

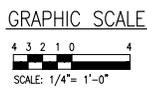
**CONSTRUCTION SEQUENCE (S3.01A)**

1. INSTALL MANTA RAY ANCHORS AS SHOWN ON SECTION-B.
2. DRIVE 20 INCH OCTAGONAL PRECAST PRESTRESSED CONCRETE PILES AT GRID LINES "B" AND "C".
3. INSTALL 20 INCH OCTAGONAL CRIB PILES AT GRID "A" AND RIP-RAP ROCK AT GRID LINES "A", "B" AND "C".
4. DRIVE 20 INCH OCTAGONAL PRECAST PRESTRESSED CONCRETE PILE AT GRID LINES "D", "F" AND "G".
5. REPAIR DAMAGED ACB MATTRESS ADJACENT TO CONCRETE PILE AS SHOWN ON SECTION-B.
6. DRIVE TEMPORARY STEEL SHEET PILES AT GRID LINE "E", "H" AND PERMANENT STEEL SHEET PILE.
7. REMOVE EXISTING CONCRETE ACB MATTRESS FROM GRID LINE "E" TO BASE LINE AND BEYOND.
8. EXCAVATE THE SPACE BETWEEN GRID "E" AND "H" TO EL = (-)6.00 AND PLACE BACK FILL MATERIAL TYPE 2 UP TO THE BOTTOM OF CONCRETE BULKHEAD.
9. INSTALL TIE BACK ANCHOR SYSTEM AND 7 EACH ANCHOR RODS PER ACB MATTRESS IN THE CONCRETE BULKHEAD SPACE AS SHOWN ON B/SO.03.
10. PLACE BULKHEAD CONCRETE UP TO HORIZONTAL CONSTRUCTION JOINT. (EL= (+) 3.0).
11. PULL OUT TEMPORARY STEEL SHEET PILE AT GRID LINE "E" AND "H"
12. EXCAVATE SITE TO EL=0.00 AND PROOF ROLLING FOR COMPACTION.
13. CONSTRUCT TIE BACK SYSTEM AT EL = 0.00 INCLUDING 5' X 12' CONCRETE ANCHOR WALL AND TIE ROD ASSEMBLY.
14. PLACE BACK FILL TYPE 2 FILTER MATERIAL BETWEEN EL=0.00 AND EL=2.00.
15. FINISH PIER DECK CONSTRUCTION.
16. INSTALL GEOTEXTILE FILTER FABRIC AT EL = 2.00 AND PLACE TYPE 3 BACK FILL MATERIAL UP TO UNDER THE 6" THK. BASE COURSE AGGREGATE LAYER. TYPE 3 BACK FILL MATERIAL REQUIRES COMPACTION.
17. FINISH BACK FILL AND CONSTRUCT CONCRETE PAVEMENT.

**NOTES FOR STEEL SHEET PILE AND CONCRETE PILE PREDRILLING**

1. PREDRILLING HOLE DIAMETER SHOULD BE LIMITED TO THE DIAGONAL DIMENSION OF PILE TO PROVIDE DRIVEN PILES WITH SUFFICIENT SOLE CONTACT FOR LATERAL LOAD RESISTANT.
2. DEPTH OF PREDRILLING HOLE AT GRID "F" AND "G" SHALL NOT BE DEEPER THAN -25 FEET AND PREDRILLING DEPTH AT GRID "B,C & D" SHALL BE 20 FEET DEEP FROM THE EXISTING GRADE AS SHOWN ON THE SECTION.
3. SOIL ENGINEER (GEOLABS) SHOULD CONFIRM AND/OR MODIFY THE RECOMMENDED PREDRILLING DEPTH DURING THE TEST PILE PROGRAM DEPENDING ON THE SUBSURFACE CONDITIONS ENCOUNTERED AND THE PILE DRIVING EQUIPMENT PROPOSED BY THE CONTRACTOR.

**1**  
S3.01A S3.01A  
**TYPICAL CROSS SECTION - B (GRID LINE 10 TO GRID LINE 29)**  
SC: 1/4" = 1'-0"



REVISION	DATE	DESCRIPTION	BY	APPROVED

STATE OF HAWAII  
**DEPARTMENT OF TRANSPORTATION**  
HARBORS DIVISION

JOB TITLE  
**CONSTRUCTION OF PIER 4  
PIER 4 INTER-ISLAND CARGO TERMINAL  
HILO HARBOR**

SHEET TITLE  
**TYPICAL CROSS SECTION - B  
(GRID LINE 10 TO GRID LINE 29)**

SUBMITTED BY: \_\_\_\_\_ RECOMMENDED BY: \_\_\_\_\_  
SECTION HEAD: \_\_\_\_\_ ENGINEERING PROGRAM MANAGER: \_\_\_\_\_



THIS WORK WAS PREPARED BY ME OR UNDER MY SUPERVISION.  
*Jong Nam Choi*  
SIGNATURE DATE: FEB 2013  
EXP. DATE: \_\_\_\_\_

DESIGNED BY: JN  
DRAWN BY: FM  
CHECKED BY: JN  
DATE: FEB 2013  
APPROVED BY: \_\_\_\_\_  
JOB NUMBER: HARBOR ADMINISTRATION  
SHEET: **S3.01A**  
**HMP 60901**  
31 of 73 SHEETS