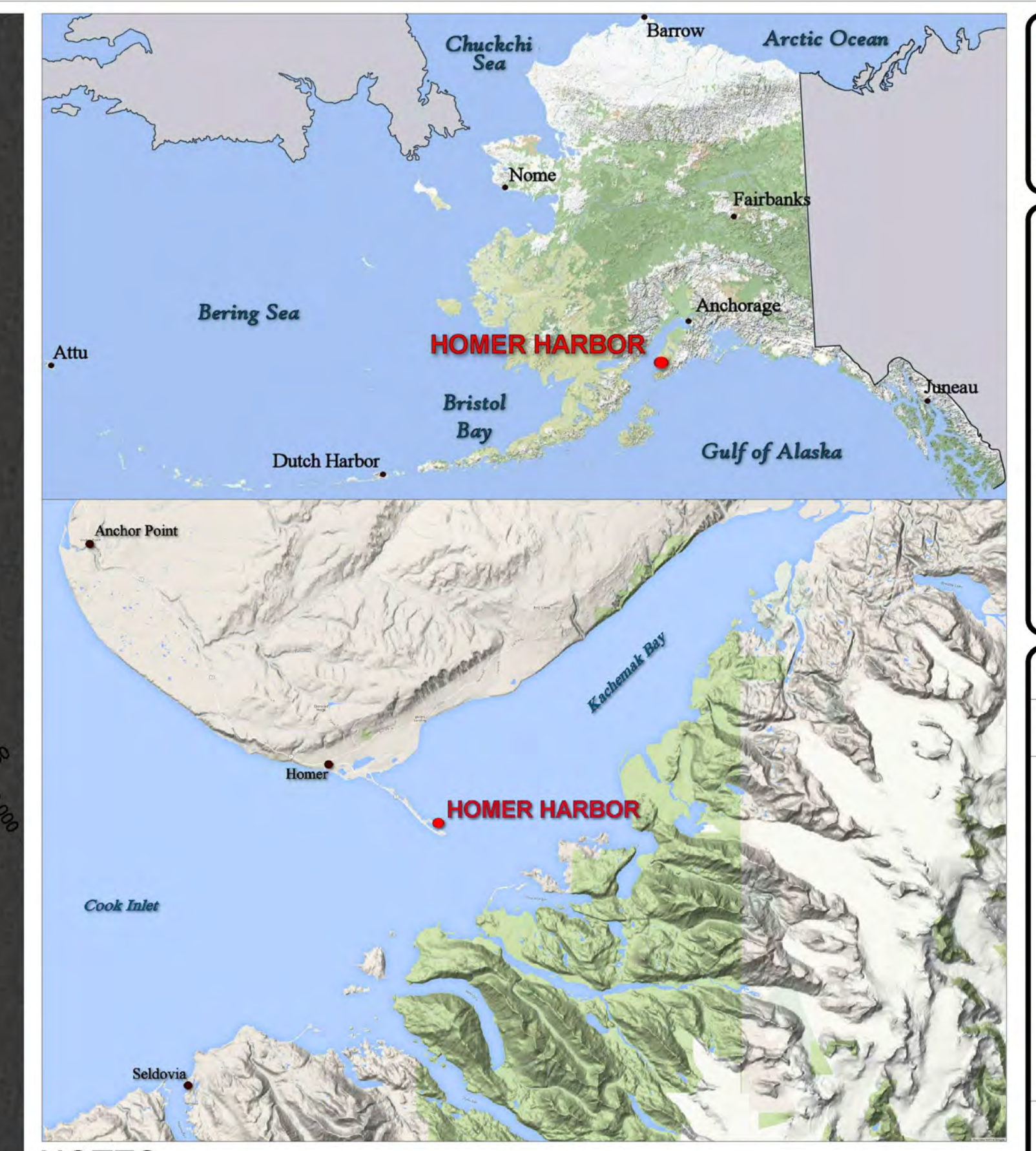


PROJECT LIMITS CURVE DATA

CURVE	RADIUS	ARC LENGTH	DELTA ANGLE
C1	82.67'	98.66'	068°12'42.5"
C2	172.88'	149.28'	049°28'29.9"
C3	185.63'	338.77'	104°33'41.9"
C4	95.61'	174.50'	104°34'21.5"
C5	160.18'	208.51'	074°34'49.9"
C6	104.07'	181.44'	105°23'39.2"

PROJECT LIMITS

CORNER#	NORTHING	EASTING
7	2,049,519.03	1,377,882.50
8	2,049,207.15	1,377,883.23
9	2,049,313.35	1,377,517.38
10	2,049,705.59	1,376,903.13
11	2,050,281.01	1,376,002.56
12	2,050,544.76	1,375,589.76
13	2,050,893.93	1,375,219.67
14	2,051,074.98	1,375,335.41
15	2,051,159.30	1,375,389.23
16	2,051,420.46	1,375,556.10
17	2,050,887.56	1,376,390.12
18	2,050,312.15	1,377,290.69
19	2,050,626.40	1,376,223.25
20	2,050,542.13	1,376,169.40
21	2,050,096.16	1,377,152.69
22	2,050,011.48	1,377,098.58
23	2,049,823.34	1,377,690.34
24	2,049,707.99	1,377,696.69
25	2,049,954.10	1,379,383.98
26	2,049,539.77	1,379,277.46
CG1	2,049,821.31	1,379,028.43
CG2	2,049,755.11	1,378,885.74
CG3	2,049,854.76	1,378,791.65
CG4	2,049,481.24	1,378,801.18
CG5	2,049,433.37	1,378,852.25
CG6	2,049,385.49	1,378,903.32
CG7	2,049,396.89	1,378,818.05
CG8	2,049,526.07	1,378,746.64
PC1A	2,049,852.14	1,378,351.33
PC2A	2,049,766.26	1,378,304.02
PC3A	2,049,989.05	1,378,221.58
PC4A	2,049,947.63	1,378,141.68
PC6A	2,049,768.41	1,377,752.69
PL-32	2,050,341.61	1,378,668.97
PL-33	2,050,254.64	1,376,619.37
PRC3B/5A	2,050,041.53	1,377,932.63
PT1B	2,049,696.45	1,378,269.64
PT2B	2,049,855.01	1,378,189.75
PT4B	2,049,974.64	1,377,992.85
PT5B	2,050,025.58	1,377,739.19
PT6B	2,049,593.40	1,377,766.24



- NOTES**
- PRIMARY PROJECT HORIZONTAL CONTROL IS ALASKA STATE PLANE, ZONE 4, NAD83 IN US SURVEY FEET BASED ON A FULLY CONSTRAINED STATIC GPS NETWORK HOLDING THE PUBLISHED NAD83(CORS) 2003.00 EPOCH VALUES OF NGS CORRS STATIONS: "KENA 5 CORRS ARP" (KENS - PID D3J029), "ANCHORAGE CORRS ARP" (TSEA - PID A0952). LOCAL HORIZONTAL CONTROL IS ALASKA STATE PLANE, ZONE 4, IN FEET, NAD 83, HOLDING USACE SBC "HOMER BASIN 7" AS N 2,049,712.22, E 1,377,964.36 AND USACE SBC "BL-2-A" AS N 2,049,793.81, E 1,378,015.52.
 - VERTICAL CONTROL IS MEAN LOWER LOW WATER (MLLW=0.0'), BASED ON THE NOAA'S TIDAL BENCH MARK LIST FOR STATION "945 5557, HOMER, ALASKA" PUBLISHED 08/11/2003. THIS TIDAL DATUM IS BASED ON THE 1983-2001 TIDAL EPOCH AND IS REFERENCED BY HOLDING SBC "BL-2-A" AS 32.49'.
 - SOUNDINGS ARE IN FEET AND ARE NEGATIVE UNLESS OTHERWISE INDICATED.
 - THIS DRAWING IS INDICATIVE OF CONDITIONS AT THE TIME OF SURVEY.
 - BATHYMETRY WAS COLLECTED SEPTEMBER 5 & 6, 2016. SOUNDINGS WERE COLLECTED USING A "SONIC 2022" MULTIBEAM SOUNDER AT 90° SWATH ANGLE. SOUND VELOCITY THROUGH THE WATER COLUMN WAS DETERMINED WITH AN AML BASE X2 VELOCITY PROBE. POSITIONING AND VESSEL ATTITUDE WERE MEASURED USING AN "APPLIX POS MV" SYSTEM. RTK CORRECTIONS WERE BROADCAST FROM A LOCAL BASE STATION OCCUPYING HOMER "BL-2-A". DATA WAS COLLECTED AND FIELD PROCESSED USING "HYDRAPACK 2015" SOFTWARE. TIDE ELEVATIONS WERE MEASURED USING A "TRIMBLE RB RTK" SYSTEM.
 - THE CONTROL VALUES SHOWN ON THIS PLAT WERE VERIFIED PRIOR TO THE PRE DREDGE SURVEY AND HELD AS PUBLISHED.
 - MAP SOUNDINGS ARE BINNED AT 12 FEET AND ARE SHOAL BIASED. VOLUME SOUNDINGS ARE BINNED AT 3 FEET AND ARE MEAN VALUE.

SURVEY CONTROL DATA

STATION	NORTHING	EASTING	MLLW	DESCRIPTION
AUDREY	2,051,507.88	1,375,406.60	33.31	1-1/2 IN ALUMINUM CAP (FOUND)
BL-2-A 1989	2,049,793.81	1,378,015.52	32.49	USACE SBC (FOUND)
BM NO 6 1965			27.28	US&GC SBC (NOT FOUND)
BOLL 1996	2,050,682.88	1,375,195.75	35.48	3-1/4 IN FLAT BRASS CAP (FOUND)
C 103 1965			26.95	US&GC SBC (NOT FOUND)
HB-08 2009	2,050,150.78	1,377,830.73	31.92	3-1/4 IN DOMED ALUMINUM CAP (FOUND)
HB-09 2009	2,051,199.61	1,375,120.24	32.01	3-1/4 IN DOMED ALUMINUM CAP (FOUND)
HOMER BASIN 4 1965	2,050,038.11	1,378,340.09	31.28	USACE SBC (NOT SEARCH)
HOMER BASIN 5 1965	2,049,940.32	1,378,344.30	30.87	USACE SBC (FOUND, NOT GPS SUITABLE)
HOMER BASIN 6 1965	2,049,887.28	1,378,073.96	31.21	USACE SBC (FOUND)
HOMER BASIN 7 1965	2,049,712.22	1,377,964.36	31.46	USACE SBC (FOUND)

NAVIGATION AIDS

USCG NO.	NORTHING	EASTING	DESCRIPTION
26210	2,049,940	1,378,351	HOMER BREAKWATER LIGHT 2
26216	2,049,932	1,378,484	SOUTH LIGHTED MOORING BUOY

VOLUME COMPUTATIONS

AREA	AVAILABLE TO DREDGE DEPTH (DD)	AVAILABLE BETWEEN DD AND MP	AVAILABLE SS AT 3:1 (H:V) & 25' WIDE	AVAILABLE SS	MLLW (FT)	CU. YD.
AREA A: OUTER ENTRANCE CHANNEL	AVAILABLE TO DREDGE DEPTH (DD)	-20.0	58			
	AVAILABLE BETWEEN DD AND MP	-21.0	735			
	AVAILABLE SIDE SLOPES (SS) AT 3:1 (H:V) & 25' WIDE	VARIABLES	204			
AREA B: USCG BASIN AREA	AVAILABLE TO DD	-22 TO -26	1,139			
	AVAILABLE BETWEEN DD AND MP	-23 TO -27	482			
	AVAILABLE SS	VARIABLES	2,374			
AREA C: INNER CHANNEL AREA	AVAILABLE TO DD	-20.0	494			
	AVAILABLE BETWEEN DD AND MP	-21.0	655			
	AVAILABLE SS	VARIABLES	2,691			
AREA D: MANEUVERING AREA	AVAILABLE TO DD	-20.0	57			
	AVAILABLE BETWEEN DD AND MP	-21.0	1,251			
	AVAILABLE SS AT 3:1 (H:V) & 25' WIDE	VARIABLES	8			
AREA E: MANEUVERING AREA	AVAILABLE TO DD	-15.0	121			
	AVAILABLE BETWEEN DD AND MP	-16.0	544			
	AVAILABLE SS AT 3:1 (H:V) & 25' WIDE	VARIABLES	59			
AREA F: MANEUVERING AREA	AVAILABLE TO DD	-10.0	8			
	AVAILABLE BETWEEN DD AND MP	-11.0	18			
	AVAILABLE SS AT 3:1 (H:V) & 25' WIDE	VARIABLES	1			
TOTAL MAXIMUM VOLUME AVAILABLE (MP + SS)			10,899			

US Army Corps of Engineers - ALASKA DISTRICT

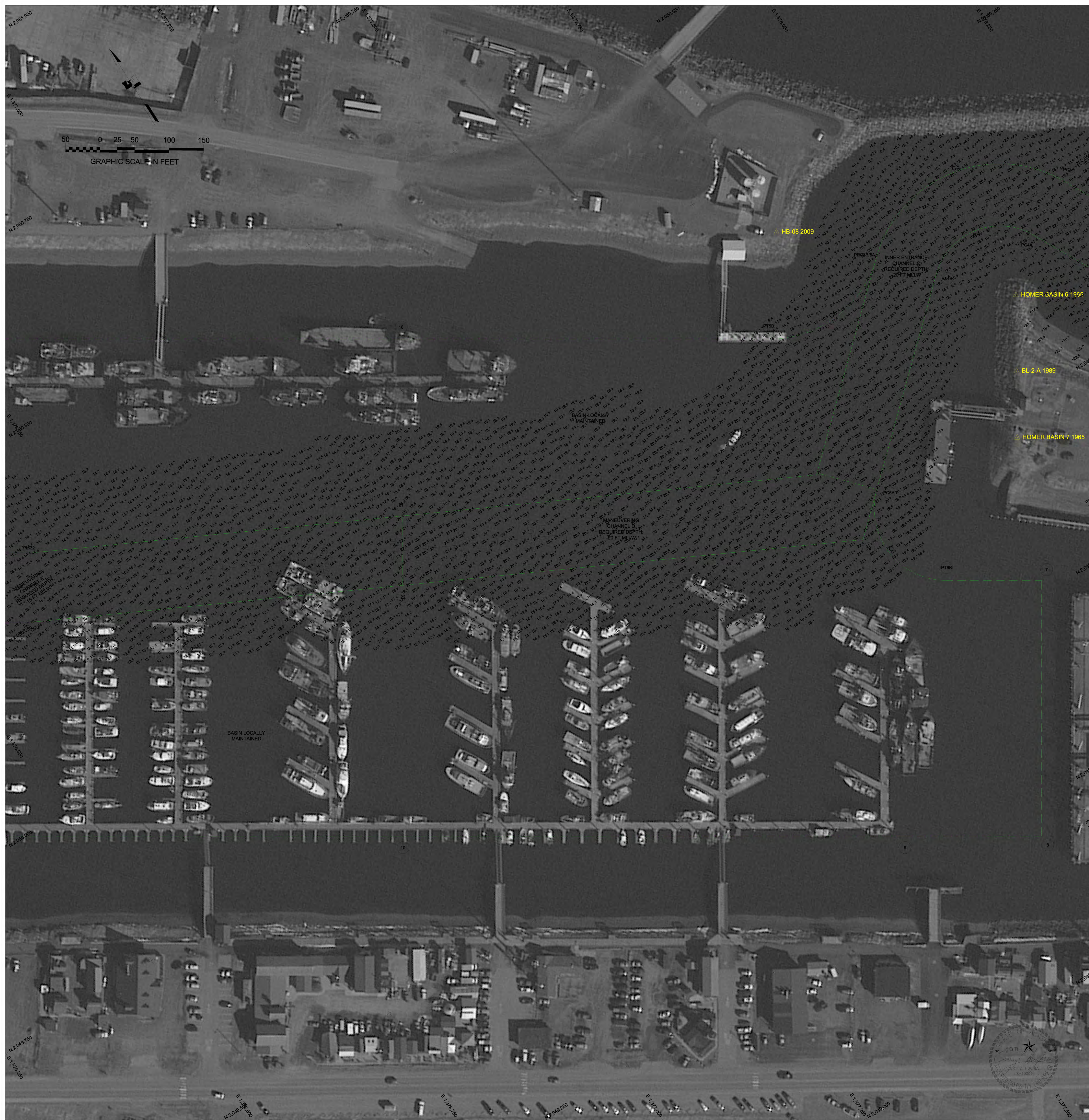
CONTRACT NO. W11H19-C-0005
 CONTRACTOR: ALASKA MARINE EXCAVATION
 CITY: ANCHORAGE, AK
 STATE: ALASKA
 DATE: _____

DESIGNER: _____
 CHECKED BY: _____
 DRAWN BY: _____
 APPROVED BY: _____

FILE NAME: _____
 SIZE: _____
 DATE: _____

**HOMER, ALASKA
 HOMER HARBOR
 PRE DREDGE SURVEY
 SEPTEMBER 5 & 6, 2016**

SHEET IDENTIFICATION
 V-101
 Sheet 1 of 3



- NOTES**
- PRIMARY PROJECT HORIZONTAL CONTROL IS ALASKA STATE PLANE, ZONE 4, NAD83 IN US SURVEY FEET BASED ON A FULLY CONSTRAINED STATIC GPS NETWORK HOLDING THE PUBLISHED NAD83(CORS) 2003.00 EPOCH VALUES OF NOS CORS STATIONS: "KENAI 5 CORS ARP" (KENS - PID DJ3029), "ANCHORAGE CORS ARP" (TSEA - PID A0692). LOCAL HORIZONTAL CONTROL IS ALASKA STATE PLANE, ZONE 4, IN FEET, NAD 83. HOLDING USACE SBC "HOMER BASIN 7" AS N 2,049,712.22, E 1,377,964.36 AND USACE SBC "BL-2-A" AS N 2,049,793.81, E 1,378,015.52.
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NAVIGATION AIDS

USCG NO.	NORTHING	EASTING	DESCRIPTION
26210	2,049,940	1,378,351	HOMER BREAKWATER LIGHT 2
26216	2,049,932	1,378,484	SOUTH LIGHTED MOORING BUOY

VOLUME COMPUTATIONS

AREA	AVAILABLE TO	MLLW (FT)	CU. YD.
AREA A: OUTER ENTRANCE CHANNEL	AVAILABLE TO DREDGE DEPTH (DD)	-20.0	58
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**U.S. Army Corps of Engineers
ALASKA DISTRICT**

**HOMER, ALASKA
HOMER HARBOR
PRE DREDGE SURVEY
SEPTEMBER 5 & 6, 2016**

SHEET IDENTIFICATION
V-102
Sheet 2 of 3

CONTRACT NO. W11H812-C-0005
CONTRACTOR: ALASKA MARINE EXCAVATION
CITY: ANCHORAGE
STATE: ALASKA
APPROVED: [Signature]
DATE: [Date]

DESIGNED BY: [Name]
DRAWN BY: [Name]
CHECKED BY: [Name]
APPROVED BY: [Name]
FILE NAME: [Name]
SIZE: [Name]
DATE: [Name]

DATE: [Date]
BY: [Name]
DESCRIPTION: [Name]



NOTES

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TOTAL MAXIMUM VOLUME AVAILABLE (MP + SS)			10,899

US Army Corps of Engineers - ALASKA DISTRICT

CONTRACT NO. W11H912-C-0005
 CONTRACTOR: ALASKA MARINE EXCAVATION
 CITY: ANCHORAGE POINT
 STATE: ALASKA
 Approved: _____ Date: _____
 Recommended: _____
 Review: _____ Date: _____

**HOMER, ALASKA
HOMER HARBOR
PRE DREDGE SURVEY
SEPTEMBER 5 & 6, 2016**

SHEET IDENTIFICATION
V-103
Sheet 3 of 3