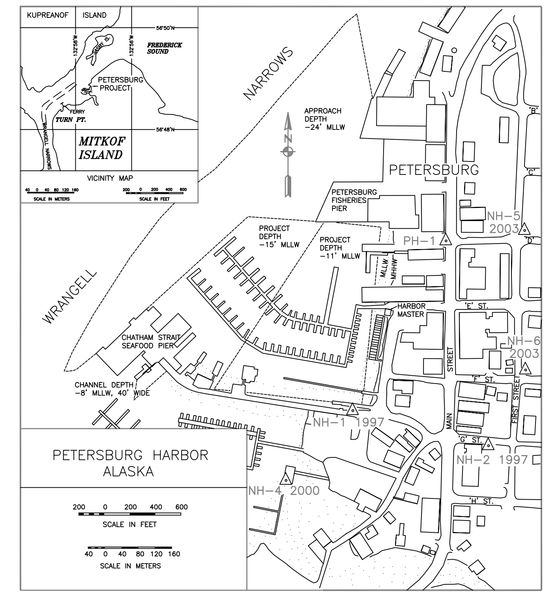
☆ NAVIGATION AIDS ☆			
USCG No.	DESCRIPTION	NORTHING	EASTING
23190	PETERSBURG FISHERIES INC DOCK LIGHTS (N)	--	--
	PETERSBURG FISHERIES INC DOCK LIGHTS (S)	1,819,623.3	2,827,472.7
23180	CHATHAM STRAIT SEAFOOD PIER LIGHTS (N)	1,819,250.4	2,826,847.6
	CHATHAM STRAIT SEAFOOD PIER LIGHTS (S)	1,819,057.6	2,826,637.3



NOTES

1. HORIZONTAL CONTROL IS ALASKA STATE PLANE, ZONE 1, NAD83(CORS96), IN US SURVEY FEET BASED ON A STATIC GPS NETWORK HOLDING NGS EPOCH 2003.00 CORS L1 PHASE CENTER VALUES FOR "LEVEL ISLAND 1" (NGS PID AJ4431), "BIORKA ISLAND 1" (NGS PID AI5023) AND "JUNEAU WAAS 1" (NGS PID DF4368). (SEE NOTE 7 BELOW)
2. VERTICAL CONTROL IS MEAN LOWER LOW WATER DATUM, IN US SURVEY FEET (MLLW=0.0') HOLDING NOAA/NOS TIDAL BENCH MARK "1439 A 1978" AS 25.82'. TIDAL DATUM IS BASED ON THE 1960–1978 TIDAL EPOCH FROM NOAA/NOS TIDAL BENCH MARK LIST: "945 1439, PETERSBURG, WRANGELL NARROWS", PUBLISHED 12/02/1991.
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 MARCH 26–27, 2003 USING AN ODOM HYDROTRAC PRECISION DEPTH SOUNDER WITH A 200KHZ, 3 DEGREE BEAM–WIDTH, SINGLE–BEAM TRANSDUCER. POSITIONING WAS PROVIDED USING A TRIMBLE DSM212 RECEIVER OPERATING ON RTCM CORRECTIONS BROADCAST FROM A TRIMBLE 4000SSE BASE STATION SET AT USACE DBC "NH–1 1997". NAVIGATION, DATA COLLECTION AND DATA PROCESSING WERE PERFORMED USING HYPACK MAX INTEGRATED SOFTWARE. SOUNDINGS WERE CORRECTED FOR TIDE USING WATER SURFACE DATA COLLECTED WITH A DESIGN ANALYSIS WATERLOG TIDE GAUGE SET BY TERRA SURVEYS FOR THIS SURVEY.
6. VERTICAL CONTROL WAS SURVEYED MARCH 17–18, 2003 USING OPTICAL INSTRUMENTS AND DIFFERENTIAL LEVELING TECHNIQUES. HORIZONTAL CONTROL WAS SURVEYED MARCH 18–27, 2003 USING BOTH STATIC GPS AND CONVENTIONAL EQUIPMENT AND TECHNIQUES. UPLAND TOPOGRAPHY WAS SURVEYED MARCH 23–24, 2003 USING CONVENTIONAL EQUIPMENT AND TECHNIQUES.
7. HORIZONTAL CONTROL VALUES WERE TRANSFORMED INTO THE NGS EPOCH 2003 DATUM BASED ON MEASURED CONTROL MONUMENTS EXISTING IN THE PROJECT AREA. MONUMENTS OF RECORD WHICH WERE NOT SURVEYED ARE DENOTED IN THE CONTROL TABLE WITH AN ASTERISK (*).
8. UNSURVEYED CONTROL MONUMENTS, PLAT FEATURES, GRID TICS, PROJECT LIMITS AND AIDS TO NAVIGATION WERE TRANSFORMED FROM NAD83(1986) TO NAD83(CORS96) USING A FIXED SCALE, LEAST SQUARES TRANSFORMATION WITHIN TRIMBLE GEOMATICS OFFICE SOFTWARE (V1.60).

CONTROL DATA				
STATION	NORTHING	EASTING	ELEV.	DESCRIPTION
SIGNAL 4 (USE 4)	1,822,039.34	2,828,110.99	18.91	USCGS SBC – NGS PID TT8949
SIGNAL 8 (USE 8)	1,819,519.92	2,823,247.06	18.79	USCGS SBC – NGS PID TT8936
*CSS	1,819,055.79	2,826,634.11	--	OBLITERATED
PH–1	1,819,565.09	2,827,988.98	23.65	2" BRASS CAP IN CONC.
NH–1 1997	1,818,870.65	2,827,683.27	23.29	3.25" DBC IN ASPHALT ROAD
NH–2 1997	1,818,753.15	2,828,219.63	32.43	3.25" DBC IN CONC. RET. WALL
NH–3 2000	1,819,014.58	2,827,753.09	24.90	3.25" DBC IN CONC. SIDEWALK
NH–4 2000	1,818,325.29	2,827,135.91	24.66	3.25" DBC IN CONC. DOCK
NH–5 2003	1,819,618.09	2,828,298.02	51.70	3.25" DBC IN CONC. SIDEWALK
NH–6 2003	1,818,814.73	2,828,296.24	40.25	3.25" DBC IN CONC. SIDEWALK
TIDAL BM 1439A 1978	--	--	25.82	NOAA/NOS SBC IN WALL

PROJECT LIMITS					
CORNER	NORTHING	EASTING	CORNER	NORTHING	EASTING
1	1,819,003	2,827,080	6	1,819,544	2,827,100
2	1,819,008	2,827,074	7	1,819,616	2,827,472
3	1,819,117	2,826,960	8	1,819,618	2,827,537
4	1,819,178	2,827,017	9	1,819,591	2,827,761
5	1,819,311	2,826,875	10	1,818,932	2,827,682

VOLUME COMPUTATIONS	
Project Depth –11' MLLW	CUBIC YARDS
MINIMUM PAY LINE (–11' MLLW)	4,561
Between MINIMUM PAY LINE and MAXIMUM PAY LINE (–12' MLLW)	3,449
VOLUME AVAILABLE ALONG SIDESLOPES (3:1, H:V)	7,774
TOTAL	15,784
Project Depth –15' MLLW	CUBIC YARDS
MINIMUM PAY LINE (–15' MLLW)	582
Between MINIMUM PAY LINE and MAXIMUM PAY LINE (–16' MLLW)	515
VOLUME AVAILABLE ALONG SIDESLOPES (3:1, H:V)	595
TOTAL	1,692

CONTRACT NO. DACW85–01–D–0001
CONTRACTOR TERRA SURVEYS, LLC
CITY PALMER STATE ALASKA

CORPS OF ENGINEERS
ALASKA DISTRICT
ANCHORAGE, ALASKA

SURVEYED: WKR/GCY
DRAWN: LES
CHECKED: KDW
SUBMITTED:

PETERSBURG, ALASKA
PETERSBURG NORTH HARBOR
PROJECT CONDITION SURVEY
MARCH 17–27, 2003

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

SURVEY NO. 2016–03
SCALE: 1" = 50'
SHEET 1 OF 1