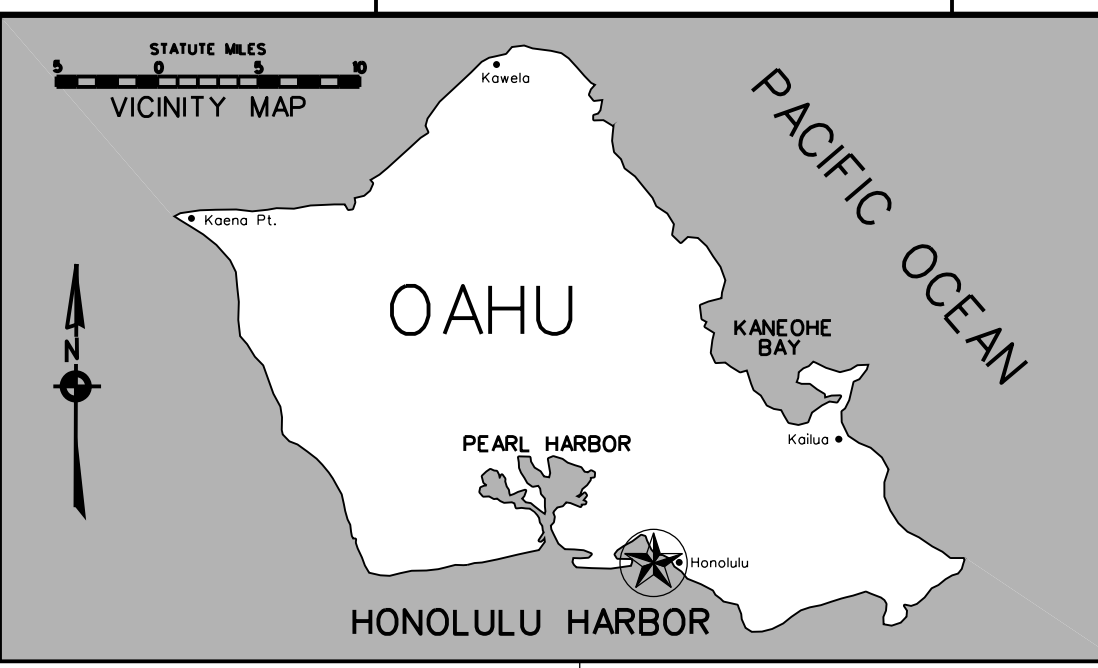
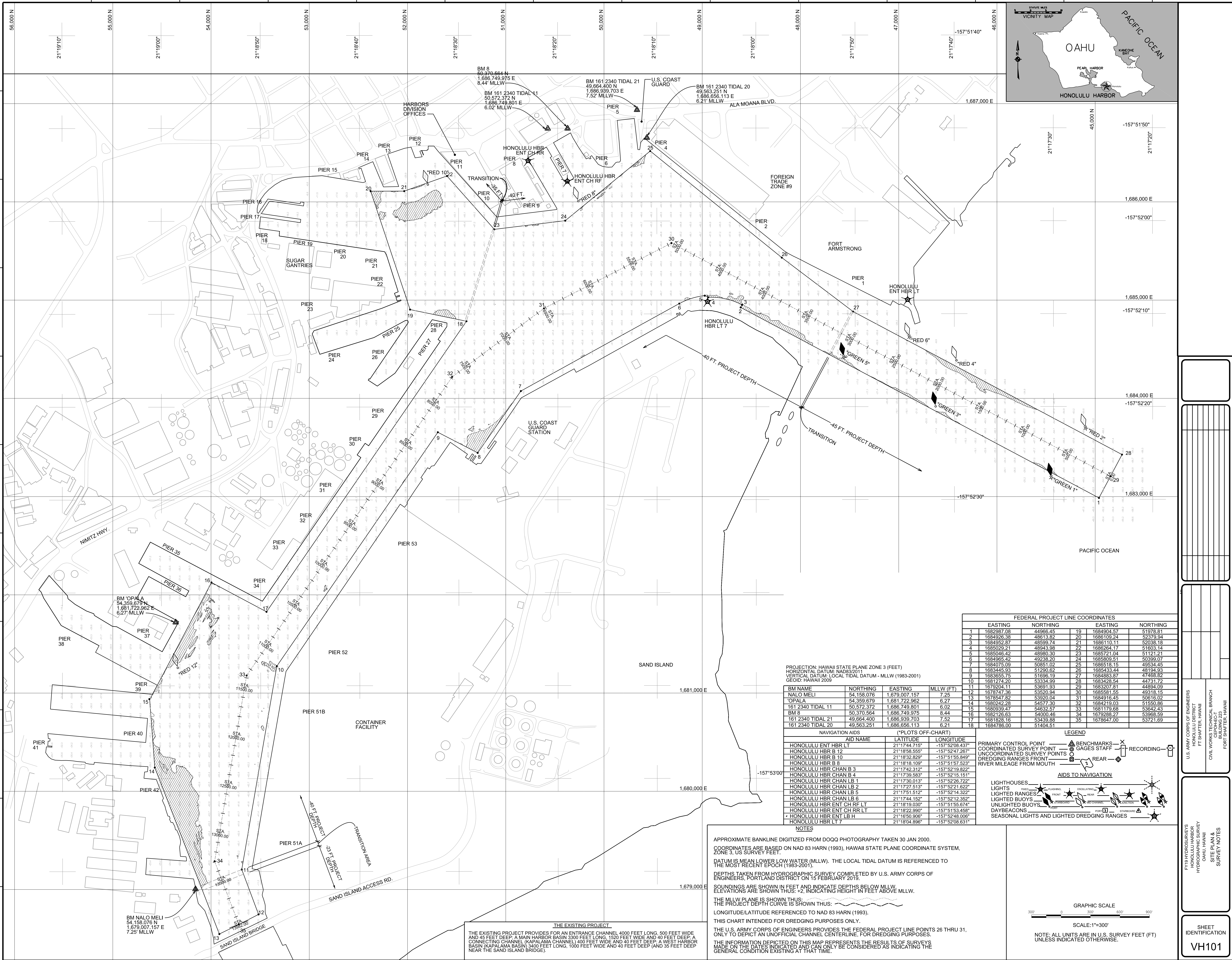




PROJECTION: HAWAII STATE PLANE ZONE 3 (FEET)
HORIZONTAL DATUM: NAD83/2011
VERTICAL DATUM: LOCAL TIDAL DATUM - MLLW (1983-2001)
GEOID: HAWAII 2009

BM NAME	NORTHING	EASTING	MLLW (FT)
NALO MELI	54,158.076	1,679,007.157	7.25
'OPALA	54,359.679	1,681,722.962	6.27
161 2340 TIDAL 11	50,572.372	1,686,749.801	6.02
HONOLULU HBR CHAN B 3	50,370.564	1,686,749.975	8.44
BM 8	50,370.564	1,686,749.975	8.44
161 2340 TIDAL 21	49,664.400	1,686,939.703	7.52
161 2340 TIDAL 20	49,563.251	1,686,656.113	6.21
161 2340 TIDAL 2	49,563.251	1,686,656.113	6.21

NAVIGATION AIDS	(PLOTS OFF-CHART)
HONOLULU ENT HBR LT	21°17'44.715" N 157°52'08.437" W
HONOLULU HBR B 12	21°18'58.555" N 157°52'47.267" W
HONOLULU HBR B 10	21°18'32.829" N 157°51'56.849" W
HONOLULU HBR B 8	21°18'18.109" N 157°51'57.523" W
HONOLULU HBR CHAN B 3	21°17'42.312" N 157°52'19.822" W
HONOLULU HBR CHAN B 4	21°17'39.983" N 157°52'15.151" W
HONOLULU HBR CHAN LB 1	21°17'30.013" N 157°52'26.722" W
HONOLULU HBR CHAN LB 2	21°17'27.513" N 157°52'21.622" W
HONOLULU HBR CHAN LB 5	21°17'51.512" N 157°52'14.322" W
HONOLULU HBR CHAN LB 6	21°17'44.152" N 157°52'13.352" W
HONOLULU HBR ENT CH RR LT	21°18'19.030" N 157°51'55.674" W
HONOLULU HBR ENT CH RR LT	21°18'22.990" N 157°51'53.458" W
HONOLULU HBR ENT LB H	21°16'50.906" N 157°52'48.006" W
HONOLULU HBR LT 7	21°18'04.896" N 157°52'08.631" W

FEDERAL PROJECT LINE COORDINATES							
EASTING		NORTHING		EASTING		NORTHING	
1	1682987.08	44966.45	19	1684904.57	51978.81		
2	1684926.38	48613.82	20	1686109.24	52379.94		
3	1684952.87	48559.74	21	1686110.11	52038.18		
4	1685029.21	48943.98	22	1686264.17	51603.14		
5	1685046.42	48990.30	23	1685721.04	51121.21		
6	1684965.42	49238.20	24	1685809.51	50399.07		
7	1684075.09	50851.02	25	1686515.15	49544.45		
8	1683445.93	51290.62	26	1685433.44	48934.93		
9	1683655.75	51696.19	27	1684883.67	47468.82		
10	1681274.20	53334.99	28	1683428.54	44731.72		
11	1679204.11	53951.53	29	1683207.81	44894.09		
12	1678747.36	53520.94	30	1685581.55	45118.15		
13	1678547.82	53920.04	31	1684916.45	45061.02		
14	1680242.28	54577.30	32	1684218.03	51550.86		
15	1680939.47	54832.57	33	1681175.68	53042.43		
16	1682126.63	54000.46	34	1679288.27	53768.27		
17	1681828.16	53439.88	35	1678647.00	53721.69		
18	1684786.00	51404.51					

LEGEND

PRIMARY CONTROL POINT
COORDINATED SURVEY POINT
UNCOORDINATED SURVEY POINTS
DREDGING RANGES FRONT
RIVER MILEAGE FROM MOUTH

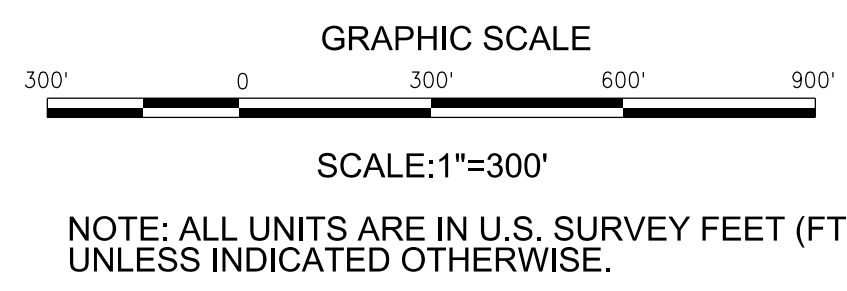
RECORDING

AIDS TO NAVIGATION

LIGHTHOUSES
LIGHTS
LIGHTED RANGES
LIGHTED BUOYS
UNLIGHTED BUOYS
DAYBEACONS
SEASONAL LIGHTS AND LIGHTED DREDGING RANGES

APPROXIMATE BANKLINE DIGITIZED FROM DOQQ PHOTOGRAPHY TAKEN 30 JAN 2000.
COORDINATES ARE BASED ON NAD 83 HARN (1993), HAWAII STATE PLANE COORDINATE SYSTEM, ZONE 3, US SURVEY FEET.
DATUM IS MEAN LOWER LOW WATER (MLLW). THE LOCAL TIDAL DATUM IS REFERENCED TO THE MOST RECENT EPOCH (1983-2001).
DEPTHS TAKEN FROM HYDROGRAPHIC SURVEY COMPLETED BY U.S. ARMY CORPS OF ENGINEERS, PORTLAND DISTRICT ON 15 FEBRUARY 2013.
SOUNDINGS ARE SHOWN IN FEET AND INDICATE DEPTHS BELOW MLLW.
ELEVATIONS ARE SHOWN THUS: +2, INDICATING HEIGHT IN FEET ABOVE MLLW.
THE MLLW PLANE IS SHOWN THUS:
THE PROJECT DEPTH CURVE IS SHOWN THUS:
LONGITUDE/LATITUDE REFERENCED TO NAD 83 HARN (1993).
THIS CHART INTENDED FOR DREDGING PURPOSES ONLY.
THE U.S. ARMY CORPS OF ENGINEERS PROVIDES THE FEDERAL PROJECT LINE POINTS 26 THRU 31, ONLY TO DEPICT AN UNOFFICIAL CHANNEL CENTERLINE, FOR DREDGING PURPOSES.
THE INFORMATION DEPICTED ON THIS MAP REPRESENTS THE RESULTS OF SURVEYS MADE ON THE DATES INDICATED AND CAN ONLY BE CONSIDERED AS INDICATING THE GENERAL CONDITION EXISTING AT THAT TIME.

THE EXISTING PROJECT
THE EXISTING PROJECT PROVIDES FOR AN ENTRANCE CHANNEL 4000 FEET LONG, 500 FEET WIDE AND 45 FEET DEEP, A MAIN HARBOR BASIN 5300 FEET LONG, 1500 FEET WIDE AND 40 FEET DEEP, A CONNECTING CHANNEL (KAPALAMA CHANNEL) 400 FEET WIDE AND 40 FEET DEEP, A WEST HARBOR BASIN (KAPALAMA BASIN) 3400 FEET LONG, 1000 FEET WIDE AND 40 FEET DEEP (AND 35 FEET DEEP NEAR THE SAND ISLAND BRIDGE).



U.S. ARMY CORPS OF ENGINEERS
HONOLULU DISTRICT
FT SHAFTER, HAWAII

CIVIL WORKS TECHNICAL BRANCH
DEPOSITED
SITE PLAN
SURVEY NOTES

FOR SHAFER HAWAII

FF18 HYDROSURVEYS
HONOLULU HARBOR
HYDROGRAPHIC SURVEY
NOVEMBER 2013
SITE PLAN
SURVEY NOTES

SHEET
IDENTIFICATION
VH101