



City of Tacoma

Questions and Answers No. 4

North End Treatment Plant Trickling Filter Upgrade RFB Specification No. ES25-0058F

All interested parties had the opportunity to submit questions in writing by email to Hailey Erichsen by January 30, 2026. The answers to the questions received are provided below and posted to the City's website at www.TacomaPurchasing.org; Navigate to [Current Contracting Opportunities / Public Works and Improvements Solicitations](#), and then click [Questions and Answers](#) for this Specification. This information IS NOT considered an addendum. Respondents should consider this information when submitting their proposals.

- 1. Question: In Attachment C of the Specifications, the HWA GeoSciences geotechnical report dated Nov 25, 2024, page 14 indicates minimum soldier pile spacing, embedment depth, and pile shear strength for global stability of the permanent soldier pile wall at the disinfection basin structure. Are these parameters required to be included in the design of the permanent shoring system?**

Answer: The pile embedment depth and pile shear strength assumptions noted on page 14 are the minimum parameters required to meet global stability of the proposed soldier pile wall (i.e., analyses only considered global stability). Final design should include an evaluation of the internal stability (including but not limited to bending, shear, buckling, embedment and fixity assumptions, deflection/rotation, connections, durability, and construction staging effects) of the shoring system, which may be the controlling case (rather than global stability). Deeper embedment depths and increased ultimate pile shear strength may be required per structural analyses and should be determined by the contractor's structural designer. Pile spacing should be a minimum of 6-ft-on center, and a maximum of 8-ft-on center. Pile spacing for final design should be determined by the contractor's structural designer.

- 2. Question: Keynote 15 on sheet M-4100-07 calls for the Air Vac valves to be installed per Specification Section 40 05 78.23. In Part 3.01 Installation, it calls for the valves to be installed with isolation valves as shown in the contract drawings, but the Plans do not show the isolation. They are also not shown in the P&IDs. Can you please provide a standard detail for these valves that include the isolation valve type, the material type for the nipples between the valves, and the connection type to the DI spools?**

Answer: Specification 40 05 78.23 provides the required details needed for installation. The statement ", as shown on the Contract Drawings." will be removed in Addendum No. 3.

- 3. Question: Regarding Section 40 05 59.23 Fabricated Slide Gates, Part 2.01A 1b lists Fontaine International Corporation, Orange Massachusetts. Due to various acquisitions and separations, we believe this should read "Fontaine Aquanox, Sherbrooke, Quebec" and "Rodney Hunt, Orange Massachusetts." Can this be updated?**

Answer: Yes, both Fontaine Aquanox and Rodney Hunt are acceptable slide gate manufacturers.

- 4. Question: VLV-4213A and VLV-4213C are shown on the P&IDs as knife gate valves, but no spec was provided for these. Please provide a spec.**

Answer: Knife gate valve specification to be provided via Addendum No. 3.



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- 5. Question: Sheet M-4100-04 calls for HDPE on the Foul Air (FA) line but the pipe schedule refers to Section 23 31 16 for this, which is Fiberglass Reinforced Plastic for ducting. Is there a schedule being added for the HDPE pipe or is this an error as the rest of the line is in FRP? If this portion of the FA line is intending to be HDPE, is there going to be an HDPE spec added to the bid documents?**

Answer: A portion of the FA line is HDPE as shown on the Drawings. HDPE Pipe specification to be provided via Addendum No. 3.

- 6. Question: The answer to question 29 in Q&A No. 2 calls for concrete facing. Please provide design details and requirements for this concrete wall.**

Answer: The WSDOT Detail 6-02.3(14)A referenced previously in Q&A No. 2 provides the concrete finish procedures. No additional detail will be provided.

- 7. Question: Part 1-01.C.1 of Section 31 41 00 states, "Soldier piling may be left in place at the Contractor's option, if approved by the Engineer." Can we leave temporary soldier pile walls in place?**

Answer: Temporary shoring may be left in place at the Contractor's option, subject to review and approval by the Engineer. Through submittal review procedures, the Engineer will review the proposed final geometry of the shoring system to confirm that long-term performance criteria are satisfied. Because temporary shoring systems are not typically designed as permanent retaining walls, the Engineer will evaluate the system for long-term stability and its ability to accommodate anticipated future loads. Additional considerations may include the long-term performance of timber lagging and potential impacts to future excavations or site modifications.

- 8. Question: Part 3.11.D and E of Section 31 23 00 discuss Lift Station 46, EPS, and piles, all of which don't apply to this project. Please clarify if we need to over-excavate maintenance holes and vaults, if not supported by piles.**

Answer: Overexcavations for proposed structures (new maintenance holes and vaults) may be required if debris, organics, soft soils, or otherwise unsuitable soils are encountered at the base of the foundations. Prepared subgrades should be observed by a qualified civil or geotechnical engineer who can check for unsuitable soils. Inapplicable project references will be removed in Addendum No. 3.

- 9. Question: Section 05 10 00 calls for the fabricator to be AISC certified. This significantly reduces the suppliers that can quote this project. In addition, the scope of this work on this project is very small. So, this small pool of certified fabricators will likely not bid this project. Can the AISC certification be removed?**

Answer: AISC fabricator shop certification will be removed from the specification section in Addendum No. 3. This is a reasonable request given the scope of metal fabrications on the project.

- 10. Question: Should keynote 4 on sheet G-0-14 be removed because of Schedule B?**

Answer: Yes, Keynote 4 will be removed on Drawing G-0-14 by Addendum No. 3.

- 11. Question: Q&A response #30 did not address the easement limits that may impact the tieback design lengths. Is there a limit to the horizontal extent of the tiebacks**



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behind the contractor-designed retaining walls (temporary and permanent)? For example, must they stay within the property line, or is there a permanent/temporary easement line that has been negotiated with adjacent property owner(s)?

Answer: Horizontal tiebacks shall stay within the property line. In the case that tieback lengths must extend past the property line, permanent and temporary easements must be negotiated between the City and adjacent owners.

12. Question: In project specifications Attachment C, the HWA GeoSciences geotechnical report dated Nov 25, 2024, page 14 indicates minimum soldier pile spacing, embedment depth, and pile shear strength for global stability of the permanent soldier pile wall at the Disinfection Basin structure. Are these parameters required to be included in the design of the permanent shoring system?

Answer: See response to Question 1.

13. Question: Please provide clarity on the insurance requirement below. What property exactly is this looking to cover?

3.13 Inland Marine (Cargo) Insurance: Contractor shall maintain Cargo Insurance. Coverage shall protect the property from all risk of injury, and coverage shall be in an amount of the full replacement cost of the property, with no coinsurance exposure. Any applicable deductible shall not exceed Five Thousand Dollars (\$5,000).

Answer: Inland Marine Insurance protects movable property and materials while they are being transported, stored, or installed at a job site. It provides coverage for City-owned property while in transit.

14. Question: In the conduit schedule please identify the following conduit runs that do not have associated wire runs:

- a. C-04-101, MCC-16215,4H to Solids Building South Wall.
- b. C-04-103, HH-01 to JB-04-101.
- c. C-50-141, MCC-16215, 2Gg to Solids Building South Wall.
- d. L-40-152, PCM-17435 to Admin Building West Wall.
- e. L-40-142, PCM-17435 to Admin Building West Wall.
- f. L-40-152, ZSCO-6711Y to Admin Building West Wall.
- g. L-40-162, PCM-17435 to Admin Building West Wall.
- h. P-03-110, XFMR-16311A to VCP-16311.
- i. P-03-113, PP-16312 to HH-03.
- j. P-04-102, DISC-4112F to Valve Vault Wall.
- k. P-04-112, DISC-4112G to Valve Vault Wall.

Answer:

- a. C-04-101, MCC-16215,4H to Solids Building South Wall.
 - i. Conduit "C-04-101" to be deleted on Sheet E-C-07 and Section 26 99 01 by Addendum No. 3.
- b. C-04-103, HH-01 to JB-04-101.
 - i. Conduit "C-04-103" to be deleted on Sheet E-C-14 and Section 26 99 01 by Addendum No. 3.
- c. C-50-141, MCC-16215, 2Gg to Solids Building South Wall.



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- i. Conduit "C-50-141" cable MSH4231/MCC162152L: to be relabeled "MSH4231/MCC162152G." Revisions to Section 26 99 01 will be provided by Addendum No. 3.
- d. L-40-152, PCM-17435 to Admin Building West Wall.
 - i. Section 26 99 01 Electrical Cable Schedule - Part 3 "AIT-6711B" to be revised to "AIT-6711S". Since there was already a network cable that was tagged "AIT6711S/PCM17435", "AIT6711B/PCM17435" was corrected to cable tag "AIT6711SC/PCM17435". Revised cable "AIT6711SC/PCM17435" must be pulled through conduits "L-40-151" and "L-40-152." Revisions to Sheet E-C-09, Sheet E-C-12, and Section 26 99 01 will be provided by Addendum No. 3.
- e. L-40-142, PCM-17435 to Admin Building West Wall.
 - i. Conduit callout for "L-40-142" to be added to cable schedule for cable "PMP6721/LP16418-15." Cable "PMP6721/LP16418-15" must be installed through both conduit "L-40-141" and conduit "L-40-142". Revisions to Section 26 99 01 will be provided by Addendum No. 3.
- f. L-40-152, ZSCO-6711Y to Admin Building West Wall.
 - i. Conduit "L-40-152" is addressed in Item c. response.
- g. L-40-162, PCM-17435 to Admin Building West Wall.
 - i. Conduit "L-40-162" is not in the electrical schedules.
- h. P-03-110, XFMR-16311A to VCP-16311.
 - i. Conduit "P-03-110" tag to be revised to "P-30-110" on Sheet E-C-12 and Section 26 99 01 by Addendum No. 3.
- i. P-03-113, PP-16312 to HH-03.
 - i. Conduit P-03-113 to be added to the conduits for cable "DISC4112G/PP16312-7", with revisions to Section 26 99 01 to be provided by Addendum No. 3.
- j. P-04-102, DISC-4112F to Valve Vault Wall.
 - i. Conduit P-04-102 to be added to the conduits for cable "VLV4112F/DISC4112F", with revisions to Section 26 99 01 to be provided by Addendum No. 3.
- k. P-04-112, DISC-4112G to Valve Vault Wall.
 - i. Conduit P-04-112 to be added to the conduits for cable "VLV4112G/DISC4112G", with revisions to Section 26 99 01 to be provided by Addendum No. 3.

15. Question: In the wire schedule please identify the following wire runs that do not have associated conduit runs in the conduit schedule or drawings:

- a. VCP16311/XFMR16211, XFMR-16311A to VCP-16311 cable schedule indicated conduit designation not on conduit schedule P-30-110
- b. PP16312/MCC162152A, MCC-16215A to PP-16312, branch P-50-012

Answer:



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- a. VCP16311/XFMR16211, XFMR-16311A to VCP-16311 cable schedule indicated conduit designation not on conduit schedule P-30-110
 - i. See Question #79.h response.
- b. PP16312/MCC162152A, MCC-16215A to PP-16312, branch P-50-012
 - i. Conduit tag "P-50-012" to be revised to "P-50-015" in Section 26 99 01 by Addendum No. 3.

16. Question: Please provide clarification on the following runs shown on the drawings but not the conduit or wire schedule:

- a. **L-03-102-page E-C-16**
- b. **L-03-135-page E-C-16**

Answer:

- a. L-03-102-page E-C-16
 - i. Conduit tag on Drawing E-C-16 to be deleted on Drawing E-C-16 by Addendum No. 3.
- b. L-03-135-page E-C-16
Conduit "L-03-135" does not appear on Drawing E-C-16 or any other sheet.

17. Question: On page E-C-16 there are (2) locations for the device ZSO-4213G. Are there really (2) devices with the same name? Please identify what the conduit and wire requirements are.

Answer: ZSO-4213G to be deleted on Sheet E-C-16 by Addendum No. 3.

18. Question: On drawings E-C-16 & E-C-17 there are a combined (3) 3/4", (6) 1", and (1) 2" conduits going underground to HH-03. DB-04-003 on page E-C-21 between HH-02 and HH-03 only shows (7) 1" and (1) 2". Please clarify intent.

Answer:

- a. On Drawings E-C-16 and E-C-17, there are a total of fifteen (15) conduits that are connected to handhole HH-03.
- b. Per the schedule in Section 26 99 01, these fifteen conduits are:
 - a. C-03-125
 - b. C-03-145
 - c. C-03-155
 - d. C-50-145
 - e. N-03-155
 - f. N-04-001
 - g. N-50-111
 - h. P-03-103
 - i. P-03-113
 - j. P-50-011
 - k. P-50-021
 - l. P-50-121
 - m. S-50-101
 - n. L-03-133



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- o. X-04-105
- c. Fourteen (14) of these conduits are 1" PVC-40 conduits encased in the concrete from HH-03 to their respective Trickling Filter 4112 load.
- d. One (1) of these conduits is a 1-1/2" PVC-40 conduit encased in the concrete from HH-03 to power panel PP-16312.
- e. Per the schedule in Section 26 99 01, ductbank DB-04-003 contains eight (8) conduits. These eight (8) conduits connect handhole HH-03 and handhole HH-02. These eight (8) conduits are:
 - a. C-03-124
 - b. L-03-132
 - c. N-03-154
 - d. N-04-002
 - e. N-04-022
 - f. P-03-102
 - g. S-50-102
 - h. X-04-105
- f. Revisions to Sheet E-C-17 and E-C-21 Section #3 to include conduits S-50-102 and X-04-105 will be provided by Addendum No. 3.

19. Question: On the conduit schedule there are (5) 2" conduits in the duct bank DB-04-001. There appears to be insufficient wire combinations to consolidate the following:

- a. **On the conduit schedule there are (2) 3/4" conduit, (10) 1" conduit, and (1) 1.5" conduit indicated to go to the "Solids Building South Wall".**
- b. **On the conduit schedule there are (4) 3/4" conduit, (2) 1" conduit, and (1) 2" conduit indicated to go from HH-01 to HH-02 West along the South retaining wall**
- c. **On the conduit schedule there are (3) 3/4" conduit, and (1) 1" conduit indicated to go from HH-01 to the Underdrain East along the South retaining wall.**
- d. **Please clarify intent.**

Answer:

- a. Drawing E-C-07 be revised to remove C-04-101 by Addendum No. 3.
 - i. Per the conduit schedule, Drawing E-C-07 and Drawing E-C-08, the Solids Building project scope includes:
 - i. Two (2) 3/4" conduits to "Solids Building South Wall"
 - ii. Seven (7) 1" conduits to "Solids Building South Wall"
 - iii. One (1) 1-1/2" conduit to "Solids Building South Wall"
- b. Drawing E-C-21 section #4 shows: Two (2) 3/4" conduits, Two (2) 1" conduits, and One (1) 2" conduit. Conduit schedule matches the conduit sizes and quantities. The conduits that connect HH-01 to HH-02 along the retaining wall are: C-03-123, N-03-153, P-03-100, S-50-103, and X-04-103. Revisions to Drawing E-C-21 section #4 will be provided by Addendum No. 3.



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- c. Per Question #14 response, conduit C-04-103 was removed from the conduit schedule, Drawing E-C-14 and standard detail E54001T. Revisions to conduit schedule, Drawing E-C-14 and standard detail E54001T will be provided by Addendum No. 3. The three conduits that connect handhole HH-01 to the underdrain system are C-04-113, P-04-002, X-04-103.
- d. The design intent is that cables from inside the Solids Building are installed in new conduits that penetrate through the Solids Building south wall. Then, as those cables travel south and leave the Solids Building, those same cables are combined into multiple conduits. These conduits are in ductbank DB-04-001. DB-04-001 connects to handhole HH-01. From handhole HH-01, some of the conduits run outside along the retaining wall towards handhole HH-02. The other conduits from handhole HH-01 run outside along the retaining wall towards the underdrain system.

20. Question: Refer to Specification Section 03 48 11 – Precast Concrete Structures.

Please confirm the following:

- a. **That application of two layers of minimum 10-mil polyethylene sheeting and adhesive per 3.04.C.4 is required.**
- b. **3.06 Testing**
 - i. **That groundwater test connection per 3.06.A.1 needs to be performed.**
 - ii. **If vacuum testing of manholes can be performed in lieu of hydrostatic testing described in 3.06B and 3.06C?**

Answer:

a. 3.04.C.4:

- a. Yes, two layers of minimum 10-mil polyethylene sheeting and adhesive are required due to variable groundwater conditions and potential soil contaminants.

b. 3.06:

- a. Yes, due to variable groundwater conditions, groundwater test connection needs to be performed.
- b. Vacuum testing can be performed in lieu of hydrostatic testing for paragraph 3.06B (less than 20 feet deep). Hydrostatic testing is required for paragraph 3.06C (20 feet deep and over).

21. Question: Reference detail D/S-4100-06. The extents of the 1'-2" thick pony wall are not clear. Please provide a plan view showing the extents.

Answer: The length of the pony wall on Detail D/S-4100-06 is the width of the 30" wide cap beam. Thus, the pony wall is 1'-2" thick, 2'-6" long, and 4.7' tall. As shown on S-4100-02, the pony wall is in line with the permanent shoring wall.

22. Question: Reference S-6700-01 near grids 1 and B. Reinforcing shown for the 30" thickened slab (#7 @ 6" T&B NORTH-SOUTH, and #6 @ 6" T&B EAST-WEST) orientation is not clearly defined. For example, on detail A/S-6700-04 the longitudinal reinforcing would be #6 and transverse would be #7. However then on detail A/S-6700-03 the longitudinal would be #7 and transverse would be #6. While we can provide the reinforcing this way it seems odd to switch the orientation. Also, the



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transition from the top reinforcing to the 18" slab reinforcing is not clearly provided. Please provide the reinforcing callouts and transition definitions to details A/S-6700-03 and A/S-6700-04.

Answer: The reinforcing does not switch orientation. The two sections cuts are perpendicular to one another. The outer bars are #7's running North-South and the inner bars are #6's running East-West throughout the entire slab. This is consistent between the two sections. At the 18" thick slab transition, provide a lap splice at the top bars and extend the bottom bar from the 12" thick slab a development length past the Z bar from the thickened slab.

23. Question: Reference S-6700-01. At details A/S-6700-03 and A/S-6700-04, multiple callouts for the wall horizontal reinforcing show size and/or spacing change at corners. Also, all inside face wall corners are shown with a 1'-0" x 1'-0" fillet, and in 2 locations a outside face transition from 30" wall to 24" wall is shown. Please provide details to define reinforcing extents at corners and show reinforcing requirements at fillet and thickness transitions.

Answer: Addendum No. 3 will include wall thickened corner details plan on Drawing S-6700-01 and associated detail to Drawing S-6700-03. See response to question 48 - Wall thickness transitions have been removed.

24. Question: For the north end treatment plant trickling filter upgrade, is the electrical contractor responsible for supplying VFD-4211 or will it be supplied by the contractor supplying/installing the pump it controls?

Answer: The electrical contractor is responsible for supplying the VFD, per Part 2.01 of Sections 26 05 00 and 26 29 23.

25. Question: Answer to question #24 in Q&A #3 states, "There are no drawings available for the cylinder pile shoring wall". We cannot bid something with no information. If drawings do not exist, please tell us what to assume for our bid. What diameter are the piles? Are they reinforced? What PSI concrete?

Answer: Refer to Drawing D-0-03, Key Note 10. Key Note 10 will be revised in Addendum No. 3 to read "Remove existing shoring wall. Wall and piles shall be removed to above elevation 8.75. Piles below 8.75 may be abandoned in place. See 1989 North End Wastewater Treatment Plant Chlorine Contact Basin Expansion Drawings in Schedule A, Volume 6, Attachment I for any available existing shoring wall information."

26. Question: Answer to question #16 in Q&A #3 states, the Contractor is responsible for removing the sludge and cleaning the tank. Please advise how much sludge is to be removed. What percent solids is the sludge?

Answer: The City will draw down the tank and remove the sludge to a side wall depth of approximately 2 ft. The Contractor will be responsible for removing the remainder of the sludge and cleaning the tank. Assume 5% total solids for the sludge. These requirements will be clarified by Addendum No. 3.

27. Question: Answer to question #19 in Q&A #3 states this work will be paid for in Bid Item 6 – Allowance for Concrete Repairs. The question references coatings. Please clarify that coatings should be paid for in bid item 6 allowance for concrete repairs.



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Furthermore, Section 01 11 00 1.02.C.7 for bid item 7 states, “This force account shall be used for work beyond what is shown on Drawing M-4000-06 for repairs and coating...” The drawing was corrected to M-4000-01 which shows coatings in various keynotes. Is the coating on M-4000-06 inside the solids tank to be part of the base bid or be paid for under bid item 6, or bid item 7?

Answer: The answer to question #19 in Q&A No. 3 was incorrect. The coating of the inside of the solids holding tank shall be paid for under Bid Item 1 – Trickling Filter Upgrade and not Bid Item 6 - Allowance for Concrete Repairs or Bid Item 7 - Allowance for Additional Sludge Holding Tank Cover Repairs and Coating.

28. Question: Is removal of sludge in the solids holding tank to be paid under bid item 7 allowance?

Answer: This work shall be paid for under Bid Item 5 – Solids Holding Tank Bypassing.

29. Question: Bid Items 3, 6, 7 are allowance bid items. Please confirm the markups that are to be applied to direct costs for payment of these bid items.

Answer: The Specifications will be revised in Addendum No. 3 to define the markups for the force account allowances.

30. Question: Are there specific constraints for replacing the sludge pumps in the Chemical Building other than only replacing one at a time?

Answer: No.

31. Question: Plan Note 5 on sheet PMP-M03 describes a hydrostatic pressure test on the spools. There is only one spool per assembly so I am not sure what this test will show. Would the City consider a visual test while running the pump to confirm all joints are leak free?

Answer: The Contractor shall bid per the Plans and Specifications.

32. Question: Where can I find the geotechnical reports in the Contract Documents?

Answer: Geotechnical Reports are found in Volume 6 – Attachments B through E.

33. Question: Schedule A includes several force-account allowances (Items 3, 6, and 7). Please confirm:

- a) How labor, equipment, and material rates will be established and approved;
- b) Whether markups are capped;
- c) Whether time impacts associated with allowance work are eligible for schedule relief.

Answer: The Specifications will be revised in Addendum No. 3 to define the markups for the force account allowances.

34. Question: Contaminated Soil Handling Compensation

Q&A No. 3 indicates the City will pay landfill tipping fees for up to 6,000 tons of contaminated soil. Please confirm whether excavation, segregation, handling, testing, manifesting, trucking, stockpiling, standby time, and schedule impacts associated



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with contaminated soils will also be paid by change order. If not, please identify the bid item under which this work is compensated.

Answer: All costs associated with handling contaminated soils, other than landfill tipping fees, shall be paid for under Bid Item 1.

35. Question: Existing Shoring Wall Conditions

Given that limited as-built information exists for the cylinder pile shoring wall near the disinfection contact basin, please confirm that differing site conditions provisions will apply should subsurface geometry, embedment depth, or obstructions differ materially from what is reasonably inferred from the contract documents.

Answer: See answer to question 108.

36. Question: Solids Holding Tank Bypass Duration

Bid Item 5 includes an eight-week allowance for bypass operations. Please confirm that this represents the maximum compensable duration and that additional time required due to unforeseen repairs, contamination, or Owner inspection will be paid by change order.

Answer: Yes, it shall be assumed that the 8-week duration is the maximum and additional time will be paid for by change order, provided that the Contractor shows that repairs cannot be reasonably accomplished in the time allotted under the conditions presented. This determination will be made following specified investigations and prior to the Work.

37. Question: Equity in Contracting (EIC) vs. Self-Perform Requirements

Given the EIC utilization targets and the requirement for the prime contractor to self-perform at least 50 percent of the work, please clarify whether the City will review bidder-submitted utilization plans prior to bid opening to determine feasibility and responsiveness.

Answer: Bids are reviewed after bid opening, and EIC staff are responsible for reviewing the EIC Utilization Plan portion of each submittal.

38. Question: Governing Geotechnical and Global Stability Criteria

Please identify the geotechnical reports, global stability analyses, and subsurface design parameters that shall govern the contractor-designed walls, including:

- a) Required factors of safety for global and internal stability (temporary and permanent);**
- b) Seismic design coefficients and load cases;**
- c) Design groundwater elevations;**
- d) Allowable wall movements or deformation tolerances; and**
- e) Any required global slope stability models or analyses prepared by the Owner.**

Answer:

- a) Required factors of safety for global and internal stability (temporary and permanent);

See Geotechnical Report Section 4.7 (HWA, 2024) regarding factors of safety for global stability analyses; the global stability analyses were completed for proposed permanent retaining walls.



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Permanent soldier pile walls (with or without tiebacks) should be designed by the Contractor's EOR in accordance with Specification 31 41 00. The Contractor's EOR shall review, interpret, and apply the information provided in the Geotechnical Report as appropriate for the selected wall system.

As noted in Specification 31 41 00, the Contractor shall assign design of the permanent shoring wall system to an experienced Professional Engineer registered in the State of Washington, and shall include the following:

- Structural design of the shoring system, including all wall elements, bracing, anchors, and connections, to resist all applicable loadings identified in the contract documents
- Internal stability of all structural elements and connections
- External stability of the shoring system evaluated using soil parameters and design criteria provided in the Geotechnical Report.
- Serviceability and constructability for both temporary and permanent conditions
- Tieback and anchorage design in accordance with contract document requirements and FHWA Circular No. 4 Ground Anchors and Anchored Systems
- Seismic earth pressures and drainage provisions as specified in the Geotechnical Report

The shoring design shall comply with the minimum factors of safety (FS) specified in the Geotechnical Report and applicable codes, including but not limited to:

- Global stability (permanent static condition): $FS \geq 1.5$
- Global stability (permanent pseudo-static condition): $FS \geq 1.1$
- Global stability (temporary condition): $FS \geq 1.3$
- Internal stability (structural elements, connections, load transfers, etc.) per applicable structural codes

b) Seismic design coefficients and load cases;

Per Section 31 41 00 1.02A, design shall account for all loadings, including loads from the adjacent existing hillside. Seismic design coefficients are presented on Drawing No. S-0-02 (Sheet 59 of 182) of the general structural notes. The contractor's design should consider these load cases, at a minimum:

- Temporary excavation and staged construction
- Permanent earth pressure conditions (see Figures 4A and 4B in the Geotechnical Report)
- Tieback lock-off, long-term loads, and creep effects.
- Seismic load combinations required by the 2021 IBC.

Additional design criteria are presented on Drawing No. S-0-02 (Sheet 59 of 182).

c) Design groundwater elevations;



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Groundwater conditions are presented in Section 3.4 of the geotechnical report and in the Aquifer Data Memorandum (dated December 1, 2025).

d) Allowable wall movements or deformation tolerances; and

Typical serviceability limits are provided in the Geotechnical Report:

- Section 4.5.1 – lateral deformation requirements
- Figures 4A and 4B note c – displacement assumptions

e) Any required global slope stability models or analyses prepared by the Owner.

See Geotechnical Report Section 4.7 regarding factors of safety for global stability analyses.

39. Question: Please confirm the specific performance criteria that the contractor designed walls must satisfy (e.g., serviceability limits, structural design codes, seismic criteria, durability requirements, design life).

Answer: The governing building code for the project is the 2021 IBC, as amended by Washington state and the City of Tacoma per General Note D1 on Drawing S-0-02. Per Part 1.02.A of Section 31 41 00, the Contractor designed shoring walls shall follow the design criteria and requirements of the Geotechnical Report. As noted in this section, the permanent shoring walls must be designed for the seismic earth pressures, whereas temporary shoring walls do not.

**40. Question: Tieback Anchors – Easements and Property Rights
Please provide property line drawings, easement exhibits, and subsurface rights information in areas where tiebacks or soil nails may be required.**

Additionally, please confirm:

- a) Whether tiebacks are permitted beyond City-owned property limits;**
- b) Any restrictions on anchor lengths or orientations; and**
- c) Required offsets from existing utilities or structures.**

Answer:

- a. Horizontal tiebacks shall stay within the property line. In the case that tieback lengths must extend past the property line, a permanent/temporary easement must be negotiated between the City and adjacent owners.
- b. See section 4.5.3 of the Geotechnical report. It is possible that tiebacks may extend beyond the City's right-of-way. Tiebacks should be positioned to avoid hitting any pipes or other utilities. The City should review tieback extents and potential ROW impacts.
- c. A minimum of 3 feet of horizontal clearance is required between any existing utility and a proposed tieback. If there are crossings, existing utilities are to be field verified to ensure there is no conflict.

41. Question: Utility Clearance and Anchor Conflicts

Please provide utility plans or clearance envelopes applicable to anchor installation corridors so that tieback feasibility can be evaluated during bidding.



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Answer: A minimum of 3 feet of horizontal clearance is required between any existing utility and a proposed tieback. If there are crossings, existing utilities are to be field verified to ensure there is no conflict.

42. Question: Dewatering and Groundwater Control Assumptions

Please identify the assumed groundwater elevations and required dewatering criteria used for design of the permanent walls, and clarify whether groundwater control measures beyond those implied in the drawings would be considered compensable if encountered.

Answer: Groundwater elevations presented in the Geotechnical Report and Aquifer Data Report are based on subsurface exploration data and observed groundwater conditions at the time of field explorations. Permanent wall design assumes that the wall is fully drained (i.e., no water behind the wall). If the wall is not fully drained, the contractor should include hydrostatic pressures in design.

43. Question: Limits of Contractor Risk for Global Stability

Please clarify whether the Contractor is expected to assume full global stability risk for adjacent slopes and existing facilities, or whether baseline conditions provided by the Owner will control and differing site conditions relief will apply if materially different conditions are encountered.

Answer: Refer to Part 5.10 of the General Conditions for Washington State Facility Construction and Supplemental Conditions as Modified by the City of Tacoma for information regarding differing site conditions.

44. Question: Permanent Wall Geometry and Quantities

Please confirm that all required permanent wall limits, top-of-wall and bottom-of-wall elevations, facing extents, and embedment requirements are fully depicted in the Contract Drawings. If not, please identify where this information is provided or will be issued by addendum.

Answer: Confirmed that permanent wall limits, elevations, and required details, including for the permanent south retaining wall, are provided in the Contract Drawings. Wall heights and horizontal controls for wall face locations for shoring walls are depicted on Contract Drawings, additional details to be provided by Contractor per Section 31 41 00.

45. Question: Design Review and Approval Process

Please clarify the design submittal and review process for the contractor-designed walls, including:

a) Whether Owner or Engineer review constitutes approval for compliance only or transfers any design responsibility; and

b) Anticipated review durations and number of review cycles included in the contract.

Answer:

a. Per general note SDS 1 on Drawing S-0-03, the shoring walls are a deferred submittal requiring submission of calculations and drawings sealed by a professional engineer licensed in the state of Washington. The submittal requirements for the Contractor designed walls are outlined in Part 1.03 of Section 31 41 00. The Owner's Consultant will review



Questions and Answers No. 4

submittals as outlined for compliance, only as Engineer of Record for the project. However, the sealing Engineer is responsible for their wall design.

b. Submittal review duration is anticipated to be 10 working days by the Engineer. Number of review cycles will be contingent on the completeness of the material submitted by the Contractor.

46. Question: Compensation for Design Revisions

If wall layouts, systems, or anchor schemes must change due to restrictions on tiebacks, subsurface conditions, or utility conflicts not identified in the bidding documents, please confirm such revisions would be treated as compensable changes.

Answer: Yes, design revisions due to subsurface conditions not represented in the Geotechnical Reports and drawings. Unidentified and inaccurate utilities, and undue restrictions on tiebacks not previously indicated or reasonable and customary, will be paid for by change order.

47. Question: The EIC Instructions reference both “non-responsible” and “non-responsive” treatment in connection with EIC compliance. Please confirm whether failure to meet the stated EIC participation requirements results in a bid being deemed non-responsive rather than non-responsible.

Answer: Failure to fully complete and submit the EIC Utilization Form in accordance with the solicitation requirements may result in a bid being deemed non-responsive. If a bidder submits a complete EIC Utilization Form but the proposed participation does not sufficiently demonstrate the bidder’s ability to meet the EIC participation requirements, the bid may be deemed non-responsible.

48. Question: What is the detail for the wall connections to existing at the Disinfection Contact Basin?

Answer: Wall connection revisions and details for dowels between the new and existing wall will be added by Addendum No. 3.

49. Question: The 2024 geotechnical reports in Specifications Volume 6 Attachments C and D provide recommended seismic increment earth pressures that are significantly higher than we typically see, which are usually on the order of 9H. Please confirm that these pressures are appropriate for Allowable Stress Design calculations for design of the permanent soldier pile walls.

Answer: Seismic increments were obtained using the limit equilibrium method for sloping backfill conditions and the Mononobe-Okabe method for level backslope conditions. The seismic increment earth pressures provided in Figures 4A and 4B of the Geotechnical Report range between 14H and 115H; this range accounts for variable backslope conditions and wall displacement tolerances, as noted in the notes on the figures.

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Sign-In Sheet – Pre-Bid Meeting

December 19, 2025

Name	Organization	Email
Jordan Ennis, Project Manager	City of Tacoma	jennis@tacoma.gov
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JOEY CONDON	COT	

ES25-0058F – NETP Trickling Filter Upgrade

Pre-Bid Meeting | Sign-In Sheet

January 6, 2026

Name	Organization	Email
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