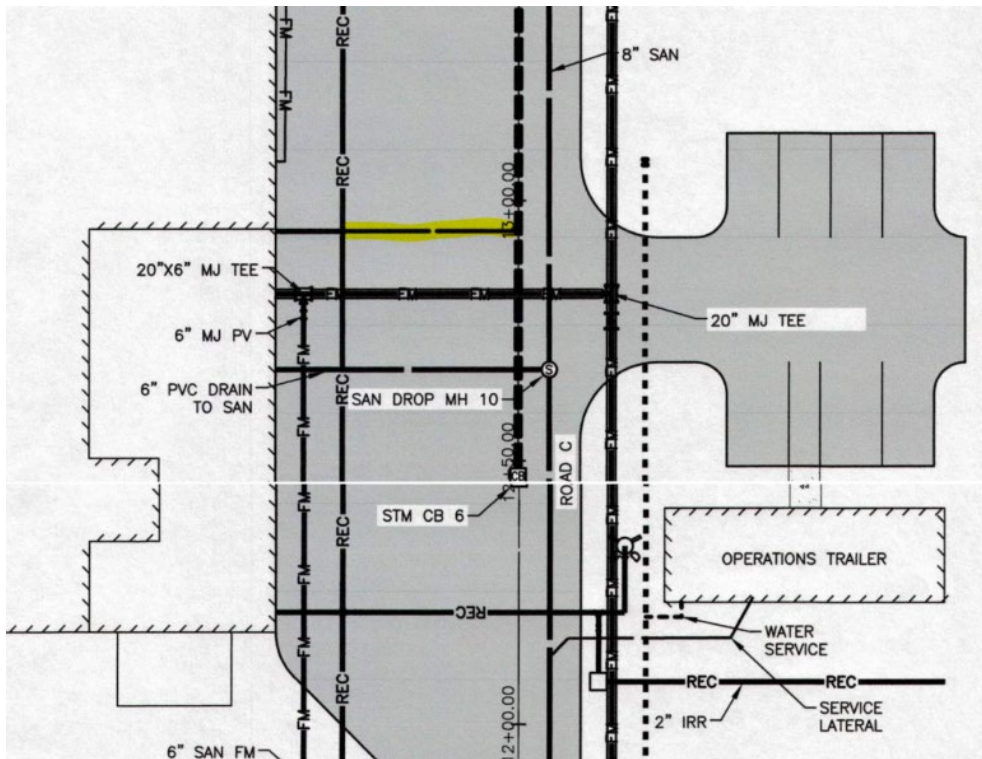


Q16. The Headworks Lower Level Plan on Drawing P-5 shows the two northernmost drains as 6" PVC pipe to a floor drain and cleanout. Section 1 on Drawing P-6 shows both of these drains as 4" PVC pipe and the one to the right appears to attach to the end of the screw conveyor. Please confirm the sizes of each of these drains and clarify whether a floor drain is required at the end of the screw conveyor as shown on Drawing P-5 or if the drain connects to the screw conveyor as shown on Drawing P-6.

A16. See Addendum 3 A47 and revised S sheets provided in Addendum 3.

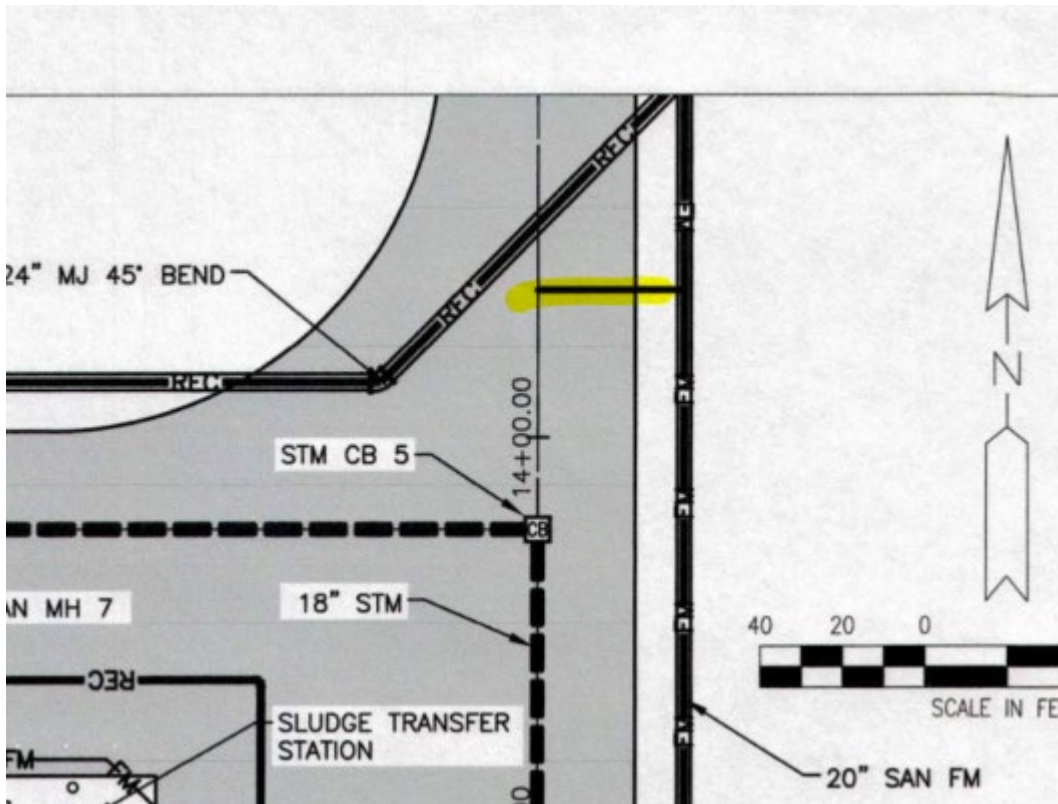
Q17. Drawings C-16 and C-21 show a line between the 4" REC piping and the 18" STM piping at approximately station 13+00 in Road C. These drawings indicate that a 4" REC line goes west from the 4" tee to the north end of the Headworks, but there is no indication of what the line between the REC and STM piping is. Please clarify the requirements for piping at this location.

A17. On C-16 and C-21 delete the highlight section of pipe below:



Q18. Drawings C-16 and C-21 show a line between the 20" SAN FM and the centerline of Road C at approximately station 14+20. The profile on Drawing C-21 shows the southern 20" 11.25° bend near this location, but there is no indication of any piping heading to the west of the SAN FM at this location. Please clarify the requirements for piping at this location.

A18. On C-16 and C-21 delete the highlight section of pipe below:



Q19. Drawing P-9 shows both of the drain lines from the mud valves in the MBR Basins, Aeration Reactors, Anoxic/Equalization Reactors, and Anaerobic Reactors to the sanitary manholes as 6" DIP. The information for Sanitary Manholes #5 and #6 in the profile on Drawing C-23 indicates that the piping to the south of each manhole is to be 8". Please clarify the size of the drain piping from the mud valves to Sanitary Manholes #5 and #6.

A19. Revise the pipes entering Manholes #5 and #6 from the south to be 6" to match the process drawings.

Q20. The note attached to the 12" influent pipe at the wetwell in the Plant Drain Lift Station Plan on Drawing P-21 says "MIN. 32 LF. DR 18 PVC". On Drawings C-16, C-20, and C-22 this 12" line scales approximately 27 LF. Specification 02730, Paragraph 2.01 B.2. requires SDR 35 piping for the Sanitary Sewer system. Please clarify the following:

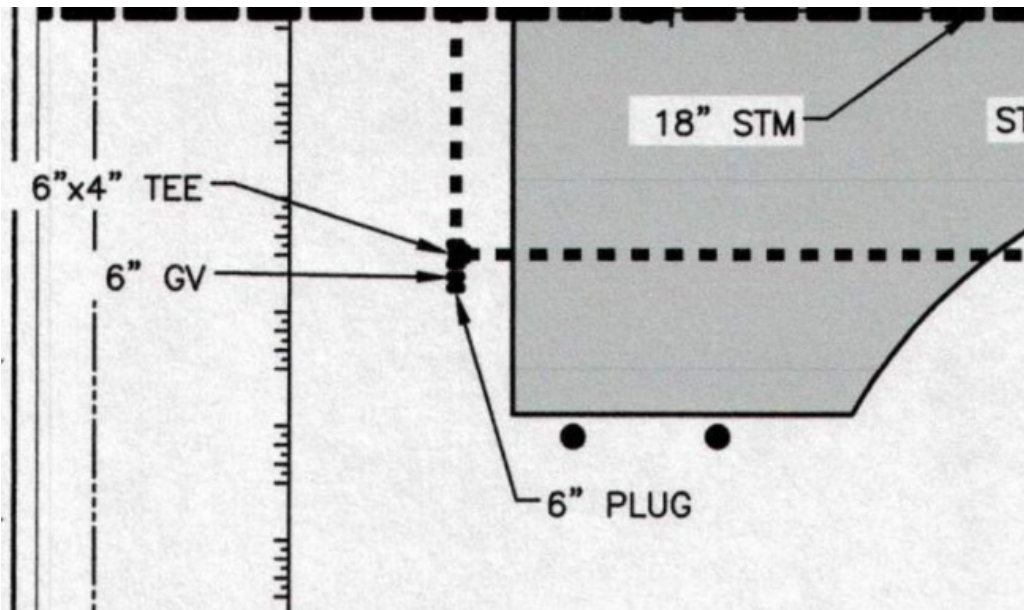
A. Is 32 LF. of piping required between SAN MH 1 and the wetwell, placing the wetwell approximately 5 feet farther east than shown on Drawings C-16, C-20, and C-22?

Should the pipe between SAN MH 1 and the wetwell be SDR 35 as specified? If DR 18 piping is required at this location, please provide a specification for the piping.

A20. Revise "MIN 32 LF. DR 18" to "MIN 5 LF." Use SDR 35 pipe as specified.

Q21. In the profile on Drawing C-20, the 6" drain from the Chlorine Contact Tank is shown to have an invert elevation of 20.00 at SAN MH 2. The incoming and outgoing lines at SAN MH 2 are shown to have an invert elevation of 14.73. Note 3 in Detail S-2 on Drawing C-35 says "An outside drop connection shall be required for all influent which have an invert 2' or more above the manhole invert". Drawing C-21 specifically notes that SAN MH 10 is a drop manhole but Drawing C-20 does not indicate that SAN MH 2 is to be a drop manhole. Please clarify whether Detail S-2 on Drawing C-35 applies to both SAN MHs 2 and 10 or just to SAN MH 10 as shown on the drawings.

- A21. An outside drop connection shall be required for all influent which have an invert 2' or more above the manhole invert.
- Q22. The plan and profile on Drawing C-21 both show a 4" GV and Plug at the end of the 4" Water Main. On Drawing C-22 it appears that a 6" GV and Plug may be required at the end of the 6" Water Main beyond the 6" x 4" tee, but the profile only calls out the 6" x 4" tee. Please confirm whether a 6" GV and Plug are required at this location.
- A22. Confirmed. The 6" GV and Plug are shown on C-22 and they are shown and labeled on C-16 as shown below.



- Q23. Section 00306 of the Bid and Contract Requirements is a Subcontractor Listing form. Due to the last minute nature of subcontractor pricing and constantly changing prices on bid day, we will be required to stop taking subcontractor bids in time to calculate the percentages and complete the information required on the form, possibly missing lower priced quotes that could benefit the City. Would the City consider allowing this form to be submitted prior to the bid opening on the following day, or even within an hour after the time the bid is due, to allow time to properly complete the form?
- A23. This form is due with the bid submittal. Please complete the form to the best of your ability. An updated form may be requested from the awarded Contractor prior to beginning work.
- Q24. Please clarify the bottom reinforcement required for footing F-102 added to the footing schedule on Drawing S-27 in Addendum 3. The schedule says "(6) - #78 EA WAY".
- A24. Bottom Reinforcement Should Read – "(6) - #7 EA WAY".

SECTION 11320 Rotary Screen

- Q25. 2.01.B. This section describes a specific model number with a suggestion of desired diameter and length of the screen. We are asking to clarify that the flows stated in 1.01.B are the required performance requirements and each manufacturer would size their unit accordingly?
- A25. Confirmed.

- Q26. 2.02.C. Specification calls for a design using a open tapered header. We would ask that those designs using closed pipe headers would not require an external stainless steel cover as that is not required on our design.**
- A26. The proposed design may be acceptable subject to the review of the ENGINEER, as long as it performs the function of receiving the incoming flow and distributing it to the flow to the screen element. Inlet to the equipment shall be baffled to reduce forward velocity and provide momentary flow equalization. The equipment must have the capability to provide linear and vertical control of the flow. The final distribution of the flow to the screen element must be able to be adjusted. The equipment must have cleanout and drain capabilities. Refer to Article 30 (Substitute Material and Equipment) of the Invitation for Bid document (starts on page 21).
- Q27. 2.02.H Trunnion wheels are specified as quantity of 8 8” wheels. Our engineered design uses a quantity of four (4) 10” diameter wheels.**
- A27. See Addendum #4, A19D
- Q28. 2.02.I. Specification does not state any water requirements. Our design uses 40 psi pressure with a total of 35 nozzles @.8 gpm /nozzle.**
- A28. This is acceptable.
- Q29. 2.02.J. Our design does not require an internal deflector for the internal spray bar. The orientation past vertical would not allow solids present in the location of our spray bars.**
- A29. Parkson model RDS6072DV Rotoshear is a pre-approved product and their standard number of internal spray nozzles used on their equipment is acceptable. Alternate manufacturer’s products and materials of construction will be considered during shop drawing review. Refer to Article 30 (Substitute Material and Equipment) of the Invitation for Bid document (starts on page 21).
- Q30. 2.02.L. Design is based around a drive sprocket and chain driven mechanism. We ask that alternative design utilizing belt sprocket with taper-lock bushing and a suitable sized synchronous timing belt for operating the drum.**
- A30. Parkson model RDS6072DV Rotoshear is a pre-approved product and their standard chain and sprockets are acceptable. Alternate manufacturer’s products and materials of construction will be considered during shop drawing review. Refer to Article 30 (Substitute Material and Equipment) of the Invitation for Bid document (starts on page 21).
- Q31. 2.02.M. As stated above, our design uses a belt driven system that does not require an external oiler. Please allow for this design improvement.**
- A31. Parkson model RDS6072DV Rotoshear is a pre-approved product and their standard drive system is acceptable. If a lubricating system is not required for the proposed design, this requirement may be omitted. Refer to Article 30 (Substitute Material and Equipment) of the Invitation for Bid document (starts on page 21).
- Specification 11600**
- Q32. Is there a schematic diagram related to the Sludge Blower, Aeration Blower and Membrane Blower VFD panels that would indicate options needed? Are there to be provided as part of the Electrical Contractors package or the Blower OEMs package?**
- A32. There is no control schematic diagram specific to the blower VFDs. The blower VFDs should

follow the general VFD schematic on drawing E-30 and the VFD Specification Section 16420. The VFDs for the blowers will require at least one relay output to signal the blower enclosure fan to run whenever the blower is running. The Contractor is responsible for providing all equipment and materials necessary to complete the work. How acquisition of equipment is conveyed to subcontractors is the responsibility of the Contractor.

Q33. The spec calls out a single manufacturer and the company that sells them exclusively. Our product is supported locally and does not require the expensive filtering Yaskawa requires. I am asking for Danfoss to be added to the spec and not to say sole source.

A33. The Utilities Department has standardized to Yaskawa VFDs.

Q34. Section 11210, 2.12: We request that Grundfos be added to the list as an Approved Equal. Grundfos is specified in Section 12220, 2.05.

A34. Refer to Article 30 (Substitute Material and Equipment) of the Invitation for Bid document (starts on page 21).

Q35. I don't see anywhere in the Specification for concrete repair or the use of a cementitious epoxy like Tnemec Series 218 MortarClad. Is the intent not to resurface and fill bugholes and voids to provide a monolithic surface before the coating systems are applied? Without the use of this product a pinhole-free protective coating system will likely not be achievable.

A35. Contractor shall meet the surface preparation requirements for the specific Coating Systems submitted during Shop Drawing Review. All concrete surfaces that require coating or not must receive surface finishes/repairs specified in Specifications Section 03300-3.09.

Q36. For Class 1 Coating: I'd like to submit an alternate request for Tnemec Series 1254 Block Filler and (2) coats of Tnemec Series 1026 Enduratone.

A36. Refer to Article 30 (Substitute Material and Equipment) of the Invitation for Bid document (starts on page 21).

Q37. For Class 1 Coating: I'd like to submit an alternate request for Tnemec Series 1254 Block Filler and (2) coats of Tnemec Series 1026 Enduratone.

A37. Refer to Article 30 (Substitute Material and Equipment) of the Invitation for Bid document (starts on page 21).

Q38. For Class 2 Coating: I'd like to submit an alternate request for Tnemec Series N69 HI Build Epoxoline as a Primer and Tnemec Series 1095 EnduraShield as the Finish.

A38. Refer to Article 30 (Substitute Material and Equipment) of the Invitation for Bid document (starts on page 21).

Q39. For Class 3 Coating: I'd like to submit an alternate request for Tnemec Series 1029 Enduratone applied in a (2) coat system.

A39. Refer to Article 30 (Substitute Material and Equipment) of the Invitation for Bid document (starts on page 21).

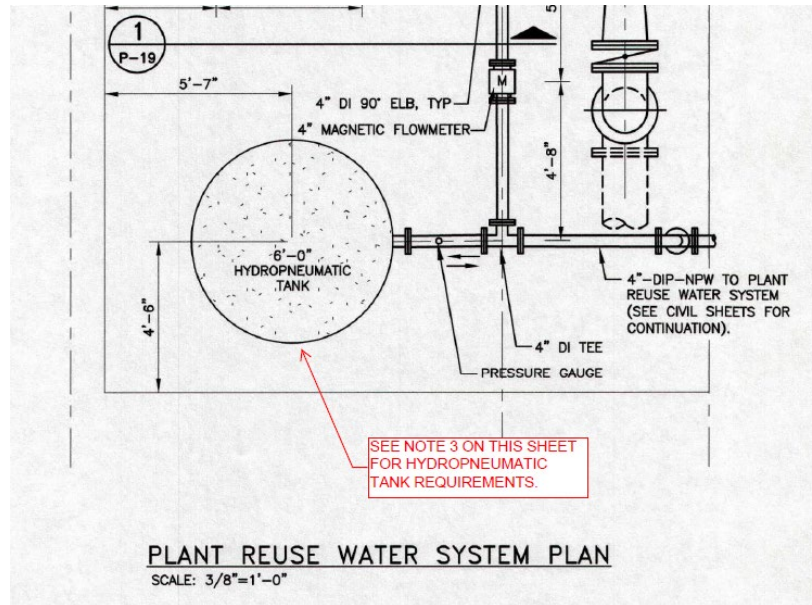
Q40. For Coating System F in the 09900 Section: Due to the hazardous formulation and safety concerns that are involved with vinyl-ester coatings, I'd like to submit a more health conscientious alternate request for Tnemec Series G435 Perma-Glaze at the

same dry film thickness. This is a 100% solids epoxy lining technology developed for elevated H2S environments.

- A40. Refer to Article 30 (Substitute Material and Equipment) of the Invitation for Bid document (starts on page 21).
- Q41. For Coating System G and H in the 09900 Section: Due to the hazardous formulation and safety concerns that are involved with vinyl-ester coatings, I'd like to submit a more health conscientious alternate request for Tnemec Series 282 Tneme-Glaze with Tnemec Series 201 Epoxoprime as a prime coat. This coating system is 100% solids epoxy technology and suitable for secondary containment exposure with the chemicals provided in the Specification.**
- A41. Refer to Article 30 (Substitute Material and Equipment) of the Invitation for Bid document (starts on page 21).
- Q42. For Coating System I in the 09900 Section: Due to environment conditions with high temperatures and humidity in Florida, an elastomeric urethane is a very high risk application for short term delamination, with studies and case histories to prove low performance in elevated H2S environments. I'd like to submit an alternate request for Tnemec Series G436 Perma-Shield Fiber-Reinforced Epoxy for this application.**
- A42. Refer to Article 30 (Substitute Material and Equipment) of the Invitation for Bid document (starts on page 21).
- Q43. For Coating System J in the 09900 Section: I'd like to submit an alternate request for Tnemec Series 46H-413 HB Tneme-Tar.**
- A43. Refer to Article 30 (Substitute Material and Equipment) of the Invitation for Bid document (starts on page 21).
- Q44. Santis Engineering has the Contract for the city's SCADA and controls work and would have expected to be named on this contract as a supplier. In Section 13450-7, 2.04, the controls work is specified to be done by the MBR supplier. We would respectfully ask that Santis Engineering be a named as a supplier for the Instrumentation and SCADA work on this project.**
- A44. The MBR supplier will be responsible for the integration of the entire project to provide one single point of responsibility. The MBR supplier will be required to follow the City's SCADA standards (see attached). Santis Engineering is the Utilities Department's Integrator and should be considered by the Contractor for 3rd-party instrumentation and SCADA services.
- Q45. It is observed that on sheet P-19, there is a hydropneumatic tank called out with an assumed max diameter, but no size in gallons specified. Addendum 3, attachment 2 includes a specification section 11100 for hydropneumatic surge tanks. 2.04.A.2.b states that each tank shall have a volume of 2600 gallons. Can you confirm if there is only one tank or two tanks required as P-19 only shows one?**
- A45. Only one tank is required.
- Q46. Sheet P-19 lists out a hydropneumatic tank to be used for plant re-use water. Is the hydropneumatic tank to be a vertical style tank for the design intent with this water quality? See attached example drawing.**
- A46. The hydropneumatic tank shall be a vertical FXA-style ASME bladder tank. The intention of this equipment is to provide constant pressure of plant reuse water for various equipment.

Q47. Section 11100 / 2.04.A.2 states that the size of the surge tank is to be determined and fixed by the supplier's surge analysis or one provided by the owner. Has the owner conducted an analysis yet?

A47. Surge analysis will not be required.
Section 11100 will be removed and the requirements for the surge tank will be shown on the revised drawing of P-19 as per the attached markup.



NOTES:

1. CENTERLINE ELEVATION OF 4" PLANT REUSE WATER SUCTION PIPE IS THE SAME ELEVATION AS THE SUCTION OPENING OF THE PUMP AFTER SECURING PUMP AND BASE TO CONCRETE HOUSEKEEPING PAD. THE CONTRACTOR SHALL CORE THROUGH THE CHLORINE CONTACT TANK WALL ONLY AFTER THIS CENTERLINE HAS BEEN DETERMINED. SUCTION PIPING SHALL REMAIN LEVEL BETWEEN THE WALL AND THE PUMP.
2. ALL PLANT REUSE WATER LINES SHALL BE PAINTED PURPLE.

3. THE MANUFACTURER SHALL PROVIDE ALL MATERIALS, EQUIPMENT AND INCIDENTALS REQUIRED TO FURNISH, TRANSPORT AND PLACE INTO OPERATION THE HYDROPNEUMATIC BLADDER TANK.

a. SHOP DRAWING SUBMITTALS SHALL BE IN ACCORDANCE WITH SECTION 01300 AND SHALL INCLUDE DRAWINGS SHOWING DETAILS OF CONSTRUCTION, EQUIPMENT DATASHEETS AND SOURCE QUALITY CONTROL TEST REPORTS. OPERATION & MAINTENANCE DATA SHALL BE SUBMITTED AS PER SPECIFICATION SECTION 01730.

b. TANK SUPPLIER SHALL PROVIDE A MINIMUM OF FIVE REFERENCES OF COMPARABLE INSTALLATIONS. ALL WELDERS WORKING ON THE FABRICATION OF THIS TANK SHALL BE ASME CERTIFIED. TANK SHALL BE AN FXA-STYLE TANK, DESIGNED IN ACCORDANCE WITH ASME SECTION VIII.

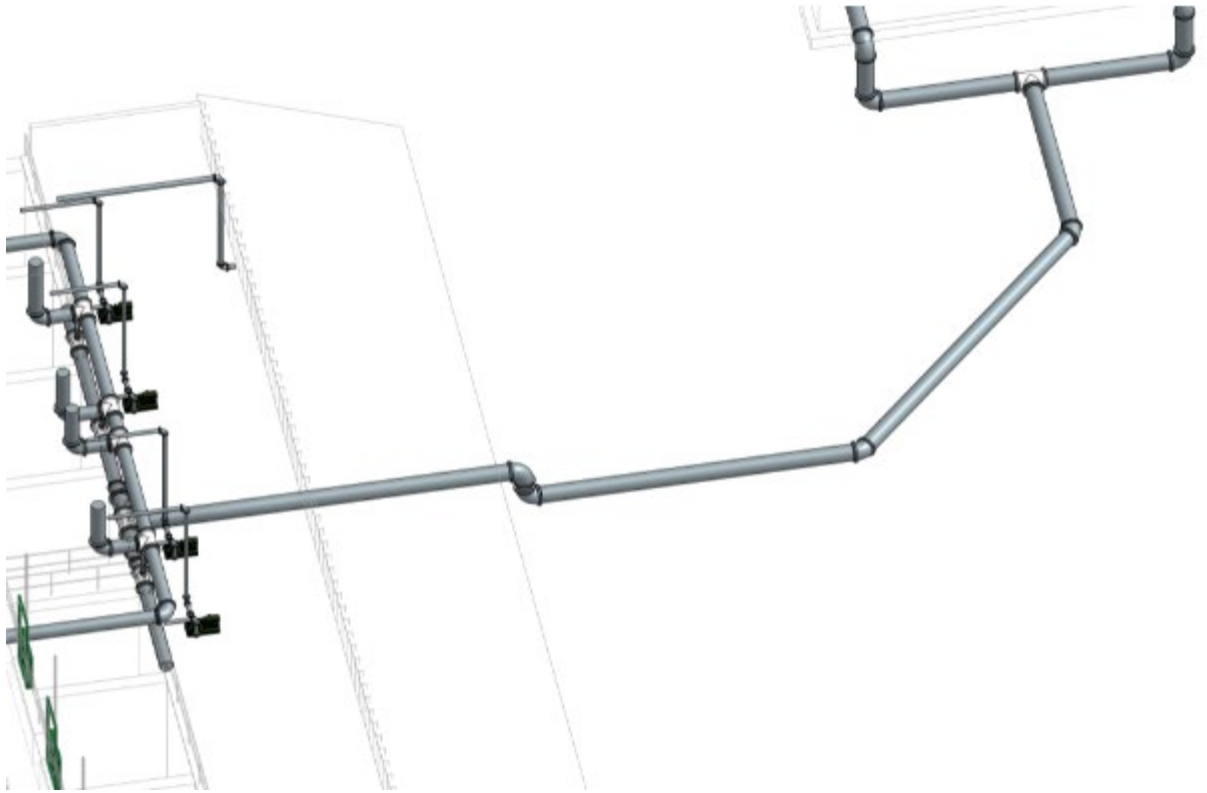
c. TANK SHALL BE FURNISHED WITH A REPLACEABLE HEAVY-DUTY BUTYL BLADDER, NPT EPOXY LINED CONNECTIONS AND A CHARGING VALVE TO ADJUST AIR PRESSURE. SYSTEM SHALL BE FURNISHED WITH A PRESSURE GAUGE AND A BLADDER INTEGRITY MONITOR.

d. TANK CONSTRUCTION SHALL BE AS FOLLOWS:

- MATERIAL: CARBON STEEL
- ORIENTATION: VERTICAL
- EPOXY COATING IN ACCORDANCE WITH SECTION 09900 OF THE SPECIFICATIONS.
- MINIMUM VOLUME: 2600 GAL
- DIMENSIONS: 72" (D) x 172" (H)

e. ACCEPTABLE MANUFACTURERS ARE: WESSEL COMPANY (MODEL FXA-10000-HP) OR APPROVED EQUAL.

- Q48. Please provide clarification on how the 20" Permeate pipe from the CCT enters the Biologic Process building trench. The pipe runs underground to the building and is shown in the trench on sheets P-12 & P-13 but there is no detail showing the transition into the building and the Trench Slab. We assume the pipe is coming under the building footer and turning up through the trench slab but if the intention is to come through the trench wall, more pipe fittings will be needed.**
- A48. The 20" Permeate pipe is FROM the MBR TO the CCT. It enters the building through the west end wall of the pipe trench at approximately bottom of pipe elevation 21.5 using a standard below-grade wall penetration detail, see Detail 1 on P-29.



END OF ADDENDUM #7