



CITY OF HOUSTON
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July 20, 2016

Subject: Letter of Clarification No. 2: - S63-N25846 -69th Street Wastewater Treatment Plant Tertiary Filter System for the Department of Public Works and Engineering

To: All Prospective Respondents:

This letter of Clarification is being issued for the following reason:

- **To respond to questions posed by perspective bidders and to revise the bid document.**
 1. Remove Page No. 47 and 114 and replace with Page No. 47 and 114, marked **REVISED 7/20/16.**
 2. The following questions and the City of Houston responses are hereby incorporated and made part of the Best Value Bid:

Question No. 1 "Please provide the overall project schedule, i.e. date of General Contractor Bid, expected start of equipment deliveries, Substantial Completion and Final Completion. This is important for proper cost estimating."

Answer: **The following is a list of tentative schedule for General Contractor Bid, expected start of equipment deliveries, Substantial Completion and Final Completion.**

- **Best Value Bid Submittal due July 28, 2016**
- **Best Value Bid evaluation and contract negotiation: August - September 2016**
- **Equipment procurement RCA and Contract Award: October - December 2016**
- **Design Phase and permitting: estimated November 2016 – October 2017**
- **Bid for Construction Contract: estimated October – November 2017**
- **RCA and Construction Contract Award: estimated January – March 2018**
- **Construction starts: estimated April 2018**
- **Start of equipment delivery: estimated June – July 2018**
- **Substantial Completion: estimated 700 days from construction starts**

Question No. 2 "The solicitation documents include references to "contract documents" in the following sections: 09901:1.09, 11500:Part 1 - Quality Assurance - item D, 11500:2.04.K, 13471:1.07, 15107:1.07, 15153:Part 1 - Warranty - item A, 15170: Part 1 - Warranty - item A, 16010:1.04, 1.10.A., 2.03, 3.01, 16050:1.04, 1.05, 1.06, 16479:2.01, and 1.0 item D on page 110. Please confirm if all

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references to "contract documents" is defined as strictly the documents included with the NOTICE OF BEST VALUE BID (BVB) SOLICITATION NO.: S63-N25846. If "contract documents" refers to other information, please define that information and provide for review."

Answer: All references to "contract documents" are defined as strictly the documents included with the NOTICE OF BEST VALUE BID (BVB) SOLICITATION NO.: S63-N25846. If there are any documents not provided in SOLICITATION NO.: S63-N25846, the City will provide the documents.

Question No. 3 "Please provide any drawings available to indicate the vertical clearances from the top of the existing filter basin walls to the overhead building structures that sit over most of the existing basins"

Answer: The top of filter basin wall is at elevation 26.25, while the top of Administration Building slab is at elevation 41.50. The best available vertical clearance from the existing filter basin walls to the overhead building structure is about 13 ft. where there are no other obstructions. Please note the existing electrical conduits; plumbing and lighting fixtures were hung underneath the building structure. Contractor shall field verify the existing overhead clearance condition on each basin.

Question No. 4 "The documents and drawings included do not indicate how the existing filter basins are currently drained or how this is desired for the new filter system. Please clarify if this will be the responsibility of others. If the filter supplier should include equipment for draining (valves, etc.), please provide details, drawings, and/or descriptions of the existing draining method for the basins."

Answer: The existing filter basins drain through effluent channel, which will not be applicable for the new filter system. The filter supplier does not need to provide equipment (valves, etc.) for the filter basin drain.

Question No. 5 "Please clarify the applicability of these specification sections; Section 05120, Structural Steel (pg. 10-15) and Section 05501, Metal Fabrications (pg. 16-19). These appear to be intended for structural steel (non-stainless) fabrication on site and not for factory manufacturing of stainless steel equipment. Please confirm."

Answer: Section 05120 is applicable to structural steel frames or bridge platform and welding where used in filter system. Section 05501 is applicable to metal fabrication including carbon steel, stainless steel, and welding of metal components.

Question No. 6 ""These two sections appear to be in conflict. Please clarify whether expansion anchors shall be excluded or allowed.

Section 05503, Anchor Bolts, Expansion Anchors, and Adhesive Anchors (pg. 20); 1.03 Quality Assurance, Section A – "Expansion Anchors shall not be used on this project without the expressed written consent of the Project Manager. If written consent is given by the Project Manager, expansion anchors shall be Hilti Kwik-Bolt, Molly Parabolt or equal."

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Section 11500, Tertiary Filter System (pg. 41); 2.04 Filter System Design and Material, Section A – “All mounting brackets shall be 316 stainless steel wedge anchors and hardware.”

Answer: Use only adhesive type anchors in the existing concrete slab. All mounting brackets, anchor bolts and hardware shall be 316 stainless steel.

Question No. 7 “Section 09901, Protective Coatings (pg. 22-40) appears to be intended for field coating and does not appear to be applicable for factory coated equipment. Please confirm.

The filter system equipment will not require field coating. Some ancillary items (motors, pumps, etc.) are coated at the manufacturing factory for that item. Please confirm that standard shop coatings provided by the manufacturer are acceptable.”

Answer: Equipment shop coating for motors, pumps and etc. shall meet Section 09901 Protective Coatings

Question No. 8 “There does not appear to be a definition of "Substantial Completion" provided within the bid document. Please define "Substantial Completion" specifically as it applies to the filtration system supplier (e.g., completion of functional test for each unit).” See below section:

Section 11500, Tertiary Filter System (pg. 41); Quality Assurance – “The Filter System Manufacturer shall provide a Certificate of Filter System Equipment Warranty for three (3) full years covering 100% of parts and labor for repair or replacement of equipment parts and labor from the date of Substantial Completion, as defined in the Contract Documents.

Answer: Substantial completion is for construction work. Filter system manufacturer shall provide field services to facilitate new filter system installation as defined in paragraph F. Field Services (page 112) in the Responsiveness Evaluation Assessment Section.

Question No. 9 “In Section 11500, Tertiary Filter System (pg. 42), 2.02 Filter System Design Criteria, Section A; there is a reference to TCEQ Subchapter G, Section 217.194. Please remove the reference to 217.194 from the specifications since it is not applicable, 217.194 refers to alternative designs “other than filters”.”

Answer: Agreed. TCEQ Subchapter G, Section 217.194 does not apply to Section 11500 Tertiary Filter System.

Question No. 10 “Section 11500, Tertiary Filter System (pg. 43), 2.02 Filter System Design Criteria, Section B - Please clarify the definition for the Maximum Backwash Rate (%). Is this intended to be the backwash reject sludge flowrate compared to the influent flowrate?”

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Answer: Yes, the backwash rate (%) is intended for the backwash reject sludge flowrate compared to the influent flowrate.

Question No. 11 “Referenced Sections: 11500, Tertiary Filter Systems, Section D (pg. 44) and Section 15153, Electrical Actuators (pg. 62-67) - Does the City intend for the influent gates to include electrical actuators as described in section 15153. Please confirm/clarify.”

Answer: Section 15153 is applicable to valves and gates where Electrical Actuators are used. If the influent gate is for isolation only and does not require automatic control of influent flow rate or automatic adjustment of water level, then electrical actuator is not required.

Question No. 12 “Please provide the City of Houston electrical standards and color codes as referenced in Section 11500, Tertiary Filter Systems, Section B and D (pg. 44).”

Answer: City of Houston adopts NEC for electrical standards. For additional City electrical ordinance, please download from City of Houston website.

Question No. 13 “It is our understanding that the Contractor (not the filter system supplier) will be responsible for the filter system installation. The current language in Section 11500, Tertiary Filter System, 3.01 Installation, Section B (pg. 47) requires the supplier to be responsible for installation. The current language also indicates that the supplier is responsible “to the Contractor”, while Section 01110 Summary of Work/General Requirements, 1.03 Procurement of Filter System, Section C (top of p. 8) indicates that the selected filter system supplier will be in contract directly with the City. Does the City plan to assign the contract later? Please edit or remove this item to reflect the proper responsibilities for the filter system supplier.”

Answer: Section 11500, Tertiary Filter System, 3.01 Installation, Section B (pg. 47) shall be modified as follows:

B. The General Contractor shall be responsible for the complete filter system installation including related controls and instrumentation appurtenances, electrical power supply and motor control systems. Filter system manufacturer shall provide field services to facilitate new filter system installation as defined in paragraph F. Field Services (page 112) in the Responsiveness Evaluation Assessment Section.

Question No. 14 “Referenced Section 11500, Tertiary Filter Systems, 3.02 Field Quality Control and Manufacturer’s, Section B (pg. 47). - Based on the description, this appears to be both a functional and performance test. Please confirm. Please also confirm that the Contractor will be responsible for conducting this testing and providing all labor and materials required.”

Answer: The General Contractor will be responsible for conducting the functional and performance testing and providing all labor and materials required. Filter system manufacturer shall provide field services to facilitate new filter system installation, functional and performance testing as defined in

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paragraph F. Field Services (page 112) in the Responsiveness Evaluation Assessment Section.

Question No. 15 “Referenced Section 11500, Tertiary Filter Systems, 3.02 Field Quality Control and Manufacturer’s, Section C (pg. 47). - This document referenced in this section for field service requirements was not located within the solicitation package. Please provide this document for review.”

Answer: **Filter system manufacturer shall provide field services to facilitate new filter system installation as defined in “Field Services” (page 112) in the Responsiveness Evaluation Assessment Section.**

Section 11500, Tertiary Filter System, 3.02 Field Quality Control and Manufacturer’s Services, Section C (pg. 47) shall be modified as follows:

Refer to paragraph F. Field Services (page 112) in the Responsiveness Evaluation Assessment Section for instructions to Offerors for field services requirement.

Question No. 16 “Referenced Section 11500, Tertiary Filter Systems, 3.02 Field Quality Control and Manufacturer’s, Section F (pg. 47). - Please confirm the Supplier is to provide a total of two (2) sessions of training, or provide two (2) sessions of training per shift. If the latter, please define the number of shifts in order for Supplier to determine the total number of sessions required.”

Answer: **Filter system manufacturer shall provide a total of two (2) sessions of training as defined in paragraph F. Field Services (page 112) in the Responsiveness Evaluation Assessment Section.**

Question No. 17 “Referenced Section 15107, Plug Valves, (pg. 56-61). - Please indicate if the City desires valves described by this section for a specific purpose. The filter system proposed may not require any plug valves for the filter system operation. Are these intended for the purpose of drainage of the filter unit basins or for another need?”

Answer: **Section 15107, Plug Valve is applicable to the filter system that used plug valves in the automatic backwash lines.**

Question No. 18 “Referenced Section 13471, Control Cabinet Enclosures, Part 2 Products, Manufactures, (pg. 52) - Please confirm Saginaw Enclosures is an acceptable enclosure manufacturer.”

Answer: **Saginaw Enclosures is not an acceptable enclosure manufacturer.**

Question No. 19 “Referenced Section 16479, Surge Protective Device, 2.01 Acceptable Manufactures, Section A and B (pg. 107) - Please confirm Phoenix Contact Plug Trab 4-20mA Surge Arrestors as an acceptable equivalent.”

Answer: **Phoenix Contact Plug Trab 4-20mA Surge Arrestors is an acceptable equivalent.**

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Question No. 20 “Referenced Sections 11500, Tertiary Filter Systems, 2.02 Filter System Design Criteria, Section A (pg. 42) and Responsiveness Evaluation Assessment, Section E.1 - TCEQ Chapter 217, Subchapter G, Rule 217.193 item (d) requires the following:

(d) Disposal of Backwashed Material (1) Liquid filter backwash must be re-filtered or must be returned to the headworks of the wastewater treatment facility or to the influent lift station.(2) Solid filter backwash material must be pumped to the influent lift station, the headworks, the digester, or to another location approved in writing by the executive director for processing at least once per day.

It is our understanding that the filter system backwash reject sludge will be routed to the existing backwash channel (indicated on west side of filter complex in Attachments A, B, and C). Please confirm that the facility's planned treatment downstream of this collection channel will comply with these requirements listed in item (d) of TCEQ 217.193.”

Answer: **The filter system backwash reject sludge shall be delivered to the existing backwash channel using sludge pumps or other approved deliverance mechanism with automatic controls.**

When issued, Letter(s) of Clarification shall automatically become a part of the solicitation documents and shall supersede any previous specification(s) and/or provision(s) in conflict with the Letter(s) of Clarification. All revisions, responses, and answers incorporated into the Letter(s) of Clarification are collaboratively from both the Strategic Procurement Division and the applicable City Department(s). It is the responsibility of the bidder/respondent to ensure that it has obtained all such letter(s). By submitting a bid on this project, bidders/respondents shall be deemed to have received all Letter(s) of Clarification and to have incorporated them into this solicitation and resulting bid.

Furthermore, it is the responsibility of each Contractor to obtain any previous Letter of Clarification associated with this solicitation.

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TECHNICAL SPECIFICATIONS / SCOPE OF WORK SOLICITATION NO.: S63-N25846
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- B. The General Contractor shall be responsible for the complete filter system installation including related controls and instrumentation appurtenances, electrical power supply and motor control systems. Filter system manufacturer shall provide field services to facilitate new filter system installation as defined in paragraph F. Field Services (page 112) in the Responsiveness Evaluation Assessment Section.

3.02 FIELD QUALITY CONTROL and MANUFACTURER'S SERVICES

- A. Installation Inspection. Manufacturer's service engineer shall certify that the installed equipment has been properly installed and aligned according to manufacturer's installation criteria, and the filter is ready for testing in full-load operating conditions. Field inspection shall be performed by manufacturer's representative for verification of complete installation including all electrical requirements, instrumentation and control systems. Contractor shall not perform testing of the equipment and control system without Inspection Certification approved by Owner's representative.
- B. Functional Test. Conduct performance testing on each unit in the presence of the Owner's representative to demonstrate all functions of the equipment in full-load operating conditions for a minimum of 7 consecutive days during each phase of the construction process. Contractor shall submit a completion report to certify that the filter meets the specified performance requirements.
- C. Refer to paragraph F. Field Services (page 112) in the Responsiveness Evaluation Assessment Section for instructions to Offerors for field service requirement.
- D. Furnish Preliminary Operation & Maintenance (O&M) Manuals for Filter System. Prepare O&M Manuals specifically for this installation, and include all required section drawings, equipment parts lists, name of protective coatings, recommended spare parts, descriptions, etc, that are required to instruct operating and maintenance personnel unfamiliar with this equipment. Provide two (2) copies Preliminary O&M Manual in 3-ring view binders including approved shop drawings and data. Include all approved Shop Drawings in the Operation and Maintenance Manuals.
- E. Final O&M Manual Submittal. Provide six (6) copies of Final O&M Manuals bounded in D-ring binders shall be submitted for final acceptance of the installed system. The Final O&M Manuals shall include As-Built Drawings with field modifications and/or corrections, and manufacturer's certifications including installation inspection, testing and startup completion reports. All the Final O&M Manual files shall include electronic copies of the O&M manuals in portable document files (PDF) on a computer disc (DVD) attached to each Final O&M Manual submittal.
- F. Operator and Maintenance Training. Training shall be provided on site to the plant operation and maintenance personnel designated by the plant manager. Training shall include instruction in the theory of filter system operation and hands-on demonstration of equipment functions and adjustment. The plant management shall be given proper notice prior to training sessions and the manufacturer shall verify acceptance of the training schedule by the Owner. The Owner may video tape all training for future use. Provide at least two (2) sessions of Operator and Maintenance Training for multiple shifts. Each training session shall consist of four (4) hours of operation and maintenance training as scheduled by the Owner. Provide one additional training session up to six months following completion of the contract.
- G. 6-month Warranty Inspection and Training. Manufacturer shall provide a site visit 6 months after completion of the project to inspect the filter system operation, and provide Operator and Maintenance Training. Services shall include an 8-hour field inspection, system adjustment plus two (2) sessions of Operator and Maintenance Training for multiple shifts. Each training session shall consist of four (4) hours of operation and maintenance training as scheduled by the Owner.
- H. Second Year follow-up Warranty Inspection and Training. Manufacturer shall provide a site visit about one-year after the first Warranty Inspection to check out the filter system operation, and provide Operator and Maintenance Training as necessary. Services shall include an 8-hour field inspection, system adjustment plus one (1) session of Operator and Maintenance Training for multiple shifts. This follow-up Warranty Inspection and Training will be scheduled by the Owner.

A PDF version of Exhibits "A", "B", and "C" can be viewed on the following web link
<https://purchasing.houstontx.gov/buyer/BidDocumentManager.aspx?id=N25846>

END OF SECTION

RESPONSIVENESS EVALUATION ASSESSMENT SOLICITATION NO.: S63-N25846
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Table "A"

**Submittal Responsiveness
Requirements Checklist**

Table "A" along with the following items listed below shall be submitted as part of your bid response.

<u>SUBMITTAL RESPONSIVENESS CHECKLIST</u>	<u>CHECK BOX</u>
A. Proposal for Furnishing Tertiary Filter System Equipment and Materials	<input type="checkbox"/>
B. Filter System Performance Guaranty	<input type="checkbox"/>
C. Certificate of Performance Bonds	<input type="checkbox"/>
D. Filter System Equipment and Material Warranty	<input type="checkbox"/>
E. Filter System Design and Technical Data Submittal	<input type="checkbox"/>
1. Certificate of Filter System Design in compliance with TCEQ Chapter 217 Design Criteria	<input type="checkbox"/>
2. Submittal of Filter System process description and technical data	<input type="checkbox"/>
3. Submittal of Filter System layout with section details	<input type="checkbox"/>
4. Submittal of Filter System performance data at specified flow rate	<input type="checkbox"/>
5. Submittal of Filter System Hydraulic Loading Capacities	<input type="checkbox"/>
6. Certification of Filter System hydraulic profile can fit within existing filter basins' hydraulic control levels	<input type="checkbox"/>
7. Submittal of Filter System Backwash and Bypass calculations	<input type="checkbox"/>
8. List of structure modifications	<input type="checkbox"/>
9. List of Equipment Scope of Supply	<input type="checkbox"/>
10. List of Exceptions	<input type="checkbox"/>
11. Filter System electrical wiring diagram and load data	<input type="checkbox"/>
12. Filter System process instrumentation diagram and control functions	<input type="checkbox"/>
13. Filter System Operation & Maintenance Information	<input type="checkbox"/>
14. Filter System delivery and installation schedule	<input type="checkbox"/>
15. Filter system parts and emergency services availability	<input type="checkbox"/>
16. References	<input type="checkbox"/>
F. Field Services	<input type="checkbox"/>
G. Filter System Installation Cost Estimate	<input type="checkbox"/>