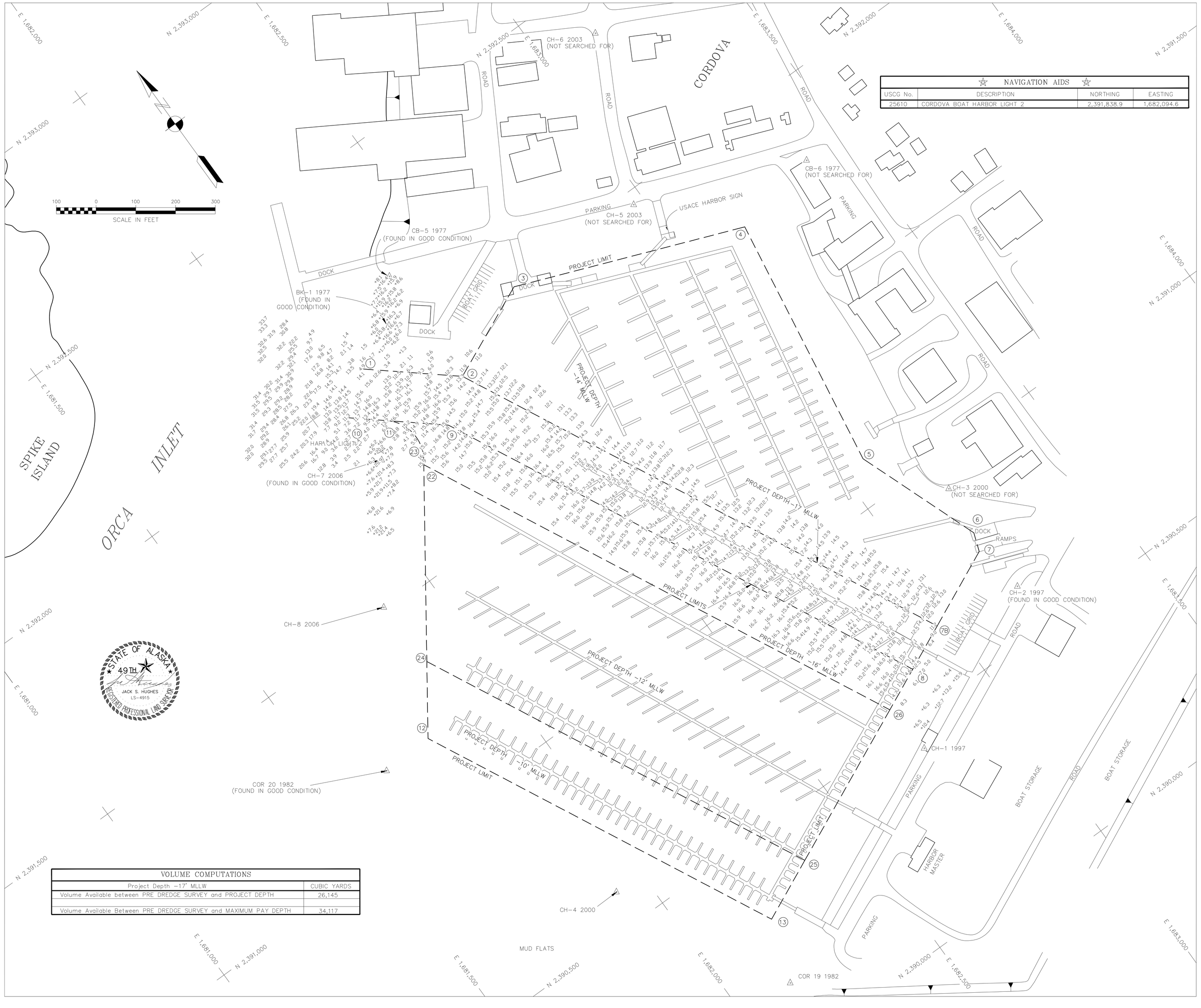
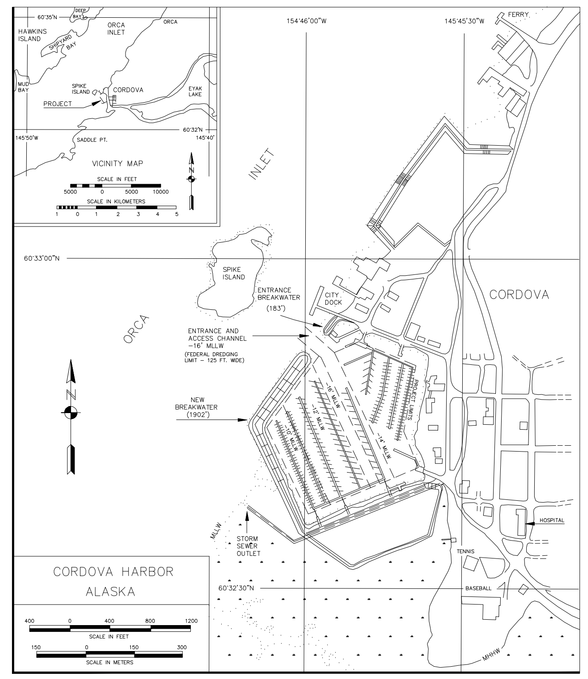


NAVIGATION AIDS			
USCG No.	DESCRIPTION	NORTHING	EASTING
25610	CORDOVA BOAT HARBOR LIGHT 2	2,391,838.9	1,682,094.6



NOTES

1. HORIZONTAL CONTROL IS ALASKA STATE PLANE, ZONE 3, NAD83, IN US SURVEY FEET, HOLDING USACE SBC "COR 19 1982" AS N 2,390,148.08, E 1,682,142.65 AND DOMED BC "CH-2 1997" AS N 2,390,621.55, E 1,683,190.94.
2. VERTICAL CONTROL IS MEAN LOWER LOW WATER DATUM, IN US SURVEY FEET (MLLW=0.0') HOLDING USCGS TIDAL BENCH MARK "NO 13 1970" AS 21.53' AND NOAA/NOS TIDAL BENCH MARK "4050 H 1982" AS 30.33'. TIDAL DATUM IS BASED ON THE 1983-2001 TIDAL EPOCH FROM NOAA/NOS TIDAL BENCH MARK LIST: "9454050 CORDOVA, ORCA INLET, PRINCE WILLIAM SOUND, ALASKA", PUBLISHED 05/16/2003.
3. SOUNDINGS ARE IN FEET AND ARE MINUS UNLESS OTHERWISE INDICATED.
4. THIS DRAWING INDICATES GENERAL CONDITIONS AT THE TIME OF SURVEY.
5. SOUNDING OPERATIONS WERE CONDUCTED ON SEPTEMBER 9, 2009 USING AN RESON 210 DEPTH SOUNDER WITH A 200KHZ, 3 DEGREE BEAM-WIDTH, SINGLE-BEAM TRANSDUCER. POSITIONING WAS PROVIDED USING A TRIMBLE 5700 RECEIVER OPERATING ON RTK CORRECTIONS BROADCAST FROM A TRIMBLE 5700 BASE STATION SET AT USACE SBC "COR 19 1982". NAVIGATION, DATA COLLECTION AND DATA PROCESSING WERE PERFORMED USING HYPACK MAX INTEGRATED SOFTWARE. TIDE CORRECTIONS WERE PROVIDED BY TRIMBLE 5700 RTK GPS RECEIVER AND CHECKED THROUGH CONVENTIONAL METHODS.

CONTROL DATA

STATION	NORTHING	EASTING	ELEV.	DESCRIPTION
BK-1 1977	2,392,080.49	1,682,294.54	16.75	USACE SBC
CB-6 1977	2,391,801.14	1,683,389.76	39.90	NOT SEARCHED FOR
CB-5 1977	2,392,179.77	1,682,368.00	17.31	USACE SBC
CH-1 1997	2,390,428.73	1,682,762.05	21.09	USACE DOMED BC
CH-2 1997	2,390,621.55	1,683,190.94	21.80	USACE DOMED BC
CH-3 2000	2,390,921.64	1,683,194.88	18.70	NOT SEARCHED FOR
CH-4 2000	2,390,590.00	1,681,922.58	22.34	USACE DOMED BC
COR 19 1982	2,390,148.08	1,682,142.65	22.22	USACE SBC
COR 20 1982	2,391,176.10	1,681,632.86	21.84	USACE SBC
CH-5 2003	2,391,965.51	1,682,971.62	20.07	NOT SEARCHED FOR
CH-6 2003	2,392,371.66	1,683,146.52	22.61	NOT SEARCHED FOR
CH-7 2006	2,391,816.91	1,682,081.13	21.31	SET 3 1/4" DOMED BC IN ROCK
CH-8 2006	2,391,513.59	1,681,868.10	21.92	SET 3 1/4" DOMED BC IN ROCK

PROJECT LIMITS

CORNER	NORTHING	EASTING	CORNER	NORTHING	EASTING
1	2,392,029.55	1,682,177.94	10	2,391,953.36	1,682,074.36
2	2,391,868.49	1,682,369.08	11	2,391,888.20	1,682,151.69
3	2,391,974.87	1,682,606.33	12	2,391,181.09	1,681,764.63
4	2,391,756.67	1,683,165.11	13	2,390,305.77	1,682,198.61
5	2,391,109.58	1,683,064.29	22	2,391,745.51	1,682,159.89
6	2,390,794.87	1,683,180.93	23	2,391,755.46	1,682,166.86
7	2,390,748.96	1,683,164.19	24	2,391,339.69	1,681,875.70
7B	2,390,659.20	1,682,968.63	25	2,390,376.70	1,682,353.14
8	2,390,607.03	1,682,854.98	26	2,390,558.19	1,682,748.55
9	2,391,789.67	1,682,268.64			

VOLUME COMPUTATIONS

Project Depth -17' MLLW	CUBIC YARDS
Volume Available between PRE DREDGE SURVEY and PROJECT DEPTH	26,145
Volume Available Between PRE DREDGE SURVEY and MAXIMUM PAY DEPTH	34,117

CONTRACT NO. W911KB-07-D-0016
CONTRACTOR WESTERN MARINE CONSTRUCTION INC.
CITY SEATTLE STATE WASHINGTON

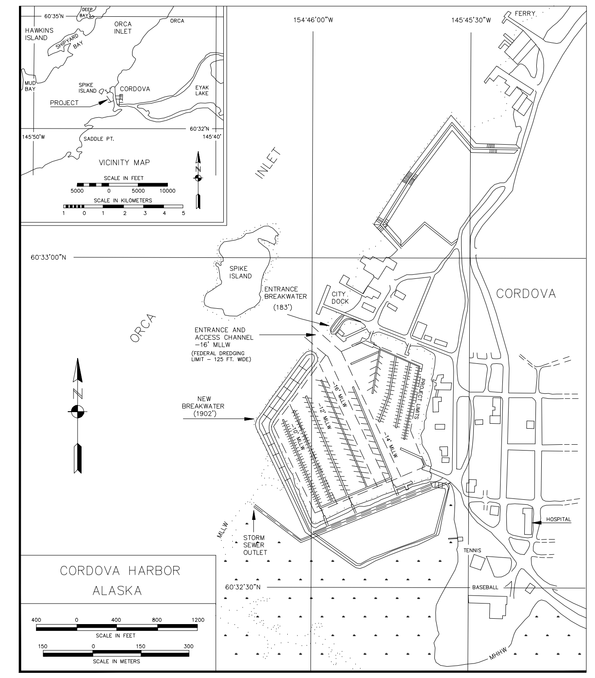
ALASKA DISTRICT
CORPS OF ENGINEERS
ANCHORAGE, ALASKA

SURVEYED: HUGHES & ASSOC.
DRAWN: REH
CHECKED: JSH
SUBMITTED:

CORDOVA, ALASKA
CORDOVA HARBOR MAINTENANCE DREDGING
PRE-DREDGE SURVEY
SEPTEMBER 9, 2009

RECOMMENDED: PROJECT MANAGER
APPROVED: CHIEF OPERATIONS-READINESS BRANCH
DATE:

SURVEY NO.
SCALE: 1" = 100'
SHEET 1 OF 6



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9	2,391,789.67	1,682,268.64			

STATE OF ALASKA 49TH
JACK S. HUGHES
LS-4915
REGISTERED PROFESSIONAL LAND SURVEYOR

CONTRACT NO. W911KB-07-D-0016
CONTRACTOR HUGHES & ASSOCIATES
CITY WASILLA STATE ALASKA

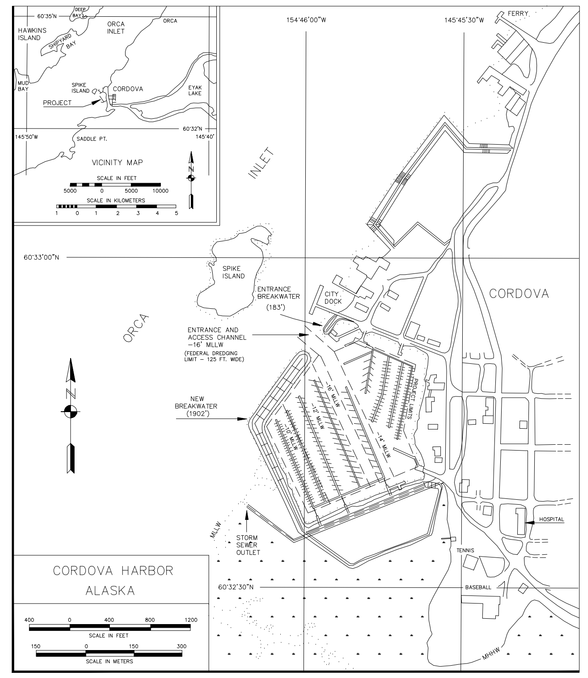
ALASKA DISTRICT
CORPS OF ENGINEERS
ANCHORAGE, ALASKA

SURVEYED: CSH
DRAWN: REH
CHECKED: JSH
SUBMITTED:

CORDOVA, ALASKA
CORDOVA HARBOR DREDGING 2009
POST DREDGE SURVEY
NOVEMBER 15-18, 2009

RECOMMENDED: PROJECT MANAGER
APPROVED: CHIEF OPERATIONS-READINESS BRANCH
DATE:

SURVEY NO.
SCALE: 1" = 50'
SHEET 1 OF 15



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CONTRACT NO. W911KB-07-D-0016
CONTRACTOR HUGHES & ASSOCIATES
CITY WASILLA STATE ALASKA

ALASKA DISTRICT
CORPS OF ENGINEERS
ANCHORAGE, ALASKA

SURVEYED: CSH
DRAWN: REH
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CORDOVA, ALASKA
CORDOVA HARBOR DREDGING 2009
POST DREDGE SURVEY
NOVEMBER 15-18, 2009

RECOMMENDED: PROJECT MANAGER
APPROVED: CHIEF OPERATIONS-READINESS BRANCH
DATE:

SURVEY NO.
SCALE: 1" = 50'
SHEET 2 OF 15