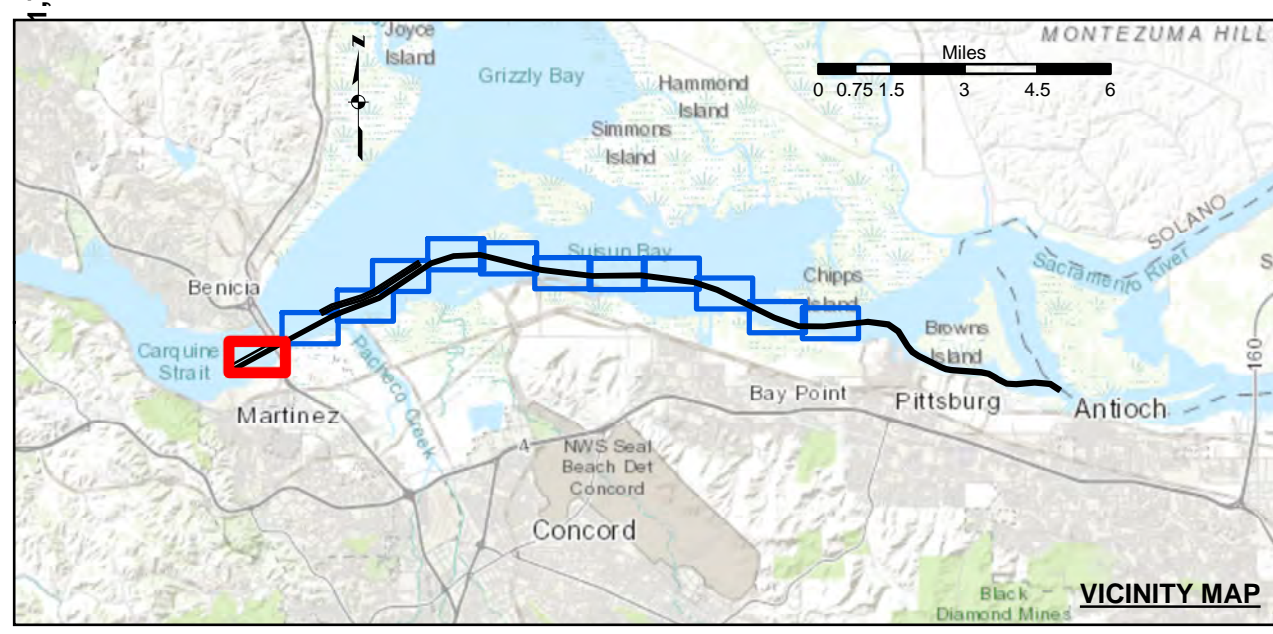


**US Army Corps of Engineers**  
San Francisco District  
450 Golden Gate Ave  
San Francisco, CA 94102

**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 the intended purpose. The Government makes no warranty, expressed or implied, concerning the accuracy, completeness, or reliability of any information furnished hereunder. The Government assumes no liability whatsoever for any error or omission in this information, and it is not to be used for any purpose other than that for which it was prepared. These data belong to the Government. Therefore, the user is not to disseminate or transfer these data to others without also transferring this disclaimer.

Prepared Under the Direction of <b>JOHN D. CUNNINGHAM</b> LT COLONEL, C.E., DISTRICT ENGINEER	Chart Date: Jul 24, 2020
Submitted: Hydro Survey Team Leader	Designed by: PDT
Recommended: Chief, Hydro Survey Section	Plotted by: PDT
Approved: Chief, Construction Branch	Checked by: PDT
	Drawn by: PDT

CALIFORNIA  
CONTRA COSTA COUNTY  
**SUISUN BAY CHANNEL  
BULLSHED CHANNEL  
CONDITION SURVEY**  
21 JULY 2020



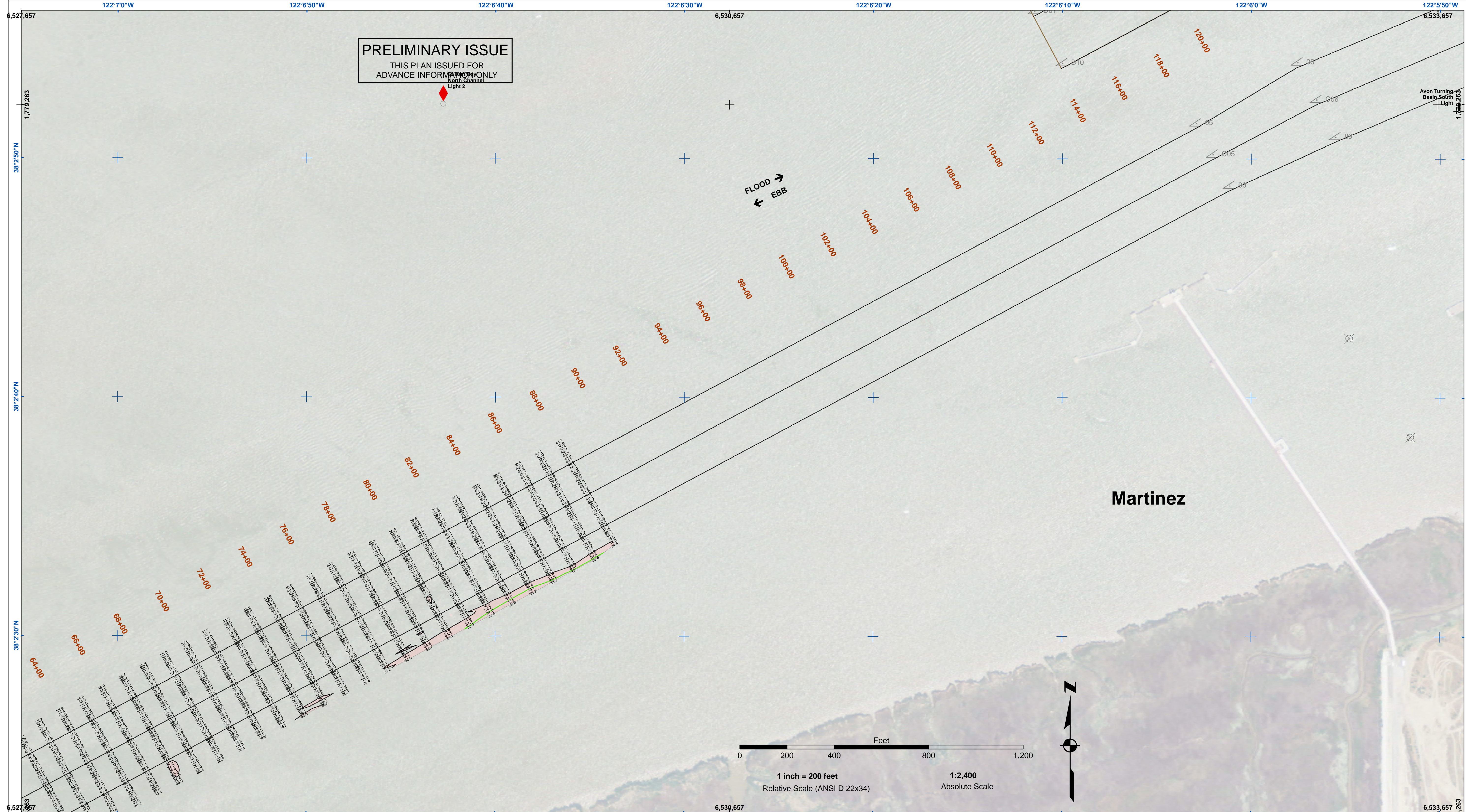
- |                            |                    |                 |
|----------------------------|--------------------|-----------------|
| Federal Navigation Channel | Beacon, General    | <b>Contours</b> |
| Shoaling Area              | Obstruction Point  |                 |
| Placement Area             | Navigation Buoy    |                 |
| Anchorage Area             | Navigation Buoy    |                 |
| Wreck Area                 | Shoalest Sounding* |                 |
| Submerged Wreck            |                    | -35             |
| Angle Point                |                    | -34             |
|                            |                    | -33             |
|                            |                    | -32             |
|                            |                    | -31             |

**NOTES:**  
HORIZONTAL COORDINATE SYSTEM:  
NORTH AMERICAN DATUM OF 1983 (NAD83), PROJECTED TO THE STATE PLANE COORDINATE SYSTEM (SPCS), CALIFORNIA ZONE II. 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.  
PLANE GRID, BEARING AND COORDINATES ARE BASED ON THE STATE OF CALIFORNIA COORDINATE SYSTEM, LAMBERT CONFORMAL PROJECTION, ZONE II NAD 83, CALIFORNIA, AS DESCRIBED IN SPECIAL PUBLICATION NO. 235, PUBLISHED BY NATIONAL OCEAN SURVEY, BASE MAPS ARE USDA NNP 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.

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.  
THE PROJECT DEPTH IS 35 FEET.  
VERTICAL CONTROL:  
SUISUN BAY CHANNEL  
(LINES 00+00 TO 160+00) BENCHMARK "9" (1948), USC&GS DISK ELEV 14.875 FT MLLW,  
TIDE GAUGE LOCATED AT PORT OF BENICIA DOCK.  
(LINES 150+00 TO 500+00) BENCHMARK "5144-P" (1990 RESET 1997), USC&GS DISK ELEV 11.83 FT MLLW,  
TIDE GAUGE LOCATED AT CONCORD NAVAL WEAPONS STATION TUG DOCK, NOAA STATION.  
(LINES 660+00 TO 733+45) BENCHMARK "5096-B", USC&GS DISK ELEV 21.76 FT MLLW,  
TIDE GAUGE LOCATED AT DIABLO SERVICE DOCK.  
HORIZONTAL GPS CONTROL: COAST GUARD D-BEACON

**Sheet Reference Number**  
1 of 12





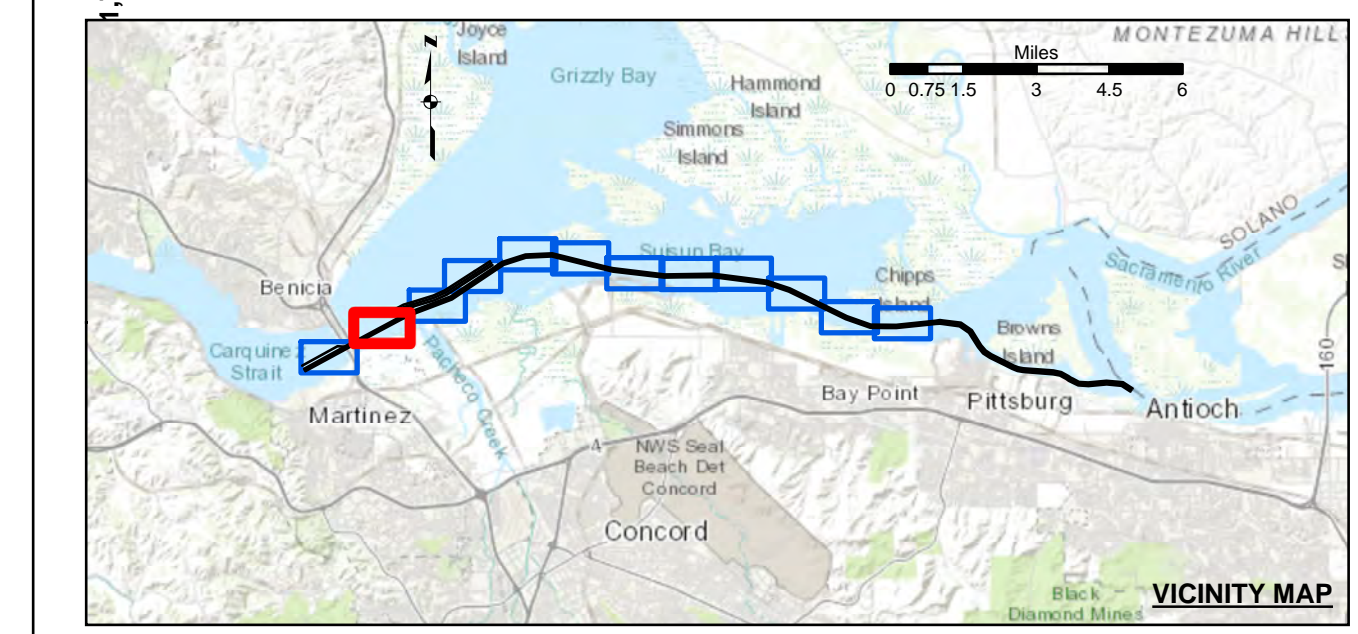
**PRELIMINARY ISSUE**  
THIS PLAN ISSUED FOR  
ADVANCE INFORMATION ONLY

**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. It is not intended to be used for navigation purposes. The user is responsible for the results of any application of this data for other than its intended purpose. The United States Government makes no warranty, expressed or implied, concerning the accuracy, completeness, or reliability of this information. The user is responsible for the results of any application of this data for other than its intended purpose. The United States Government makes no warranty, expressed or implied, concerning the accuracy, completeness, or reliability of this information. The user is responsible for the results of any application of this data for other than its intended purpose.

Chart Date:	Jul 24, 2020
Designed by:	PDT
Drawn by:	PDT
Checked by:	PDT
Approved:	Chief, Construction Branch
Surveyed By:	JOHN D. CUNNINGHAM
Plotted By:	PDT

CALIFORNIA  
CONTRA COSTA COUNTY  
**SUISUN BAY CHANNEL  
BULLSHED CHANNEL  
CONDITION SURVEY**  
21 JULY 2020



- |                            |                    |                 |
|----------------------------|--------------------|-----------------|
| 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            |                    | -35             |
| Angle Point                |                    | -34             |
|                            |                    | -33             |
|                            |                    | -32             |
|                            |                    | -31             |

**NOTES:**  
HORIZONTAL COORDINATE SYSTEM:  
NORTH AMERICAN DATUM OF 1983 (NAD83), PROJECTED TO THE STATE PLANE COORDINATE SYSTEM (SPCS), CALIFORNIA ZONE II. 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.  
PLANE GRID, BEARING AND COORDINATES ARE BASED ON THE STATE OF CALIFORNIA COORDINATE SYSTEM, LAMBERT CONFORMAL PROJECTION, ZONE II NAD 83, CALIFORNIA, AS DESCRIBED IN SPECIAL PUBLICATION NO. 235, PUBLISHED BY NATIONAL OCEAN SURVEY. 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.

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.  
THE PROJECT DEPTH IS 35 FEET.  
VERTICAL CONTROL:  
SUISUN BAY CHANNEL  
(LINES 00+00 TO 160+00) BENCHMARK "9" (1948), USC&GS DISK ELEV 14.875 FT MLLW, TIDE GAUGE LOCATED AT PORT OF BENICIA DOCK.  
(LINES 150+00 TO 500+00) BENCHMARK "5144-P" (1990 RESET 1997), USC&GS DISK ELEV 11.83 FT MLLW, TIDE GAUGE LOCATED AT CONCORD NAVAL WEAPONS STATION TUG DOCK, NOAA STATION.  
(LINES 660+00 TO 733+45) BENCHMARK "5096-B", USC&GS DISK ELEV 21.76 FT MLLW, TIDE GAUGE LOCATED AT DIABLO SERVICE DOCK.  
HORIZONTAL GPS CONTROL: COAST GUARD D-BEACON