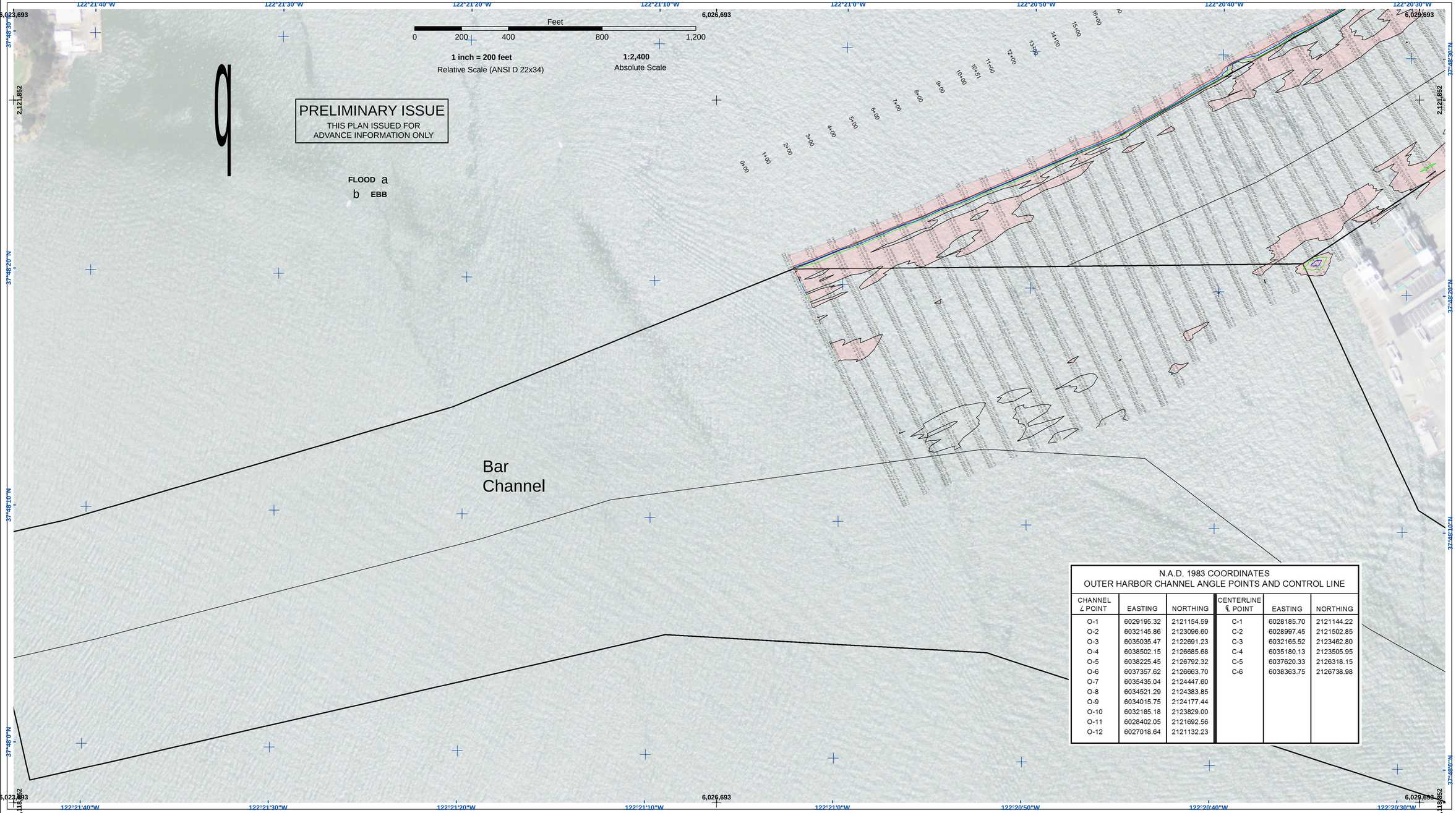
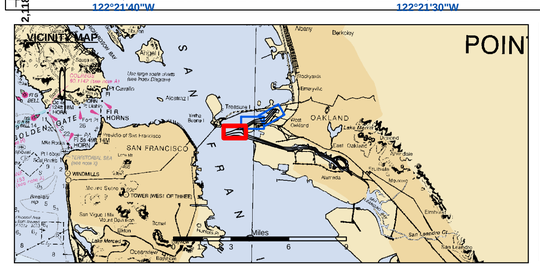


N.A.D. 1983 COORDINATES OUTER HARBOR CHANNEL ANGLE POINTS AND CONTROL LINE					
CHANNEL ∠ POINT	EASTING	NORTHING	CENTERLINE ℄ POINT	EASTING	NORTHING
O-1	6029195.32	2121154.59	C-1	6028185.70	2121144.22
O-2	6032145.86	2123096.60	C-2	6028997.45	2121502.85
O-3	6035035.47	2122691.23	C-3	6032165.52	2123462.80
O-4	6038502.15	2126685.68	C-4	6035180.13	2123505.95
O-5	6038225.45	2126792.32	C-5	6037620.33	2126318.15
O-6	6037357.62	2126663.70	C-6	6038363.75	2126738.98
O-7	6035435.04	2124447.60			
O-8	6034521.29	2124383.85			
O-9	6034015.75	2124177.44			
O-10	6032185.18	2123829.00			
O-11	6028402.05	2121692.56			
O-12	6027018.64	2121132.23			



- Federal Navigation Channel
- Shoaling Area
- Placement Area
- Anchorage Area
- Wreck Area
- Submerged Wreck
- Angle Points
- Beacon, General
- Obstruction Point
- Navigation Buoy
- Navigation Buoy
- Shoalest Sounding*

Contours
-50
-49
-48
-47
-46

NOTES:
DRAWING NOT TO BE USED FOR NAVIGATION. ONLY CHANNEL CONDITION AT DATE OF SURVEY, THE LOCATION OF ALL NAVIGATION AIDS ARE BASED ON INFORMATION PROVIDED BY THE U.S. COAST GUARD. BUOY LOCATIONS REPRESENT THE POSITION OF THE SINKER ONLY.

SOUNDINGS WERE TAKEN BY FATHOMETER AND ARE SHOWN TO THE NEAREST TENTH OF A FOOT.

SOUNDINGS ARE BASED ON THE DATUM OF MEAN LOWER LOW WATER AT THE LOCALITY.

SURVEYED BY THE CORPS OF ENGINEERS.
BASE MAPS ARE USDA NAIP 2010.

PLANE GRID AND COORDINATES ARE BASED ON LAMBERT PROJECTION, NAD 83, ZONE III CALIFORNIA AS DESCRIBED IN SPECIAL PUBLICATION NO. 235, PUBLISHED BY THE NATIONAL OCEAN SURVEY.

PROJECT DEPTH OF OUTER AND INNER HARBOR IS -50 FEET.

PROJECT DEPTH FROM INNER HARBOR TURNING BASIN TO PARK STREET BRIDGE IS 35 FEET. TIDAL CANAL PROJECT DEPTH IS 18 FEET.

VERTICAL CONTROL:
PPCP: PORT 1 1936/PID HT0654.
OAKLAND INNER, REACH 4-6 DISK SET AT SOUTH END OF CLAY STREET, AT THE PORT OF OAKLAND CLAY STREET PIER. ELEVATION: 9.56 FEET MLLW - PUBLISHED 21 APR 2003 ON NOAA STATION 941 4764 TIDE GAUGE LOCATION IS CHISEL MARK
APPROX. 10 FEET WEST ON TOP OF CONCRETE CURB; CHISEL ELEVATION 11.0 FEET MLLW.

LPCP 1: 941 4777 B TIDAL/PID AE5211, OAKLAND INNER REACH 1-3 DISK SET IN BALLARD FOUNDATION
NEAR THE NORTHEAST END OF BERTH 40 OF THE OAKLAND MIDDLE HARBOR.
ELEVATION: 13.48 FEET MLLW - DERIVED FROM WGS-84 ELLIPSOID ELEVATION, GEOID09 AND VDATUM MODELS
TIDE GAUGE LOCATION IS IN FACE OF PILING AT BERTH 37; NAIL ELEVATION 9.7 FEET MLLW.

LPCP 2: OAK OUTER 1 2012/NO PID, OAKLAND OUTER REACH 7-10 DISK SET IN PARKING LOT AT PIER 6 AMNAV TUG TERMINAL AT THE EDGE OF THE PIER. ELEVATION: 14.04 FEET MLLW - DERIVED FROM WGS-84 ELLIPSOID ELEVATION, GEOID09 AND DATUM MODELS TIDE GAUGE LOCATION IS IN FACE OF PILING AT PIER 6, 10' EAST OF BENCHMARK; NAIL ELEVATION 10.1 FEET MLLW.

HORIZONTAL CONTROL:
PRIMARY: RTK POSITIONING
SECONDARY: COAST GURAD DGPS D-BEACON

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

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Chart Date:	Jul 22, 2015
Surveyed By:	
Plotted By:	PDT
Designed by:	
Drawn by:	PDT
Checked By:	PDT

PREPARED UNDER THE DIRECTION OF
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Submitted:
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Recommended:
Chief, Hydro Survey Section

Approved:
Chief, Construction Branch

CALIFORNIA
ALAMEDA COUNTY

OAKLAND OUTER HARBOR
CONDITION SURVEY
8-10 JULY 2015

Sheet Reference Number
1 of 3