SECTION 009113.03 – ADDENDA.03

1.1 PROJECT INFORMATION

A. Project Name: Spectacle Pond Water Treatment Plant – PFAS Treatment Facility.

B. Owner: Town of Ayer.

C. Owner Project Number: 20DPW-12.

D. Engineer: CDM Smith Michaela L. Bogosh, P.E., PMP.

E. Date of Addendum: September 17, 2020.

1.2 NOTICE TO BIDDERS

A. This Addendum is issued pursuant to the INSTRUCTIONS to Bidders and Conditions of the Contract. This Addendum serves to clarify, revise, and supersede information in the Project Manual, Drawings, and previously issued Addenda. Portions of the Addendum affecting the Contract Documents will be incorporated into the Contract by enumeration of the Addendum in the Owner/Contractor Agreement.

B. The Bidder shall acknowledge receipt of this Addendum in the appropriate space on the Bid Form.

C. The date for receipt of bids is unchanged by this Addendum, at same time and location.

1.3 ATTACHMENTS

A. This Addendum includes the following attached Documents and Specification Sections:

1. GAC Media Start-up Sampling Requirements to be appended to Section 443118 as Table 443118-1, 1 page.

1.4 REVISIONS TO PREVIOUS ADDENDA

A. Addendum No. 1, Item 1.10 QUESTIONS AND ANSWERS, (not reissued).

1. Paragraph FF: Replace the response with the following “Response: Section 096723, Resinous Flooring has been removed from the design per this addendum. Hardener (hard) shall be used for floor finishes where designated on the finish schedule shown on Sheet A-18.”.

1.5 REVISIONS TO DIVISION 00 PROCUREMENT REQUIREMENTS AND CONTRACTING REQUIREMENTS

A. Table of Contents (not reissued).

1. Delete Section 096732 “Resinous Flooring” entirely, without replacement.

2. Delete Section 310900 “Geotechnical Instrumentation and Monitoring” entirely, without replacement.

1.6 REVISIONS TO DIVISION 01 GENERAL REQUIREMENTS

A. Specification Section 013233 “Photographic Documentation”, (not reissued).
1. Article 1.3.B.1: Remove the first sentence starting with “Submit…” and replace with “Submit photos through the web-based project management software selected for this job and on a thumb drive”.
2. Article 1.3.C: Remove this article in its entirety.
3. Article 1.6.D: Replace “Take 50 photographs weekly.” With “Take 10 photographs weekly.”

1.7 REVISIONS TO DIVISIONS 02 - 49 SPECIFICATION SECTIONS

A. Specification Section 074213.19 “Insulated Metal Wall Panels”, (not reissued).

1. Article 2.2.B.5: Replace “As indicated on the drawings” with “24 inches.”

B. Specification Section 096723 “Resinous Flooring”, (removed).
1. This specification section has been removed from the design documents completely and is no longer a requirement of the project.

C. Specification Section 310900 “Geotechnical Instrumentation and Monitoring”, (removed).
1. This specification section has been removed from the design documents completely and is no longer a requirement of the project.

D. Specification 333219 “Sewerage Ejector Pump Station”, (not reissued).
1. Article 1.1.B: Add the following after Number 10, “11. Section 400531 – Thermoplastic Process Pipe.”
2. Article 2.7: Remove in its entirety.

E. Specification Section 406100 – Appendix B “Process Control Enterprise Management Systems General Provisions”
1. Instrument loop number 0360: Remove “0360” and replace with “0335”.
2. Specification reference for LSH-0335: Remove “407276” and replace with “407213”.

F. Specification Section 407521 “Chlorine Analyzers”, (not reissued).

1. Article 2.1.A Manufacturers: Replace “HACH Model CLF10 sc Free Chlorine Analyzer” with “HACH Model CL17 sc Free Chlorine Analyzer.” Remove “(Product Number 2980900)”.

2. Article 2.1.B: Replace content of article with the following:

"1. Microprocessor based electronic transmitter/converter flow-through sample cell.
2. Colorimetric chlorine analyzer for monitoring of free or total residual chlorine.
3. Instrument chemistry will employ N, N-diethyl-p-phenylenediamine (DPD) method.
4. Other methods of chlorine measurement such as amperometric, potentiometric, and iodometric that employ electrodes or other electrochemical techniques are not acceptable."

G. Specification Section 443118 "Granular Activated Carbon (GAC) Media", (not reissued).
1. Article 3.1.C: Insert "and disinfected" after the "Each GAC vessel shall be thoroughly cleaned" text.
2. Article 3.1.E: Insert "at a rate indicated by the GAC supplier" after the "After the initial soaking, the GAC bed shall be backwashed" text.
3. Article 3.1.E: Insert "or time indicated by the GAC supplier" after the "at least 30 minutes" text.
4. Article 3.1.F: Insert Articles G, H and I below after 3.1.F.
   a. "G. Coordinate with GAC media supplier to develop a GAC system startup plan, incorporating demonstration of GAC contactors operated at the various flows and vessel configurations outlined in Table 443118-1 at the end of this Section 443118. Each flow rate and configuration scenario shall be operated to achieve at least 5 empty bed volumes of each of the GAC vessels. Submit GAC startup plan no later than 180 calendar days before Substantial Completion."
   b. "H. Collect samples, coordinate with MassDEP-certified laboratory (Alpha Analytical, Nashoba Analytical LLC, or equal as found through the MassDEP-certified laboratory database: https://www.mass.gov/how-to/find-a-certified-laboratory-for-water-testing) and pay all laboratory analytical charges for the tabulated analyses outlined in Table 443118-1 at the end of this Section 443118. Submit name of laboratory to Engineer as part of Contractor's startup plan. Contractor shall utilize the same laboratory for the duration of construction and shall not use a different laboratory without submitting rationale and name of alternative laboratory for Engineer's review and approval. The Contractor shall include an allowance of $15,000 for the laboratory analytical charges for the analyses presented in Table 443118-1. Additional costs for Contractor labor are not included in the allowance. Should any of the analyses fail to meet the criteria in Table 4 of Section 443117 Contractor shall obtain additional samples and analyses at his cost."
   c. "I. Coordinate with laboratory such that all analytical results are transmitted by laboratory to Contractor, Owner, and Engineer simultaneously."
5. Article 3.3.A: Insert the language below at the end of the paragraph, following "…GAC supplier."
   a. "Temporarily provide 10-micron bag filters upstream of existing backwash holding tank to avoid loading the existing tank with carbon solids or remove and dispose all solids from existing backwash holding tank prior to project completion. The bag filters shall be sized to be able to filter the maximum backwash flow as indicated by the GAC supplier."
6. Insert Table 443118-1 (attached to this Addendum) at the end of Section 443118.

1.8 REVISIONS TO DRAWING SHEETS (NOT USED)

1.9 QUESTIONS AND ANWERS

A. **Question:** Section 074213.19 Item 2.2.B.2.b notes the exterior finish of the metal wall panels to include 3-coat fluoropolymer. Standard panel finishes include 2-coats, where a 3-coat finish becomes a custom panel and increases cost. Please confirm if a 2-coat exterior finish is acceptable?

Response: 3-coat fluoropolymer is required.

B. **Question:** Please confirm panel width of the insulated metal wall panels shown on A-9 & A-10 is 24"?

Response: See REVISIONS TO DIVISIONS 02 – 49 SPECIFICATIONS above.

C. **Question:** Please confirm who the basis of design is for the insulated metal wall panels?

Response: There is no basis of design specific manufacturer.

D. **Question:** Based on drawings A-9 & A-10, do the metal wall panels need to be "short" as shown? As shown, there are about 450-500 around the building, which would add significant cost increase for endfolds, short panels, etc. Please confirm full length panels will be acceptable?

Response: Individual panels or panels with integrated joints are acceptable.

E. **Question**: Per addendum #2 questions A,B,C,D,E,G,H,I,J and M involve or affect the pre-filed subs that were opened last week. Is it the intent to reject those sub bids and re-advertise the sub bids so they can review addendum #2 and reprice their estimate based on this information?

Response: No, it is not the intent to re-advertise the filed sub-bids. The questions referenced confirmed all information readily available in the design drawings.

F. **Question:** Section 013200 Item 1.7.B.1 lists Primavera as approved scheduling software. Please confirm Microsoft Project is also acceptable.

Response: If the scheduling software meets all the requirements outlined in the specification, it can be used.

G. **Question**: The answer to question J in Addenda 1, referencing section 310900 Geotechnical Instrumentation and Monitoring, indicated that the section was provided in the event that conditions arose during construction that required monitoring. Please clarify that response. Should the General Contractors include any costs in their bids for the work of section 310900?

Response: This specification section has been removed, see "REVISIONS TO DIVISIONS 02 - 49 SPECIFICATION SECTIONS" above.

H. **Question**: If the intent is for the General Contractors to include the work section of 310900 in their bids. Please indicate the quantity required for the following items as they are not defined in section 310900 and it allows all of the contractors to be bidding the same quantities:

a. Surface Monitoring Points

b. Deformation Monitoring Points

c. Utility Monitoring Points

d. Crack Gauges

Response: This specification section has been removed, see "REVISIONS TO DIVISIONS 02 - 49 SPECIFICATION SECTIONS" above.

I. **Question**: Section 013233 Part 1.6 D, Construction Photographs, calls for 50 progress shots each week. We are usually called upon to take 50 photos each month. Would you look at the request for weekly photos to see if that might be rolled back a bit?

Response: See "REVISIONS TO DIVISION 01 GENERAL REQUIREMENTS" above.

J. **Question**: Section 013233 Part 1.3 Informational Submittals, C: Printed Photos, calls for 2 8x10" labeled and sleeved prints of each view. Is the intent that these be 8x10 prints of each individual image or perhaps 6 or 12 images per sheet? If it is 2 8x10 prints of each individual image it will be, if nothing changes, 100 prints each week and almost 7,000 labeled and sleeved prints for the job. Prints are so rarely called for these days at all. Do you want to make any changes in this spec?

Response: See "REVISIONS TO DIVISION 01 GENERAL REQUIREMENTS" above.

K. **Question:** The drawings show a 3" PVC forcemain and 3" PVC piping in the wet well but the spec in section 333219 subsection 2.7 call for 3" Ductile Iron, please advise.

Response: See "REVISIONS TO DIVISIONS 02 - 49 SPECIFICATION SECTIONS" above.

L. **Question**: In Specification 406100-Appendix B, instrument LSH-0360 Ultrasonic Gap Level Switch refers to Specification 407276-Level Switches for Instrument requirements however 407276 does not have information on Ultrasonic Gap Level Switches. Section 407213 has information on Ultrasonic Gap Level Switches. Is this instrument supposed to be Ultrasonic Gap Level or a Float Switch? Would you please issue an addendum for clarification?

Response: See "REVISIONS TO DIVISIONS 02 - 49 SPECIFICATION SECTIONS" above. The instrument is correctly called out in Appendix B as an Ultrasonic Gap Level Switch.

M. **Question**: In Specification 406100-Appendix B, instrument LSH-0360 Ultrasonic Gap Level Switch is supposed to be found on Instrument Drawing I-6 however the instrument on Drawing I-6 shows that it is on loop 0335 not 0360. Is LSH-0360 supposed to be LSH-0335? And is the shown instrument supposed to be an Ultrasonic Gap Level Switch or a Float Switch?

Response: See "REVISIONS TO DIVISIONS 02 - 49 SPECIFICATION SECTIONS" above. The correct loop number, as shown on sheet I-6 is 0335.

END OF DOCUMENT 009113.03

Table 443118-1
GAC Media Start-up Sampling Requirements

Condition and Associated Parameters				Sample Requirement for Drinking Water Matrix								
Condition	**Flow Rate (gpm)**	**Flow Volume**	**Time - min.**	**PFAS**	**pH**	**Temp**	**VOCs**	**Bacteria**	**Free Chlorine**	**PO4**	**Arsenic**	**Alkalinity**
Laboratory Analytical Methods				Perfluorinated Alkyl Acids by EPA Method 537.1 or Perfluorinated Alkyl Acids by EPA Method 533	SM 4500H+-B	Recorded in the field	EPA Method 524.2	SM 9223B	SM 4500CL-D	SM 4500P-E(M)	EPA 200.8	SM 2320B
GAC Influent	250	Flow Volume and Duration for Each Condition Shall be per Manufacturer Recommendation		GAC Influent	GAC Influent	GAC Influent	GAC Influent	GAC Influent	GAC Influent	GAC Influent	GAC Influent	GAC Influent
GAC Flushing Vessel 1	250			GAC Vessel Effluent	GAC Vessel Effluent	GAC Vessel Effluent	GAC Vessel Effluent	GAC Vessel Effluent	Filtered		GAC Vessel Effluent	GAC Vessel Effluent
GAC Flushing Vessel 2	250			GAC Vessel Effluent	GAC Vessel Effluent	GAC Vessel Effluent	GAC Vessel Effluent	GAC Vessel Effluent	Filtered		GAC Vessel Effluent	GAC Vessel Effluent
GAC Vessel 1 Lead	420			Filtered, Lead, Finished	Filtered & Finished	Filtered & Finished	NA	NA	Filtered	Finished	NA	NA
GAC Vessel 1 Lead	694			Filtered, Lead, Finished	Filtered & Finished	Filtered & Finished	NA	NA	Filtered	Finished	NA	NA
GAC Vessel 1 Lead	1000			Filtered, Lead, Finished	Filtered & Finished	Filtered & Finished	NA	NA	Filtered	Finished	NA	NA
GAC Vessel 2 Lead	420			Filtered, Lead, Finished	Filtered & Finished	Filtered & Finished	NA	NA	Filtered	Finished	NA	NA
GAC Vessel 2 Lead	694			Filtered, Lead, Finished	Filtered & Finished	Filtered & Finished	NA	NA	Filtered	Finished	NA	NA
GAC Vessel 2 Lead	1000			Filtered, Lead, Finished	Filtered & Finished	Filtered & Finished	NA	NA	Filtered	Finished	NA	NA
Parallel	420 (210 per GAC)			Filtered, GAC 1, GAC 2 Finished	Filtered & Finished	Filtered & Finished	NA	NA	Filtered	Finished	NA	NA
Parallel	700 (350 per GAC)			Filtered, GAC 1, GAC 2 Finished	Filtered & Finished	Filtered & Finished	NA	NA	Filtered	Finished	NA	NA
Parallel	1400 (750 per GAC)			Filtered, GAC 1, GAC 2 Finished	Filtered & Finished	Filtered & Finished	NA	NA	Filtered	Finished	NA	NA
Single Vessel GAC 1	420			Filtered, Finished	Filtered & Finished	Filtered & Finished	NA	NA	Filtered	Finished	NA	NA
Single Vessel GAC 1	694			Filtered, Finished	Filtered & Finished	Filtered & Finished	NA	NA	Filtered	Finished	NA	NA
Single Vessel GAC 1	1000			Filtered, Finished	Filtered & Finished	Filtered & Finished	NA	NA	Filtered	Finished	NA	NA
Single Vessel GAC 2	420			Filtered, Finished	Filtered & Finished	Filtered & Finished	NA	NA	Filtered	Finished	NA	NA
Single Vessel GAC 2	694			Filtered, Finished	Filtered & Finished	Filtered & Finished	NA	NA	Filtered	Finished	NA	NA
Single Vessel GAC 2	1000			Filtered, Finished	Filtered & Finished	Filtered & Finished	NA	NA	Filtered	Finished	NA	NA
			Count	**45**	**33**	**33**	**3**	**3**	**18**	**16**	**3**	**3**