



AnglePoint	Easting	Northing
01	6026473.56	2119570.70
02	6027845.43	2119493.40
03	6029918.57	2118819.96
04	6032404.37	2118099.73
05	6032730.19	2118091.23
06	6033362.90	2117836.07
07	6035413.21	2117248.79
08	6037795.20	2116472.91
09	6039039.12	2116096.20
10	6040857.42	2115538.69
11	6042043.68	2115391.38
12	6043883.98	2115691.93
13	6043882.72	2115717.36
14	6044481.04	2115462.55
15	6044676.95	2115541.75
16	6045164.95	2115816.00
17	6045394.45	2115920.50
18	6047075.32	2115911.24
19	6047102.54	2116577.63
20	6045070.66	2116733.32
21	6044970.66	2116889.32
22	6044443.67	2116787.33
23	6044237.67	2116595.33
24	6043848.67	2116407.34
25	6042706.68	2116202.36
26	6040041.68	2116358.42
27	6030243.21	2119742.79
28	6029688.69	2120100.77
29	6029195.32	2121154.59
C01-I	6023646.15	2119462.15
C02-I	6024036.26	2119550.55
C03-I	6025686.16	2119980.13
C04-I	6026240.30	2120146.60
C05-I	6027834.44	2120362.65
C06-I	6028520.38	2120324.00
C07-I	6029469.16	2119600.14
C08-I	6029982.52	2119311.30
C09-I	6032849.63	2118439.13
C10-I	6033991.54	2118062.12
C11-I	6039959.88	2116091.63
C12-I	6040877.50	2115916.79
C13-I	6041540.72	2115860.01
C14-I	6042069.48	2115914.83
C15-I	6042523.82	2115844.55
C16-I	6042762.57	2115860.14
C17-I	6043906.03	2116056.12
C18-I	6045627.74	2116304.23
C19-I	6047090.98	2116244.72

AnglePoint	Easting	Northing
01	6020245.90	2118153.46
02	6024157.22	2119040.07
03	6026473.56	2119570.70
04	6029195.32	2121154.59
05	6032145.86	2123096.60
06	6035035.47	2122891.23
07	6038502.15	2126685.68
08	6038225.45	2126792.32
09	6037357.62	2126663.70
10	6035435.04	2124447.60
11	6034521.88	2124383.85
12	6034015.75	2124177.44
13	6032185.18	2123829.00
14	6028402.05	2121692.56
16	6025557.78	2120540.53
17	6023915.29	2120061.03
18	6020014.00	2119177.46
C01-0	6027223.76	2120719.23
C02-0	6028185.70	2121144.22
C04-0	6028997.45	2121502.85
C05-0	6029354.80	2121699.81
C06-0	6032165.53	2123462.88
C07-0	6035180.13	2123505.95
C08-0	6037620.33	2126318.15
C09-0	6038445.33	2126785.15

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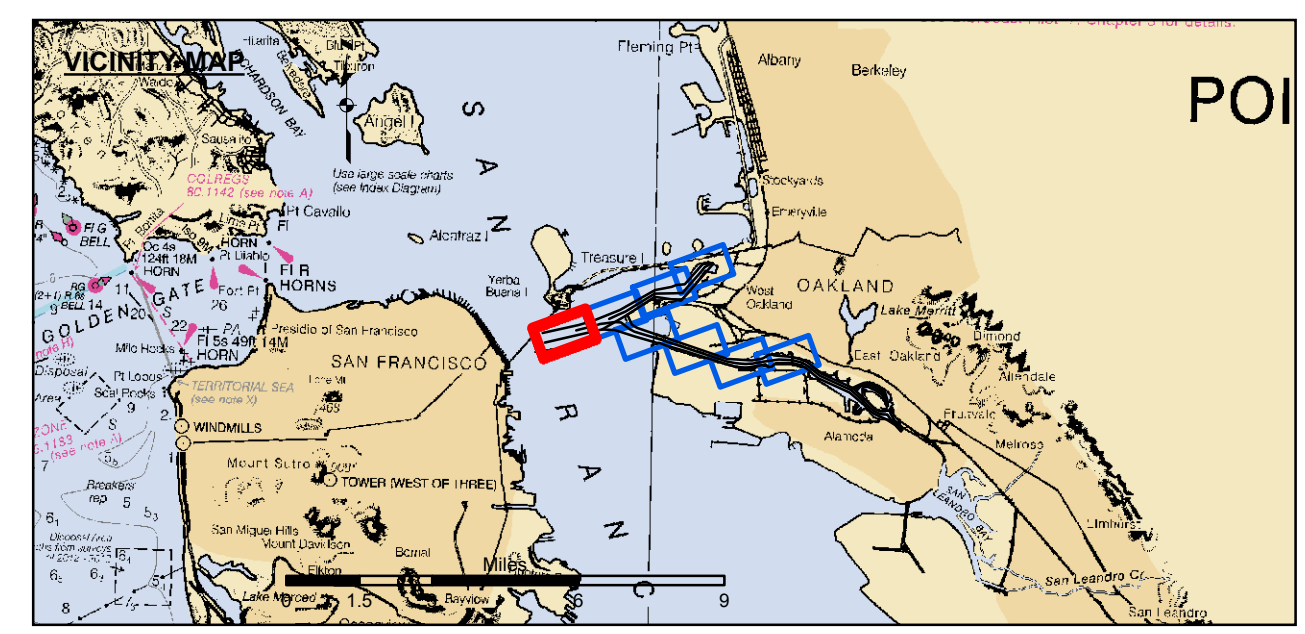
US Army Corps of Engineers
San Francisco District
1455 Market Street
San Francisco, CA 94103

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Prepared Under the Direction of	JOHN C. MORROW LT COLONEL, C.E., DISTRICT ENGINEER	Surveyed By	PDT	Chart Date	Jul 18, 2014
Station	Hydro Survey Team Leader	Plotted By	PDT	Designed by	
Recommendation	Chief, Hydro Survey Section	Checked By	PDT	Drawn by	PDT
Approval	Chief, Construction Branch				

ALAMEDA COUNTY
OAKLAND HARBOR
OAKLAND INNER HARBOR
CONDITION SURVEY
15 JULY 2014

Sheet Number
1 of 8



Federal Navigation Channel	Beacon, General	Contours
Shoaling Area	Obstruction Point	-50
Placement Area	Navigation Buoy	-49
Anchorage Area	Navigation Buoy	-48
Wreck Area	Shoalest Sounding*	-47
Submerged Wreck		-46
Angle Point		

NOTES:
HORIZONTAL COORDINATE SYSTEM: NORTH AMERICAN DATUM OF 1983 (NAD83), PROJECTED TO THE STATE PLANE COORDINATE SYSTEM (SPCS), CALIFORNIA ZONE III. DISTANCE UNITS IN U.S. SURVEY FEET.
VERTICAL DATUM: SOUNDINGS ARE SHOWN IN FEET AND INDICATE DEPTHS BELOW MEAN LOWER LOW WATER. SOUNDINGS ARE BASED ON THE DATUM OF MEAN LOWER LOW WATER AT THE LOCALITY.
THE INFORMATION DEPICTED ON THIS MAP REPRESENTS THE RESULTS OF A SURVEY CONDUCTED ON THE DATE INDICATED AND CAN ONLY BE CONSIDERED TO REPRESENT THE GENERAL CONDITION EXISTING AT THAT TIME.
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.
*SHOALEST SOUNDING PER QUARTER PER REACH

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. THE PROJECT DEPTHS ARE AS FOLLOWS:
OUTER AND INNER HARBOR IS -50 FEET
INNER HARBOR TURNING BASIN TO PARK STREET BRIDGE IS -35 FEET.
TIDAL CANAL PROJECT DEPTH IS -18 FEET.
PLANE GRID AND COORDINATES ARE BASED ON LAMBERT PROJECTION, NAD 83, ZONE III CALIFORNIA AS DESCRIBED IN SPECIAL PUBLICATION NO. 238, PUBLISHED BY THE NATIONAL OCEAN SURVEY.
HORIZONTAL CONTROL:
PRIMARY: RTK POSITIONING
SECONDARY: COAST GUARD DGPS D-BEACON
VERTICAL CONTROL:
PPCP: PORT 1 1936/PID H10664
OAKLAND INNER REACH 4-B 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.
LPOP 1 941 4777 B TIDAL PIVOT AS211, 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 VDUTUM MODELS
TIDE GAUGE LOCATION IS IN FACE OF PILING AT BERTH 37. NAEL ELEVATION 9.7 FEET MLLW.
LPOP 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 VDUTUM MODELS TIDE GAUGE LOCATION IS IN FACE OF PILING AT PIER 6, 10' EAST OF BENCHMARK; NAEL ELEVATION 10.1 FEET MLLW.