

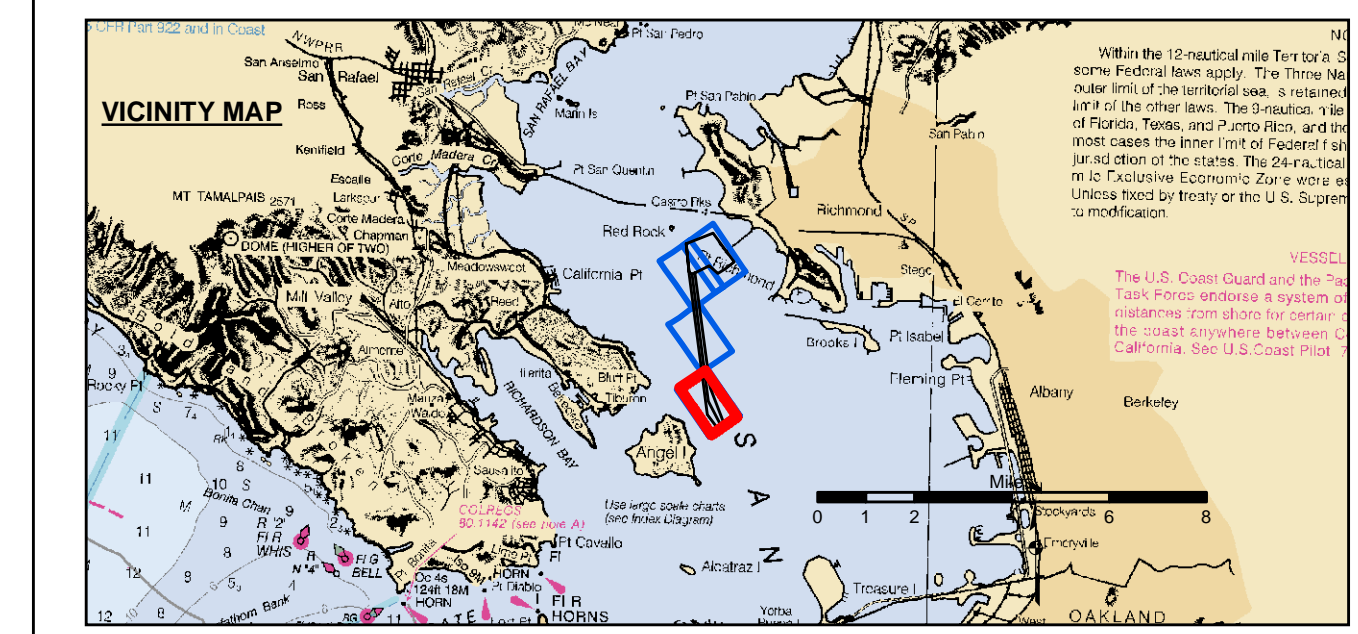
**PRELIMINARY ISSUE**  
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0 200 400 800 1,200  
Feet  
1 inch = 200 feet  
Relative Scale (ANSI D 22x34)  
1:2,400  
Absolute Scale

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

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Prepared Under the Direction of:	Chart Date:
LT COLONEL K. P. ARNETT	Nov 15, 2021
Submitted:	Designed by:
Hydro Survey Team Leader	PDT
Recommended:	Checked by:
Chief, Hydro Survey Section	PDT
Approved:	Drawn by:
Chief, Construction Branch	PDT



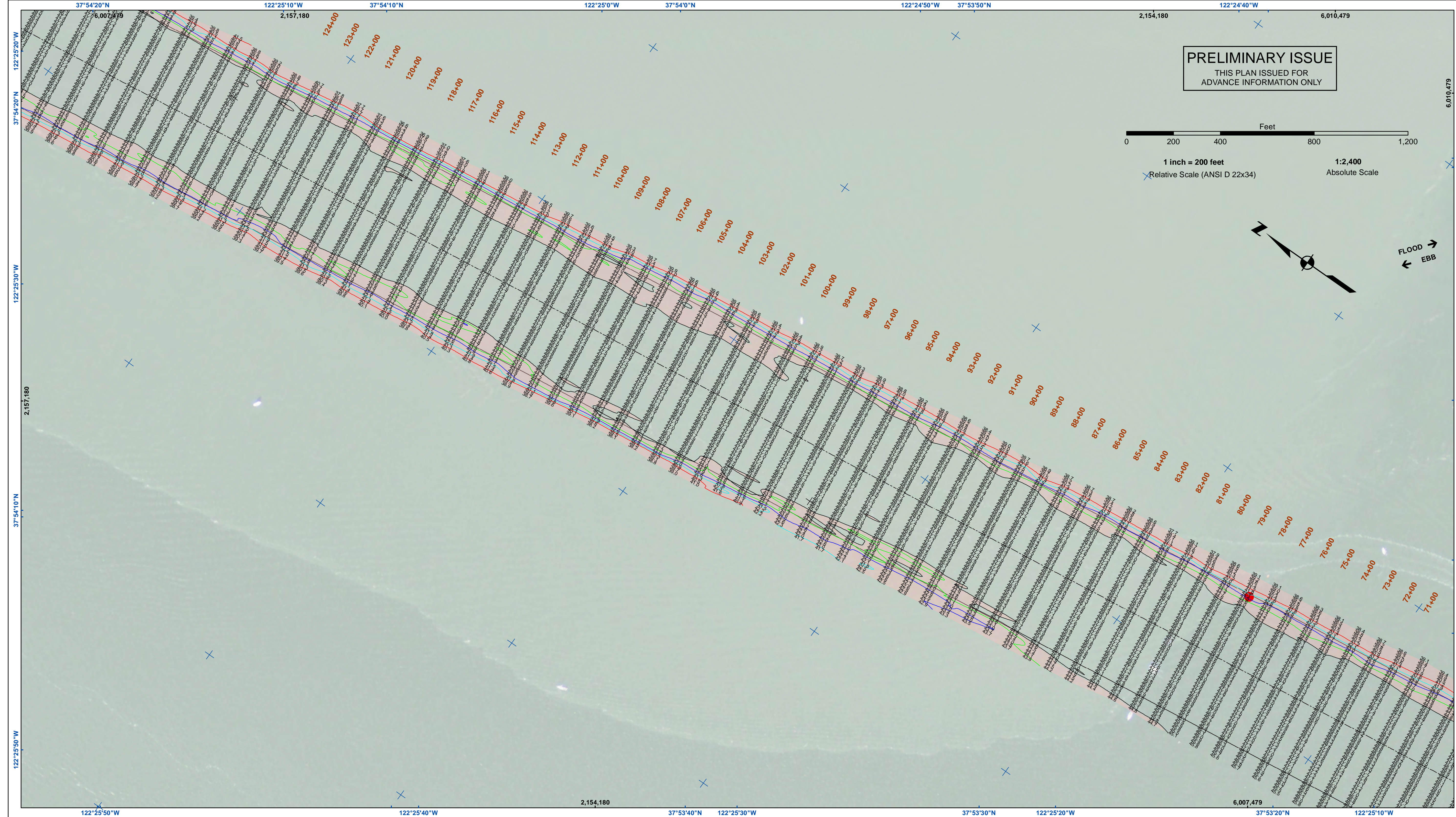
	Federal Navigation Channel		Beacon, General	<b>Contours</b>
	Shoaling Area		Obstruction Point	
	Placement Area		Navigation Buoy	
	Anchorage Area		Navigation Buoy	
	Wreck Area		Shoalest Sounding*	
	Submerged Wreck			
	Angle Point			

**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:  
SOUTHAMPTON SHOALS CHANNEL -45 FEET.  
LONG WHARF MANEUVERING AREA -45 FEET.  
1:00 INDICATED THE NUMBER AND BEGINNING OF A LINE OF SOUNDINGS.  
HORIZONTAL CONTROL:  
HORIZONTAL POSITIONING: COAST GUARD DGPS  
VERTICAL TIDES: INTERPOLATED FROM NOAA ONLINE TIDE STATIONS:  
941 4863 - RICHMOND, CA  
941 4290 - SAN FRANCISCO, CA  
VERTICAL CONTROL:  
(SOUTHAMPTON SHOALS & LONG WHARF MANEUVERING) BENCHMARK "10" 1937 ELEV 15.86 FT. MLLW.  
AND BENCHMARK "11" 1946 ELEV 15.47 FT. MLLW.  
TIDE GAUGE LOCATED AT TIBURON NET DEPOT.

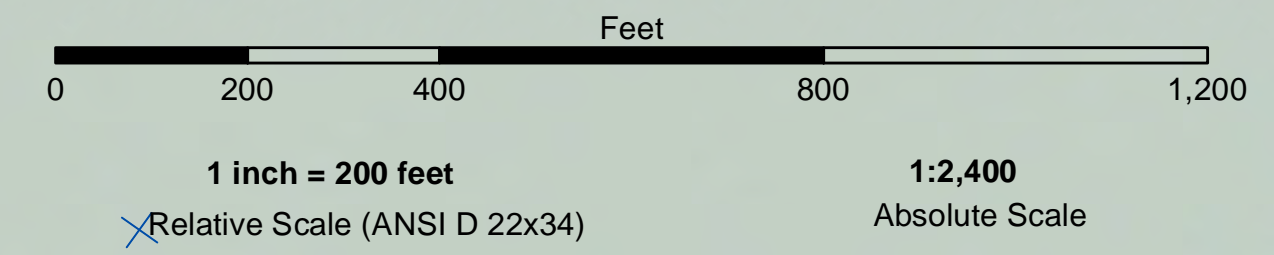
CALIFORNIA  
ALAMEDA COUNTY  
RICHMOND OUTER HARBOR  
SOUTHAMPTON SHOALS  
CONDITION SURVEY  
10 NOVEMBER 2021

Sheet  
Reference  
Number  
1 of 4



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

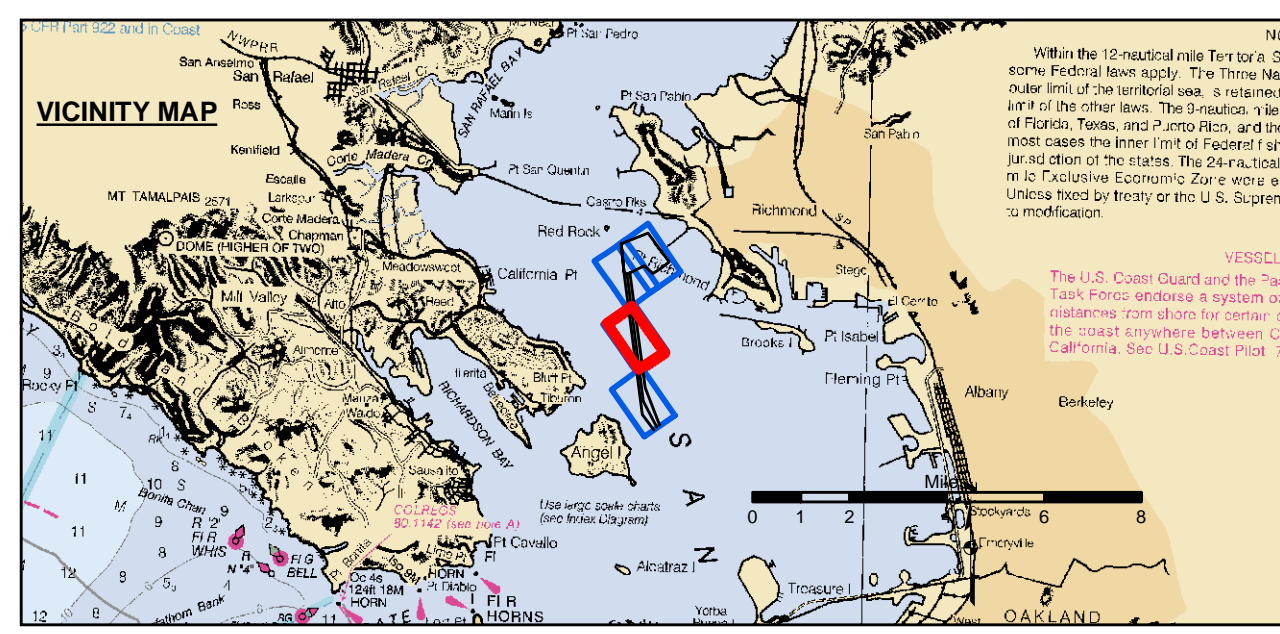
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Chart Date:	Nov 15, 2021
Designed by:	PDT
Plotted by:	PDT
Checked by:	PDT
Drawn by:	PDT

ALAMEDA COUNTY  
 RICHMOND OUTER HARBOR  
 SOUTHAMPTON SHOALS  
 CONDITION SURVEY  
 10 NOVEMBER 2021

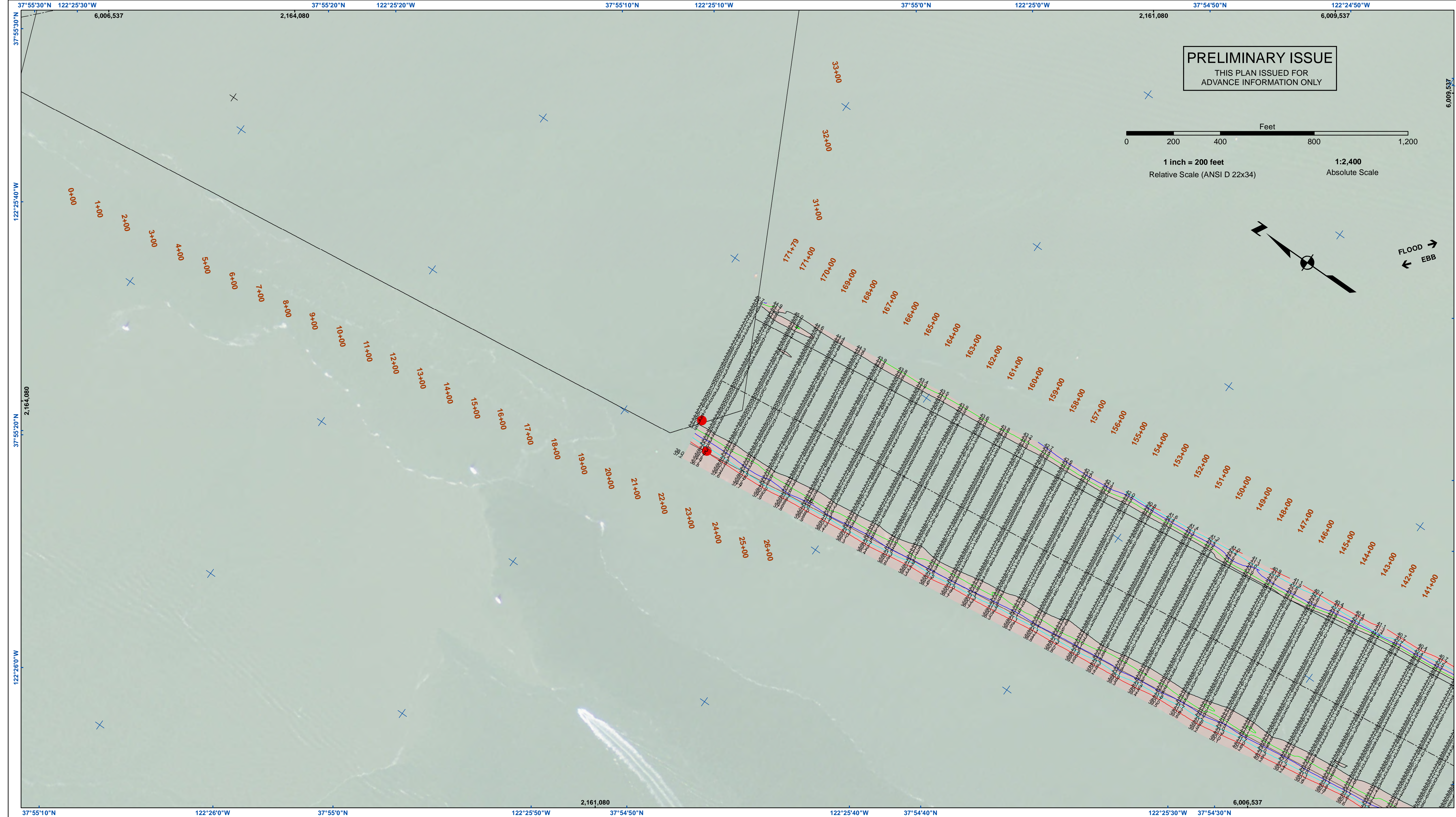


Federal Navigation Channel	Beacon, General	<b>Contours</b>
Shoaling Area	Obstruction Point	-45
Placement Area	Navigation Buoy	-44
Anchorage Area	Navigation Buoy	-43
Wreck Area	Shoalest Sounding*	-42
Submerged Wreck		-41
Angle Point		

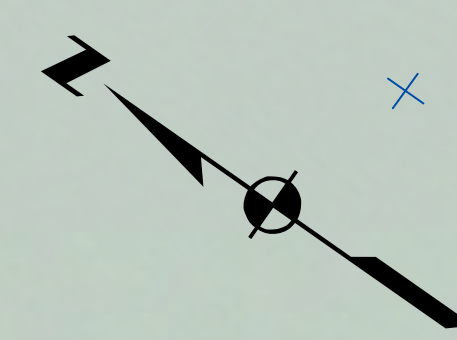
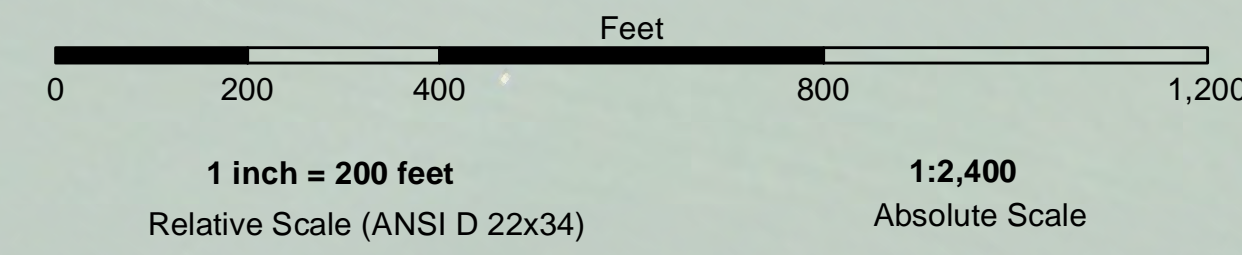
**NOTES:**  
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 1:00 INDICATED THE NUMBER AND BEGINNING OF A LINE OF SOUNDINGS.  
 HORIZONTAL CONTROL:  
 HORIZONTAL POSITIONING: COAST GUARD DGPS  
 VERTICAL TIDES: INTERPOLATED FROM NOAA ONLINE TIDE STATIONS:  
 941 4863 - RICHMOND, CA  
 941 4290 - SAN FRANCISCO, CA  
 VERTICAL CONTROL:  
 (SOUTHAMPTON SHOALS & LONG WHARF MANEUVERING) BENCHMARK "10" 1937 ELEV 15.86 FT. MLLW.  
 AND BENCHMARK "11" 1946 ELEV 15.47 FT. MLLW.  
 TIDE GAUGE LOCATED AT TIBURON NET DEPOT.

**Sheet Number**  
 2 of 4



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FLOOD →  
← EBB

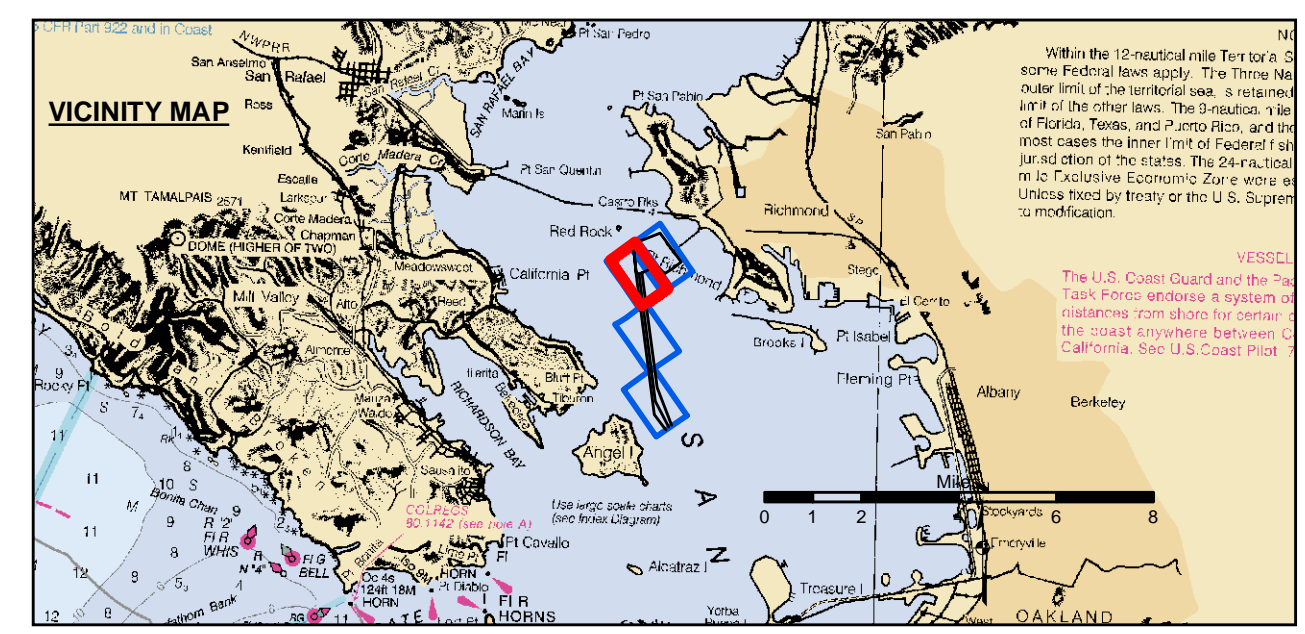
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Prepared Under the Direction of	Chart Date
KEVIN P. ARNETT	Nov 15, 2021
LT Colonel, C.E., District Engineer	Designed by:
Hydro Survey Team Leader	PDT
Chief, Hydro Survey Section	Checked by:
Chief, Construction Branch	PDT
	Drawn by:
	PDT

ALAMEDA COUNTY  
RICHMOND OUTER HARBOR  
SOUTHAMPTON SHOALS  
CONDITION SURVEY  
10 NOVEMBER 2021

Sheet  
Reference  
Number  
**3 of 4**



- |                            |                    |                 |
|----------------------------|--------------------|-----------------|
| Federal Navigation Channel | Beacon, General    | <b>Contours</b> |
| Shoaling Area              | Obstruction Point  | -45             |
| Placement Area             | Navigation Buoy    | -44             |
| Anchorage Area             | Navigation Buoy    | -43             |
| Wreck Area                 | Shoalest Sounding* | -42             |
| Submerged Wreck            |                    | -41             |
| Angle Point                |                    |                 |

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