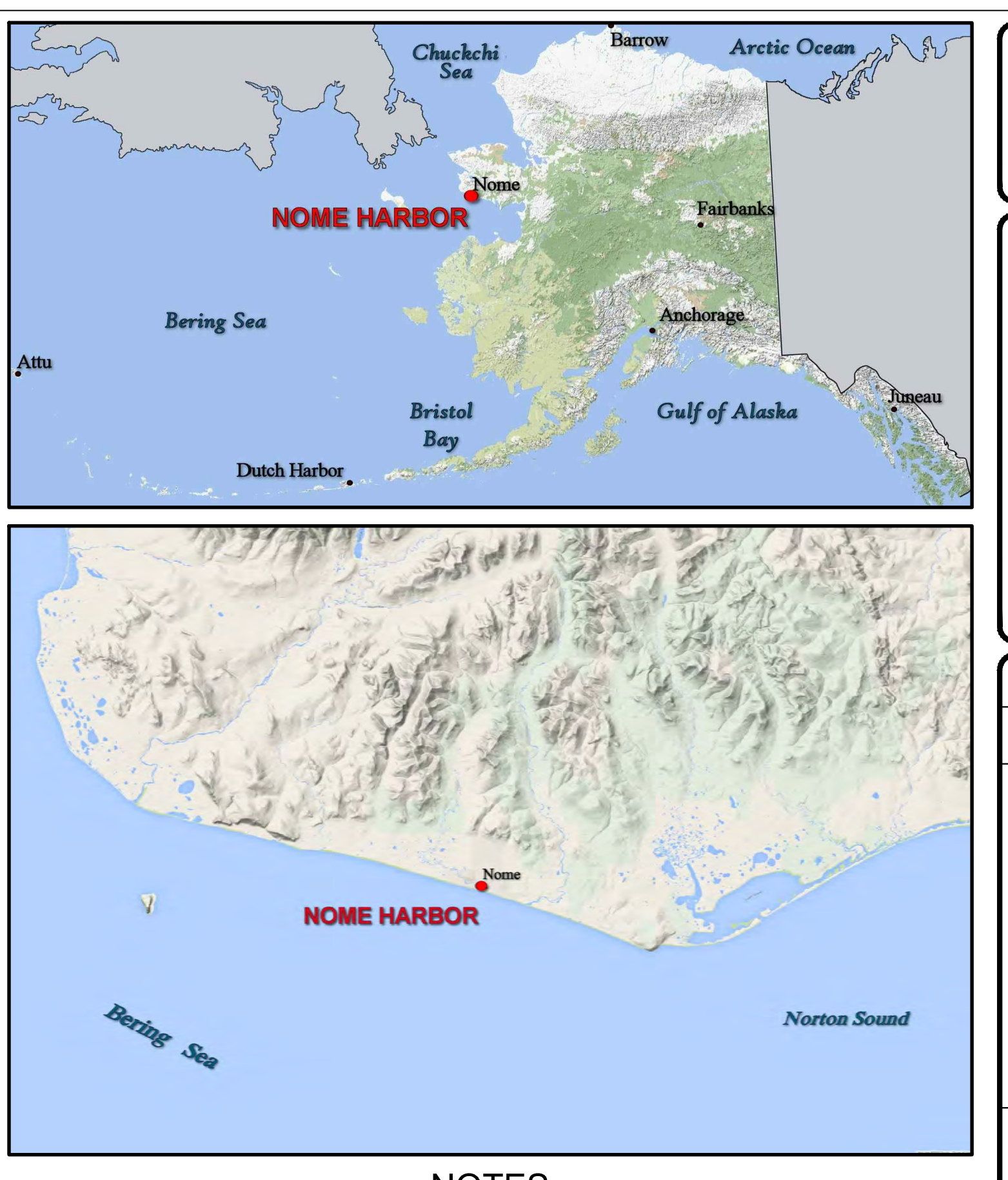


VOLUME COMPUTATIONS		
AREA A: OUTER ENTRANCE CHANNEL	DEPTH (FT)	CU. YD.
AVAILABLE TO REQUIRED DEPTH (RD)	-22	35,459
AVAILABLE BETWEEN RD AND MAX PAY DEPTH (MP)	-23	23,150
AVAILABLE SS AT 4:1 (H:V) 67.5' WIDE	VARIES	3,115
AREA B: TRANSITION -22FT TO -12FT		
AVAILABLE TO REQUIRED DEPTH (RD)	VARIES	4,228
AVAILABLE BETWEEN RD AND MAX PAY DEPTH (MP)	VARIES	3,596
AREA C: INNER ENTRANCE CHANNEL		
AVAILABLE TO REQUIRED DEPTH (RD)	-12	3,211
AVAILABLE BETWEEN RD AND MAX PAY DEPTH (MP)	-13	4,368
AVAILABLE SS AT 4:1 (H:V) 25' WIDE	VARIES	2,437
AREA D: HARBOR APPROACH CHANNEL		
AVAILABLE TO REQUIRED DEPTH (RD)	-10	1,300
AVAILABLE BETWEEN RD AND MAX PAY DEPTH (MP)	-11	3,852
AVAILABLE SBE SCOPS (SS) AT 3:1 (H:V) 30 TO 15+0	VARIES	2,498
AVAILABLE SS AT 3:1 (H:V) 25' WIDE		N/A
AREA E: INNER HARBOR		
AVAILABLE TO REQUIRED DEPTH (RD)	-10	446
AVAILABLE BETWEEN RD AND MAX PAY DEPTH (MP)	-11	955
AVAILABLE SS AT 3:1 (H:V) 25' WIDE	VARIES	2
AREA F: EAST SEDIMENT TRAP		
AVAILABLE TO REQUIRED DEPTH (RD)	-22	12,118
AVAILABLE BETWEEN RD AND MAX PAY DEPTH (MP)	-23	5,982
AVAILABLE SS AT 4:1 (H:V) 50 TO 87.5' WIDE	VARIES	14,013
TOTAL MAXIMUM VOLUME AVAILABLE (MP + SS)		117,750

PROJECT LIMITS		
CORNER	NORTHING	EASTING
DL-1	3,835,022.62	1,729,316.61
DL-2	3,835,149.55	1,729,399.02
DL-3	3,836,072.82	1,729,918.93
DL-4	3,836,470.43	1,730,028.07
DL-5	3,837,258.32	1,730,471.76
DL-6	3,837,408.16	1,730,570.53
DL-7	3,837,413.08	1,730,561.80
DL-8	3,837,517.58	1,730,630.69
DL-9	3,837,690.63	1,730,843.85
DL-10	3,837,682.74	1,730,851.12
DL-11	3,837,676.52	1,731,038.64
DL-12	3,837,477.28	1,731,471.47
DL-13	3,837,389.71	1,731,661.72
DL-14	3,837,780.09	1,731,841.42
DL-15	3,837,960.29	1,731,879.63

PROJECT LIMITS		
CORNER	NORTHING	EASTING
DL-16	3,838,068.59	1,731,647.06
DL-17	3,837,889.01	1,731,563.78
DL-18	3,837,716.35	1,731,572.37
DL-19	3,837,833.67	1,731,450.42
DL-20	3,838,004.90	1,730,713.69
DL-21	3,837,805.36	1,730,607.88
DL-22	3,837,800.45	1,730,616.59
DL-23	3,837,483.02	1,730,437.69
DL-24	3,837,487.93	1,730,428.99
DL-25	3,837,331.92	1,730,341.06
DL-26	3,836,544.03	1,729,897.37
DL-27	3,836,244.56	1,729,613.96
DL-28	3,836,256.67	1,729,127.44
DL-29	3,836,166.59	1,729,127.64
DL-30	3,836,166.59	1,729,227.64

PROJECT LIMITS		
CORNER	NORTHING	EASTING
DL-31	3,835,941.14	1,729,224.59
DL-32	3,835,263.17	1,729,026.05
DL-33	3,835,113.32	1,728,982.17
DL-34	3,835,030.48	1,729,150.59
DL-35	3,837,169.70	1,729,826.82
DL-36	3,837,188.08	1,729,724.66
DL-37	3,837,141.72	1,729,440.28
DL-38	3,836,920.50	1,729,383.90
DL-39	3,836,712.15	1,729,439.22
DL-40	3,836,753.91	1,729,609.77
DL-41	3,836,795.08	1,729,685.94
DL-42	3,836,877.58	1,729,717.05
DL-43	3,836,889.71	1,729,804.27
DL-44	3,837,022.53	1,729,867.08



NOTES

1. PRIMARY PROJECT HORIZONTAL CONTROL IS ALASKA STATE PLANE, ZONE 8, NAD83 (NSRS2007), IN U.S. FEET. BASIS OF COORDINATES IS NATIONAL GEODETIC SURVEY (NGS) CONTROL STATION "OME A" (PID DF3651) AS N 3,841,096.47 AND E 1,728,070.64 AND "OME B" (PID DF3652) AS N 3,842,264.55 AND E 1,729,661.41. MONUMENTS ARE SECONDARY AIRPORT CONTROL STATIONS (SACS) AT NOME AIRPORT, ALASKA.
LOCAL PROJECT HORIZONTAL CONTROL IS ALASKA STATE PLANE, ZONE 8, NAD83 (NSRS2007), IN U.S. SURVEY FEET HOLDING "KMJV-1" HAVING A VALUE OF N 3,837,168.87 AND E 1,729,283.15.
2. VERTICAL CONTROL IS MEAN LOWER LOW WATER (MLLW +0.0'). BASED ON THE NOAA/NOIS TIDAL BENCHMARK LIST "946 8756 H" NOME (NORTON SOUND, ALASKA) PUBLISHED 10/05/01. THIS TIDAL DATUM IS BASED ON THE 1983-2001 TIDAL EPOCH AND IS REFERENCED BY HOLDING NOAA/USCGS TIDAL BENCHMARK "946 8756 H" (VM#12155/PID#BFB37) AS 12.18 FT.
3. VERTICAL TIES TO THE NATIONAL SPATIAL REFERENCE SYSTEM ARE BASED ON PUBLISHED NAVD83 (GEOID 12B) ELEVATIONS HOLDING NOAA/USCGS TIDAL BENCHMARK "946 8756 H" (VM#12155/PID#BFB37) AS 14.82 FT.
4. SOUNDINGS ARE IN FEET AND ARE MINUS UNLESS OTHERWISE INDICATED.
5. BATHYMETRY WAS COLLECTED MAY 27, 2020. SOUNDINGS WERE COLLECTED USING A CEESCOPE ECHO SOUNDER OPERATING AT 200 KHZ. SOUND VELOCITY THROUGH THE WATER COLUMN WAS DETERMINED WITH AN AML BASE 32 SOUND VELOCITY PROBE. POSITION AND TIDES WERE PROVIDED IN REAL TIME USING A TRIMBLE R8 RTK GPS RECEIVER OPERATING ON KINEMATICS CORRECTIONS BROADCAST FROM A TRIMBLE R8 RTK BASE RECEIVER SET AT CONTROL STATION "KMJV-1". DATA WAS COLLECTED AND PROCESSED USING HYPACK 2020 INTEGRATED SOFTWARE. HORIZONTAL CONTROL WAS SURVEYED USING RTK GNSS EQUIPMENT AND TECHNIQUES. VERTICAL CONTROL WAS SURVEYED USING DIFFERENTIAL LEVELING TECHNIQUES.
6. THIS DRAWING INDICATES GENERAL CONDITIONS AT THE TIME OF THE SURVEY.
7. MAP SOUNDINGS, CONTOURS, COLOR RELIEF, AND VOLUME COMPUTATIONS ARE SHOAL-BIASED AND BASED ON A 10 FOOT SORT.

SURVEY CONTROL DATA				
STATION	NORTHING	EASTING	MLLW	DESCRIPTION
39+71	3,834,957.98	1,729,422.33		BRASS CAP
53+68	3,834,888.51	1,728,762.20		BRASS CAP
BOOTSTRAP	3,838,021.15	1,730,359.97	6.70	BRASS CAP
CELL	3,835,965.94	1,729,122.26		ALUMINUM MON
DINGO	3,836,890.94	1,732,407.20	19.31	BRASS CAP
KMJV-1	3,837,168.87	1,729,283.15	16.44	BRASS CAP
NH-02	3,838,272.50	1,731,835.01	12.45	BRASS CAP
NH-03	3,837,585.34	1,730,864.94	13.87	BRASS CAP
NH-04	3,837,212.71	1,731,266.48	15.30	BRASS CAP
OME A	3,841,096.47	1,728,070.64		BRASS CAP
OME B	3,842,264.55	1,729,661.41		BRASS CAP
PUMP	3,837,605.19	1,731,831.48	9.18	BRASS CAP
SHEET	3,837,882.85	1,731,533.69	11.70	DESTROYED

NAVIGATION AIDS			
USCG NO.	NORTHING	EASTING	DESCRIPTION
27962	3,834,922	1,729,388	ENTRANCE LIGHT 2
27963	3,834,844	1,728,782	ENTRANCE LIGHT 1
27964	3,836,250	1,729,618	BUOY 1
27965	3,836,070	1,729,925	BUOY 2
27966	3,836,541	1,729,900	BUOY 3
27967	3,836,470	1,730,030	BUOY 4
27968	3,838,033	1,730,848	BUOY 5
27969	3,837,935	1,731,111	BUOY 7
27970	3,837,678	1,731,012	BUOY 8
27971	3,837,805	1,731,401	BUOY 9

U.S. Army Corps of Engineers
ALASKA DISTRICT
JBER, ALASKA 99508-0888

HUGHES & ASSOCIATES
12075 W. 35TH AVENUE
WASILLA, AK 99564

CONTRACT NO. W19HRC003
CONTINUATION: ALASKA MARINE EXCAVATION
CITY AND PORT: STATE ALASKA
Project: Nome Harbor Maintenance Dredging Survey
Date: 5/26/2020
Scale: AS SHOWN
Author: CMH
Check: CMH
Title: PRE-DREDGE SURVEY

**2020 HARBOR MAINTENANCE DREDGING
PRE-DREDGE SURVEY
MAY 26 - 27, 2020**

SHEET IDENTIFICATION
6-NOM-92-07-64
Sheet 1 of 5



THIS HYDROGRAPHIC SURVEY WAS COMPLETED UNDER THE OVERSIGHT OF AN ACSM/THOSGA CERTIFIED HYDROGRAPHER
Cory Hughes
CORY S. HUGHES, CH (245)