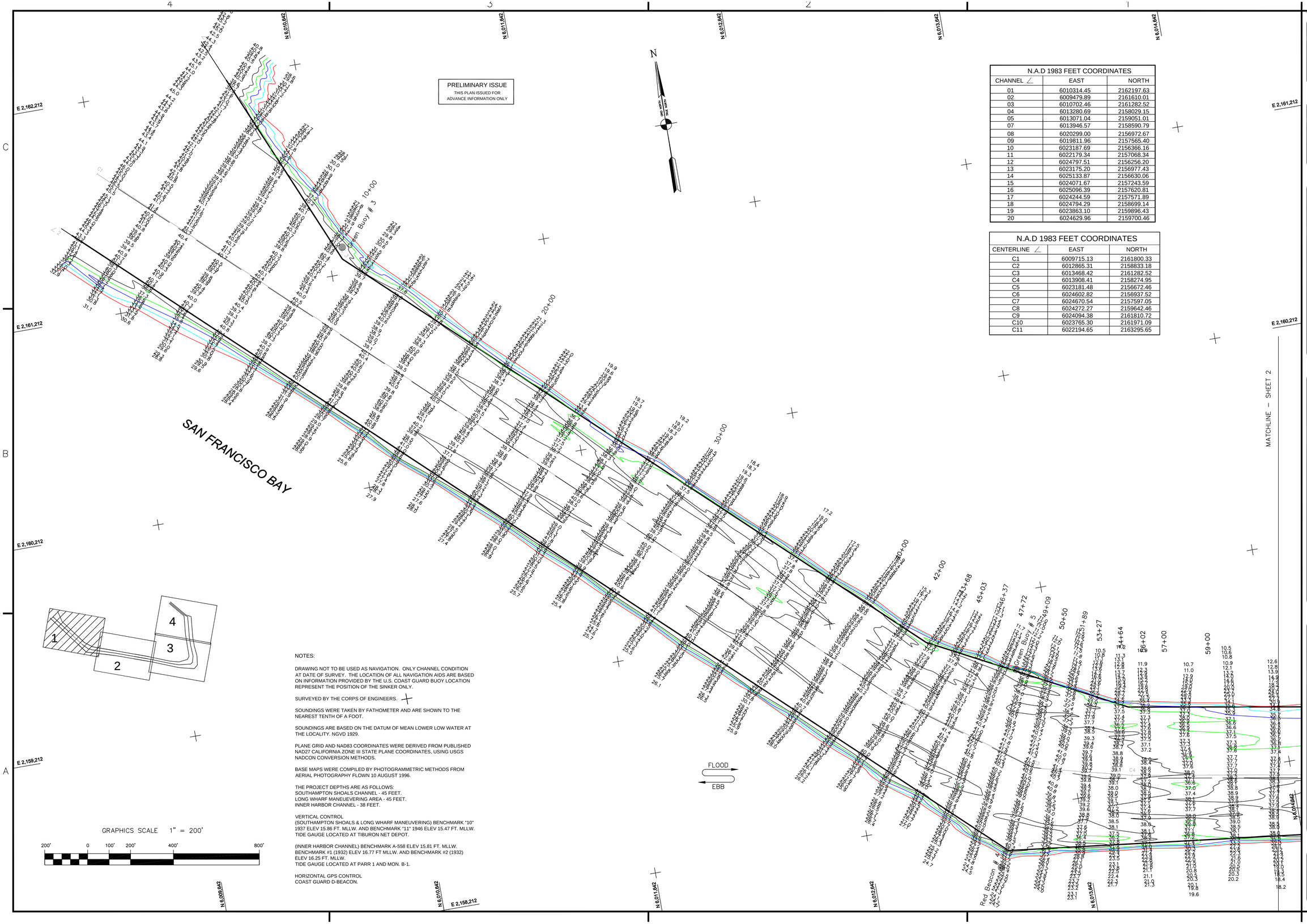
PRELIMINARY ISSUE
THIS PLAN ISSUED FOR
ADVANCE INFORMATION ONLY



N.A.D 1983 FEET COORDINATES		
CHANNEL ∠	EAST	NORTH
01	6010314.45	2162197.63
02	6009479.89	2161610.01
03	6010702.46	2161282.52
04	6013280.69	2158029.15
05	6013071.04	2159051.01
07	6013946.57	2158590.79
08	6020299.00	2156972.67
09	6019811.96	2157565.40
10	6023187.69	2156366.16
11	6022179.34	2157068.34
12	6024797.51	2156256.20
13	6023175.20	2156977.43
14	6025133.87	2156630.06
15	6024071.67	2157243.59
16	6025096.39	2157620.81
17	6024244.59	2157571.89
18	6024794.29	2158699.14
19	6023863.10	2159896.43
20	6024629.96	2159700.46

N.A.D 1983 FEET COORDINATES		
CENTERLINE ∠	EAST	NORTH
C1	6009715.13	2161800.33
C2	6012865.31	2158833.18
C3	6013468.42	2161282.52
C4	6013908.41	2158274.95
C5	6023181.48	2156672.46
C6	6024602.82	2156937.52
C7	6024670.54	2157597.05
C8	6024272.27	2159642.46
C9	6024094.38	2161810.72
C10	6023765.30	2161971.09
C11	6022194.65	2163295.65

NOTES:

DRAWING 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 TENTH OF A FOOT.

SOUNDINGS ARE BASED ON THE DATUM OF MEAN LOWER LOW WATER AT THE LOCALITY. NGVD 1929.

PLANE GRID AND NAD83 COORDINATES WERE DERIVED FROM PUBLISHED NAD27 CALIFORNIA ZONE III STATE PLANE COORDINATES, USING USGS NADCON CONVERSION METHODS.

BASE MAPS WERE COMPILED BY PHOTOGRAMMETRIC METHODS FROM AERIAL PHOTOGRAPHY FLOWN 10 AUGUST 1996.

THE PROJECT DEPTHS ARE AS FOLLOWS:
SOUTHAMPTON SHOALS CHANNEL - 45 FEET.
LONG WHARF MANEUVERING AREA - 45 FEET.
INNER HARBOR CHANNEL - 38 FEET.

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.

(INNER HARBOR CHANNEL) BENCHMARK A-558 ELEV 15.81 FT. MLLW. BENCHMARK #1 (1932) ELEV 16.77 FT MLLW. AND BENCHMARK #2 (1932) ELEV 16.25 FT. MLLW.
TIDE GAUGE LOCATED AT PARR 1 AND MON. B-1.

HORIZONTAL GPS CONTROL
COAST GUARD D-BEACON.

US Army Corps of Engineers
San Francisco District
333 Market Street
San Francisco, CA 94105

Mark	Description	Date	Appr.

SUBMITTED: TVW
Hydro Survey Section
APPROVAL RECOMMENDED:
Chief, Engineering Branch
APPROVED:
Chief, Engineering Technical & Services Div.

DESIGNED BY:
CHECKED BY: P.C.
DRAWN BY: EWC
DATE: 3/19/2003
SHEET NO. 1 OF 4
DRAWING NO. 9 2 328

PREPARED UNDER THE DIRECTION OF
MICHAEL McCORMICK
LT. COLONEL, C.E., DISTRICT ENGINEER

CONTRA COSTA COUNTY CALIFORNIA

RICHMOND INNER HARBOR
CONDITION SURVEY
15–16 MARCH 2003

Sheet reference number
C1