PORTAGE COVE HARBOR EXPANSION

RESPONSES TO BIDDER QUESTIONS – SEPTEMBER 28, 2016

1. Contract Documents and Specifications make several references to CBJ, including CBJ Inspection and Lemon Creek Gravel Pit. Please clarify.
   Response: See Addendum No. 2, Item No. 4.

2. Reference is made to drawing 1.06 (Sheet 6 of 32). The Demolition and Salvage Summary Table indicates removal of timber piles and a timber retaining wall is associated with Alternate A. Please clarify which bid item this work would be paid under.
   Response: See Addendum No. 2, Item No. 3.

3. Reference is made to drawings 1.07 (Sheet 7 of 32) and 3.02 (Sheet 12 of 32).

   - Cross Section B-3.01 shows a box cut along the transient float for the Base Bid Dredging if the Alternate A dredging is not awarded.
   - Note 2 on Drawing 1.07 indicates temporary relocation of the transient float during Alternate A dredging is optional.
   - Please clarify whether dredging directly beneath the transient float is required, or if a box cut is allowable along the north side of the float.

   Response: Dredging is required directly beneath the Transient Float under Additive Alternate A. See Typical Section B/3.01 found on Sheet 3.02.

4. Reference is made to drawing 3.01 (Sheet 11 of 32). The Armor Rock slope appears to be shown on the slope of Alternate C dredging. Please verify the armor would move should Alternate C not be awarded.
   Response: See Addendum No. 2, Item No. 23.

5. Reference is made to drawing 4.01 (Sheet 14 of 32). Most of the points identified in the Layout Tables are not shown on drawing 4.02 (Sheet 15 of 32). Please add.
   Response: See Addendum No. 2, Item No. 24.

6. Reference is made to drawing 4.02 (Sheet 15 of 32). Please provide radii for curves shown on grading plan.
   Response: See Addendum No. 2, Item No. 24.

7. Reference is made to drawing 5.02 (Sheet 19 of 32). Plan showing rock removal and replacement indicates several changes in elevation of removal (+21', +10', and -3'). Please provide coordinates of these break points.
   Response: See Addendum No. 2, Item No. 27.

8. Reference is made to drawing 5.06 (Sheet 23 of 32). Please provide width of top of rubble mound breakwater.
   Response: See Addendum No. 2, Item No. 28.

9. Reference is made to drawing 2.02 (Sheet 9 of 32). The Type I and Type II Concrete Pipe Anchor do not show an outside radius dimension. Please provide.
   Response: Sufficient dimensions are shown on Sheet 2.02 to determine outside radius.

10. Reference is made to drawing Bid Item 2896.8 – PDA Testing Assistance and its corresponding Measurement and Payment Section 01025.2.38. The bid item unit of measure is Each and the unit of measure in the Measurement and Payment section for this item is in Hours. Please clarify.
    Response: See Addendum No. 2, Item No. 3.

11. Reference is made to the Measurement and Payment specification section 01025.2.30 – Dredging and Disposal. Measurement is based on material within the harbor dredge limits. Drawing 3.02 (Sheet 11 of 32) includes a bold line which identifies a LIMIT OF DREDGE BASIN which does not encompass the dredge slopes. Please confirm material on the dredge slopes is included in quantities measured for payment.
    Response: See Addendum No. 2, Item No. 7.

12. Some of the metal fabricators in the Seattle area are WABO (Washington Association of Building Officials) certified instead of AWS certified. However, WABO guidelines are virtually identical to AWS guidelines in their standards and certification process. Could you change spec section 1.4.E-Welding Standards of the Metal Fabrication section (05120) to allow for WABO certification as well as AWS certification?
    Response: See Addendum No. 2, Item No. 18.

13. Referencing specification section 01025, part 2.11, 2.12 and 2.13. Paragraph B of part 2.11 states that payment is for ALL work described in section 02207. The work described in section 02207 – USACE Rubble Mound Breakwater includes the furnish and placement of the type I and type II armor rock. The type I and II armor rock is also measured and paid in section 01025, part 2.12 and 2.13. Please clarify.
    Response: Work under 01025 Part 2.11 is described under 02207 Article 3.2. It includes removing and restoring existing rock on the breakwater to facilitate and in preparation for the installation of new piles and replacement armor rock material. Work under 01025 Parts 2.12 and 2.13 includes providing Breakwater Armor Rock Type 1 and Type 2 materials to new lines and grades at unit prices per CY.

14. Referencing the Bid Item 2896.4. Is the bid quantity of 38 each correct. It appears this quantity includes the installation of the 30" diameter pile with Spin Fins. The Spin Fin pile installation is covered in Bid Item 2896.7. Please clarify.
    Response: Bid Item 2896.4 is correct at 38 EA. Regarding Bid Item 2896.7 - see Addendum No. 2, Items No. 3 and 7. Bid Item 2896.7 covers providing SPIN FIN™ Pile Tips measured per EA.

15. Is there an estimated quantity for the required cubic yardage for the Upland Dredge Disposal Area?
    Response: See Note on Drawing Sheet 4.03.

    Is there an estimated quantity for the Dredge Area C in Alternate A?
    Is there an estimated quantity for the Dredge Area D in Alternate A?
    If quantities are not estimated for these areas, may the CAD files for the project be posted so the contractor can determine the required quantities for these areas?
    Response: See Addendum No. 2, Item No. 23 and Informational Items 4 and 5.

16. Section 02401 3.5 HDPE Outfall Testing – Paragraph J - "The hydrostatic test pressure shall be 100 psi unless otherwise directed by the ENGINEER." Are the Type I and Type II concrete pipe anchors designed to withstand the 100 psi hydrostatic test if they are installed prior to the testing?
    Response: The Type I and Type II Concrete Anchor assemblies are designed to withstand the 100 psi hydrostatic test if they are installed prior to testing. See also Addendum No. 2, Item 21.

17. Section 02401 3.5 HDPE Outfall Testing - Paragraph D - "Sections to be tested shall be limited to 1,500 feet, unless otherwise approved in writing by the ENGINEER." Paragraph 2 – "A maximum of

3 butt-fused joints shall be allowed to be visually inspected with no hydrostatic test."

The HDPE pipe length is greater than 1,500 feet and the above specification section would imply that multiple segments of pipe would be tested and joined using butt fusion. This joint is allowed to be visually inspected without hydrostatic testing and inherently creates a weak point in the pipe. Please clarify.
Response: See Addendum No. 2, Item 14.

18. We are assuming that the sheet piles are fully galvanized. Please confirm.
Response: See Addendum No. 2, Item 17.

19. In regards to the hydrographic surveys, please confirm if the dredge progress surveys can be carried out by the contractor.
Response: See Addendum No. 2, Item 15.

20. After discussing the anodes specifications with suppliers, it seems that the strap sizes called out would be more than sufficient enough to fasten to the pipe piles. They suggest decreasing the strap size from ½" x 4" to ½" x 3". Would this change in strap size be acceptable?
Response: See Addendum No. 2, Item 31.

21. We are assuming that the contractor furnished pile on drawing 1.07 will be fully galvanized. Please confirm.
Response: All Steel Pipe Piles shall be hot-dip galvanized per Section 02896, Article 2.2.B.

22. Question on the PS31 wave barrier. Are all the PS 31 HD Galvanized after getting welded to the 24" OD x 500"?
Response: Yes, per Section 05120 Article 2.2.A and Addendum No. 2, Item 17.

23. Galvanizers in the Pacific Northwest are having difficulties dipping the 24" OD x .500" wall pipe with the two sheets welded to each side. The galvanizers do not have the capability to double dip the pipe with the sheets attached because of the 65" width of the fabricated piece. The galvanizers said that they could single dip the whole assembly if the sheet piles were shortened from 44' to 42'. Is this an acceptable change?
Response: Due to required wave barrier design and performance criteria, the sheet pile lengths shall remain as shown on the Plans.

24. BH 6/11 – B 6/9/10/11 – TP 6/7/8/9/10 are test pits and boreholes taken from the general area A. We are reviewing the Consolidation Reports identifying the moisture contents, Volume of Voids vs Solids, etc. at various depths, and would appreciate some interpretation: I couldn't find the consolidation Reports for BH6 and BH11 – the Particle Size analysis is noted for BH6 & 11 identifies the moisture content which may be helpful. B6/9/10/11 have particle size analysis without the Consolidation Report. What we are after other than the volume of dredging for A is what one would expect for either expansion or consolidation from the dredged material to the upland disposal area. Do you have a feel for what 1 yard of typical dredged material would equate to after 30 days of settlement/dewatering?
Response: Table 2-1 of the Geotechnical Report provides the entirety of the consolidation information available and that testing was performed on clayey materials. Expansion and consolidation of granular materials will depend on the Contractor's chosen methods of dredging and disposal placement and the volume of water delivered to the disposal site. The CONTRACTOR shall perform his own estimates based on his means and methods for accomplishing the Work.

25. USACE Permit dated May 24, 2016 identifies the Breakwater Armor Rock requirements. Is PND aware of any local rock that has been tested meeting the requirements?

Example: Part k tests, paragraphs # 1-8 (permit)
In particular paragraph #3 – Petrographic Examination – We have no time to perform this test prior to bid date. All approved laboratories (note para. 8) are located in Anchorage and we don't feel we have the time for all tests to be complete prior to bid date. Also, we need the Contracting Officer's designee to observe and agree to the selection of rock samples for testing. This seems problematic. Is PND aware of any sources in SE Alaska or the Northwest we could call on to get assurance we meet the specification and allow us to budget prior to bid date?
Response: It is the CONTRACTOR's responsibility to find a suitable material source meeting the project specifications.

26. Section 02207 – USACE rubble mound Breakwater Part 2-Products, para I. suggests there may be an approved local source (last sentence which is an add-on to the permit). Also, paragraph J & K suggests there may be flexibility in the specification, however not necessarily providing confidence a local source will be accepted appreciating the fact that the existing breakwater was developed from local sources. Is it the intent to approve a local source for this material, provided the contractor performs due-diligence?
Response: It is the CONTRACTOR's responsibility to find a suitable material source meeting the project specifications.

27. Section 2202 Part 2 Products-Paragraph 2.3 & 2.4 identifies Class A/B rock as shot rock blasted quarry rock. We have a talus source which is hard, angular and a percentage of wear substantially above the quality of the quarry rock from our quarry. It is difficult to distinguish from shot rock. Also, due to the processing requirement, and natural size, a larger % will have a fresh cut due to the processing requirement (Class A is a 4" minus). Will this rock be acceptable?
Response: See Addendum No. 2, Item 10.

28. A) PDA Testing Assistance (Bid Item 2896.8) is listed on the bid form as 6 EA, but Section 01025 states that time for assisting the Owner with PDA testing will be measured and paid by the hour. Please clarify which units are correct for bidding.
B) If the correct bid units are per each, please specify the duration of assistance the Contractor should include as the basis of his bid at each location.
Response: See Addendum No. 2, Item No. 3.

29. Are there as-built drawings available for the existing wastewater outfall? If not, can any additional information be provided regarding details of the cover over the pipe? Existing anchor types, sizes, spacings?
Response: See Addendum No. 2, Informational Item 2.

30. "Supply Lengths" for the Barrier Piles tabulated in the Pile Schedule (sheets 5.07 & 5.08) appear to be "neat" lengths (e.g. Pile #1 cutoff elev = 25' minus tip elev = -55' = 80'), but the typical pile detail on drawing sheet 5.09 shows 1'-0" max cutoff allowance. Please clarify if the "supply lengths" given include additional pile length for cutoff at finished elevation.
Response: Supply lengths for the barrier piles do not include additional cutoff length. See Addendum No. 2, Item 29.

31. Regarding the Owner furnished 12.75" dia. pile piles and associated splices, the bid form (item 2896.9) lists a quantity of 8 EA splices. However, reviewing the table on drawings 1.07, the total for column #6 is 7 each splices while the tabulated list of pile sections seems to indicate that 9 each field splices will be required. Please clarify the quantity of field splices for the Owner furnished pile sections.
Response: See Addendum No. 2, Item No. 3.

32. Reference Specification Section 02896 Part 3.2 (B) - This section requires the Contractor to perform "drivability analysis" and submit results to the Engineer for review and acceptance. Please clarify the

type or minimum level of preliminary analysis that will be acceptable to be performed by the Contractor prior to beginning pile driving (e.g. WEAP or similar?). Also, please specify the type(s)/size(s) of piles that require drivability analysis.
Response: The drivability analysis shall be performed as part of the submittal process and prior to mobilizing the pile driving equipment. Wave Equation Analysis of Pile Drivability (WEAP or similar) shall be acceptable. Analyses shall be performed for all types and sizes of piles that will be driven as part of this project. See Addendum No. 2, Item 17.

33. On Drawing No 3.01 (Sheet 11 of 32), the Dredge Summary Table near the top right of the page does not include information regarding Additive Alternate C dredging.
    a. Is Additive Alternate C dredging included in the area designated as Dredge Area A, with a required dredge elevation of -15 ft-MLLW?
       Response: Yes. See Addendum No. 2, Item 23.
    b. Where is the Contractor to dispose of Additive Alternate C dredge material?
       Response: Same as Area A Designation. See Addendum No. 2, Item 23.

34. On Drawing No 3.01 (Sheet 11 of 32), there is a line that extends south from the structure labeled Approach Dock. This line indicates Base Bid Dredging to the east and Add Alt A Dredging to the west. Please clarify what this line is intended to define?
    Response: See Addendum No. 2, Item 23.

35. On Drawing No 3.01 (Sheet 11 of 32), it is unclear what portion of the Class II Armor Rock installation will be completed as part of the Base Bid work and what portion of Class II Armor Rock installation will be completed as part of the Additive Alternate C work. Is the Class II Armor Rock installation along the south side of the Additive Alternate C dredge area required only if Additive Alternate C *is* awarded, or will Class II Armor Rock installation be extended to the south side of the Base Bid dredging area if Additive Alternate C *is not* awarded?
    Response: See Addendum No. 2, Item 23.

36. On Drawing No 3.01 (Sheet 11 of 32), a Soil Demarcation Line indicates that "soils to south side are typically cleaner & suitable for upland contained disposal." Further, 3.3 A of Section 02881 – Dredging and Disposal states "Dredge material for disposal within the containment dike shall consist primarily of sand originating from designated Dredge Area A as shown on the Plans. Only dredged sand, silty sand and gravel materials shall be considered suitable to be placed within the containment dike disposal area… The Contractor shall sort dredged material as required for placement prior to disposing material within the containment dike". Is it anticipated that all material in Dredge Area A will be suitable for the upland dredge material disposal area, or should the Contractor expect that sorting will be required?
    Response: See Addendum No. 2, Items 16 and 23.

37. Have topographic and bathymetric surveys of the project area been conducted more recently than the May 2013 surveys shown in the Plans?
    Response: No.

38. Is the most recent survey data available to potential bidders in XYZ format?
    Response: See Addendum No. 2, Informational Items 4 and 5

39. Bid Item 2881.1 – Dredging and Disposal includes the total quantity of dredging for the Base Bid. Obviously this total quantity includes the portions of dredged materials designated for both uplands and offshore disposal. Depending on the Contractor's equipment and approach to the dredging work, the unit costs for upland disposal versus offshore disposal may be quite different. Can the Bid Form be modified to include an additional bid item so that the dredging for offshore disposal and uplands disposal are separate items? This would facilitate more balanced and accurate pricing.

Response: Measurement is per cubic yard in the basin area as outlined in Section 01025 and it would be difficult to differentiate between uplands and offshore disposal, therefore a preliminary estimate of upland disposal quantity has been provided on Drawing Sheet 4.03 for bidding purposes. CONTRACTOR shall verify the quantity provided prior to bid.

40. The last bullet of item 11 on Bid Page 00300-02 states "One executed copy of each subcontract for WORK that exceeds one-half of one percent of the intended contract award amount" will be required within ten days after the date stated in the "Notice of Intent to Award" letter. It is unclear to us what is meant and/or intended by this requirement? The successful Bidder cannot provide executed subcontracts prior to having a fully executed prime contract with the Owner. Further, requiring fully executed subcontracts, even after having fully executed prime contract, within 10 days is unrealistic and would be virtually impossible to comply with. Is it possible to remove this item from the post-bid requirements?
Response: See Addendum No. 2, Item 2.

41. Regarding disputes, General Conditions 9.8, Page 00700-27. Will the Owner consider adding a mediation and/or arbitration clause? We suggest the following (or similar) language:

    Mediation Clause
    If the parties elect to adopt mediation as part of their contractual dispute settlement procedure, the following medication clause can be inserted into the contract in conjunction with a standard arbitration provision.

    If a dispute arises out of or relates to this contract, or the breach thereof, and if the dispute cannot be settled through negotiation, the parties agree first to try in good faith to settle the dispute by mediation administered by the American Arbitration Association under its Construction Industry Mediation Procedures before resorting to arbitration, litigation, or some other dispute resolution procedure.

    Arbitration Clause

    The parties can provide for arbitration of future disputes by inserting the following clause into their contracts:

    Any controversy or claim arising out of or related to this contract, or the breach thereof, shall be settled by arbitration administered by the American Arbitration Association under its Construction Industry Arbitration Rules, and judgment on the award rendered by the arbitrator(s) may be entered in any court having jurisdiction thereof.

    Source: American Arbitration Association, Arbitration Rules & Mediation Procedure.
    Rules amended and effective 10/01/09. Available on line at www.adr.org/construction

    Response: See Addendum No. 2, Item 5.

42. Regarding responsibility for pollution, the specifications allow that if the Contractor encounters hazardous material, it may be handled as a Differing Site Condition. However, there is nothing stating that the Owner takes responsibility for pre-existing pollution or hazardous material. Will the Owner consider adding the following (or similar) language?
    Disposal of Waste Materials
    A. Waste material is defined as all material from demolition, excavation, dredging, or other source that is unsuitable to, or in excess of the needs of the work, or material that is designated for removal and disposal off of Owner property. All waste materials shall become the property of the Contractor, with the exception of materials containing substances classified as hazardous, potentially hazardous, infectious, toxic or dangerous under applicable Local, State

and/or Federal regulations which shall be handled and disposed of as directed by applicable regulations and/or the Contract Documents.

B. Hazardous, potentially hazardous, infectious, toxic or dangerous materials shall be disposed of in strict compliance with all regulations and the Contract Documents and as directed by the Owner.

C. The Contractor is solely responsible for the lawful managing and disposal of waste material and shall indemnify, defend and hold the Owner harmless from all liability, damages, Claims, lawsuits, penalties and expenses, whether direct, indirect or consequential (including but not limited to attorney's and consultant's fees and other expenses of litigation or arbitration) arising from or in any way connected with, the demolition, excavation, removal or disposal of materials, except as specified for hazardous materials.

D. The value of waste materials, if any, shall be reflected in the total Contract Price.

E. Should the Contractor, during the course of the Work, encounter site materials that it believes may be hazardous, potentially hazardous, infectious, toxic or dangerous, it shall immediately notify the Owner.

F. The Owner will retain title to all hazardous waste presently on site encountered during demolition, removal, and excavation. This does not include hazardous materials generated by the Contractor, such as used motor oils, lubricants, cleaners, etc. Contractor shall dispose of such hazardous waste according to the Contract Documents, following local, State, and Federal regulations. The Owner will be shown as the hazardous waste generator and will sign all hazardous waste shipment manifests for non-contractor generated hazardous wastes. Nothing contained within these Contract Documents shall be construed or interpreted as requiring Contractor to assume the status of Owner or generator of hazardous waste substances for non-contractor generated hazardous wastes.

G. Contractor shall follow EPA and all other regulations regarding reporting the disposal of all materials.

Response: See Addendum No. 2, Item 5.

43. Paragraph A of 6.2 Labor, Materials, and Equipment in Section 00700 General Conditions states: "…Except in connection with the safety and protection of persons or the Work or property at the site or adjacent thereto, and except as otherwise indicated in the Contract Documents, all Work at the site shall be performed during regular working hours, and the Contractor will not permit overtime work or the performance of work on Saturday, Sunday, or any legal holiday without the Owner's written consent." Additionally, 16.10 Employment Reference of Section 00700 General Conditions states: "Workers employed in the execution of the contract by the Contractor or by any Subcontractor under this contract shall not be required or permitted to labor more than 8 hours a day or 40 hours per week in violation of the provisions of the Alaska Wage and Hour Act, Section 23.10.060." May work be allowed 24 hours per day, 7 days per week provided that the Contractor abides by the overtime compensation stipulations as defined in Section 23.10.060 of the Alaska Wage and Hour Act?
Response: See Addendum No. 2, Item 8.

44. Will any/all alternates that the Owner intends to select be awarded at the same time as the Base Bid?
Response: See Addendum No. 2, Item 1.

45. Dredge Basin Section A, shown on Drawing No. 3.02 (Sheet 12 of 32), indicates that the layer of Class II Armor Rock along the new dredge slopes should be two feet thick. Because the size and shape of the individual stones, the thickness of the layer of the Class II Armor Rock will vary. Please clarify what tolerance in the thickness of this layer will be acceptable and/or will be included in the measured quantity for payment?
Response: See Addendum No. 2, Item 11.

46. In Dredge Areas C and D, as depicted on Drawing No. 3.01 (Sheet 11 of 32), will the Contractor be

allowed to dig and/or load over the existing docks? If so, can the floats in the Existing Mooring area be removed prior to dredging?
Response: See Addendum No. 2, Item 6.

47. 3.2 Dredging Surveys of Section 02702 Construction Surveying states: "All surveying involving dredging and disposal shall be performed by an independent hydrographic surveyor that is a Professional Land Surveyor (PLS) registered in the State of Alaska…". May the surveying involving dredging and disposal be supervised by the PLS or must it actually be conducted by the PLS?
Response: See Addendum No. 2, Item 15.

48. Section 02896 2.2.A.3.a: What is the purpose of diameter tolerance different than defined ASTM 252? Is this to accommodate anticipated drilling?
Response: The potential for drilling is one reason. The design engineers also wish to avoid other issues associated with out-of-round pipe including difficulty with pile splices and to reduce the potential for pile driving overstress (wall buckling).

49. Section 02896 3.2.B:
    - Under the first paragraph, it is stated the impact hammer shall be "adequately sized to achieve the ultimate bearing capacities and minimum tip elevations". What percentage of bearing over the ultimate bearing capacity should be anticipated to achieve the minimum embedment required?
      Response: A preliminary drivability analysis was performed to install piles at this site to estimate minimum specifications. The CONTRACTOR is advised to refer to the geotechnical report and specifications to select a hammer with minimum ram weight and energy as recommended. The following hammers, or equivalent, shall be considered adequate for installation of the piles on this project: Delmag D100 (energy range of 157,743 ft-lbs to 300,000 ft-lbs and ram weight of 23,612 lbs) for bearing piles and D62 (energy range of 78,960 ft-lbs to 165,000 ft-lbs and ram weight of 14,600 lbs) for barrier piles. CONTRACTOR shall perform a drivability analysis to determine optimal pile driving hammer for the project. See Addendum No. 2, Item 17.

    - Based upon the excess bearing capacity required to achieve the minimum embedment, how shall the contractor "be prepared to address the potential for overstressing the pile during driving"?
      Response: CONTRACTOR shall perform a drivability analysis on the selected hammers to confirm that overstressing of piles will not occur. As determined necessary by the pile driving analysis, the CONTRACTOR may need to monitor and restrict energy inputs while pile driving to avoid overstressing piles. See Addendum No. 2, Item 17.

    - If overstressing becomes an issue, what means are acceptable "to address the potential for overstressing the pile during driving"?
      Response: Pile driving analysis will determine the threshold for energy settings on the selected hammer to prevent overstressing. If, during pile driving, refusal is encountered and the pile is not able to advance to the minimum specified pile depth, CONTRACTOR shall consult ENGINEER for further direction. Additional Work options may include drilling a relief hole and then advancing the pile to specified pile depth, other CONTRACTOR-proposed means for advancement, or alternatively pile acceptance by ENGINEER based on reduced embedment depth. See Addendum No. 2, Item 17.

    - It is stated that "any hammer that causes damage to the piles during driving operations shall be substituted with an acceptable alternate hammer at no additional expense to the OWNER". How is the contractor to quantify these costs or substitute a hammer if the minimum hammer size to

achieve the required minimum embedment causes damage or overstresses the pile?

Response: The following hammers, or equivalent, shall be considered adequate for installation of the piles on this project: Delmag D100 for bearing piles and D62 for barrier piles. CONTRACTOR may assume piles can be advanced to minimum pile tip elevations and achieve specified design capacities within the range of energy settings allowed by the said hammers. See Addendum No. 2, Item 17.

- It is indicated in the specifications and the geotech report that the minimum pile hammer size is 120,000 ft.-lbs. Please confirm that if the contractors provides a hammer meeting these requirements and a hard layer is encountered, supplying a larger pile hammer will be paid for under the Contingent Sum- Deep Obstruction bid item.

  Response: The 120,000 ft-lbs impact hammer listed in the geotechnical report for this project is a minimum pile hammer based on preliminary drivability analysis. The following hammers, or equivalent, shall be considered adequate for installation of piles: Delmag D100 for bearing piles and D62 for barrier piles. CONTRACTOR shall perform a drivability analysis to determine optimal pile driving hammer for the project. See Addendum No. 2, Item 17.

- Per the geotech report, it is expected that boulder-sized rocks should be expected within the rubble-mound and should be anticipated during pile driving. Will drilling or other obstruction removals be paid for under the Contingent Sum- Deep Obstruction bid item?

  Response: No, removal and replacement of shot rock and armor rock in the existing rubble mound breakwater, or other means necessary to install piles, is considered incidental as outlined under Section 02896 Article 3.3 and Section 02207 Article 3.2.

50. Section 02896 3.2.C:

- In the second paragraph, it is stated "Impact hammer driving shall continue until refusal or full pile penetration occurs as determined by the ENGINEER". However, in the third paragraph, it states "All bearing piles shall be driven to adequately achieve both the stated ultimate compression and tension capacities and the minimum tip elevations as specified in the Pile Schedule on the Plans." Please clarify the ENGINEER's intent.

  Response: The intent is to drive the piles to full embedment. The required Dynamic Pile Test Program and CONTRACTOR's drivability analysis shall be used to determine suitability of selected equipment to achieve required embedment and pile capacity.

- In the second paragraph under EXCEPTION, "CONTRACTOR may choose to impact barrier piles a maximum of five free following vibratory refusal in dense soils at no additional cost to OWNER".

  Why is the CONTRACTOR limited to impacting only five feet?

  Response: The intent is to avoid damaging the sheet pile interlocks during pile driving in dense soil conditions. On a case by case basis, contingent upon ENGINEER approval, CONTRACTOR may employ staggered driving methods to impact drive adjacent barrier piles deeper than five feet, if warranted. See Addendum No. 2, Item 17.

  Additionally, it states "Alternatively barrier piles may be removed, cut off, and reinstalled into the dense soil bearing layer with the vibratory hammer to achieve design top of sheet pile elevation, at no additional cost to OWNER". Is it anticipated that vibratory refusal will be encountered more than five feet above the barrier pile tip elevation? If so, how many locations should the contractor expect this to occur?

  Response: Depending on Contractor-selected equipment, vibratory refusal may be

encountered more than five feet above tip elevation throughout the project. Successive installation of bearing piles and barrier piles will provide an indication of anticipated pile embedment to dense bearing layer for subsequent barrier piles as installation progresses. ENGINEER will maintain pile installation records of observations. CONTRACTOR may reference these installation records to assist in determining anticipated pile lengths required for subsequent barrier piles prior to their installation, although it is recommended that CONTRACTOR maintain independent records for reference.

51. Section 02896 3.2.E:
    - "Pile installation obstructions may be encountered at and below mudline pile driving". Please provide site scans, dive records, and other documentation indicating what kind of obstructions may be encountered.
      Response: See Addendum No. 2, Informational Item 3.

    - "Any pile obstructions encountered at the seafloor or within a depth extending five feet below the existing mudline shall be removed at no additional cost to the OWNER." Please provide site scans, dive records, and other documentation to allow the CONTRACTOR to quantify and price these obstructions.
      Response: See Addendum No. 2, Informational Item 3.

52. Section 02896 3.4.F: Please confirm all expenses including stand-by costs will be paid under the Contingent Work bid item for the duration of time on the project and in transit.
    Response: Measurement and payment for Pay Item 2896.6 CONTINGENT WORK – DEEP OBSTRUCTION REMOVAL shall be in accordance with Section 01025 Article 2.36. All approved expenses including authorized standby costs shall be included under this Pay Item.

53. Section 02896 3.4.I: Please confirm the cost of Contingent Work equipment mobilization will be covered under this contingent sum bid item.
    Response: Measurement and payment for Pay Item 2896.6 CONTINGENT WORK – DEEP OBSTRUCTION REMOVAL shall be in accordance with Section 01025 Article 2.36. All approved equipment mobilization costs shall be included under this Pay Item.

54. Plan Sheet 5.05: Per Section A/5.02, the breakwater core rock material thickness and composition unknown. It also states "remove and restore existing rock as required to install pile". What should the Contractor assume for their basis of bid?
    Response: Existing breakwater is constructed of shot rock core material of unknown gradation with armor rock slopes. The core material may also include large cobble and boulders. See also Specification Sections 02207 3.2 and 02896 3.3.

55. Plan Sheet 5.09: Per the waler details, it is noted the Sheet pile top elevation shall match the adjacent sheet pile, typical. However, per Section 02896 3.2.F of the specifications, it is permissible to have a two-inch variation in cutoff elevation. Is it the Owner's intent that the sheet pile be cut off to six inches below the waler and match the adjacent sheet pile, or is it permissible to have a variation?
    Response: Plan sheet 5.09 has been modified to provide vertical pile tolerances for barrier piles. See Addendum No. 2, Item 29.

56. 00700 4.2 A Explorations and Reports. Reference is made to SGC 4.2 Physical Conditions of the Supplementary General Conditions for identification of those reports of explorations and tests of sub-surface conditions at the site that have been utilized by the ENGINEER in the preparation of the

Contract Documents. The CONTRACTOR may rely upon the accuracy of the technical data contained in such reports, however, reports are not to be considered complete or comprehensive and nontechnical data, interpretations, and opinions contained in such reports are not to be relied on by the CONTRACTOR. The CONTRACTOR is responsible for any further explorations or tests that may be necessary and any interpretation, interpolation, or extrapolation that it makes of any information shown in such reports.

- As a fully designed low bid project what additional explorations might a competing contractor be reasonably expected to perform?
  Response: The CONTRACTOR shall make its own assessments of the report information provided and any determinations to supplement it.

- Relative to the offshore Partial Penetrating Wave Barrier (wall), performing any additional subsurface explorations would cost hundreds of thousands of dollars, would require more time than is available before bid date, and would require in water work permits. It seems that it is unnecessary and unreasonable to expect bidders to perform additional subsurface explorations. Please clarify the Owner's intent so we may comply.
  Response: The CONTRACTOR shall make its own assessments of the report information provide and any determinations to supplement it.

57. 00100 7.0 F Before submitting a Bid, each Bidder will, at its own expense, make or obtain any additional examinations, investigations, explorations, tests, and studies and obtain any additional information and data which pertain to the physical conditions (surface, subsurface, and underground utilities) at or contiguous to the site or otherwise which may affect cost, progress, or performance of the WORK and which the Bidder deems necessary to determine its Bid for performing the WORK in accordance with the time, price, and other terms and conditions of the Contract Documents.

    Similar to questions above, how is Bidder to permit, fund, and perform additional offshore geotech investigations before bidding this work? This passage seems to be shifting risk unreasonably and unfairly to the Contractor. Please acknowledge that the Engineer has already been paid to perform what the Owner/Engineer determined to be the appropriate geotechnical program and that the bidders are not expected to perform any uncompensated and unpermitted explorations.
    Response: The CONTRACTOR shall make its own assessments of the report information provided and any determinations to supplement it.

58. 00700 11.3 D Equipment. The CONTRACTOR will be paid for the use of equipment at the rental rate listed for such equipment specified in the Supplementary General Conditions. Such rental rate will be used to compute payments for equipment whether the equipment is under the CONTRACTOR's control through direct ownership, leasing, renting, or another method of acquisition. The rental rate to be applied for use of each item of equipment shall be the rate resulting in the least total cost to the OWNER for the total period of use. If it is deemed necessary by the CONTRACTOR to use equipment not listed in the publication specified in the Supplementary General Conditions, an equitable rental rate for the equipment will be established by the ENGINEER. The CONTRACTOR may furnish cost data which might assist the ENGINEER in the establishment of the rental rate.

    - The above referenced equipment rates cannot be found in the Supplementary Conditions. Please provide these rates.
      Response: No specific rental rates are provided in the Supplementary General Conditions.

    - This project requires custom equipment. How will the engineer assess the rental rates for Contractor's specialty equipment?

Response: The ENGINEER will assess CONTRACTOR proposed rental rates for specialty equipment through research and comparison with other similar projects and with equipment suppliers providing similar equipment.

59. 00700 11.3 E Equipment on the Work Site. The rental time to be paid for equipment on the work site shall be the time the equipment is in productive operation on the extra work being performed...

    If equipment is mobilized for the purpose of performing extra work will it be mobed and demobed each time it is needed or will the Owner pay a Daily/Weekly/Monthly rate to keep it on site and mitigate delays? In the case of equipment delivered to the site for extra work, time paid to the Contractor should match the time it is committed to the project/extra work.
    Response: The duration for keeping equipment on site for extra work will be determined based on field conditions encountered and compensation shall be according to the least cost mobilization and rental method for the total period of use.

60. Environmental Permit Page 3. To prevent sedimentation into adjacent Waters of the U.S. outside of the authorized footprint the Permittee shall install silt curtain barriers with weighted skirts that extend around all in-water work areas to include work that is adjacent to surface waters. The turbidity barriers shall remain in place, monitored for effectiveness and maintained until the authorized work has been completed and all suspended and erodible materials have been stabilized. Turbidity barriers shall be removed upon stabilization of the work area.

    - Does this section apply to non-turbidity generating activities such as pile installation?
      Response: No.

    - Does this section apply to dredging activities conducted from a vessel?
      Response: No.

    - The environmental permits do not reference drilling or jetting (02896 3.4 D) to overcome obstructions. Are such methods anticipated? If required who is responsible for coordinating that operation with the Agencies? Are Drilling and Jetting allowed by permit?
      Response: Drilling or jetting are potential methods to overcome deep obstruction removal as contingent work. All associated permits shall be provided by the OWNER.

61. Environmental Permit Page 3 States that impact hammers will be fitted with pile cushions between the hammer and the piling. Is the standard cap block cushion fitted between the cap plate and the anvil acceptable or shall the cushion bear directly on the pile top?
    Response: The requirement for pile cushions is satisfied with typical cushions between the cap plate and anvil.

62. Section 02203 3.4 Submarine Pipe Trenching, Bedding, and Backfill
    - Is the contractor required to encapsulate this operation in a floating turbidity curtain?
      Response: No.

    - How shall Contractor remove stones larger than 12" in any direction from the Trench and Backfill? Is it the intent that the Contractor screens the native back fill before replacing it into the trench?
      Response: See Addendum No. 2, Item 11.

63. It seems like if the overall site conditions are not conducive to installing pile to full penetration with a D62 or similar hammer, the potential for a large scale T&M program that may include D100

hammers, drilling, or other specialized means will ensue. It seems like the bid process should have an item for furnishing the specialized equipment prior to the start of work, a bid item for relief drilling, and a bid item for restriking so that contractors have to compete on this work. Relief drilling a 200 foot long batter pile or hoisting an 80,000 lb hammer eight stories into the air are not easy tasks. If this scope may be required not all contractors will be equally qualified, prepared or equipped to perform the work.

- To avoid placing all the financial risk on the Owner, will the above described bid items be added?
  Response: Additional bid items will not be added. The CONTRACTOR is responsible for developing means and methods for installation of piles. This includes performing a drivability analysis for selection of impact hammers to estimate required hammer size and confirm that piles will not be overstressed during driving, design of template systems for support of piles and equipment during installation, conducting dynamic pile tests on specified piles to verify required pile embedment and driving effort for specified capacities, selection of drilling equipment or other equipment as may be required to install piles under contingent work, field pile splicing, etc. CONTRACTOR shall develop an appropriate plan, including equipment, as required to complete the contract work and submit plan to ENGINEER for review and approval prior to mobilizing any equipment to the site. The following hammers, or equivalent, shall be considered adequate for installation of the piles on this project: Delmag D100 for bearing piles and D62 for barrier piles. CONTRACTOR may assume piles can be advanced to minimum pile tip elevations and achieve specified design capacities within the range of energy settings allowed by the said hammers. See Addendum No. 2, Item 17.

- To avoid awarding the contract to an unqualified low bid contractor that does not have the specialized experience or equipment to perform a deep obstruction removal program will the Owner consider the use of scoring qualifications or similar approach to weed out low bid unqualified bidders?
  Response: Same response as above.

Approved By: William Seward, Borough Manager

Total number of pages contained within this Response: 13