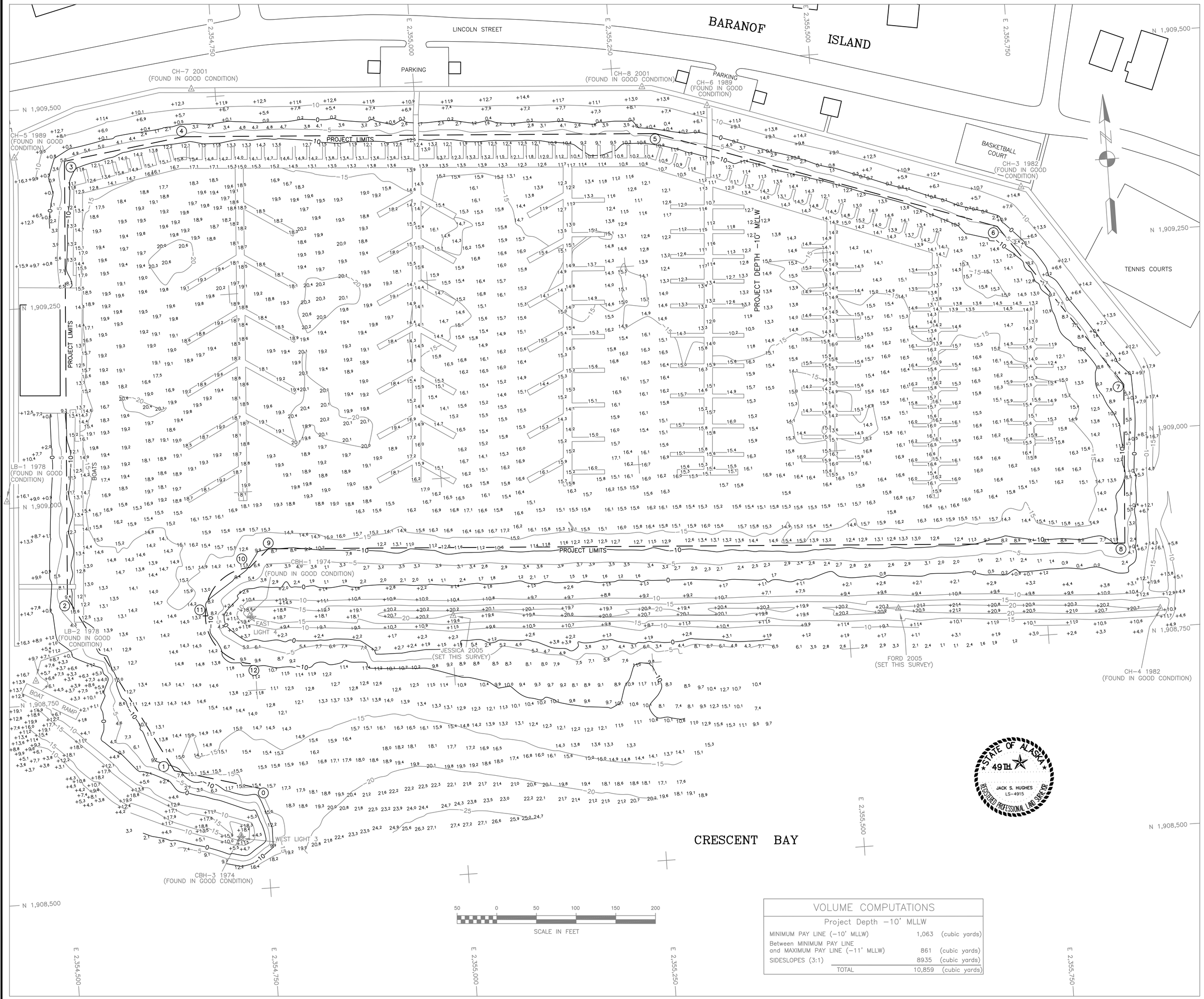

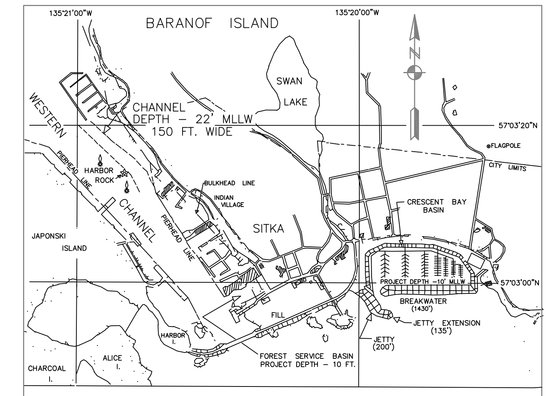

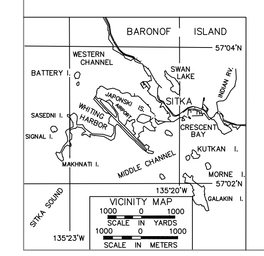

SITKA HARBOR
ALASKA

500 0 500 1000 1500 2000
SCALE IN FEET

100 0 100 200 300 400 500
SCALE IN METERS

NOTES

1. HORIZONTAL CONTROL IS ALASKA STATE PLANE, ZONE 1, NAD83, IN U.S. SURVEY FEET, HOLDING USACE SBC "LB-2 1978" AS N 1,908,780.57, E 2,354,473.18 AND "CH-3" AN N 1,909,315.50, E 2,355,754.93.
2. VERTICAL CONTROL IS IN FEET BASED ON MEAN LOWER LOW WATER (MLLW = 0.0'), HOLDING "LB-2, 1979" AT 14.40'.
3. SOUNDINGS ARE IN FEET AND ARE MINUS UNLESS OTHERWISE INDICATED.
4. THE EXISTING PROJECT CONSISTS OF CRESCENT BAY HARBOR AND THE SURROUNDING BASIN LOCATED IN SITKA, ALASKA.
5. BATHYMETRY WAS COLLECTED MAY 8-10, 2005. SOUNDINGS WERE COLLECTED USING AN "INTERSPACE 448" SOUNDER WITH A 3° SINGLE BEAM TRANSDUCER. SOUND VELOCITY THROUGH THE WATER COLUMN WAS DETERMINED WITH AN ODOM DIGIBAR PRO SOUND VELOCITY PROBE, AND VERIFIED WITH A MANUAL BAR CHECK AT 10' INCREMENTS TO PROJECT DEPTH. POSITIONING AND VESSEL ATTITUDE WERE MEASURED USING A "TRIMBLE 5700 RTK" SYSTEM AND TSS MOTION REFERENCE UNIT. RTK CORRECTIONS WERE BROADCAST FROM A LOCAL BASE STATION OCCUPYING "LB-2". DATA WAS COLLECTED AND FIELD PROCESSED USING "HYPACK MAX VERSION 0212A" SOFTWARE. TIDE ELEVATIONS WERE MEASURED USING A "TRIMBLE 5700 RTK" SYSTEM AND VERIFIED THROUGH CONVENTIONAL DIFFERENTIAL LEVELING TECHNIQUES.
6. THIS DRAWING INDICATES GENERAL CONDITIONS AT THE TIME OF THE SURVEY.

CONTROL DATA

STATION	NORTHING	EASTING	ELEV.	DESCRIPTION
CBH-3 1974	1908568.72	2354717.66	20.36	USACE SBC (CENTER OF NAV. AID)
CBH-1 1974	1908843.71	2354747.78	20.59	USACE SBC (CENTER OF NAV. AID)
LB-1 1978	1909008.36	2354452.54	18.85	USACE SBC IN CONCRETE CURB
LB-2 1978	1908780.57	2354473.18	14.40	USACE SBC IN BEDROCK
CH-3 1982	1909315.50	2355754.93	18.01	USACE SBC IN CONCRETE SIDEWALK
CH-4 1982	1908773.66	2355892.99	19.99	USACE SBC IN BOULDER
CH-5 1989	1909440.11	2354491.98	19.22	USACE SBC IN CONCRETE SIDEWALK
CH-6 1989	1909445.31	2355367.28	17.88	USACE SBC IN CONCRETE SIDEWALK
16 1941	--	--	20.36	USC&GS BENCH MARK SBC
NO STAMPING 1	--	--	19.41	USC&GS BENCH MARK SBC
CH-7 2001	1909511.25	2354720.48	17.34	DOMED BC IN CONC SIDEWALK
CH-8 2001	1909474.60	2355287.14	17.54	DOMED BC IN CONC SIDEWALK
JESSICA	1908826.29	2355003.53	20.47	SET 3.5" DOMED BC IN ROCK
FORD	1908796.09	2355564.07	21.30	SET 3.5" DOMED BC IN ROCK

PROJECT LIMITS

CORNER	NORTHING	EASTING	CORNER	NORTHING	EASTING
0	1908626.17	2354745.04	7	1909058.26	2355866.65
1	1908655.80	2354639.41	8	1908858.66	2355854.07
2	1908882.60	2354519.94	9	1908926.54	2354776.72
3	1909431.52	2354554.53	10	1908904.57	2354751.78
4	1909452.03	2354706.12	11	1908847.73	2354691.83
5	1909414.61	2355299.94	12	1908783.81	2354744.17
6	1909267.81	2355721.54			

NAVIGATION AIDS

USCG No.	DESCRIPTION	NORTHING	EASTING
24975	CRESCENT HARBOR WEST BREAKWATER LIGHT 3, FL. G.	1908565.6	2354717.5
24970	CRESCENT HARBOR EAST BREAKWATER LIGHT 4, FL. R.	1908841.5	2354750.0

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

VOLUME COMPUTATIONS

Project Depth -10' MLLW

MINIMUM PAY LINE (-10' MLLW)	1,063	(cubic yards)
Between MINIMUM PAY LINE and MAXIMUM PAY LINE (-11' MLLW)	861	(cubic yards)
SIDESLOPES (3:1)	8935	(cubic yards)
TOTAL	10,859	(cubic yards)

CONTRACT NO. W911KB-04-D-0007
CONTRACTOR HUGHES & ASSOCIATES
CITY PALMER STATE ALASKA

ALASKA DISTRICT
CORPS OF ENGINEERS
ANCHORAGE, ALASKA

SURVEYED: BTH/CSH
DRAWN: BTH/CSH
CHECKED: JSH
SUBMITTED:

SITKA, ALASKA
CRESCENT BAY HARBOR
PROJECT CONDITION SURVEY
MAY 8-10, 2005

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

SURVEY NO. 2249-05
SCALE: 1" = 50'
SHEET 1 OF 1