



NOTES

- HORIZONTAL CONTROL IS ALASKA STATE ZONE 1, NAD83, IN U.S. SURVEY FEET. HOLDING AK DOT BC TOUT 1912 AS N 2,359,280.03, E 2,339,166.77 AND USACE SBC "H-1 1972" AS N 2,382,668.06, E 2,539,631.13 (BOH) LOCATED AT HARRIS HARBOR).
- VERTICAL CONTROL IS IN FEET REFERRED TO MEAN LOWER LOW WATER (MLLW=0.0'), HOLDING NOAA/VIMS TIDAL BENCH MARK "2210 G 1984" AS 33.92'. THIS SURVEY REFLECTS A TIDAL DATUM UPDATE OF APPROXIMATELY +0.50' COMPARED TO THE PREVIOUS DATUM OF APPROXIMATELY +0.02' (MIDDLE OF TIDE) DATED 1984. THIS SURVEY IS BASED ON THE NAVIGATIONAL BENCH MARK SHEET FOR STATION 948228 (MIDDLE OF TIDE) GASTINEAU CHANNEL, STEPHENS PASS, ALASKA, PUBLICATION DATE: 11/02/1999.
- SOUNDINGS ARE IN FEET AND ARE MINUS UNLESS OTHERWISE INDICATED.
- THIS DRAWING INDICATES GENERAL CONDITIONS AT THE TIME OF SURVEY.
- HYDROGRAPHIC DATA ACQUISITION WAS CONDUCTED APRIL 11, 2002. SOUNDINGS WERE OBTAINED USING AN ODOM HYDROTRAC DEPTH/SOUNDER, 200MHz, 3' BEAM WIDTH, SINGLE-BEAM TRANSDUCER. POSITIONING WAS PROVIDED BY A TRIMBLE 4000SS-RTK GPS RECEIVER. DEPTHS WERE CORRECTED FOR TIDE EFFECTS USING THE TIDE GAUGE DATA FROM AN ENDOCO TYPE 1029 WATER LEVEL RECORDER SET BY TERRA SURVEYING. HORIZONTAL CONTROL WAS SURVEYED UTILIZING KINEMATIC GPS METHODS. VERTICAL CONTROL WAS SURVEYED USING OPTICAL INSTRUMENTS AND DIFFERENTIAL LEVELING TECHNIQUES.
- THE TIDE GAUGE FOR THIS SURVEY WAS LOCATED AT THE SOUTH END OF JUNEAU HARBOR AT N 2,364,136.0, E 2,538,779.0. MAXIMUM DISTANCE FROM THE TIDE GAUGE FOR THIS SURVEY IS APPROXIMATELY 2000'.
- THIS SURVEY WAS PERFORMED UNDER CONTRACT DACW85-01-D-0001 BY TERRA SURVEYS, LLC.

VOLUME COMPUTATIONS

Project Depth -12' MLLW

VOLUME AVAILABLE TO PROJECT DEPTH (-12' MLLW)	7360 (cubic yards)
VOLUME AVAILABLE BETWEEN PROJECT DEPTH AND OVERDEPTH (-12' MLLW)	4486 (cubic yards)
VOLUME AVAILABLE along the side slope (3:1; H:V)	4486 (cubic yards)
TOTAL	16351 (cubic yards)

CONTROL DATA

STATION	NORTHING	EASTING	ELV.	DESCRIPTION
LA-1	1989	2,363,831.81	213.3	USACE SBC
COIL 1	1975	2,362,880.03	26.44	AK DOT SBC
JH-1	1972	2,362,668.06	29.39	USACE SBC
HH-A	1986	2,363,805.66	22.01	3 1/4" DOWED BC
HH-B	1986	2,363,411.06	25.37	3 1/4" DOWED BC
HH-C	1989	2,363,000.89	28.08	3 1/4" DOWED BC
HH-D	1989	2,359,900.22	28.08	3 1/4" DOWED BC
HH-E	2002	2,362,453.59	23.63	3 1/4" DOWED BC
HH-F	2002	2,359,491.44	25.78	3 1/4" DOWED BC
HH-F	2002	2,363,846.85	25.78	3 1/4" DOWED BC

PROJECT LIMITS

CORNER	NORTHING	EASTING	CORNER	NORTHING	EASTING
1	2,362,974.7	2,539,481.6	4	2,362,952.7	2,539,506.6
2	2,363,727.7	2,539,377.6	5	2,362,861.7	2,539,179.6
3	2,363,454.7	2,539,970.6	6	2,362,803.7	2,539,364.8

NAVIGATION AIDS

DESCRIPTION	USCG NO.	NORTHING	EASTING
HARRIS HARBOR LIGHT TH	23705	2,362,956.7	2,539,202.6

CONTRACTOR TERRA SURVEYS, LLC
 CITY PALMER STATE ALASKA
 CONTRACT NO. DACW85-01-D-0001
 CITY PALMER ALASKA DISTRICT
 ALASKA DISTRICT
 CORPS OF ENGINEERS
 ANCHORAGE, ALASKA

SURVEYED: JUNEAU, ALASKA
 TERRAIN: D/B/DOE
 CHECKED: LES
 SUBMITTED: TSN
 RECOMMENDED: APRIL 11, 2002
 DATE: APRIL 11, 2002

SURVEY NO. 1951-02
 SCALE: 1" = 50'
 SHEET 1 OF 1