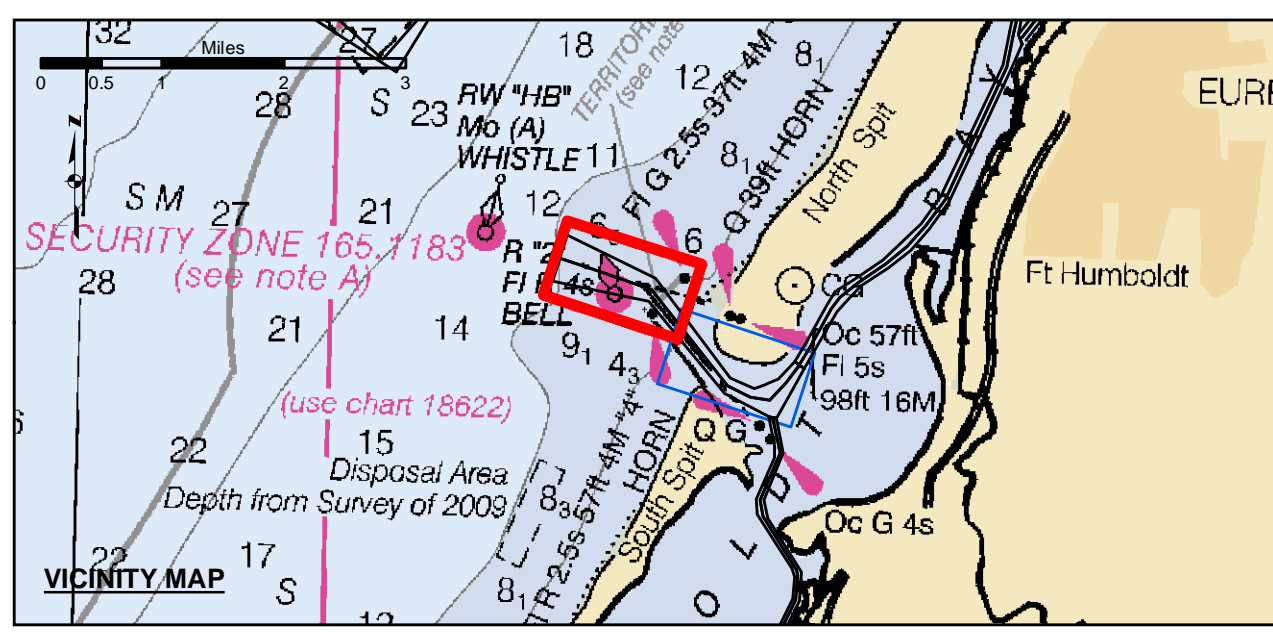


NAD 83 CHANNEL ANGLE POINTS HUMBOLDT BAY (BAR & ENTRANCE)

| PT | X | Y | PT | X | Y |
|----|------------|------------|----|------------|------------|
| 1 | 5936596.69 | 2173163.63 | 24 | 5959081.79 | 2187578.43 |
| 2 | 5938385.39 | 2172268.83 | 25 | 5958421.69 | 2187381.23 |
| 3 | 5940404.09 | 2171259.93 | 26 | 5958007.99 | 2186903.83 |
| 4 | 5943666.09 | 2169944.43 | 27 | 5956426.99 | 2183393.63 |
| 5 | 5944727.49 | 2168468.93 | 28 | 5956165.59 | 2181942.63 |
| 6 | 5945239.99 | 2166690.33 | 29 | 5956348.69 | 2181424.83 |
| 7 | 5945752.59 | 2165111.73 | 30 | 5956666.89 | 2180383.43 |
| 8 | 5946464.09 | 2163633.33 | 31 | 5956165.59 | 2179542.63 |
| 9 | 5946953.59 | 2162154.93 | 32 | 5956230.39 | 2178413.53 |
| 10 | 5947631.59 | 2160421.13 | 33 | 5956151.79 | 2177459.53 |
| 11 | 5948193.09 | 2158679.33 | 34 | 5956252.69 | 2176724.13 |
| 12 | 5949124.59 | 2157128.03 | 35 | 5949343.09 | 2170952.03 |
| 13 | 5950308.09 | 2155059.13 | 36 | 5948674.79 | 2170232.13 |
| 14 | 5951141.79 | 2152853.23 | 37 | 5948301.49 | 2169794.33 |
| 15 | 5951976.39 | 2150548.23 | 38 | 5947386.59 | 2168234.23 |
| 16 | 5952816.79 | 2148048.33 | 39 | 5946907.49 | 2167381.23 |
| 17 | 5953584.79 | 2145520.43 | 40 | 5946431.39 | 2166537.23 |
| 18 | 5954377.79 | 2143225.33 | 41 | 5945672.89 | 2165182.43 |
| 19 | 5955138.19 | 2140954.43 | 42 | 5944554.09 | 2163524.63 |
| 20 | 5955852.59 | 2138707.53 | 43 | 5943363.09 | 2161576.33 |
| 21 | 5956581.79 | 2136478.43 | 44 | 5942441.39 | 2159261.63 |
| 22 | 5957281.79 | 2134278.43 | 45 | 5941216.19 | 2157287.83 |
| 23 | 5957981.79 | 2132078.43 | 46 | 5939708.79 | 2155046.43 |
| 24 | 5958681.79 | 2129878.43 | 47 | 5938590.29 | 2152711.43 |



| | | |
|----------------------------|--------------------|----------|
| Federal Navigation Channel | Beacon, General | Contours |
| Shoaling Area | Obstruction Point | -48 |
| Placement Area | Navigation Buoy | -47 |
| Anchorage Area | Navigation Buoy | -46 |
| Wreck Area | Shoalest Sounding* | -45 |
| Submerged Wreck | | -44 |
| Zone_I_Angle_Points | | |

NOTES:
DRAWINGS NOT TO BE USED AS 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 TENTHS OF A FOOT.

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

PLANE GRID AND COORDINATES ARE BASED ON THE STATE OF CALIFORNIA COORDINATE SYSTEM, LAMBERT CONFORMAL PROJECTION, ZONE 1 NAD 83, CALIFORNIA, AS DESCRIBED IN SPECIAL PUBLICATION NO. 235, PUBLISHED BY THE NATIONAL OCEAN SURVEY.

PROJECT DEPTHS ARE AS FOLLOWS:
BAR & ENTRANCE CHANNEL = 48 FEET
NORTH BAY, SAMOATO MILE 5.0 & = 38 FEET
EUREKA CHANNEL, FIELDS LANDING CHANNEL & MILE 5.0 TO "N" STREET = 26 FEET

1:00 INDICATES THE NUMBER AND BEGINNING OF A LINE OF SOUNDINGS.
SOUNDINGS ARE BASED ON TIDE GAUGES REFERENCED TO U.S.C. & G.S.

Vertical and Horizontal Control:
NOAA Station: 941 8767 - North Spit, CA
Benchmark:
NO 11 1340 (PID: LV0359)
MLW Elev: 4.251m

Tides:
RTK GPS, using GEOID12a and VDATUM
RTK elevations calibrated at 10.0ft nail at Coast Guard Station Humboldt Bay

Position:
RTK Positions

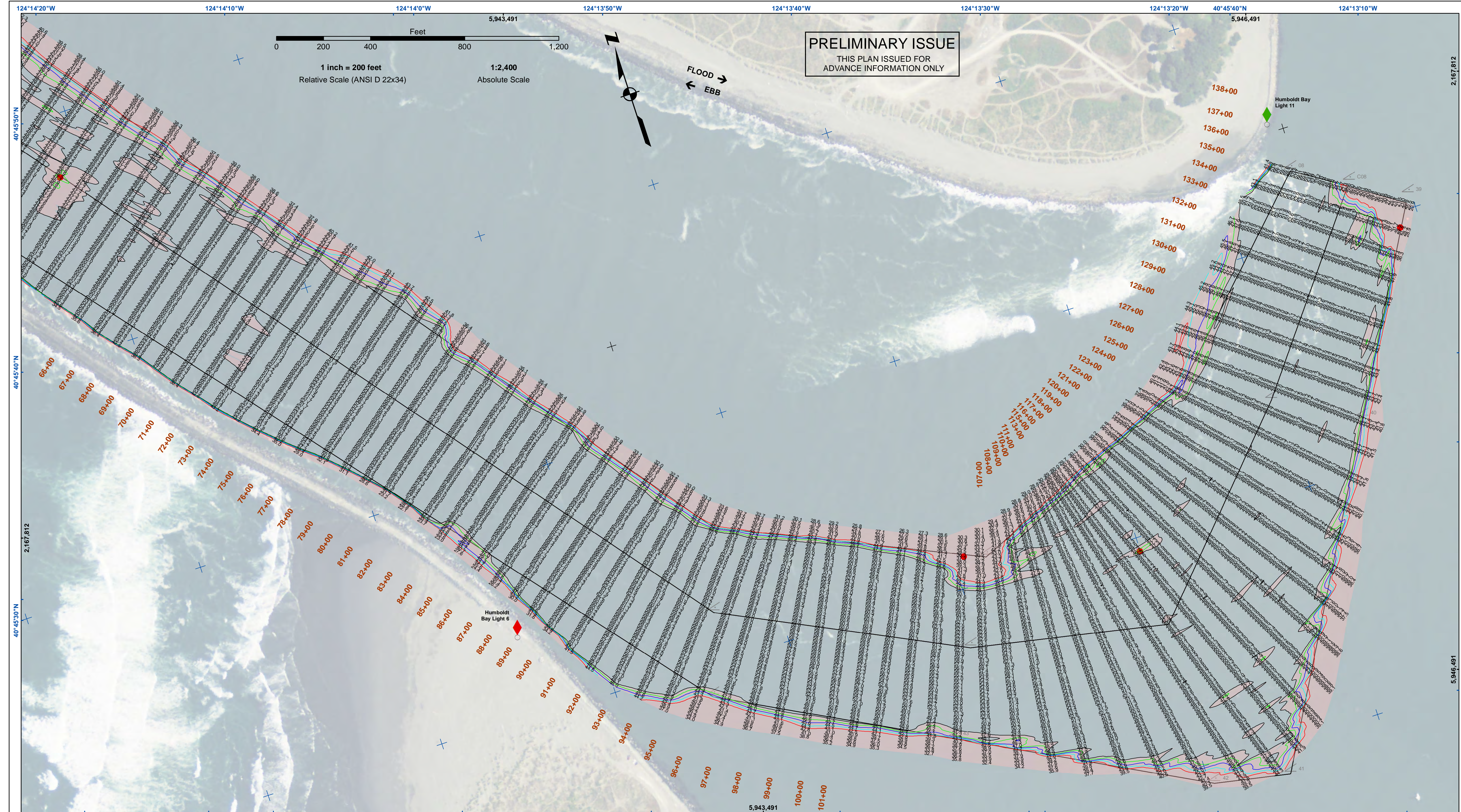


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| | |
|-----------------------------------|--------------|
| Prepared Under the Direction of: | Chart Date: |
| LT COLONEL C.E. DISTRICT ENGINEER | Jul 18, 2022 |
| Surveyed By: | Designed by: |
| Plotted By: | PDT |
| Checked By: | PDT |
| Drawn by: | PDT |

CALIFORNIA
HUMBOLDT COUNTY
HUMBOLDT BAY
BAR & ENTRANCE CHANNEL
POST-DREDGE SURVEY
15 JULY 2022

Sheet
Number
1 of 2



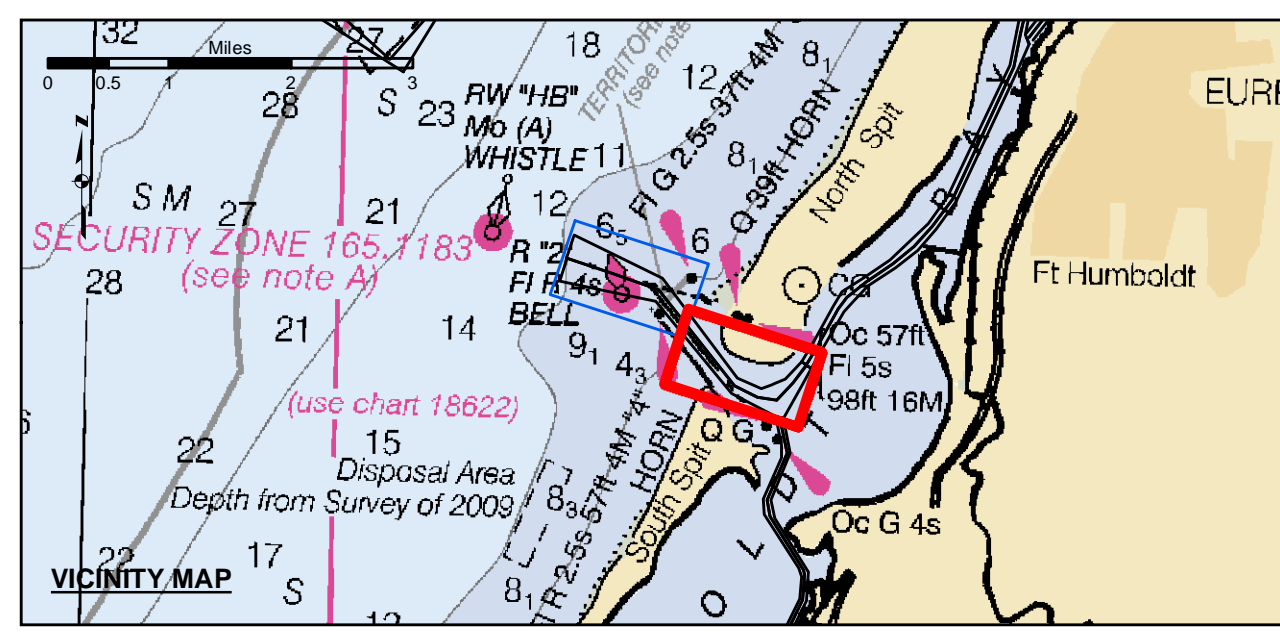
PRELIMINARY ISSUE
THIS PLAN ISSUED FOR
ADVANCE INFORMATION ONLY

Feet
0 200 400 800 1,200
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

DISCLAIMER
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| | | | |
|---------------------------------|----------------------------|-------------|--------------|
| Prepared Under the Direction of | KEVIN P. ARNETT | Chart Date | Jul 18, 2022 |
| Surveyed By | PDT | Designed by | PDT |
| Plotted By | PDT | Drawn by | PDT |
| Checked By | PDT | | |
| Approved | Chief, Construction Branch | | |



- | | | |
|----------------------------|--------------------|-----------------|
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| Shoaling Area | Navigation Buoy | -48 |
| Placement Area | Navigation Buoy | -47 |
| Anchorage Area | Shoalest Sounding* | -46 |
| Wreck Area | | -45 |
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RTK Positions

CALIFORNIA
HUMBOLDT COUNTY
HUMBOLDT BAY
BAR & ENTRANCE CHANNEL
POST-DREDGE SURVEY
15 JULY 2022

Sheet Number
2 of 2