**CONCRETE CORING NOTES**
1. EXPLORATORY 3-INCH CORES TAKEN ON AUGUST 28, 2015 ON EXISTING CONCRETE SLAB.
2. CORE LOCATIONS ARE SHOWN ON THE DRAWING.
3. CORE RESULTS ARE SHOWN IN TABLE 1.

**PROJECT NOTES**
1. PROJECT IS FOR THE REPAIR OF DAMAGE AT THE HEAD OF THE KEWALO BASIN JETTY. DAMAGE CONSISTS OF DISPLACED AND MISSING ARMOR STONES, AND CRACKED CONCRETE DECK SLAB.
2. REPAIRS CONSIST OF REBUILDING DAMAGED HEAD WITH BASALT ROCK RUBBLE MOUND AT A SLOPE OF 1:1.5 VERTICAL TO 1 HORIZONTAL. STRUCTURE WILL CONSIST OF A SINGLE LAYER OF ARMOR STONE WITH A 3,500 TO 6,000 LBS, KEYED AND FITTED IN PLACE. UNDERLAYER WILL BE 2.9 FT IN THICKNESS AND CONSIST OF STONE 300 TO 600 LBS IN WEIGHT. STONES WILL NOT BE GROUTED.
3. CONCRETE CAP WILL BE REPLACED A MINIMUM OF 20 FT BACK FROM THE TIP OF THE NEW STRUCTURE.
4. CONTRACTOR WORK AND STORAGE AREA IS PARKING LOT BEHIND KEWALO NET SHED. CONTRACTOR SHALL COORDINATE WITH NET SHED TENANTS (KUPU) TO MINIMIZE DISRUPTIONS.
5. VEGETATION AND/OR MINOR STRUCTURES REMOVED FOR ACCESS TO THE WORK AREA SHALL BE REPLACED TO EXISTING CONDITIONS OR REMEDIAL MEASURES TAKEN IN CONSULTATION WITH HCDA.

**BEST MANAGEMENT PRACTICES (BMP’S)**
1. RUN-OFF CONTROL MEASURES SHALL BE IN PLACE IN CONTRACTOR’S WORK AND STORAGE AREA BEFORE WORK IS STARTED. RUN-OFF CONTROLS SHALL PREVENT FOREIGN MATERIALS AND SILT FROM ENTERING KEWALO BASIN HARBOR.
2. CONTROL MEASURES SHALL BE IN PLACE TO PREVENT RUN-OFF FROM CONSTRUCTION AREAS TO ENTER SHOWER DRAIN INLET.
NOTES:
2. CONCRETE DECK THICKNESS MINIMUM 4" BASED ON 1989 AS-BUILT DRAWINGS. CONCRETE CORES TAKEN ON 8-28-2015 VARIED FROM 5" TO OVER 14".
3. REMOVE APPROX. 23' OF CONCRETE CAP AND STONE MATERIAL SEAWARD OF BASELINE STA 2. REPAIRED STRUCTURE SHALL MEASURE 20' FROM BASELINE STA 2 TO SEAWARD EDGE OF JETTY.
4. REMOVE CAPPING STONES IN REPAIR AREA AND REPLACE WITH NEW OR EXIST. UNDERLAYER STONE.
5. REMOVE AND RESET EXISTING ARMOR STONE IN TRANSITION AREA AS NECESSARY FOR TRANSITION FROM NEW REPAIRS WITH SLOPE OF 1V:1.5H TO EXISTING STRUCTURE WITH NOM. SLOPE OF 1V:1H.
NOTES:

1. REPAIRS CONSIST OF REBUILDING DAMAGED HEAD WITH BASALT ROCK RUBBLE MOUND AT A SLOPE OF 1V:1.5H. STRUCTURE WILL CONSIST OF A SINGLE LAYER OF ARMOR STONES, 3,500 TO 6,000 LBS. A MINIMUM OF FIFTY PERCENT (50%) OF ARMOR STONE SHALL BE GREATER THAN 4,500 LBS BY VOLUME. UNDERLAYER WILL BE 2.9 FT (MIN.) IN THICKNESS AND CONSIST OF STONE 350 TO 600 LBS IN WEIGHT. STONES SHALL NOT BE GROUTED.

2. CLEAR EXIST. ROCK AND LOOSE MATERIAL UNDER TOE STONES TO A DEPTH OF 4' MLLW OR UNTIL HARD BOTTOM IS ENCOUNTERED.

3. TOE PLACEMENT SHOWN IS BASED ON A NOMINAL DEPTH OF 4' MLLW. DEPTHS TO HARD BOTTOM MAY VARY, AND TOE PLACEMENT SHALL BE MODIFIED ACCORDINGLY TO MAINTAIN THE CREST ALIGNMENT AND A 1V:1.5H STRUCTURE SLOPE.

4. TRANSITION TO EXISTING STRUCTURE AT 1V:1H NOM. SLOPE WITH CLOSELY FIT ARMOR STONES TO PREVENT LOSS OF UNDERLAYER. NEW ARMOR STONES SHALL HAVE BEDDING OF NEW UNDERLAYER STONES. REMOVE AND RESIZE EXISTING ARMOR STONES AS NECESSARY TO ACHIEVE A SMOOTH TRANSITION.
A. GENERAL NOTES

1. The Contractor shall verify the existence of electrical conduit and other utilities to a depth in accordance with the prevailing local code. The Contractor shall verify that the location of existing underground utilities is correct prior to excavation.

2. The Contractor shall verify the existance of electrical conduit and other utilities at a minimum depth of 2 feet and shall verify the location of existing underground utilities to a minimum depth of 2 feet prior to excavation.

3. The Contractor shall not block the work area.

4. The Contractor shall submit a construction plan to the City for review and approval prior to the start of construction.

5. The work plan shall include all areas of work indicated in the contractor's drawing set.

6. The Contractor shall verify all conditions and conditions shall not be changed without written permission from the City.

7. Details of excavations shall be typical for all similar types of operations. All excavation and earthwork shall be performed by the Contractor.

8. All work done on the Plan and not included in the Plan shall be performed at the Contractor's expense and not included in the Plan.

9. The Contractor shall verify all conditions and conditions shall not be changed without written permission from the City.

10. The Contractor shall verify all conditions and conditions shall not be changed without written permission from the City.

11. The Contractor shall verify all conditions and conditions shall not be changed without written permission from the City.

12. The Contractor shall verify all conditions and conditions shall not be changed without written permission from the City.

13. The Contractor shall verify all conditions and conditions shall not be changed without written permission from the City.

B. CONCRETE

1. All concrete shall have a minimum 28 days compressive strength of 4000 psi. All cast-in-place concrete shall be placed according to the specifications.

2. The Contractor shall check all dimensions of all forms, and ensure that the dimensions are correct prior to placing the concrete.

3. Concrete shall be placed in accordance with the specifications and shall be checked for the correct dimensions.

C. CONCRETE REINFORCEMENT

1. Reinforcement shall be placed in accordance with the specifications.

2. Reinforcement shall be placed in accordance with the specifications.

D. CONSTRUCTION NOTES

1. All construction plans, orders, and supply agreements shall be made by the City.

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3. All construction plans, orders, and supply agreements shall be made by the City.

4. All construction plans, orders, and supply agreements shall be made by the City.

5. All construction plans, orders, and supply agreements shall be made by the City.

E. DEMOLITION NOTES

1. The Contractor shall provide all necessary protection to prevent damage to property, utilities, and adjacent structures. When the demolition is completed, the Contractor shall be responsible for the removal of all remaining materials.

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F. SHOP DRAWING SUBMITTALS

1. The Contractor shall submit all shop drawings for the fabrication, supply, and installation of all material.

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