



Public Works Department – Engineering Division

Date: March 15, 2024

ADDENDUM NO. 2

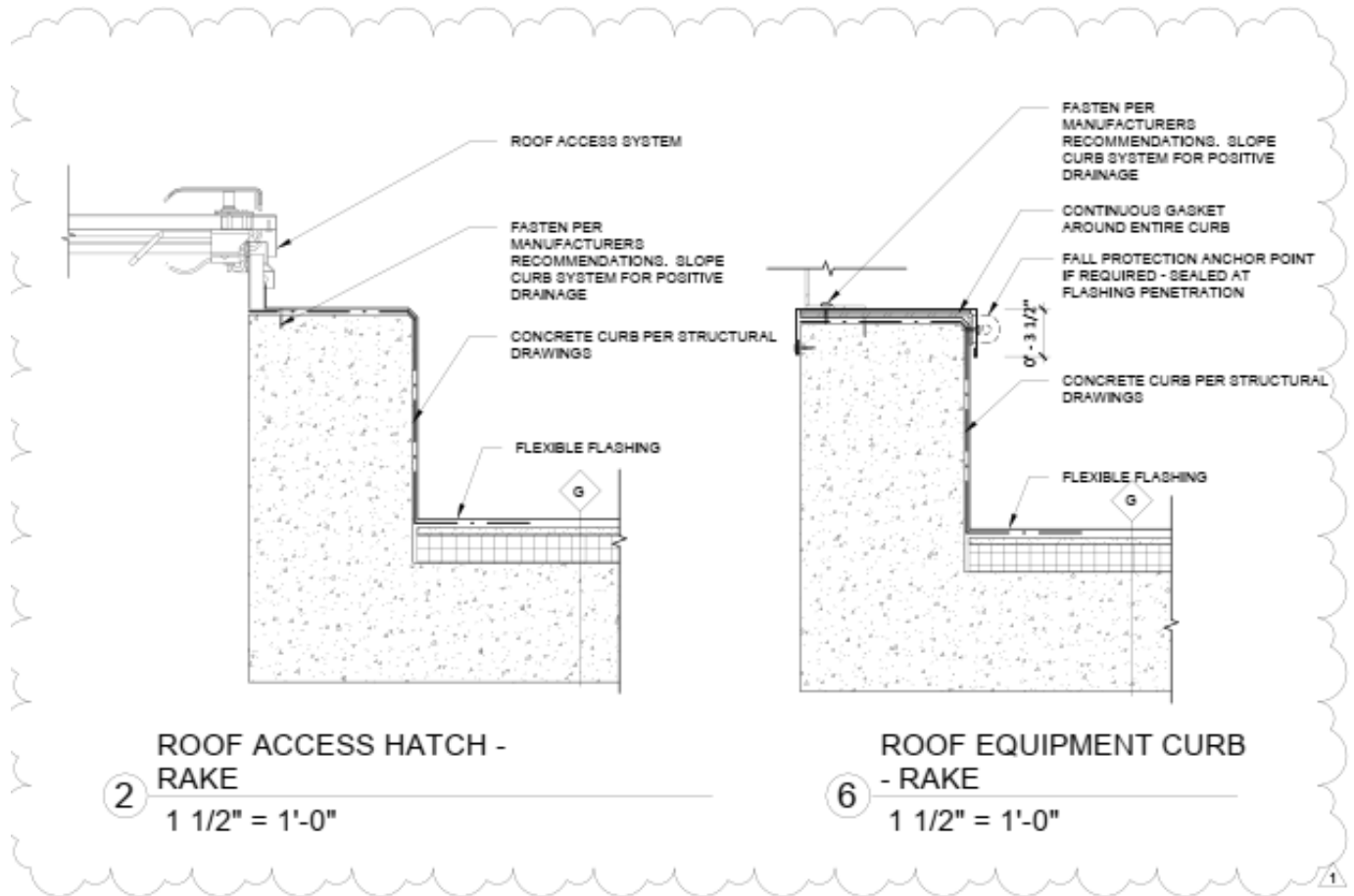
PROJECT 5067 WTP FILTER IMPROVEMENTS AND HYPOCHLORITE CONVERSION

NOTICE TO BIDDERS:

The following clarifications, amendments, additions and/or deletions as set forth herein shall apply to the above project contract documents and shall be made a part thereof and shall be subject to all the requirements thereof as though originally specified and/or shown. Submitters shall assure themselves that all addendum changes have been incorporated into their proposal.

A. ADDITIONS/DELETIONS/REVISIONS

1. The bid date of Tuesday, April 2, 2024 at 2:00 pm (Addendum 1, Item 1) is changed to Thursday, April 4, 2024 at 2:00 pm.
2. Replace in its entirety, Specification 23 86 00, Ductwork Specialties with the attached Specification 23 86 00, Ductwork Specialties.
3. On Drawing S301, Filter cells elevation shall be revised from 128.25 to 134.47. Filter gullet elevation shall be revised from 137.47 to 129.17.
4. Replace Details 2 and 6/A113 with the Details 2 and 6/A113 shown below:



5. Replace the Door Schedule on A110 with the following Door Schedule:

DOOR SCHEDULE														
DOOR							FRAME		DETAILS			HARDWARE SET		COMMENTS
MARK	ROOM	WIDTH	HEIGHT	TYPE	MATERIAL	FINISH	MATERIAL	FINISH	HEAD	JAMB	THRESHOLD	FIRE RATING		
100	STAIR 1	3'-0"	7'-0"	B	Hollow Metal	Painted	HM	Painted	1/A111	1/A111	-	60 MIN	1.0	
101	STAIR 1	3'-0"	7'-0"	A	Hollow Metal	Painted	HM	Painted	1/A111	1/A111	4/A111	None (Not Rated)	3.0	EXTERIOR DOOR
200	FILTER GALLERY	8'-0"	7'-0"	D	Hollow Metal	Painted	HM	Painted	10/A112	1/A111	4/A111	-	4.0	EXTERIOR DOOR - REMOVABLE TRANSOM
300	BLOWER ROOM	3'-0"	7'-0"	B	Hollow Metal	Painted	HM	Painted	10/A112	6/A114	-	None (Not Rated)	2.0	EXTERIOR DOOR
400	ELECTRICAL ROOM	3'-0"	7'-0"	B	Hollow Metal	Painted	HM	Painted	10/A112	6/A114	-	None (Not Rated)	5.0	EXTERIOR DOOR
401	BLOWER ROOM	3'-0"	7'-0"	B	Hollow Metal	Painted	HM	Painted	1/A111	1/A111	-	60 MIN	6.0	
402	ELECTRICAL ROOM	3'-0"	7'-0"	B	Hollow Metal	Painted	HM	Painted	5/A111	5/A111	-	60 MIN	7.0	
500	WORK ROOM	3'-0"	7'-0"	C	Hollow Metal	Painted	HM	Painted	6/A112	1/A113	3/A-109	None (Not Rated)	8.0	EXTERIOR DOOR
600	OFFICE	3'-0"	7'-0"	C	Wood	GRD	HM	Painted	2/A111	2/A111	-	None (Not Rated)	10.0	
700	OFFICE	3'-0"	7'-0"	C	Wood	GRD	HM	Painted	2/A111	2/A111	-	None (Not Rated)	10.0	
H-1		6'-0"	1'-0 1/2"											HATCH. SEE PLANS FOR DIMENSIONS AND LOCATION. COORDINATE WITH STRUCTURAL
H-2		6'-0"	1'-0 1/2"											HATCH. SEE PLANS FOR DIMENSIONS AND LOCATION. COORDINATE WITH STRUCTURAL
H-3		8'-0"	1'-0 1/2"											HATCH. SEE PLANS FOR DIMENSIONS AND LOCATION. COORDINATE WITH STRUCTURAL

NOTE: PROVIDE EXIT SIGNS PER CODE AT EXTERIOR EXIT DOORS

6. Add the attached Hardware Sets Schedule to the end of Specification 08 71 00 Door Hardware.
7. Revise the elevation shown in Section E/S309 to show bottom slab elevation @ 144.25.
8. Slide gate (G4001) and it motorized actuator is being deleted from the project. Update the following drawings showing the slide gate (G4001) and associated actuator deleted from the project: G006, C104, CP002, S400, S402, M400, I400, E101, E400 and other locations referenced on the drawings and in the specifications. Add a non-motorized buried 36-inch butterfly valve to Detail 2/C120 and update drawings C104, CP002, I400, E101 and E400 showing a non-motorized buried butterfly valve. The buried butterfly valve shall be located between the tee and the new North Clearwell Filtered Effluent Pump Station.
9. Replace in its entirety, Specification 09 84 33, Sound Absorbing Wall Units, with the attached Specification 09 84 33, Sound Absorbing Wall Units.
10. Add the following to Specification 46 61 23, Gravity Filters, Paragraph 2.2 B, at the end of the sentence: *“Five percent of the additional media shall be added to the filters to accommodate initial media losses during startup and initial operation and the other five percent shall be stored onsite in a location to be determined by the Owner during construction.”*
11. Delete in its entirety, the following paragraph from Specification 46 61 23, Gravity Filters, Paragraph 2.2 C.4.b.1.a. and replace with *“Not Used”*.
12. Replace the Interior Finish Schedule on A109 with the following Interior Finish Schedule:

INTERIOR FINISH SCHEDULE									
NUMBER	NAME	FLOOR FINISH	BASE FINISH	CEILING FINISH	NORTH WALL	EAST WALL	SOUTH WALL	WEST WALL	COMMENTS
1	STAIR 1	CONCRETE	N/A	-					
1	STAIR 1	CONCRETE	N/A	-					
2	FILTER GALLERY	CONCRETE	N/A	-					
3	BLOWER ROOM	CONCRETE	RB-1	P-1	P-1	P-1	P-1	P-1	
4	ELECTRICAL ROOM	CONCRETE	RB-1	P-1	P-1	P-1	P-1	P-1	
5	WORK ROOM	RESILIENT TILE FLOOR	RB-1	ACT-1	P-1	P-1	P-1	P-1	
6	OFFICE	RESILIENT TILE FLOOR	RB-1	ACT-1	P-1	P-1	P-2	P-1	SEE PLAN FOR ACCENT WALL LOCATION
7	OFFICE	RESILIENT TILE FLOOR	RB-1	ACT-1	P-2	P-1	P-1	P-1	SEE PLAN FOR ACCENT WALL LOCATION

13. Replace in its entirety, Specification 09 00 00, Finish Schedule and Legends, with the attached Specification 09 00 00, Finish Schedule and Legends.

14. Add the following new paragraph to 01 11 00, Summary of Work, 1.3 B.4: *“The Contractor shall notify the Owner when it is ready to tie into and/or decommission existing gaseous chlorine equipment or piping. Prior to the Contractor beginning any tie-in and/or decommissioning work, the Owner will isolate the affected existing equipment and/or piping from the gaseous chlorine containers and arrange for the removal of the containers by the Owner’s gaseous chlorine supplier. Purging of residual gaseous chlorine from existing piping and appurtenances will be completed by the Owner in coordination with Contractor.”*
15. Add the following sentences to the end of 01 14 00 3.3 B.1b: *“The Owner will be responsible for procuring and paying for the chemicals for the new chemical storage tanks and chemical metering systems. The Contractor shall coordinate with the Owner to identify required date(s) for the initial fills of the tanks, and to ensure that chemical deliveries can safely access the new storage tanks.”*
16. Delete in its entirety Paragraph 2.2. C.2.a from 46 61 2, Gravity Filters, and replace with the following: *“Silica Sand Media as supplied by George L. Throop Company or Kleen Industrial Services. The sand shall be clean, hard, rounded, and free of clay, loam, dirt and organic matter and shall contain no iron or manganese (per criteria specified in Paragraph 2.2 C.4.c) that will adversely affect the filtered water.”*
17. On Drawing C120, Details 1 and 2, show all single flexible couples as double flexible couplings.
18. Add the following Process Controls System Integrator (PCSI) to the qualified list in Paragraph 1.5 B.5 of Specification 40 61 00, Process Control Systems General Provisions: *“d. Soffa Electric, Inc., Stockton, California (323-728-0230)”*
19. NOT USED
20. On Drawing C001, Add the following GENERAL NOTE: *“2. Contractor shall evenly distribute any excess soil from the site at soil disposal locations while maintaining a minimum of 2:1 side slope.”*
21. A second bidders’ conference will be held on Thursday, March 21, 2024, at 10:00 a.m., at the following location: 300 Olympia Drive, Pittsburg, CA 94565-5700 to acquaint all prospective bidders with the Contract Documents and the Worksite. The bidders’ conference is non-mandatory.

B. CLARIFICATIONS and QUESTIONS

Please be advised of the following clarifications to the contract documents:

1. Drawing 059-A110 lists Louvers L-1, L-2 and L-3 however no specification for louvers is included in the specifications. Will the technical specifications be provided for the louvers?

Response: See this addendum, Item A.2.

2. T.O. Slab elevations called out on Drawing S301 for the Filter Cells (EL 128.25) and the Filter Gulleys (EL 137.47) conflict with elevations provided on S306. Drawing M307 seems to confirm the elevations indicated on S306. Please verify the T.O. Slab elevations callouts between Gridlines B and C on Drawing S301.

Response: See this addendum, Item A.3.

3. Filter section drawings M305, M307 and M310 have callouts indicating, 4" HOLLOW CORE CONCRETE BLOCK (BEHIND SECTION), TYP ALL however no additional information has been provided to clarify this feature of the work. Please provide specifications for the required 4" hollow core concrete block, and detail drawings showing how they interface with the structural concrete surrounding them.

Response: This question will be addressed in Addendum 3.

4. PVC-KEE Roofing specification section 07 54 19-3.5 discusses Vapor-Retarder Installation. Details 2 and 6 on sheet A113 show Vapor retarder as part of the built up roofing system. All other details on A113 that show the built up roofing system do not indicate inclusion of Vapor-Retarder and no limits of Vapor-Retarder are shown on any plan view. Is Vapor-Retarder intended to be used under all of the PVC-KEE roofing systems or will limits be provided?

Response: No, Vapor retarder is not intended to be used in this roof. Details have been updated to reflect this. See this addendum, Item A.4.

5. The door schedule on Sheet A110 does not indicate a specific Door Type for Door Marks 300, 400, and 500. Please provide a Door Type for these locations.

Response: Door 300 will be 300 -type B (HM), 400 – Type B (HM) as well and door 500- type C (HM). See this addendum, Items A.5 and A.6 for new Door Schedule and Hardware Sets.

6. Reference sheet S301. The elevations for the filter area shown on this drawing do not coordinate with the elevations shown on other structural and mechanical sheets. Please revise elevations or clarify.

Response: See response to Clarification Question 2 above.

7. Reference sheet S301 and section A/S305. Drawing sheet S301 shows section A/S305 being cut through the filter plenum/gullet. The section view shown on S305 appears to be a cut through the filter area. Please revise cut location or section view or clarify.

Response: On Sheet S301, Section A cut will be revised to cut through the filter area in Addendum 3.

8. Reference sheets S306, S310, and M307. Sections B/S306 and 1/S310 show the filter plenum/gullet north of filter 6 with no intermediate concrete decks. Section C/M307 shows intermediate concrete decks at this filter plenum/gullet. Which is correct? Please advise and revise drawings accordingly.

Response: Section C/M307 is correct. Sections B/S306 and 1/S310 shall be revised to show intermediate concrete decks for the filter plenum/gullet north of Filter 6 as part of Addendum 3.

9. Reference sheet S306. Detail 1 and sections A and B on drawing S306 show the chemical injection sumps and utility trench. There are no elevations provided for the sumps or utility trench. Please update drawing to include top of concrete elevations as required.

Response: This question will be addressed in Addendum 3.

10. Reference sheet S309. Section E/S309 is a section view for the filter influent valve vaults. The walls shown in this section view scale to 18'-0" tall. Per the elevations shown on drawing S305 these walls are 8'-3" tall. Please confirm bidders should assume elevations provided are correct.

Response: The elevations shown on Section A/S305 for the influent valve vault are correct. Section E/S309 is revised to show bottom slab elevation @ 144.25. See this addendum, Item A.7.

11. Reference sheet M305. It appears the 12" AW pipe that runs from the blower to the filter plenum is in conflict with the overhead crane. Should the crane span be revised to avoid the AW pipe? Please advise and revise span if necessary.

Response: The bridge crane span as shown in the drawings shall remain as shown.

12. Plan sheet drawing M400 shows a slide gate and actuator to be provided. There are no specs for the slide gate itself, only the actuators in spec 40 05 57.13. Please confirm if a slide gate is required or just the actuator. If gate is to be provided, will a spec be issued by addendum.

Response: The slide gates shown shall be removed from the project and replaced with buried butterfly valves. See this addendum, Item A.8.

- 13.** Drawings S642-S643 contain keynote D that reads "STANDING SEAM METAL DECK, AS REQUIRED BY DESIGN. SEE ARCHITECTURAL DRAWINGS." No architectural drawings for the Chemical Storage area have been provided. Will architectural drawings be provided for the Chemical Storage area?

Response: This item will be addressed as part of Addendum 3.

- 14.** Drawings S400, S401 and S402 all refer to a canopy structure "BY OTHERS". Per spec 01 42 00 – 1.5 Definitions, "BY OTHERS" is Work that is outside scope of Work to be performed by Contractor under this Contract, which will be performed by City, other contractors, or other means. Please confirm the scope of the canopy on sheets S400, S401 and S402 is not within the scope of this project. If the canopy is intended to be included per Note 1 on sheets S401 and S402 "CANOPY IS A DEFERRED SUBMITTAL ITEM AND IS THE RESPONSIBILITY OF THE CONTRACTOR. THE CANOPY HAS NOT BEEN DESIGNED BY THE ENGINEER OF RECORD. REFER TO STRUCTURAL GENERAL NOTES, SHEET GS001 AND PROJECT SPECIFICATIONS FOR ADDITIONAL INFORMATION." Please provide additional clarity on the height of the structure dimensioned as "SEE DRAWINGS BY OTHERS" on sheet S402, Section B. Architectural drawings have not been provided for this structure where some of these details would typically be shown. Will Architectural drawings be provided for this structure?

Response: The canopy depicted in the 400 series structural drawings is part of Alternative Additive Item #2 of this project. The canopy details will be addressed as part of Addendum 3.

- 15.** The specification section 09 84 33 Sound-Absorbing Wall Units does not appear to be called out anywhere on the drawings. Section 2.2.H indicates panels are to be installed in Pump Rooms at buildings #550 and #794. However, there is no notation of these building numbers in the drawings. Please confirm if these are intended to be used on this project.

Response: See this addendum, Item A.9.

- 16.** Will the project involve removal and haul away of the existing filter media, or will that be handled separately?

Response: Demolition of existing filters is not part of this project; and therefore, the existing media will not be removed as part of this project. See Addendum 1, Item A.7.

17. The spec asks for an additional 10% of the total GAC volume provided in 55 lb sacks. This would yield about 1,000 bags (~30 pallets) of GAC, plus more for sand. The small bags are expensive to pack, and this is a significant amount of material. I just wanted to ensure this is understood, and confirm you still want it. If you do, consider taking it in 1k or 2k sacks, as it'll be a lot less expensive and probably easier to store/handle. Also, it must be noted that we cannot accept back any unused GAC, as returned material loses its NSF 61 status. So if you didn't end up needing it, you'd be stuck with it. One more point on this, we'll supply the correct amount of material, so you really shouldn't need any extra, but I understand if you like to have it on hand.

Response: Provide the additional 10 percent of total GAC as specified. See this addendum, Item A. 10.

18. There is a request for a pre-bid sample. This is somewhat atypical, is this needed for the named product, or just for potential equals?

Response: A pre-bid sample is not required. See this addendum, Item A. 11.

19. I noticed an error in the following table. These specs refer to Filtrasorb 820, but you've historically used F816, and the other tables in the GAC section reference the F816 specs.

Name	Layer	Effective Size	Uniformity Coefficient	Depth of Layer, inches
Silica Sand	1st, Bottom	0.71mm	≤1.3	12
GAC	2 nd , Top	1.4mm	≤1.4	72
Total Depth				84
(After Backwashing and Removal of Fines)				

Response: Provide F816 filter media.

20. Section 09 00 00 1.2 includes a finish schedule that is similar to Drawing A109, but has different finishes and numbering. Please confirm which schedule is correct.

Response: See this addendum, Items A. 12 and A. 13.

21. Interior Painting specification section 09 91 23, 3.5.a states "Interior concrete and gypsum board wall and ceilings to be painted an off-white color to be selected". However, Specification section 09 00 00, 1.2 Finish Schedule and the Drawing A109 Finish Schedule provides finish requirements for only the Work Room and

two offices. Please confirm the work room and two offices are the only locations designated to receive the interior concrete and gypsum painting.

Response: Rooms to receive interior finishes are Blower Room, Electrical Room, Offices and Work room. Filter Gallery will not receive interior finishes. Finish schedule will be corrected. See this addendum, Items A.12 and 13.

- 22.** Specification Section 08 71 00, 2.1.B states "Requirements for quantity, item, size, finish or color, grade, function, and other distinctive qualities of each type of door hardware are indicated in the Door Hardware Sets at the end of Part 3". However, no such data is in Part 3, and the Door Schedule on Drawing A110 is blank for Hardware Sets. Please provide additional information on the door hardware sets for each door, such as the location of the Power Transfer Devices, Mechanical Locks and Latching Devices, Electromechanical Exit Devices, Door Closers, Electronic Accessories, etc.

Response: See this addendum, Items A.5 and A.6 for new Door Schedule and Hardware Sets.

- 23.** Pipe schedule in specification 40 05 10 identify storm drain and sanitary sewer as PVC-S pipe. There is no section identifying the requirements of PVC-S. Specification 33 41 13 specifies SDR35 PVC, but only for perforated pipe. Plan sheet C113 identifies 24" SD as PVC C900. What is the material specification for PVC storm drain and sanitary sewer?

Response: All PVC pipe shall be C900 for storm drain and sanitary sewer pipes. Specification 40. The pipe schedule will be updated as part of Addendum 3.

- 24.** Specification 33 41 13 references specification 33 01 30 - Testing for Sanitary Sewer, Storm Drainage - Piping and Manholes. This specification is not in the project documents. Please provide.

Response: This specification will be provided as part of Addendum 3.

- 25.** Several Filters Architectural Drawings show a ladder at the intersection of Column lines B and 1.8, for access from the Filters Level to the Concrete Roof level. Drawings A103 through A106 list a Keynote indicating, "Fixed ladder per Structural drawings." The Filters Structural sheets however do not include any indication of this ladder, nor are there any Structural Standard Details providing information regarding ladders. Additionally, the Division 5 Specifications provide no requirements for the fabrication or installation of ladders. Please provide specifications and details to clarify the required materials for fabrication, and installation of the Fixed Ladder.

Response: Specifications and details for the ladder at Column lines B and 1.8 will be provided as part of Addendum 3.

- 26.** Per the Notice of Inviting Bids and Page 1 of the Contract, the Contractor shall complete the Work within 1300 Calendar Days from the Notice to proceed. Amongst the industry we are seeing unforeseen and uncontrollable delayed delivery dates on many materials. Can you confirm that the Owner will work with the general contractor in regard to contract duration and milestones once the project is awarded and product lead times are solidified? If not, should contractors include liquidated damages in their bids to account for these delayed deliveries?

Response: We believe the project duration of 1,300 days is sufficient for the procurement and installation of all equipment. If a delay is related to a specific piece of equipment, the Contractor must demonstrate that they have taken all necessary steps to mitigate the delay. The Owner will review the circumstances and may consider the delay accordingly.

- 27.** Please confirm that there are no domestic materials requirements (Buy America, AIS, BABA, etc.) for this project?

Response: This project is not subject to the requirements of Buy American, American Iron and Steel (AIS), or Build America, Buy America (BABA) legislation.

- 28.** The full scope of work for Bid Alternate Additive Item No. 1 Equipment and Media for the Sixth Filter is unclear. Is it the City's intent to include installation with this bid item or is intended to be a furnish materials only bid item? Please clarify this Alternate Bid Item.

Response: Bid Alternative Additive Item No. 1 includes only the equipment (troughs, underdrains, valves, actuators, instruments and appurtenances) and media as identified in the clouded areas on the drawings. This bid item shall include the cost of equipment, installation, startup and testing and all associated Contractor markups for a complete system. Additional information will be provided in addendum 4.

- 29.** In reference to the demolition, removal, and modification work requirements described in Specification 01 11 00-1.3.C (1. Existing Gaseous Chlorine System Modifications and 2. Bulk Chemical Storage and Metering Improvements), please confirm who will be responsible to purge and "make safe" the chlorine gas from the existing Chlorine Gas System equipment prior to the start of the work. By the Contractor? By the City?

Response: See this addendum, Item A.14.

- 30.** In reference to the chemical filling of the Bulk Chemical Storage and Metering Improvements described in Specification 01 14 00-3.3.B.1.b., please confirm who will be responsible for procuring and paying for the chemicals for the new chemical storage tanks and temporary sodium hypochlorite metering facility? If the Contractor is responsible for providing the chemicals, please confirm whether this requirement is for the initial fill only, or for the full commissioning period of the new system and for the full period when the temporary sodium hypochlorite metering facility is in service? If the Contractor is responsible for providing the chemicals, please provide the usage rate for each chemical.

Response: See this addendum, Item A.15.

- 31.** In reference to Specification 01 14 00-3.3.B.6. Demolish existing filters, please describe the full Contractor scope of work requirements for the demolition of the existing filters.

Response: See Addendum 1, Item A.7.

- 32.** Specification 46 61 23-2.2-C.2 requires the Contractor to provide "Washed Central California ocean beach sand". It is our understanding that it is illegal to mine ocean beach sand in the state of California. We request that the Engineer provide a replacement specification for the Gravity Filter silica sand media.

Response: Please remove 2.2.2.a and replace with the following: "Silica Sand Media as supplied by George L. Throop Company or F.B. Leopold Company. The sand shall be clean, hard, rounded, and free of clay, loam, dirt and organic matter and shall contain no iron or manganese (per criteria specified in Paragraph 2.02.C.4.c) that will adversely affect the filtered water." See this addendum, Item A.16.

- 33.** The new 42" SW pipeline between the Existing Filters and Chemical Storage 2 appears to be in conflict with an existing storm drain manhole. There is a note that says 'Remove and Replace Top per Detail 5, Sheet GC004.' This is a standard detail for flat-top manholes. Please confirm if the intent is to demolish the existing manhole barrels to a depth where it will be below the new 42" pipeline, and install a flat-top cap which will be buried (i.e. there will not be any future access at this location).

Response: Correct, the existing manhole barrels will be demolished to the depth where it will not conflict with the new 42" pipeline and a flat-top cap will shall be installed.

- 34.** There are several existing underground utilities between the existing filters and pretreatment basins (joint trench, 2" Gas, 4" W, 3/4" SA, etc.) which are either in direct conflict with new pipelines, or need to be removed to facilitate installation of the new pipelines (42" SW, joint trench, 4" SS). They are not discussed in the demolition drawings. Do these existing utilities need to remain in service during construction, or can they be demolished without the need to install temporary systems?

Response: The 4" water line that is re-routed around the settled water chemical injection vault will not conflict with the proposed 30" RW. For other utility conflicts and requirements, see Specification section 01 14 00 Work Sequence and Constraints.

- 35.** Specification 01 14 00-3.2-C.2 only requires four pre-treatment basins to be in service at all times. Can Basin 5 be taken offline completely while the new filters are being built?

Response: Basin 5 can be taken offline completely while the new filters are being built.

- 36.** Detail 2 on Drawing GC-001 shows a single weld on the interior of the pipe for lap welds. Please confirm it would be acceptable to perform the weld on the exterior of the pipe in lieu of the interior.

Response: Detail 2 shall have welds on both interior and exterior of the pipe per welding flag details shown.

- 37.** Details 2 & 3 on Drawing GC-001 show field joints for buried steel pipe. The lap weld joint shows a single weld on the interior of the pipe. The butt strap joint shows double welds for the interior and exterior. Please confirm if single welds would be allowed on the butt strap to match the lap weld configuration.

Response: Detail 2 and 3 shall have welds on both interior and exterior of the pipe per welding flag details shown.

- 38.** Specification 40 05 10-3.2-C.1.f calls for providing flexible pipe joints wherever piping leaves a structure or encasement. This situation is depicted on Details 1 and 5 on Drawing GC001. Please confirm if these flex couplings are required at the 36" WWD that runs through the Storm Drain Manholes SDMH 7,8,9. The civil drawing do not currently show flex couplings at these locations.

Response: Flexible couplings shall be required for all incoming and outgoing pipes from the 72" SDMH for the 36" WWD pipeline.

- 39.** Details 1 & 2 on Drawing C120 call for 36" flex couplings per Detail 1 on GC001 for the 36" WWD and 36" CFE buried pipelines leaving the Filters. Is the intent to provide double flex-couplings at each location as shown in Detail 1 on GC001, or just one flex coupling as shown in Details 1 & 2 on C120?

Response: All flexible coupling entering and leaving structures shall be double flexible couplings. See this addendum, Item A. 17.

- 40.** Civil Drawing C104 shows the 36" WWD Pipeline leaving the filters, running through Storm Drain Manholes SDMH 7,8,9 and depositing into a rip-rap protected outlet in a pond. WWD is called out as Welded Steel Pipe "WSP" per the pipe schedule in 40 05 10-2.2-B. In contradiction, the 10" W Profile on C111 calls out this pipeline as storm drain, and the 36" WWD Profile on C113 appears to show this pipeline as concrete downstream of the 60 elbow at STA 11+07. Please confirm if there is a transition from welded steel pipe to concrete RCP, or PVC Sewer Pipe at STA 11+07, or if it is supposed to be welded steel pipe throughout.

Response: The 36" WWD shall be WSP (CML&C) for the entire alignment. The drawings will be updated as part of Addendum 3.

- 41.** There is a tee shown where the 36" WWD piping leaves the new Filters, but the tee does not connect to anything else. Please confirm if there is supposed to be a blind flange for future connection on this tee, or if it should just have a welded end cap. Or advise if it should just be a 90 elbow.

Response: The tee for the 36" WWD piping leaving the new filters is correct. A bulkhead cap will need to be welded on the north side of the tee for a future connection.

- 42.** SOFFA is pleased to submit our PCSI qualifications package, which fulfills all the criteria outlined in Article 1.5 Quality Assurance from Specification Section 406100. Please review and respond accordingly.

Response: Yes, Sofa qualifies. See this addendum, Item A. 18.

- 43.** Will the City consider adding "or-equal suppliers" to the specifications?

Response: Suppliers or bidders will need to follow the specified requirements for proposing "or equals" per the Schedule of Major Equipment and Material Suppliers.

44. We found Detail 2/GC003 showing Fixed and Removable Bollards. However, we don't seem to find them on the plans. Do you need Bollards on this job? If so, could you show their Locations/Qty/Types on plans.

Response: Fixed bollards are located near the Chemical Storage Area, see Sheet M641. There are four total.

45. For the Stair inside the Stairwell per A102, 108, are the Landings Metal? If so, could you provide details? Or do you require us to include engineering in our bid?

Response: The stairs and landings are aluminum. Additional detail will be provided in Addendum 3.

46. For the Roof Access Ladder per A103, 104, 105, what is the material required?

Response: The ladder is aluminum. Ladder details will be provided in Addendum 3.

47. Detail 05061 / S003 shows a Stud / Machine Bolt config for Grating attachment. In our past projects, this config has been difficult to shop fab to ensure the studs will be centered between the Grating Bars. They often need to be cut off in the field for re-fab / re-welding or shipped loose for field fab / welding. Is it acceptable to use Self-drilling screws? If not, Struct-Fast (www.structfast.com) offers alternative types of grating clips that eliminate the need for field welding. If either of these alternative config is acceptable, it will save the cost for field fab / welding of studs in between bearing bars.

Response: This question will be responded to in Addendum 3.

48. Bid form page 24, Part C, question #3. Please consider providing a timeline to the above question. Please revise to include response information for the most commonly used duration on public works projects of the last 3 or 5 years regarding the above question #3?

3. Has Bidder ever been cited, fined, or prosecuted by any local, state, or federal agency, including OSHA, CalOSHA, or EPA, for violation of any law, regulation, or requirements pertaining to health and safety?
_____ Yes _____ No

If yes, provide additional information on a separate sheet regarding each such citation, fine, or prosecution, including the name and address of the agency or owner of the project, the type and size of the project, the reasons for and nature of the citation, fine, or prosecution, and the month and year in which the incident giving rise to the citation, fine, or prosecution occurred.

*Response: City has considered, and a timeline will **not** have a duration.*

- 49.** Specification section 31 50 00 Item 3.2 A. states "Due to site space constraints, sloping and benching systems for exposed faces of excavation may not be utilized". Drawing S305 and S306 depict the excavations for the new filters as having sloped sides. Please clarify if sloped excavations are allowed.

Response: Specification is to be followed due to the potential of damaging unlocated systems that must remain in service. Structural drawings will be updated as part of Addendum 3.

- 50.** Sheet C001 shows an onsite soil disposal location on the north end of the project. Please clarify what types of soils are permitted to be disposed of in the soil disposal area, if there are quantity limits, and any other stockpile requirements the contractor is required to comply with.

Response: See this addendum, Item A.20.

- 51.** Drawing C003 calls for the demolition of building 43. We are not able to find any drawings or information on the abandoned building 43. Please provide.

Response: No existing drawings are available for this structure. Demolition shall include the building structure including foundation, walls and roof, doors, windows, fans, sink, piping and electrical equipment. All hazardous materials will be removed from Building 43 by the Owner. Additional detail will be provided as part of Addendum 3.

- 52.** Addendum 1 dated March 1, 2024, provides a PLA; however, the PLA appears to be expired (signed 10/31/2018 with a 5-year duration). Please advise if the PLA will be extended or a new one issued.

Response: The PSA/PLA is still in effect and was renewed and extended the agreement to October 15, 2028.

- 53.** Please advise who will be responsible to provide the initial fill chemicals (Sodium Hypochlorite & hydrochloric acid).

Response: The Owner will be responsible for procuring and paying for the chemicals for the new chemical storage tanks and chemical metering systems. The Contractor shall coordinate with the Owner to identify required date(s) for the initial fills of the tanks, and to ensure that chemical deliveries can safely access the new storage tanks. Also see the response to Item B.30 above.

- 54.** Polyethylene Storage Tanks Sections 43 41 43 Part 2.1 mentions that an approved equal manufacturer is acceptable, but the Schedule of Major Equipment and Material Suppliers mentions that the HDPE tank shall match existing equipment and No substitution is allowed. Please confirm that "Or equal" manufacturers are acceptable to bid.

Response: "Or equals" for the tanks specified in Section 43 41 43, Part 2.1 may be proposed. Suppliers or bidders will need to follow the specified requirements for proposing "or equals" per the Schedule of Major Equipment and Material Suppliers.

- 55.** Keynote 17 on Drawing A103 says, "ADA RAMP PER STRUCTURAL DRAWINGS," but the ramp is not shown on the Structural Drawings. Please provide a Structural plan view, including Sections and Details, for the construction of the ADA Ramp indicated on A103.

Response: ADA Ramp Detail will be provided as part of Addendum 3.

- 56.** Paragraph 3.3, B.3.h of Section 01 14 00 says, "New filter basins must undergo successful hydraulic structure testing prior to undergoing disinfection." Since the project specifications do not establish the testing criteria, please confirm that meeting the applicable provisions of ACI 350.1 will constitute successful hydraulic structure testing of the new filter basins.

Response: A response to this question will be part of Addendum 3.

BIDDERS MUST SIGN AND ATTACH one (1) copy of this addendum document to the proposal as acknowledgment of receipt of these instructions and that said addendum was properly evaluated in the proposal.

ANY PROPOSAL NOT IN COMPLIANCE WITH THIS ADDENDUM MAY BE REJECTED.



Issued: 3-15-2024

Dayne Johnson, P.E.
Assistant City Engineer

ADDENDUM NO. 2, PROJECT 5067 WTP FILTER IMPROVEMENTS AND HYPOCHLORITE CONVERSION is hereby acknowledged and was considered in this Project Proposal.

Bidder's Signature

Date

Firm Name

Mailing Address

City/State/Zip+4

Addendum #2 – Item A.2

**SECTION 23 86 00
DUCTWORK SPECIALTIES**

PART 1 - GENERAL

1.1 DESCRIPTION

- A. Work Includes: All labor, materials, and equipment to furnish and install complete working systems in conformity with applicable codes and authorities having jurisdiction for the following:
 - 1. Duct Access Doors.
 - 2. Volume Dampers and Hardware.
 - 3. Flexible Ductwork.
 - 4. Diffusers and Grilles.
 - 5. Louvers**

1.2 REFERENCED SECTIONS

- A. Section 09 90 00 – Painting and Coating
- B. Section 23 00 00 – General Mechanical Requirements
- C. Section 23 85 00 - Ductwork.

1.3 QUALITY ASSURANCE

- A. Noise Criteria: Contribution to room noise levels shall not exceed NC 30.

1.4 SUBMITTALS

- A. Submit product data, shop drawings, and samples in accordance with Section 23 00 00, Part 1, and as follows:
 - 1. Product Data: Manufacturers' catalog sheets, diagrams, standard schematic drawings, SMACNA plate numbers, and installation instructions for all manufactured or shop-fabricated items including:
 - a. Duct Access Doors.
 - b. Volume Dampers and Hardware.
 - c. Flexible Ductwork.
 - d. Diffusers and Grilles.
 - e. Louvers**
 - 2. Samples: Submit one (1) complete unit for each type of proposed substitute air inlet and outlet device.
- B. Product Options and Substitutions: In accordance with Section 23 00 00, Part 2.
- C. Submit test reports and certifications in accordance with Section 23 00 00, Part 3.

PART 2 - PRODUCTS

2.1 MANUFACTURERS

- A. Duct Access Doors:
 - 1. Ruskin.

2. Kees, Inc.
 3. Contractor Fabricated.
 4. Or equal.
- B. Volume Dampers
1. Contractor Fabricated.
 2. Ruskin.
 3. Or equal
- C. Damper Hardware:
1. Ventfabrics, Inc.
 2. Duro Dyne Corp.
 3. Or equal.
- D. Flexible Ductwork:
1. Flexmaster.
 2. Cody West.
 3. Thermaflex.
 4. Or equal.
- E. Diffusers and Grilles:
1. Titus.
 2. Price.
 3. Or equal.
- F. Louvers:**
- 1. Ruskin.**
 - 2. Greenheck.**
 - 3. Or equal.**

2.2 MATERIALS

- A. Duct Access Doors: A minimum of 18 inches x 18 inches in size, fabricated of the same material and finish as the ductwork in which installed, unless otherwise noted. For ducts less than 20 inches wide, provide the maximum door size possible.
1. Positive Pressure Ducts: Ruskin ADHP-3, or equal, 16-gauge Z-shaped steel frame, formed 16-gauge double wall insulated door, steel spring latches, continuous perimeter gasket, and maximum leakage allowed of 0.5 CFM at 6" W.G. Attach frame to duct with rivets maximum three (3) inches on center and seal airtight.
 2. Negative Pressure Ducts: Ruskin Model ADH20, Kees, or equal, minimum 20 gauge double skin access door, with continuous piano hinge, and bronze hinge pin. Provide one (1) cam-latch on access doors less than 12 inches longest dimension, three (3) cam-latches (one per side) on access doors 12 inches and larger, and four (4) cam-latches on access doors 18 inches and larger.
 3. Round or Curved Ducts: Ductmate Sandwich Access Door, Ruskin, or equal, minimum 16" x 12" x 20 gauge (or largest available size) 3-layer insulated access door, curved to the same radius as the duct, rated for 10" w.g. positive or negative

pressure with no leakage, with zinc plated springs between inner and outer door to facilitate opening, and polypropylene molded knobs with threaded metal inserts. Provide with self-adhesive template for cutting exact size of duct opening.

4. Provide all doors with closed-cell neoprene gasket around all four (4) sides of duct opening. Seal perimeter of duct opening airtight.
5. Where noted on the Drawings or where full swing of hinged doors will be obstructed, provide removable access panels with two (2) latches for panels less than 12 inches longest dimension, four (4) latches (one per side) for panels 12 inches to 18 inches longest dimension, and eight (8) latches (two per side) for panels larger than 18 inches.

B. Volume Dampers:

1. Multi-Blade Dampers: 16-gauge galvanized steel blades with maximum blade width 6", 1/2" diameter steel continuous shafts in bronze bearings, and 1-1/2" x 1/2" x 1/8" structural steel channel frames welded at corners. Dampers shall be opposed blade with other details as shown in Fig. 7-5 of the SMACNA Standards. Saw cut shaft end 1/16" deep parallel with damper blade.
2. Single Blade Dampers: Minimum 18-gauge galvanized steel blade for dampers less than 24" in length, 16-gauge for dampers longer than 24", 12" maximum width blade, with V-crimp at edge and center of blade. Dampers shall have 3/8" continuous square steel shafts (1/2" square shafts for ducts over 24" wide) with operators and end bearing as specified below. Other details shall be as shown in Fig. 7-4 of the SMACNA Standards. Round dampers shall be similar with V-crimp at edge omitted. Saw cut shaft end 1/16" deep parallel with damper blade.
3. All dampers shall operate smoothly throughout the entire 90 degree range; full open to full closed. Single-leaf dampers shall have no more than 5 percent open areas for edge and end clearance when tightly closed. Dampers shall be rigid on operating rods and shall not produce any objectionable vibration or noise in normal operating positions. Operating quadrants shall be located so that they are in easily accessible locations.

C. Volume Damper Hardware: Ventfabrics "Ventlok."

1. Uninsulated Duct Dampers: No. 641, 1/2-inch self-locking regulator and No. 609, 1/2-inch end bearing. 3/8-inch bearings to be used with single blade dampers less than 24 inches wide. Provide with concave gaskets for round ducts.
2. Insulated Rectangular Duct Dampers: No. 644, 1/2-inch self-locking regulator with No. 609, 1/2-inch end bearing. 3/8-inch bearings to be used with single blade dampers less than 24" wide.
3. Insulated Round Duct Dampers: No. 637, 3/8-inch self-locking regulator with hat channel standoff and two (2) No. 607, 3/8-inch end bearings. Attach one end bearing to duct below regulator hat channel. Provide end bearings with concave gaskets.
4. Insulated and Uninsulated Duct Dampers above Inaccessible Ceilings, Option No. 1: No. 677 concealed damper regulator installed flush with ceiling. Regulator cover plate shall be natural zinc, field painted to match ceiling color; separately paint cover plates and screwheads, so that ceiling finish is not damaged when cover plates are removed. Provide rod sizes and end bearings as indicated above. For horizontal axles, provide No. 680 miter gear and shaft rod extension to concealed damper regulator in ceiling. For vertical axles, install with specified No. 607 end bearing and shaft rod extension to concealed damper regulator. For small dampers with 3/8-inch shafts, No. 695 and 696 universal joints may be used for shaft offsets

up to 30 degrees. Submit installation details showing attachment to ceiling support structure.

5. Insulated and Uninsulated Duct Dampers above Inaccessible Ceilings, Option No. 2: Contractor may consider Young Regulator 270-301-EZ-B Bowden Cable Controls, or equal, utilizing concealed regulator and damper blade control with separate volume damper as specified above. Regulator shall be rigidly secured to wall framing or backing plates above the ceiling. If mounting location is inaccessible, then mount regulator on top of sheet rock ceiling and provide with integral 3-inch diameter cover plate. Bowden controls can be problematic if not carefully installed, so limit their use to situations in which the following criteria can be met:
 - a. Maximum damper size is 2 square feet.
 - b. Locations of cover plates are subject to review and approval by the Owner's Representative.
 - c. Only one long sweeping bend of the cable (maximum 90 degrees of bending) is permitted. Orient the damper actuator and ceiling regulator to meet this requirement.
 - d. Cut cable to the length required and use no more cable than necessary.
 - e. Operation of the regulator and ability to keep the damper locked in fully open, closed, and intermediate positions shall be tested by the project inspector prior to closing the ceiling.
 - f. The cover plate and screw heads shall be separately painted to match the ceiling color. No damage shall occur to ceiling finishes when the test and balance agency removes the cover plate to make final adjustments. Cover plate should not be installed until balancing is complete.
6. U-bolt blade fasteners, if used, shall be No. 615, spaced at 12-inches on centers maximum.
7. Provide all couplings, joints, screws, rods, linkages, etc., to complete the installation.

D. Flexible Ductwork: Flexible ducts shall consist of an exterior fiberglass reinforced metalized vapor barrier jacket with a maximum permeance of 0.05 perms per ASTM E96 Procedure A, 1-1/2"-thick fiberglass insulation (K=.25 @ 75 degrees Fahrenheit), acoustically permeable polyethylene inner fabric liner, overlapped and mechanically locked with a formed galvanized steel helix without the use of chemicals or adhesives. Minimum acoustical properties as scheduled below. UL 181 labeled as a Class I air duct rated for a minimum positive working pressure of ten (10) inches W.G., a minimum negative working pressure of five (5) inches W.G. (through 16 inches diameter), and a velocity of 5,500 FPM. Cut to exact lengths required, maximum six (6) feet. Flexmaster Type 1M, Cody West, Thermaflex, or equal.

1. Acoustical performance shall be tested by an independent ETL-certified laboratory in accordance with the Air Diffusion Council's "Flexible Air Duct Test Code" FD 72-R1, Section 3.0, Sound Properties:
 - a. Minimum insertion loss (dB) of a 6-foot length of straight duct tested at a velocity of 2,500 feet per minute:

Octave Band, Hz	125	250	500	1000	2000	4000
6" diameter	5	16	18	17	16	13
8" diameter	5	16	17	18	16	11
12" diameter	8	17	14	18	14	11

- E. Diffusers and Grilles: Titus, Price, or equal. Product numbers following are Titus.
1. Finish for Non-Stainless Steel Diffusers and Registers:
 - a. Titus "Enviro-Thane" baked-on urethane, not damaged by 300-hour salt spray test in accordance with ASTM D1654, resistant to scratching, chipping and abrasion, dry film hardness H to 2H, and 50 in./lb. reverse impact cracking test per ASTM D2794.
 - b. Color: Same color as ceiling or wall in which installed, unless otherwise directed. Where the Owner's Representative directs that specific colors are not required, provide standard white. Submit color samples for all applications.
 2. Finish for Stainless Steel Diffusers and Registers: No. 4 polish or better in accordance with ASTM A480.
 3. Border Types: Titus Type 1 or 3 as required for compatibility with ceiling type. Provide neoprene gaskets on all non-Type 3 type diffusers, grilles, and registers to effect an airtight seal.
 4. Performance and Acoustic Data: ADC Certified. Submit for approval.
 5. Dampers: Do not provide opposed blade dampers at diffuser necks unless specifically noted otherwise.
 6. Where round flexible ductwork is shown connecting to square neck diffusers, provide diffusers with square-to-round adapters secured to diffuser neck. See Diffuser Schedule on Sheet M0.01.
 7. Provide earthquake tabs on opposite corners of register back pans for diffusers and registers connected to flexible ductwork.
 8. Supply Diffusers:
 - a. Perforated Diffusers in Rooms with Lay-in Ceilings: Titus Model PSS-AA, heavy gauge aluminum construction, adjustable "star pattern" deflectors, Type 3 border. Flush perforated face with 3/16" diameter holes on 1/4" staggered centers and no less than 51 percent free area. One-piece black back pan with round duct connection, sizes as noted on the Drawings.
 - 1) Black 4-way side blow deflector pattern shall be easily adjusted to 4-way corner blow. By reversing one blow direction, it shall be possible to provide 3-way blow pattern. Refer to drawing for blow pattern.
 - b. Perforated Diffusers in Rooms with Hard Ceilings: Titus Model PSS-AA, as specified above, except with Type 1 border. Face and neck sizes as shown on drawings.
 - c. Operating Room Supply Air Diffusion System: Price model LFD, or Precision Air model Lami-Vent, or equal.
 - 1) Diffuser shall be ASHRAE Group E, non-aspirating laminar flow type in accordance with ASHRAE Standard 170 for Operating Rooms.
 - 2) Provide aluminum laminar flow diffuser with custom dimension modules to supply non-aspirating air where shown on the contract documents.
 - 3) Laminar diffusers shall utilize a two-chamber plenum design to deliver air to the space with zero aspiration at the face of the perforated plate. A solid aluminum plate with two rectangular cutouts located directly above a V-shaped diffusion basket shall

separate 48"nom. the top and bottom chambers. The lower chamber shall have a V-shaped, perforated diffusion basket mounted within a rectangular, perforated diffusion basket to evenly distribute air over the entire face of the diffuser

- 4) Air shall be admitted to the top plenum chamber through an inlet collar. Provide inlet sizes as shown on drawings.
 - 5) The diffuser plenum shall feature four (4) integral hanger tabs for securing the unit to structural supports above the ceiling.
 - 6) Provide minimum 13% free-area perforated distribution plate secured to the face using stainless steel quarter-turn fasteners with anti-slip, snap-in retainers and stainless steel retainer cables for ease of installation and removal. The distribution plate shall be installed in aluminum mounting frame with mitered back welded corners. No diffusion component may be affixed to the back side of the faceplate frame. The back side of faceplate shall be easily accessible for ease of cleaning.
 - 7) All exposed surfaces, including border trim, shall be provided with manufacturer's standard white baked enamel finish, suitable for withstanding typical cleaning solutions and scrubbing implements typically employed in operating room environment.
 - 8) Diffusers located in rooms with gypsum board ceilings shall be furnished complete with plaster frames or framing sections by diffuser manufacturer to support diffusers located adjacent to one another as shown on plans. Verify exact locations of diffusers with architectural reflected ceiling plans where shown.
 - a) The heavy-duty plaster frames or framing sections shall be 1-1/2" wide x 1-7/16" high and angles shall be 3/4" wide x 1-7/16" high. Minimum wall thickness of the tees and angles shall be 1/8".
 - b) The suspension system shall be factory-welded in sub-assemblies. Where framing sub-assemblies butt together, the adjoining surfaces shall be gasketed and mechanically-fastened with self-tapping wafer head screws.
 - c) All tees and angles shall be pre-punched on 6" centers for independent suspension from above spaced at 2' max.
 - d) Manufacturer shall furnish 1/8" thick closed-cell polyethylene gasket tape to be field installed on the frame assembly to provide seal between diffuser and frame. Gasketing be field installed on the top side of all horizontal frame surfaces as per manufacturer's installation instructions after surfaces have been wiped clean, free from any construction dust.
9. Return and Exhaust Grilles:
- a. Low Wall Exhaust Grille in Operating Room: Titus Model 350RL-SS, heavy gauge Type 304 stainless steel, with bars parallel to floor, 3/4-inch blade spacing, 35 degrees fixed deflection, reinforced corners, No. 4 polished finish, Border Type 1, countersunk screw holes, and flathead stainless steel screws.
 - b. Perforated Grilles in Rooms with Lay-in Ceilings: Titus Model PAR, heavy gauge aluminum, Type 3 border. Flush perforated face with 3/16" diameter holes on 1/4" staggered centers and no less than 51 percent free area.

One-piece black back pan with round duct connection. Neck size as noted on the Drawings.

- c. Perforated Grilles in Rooms with Hard Ceilings: Titus Model PAR, as specified above, except with Type 1 border. Face and neck sizes as shown on the Drawings.
 - d. Paint any exposed sheet metal behind return grilles flat black in accordance with Section 09 90 00.
10. Sizes: Neck sizes, airflows, and throw directions as indicated on the Drawings.

F. Louvers: Ruskin, Greenheck, or equal.

1. **Ruskin model ELF375DXH. Refer to floor plans for louver sizes.**
2. **Design: Stationary drainable louver type with drain gutters in each blade and head with downspouts in jambs and mullions with all welded construction. Hidden vertical supports to allow continuous line appearance up to 120 inches. Steeply angled integral sill.**
3. **Frame:**
 - a. **Frame Depth: 4 inches.**
 - b. **Wall Thickness: 0.125 inch, nominal.**
 - c. **Material: Extruded aluminum, Alloy 6063-T6.**
4. **Blades:**
 - a. **Style: Drainable. 37.5 degrees at 5-3/32 inches, nominal.**
 - b. **Wall Thickness: 0.125 inch, nominal.**
 - c. **Material: Extruded aluminum, Alloy 6063-T6.**
5. **Recycled Content: 18% post-consumer. 55% pre-consumer, post-industrial, total 73% by weight.**
6. **Performance Data:**
 - a. **Louver licensed to bear AMCA Certified Ratings Seal. Ratings based on tests and procedures performed in accordance with AMCA 511 and comply with AMCA Certified Ratings Program. AMCA Certified Ratings Seal applies to air performance and water penetration ratings.**
 - b. **Based on testing 48 inch x 48 inch size unit in accordance with AMCA 500.**
 - c. **Free Area: 54 percent, nominal.**
 - d. **Maximum Recommended Air Flow through Free Area: 873 feet per minute.**
 - e. **Water Penetration: Maximum of 0.01 ounces per square foot of free area at an air flow.**
7. **Accessories:**
 - a. **Bird Screen: Aluminum, 5/8 inches by 0.040 inch, expanded and flattened. Removable and re-wireable frame.**
 - b. **Insect Screens: Aluminum 18-16 mesh, mill finish, 0.011 inch wire. Aluminum frame.**
 - c. **Extended Sills: Extruded aluminum, Alloy 6063-T6. Minimum nominal thickness 0.060 inch.**
8. **Finishes:**
 - a. **Epoxy-based painted finish in standard color Stone Gray (78).**

PART 3 - EXECUTION

3.1 INSTALLATION

- A. All devices installed in supply ducts shall be cleaned and disinfected at the time of installation.
- B. Duct Access Doors:
1. Install in ducts and in plenum walls where shown and where required for cleaning and access to equipment and devices in ducts. See Section 23 85 00. Doors and frames shall be airtight. Install duct access doors in accessible locations.
 2. Fire and smoke dampers are provided with factory-mounted access doors. Wherever this access door is not easily and freely accessible, as determined by the Owner's Representative, provide an additional duct access panel of specified size, located in the best possible position to allow access to internal components from the available ceiling opening.
 3. At end of project, clean all traces of duct sealant from access doors and gaskets and spray gaskets with permanent silicone lubricant so that doors are easy to operate.
- C. Volume Dampers: Volume dampers are required on each branch of supply and exhaust ductwork, whether shown on the Drawings or not. Where not specifically shown, install damper as far upstream from air outlet/inlet as possible. Mount regulator horizontal or in the bottom half of ducts, oriented to the side which provides the easiest access. Provide remote damper operator, whether noted on the Drawings or not, wherever volume dampers above the ceiling are not readily accessible. Installed dampers shall work freely without binding. Provide red nylon flagging tied to damper regulating and extending loosely down to top of finished ceiling.
- D. Flexible Ductwork: Flexible ducts shall be supported at or near mid-length with 2-1/2"-wide minimum 20-gauge steel hanger collar bent to one-inch larger diameter than duct size, and attached to structure with a specified strap hanger. Installation shall minimize sharp radius turns or offsets. Maximum length shall be six (6) feet, with a maximum of one long radius 90 degree bend. Flexible ducts can be used only at connections to air inlets and outlets where specifically shown on the Drawings. Cut to exact lengths required and secure inner fabric liner to duct with cadmium or chromium plated steel compression clamps; provide minimum two-inch overlap over rigid duct sleeve. After clamping inner liner, pull insulation and outer jacket back into position and seal with two (2) complete wraps of four- (4)-inch wide FRK insulation tape.
- E. Air Outlets and Inlets:
1. Diffusers and Registers: Angular offsets and other irregular connections at diffusers and registers are prohibited. Set diffusers and registers in locations shown on Architectural Reflected Ceiling Plans and coordinate exact dimensions.
 - a. Set deflector blades at all adjustable blade diffusers and registers for even air distribution across the area served, unless noted or directed otherwise.
 - b. Wherever directed by the Owner's Representative, provide black pointed blank-off plates over portions of supply diffusers that blow supply air over thermostats, temperature sensors, patient beds, or other undesirable locations. Secure blank-off plates in diffuser necks so that they are invisible to anyone standing on the floor.
 - c. Protect interior surfaces of diffusers, grilles, and registers from dust and paint spray. Clean any dust that accumulates inside air outlets and inlets. Repaint any diffuser, grille, and register surfaces that have been marred by ceiling and wall painting to exactly match factory finish.

2. Support diffusers, grilles, and registers from the structure in accordance with governing codes and regulations. As a minimum:
 - a. Attach diffusers and grilles in grid ceilings to main runners or cross runners using a minimum of two pan head sheet metal screws drilled through the T-bar and pointing toward the diffuser. Additionally, provide two No. 12 gauge wire hangers connected to alternate corners of the diffuser or grille and to the structure above. These wires may be slack.
3. Keep supply air diffusers absolutely clean during construction and after installation. At end of project and before occupancy, remove and thoroughly clean supply diffusers, plenums, and exhaust grilles.
4. Sidewall registers and grilles shall be surface mounted tight to wall surface with specified gaskets to effect an airtight seal.
5. Paint any sheet metal surface or other building material surface visible through air outlets and inlets flat black in accordance with Section 09 90 00.
6. Inlet and Discharge Screens: Provide at exhaust duct inlets above ceilings and where noted on the Drawings. Size so that angle frame does not obstruct airflow. Attach to duct flange with sheet metal screws maximum eight (8) inches on center.

F. Louvers:

1. **Inspect areas to receive louvers. Notify the Architect of conditions that would adversely affect the installation or subsequent utilization of the louvers. Do not proceed with installation until unsatisfactory conditions are corrected.**
2. **If opening preparation is the responsibility of another installer, notify Architect of unsatisfactory preparation before proceeding.**
3. **Clean opening thoroughly prior to installation.**
4. **Prepare surfaces using the methods recommended by the manufacturer for achieving the best result for the substrate under the project conditions.**
5. **Clean opening thoroughly prior to installation.**
6. **Prepare surfaces using the methods recommended by the manufacturer for achieving the best result for the substrate under the project conditions.**
7. **The supporting structure shall be designed to accommodate the point loads transferred by the louvers when subject to the design wind loads.**
8. **Install joint sealants as specified in Section 07 92 00.**
9. **Apply field topcoat within 6 months of application of shop prime coat. Apply field topcoat as specified in Section 09 91 00.**
10. **Clean louver surfaces in accordance with manufacturer's instructions.**
11. **Touch-up, repair or replace damaged products before Substantial Completion.**

END OF SECTION

(THIS PAGE LEFT BLANK INTENTIONALLY)

Addendum #2 – Item A.6

Hardware Sets

Set: 1.0

Doors: [100](#)

3 Hinge (heavy weight)	T4A3386 x NRP	US32D	MK
1 Storeroom/Closet Lock	72 8204 LNL	US32D	SA
1 Keyed Core	By Owner		
1 Door Closer	CPS7500	689	NO
1 Kick Plate	K1050 X1.5LDW CSK BEV	US32D	RO
1 Gasketing	S44GR		PE

Set: 2.0

Doors: [300](#)

3 Hinge (heavy weight)	T4A3386 x NRP	US32D	MK
1 Storeroom/Closet Lock	72 8204 LNL	US32D	SA
1 Keyed Core	By Owner		
1 Door Closer	CPS7500	689	NO
1 Kick Plate	K1050 X1.5LDW CSK BEV	US32D	RO
1 Rain Guard	346C		PE
1 Gasketing	S44GR		PE
1 Sweep	315CN		PE
1 Threshold	FHSL14SS as detailed		PE

Set: 3.0

Doors: [101](#)

3 Hinge (heavy weight)	T4A3386 x NRP	US32D	MK
1 Storeroom/Closet Lock	72 8204 LNL	US32D	SA
1 Keyed Core	By Owner		
1 Door Closer	CPS7500	689	NO
1 Kick Plate	K1050 X1.5LDW CSK BEV	US32D	RO
1 Rain Guard	346C		PE
1 Gasketing	S44GR		PE
1 Sweep	315CN		PE
1 Threshold	FHSL14SS as detailed		PE

Set: 4.0

Doors: [200](#)

6 Hinge (heavy weight)	T4A3386 x NRP	US32D	MK
1 Self-Latching Flush Bolt Set	2845	US32D	RO
1 Storeroom/Closet Lock	72 8204 LNL	US32D	SA

1 Keyed Core	By Owner		
2 Door Closer	CPS7500T	689	NO
1 Astragal	357SS 84"		PE
2 Kick Plate	K1050 X1.5LDW CSK BEV	US32D	RO
1 Rain Guard	346C		PE
1 Gasketing	S44GR		PE
2 Sweep	315CN		PE
1 Threshold	FHSL14SS as detailed		PE

Set: 5.0

Doors: [400](#)

3 Hinge (heavy weight)	T4A3386 x NRP	US32D	MK
1 Rim Exit Device	19 5CH 72 8806 ETL	US32D	SA
1 Keyed Core	By Owner		
1 Door Closer	PR7500	689	NO
1 Kick Plate	K1050 X1.5LDW CSK BEV	US32D	RO
1 Wall Stop	409	US32D	RO
1 Rain Guard	346C		PE
1 Gasketing	S44GR		PE
1 Sweep	315CN		PE

Set: 6.0

Doors: [401](#)

3 Hinge (heavy weight)	T4A3386 x NRP	US32D	MK
1 Rim Exit Device	12 19 5CH 72 8806 ETL	US32D	SA
1 Door Closer	PR7500	689	NO
1 Kick Plate	K1050 X1.5LDW CSK BEV	US32D	RO
1 Wall Stop	409	US32D	RO
1 Gasketing	S44GR		PE

Set: 7.0

Doors: [402](#)

3 Hinge (heavy weight)	T4A3386 x NRP	US32D	MK
1 Rim Exit Device	12 19 5CH 72 8806 ETL	US32D	SA
1 Keyed Core	By Owner		
1 Door Closer	PR7500	689	NO
1 Door Bottom	222APK		PE
1 Kick Plate	K1050 X1.5LDW CSK BEV	US32D	RO
1 Wall Stop	409	US32D	RO
1 Gasketing	S44GR		PE
1 Threshold	FHSL14SS as detailed		PE

Set: 8.0

Doors: [500](#)

3 Hinge (heavy weight)	T4A3386 x NRP	US32D	MK
1 Office/Entry Lock	72 8205 LNL	US32D	SA
1 Keyed Core	By Owner		
1 Door Closer	PR7500	689	NO
1 Kick Plate	K1050 X1.5LDW CSK BEV	US32D	RO
1 Wall Stop	409	US32D	RO
1 Rain Guard	346C		PE
1 Gasketing	S44GR		PE
1 Sweep	315CN		PE
1 Threshold	FHSL14SS as detailed		PE

Set: 9.0

Doors: 510X, X

1 Padlock	5005511N MK		MC
1 Keyed Core	By Owner		
1 Balance of Hardware	by door mfg.		

Set: 10.0

Doors: [600](#), [700](#)

3 Hinge, Full Mortise	TA2714	US26D	MK
1 Office/Entry Lock	72 8205 LNL	US32D	SA
1 Keyed Core	By Owner		
1 Wall Stop	409	US32D	RO
1 Gasketing	S44GR		PE

END OF SECTION

(THIS PAGE LEFT BLANK INTENTIONALLY)

Addendum #2 – Item A.9

**SECTION 09 84 33
SOUND-ABSORBING WALL UNITS**

PART 1 - GENERAL

1.1 SUMMARY

- A. Section includes shop-fabricated, sound-absorbing acoustical panels tested for acoustical performance.

1.2 ACTION SUBMITTALS

- A. Product Data: Manufacturer's data on product's sound absorption capabilities, and installation recommendations.
- B. Shop Drawings: Submit shop drawings showing layout, edge profiles and panel components, including anchorage, accessories, finish colors and textures.
- C. Samples: For each exposed product and for each color and texture specified.
- D. Test Reports: Certified test reports showing compliance with specified performance requirements.

1.3 CLOSEOUT SUBMITTALS

- A. Manufacturer's maintenance data.

1.4 QUALITY ASSURANCE

- A. All panels or panel systems shall be one manufacturer and shall be installed in accordance with manufacturer's recommendations.

1.5 DELIVERY, STORAGE & HANDLING

- A. Delivery: Deliver materials in manufacturer's original, unopened, undamaged containers with identification labels intact.
- B. Storage and Protection: Store materials protected from exposure to harmful environmental conditions and at temperature and humidity conditions recommended by the manufacturer.

1.6 PROJECT CONDITIONS

- A. Environmental Requirements: Do not install panels until wet work is complete, the building is enclosed, and the temperature and relative humidity are stabilized at 60 to 80 degrees F and 40% to 50%, respectively.

PART 2 - PRODUCTS

2.1 PERFORMANCE REQUIREMENTS

- A. Acoustic Performance: Acoustical panel system, when tested per ASTM C423-02a shall exhibit at least the following sound absorption coefficients as expressed in sabins per square feet:
 - 1. 250 Hz - 0.85
 - 2. 500 Hz - 0.87
 - 3. 1000 Hz - 1.02

- B. Fire-Test-Response Characteristics: Units shall comply with "Surface-Burning Characteristics" or "Fire Growth Contribution" Subparagraph below, or both, as determined by testing identical products by UL or another testing and inspecting agency acceptable to authorities having jurisdiction:
 - 1. Surface-Burning Characteristics: Comply with ASTM E 84 or UL 723; testing by a qualified testing agency. Identify products with appropriate markings of applicable testing agency.
 - a. Flame-Spread Index: 25 or less.
 - b. Smoke-Developed Index: 450 or less.
 - 2. Fire Growth Contribution: Comply with acceptance criteria of local code and authorities having jurisdiction when tested according to NFPA 265 Method B Protocol or NFPA 286.

2.2 SOUND-ABSORBING WALL UNITS

- A. Sound-Absorbing Wall Panel: Manufacturer's standard panel construction consisting of facing material laminated to front face, edges, and back edge border of core.
- B. Manufacturers: Subject to compliance with requirements, available products that may be incorporated into the Work include, but are not limited to, the following:
 - 1. Kinetics Noise Control; 614-889-0480; intsales@kineticsnoise.com; www.kineticsnoise.com.
 - 2. Eckel Industries, Inc., Acoustic Div.; 617-491-3221; eckel@eckelUSA.com; www.eckelUSA.com.
 - 3. Fry Reglet; 800-237-9773; www.fryreglet.com.
- C. Size: 10 feet long and 30" wide, or as needed to provide minimum wall coverage.
- D. Construction:
 - 1. 0.032 inch light duty aluminum, perforated with 3/32 inch to 1/8 inch holes on staggered centers, providing 20% minimum open area.
 - 2. 2 inches thick.
 - 3. 1.5 pounds per cubic foot density glass fiber batt insulation encapsulated with manufacturer's standard wrap.
- E. Finish: Manufacturer's standard paint finish.
 - 1. Color: As selected by Owner's Representative from panel manufacturer's range of standard colors.
- F. Sound Absorption (ASTM E795, A mounting): Noise Reduction Coefficient of 0.90 minimum.
- G. Mounting Accessories: Manufacturer's standard concealed clip system recommended by manufacturer to support weight of unit.
- H. Pump Room Coverage: Install panels over any available wall space on the north, south, east and west walls, and at ceiling.
- I. Layout: Install panels in an organized and logical manner. Center panels on available wall space, doors, louvers, each other, or as is appropriate for the space. When panels must be interrupted either vertically or horizontally, take care to align tops, bottoms, and/or sides of panel with each other as is applicable

2.3 FABRICATION

- A. Standard Construction: Use manufacturer's standard construction unless otherwise indicated; with facing material applied to face, edges, and back border of dimensionally stable core; and with rigid edges to reinforce panel perimeter against warpage and damage.
- B. Dimensional Tolerances of Finished Units: Plus or minus 1/8 inch.

PART 3 - EXECUTION

3.1 EXAMINATION

- A. Site Verification of Conditions: Verify that substrate conditions, which have been previously installed under other sections, are acceptable for product installation in accordance with manufacturer's instructions. Do not install panels until unsatisfactory conditions are corrected.

3.2 INSTALLATION

- A. Comply with manufacturer's product data, including product technical bulletins, product catalog installation instructions and product carton instructions for installation.
- B. Panels shall be of suitable size and properly located so as to meet the performance requirements, but cover not less than 25% of the total (net) wall and ceiling area of the Blower room and Filter gallery. Wall panels shall be installed level and plumb according to manufacturer's specifications and recommendations. Coordinate size, spacing, and location with mechanical and electrical equipment prior to ordering panels.
- C. Unless otherwise indicated, install wall units with vertical surfaces and edges plumb, top edges level and in alignment with other units, faces flush, and scribed to fit adjoining work accurately at borders and at penetrations.
- D. Comply with manufacturer's written instructions for installation of units using type of mounting devices indicated. Mount units securely to supporting substrate.

3.3 CLEANING

- A. Clean panels on completion of installation to remove dust and other foreign materials according to manufacturer's written instructions.
- B. Replace panels that cannot be cleaned to as new condition.

END OF SECTION

(THIS PAGE LEFT BLANK INTENTIONALLY)

Addendum #2 – Item A.13

SECTION 09 00 00

FINISH SCHEDULE AND LEGEND

This Section schedules paint and other interior finishes for room interiors, doors and frames, and other interior surfaces.

FINISH SCHEDULE

Room Name	Room No.	Floor	Doors	Base	North	East	South	West	Ceiling
Stair 1	1	-	P-3	N/A	-	-	-	-	-
Blower Room	3	-	P-3	RB-1	P-1	P-1	P-1	P-1	P-1
Electrical Room	4	-	P-3	RB-1	P-1	P-1	P-1	P-1	P-1
Work Room	5	RFT-1	P-3	RB-1	P-1	P-1	P-1	P-1	ACT-1
Office	6	RFT-1	Wood	RB-1	P-1	P-1	P-2	P-1	ACT-1
Office	7	RFT-1	Wood	RB-1	P-2	P-1	P-1	P-1	ACT-1
Filter Gallery	2	-	P-3	N/A	-	-	-	-	-

FINISH LEGEND

Abbreviation	Product	Description	See Section	Remarks
ACT-1	Acoustic Ceiling Tile	Manufacturer: Armstrong Style: Ultima Size: 24"x24" Thickness: 3/4" Edge: Square Lay-in 15/16" Suspension Systems: 15/16" Prelude Color: White	09 51 13	
RFT-1	Rubber Floor Tile	Manufacturer: Nora Style: Environcare Thickness: 3mm Color: Whale Watch	09 65 19	
P-1	Paint	Manufacturer: Sherwin Williams Color: SW7006 Extra White Sheen: Satin	09 91 23	General wall and ceiling
P-2	Paint	Manufacturer: Sherwin Williams Color: SW 9141 Waterloo Sheen: Satin	09 91 23	Accent Wall
P-3	Paint	Manufacturer: Sherwin-Williams Color: SW7674 Peppercorn Sheen: Semi-Gloss	09 91 23	Doors and Frames
RB-1	Rubber Base	Manufacturer: Flexco Style: Cove Color: 092 Graystone, Size: 6"	09 65 13	
SSF-1	Solid Surfacing	Manufacturer: Corian Thickness: 1/2"	12 36 61.16	Countertop

		Color: Carbon Concrete		
SSF-2	Solid Surfacing	Manufacturer: Corian Thickness: ½" Color: Glacier White	12 36 61.16	Windowsills
PL-1	Plastic Laminate	Manufacturer: Wilsonart Color: Fashion Grey Finish: Matte	06 41 16	Upper Cabinets
PL-2	Plastic Laminate	Manufacturer: Wilsonart Color: Cosmic Strandz Finish: Linearity	06 41 16	Base Cabinets

END OF SECTION