

RICHMOND INNER & OUTER HARBOR CHANNEL MAINTENANCE DREDGING PROJECT

CONTRA COSTA COUNTY, CALIFORNIA

US Army Corps of Engineers
San Francisco District
1455 Market Street
San Francisco, CA 94103

GENERAL NOTES:

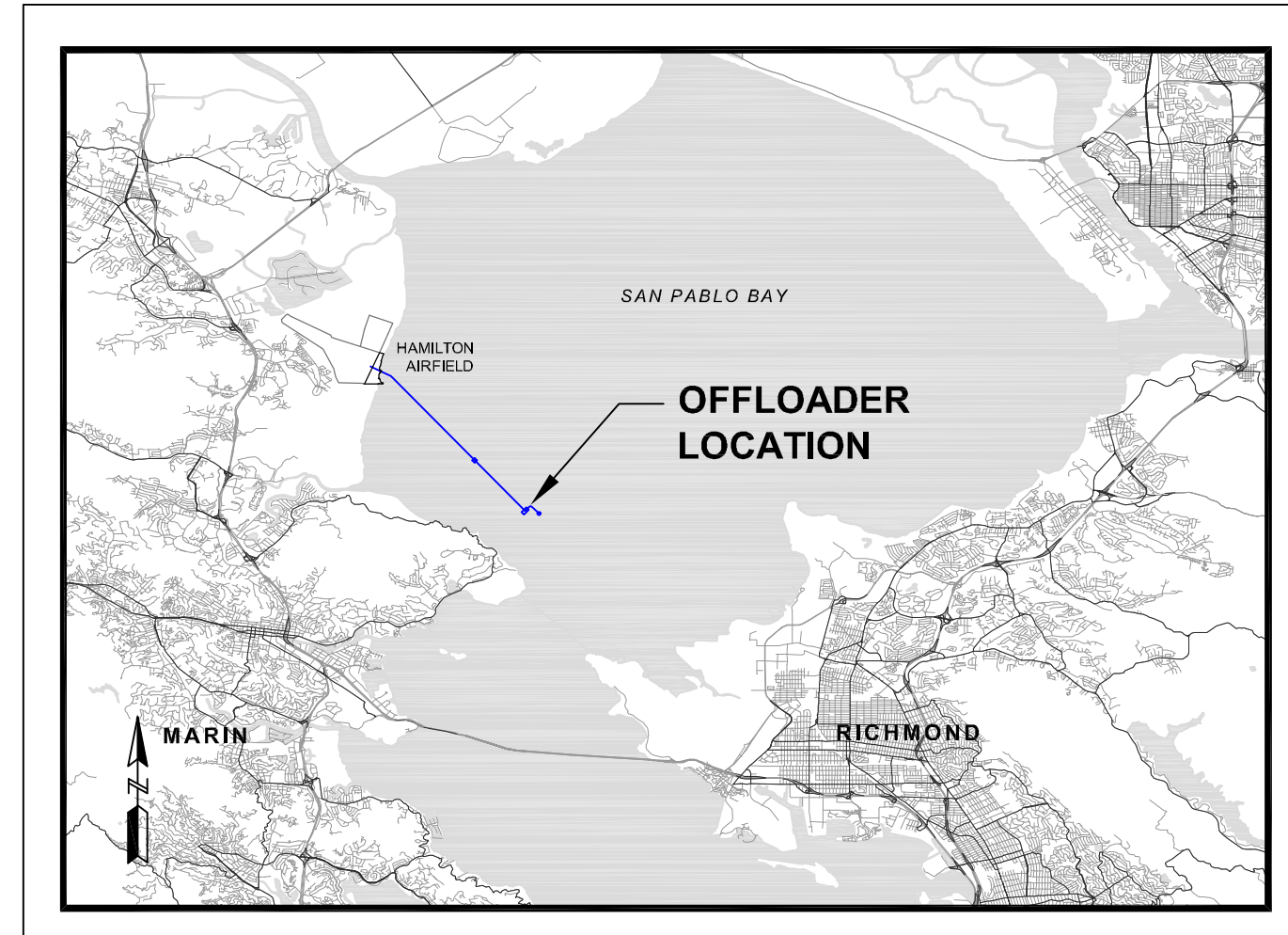
- THIS IS NOT A BOUNDARY SURVEY.
- USACE, SAN FRANCISCO DISTRICT (SPN)
HYDROGRAPHIC SURVEY OBSERVATION DATES:
INNER HARBOR CHANNEL, 2010 MAY 12-14
OUTER HARBOR CHANNEL, 2010 MAY 10-11 & 13

INFORMATION DISPLAYED HEREON REFLECTS A "SNAP-SHOT" IN TIME OBSERVATION OF A DYNAMIC, FLUID PROJECT SITE. OBSERVATIONS MADE AT ANY OTHER TIME WILL REFLECT ENTIRELY DIFFERENT CONDITIONS.
- SOUNDING ELEVATIONS REFLECT MEAN LOWER LOW WATER (MLLW) DATUM.
- DRAWINGS ARE NOT TO BE USED AS NAVIGATIONAL AIDE CHARTS.
- SOUNDING ELEVATION OBSERVATION ACCRUED ERROR / ACCURACY:
BENCHMARK POSITIONAL ERROR: 0.03' (+/-) REPORTED
TIDE READING ERROR: 0.1' (+/-)
SINGLE BEAM FATHOMETER RESOLUTION: 0.1' (+/-) FACTORY
ACCRUED ERROR / ACCURACY: 0.23' (+/-) AVERAGE MEAN
- HORIZONTAL COORDINATES:
CALIFORNIA COORDINATE SYSTEM OF 1983 (CCS83), BASED UPON THE NORTH AMERICAN DATUM (NAD 1983) LAMBERT CONFORMAL CONIC PROJECTION;
GEODEIC REFERENCE SYSTEM OF 1980 (GRS80) ELLIPSOID, ZONE NO. 403;
AS DESCRIBED IN SPECIAL PUBLICATION NO. 253, PUBLISHED BY THE NATIONAL OCEAN SURVEY (NOS).
- GEOCODED BASE MAPS WERE RECTIFIED BY AERIAL PHOTOGRAMMETRIC METHODS CONFORMING TO NATIONAL MAP ACCURACY STANDARDS (NMAS) DATED: 1996 AUG 10.

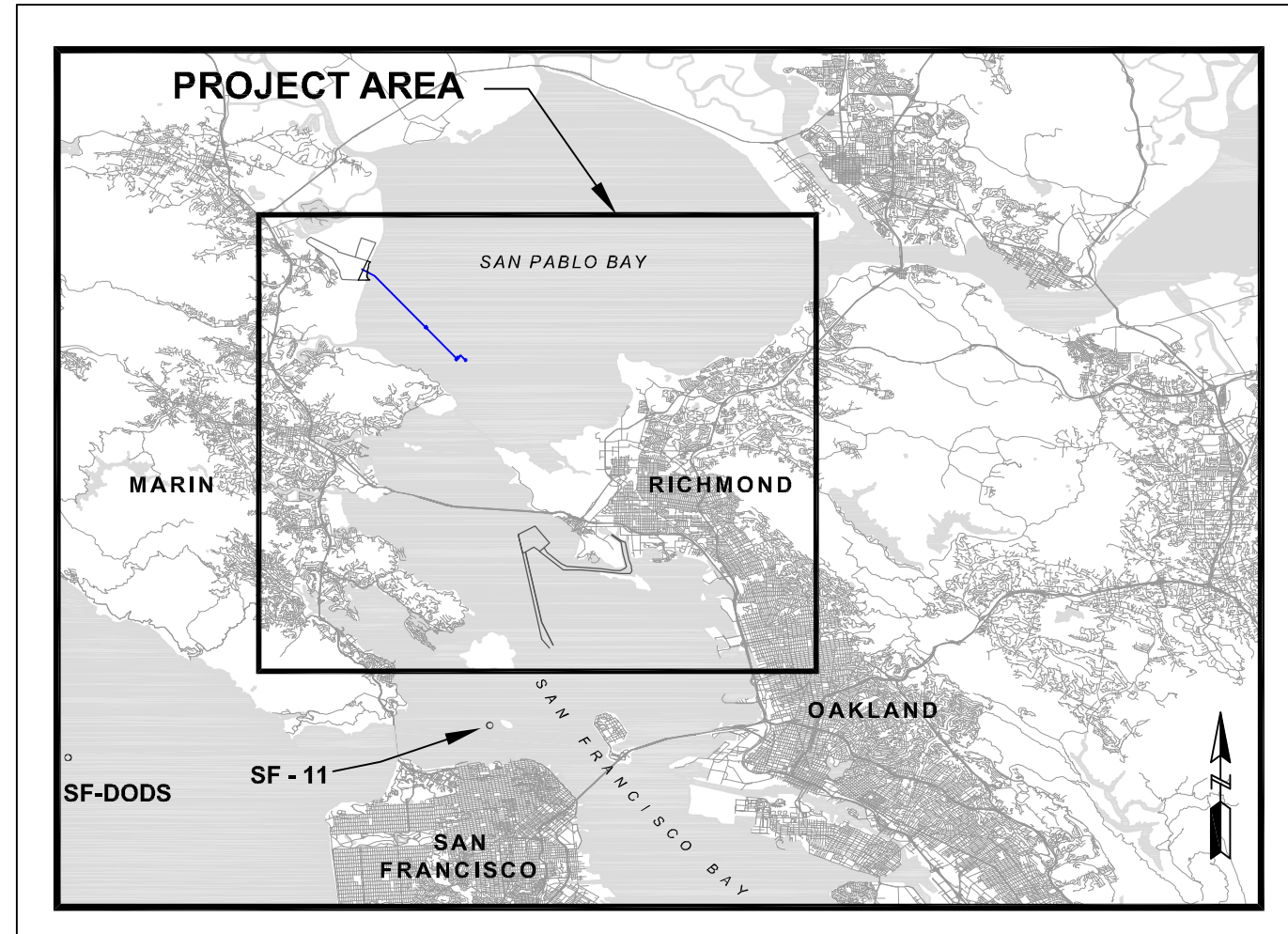
ACCEPTANCE REACHES (INNER HARBOR CHANNEL):
REACH 1 THROUGH REACH 5: USE HAMILTON DISPOSAL SITE FOR MATERIAL DISPOSAL.
REACH 1: STA 0+79 TO 10+00 REACH 2: STA 10+00 TO 20+00
REACH 3: STA 20+00 TO 30+00 REACH 4: STA 30+00 TO 40+00
REACH 5: STA 40+00 TO 50+00
REACH 6: STA 50+00 TO 65+00 (DISPOSAL AT SF-DODS).
REACH 7: STA 65+00 TO 80+00 (DISPOSAL AT SF-DODS).
REACH 8: STA 80+00 TO 90+00
REACH 9: STA 90+00 TO 120+00 REACH 10: STA 120+00 TO 148+00
REACH 11: STA 148+00 TO 161+00 REACH 12: STA 161+00 TO 172+51
REACH 13: STA 172+51 TO 200+00 REACH 14: STA 200+00 TO 218+00
START DREDGING FROM REACH 14 TOWARDS THE OUTER HARBOR.

ACCEPTANCE REACHES (OUTER HARBOR CHANNEL):
REACH 1: STA 0+00 TO 52+00
REACH 2: STA 52+00 TO 118+00
REACH 3: STA 118+00 TO 171+79
REACH 4: MANEUVERING AREA STA 0+00 TO 48+00
USE THE SF-11 OR HAMILTON DISPOSAL SITE FOR MATERIAL DISPOSAL.

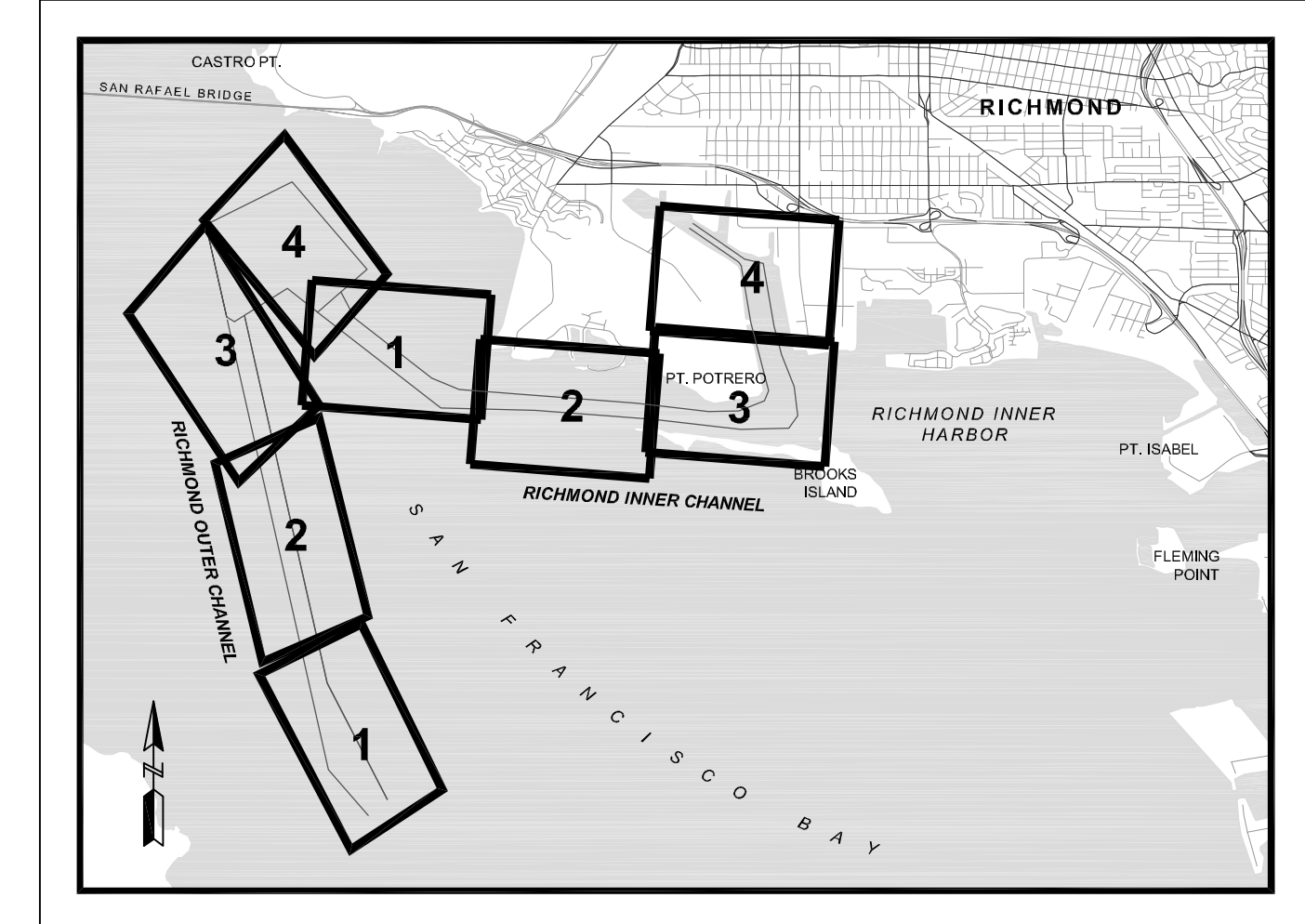
TIDE GAGE LOCATION: B-1, 14.07' MLLW.



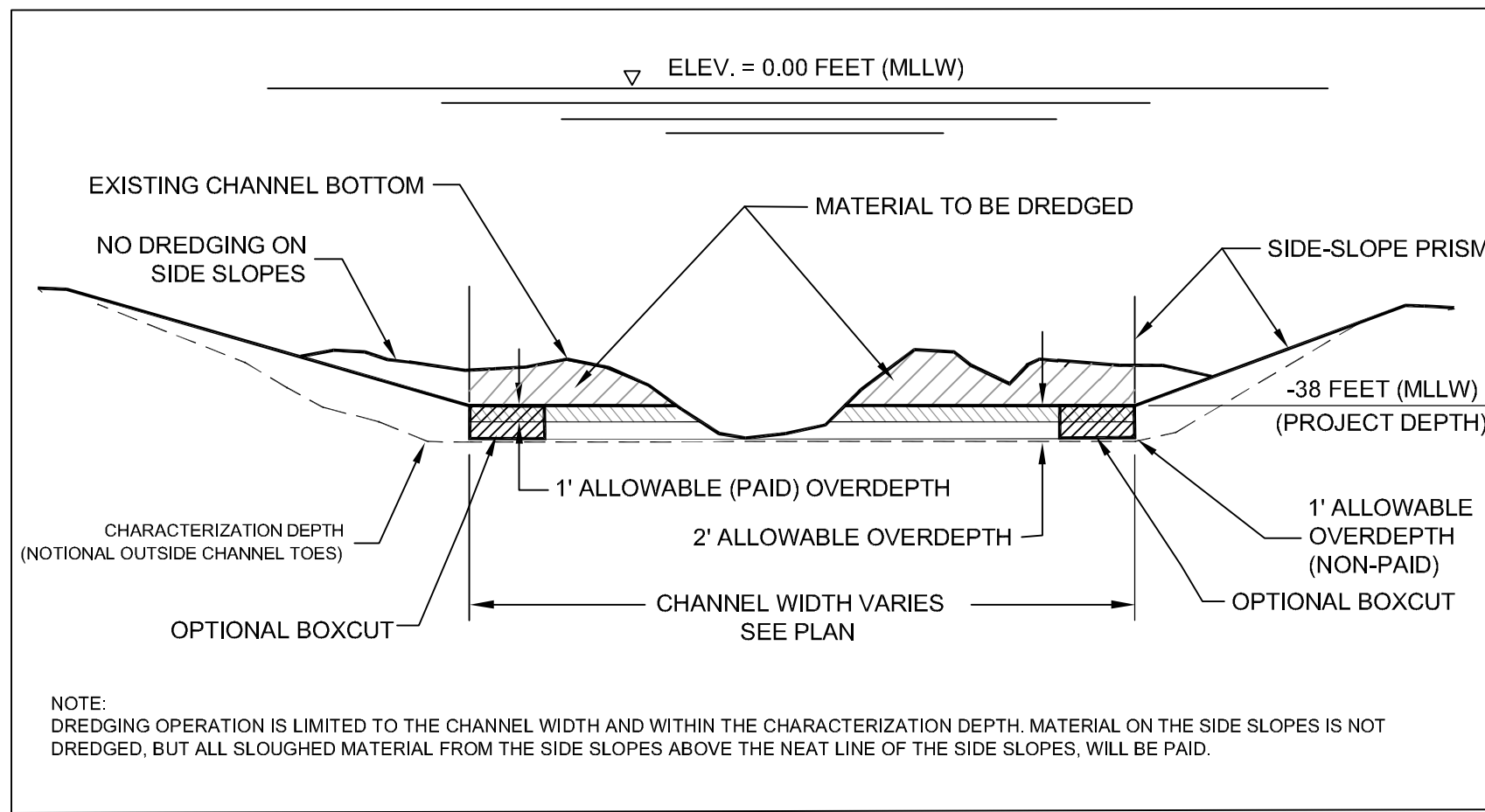
HAMILTON DISPOSAL SITE
NOT TO SCALE



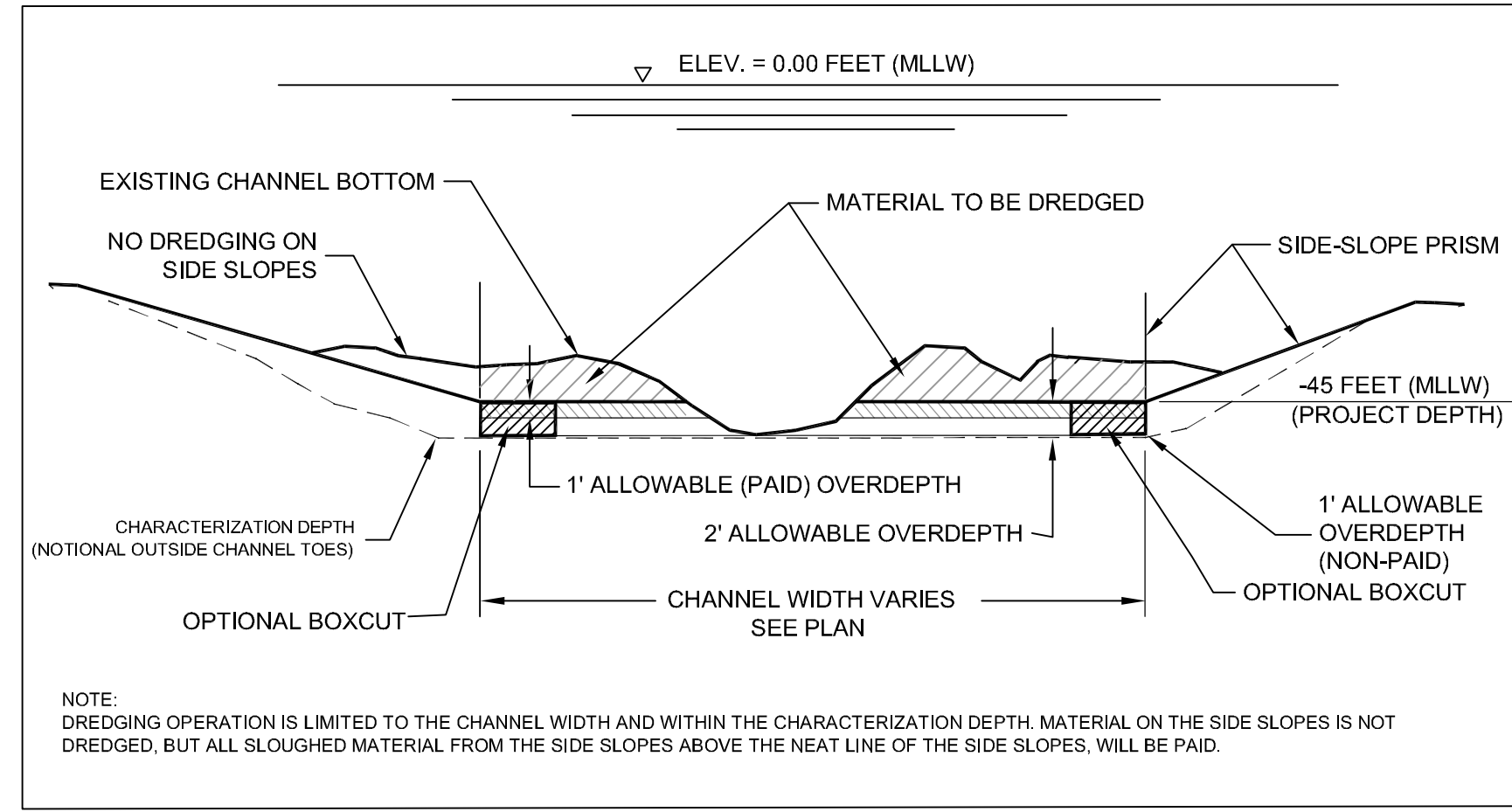
SF-DODS/SF-11 DISPOSAL SITE
NOT TO SCALE



LOCATION MAP
NOT TO SCALE



TYPICAL DREDGING SECTION FOR INNER HARBOR CHANNEL
NOT TO SCALE



TYPICAL DREDGING SECTION FOR OUTER HARBOR CHANNEL
NOT TO SCALE

RICHMOND INNER HARBOR, S.F. BAY CALIFORNIA VERTICAL CONTROL (INNER CHANNEL) :
BENCH MARK STAMPING: BM 2 1932 16.076 (NAVD88) 16.083 (MLLW) 10.663 (MHW) feet
STATION ID: 9414849 PUBLICATION DATE: 04/21/2003
NOAA CHART: 18653 LATITUDE: 37° 54.6' N
USGS QUAD: RICHMOND LONGITUDE: 122° 21.5' W
DESIGNATION: TIDAL STA III 22 MONUMENTATION: TIDAL STATION DISK VM#: 8447
AGENCY: US COAST AND GEODETIC SURVEY (USC&GS) PID#: HT0920
SETTING CLASSIFICATION: GRANITE FOUNDATION THE BENCH MARK IS A DISK SET VERTICALLY IN THE GRANITE FOUNDATION AT THE NORTHERN MOST ENTRANCE ON THE WEST SIDE OF THE OLD FORT PLANT, 6.13 M (20.1 FT) NORTH OF A 1 M (3 FT) TALL RED FIRE MAIN VALVE NEXT TO THE WEST WALL OF THE BUILDING, 3.87 M (12.7 FT) SOUTH OF THE NORTHERN MOST ENTRANCE ON THE WEST SIDE OF THE BUILDING AND 0.15 M (0.5 FT) ABOVE GROUND.
TIDE GAUGE: USACE - B1, 14.07' MLLW.

VERTICAL CONTROL (OUTER CHANNEL) :
FOR SOUTHAMPTON SHOALS & LONG WHARF MANEUVERING AREAS: BENCHMARK "10" (1937) USC&GS DISK ELEV. 15.86 FT. M.L.L.W. AND BENCHMARK "11" (1946) ELEV. 15.47 FT. M.L.L.W.
TIDE GAUGE LOCATION (OUTER CHANNEL) : AT TIBURON NET DEPOT.
HORIZONTAL CONTROL (OUTER CHANNEL) : COAST GUARD D-BEACON

| Mark | Description | Date | Appr. |
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| DESIGNED BY: | PDT | CHECKED BY: | PDT | DRAWN BY: | PDT |
| DATE: | 14 MAY 2010 | SHEET NO.: | 1 of 1 | DRAWING NO.: | 1 |
| APPROVAL RECOMMENDED: | STEPHEN P. KILMON, P. S. M. | PREPARED UNDER THE DIRECTION OF: | LAURENCE M. FARRELL | | |
| APPROVED: | | | | | |
| | | | | | LT. COLONEL, C.E., DISTRICT ENGINEER |

CALIFORNIA
CONTRA COSTA COUNTY
RICHMOND INNER HARBOR AND RICHMOND OUTER HARBOR CONDITION SURVEY

Sheet reference number
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