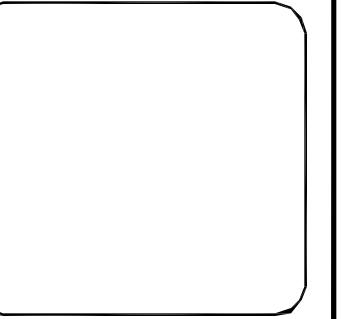




US Army Corps of Engineers
 San Francisco District
 1455 Market Street
 San Francisco, CA 94103



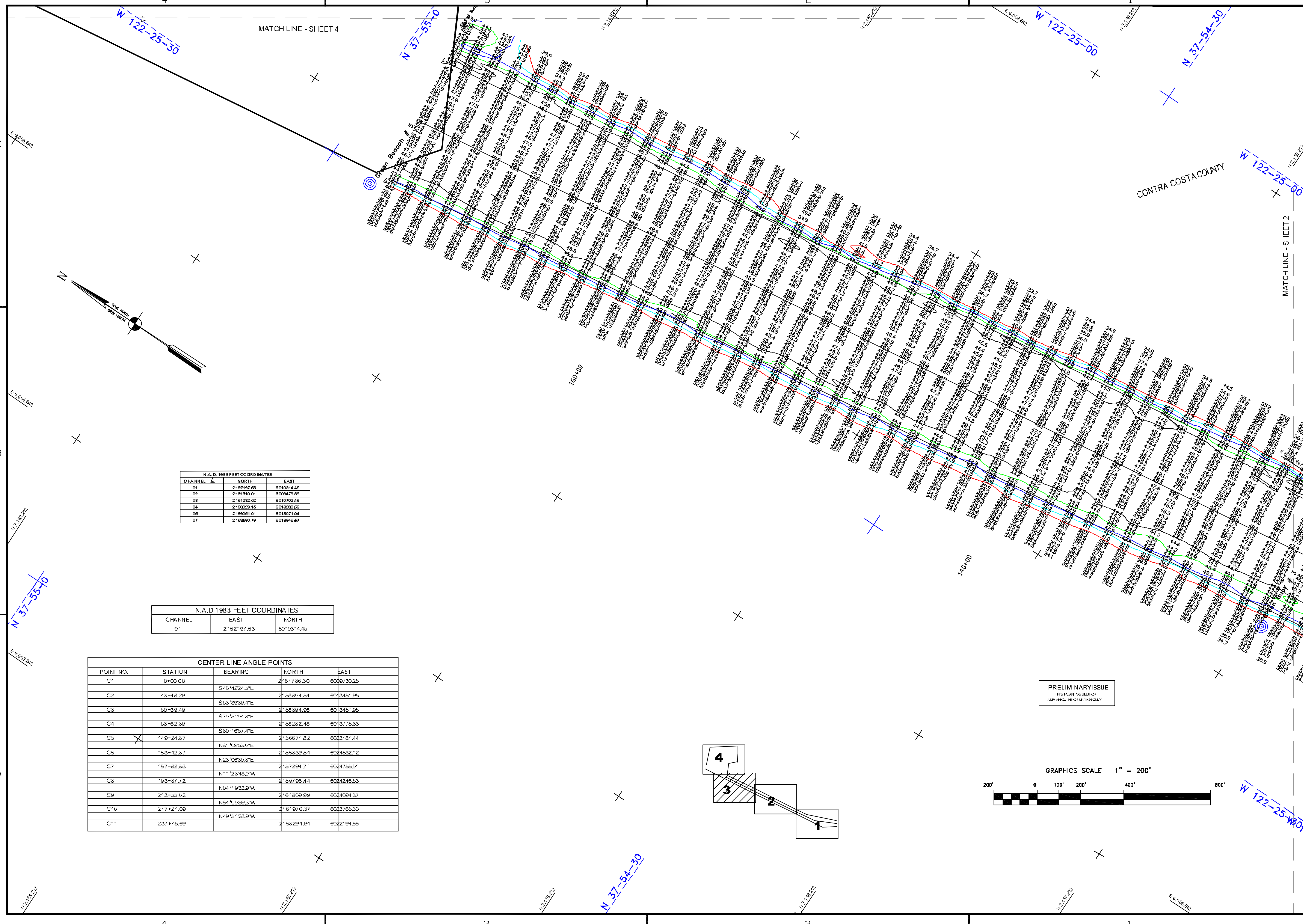
Mark	Description	Date	Appr.

DESIGNED BY:	DATE:	CHECKED BY:	DRAWING NO.	SHEET NO.	DISTRICT
	7/5/2013		3 OF 4	9	2
PREPARED UNDER THE DIRECTION OF					
JOHN K. BAKER					
LT. COLONEL, C.E., DISTRICT ENGINEER					

SUBMITTED:	PDT
Hydro Survey Team Leader	
APPROVAL RECOMMENDED:	
CHIEF, Hydro Survey Section	
APPROVED:	
CHIEF, Construction Branch	

CALIFORNIA
 CONTRA COSTA COUNTY
 RICHMOND OUTER HARBOR
 SOUTHAMPTON SHOALS
 CONDITION SURVEY
 26 JULY 2013

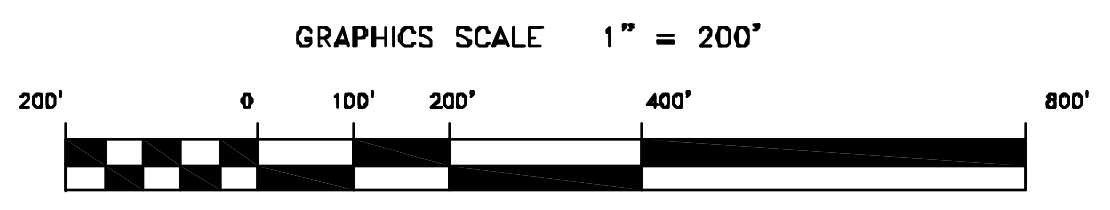
Sheet reference number
C3



N.A.D. 1983 FEET COORDINATES		
CHANNEL	NORTH	EAST
01	2182197.83	6010814.46
02	2181910.01	6009479.89
03	2181282.82	6010702.46
04	2180295.16	6013280.89
05	2189061.01	6018071.04
07	2168890.79	6018946.67

N.A.D. 1983 FEET COORDINATES		
CHANNEL	EAST	NORTH
07	2182197.83	6010814.46

CENTER LINE ANGLE POINTS				
POINT NO.	STATION	BEARING	NORTH	EAST
C1	0+00.00	S 45° 12' 24.3" E	2157736.20	6009730.25
C2	43+48.28	S 53° 39' 41" E	2158354.54	6013457.85
C3	50+39.49	S 70° 5' 14.2" E	2158394.96	6013457.85
C4	53+82.39	S 80° 1' 57.4" E	2158282.48	6013775.88
C5	79+24.87	N 87° 09' 53.0" E	2158677.82	6013787.44
C6	83+42.37	N 23° 09' 33.3" E	2158888.54	6014882.72
C7	87+82.88	N 77° 28' 48.0" W	2157294.77	6014755.07
C8	89+37.72	N 04° 19' 32.8" W	2158198.44	6014216.83
C9	21+3+55.02	N 64° 00' 09.8" W	2161808.99	6014094.37
C10	277+27.09	N 19° 5' 23.8" W	2161910.37	6013765.30
C11	237+75.89	N 63° 29' 4.84	2163294.84	6012794.86



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 THIS IS AN EARLY DRAFT
 ADVANCE INFORMATION ONLY

