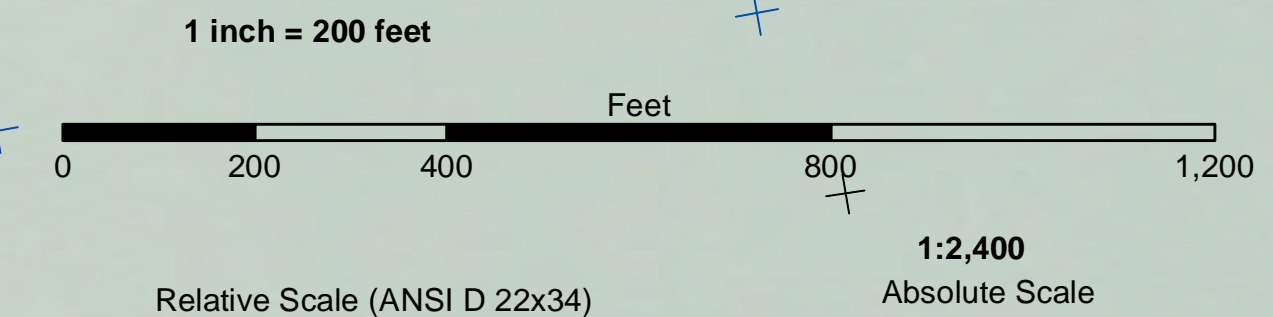


N.A.D. 1983 FEET COORDINATES

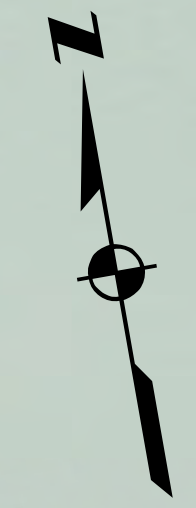
Channel Angle Point	Easting	Northing
01	6010230.66	2162394.62
02	6009436.76	2161650.06
03	6010702.46	2161282.52
04	6013280.69	2158029.15
05	6013071.04	2159051.01
06	6016426.10	2157649.80
07	6013946.57	2158590.79
08	6020299.03	2156972.78
09	6019811.99	2157565.50
10	6023187.74	2156366.30
11	6022179.38	2157068.47
12	6024797.57	2156256.37
13	6023175.24	2156977.58
14	6025133.92	2156630.24
15	6024071.72	2157243.76
16	6025096.44	2157620.99
17	6024244.63	2157572.06
18	6024794.33	2158699.33
19	6023863.13	2159896.61
20	6024629.99	2159700.65
21	6023718.07	2161814.06
22	6024470.69	2161806.34
23	6023659.10	2161929.33
24	6023871.49	2162011.81
25	6022130.19	2163218.69
26	6022259.11	2163371.56

N.A.D. 1983 FEET COORDINATES

Centerline Angle Point	Easting	Northing
C01	6009645.81	2161871.50
C02	6012865.31	2158832.66
C03	6013468.42	2158386.31
C04	6013908.41	2158274.43
C05	6023181.49	2156671.94
C06	6024434.65	2156750.07
C07	6024602.82	2156937.00
C08	6024670.54	2157596.53
C09	6024272.27	2159641.94
C10	6024094.38	2161810.20
C11	6023765.30	2161970.57
C12	6022194.65	2163295.13



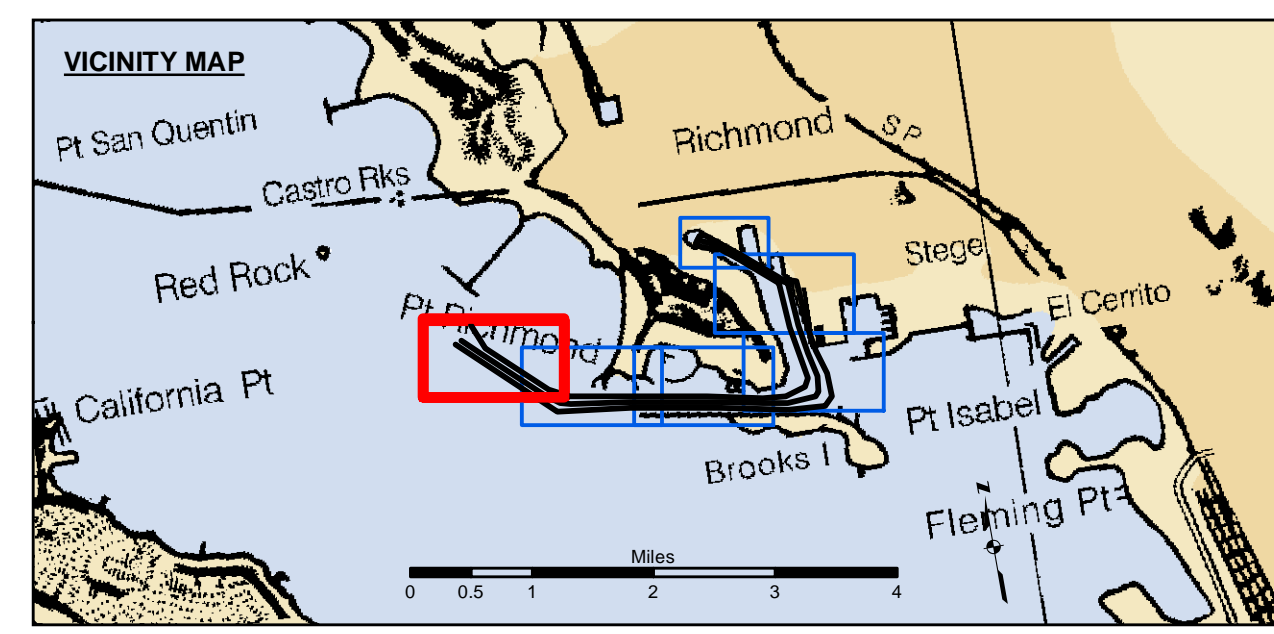
FLOOD →
← EBB



US Army Corps of Engineers
San Francisco District
450 Golden Gate Ave
San Francisco, CA 94102

DISCLAIMER
The United States Government furnishes this information as a public service. It is not intended to be used for any purpose other than that for which it was prepared. The user is responsible for the results of any application of the data for other than its intended purpose. The user is responsible for the results of any application of the data for other than its intended purpose. The user is responsible for the results of any application of the data for other than its intended purpose.

Prepared Under the Direction of:	Chart Date:
KEVIN P. ARNETT	Jun 14, 2022
Submittal:	Designed by:
Hydro Survey Team Leader	PDT
Recommended:	Checked by:
Chief, Hydro Survey Section	PDT
Approved:	Drawn by:
Chief, Construction Branch	PDT



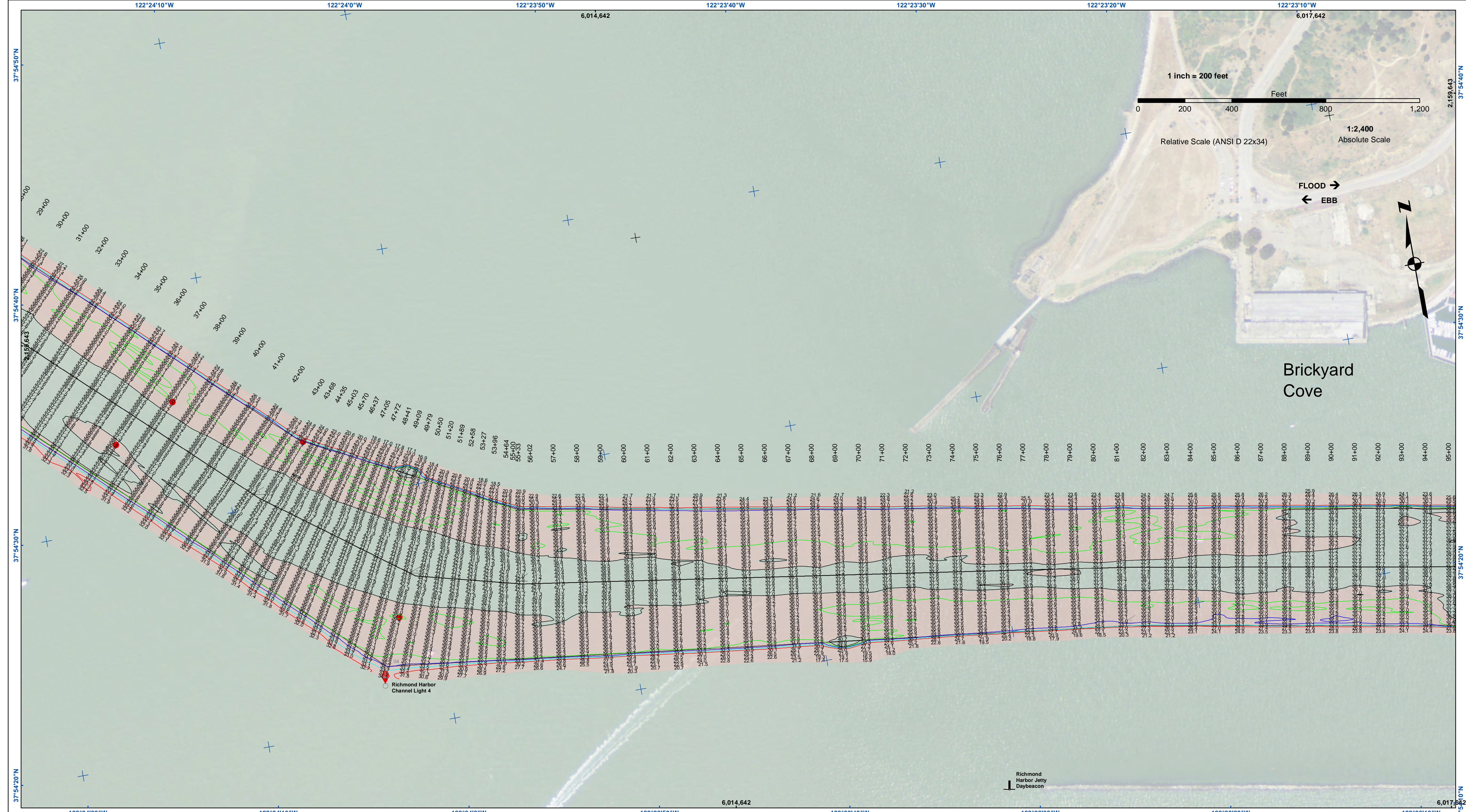
Federal Navigation Channel	Beacon, General	Contours
Shoaling Area	Obstruction Point	-37
Placement Area	Navigation Buoy	-36
Anchorage Area	Navigation Buoy	-35
Wreck Area	Shoalest Sounding*	-34
Submerged Wreck		-33
Angle Point		

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.
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.
*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 LOCATION REPRESENT THE POSITION OF THE SINKER ONLY.
SURVEYED BY THE CORPS OF ENGINEERS.
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.
BASE MAPS ARE USDA NAIP 2010.
THE PROJECT DEPTHS ARE AS FOLLOWS:
INNER HARBOR CHANNEL -37.5 FEET.
SANTE FE CHANNEL -30 FEET.
(INNER HARBOR CHANNEL) BENCHMARK A-688 ELEV 15.81 FT. MLLW.
BENCHMARK #2 (1032) USCGS DISK OLD FORD PLANT 16.0825 FT. MLLW.
B.M. LS 2769 CITY OF RICHMOND DISK PAVEMENT 13.971 FT. MLLW.
TIDE GAGE LOCATION: MON B-1.
HORIZONTAL GPS CONTROL: COAST GUARD D-BEACON.
VERTICAL CONTROL: BENCHMARK, MLLW ELEV., AGENCY

ALAMEDA COUNTY
RICHMOND INNER HARBOR
CONDITION SURVEY
8-10 JUNE 2022

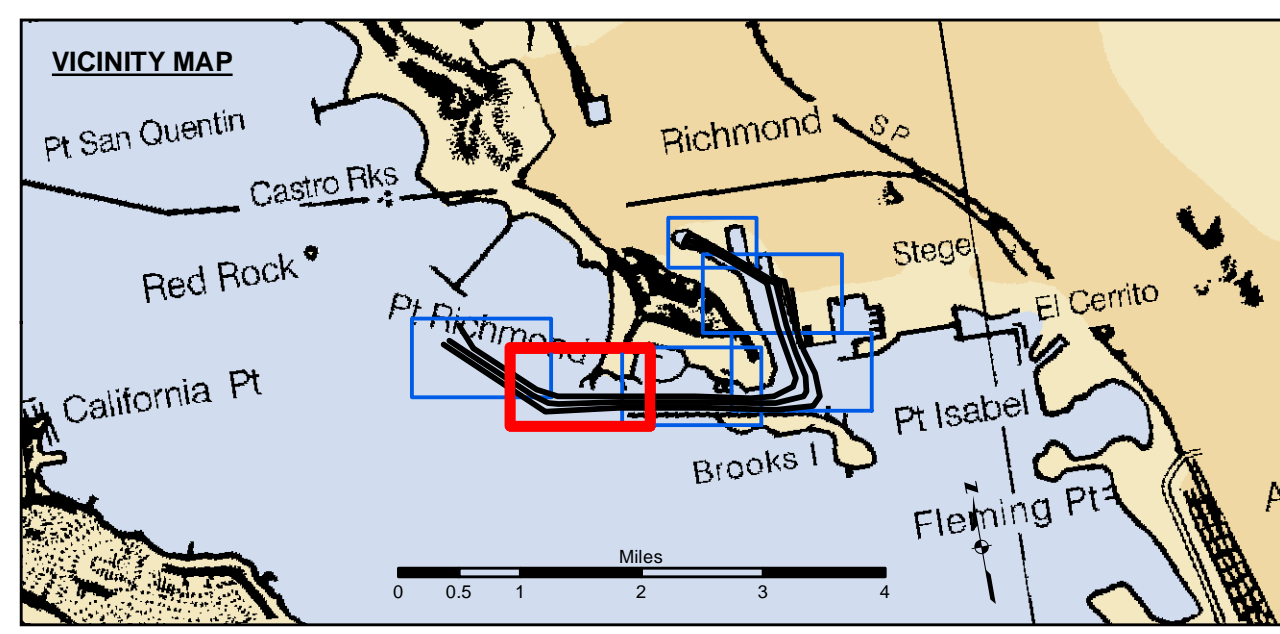
Sheet Reference Number
1 of 6



US Army Corps of Engineers
 San Francisco District
 450 Golden Gate Ave
 San Francisco, CA 94102

DISCLAIMER
 The United States Government furnishes this information as a public service. It is not intended to be used for any purpose other than the intended purpose. The user is responsible for the results of any application of the data for other than the intended purpose. The United States Government makes no warranty, expressed or implied, concerning the accuracy, completeness, or reliability of the information furnished. The United States Government shall not be liable for any damages, including consequential damages, arising from the use of the information furnished. These data belong to the Government. Therefore, the recipient may not transfer these data to others without also transferring this Disclaimer.

Prepared Under the Direction of	Surveyed By	Chart Date
LT COLONEL K. P. ARNETT		Jun 14, 2022
Subject	Plotted By	Designed by
Hydro Survey Team Leader	PDT	
Recommended	Checked By	Drawn by
Chief, Hydro Survey Section	PDT	PDT
Approved	Chief, Construction Branch	



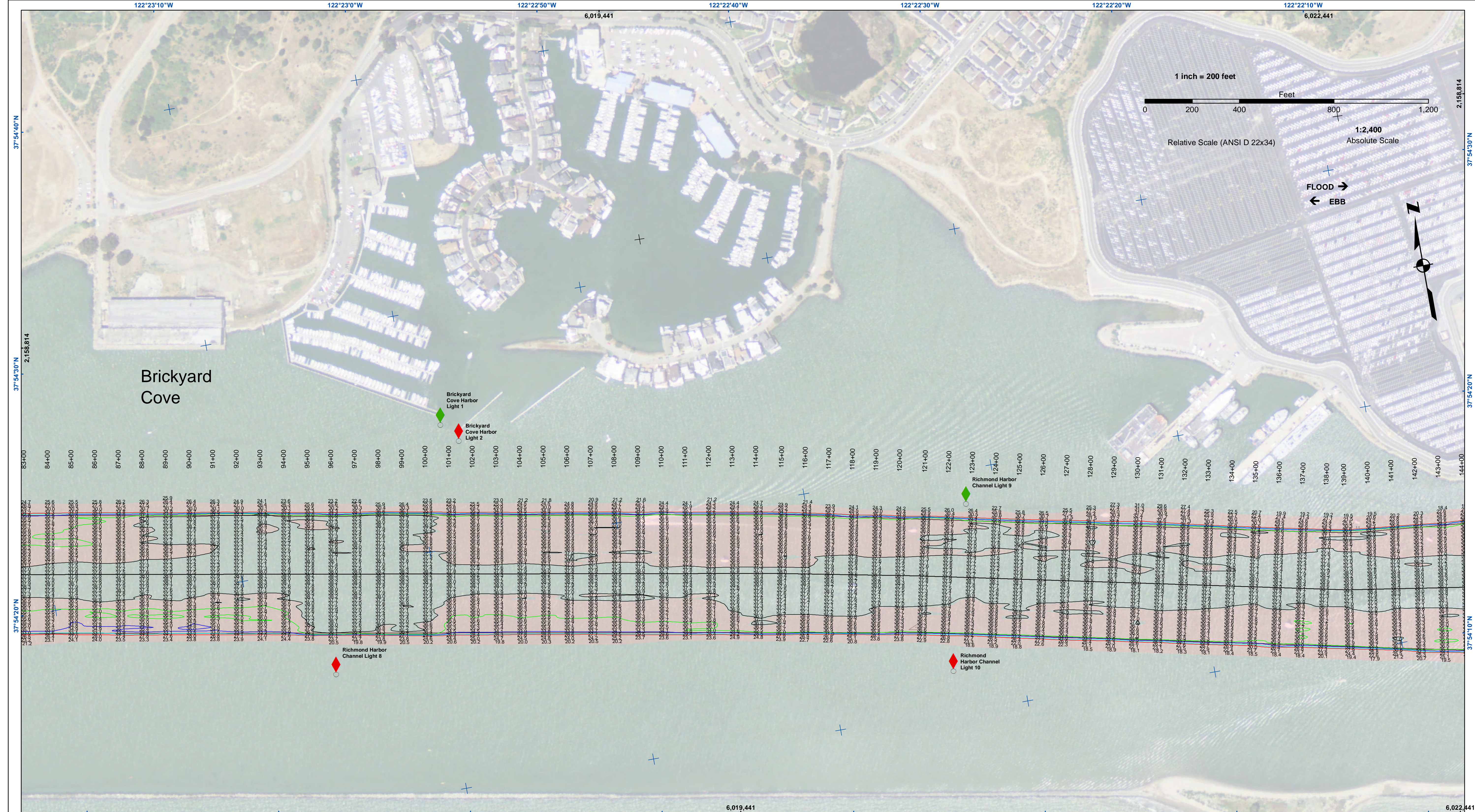
Federal Navigation Channel	Beacon, General	Contours
Shoaling Area	Obstruction Point	-37
Placement Area	Navigation Buoy	-36
Anchorage Area	Navigation Buoy	-35
Wreck Area	Shoalest Sounding*	-34
Submerged Wreck		-33
Angle Point		

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.
 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.
 *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 LOCATION REPRESENT THE POSITION OF THE SINKER ONLY.
 SURVEYED BY THE CORPS OF ENGINEERS.
 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.
 BASE MAPS ARE USDA NAIP 2010.
 THE PROJECT DEPTHS ARE AS FOLLOWS:
 INNER HARBOR CHANNEL -37.5 FEET.
 SANTE FE CHANNEL -30 FEET.
 (INNER HARBOR CHANNEL) BENCHMARK A-658 ELEV 15.81 FT. MLLW.
 BENCHMARK #2 (1032) USCGS DISK OLD FORD PLANT 16.0825 FT. MLLW.
 B.M. LS 2769 CITY OF RICHMOND DISK PAVEMENT 13.971 FT. MLLW.
 TIDE GAGE LOCATION: MON B-1.
 HORIZONTAL GPS CONTROL: COAST GUARD D-BEACON.
 VERTICAL CONTROL: BENCHMARK, MLLW ELEV., AGENCY

ALAMEDA COUNTY
 CALIFORNIA
RICHMOND INNER HARBOR
 CONDITION SURVEY
 8-10 JUNE 2022

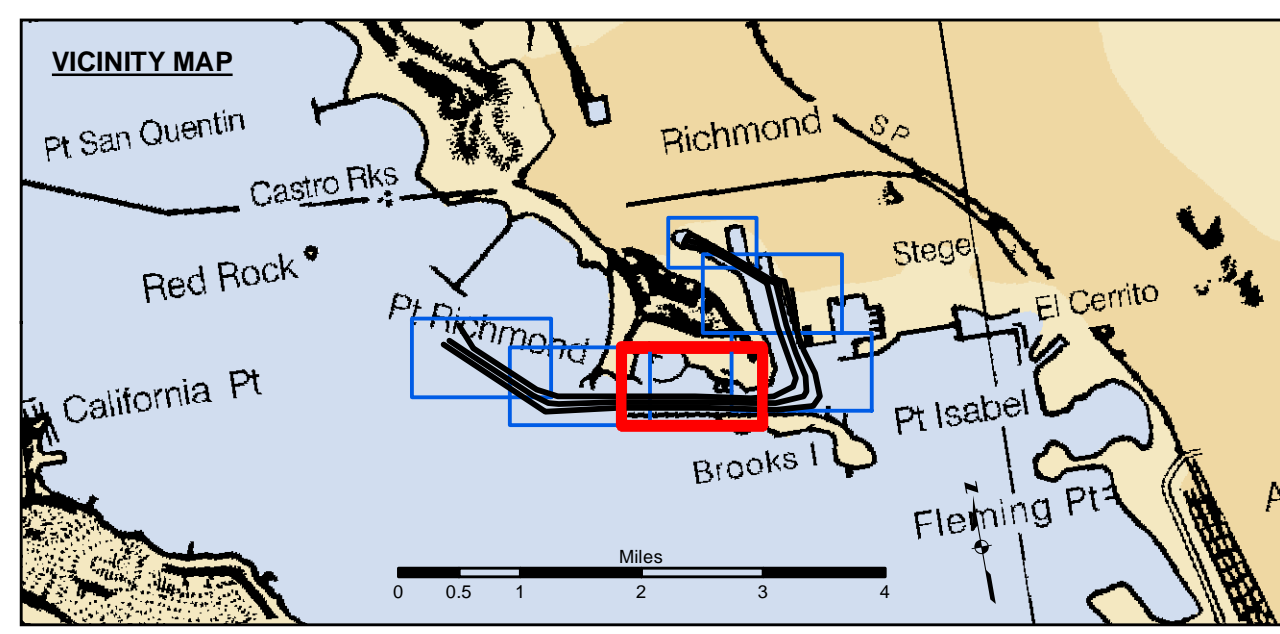
Sheet
Reference
Number
2 of 6



US Army Corps of Engineers
 San Francisco District
 450 Golden Gate Ave
 San Francisco, CA 94102

DISCLAIMER
 The United States Government furnishes this information as a service to the public and does not warrant, express or implied, the accuracy, completeness, or reliability of the information. The user assumes all liability for any use of the information, whether or not the information is used for navigation purposes. The user is responsible for the results of any application of the data for other than its intended purpose. These data belong to the Government. Therefore the recipient may not transfer these data to others without also transferring this Disclaimer.

Chart Date:	Jun 14, 2022
Designed by:	PDT
Surveyed by:	PDT
Plotted by:	PDT
Checked by:	PDT
Drawn by:	PDT



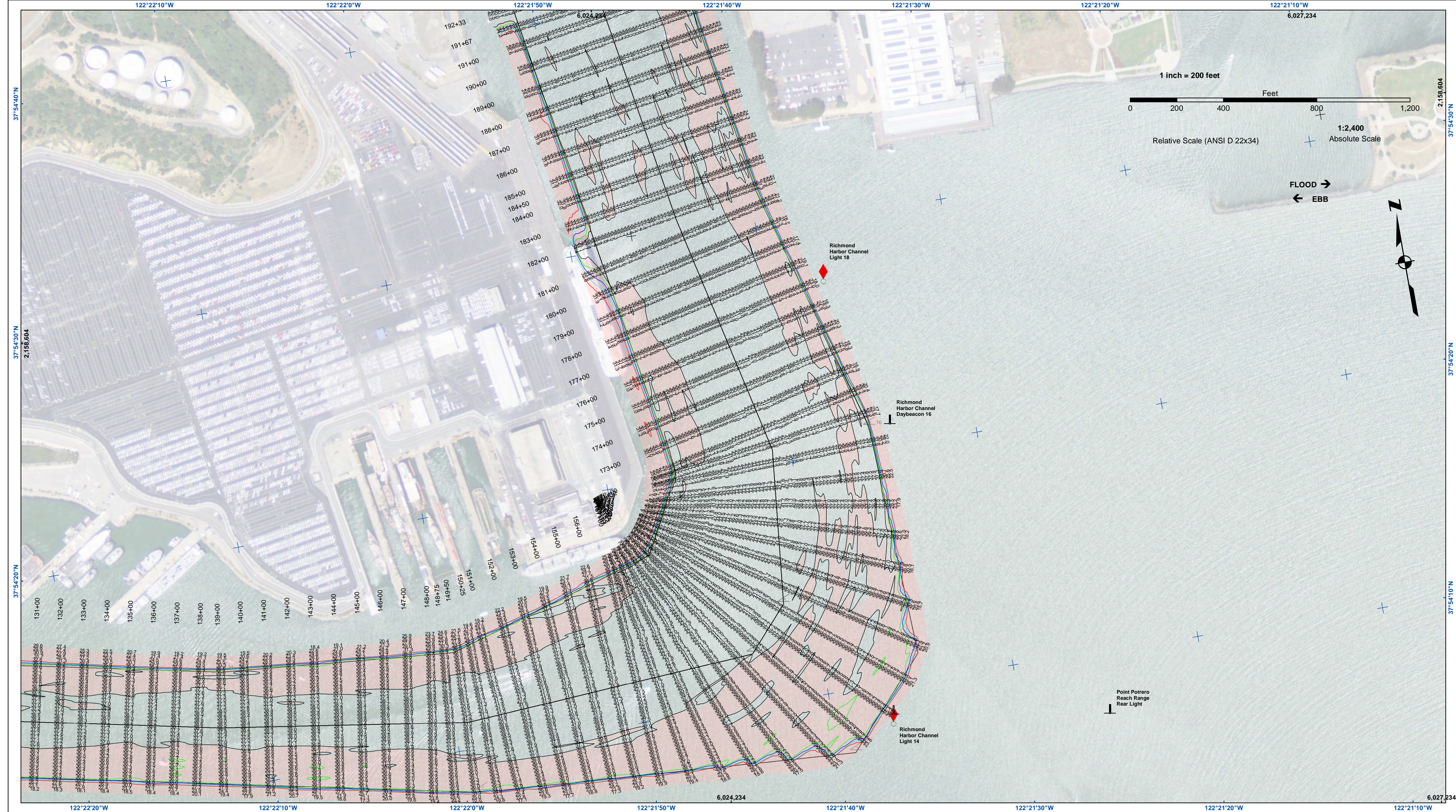
Federal Navigation Channel	Beacon, General	Contours
Shoaling Area	Obstruction Point	-37
Placement Area	Navigation Buoy	-36
Anchorage Area	Navigation Buoy	-35
Wreck Area	Shoalest Sounding*	-34
Submerged Wreck		-33
Angle Point		

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.
 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.
 *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 LOCATION REPRESENT THE POSITION OF THE SINKER ONLY.
 SURVEYED BY THE CORPS OF ENGINEERS.
 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.
 BASE MAPS ARE USDA NAIP 2010.
 THE PROJECT DEPTHS ARE AS FOLLOWS:
 INNER HARBOR CHANNEL -37.5 FEET.
 SANTE FE CHANNEL -30 FEET.
 (INNER HARBOR CHANNEL) BENCHMARK A-658 ELEV 15.81 FT. MLLW.
 BENCHMARK #2 (1025) USCGS DISK OLD FORD PLANT 16.0825 FT. MLLW.
 B.M. LS 2769 CITY OF RICHMOND DISK PAVEMENT 13.971 FT. MLLW.
 TIDE GAGE LOCATION: MON B-1.
 HORIZONTAL GPS CONTROL: COAST GUARD D-BEACON.
 VERTICAL CONTROL: BENCHMARK, MLLW ELEV., AGENCY

CALIFORNIA
 ALAMEDA COUNTY
RICHMOND INNER HARBOR
 CONDITION SURVEY
 8-10 JUNE 2022

Sheet
Reference
Number
3 of 6



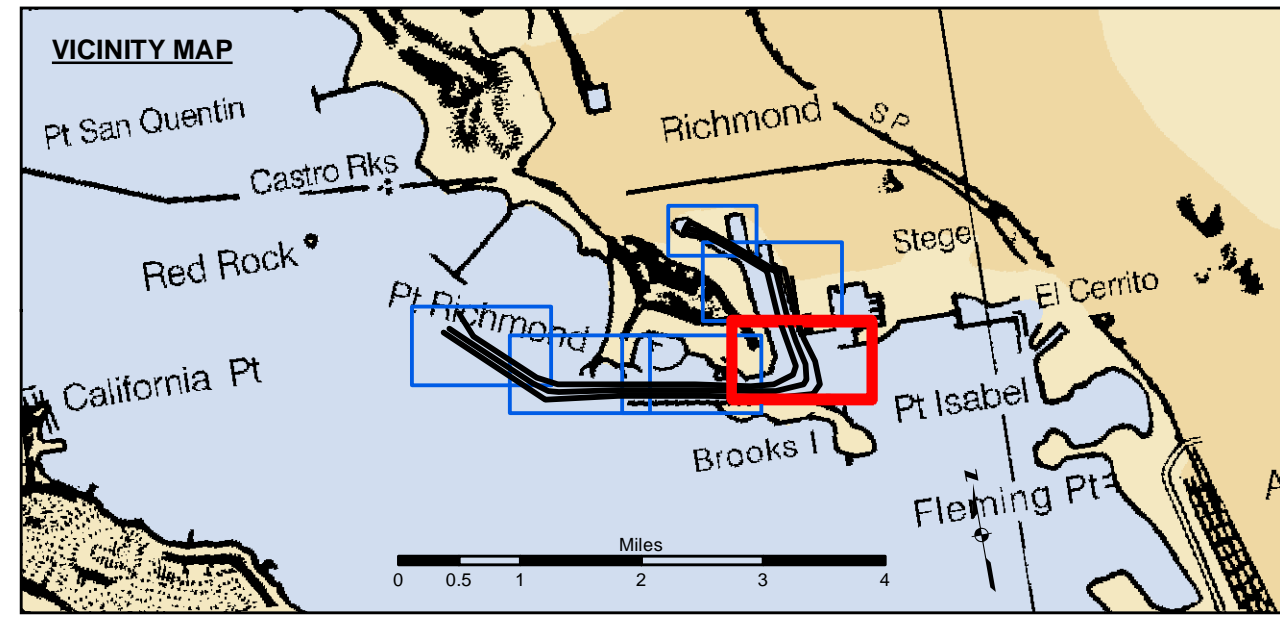
US Army Corps of Engineers
 San Francisco District
 450 Golden Gate Ave
 San Francisco, CA 94102

DISCLAIMER
 The United States Government furnishes this information as a public service. It is not intended to be used for any purpose other than the intended purpose. The user assumes all liability for any use of this information. The United States Government makes no warranty, expressed or implied, concerning the accuracy, completeness, or timeliness of the information. The user is responsible for the results of any use of this information. The user shall indemnify and hold the United States Government harmless from any and all claims, damages, and expenses, including reasonable attorneys' fees, that may be incurred by the United States Government as a result of any use of this information. These data belong to the Government. Therefore, the user shall not disseminate these data to others without also transferring this Disclaimer.

Chart Date:	Jun 14, 2022
Designed by:	PDT
Plotted by:	PDT
Checked by:	PDT
Drawn by:	PDT

ALAMEDA COUNTY
RICHMOND INNER HARBOR
 CONDITION SURVEY
 8-10 JUNE 2022

Sheet
Reference
Number
4 of 6



Federal Navigation Channel	Beacon, General	Contours
Shoaling Area	Obstruction Point	-37
Placement Area	Navigation Buoy	-36
Anchorage Area	Navigation Buoy	-35
Wreck Area	Shoalest Sounding*	-34
Submerged Wreck		-33
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.
 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.
 *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 LOCATION REPRESENT THE POSITION OF THE SINKER ONLY.

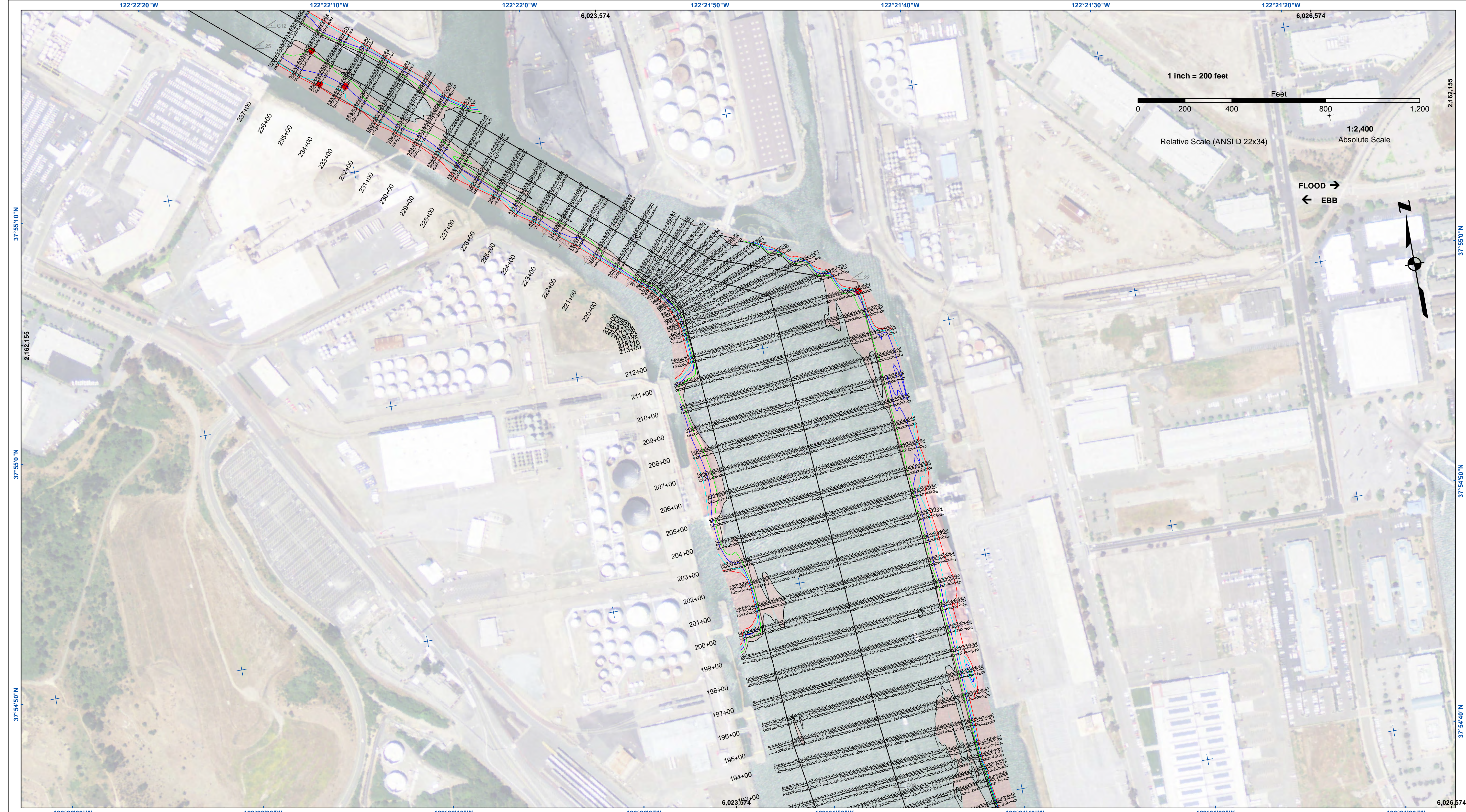
SOUNDINGS WERE TAKEN BY FATHOMETER AND ARE SHOWN TO THE NEAREST TENTH OF A FOOT. SOUNDINGS ARE BASED ON THE DATUM OF MEAN LOWER LOW WATER AT THE LOCALITY.

BASE MAPS ARE USDA NAIP 2010.

THE PROJECT DEPTHS ARE AS FOLLOWS:
 INNER HARBOR CHANNEL -37.5 FEET.
 SANTE FE CHANNEL -30 FEET.

(INNER HARBOR CHANNEL) BENCHMARK A-688 ELEV 15.81 FT. MLLW.
 BENCHMARK #2 (1032) USCGS DISK OLD FORD PLANT 16.0825 FT. MLLW.
 B.M. LS 2769 CITY OF RICHMOND DISK PAVEMENT 13.971 FT. MLLW.

TIDE GAGE LOCATION: MON B-1.
 HORIZONTAL GPS CONTROL: COAST GUARD D-BEACON.
 VERTICAL CONTROL: BENCHMARK, MLLW ELEV., AGENCY



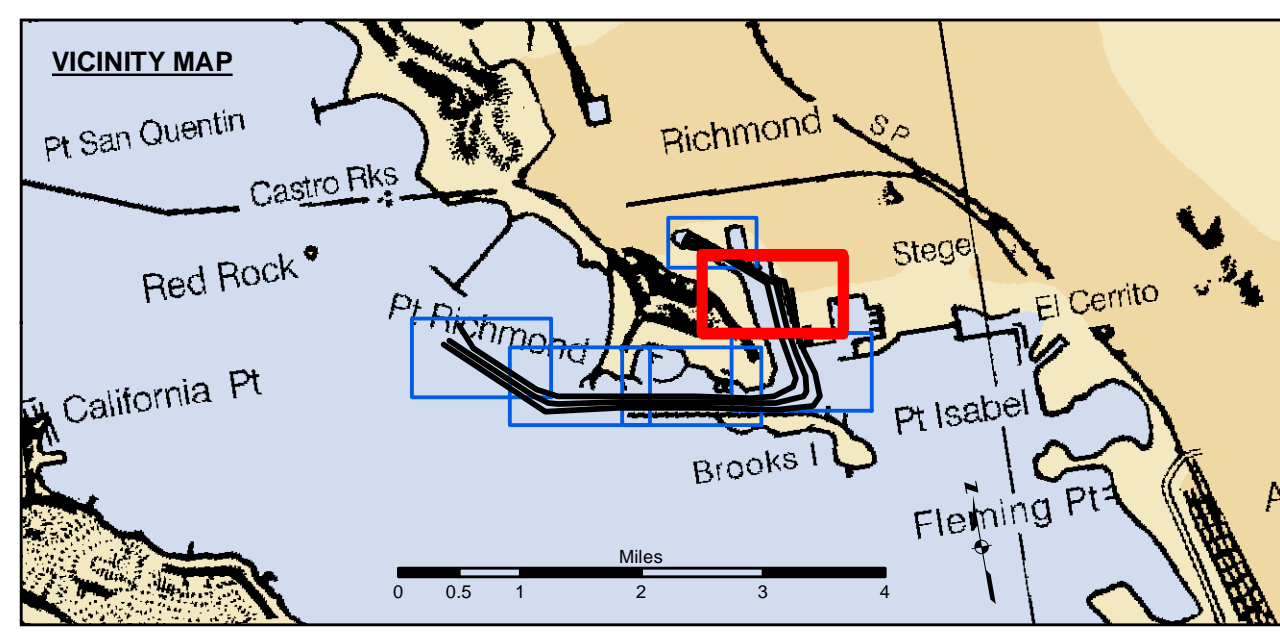
US Army Corps of Engineers
 San Francisco District
 450 Golden Gate Ave
 San Francisco, CA 94102

DISCLAIMER
 The United States Government furnishes this information as a public service. It is not intended to be used for any purpose other than the intended purpose. The user is responsible for the results of any application of the data for other than the intended purpose. The United States Government makes no warranty, expressed or implied, concerning the accuracy, completeness, or reliability of the data furnished. The United States Government shall not be liable for any damages, including reasonable attorneys' fees, arising from the use of the data. These data belong to the Government. Therefore, the user shall not be held liable for any damages, including reasonable attorneys' fees, arising from the use of the data. The recipient may not transfer these data to others without also transferring this disclaimer.

Chart Date:	Jun 14, 2022
Designed by:	PDT
Plotted by:	PDT
Checked by:	PDT
Drawn by:	PDT

CALIFORNIA
 ALAMEDA COUNTY
RICHMOND INNER HARBOR
 CONDITION SURVEY
 8-10 JUNE 2022

Sheet
Reference
Number
5 of 6



Federal Navigation Channel	Beacon, General	Contours
Shoaling Area	Obstruction Point	-37
Placement Area	Navigation Buoy	-36
Anchorage Area	Navigation Buoy	-35
Wreck Area	Shoalest Sounding*	-34
Submerged Wreck		-33
Angle Point		

NOTES:
 HORIZONTAL CONTROL: COAST GUARD D-BEACON, BENCHMARK #2 (1032) USCGS DISK OLD FORD PLANT 16.0825 FT. MLLW, B.M. LS 2769 CITY OF RICHMOND DISK PAVEMENT 13.971 FT. MLLW.
 TIDE GAGE LOCATION: MON B-1.
 HORIZONTAL GPS CONTROL: COAST GUARD D-BEACON, BENCHMARK #2 (1032) USCGS DISK OLD FORD PLANT 16.0825 FT. MLLW, B.M. LS 2769 CITY OF RICHMOND DISK PAVEMENT 13.971 FT. MLLW.
 VERTICAL CONTROL: BENCHMARK, MLLW ELEV., AGENCY

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 LOCATION REPRESENT THE POSITION OF THE SINKER ONLY.

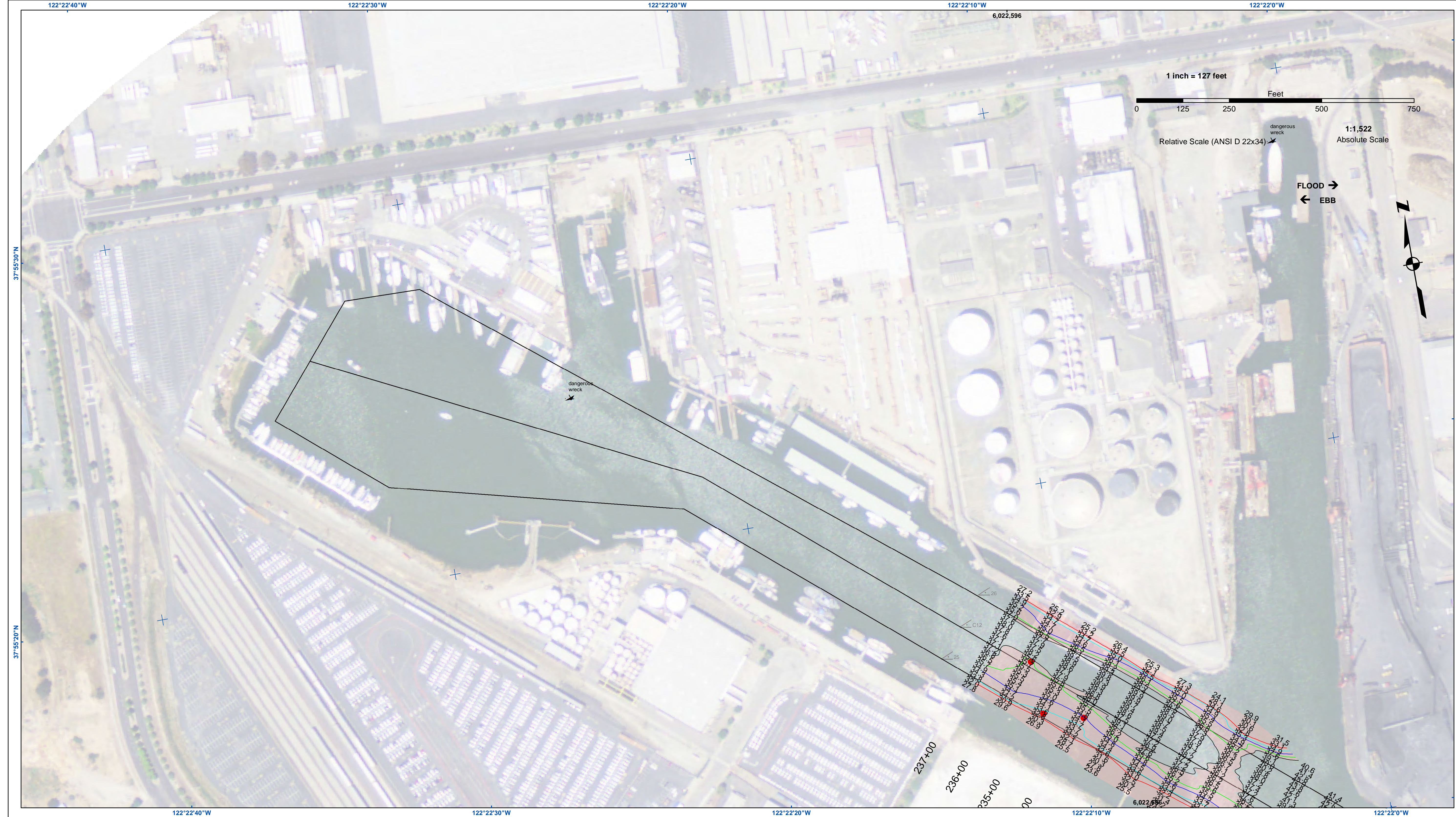
SOUNDINGS WERE TAKEN BY FATHOMETER AND ARE SHOWN TO THE NEAREST TENTH OF A FOOT. SOUNDINGS ARE BASED ON THE DATUM OF MEAN LOWER LOW WATER AT THE LOCALITY.

BASE MAPS ARE USDA NAIP 2010.

THE PROJECT DEPTHS ARE AS FOLLOWS:
 INNER HARBOR CHANNEL: 37.5 FEET.
 SANTE FE CHANNEL: 30 FEET.

SURVEYED BY THE CORPS OF ENGINEERS.

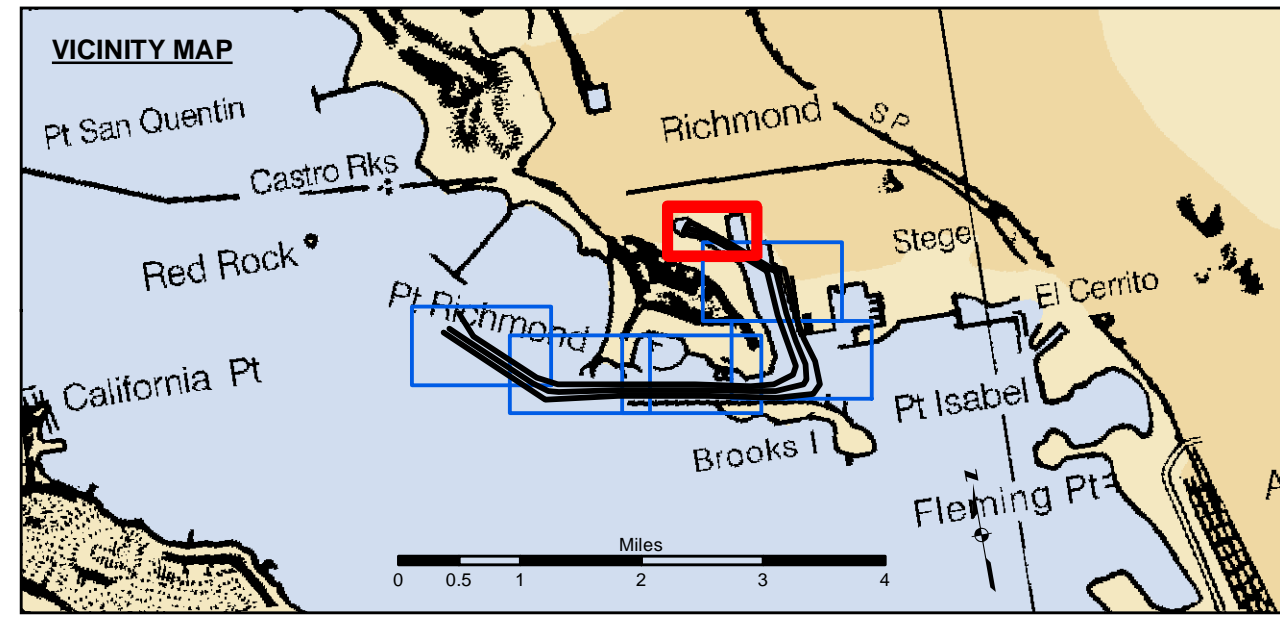
*SHOALEST SOUNDING PER QUARTER PER REACH



U.S. Army Corps of Engineers
 San Francisco District
 450 Golden Gate Ave
 San Francisco, CA 94102

DISCLAIMER
 The United States Government furnishes this information as a service to the public and does not warrant, express or implied, the accuracy, completeness, or reliability of the information. The user assumes all liability for any use of the information. The United States Government shall not be held liable for any damages, including consequential damages, arising from the use of this information. These data belong to the Government. Therefore, the recipient may not transfer these data to others without also transferring this disclaimer.

Prepared Under the Direction of	Chart Date:
KEVIN P. ARNETT	Jun 14, 2022
Subject:	Plotted By:
Hydro Survey Team Leader	PDT
Recommended:	Checked By:
Chief, Hydro Survey Section	PDT
Approved:	Drawn by:
Chief, Construction Branch	PDT



Federal Navigation Channel	Beacon, General	Contours
Shoaling Area	Obstruction Point	-37
Placement Area	Navigation Buoy	-36
Anchorage Area	Navigation Buoy	-35
Wreck Area	Shoalest Sounding*	-34
Submerged Wreck		-33
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.
 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.
 *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 LOCATION REPRESENT THE POSITION OF THE SINKER ONLY.

SURVEYED BY THE CORPS OF ENGINEERS.
 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.

BASE MAPS ARE USDA NAIP 2010.
 THE PROJECT DEPTHS ARE AS FOLLOWS:
 INNER HARBOR CHANNEL -37.5 FEET.
 SANTE FE CHANNEL -30 FEET.

(INNER HARBOR CHANNEL) BENCHMARK A-658 ELEV 15.81 FT. MLLW.
 BENCHMARK #2 (1032) USCGS DISK OLD FORD PLANT 16.0825 FT. MLLW.
 B.M. LS 2769 CITY OF RICHMOND DISK PAVEMENT 13.971 FT. MLLW.

TIDE GAGE LOCATION: MON B-1.
 HORIZONTAL GPS CONTROL: COAST GUARD D-BEACON.
 VERTICAL CONTROL: BENCHMARK, MLLW ELEV., AGENCY

ALAMEDA COUNTY
RICHMOND INNER HARBOR
 CONDITION SURVEY
 8-10 JUNE 2022

Sheet
Number
6 of 6