

26 February 2024

Bidding Question and Responses, Memo 3

To: Scott Collins, P.E.

From: Michael Lubovich

Subject: Bidding Questions Prior to Addendum 4
City of Washougal Biosolids Handling Facilities and Odor Control Improvements
K/J 2197015.00

No.	Question	Response
1.	Can biosolids be stored onsite during dewatering?	See response No. 24 in Memo 2
2.	Which penetration detail should be used for pipes penetrating the CMU walls in Biosolids Handling Building?	Refer to Detail 7, Sheet M-005 for piping penetrations through CMU wall
3.	Which penetration detail should be used for pipes penetrating the slab in Biosolids Handling Building, or are none needed due to the pipes being encased?	Pipes penetrating concrete slabs will be encased and do not refer to a penetration detail.
4.	Is there a detail for Keynote A on sheet A-204 for the conveyor penetration?	No detail is included.
5.	Sheet M-202, nor associated sections, have any dimensions, or dimensions to grid lines for equipment layout. Can some dimensions be provided for general layout of equipment for reference?	Dimensions will not be provided at this time.
6.	Is there a support detail for the 6" WAS running in the trench on sheet M-202 or associated sections?	Refer to the General Notes on Sheet M-003.

Bidding Question and Responses, Memo 3

Scott Collins, P.E.

26 February 2024

2197015.00

Page 2

No.	Question	Response
7.	<p>Biosolids handling building: The architectural drawings call for furred walls in the mechanical room. Is there a detail for the FA T8S pipe support attachment/anchorage to the CMU on the furred walls? Would this also apply to Unistrut attachments/anchorage for the W3 and POL supports, along with utility station hose racks?</p>	<p>Refer to Addendum 4 item numbers AD4-22 through 24</p>
8.	<p>Circuit Collection</p> <p>Are we able to combine discrete, analog, motor, and power circuits within shared conduits for each respective group per code or does each device/motor require its own dedicated conduit run as noted in the conduit & cable schedule?</p> <p>ie. S-AIT-8560, S-AIT-8561, S-TIT-8561, S-AIT-8563, S-LIT-8521 collected at a J-Box and returned to BHB-PCP.</p>	<p>Discrete, analog, and power circuits must all be in separate conduits per the conduit and wire schedules.</p>
9.	<p>Drywall Spec</p> <p>There are no drywall specification. Can some be provided for the drywall scope at the biosolids handling building?</p>	<p>Section 09250 Gypsum Wallboard has been attached to Addendum 4.</p>

Bidding Question and Responses, Memo 3

Scott Collins, P.E.

26 February 2024

2197015.00

Page 3

No.	Question	Response
10.	<p>Pre-Engineered Metal Canopy</p> <p>Can there be more information provided for the pre-engineered metal canopy that next to the biosolids building? A spec section?</p>	<p>Section 13122 Pre-Engineered Metal Canopy Systems has been attached to Addendum 4</p>
11.	<p>Security during Non-Working hours</p> <p>Spec Section 01500-3 Sub Section 1.05 Security calls out “ Employ the services of a licensed security firm to patrol the site during non-working hours.” Can this requirement please be removed, since the site is currently secured?</p>	<p>This requirement has been removed per Addendum 4, item AD4-6</p>
12.	<p>Joist girder designations</p> <p>Can you please provide joist girder designations at the Biosolids Handling Building?</p>	<p>The joist designation has been answered please refer to Addendum 2 (See Item AD2-6).</p>
13.	<p>Conveyor Support</p> <p>Will the conveyor support at the Biosolids Storage Canopy need to be contractor designed or manufacturer designed?</p>	<p>The conveyor supports are to be manufacturer designed per Section 14400-2.03.E.</p>
14.	<p>Sheet D-004 requires that an existing conduit with existing wire be spliced and relocated. What size is the conduit, and what size and quantity of wire does it contain?</p>	<p>This has been addressed by the revised D-004 included in Addendum 2.</p>

Bidding Question and Responses, Memo 3

Scott Collins, P.E.

26 February 2024

2197015.00

Page 4

No.	Question	Response
15.	Sheet E-401 will new conduit and VFD cable be required to be installed from ODR-MST-8704 to the fan motor ODR-FAN-8704?	Per sheet E-800, the odor control fan motor is not using a VFD and won't be required to utilize VFD cable. Refer to specification sections 16110 and 16120 for the appropriate pathway and conductor application for this new motor connection.
16.	Sheet I-011 the power conduit/wire to LIT-8512 & LIT-8522 appears to be missing from the conduit schedule. Will these devices require power conduit & wire similar to that of LIT-8511 & LIT-8521?	Yes, the LIT's all need the same wiring scheme.
17.	Are all existing liners 'Fine Grained Soil Liners'? What is the thickness of these liners?	The existing liners are comprised of fine grained soils. The estimated liner thickness is 2.5 feet.
18.	Section 02300, 3.04, B. Lagoon 1 Liner Excavation, instructs us to "...remove the Lagoon 1 fine-grained soil liner...within the proposed Biosolids Facility Fill Area" and to "Place fine-grained soil liner in Lagoon 1 outside the Biosolids Facility Fill Area...". Can you confirm Lagoon 1 liner removal only takes place in the footprint of the Biosolids Facility Fill? And that all removed liner material gets placed onto the adjacent liner that remains?	Lagoon 1 liner removal is only required within the footprint of the Biosolids Facility Fill. Removed Lagoon 1 liner material can be placed onto adjacent Lagoon 1 liner to remain in place.

Bidding Question and Responses, Memo 3

Scott Collins, P.E.

26 February 2024

2197015.00

Page 5

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19.	<p>Bid Item 15: Liner Removal from Lagoons 1, 2, 3, and 4 instructs us to remove the liner from Lagoon 4. However, plansheet D-004, Section B and Detail C say Lagoon 4 Liner (outside of planting area) to remain. Is the intent to place the fine-grained liner, removed from the planting area, onto the remaining liner similar to Lagoon 1?</p>	<p>Removed Lagoon 4 liner material should not be placed on Lagoon 4 liner to remain in place. Removed Lagoon 4 liner material should be hauled and placed on top of Lagoon 1 liner to remain in place.</p>
20.	<p>The Appendix A: Lagoon Decommissioning Plan says for all Lagoons, that “Biosolids and a portion of the liner will be removed, such that upon removal, there is an average of less than 1-inch of wet solids across the bottom of the lagoon.” This appears to say that liner removal is incidental to the sludge removal, and that only the portion of liner that is removed with the biosolids (to within less than 1-inch of the bottom) constitutes the “Liner Removal” bid item. Can you confirm?</p>	<p>Liner Removal (Bid Item No. 15) is related to removal of liner material from the Lagoon 1 Biosolids Fill Area and Lagoon 4 Stormwater Vegetation Area. Liner material removal associated with bringing biosolids to less than 1-inch of the lagoon bottom is a part of the Lagoon 1 and Lagoons 2, 3, and 4 Sludge Removal bid items (i.e. Bid Item Nos. 13 and 14).</p>
21.	<p>Erosion Control Bid Item</p> <p>I am not seeing a bid item under which erosion and sediment control is to be paid under. Could you please clarify what bid item this should fall under or if a bid item will be added?</p>	<p>TESC should be paid out of the bid item work to which the TESC is incidental.</p> <p>Preparation of the Erosion Control Plan shall be paid out under Bid Item 1.</p>

Bidding Question and Responses, Memo 3

Scott Collins, P.E.

26 February 2024

2197015.00

Page 6

No.	Question	Response
22.	<p>Seismic Engineering</p> <p>Which items will specifically require Seismic Engineering on this Project</p>	<p>See Section 01190 for the items that required Seismic Engineering.</p>
23.	<p>Washdown Area</p> <p>I see a washdown area shown on the erosion control plans, will this require an actual wheel wash specifically designed wheel wash for trucks, or will this just be a designated washdown area for vehicles?</p>	<p>Refer to Detail 200 Notes 3 and 4 on Drawing C-004 for the Construction Entrance with Vehicle Washdown Area's washdown requirements.</p>
24.	<p>General Requirements – Phone & Fax Services</p> <p>The specs required the contractor to provide the engineer a phone & fax service for their trailer. Since both of these services have been replaced with cell phones and email can this requirement be removed?</p>	<p>Yes, it will be removed.</p>
25.	<p>Daily Cleaning of Engineer Trailer</p> <p>Can the daily cleaning requirement of the contractor provided trailer for the engineer be removed or changed to a more reasonable cleaning period such as weekly or biweekly?</p>	<p>Contractor provided trailer for the engineer can be cleaned periodically, such as weekly.</p>

Bidding Question and Responses, Memo 3

Scott Collins, P.E.

26 February 2024

2197015.00

Page 7

No.	Question	Response
26.	<p>Toilet Room with Flush Toilet</p> <p>The general requirements call out for Toilet Room with flush toilet, and wash basin, can this requirement please be removed in exchange for a standard port potty?</p>	<p>Yes, this requirement can be removed and exchanged for a port potty.</p>
27.	<p>Attachment At Furred Wall</p> <p>Can you please provide a spacing detail for the Simpson HGMA 10 Clips that attach the PT 2x4 to the CMU wall?</p>	<p>Space the clips at 6'-0" on center.</p>
28.	<p>No Subject</p> <p>Sequencing of sludge removal. Can the contractor dredge sludge from Lagoon 1 into Lagoon 2 followed by dredging Lagoon 3 and 4 into Lagoon 2? The sludge would be dewatered at the end of the project.</p>	<p>Multiple dredging operations are acceptable. Transferring and storing sludge from Lagoon 3 and 4 into Lagoon 2 until decommissioning of Lagoon 2 is acceptable. Contractor is responsible for the scheduling and sequencing of the Work to meet the project requirements.</p>
29.	<p>No Subject</p> <p>The duct bank detail XXX is contradicting the specifications for concrete strength. Also, it is extremely vague on the reinforcement. Will the duct bank require concrete or sand backfill/zone (please clarify detail).</p> <p>If concrete, will be duct bank require reinforcement if so, please provide detail.</p>	<p>No duct bank is required to be concrete encased on this project. Provide sand backfill per Section 16402 paragraph 3.05.</p>

Bidding Question and Responses, Memo 3

Scott Collins, P.E.

26 February 2024

2197015.00

Page 8

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30.	<p>No Subject</p> <p>Please clarify if electrical conduits under slabs and structures are duct banks or can they be encased as normally done between the slab reinforcement mats.</p>	<p>Unless specifically allowed, electrical conduits shall be routed under the slab and not within the reinforcement mats to avoid puncture/damage. Refer to structural details for additional information.</p>
31.	<p>Drain Structures Size Clarification</p> <p>Currently the sizing of Manholes the following Manholes are not called out can you please provide clarification of the structure size of the following?</p> <ul style="list-style-type: none"> • SDMH – 1A • SDMH – 4A • SDMH – 4 	<p>Refer to Drawing C-501 for manhole sizes: General note 7 for typical manhole sizes and plan view manhole callouts for others.</p>
32.	<p>See 09960-11. Could you provide an updated Finish Schedule? The schedule calls out coating system no. 7 on buried exterior of walls of aeration basin feed and primary effluent pump stations, which there's neither on this project, and there's no coating listed on the Biological Selector.</p>	<p>See Addendum 4, Item AD4-16: Revision to the finish schedule has been included.</p>
33.	<p>Sheet M-101 calls out T7S pipe supports. Could you provide a detail for this support?</p>	<p>Reference to T7S should be deleted per Addendum 4, Item AD4-20 and 21.</p>
34.	<p>I was wondering if there is any Fire Alarm or security on this project. I did not see any drawings for it.</p>	<p>Refer to Section 16720 Fire Detection and Alarm for the FA scope of work in the new building.</p>

Bidding Question and Responses, Memo 3

Scott Collins, P.E.

26 February 2024

2197015.00

Page 9

No.	Question	Response
35.	<p>The fire alarm specification calls for multichannel voice evac, which seems like way overkill for this project.</p> <p>Can this please be RFI'd to confirm that the owner wants what is specced?</p>	<p>See Addendum 4, Item AD4-19: Voice evacuation alarm is not required. The new FA system must be compatible with and interface with any existing campus fire alarm systems.</p>
36.	<p>Clarify whether the pan decking ceiling in the Biosolids Handling Building gets coated.</p>	<p>Yes, the structural metal roof deck is galvanized and not intended to receive any finish coating.</p>
37.	<p>Please reference Dwg M-204 and Spec Section 15050-5.5.c: On Dwg M-204 the 12" Drain Pipe from the screw press is called out as a welded steel section; Spec Section 15050-5.5. calls for a fusion epoxy lined and coated welded steel liner with no pipe material callout that we can locate. Please advise if A53B Type E Standard Wall steel pipe is acceptable. Also, please confirm if the coating is to be fusion epoxy also or advise of a system coating.</p>	<p>Welded steel pipe and fittings shall meet the requirements of Section 15050, paragraph 2.03.G.5.c.</p>

Bidding Question and Responses, Memo 3

Scott Collins, P.E.
 26 February 2024
 2197015.00
 Page 10

No.	Question	Response
38.	<p>Re: Bid Item 15, Liner Removal from Lagoons 1, 2, 3, and 4. Can you clarify the limits? I see liner removal called out for Lagoon 1 (C-452) and Lagoon 4 (D-004). But I don't see any removal for Lagoons 2 and 3. The bid item name as well as the measurement and payment 01200 1.03 (O) makes it sound like we are to demo and haul all of the liners in each lagoon. Is the intent to remove all of the lagoon liners 1 thru 4?</p>	<p>Remove portions Lagoon 1 and 4 liners as indicated on the drawings (Lagoon 1: C-452, Lagoon 4: D-004). Lagoon 2 and 3 liners are to remain in place.</p>
39.	<p>(Pending the answer to previous question). Other than the improvements in Lagoon 1 and 4, It appears that we remove the biosolids down to the top of liner and leave the liner as the finished condition. What is the finished condition of the lagoons?</p>	<p>The top of lagoon liners, with biosolids removed as specified in 02150, are to be the lagoon finished condition, with the following exceptions:</p> <ol style="list-style-type: none"> 1. Lagoon 1 and Lagoon 4 improvements indicated on the drawings, 2. Lagoon 1 liner elevations modified to include removed Lagoon 1 and Lagoon 4 liner material as required by Addendum No. 4 Specification 02150 Paragraphs 3.02.I and 3.03.F.
40.	<p>C-111, C-112, D-003 Lagoon 1 shows the top of biosolids varying between elevation 18 and 16. With the liner at approx. elev 13.5 that calcs at a minimum of 2.5 ft of biosolids. This conflicts with page 3 of the Lagoon Decommissioning, Sampling Analysis plan. That page says there is approx. 2.4 inches. This is an order of magnitude difference. Please confirm which is correct.</p>	<p>Reference the sludge removal volume units and quantities in the Addendum 4 revised Section 00300 Bid Form Unit Price Schedule.</p>

Bidding Question and Responses, Memo 3

Scott Collins, P.E.

26 February 2024

2197015.00

Page 11

No.	Question	Response
41.	Are the biosolids placed directly on the liner, or is there a cushion layer of soil that will need to be dealt with?	Biosolids are placed directly on the liner layer.
42.	I found 4 schematics in the I-drawings, I-921 for MCC bucket VFD's, I-922 for motor valves/gate actuators, I-923 MCC bucket starters, and I-924 for conveyors. Is there a separate scheme for ODR-MST-8704 fed from (E) 4P1 on E-401 or the enclosed motor starter, ODR-FAN-1001, fed from MCC-4C on E-702?	Typical schematic diagrams are shown to demonstrate the design intent. The controls system integrator will be doing the detailed design, so every combination and permutation of motor control schematics are not shown. The P&ID's show all the motor control requirements for pilot devices and interlocks.
43.	Are there schematics for VFD's external to MCC's? HVC-AHU-9140, HVC-EF-9120 and HVC-HP-9141 on fed from MCC-4C on E-702 and TH1-PMP-8121 (WAS PUMP 1) and TH1-PMP-8122 (WAS PUMP 2) on E-703 all fall under this category.	See Response 42.
44.	Which chemical-resistant coating system we should bid for this project, considering the concerns raised about the specified system and the potential cost implications of bidding the correct system?	Specification will remain as-is

Enclosure(s) (0)