

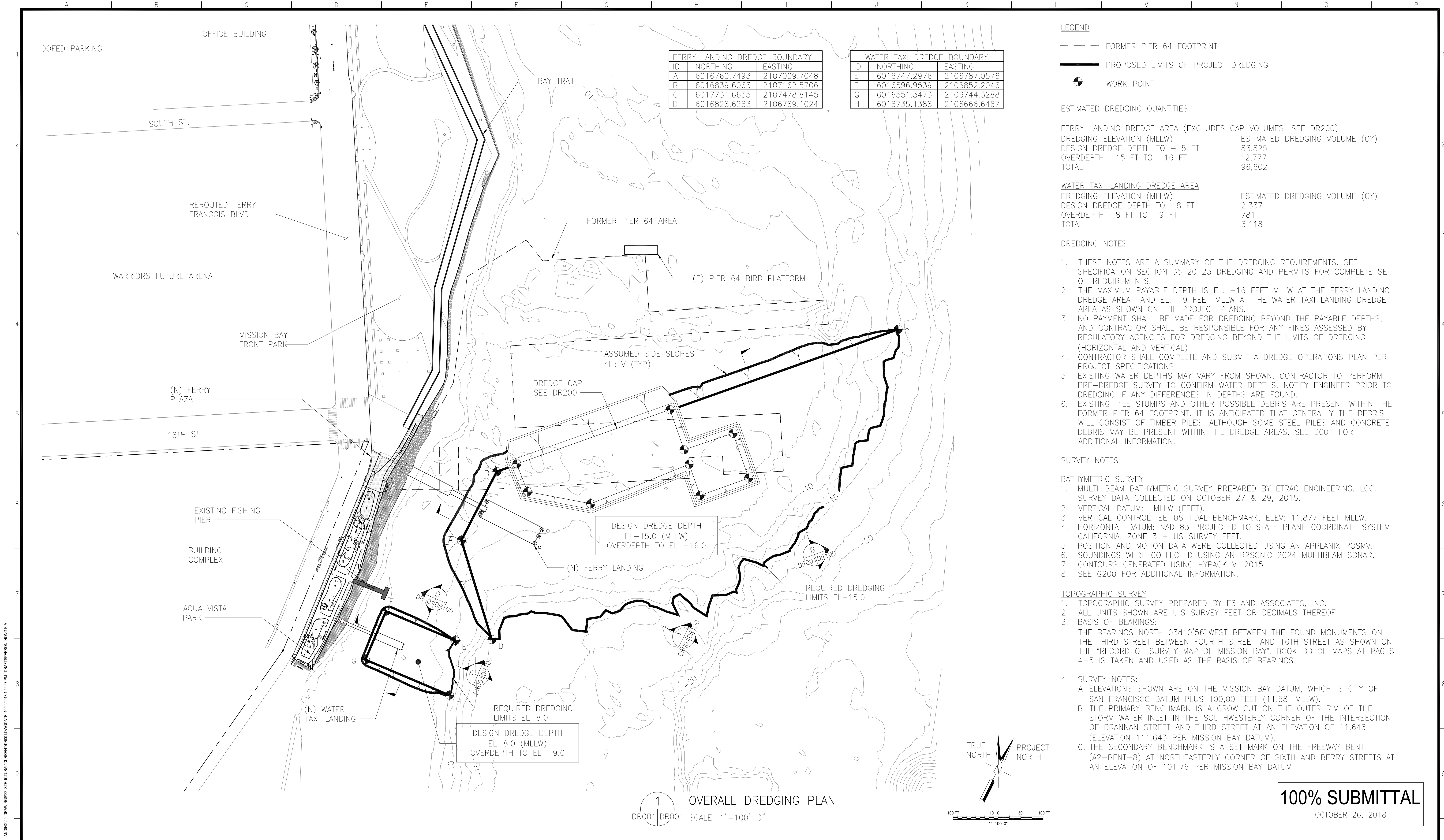


SOURCE: ESA, 2018; Google Earth, 2018

Mission Bay Ferry Landing and Water Taxi Landing Project

**Figure 1**  
Location Map





LEGEND

FORMER PIER 64 FOOTPRINT

PROPOSED LIMITS OF PROJECT DREDGING

WORK POINT

ESTIMATED DREDGING QUANTITIES

FERRY LANDING DREDGE AREA (EXCLUDES CAP VOLUMES, SEE DR200)

DREDGING ELEVATION (MLLW)	ESTIMATED DREDGING VOLUME (CY)
DESIGN DREDGE DEPTH TO -15 FT	83,825
OVERDEPTH -15 FT TO -16 FT	12,777
TOTAL	96,602

WATER TAXI LANDING DREDGE AREA

DREDGING ELEVATION (MLLW)	ESTIMATED DREDGING VOLUME (CY)
DESIGN DREDGE DEPTH TO -8 FT	2,337
OVERDEPTH -8 FT TO -9 FT	781
TOTAL	3,118

- DREDGING NOTES:
- THESE NOTES ARE A SUMMARY OF THE DREDGING REQUIREMENTS. SEE SPECIFICATION SECTION 35 20 23 DREDGING AND PERMITS FOR COMPLETE SET OF REQUIREMENTS.
  - THE MAXIMUM PAYABLE DEPTH IS EL. -16 FEET MLLW AT THE FERRY LANDING DREDGE AREA AND EL. -9 FEET MLLW AT THE WATER TAXI LANDING DREDGE AREA AS SHOWN ON THE PROJECT PLANS.
  - NO PAYMENT SHALL BE MADE FOR DREDGING BEYOND THE PAYABLE DEPTHS, AND CONTRACTOR SHALL BE RESPONSIBLE FOR ANY FINES ASSESSED BY REGULATORY AGENCIES FOR DREDGING BEYOND THE LIMITS OF DREDGING (HORIZONTAL AND VERTICAL).
  - CONTRACTOR SHALL COMPLETE AND SUBMIT A DREDGE OPERATIONS PLAN PER PROJECT SPECIFICATIONS.
  - EXISTING WATER DEPTHS MAY VARY FROM SHOWN. CONTRACTOR TO PERFORM PRE-DREDGE SURVEY TO CONFIRM WATER DEPTHS. NOTIFY ENGINEER PRIOR TO DREDGING IF ANY DIFFERENCES IN DEPTHS ARE FOUND.
  - EXISTING PILE STUMPS AND OTHER POSSIBLE DEBRIS ARE PRESENT WITHIN THE FORMER PIER 64 FOOTPRINT. IT IS ANTICIPATED THAT GENERALLY THE DEBRIS WILL CONSIST OF TIMBER PILES, ALTHOUGH SOME STEEL PILES AND CONCRETE DEBRIS MAY BE PRESENT WITHIN THE DREDGE AREAS. SEE D001 FOR ADDITIONAL INFORMATION.

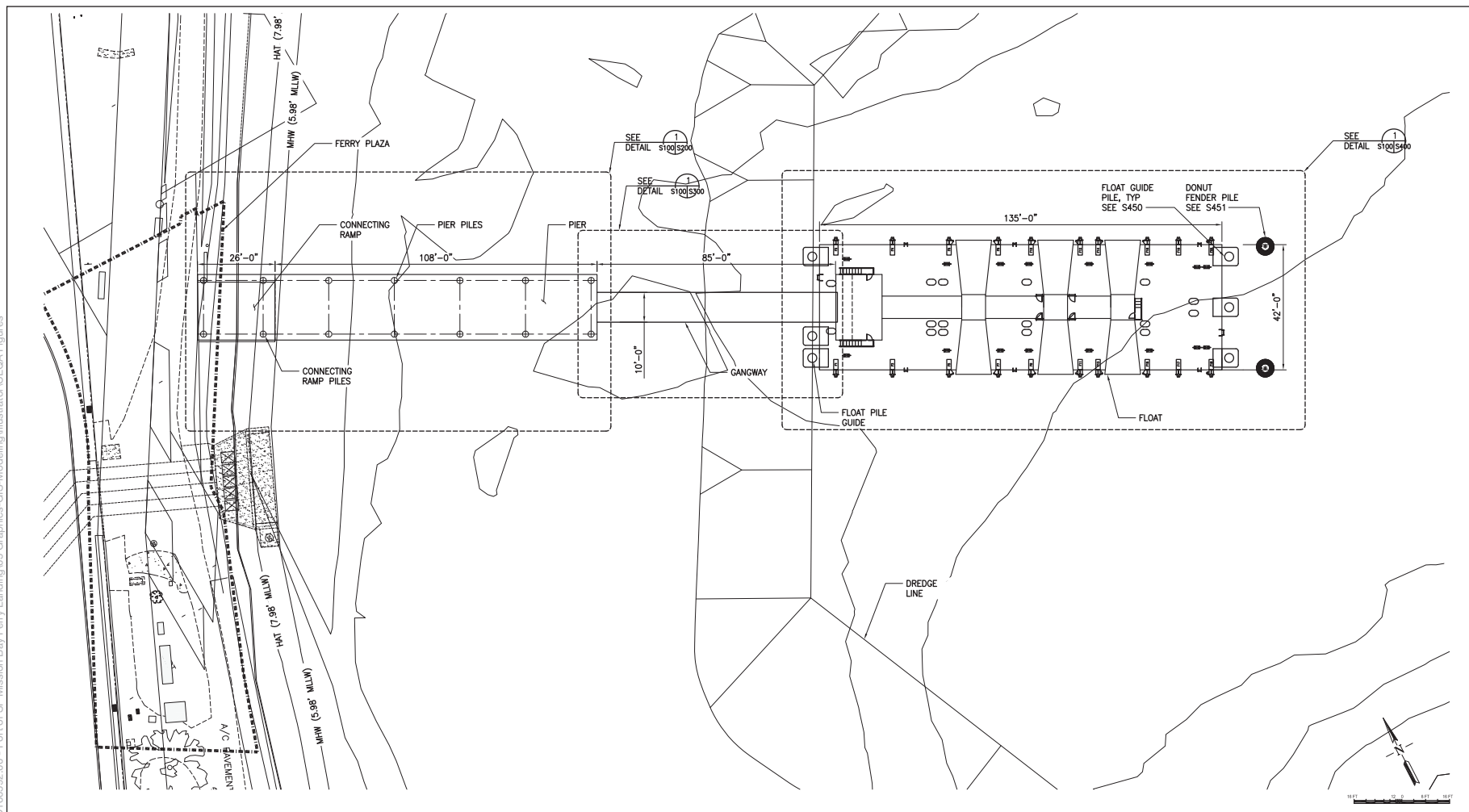
- SURVEY NOTES
- BATHYMETRIC SURVEY
- MULTI-BEAM BATHYMETRIC SURVEY PREPARED BY ETRAC ENGINEERING, LLC. SURVEY DATA COLLECTED ON OCTOBER 27 & 29, 2015.
  - VERTICAL DATUM: MLLW (FEET).
  - VERTICAL CONTROL: EE-08 TIDAL BENCHMARK, ELEV: 11.877 FEET MLLW.
  - HORIZONTAL DATUM: NAD 83 PROJECTED TO STATE PLANE COORDINATE SYSTEM CALIFORNIA, ZONE 3 - US SURVEY FEET.
  - POSITION AND MOTION DATA WERE COLLECTED USING AN APPLANIX POSMV.
  - SOUNDINGS WERE COLLECTED USING AN R2SONIC 2024 MULTIBEAM SONAR.
  - CONTOURS GENERATED USING HYPACK V. 2015.
  - SEE G200 FOR ADDITIONAL INFORMATION.

- TOPOGRAPHIC SURVEY
- TOPOGRAPHIC SURVEY PREPARED BY F3 AND ASSOCIATES, INC.
  - ALL UNITS SHOWN ARE U.S SURVEY FEET OR DECIMALS THEREOF.
  - BASIS OF BEARINGS:  
THE BEARINGS NORTH 03d10'56"WEST BETWEEN THE FOUND MONUMENTS ON THE THIRD STREET BETWEEN FOURTH STREET AND 16TH STREET AS SHOWN ON THE "RECORD OF SURVEY MAP OF MISSION BAY", BOOK BB OF MAPS AT PAGES 4-5 IS TAKEN AND USED AS THE BASIS OF BEARINGS.
  - SURVEY NOTES:  
A. ELEVATIONS SHOWN ARE ON THE MISSION BAY DATUM, WHICH IS CITY OF SAN FRANCISCO DATUM PLUS 100.00 FEET (11.58' MLLW).  
B. THE PRIMARY BENCHMARK IS A CROW CUT ON THE OUTER RIM OF THE STORM WATER INLET IN THE SOUTHWESTERLY CORNER OF THE INTERSECTION OF BRANNAN STREET AND THIRD STREET AT AN ELEVATION OF 11.643 (ELEVATION 111.643 PER MISSION BAY DATUM).  
C. THE SECONDARY BENCHMARK IS A SET MARK ON THE FREEWAY BENT (A2-BENT-8) AT NORTHEASTERLY CORNER OF SIXTH AND BERRY STREETS AT AN ELEVATION OF 101.76 PER MISSION BAY DATUM.

100% SUBMITTAL  
OCTOBER 26, 2018

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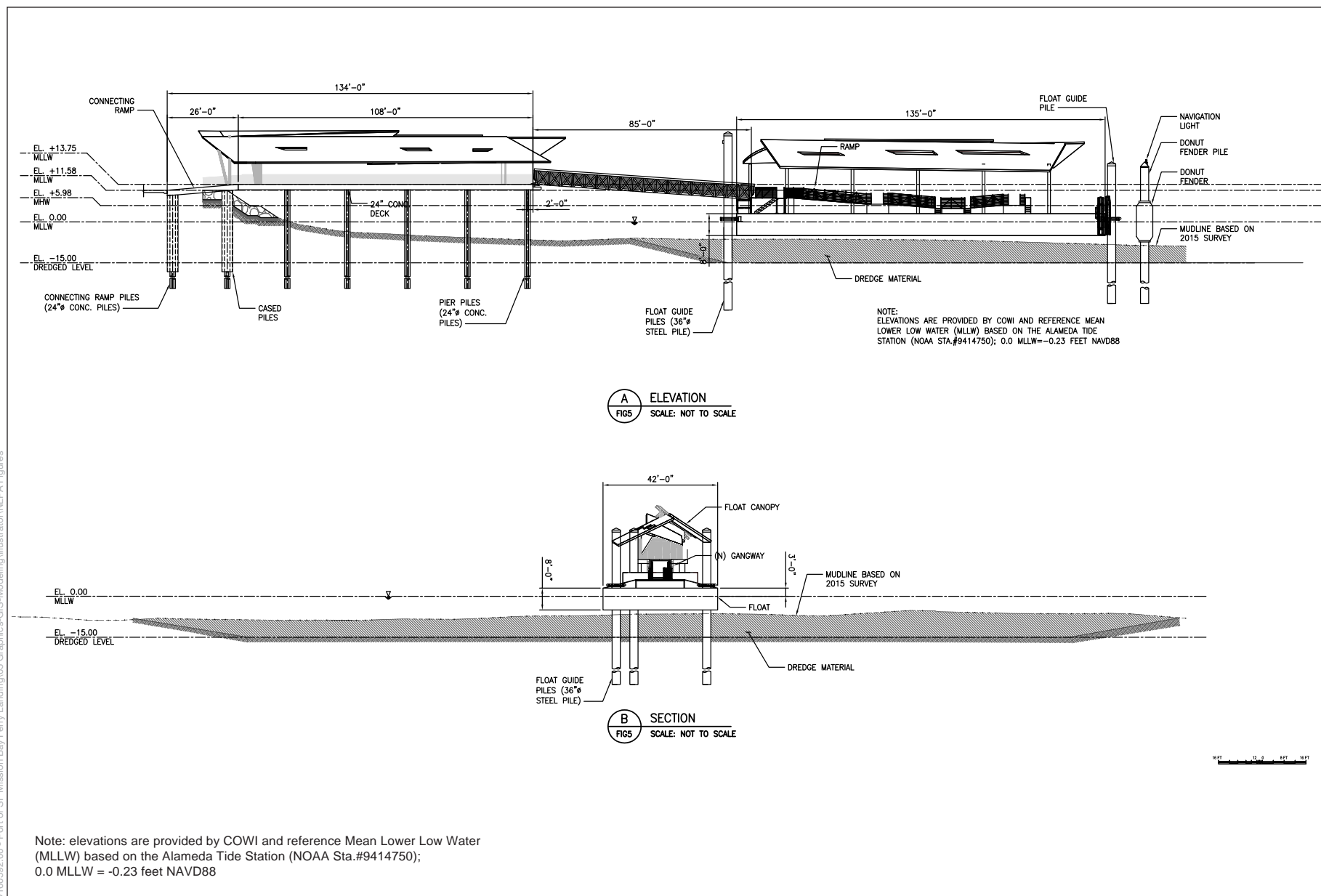


SOURCE: COWI OLMM

Mission Bay Ferry Landing and Water Taxi Landing Project

**Figure 3**  
Mission Bay Ferry Landing Plan View

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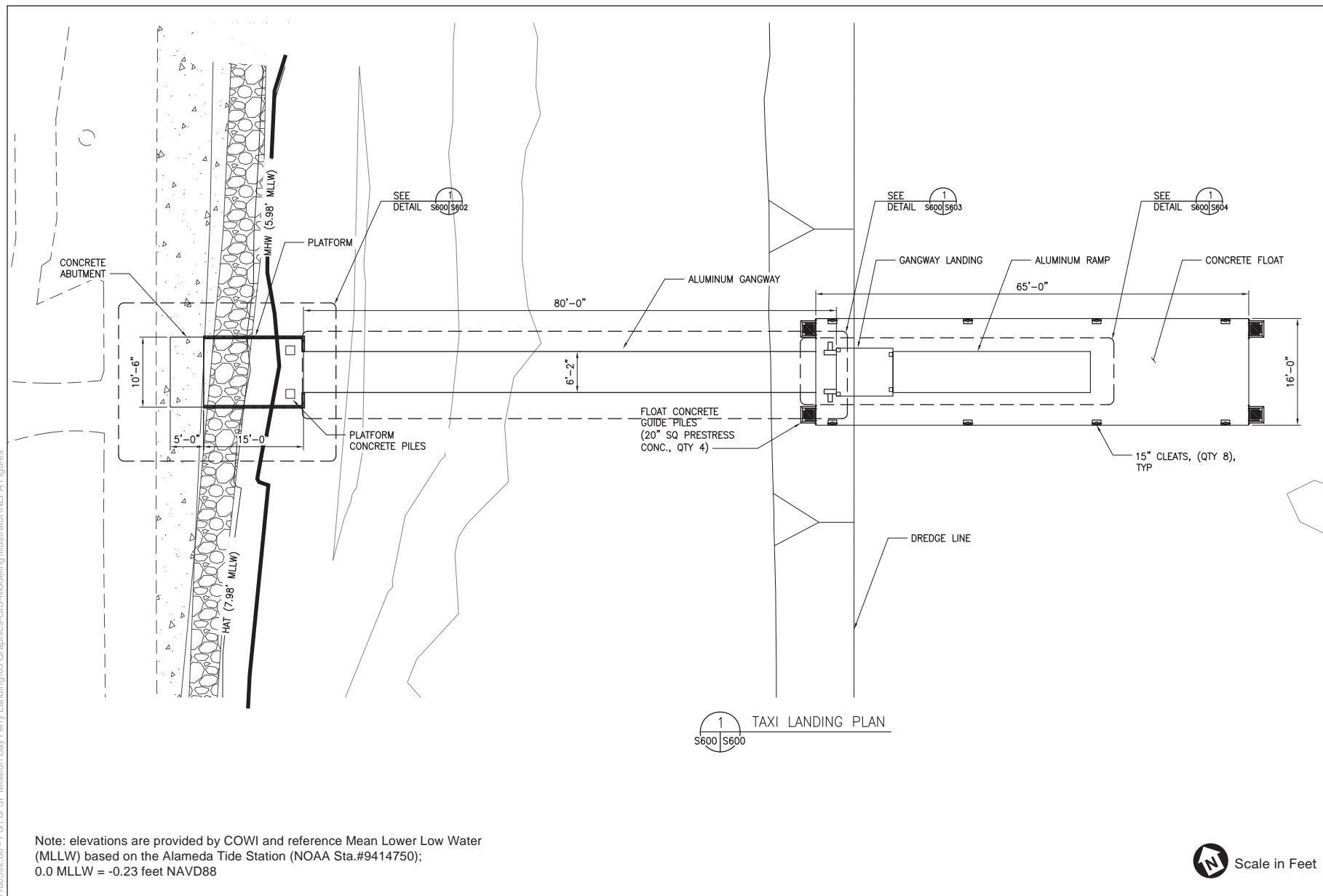


SOURCE: COWI OLMM

Mission Bay Ferry Landing and Water Taxi Landing Project

**Figure 4**  
Mission Bay Ferry Landing Cross-Sections

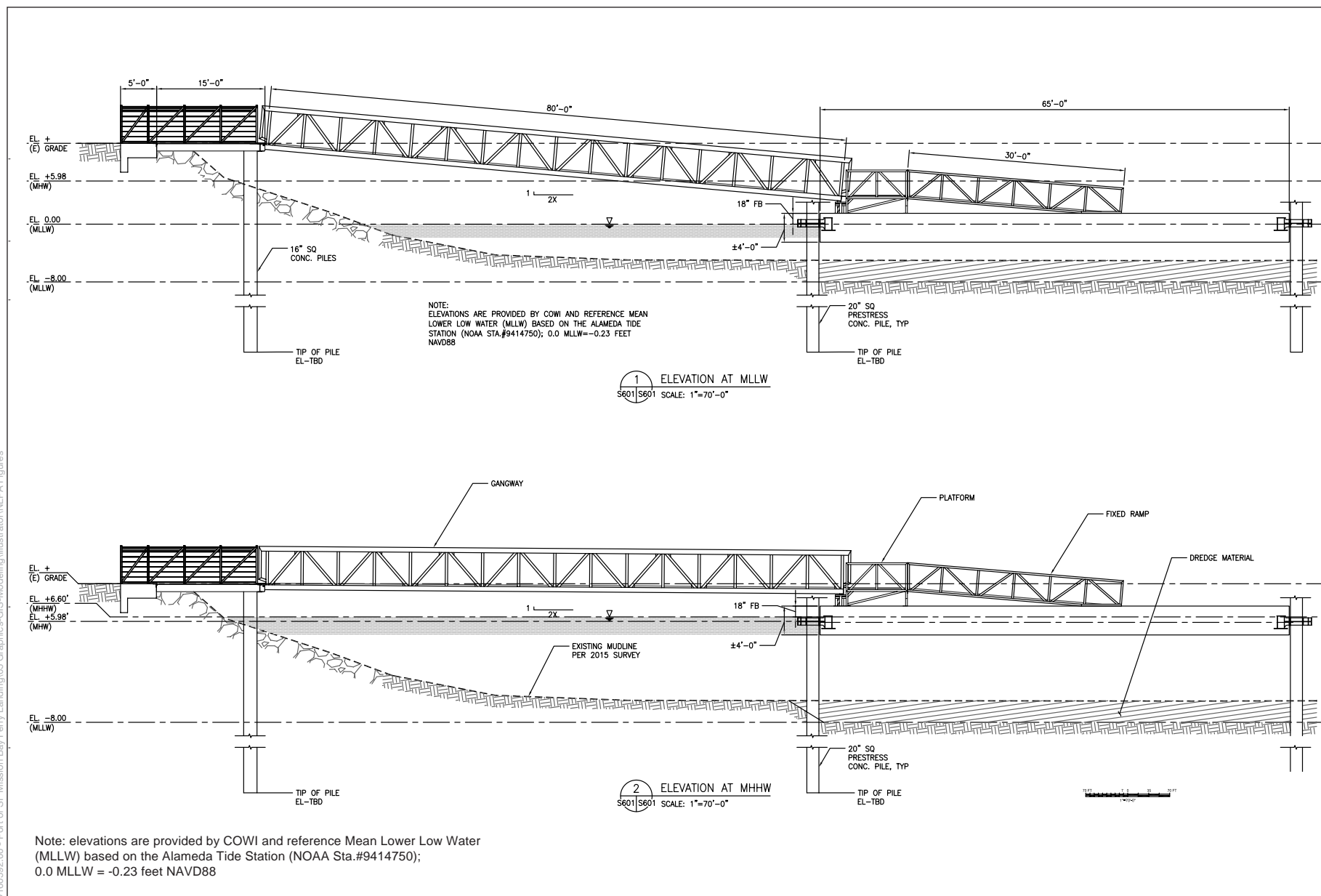
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SOURCE: COWI OLMM

Mission Bay Ferry Landing and Water Taxi Landing Project

**Figure5**  
Water Taxi Landing Plan View

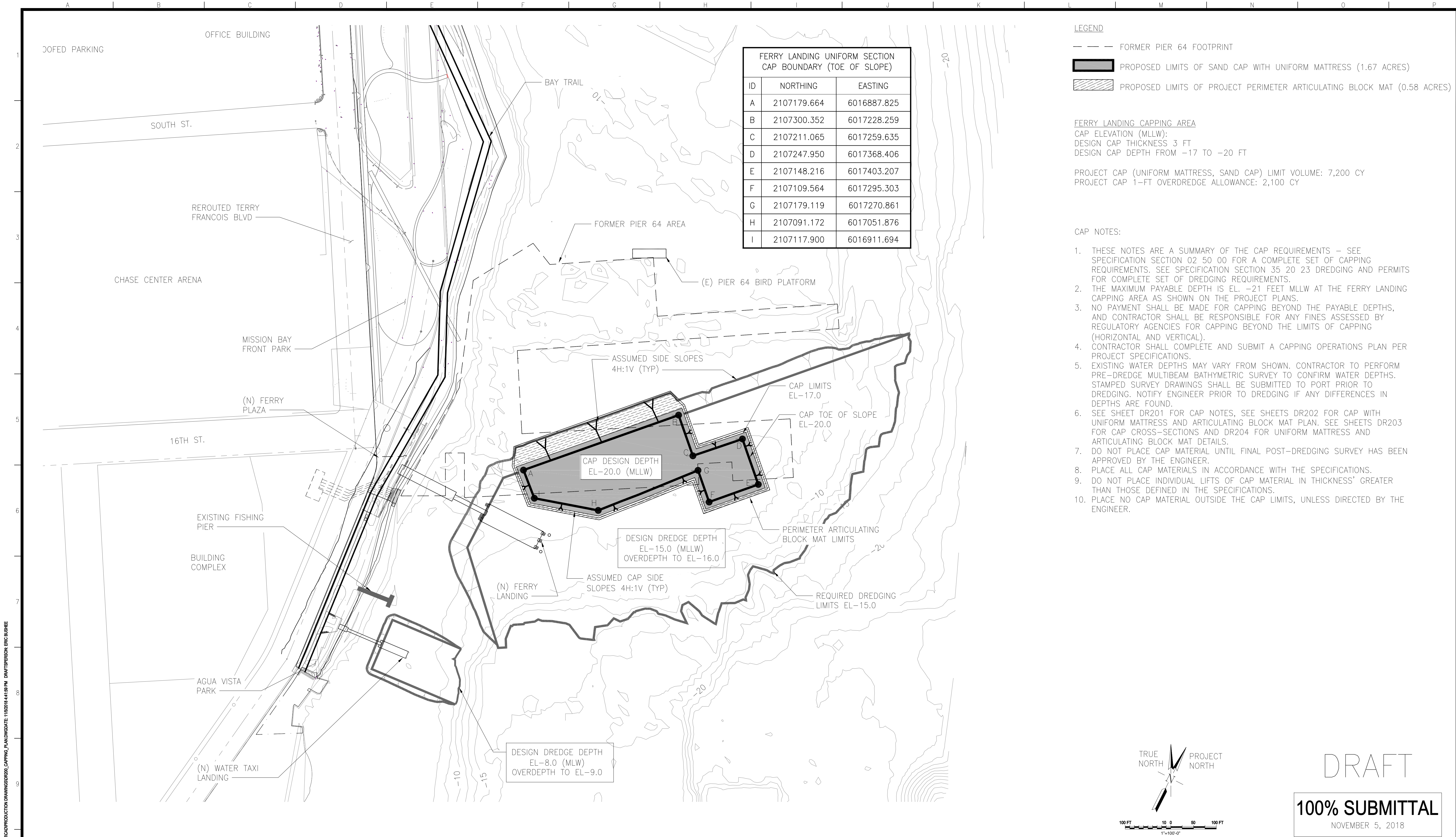


SOURCE: COWI OLMM

Mission Bay Ferry Landing and Water Taxi Landing Project

**Figure 6**  
 Water Taxi Landing Cross-Sections





LEGEND

--- FORMER PIER 64 FOOTPRINT

[Solid Grey Box] PROPOSED LIMITS OF SAND CAP WITH UNIFORM MATTRESS (1.67 ACRES)

[Hatched Box] PROPOSED LIMITS OF PROJECT PERIMETER ARTICULATING BLOCK MAT (0.58 ACRES)

FERRY LANDING CAPPING AREA

CAP ELEVATION (MLLW):

DESIGN CAP THICKNESS 3 FT

DESIGN CAP DEPTH FROM -17 TO -20 FT

PROJECT CAP (UNIFORM MATTRESS, SAND CAP) LIMIT VOLUME: 7,200 CY

PROJECT CAP 1-FT OVERDREDGE ALLOWANCE: 2,100 CY

- CAP NOTES:
1. THESE NOTES ARE A SUMMARY OF THE CAP REQUIREMENTS – SEE SPECIFICATION SECTION 02.50.00 FOR A COMPLETE SET OF CAPPING REQUIREMENTS. SEE SPECIFICATION SECTION 35.20.23 DREDGING AND PERMITS FOR COMPLETE SET OF DREDGING REQUIREMENTS.
  2. THE MAXIMUM PAYABLE DEPTH IS EL. -21 FEET MLLW AT THE FERRY LANDING CAPPING AREA AS SHOWN ON THE PROJECT PLANS.
  3. NO PAYMENT SHALL BE MADE FOR CAPPING BEYOND THE PAYABLE DEPTHS, AND CONTRACTOR SHALL BE RESPONSIBLE FOR ANY FINES ASSESSED BY REGULATORY AGENCIES FOR CAPPING BEYOND THE LIMITS OF CAPPING (HORIZONTAL AND VERTICAL).
  4. CONTRACTOR SHALL COMPLETE AND SUBMIT A CAPPING OPERATIONS PLAN PER PROJECT SPECIFICATIONS.
  5. EXISTING WATER DEPTHS MAY VARY FROM SHOWN. CONTRACTOR TO PERFORM PRE-DREDGE MULTIBEAM BATHYMETRIC SURVEY TO CONFIRM WATER DEPTHS. STAMPED SURVEY DRAWINGS SHALL BE SUBMITTED TO PORT PRIOR TO DREDGING. NOTIFY ENGINEER PRIOR TO DREDGING IF ANY DIFFERENCES IN DEPTHS ARE FOUND.
  6. SEE SHEET DR201 FOR CAP NOTES, SEE SHEETS DR202 FOR CAP WITH UNIFORM MATTRESS AND ARTICULATING BLOCK MAT PLAN. SEE SHEETS DR203 FOR CAP CROSS-SECTIONS AND DR204 FOR UNIFORM MATTRESS AND ARTICULATING BLOCK MAT DETAILS.
  7. DO NOT PLACE CAP MATERIAL UNTIL FINAL POST-DREDGING SURVEY HAS BEEN APPROVED BY THE ENGINEER.
  8. PLACE ALL CAP MATERIALS IN ACCORDANCE WITH THE SPECIFICATIONS.
  9. DO NOT PLACE INDIVIDUAL LIFTS OF CAP MATERIAL IN THICKNESS' GREATER THAN THOSE DEFINED IN THE SPECIFICATIONS.
  10. PLACE NO CAP MATERIAL OUTSIDE THE CAP LIMITS, UNLESS DIRECTED BY THE ENGINEER.

TRUE NORTH

PROJECT NORTH




100 FT 10 0 50 100 FT

1"=100'-0"

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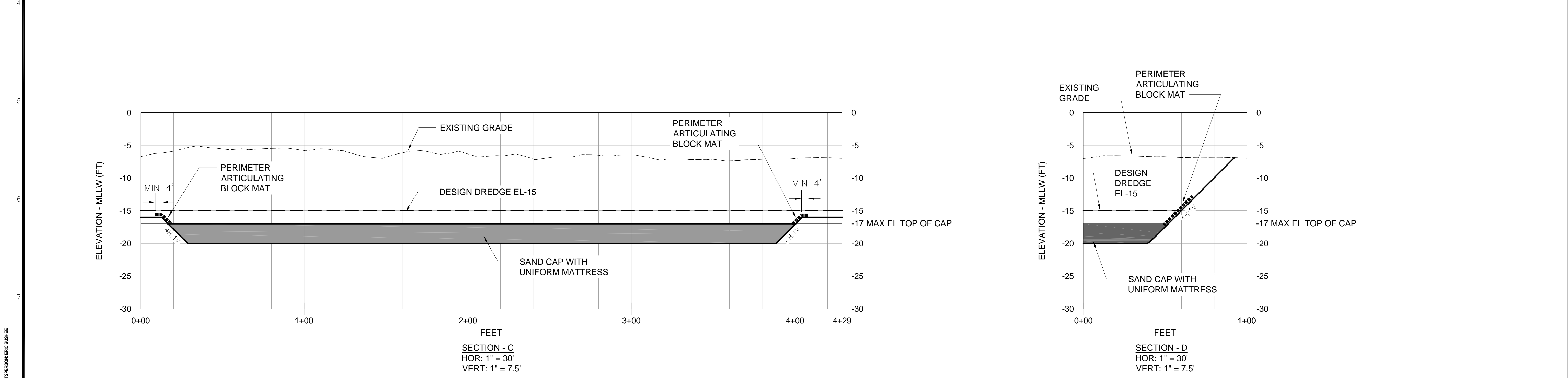
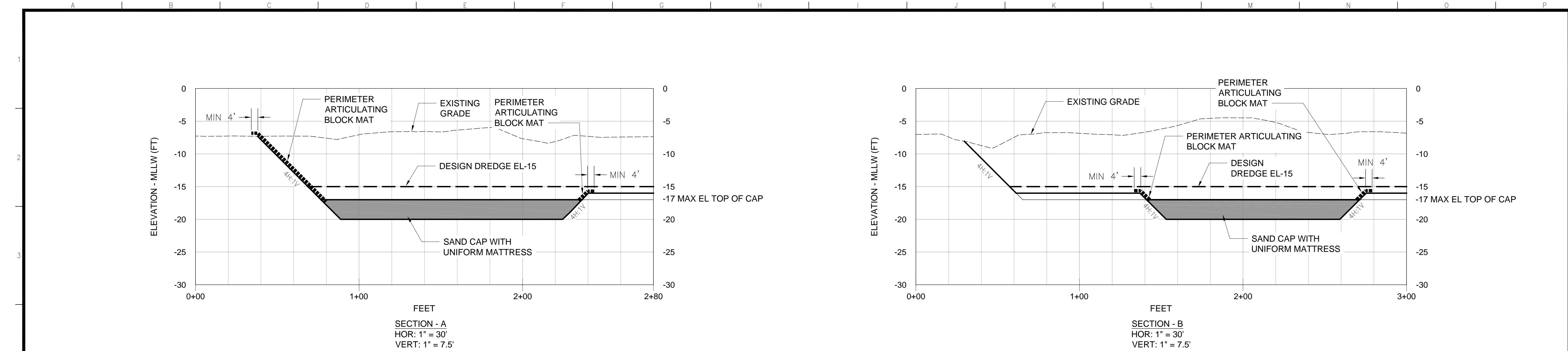
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NOVEMBER 5, 2018

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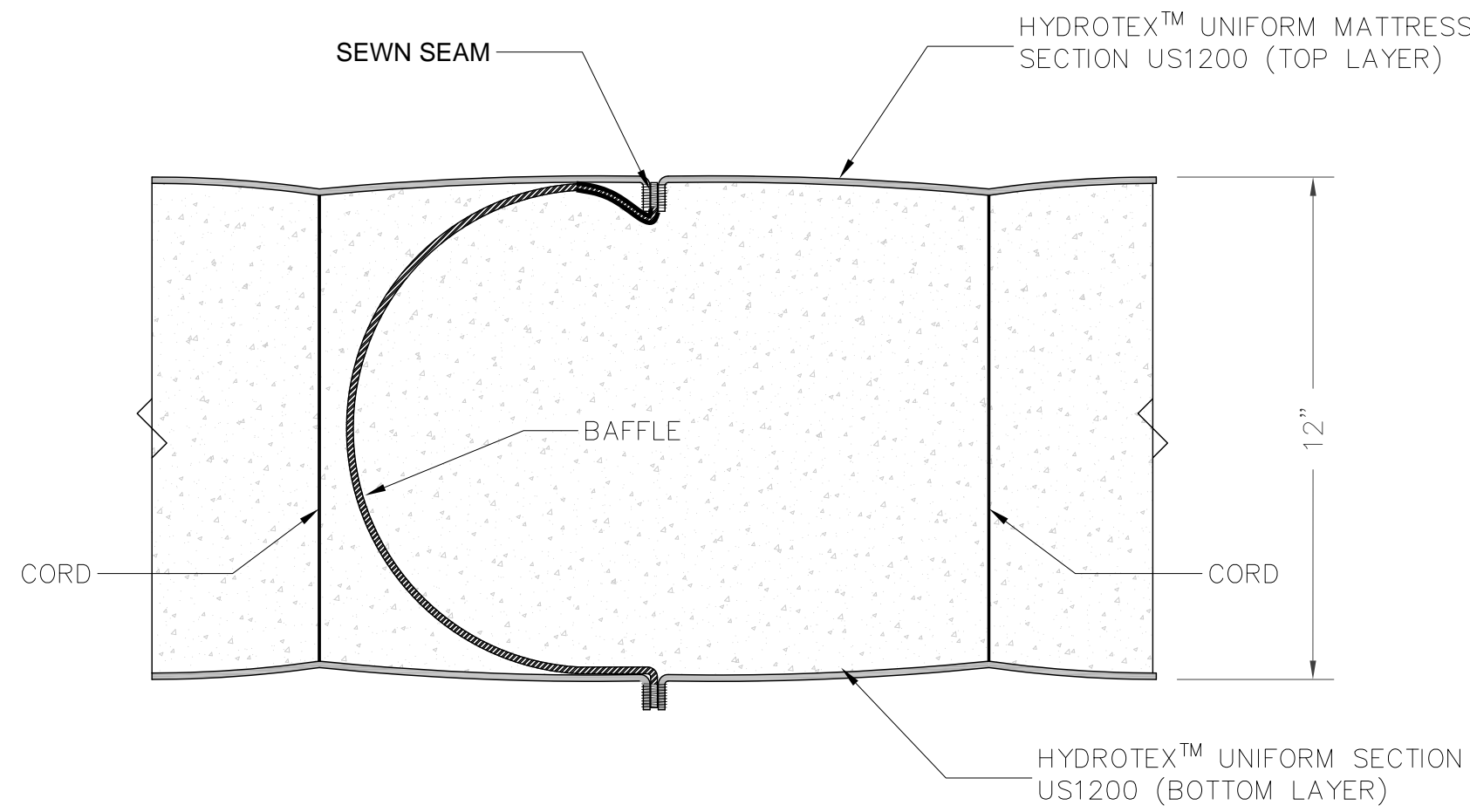
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				REFERENCE INFORMATION & FILE NO. OF SURVEYS		 <div>SAN FRANCISCO PORT COMMISSION <b>PORT OF SAN FRANCISCO</b> DEPARTMENT OF ENGINEERING</div>	 <div>CONSULTANT <i>integral</i> 545 SANSOME STREET, SUITE 875 SAN FRANCISCO, CA 94111 www.integral-corp.com</div>	 <div>REGISTERED PROFESSIONAL ENGINEER BARRY LEE KELLEMS No. 44018 Exp. _____ CIVIL STATE OF CALIFORNIA</div>	DESIGNED: DATE: CZ 11-5-18	APPROVED BY SAN FRANCISCO PORT COMMISSION		SCALE: AS NOTED	MISSION BAY FERRY LANDING AND WATER TAXI LANDING	CONTRACT NO. A085311			
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													CAP AREA AND CROSS SECTIONS		REV. NO. 0		

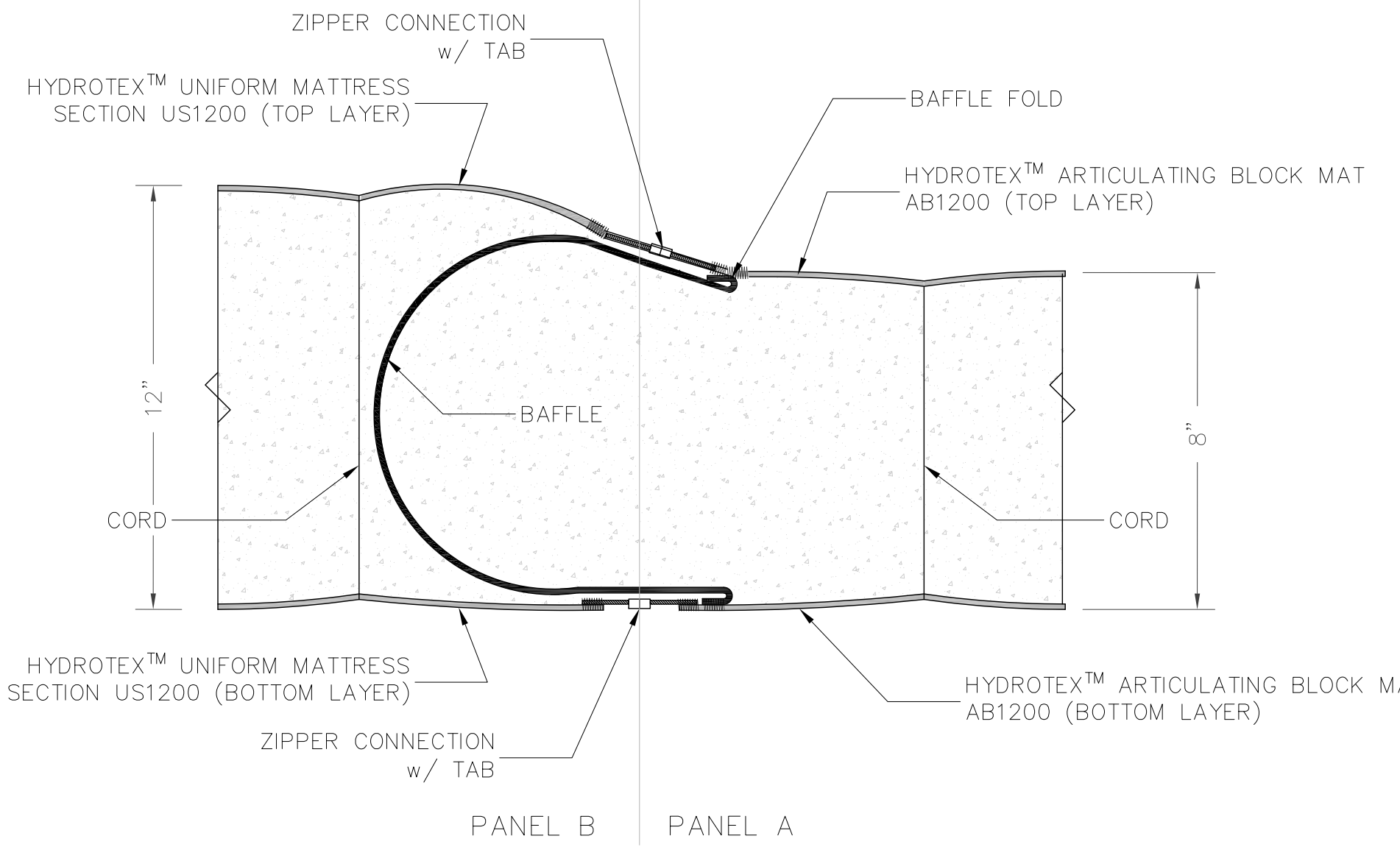
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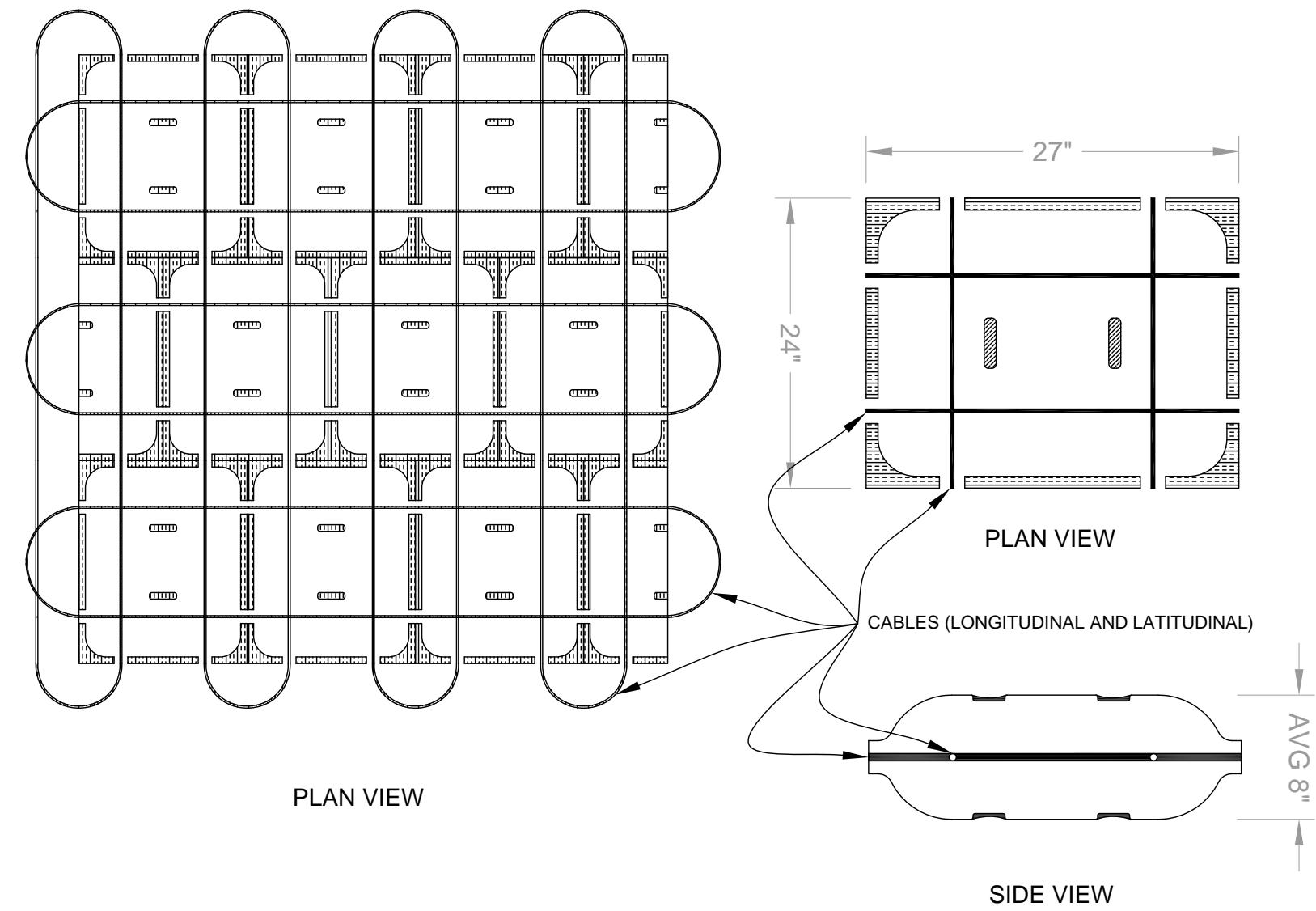
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1 TYPICAL GROUT-FILLED UNIFORM MATTRESS CROSS-SECTION  
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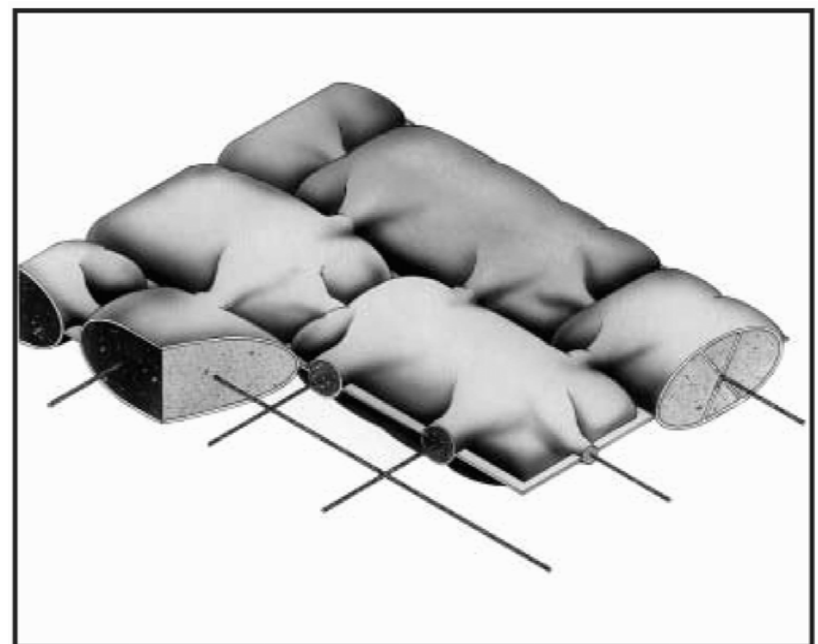
2 UNIFORM MATTRESS AND ARTICULATING BLOCK MAT CONNECTION  
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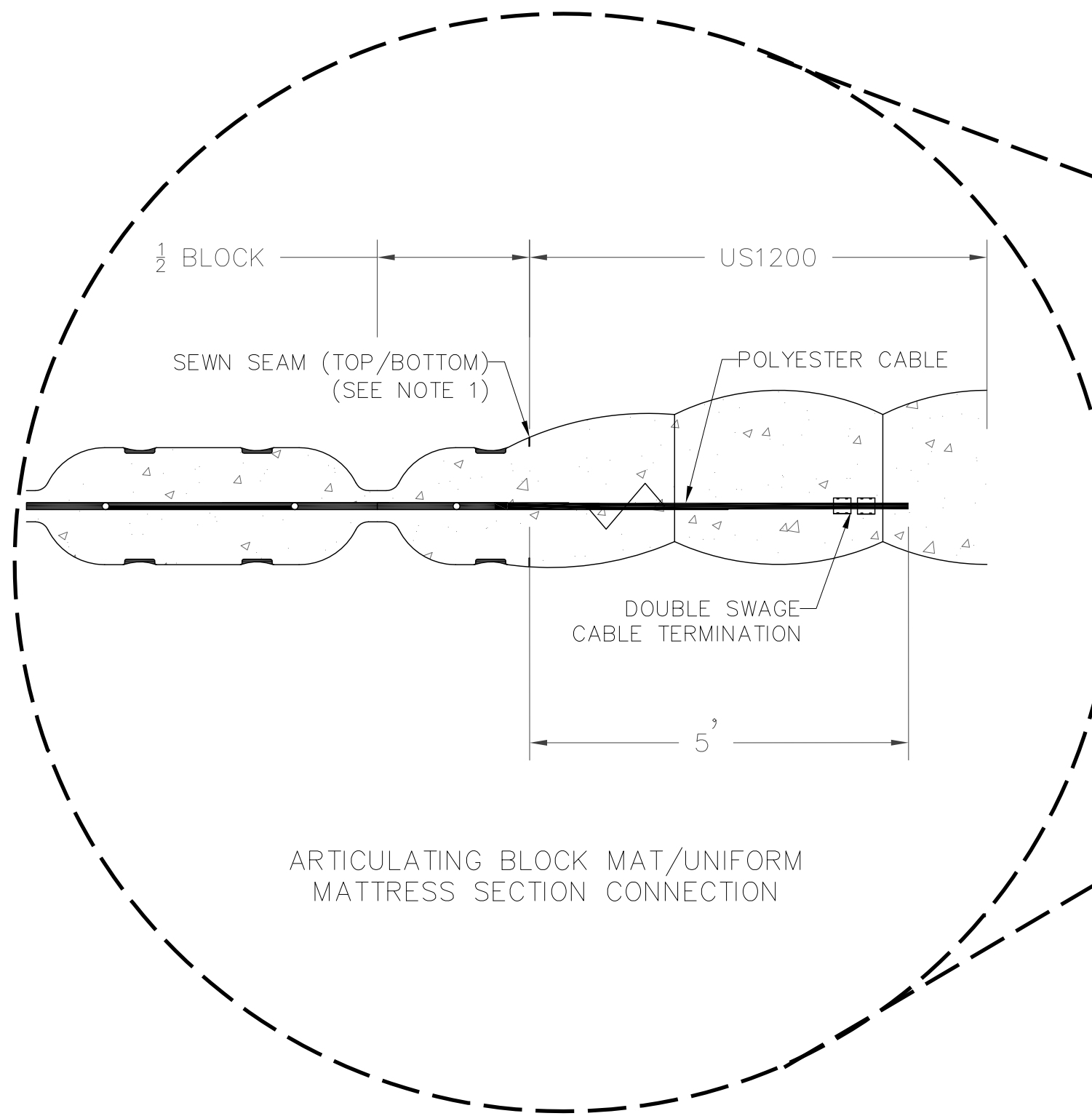
3 ARTICULATING BLOCK MAT  
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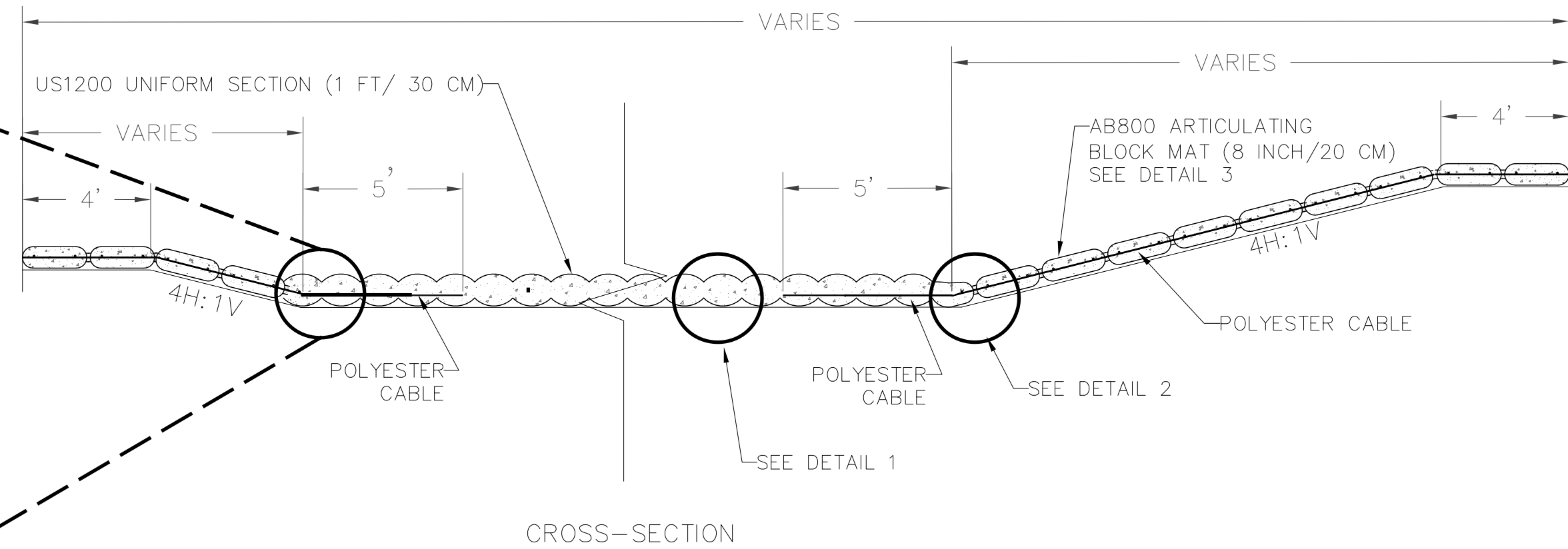
UNIFORM MATTRESS



ARTICULATING BLOCK MAT



4 UNIFORM MATTRESS AND ARTICULATING BLOCK MAT  
DR202 NOT TO SCALE



CROSS-SECTION

NOTE:  
1. THE UNIFORM MATTRESS SECTION AND  
ARTICULATING BLOCK MATS WILL BE SEWN  
TOGETHER IN FABRICATION FACILITY.

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AH	11-5-18

APPROVED BY  
SAN FRANCISCO PORT COMMISSION  
DATE: \_\_\_\_\_  
\_\_\_\_\_  
CHIEF HARBOR ENGINEER

SCALE:  
AS NOTED  
SHEET OF SHEETS  
-

MISSION BAY FERRY LANDING AND WATER TAXI LANDING
UNIFORM MATTRESS AND ARTICULATING BLOCK MAT DETAILS

CONTRACT NO. A085311
SHEET NO. DR204
FILE NO.
REV. NO. 0