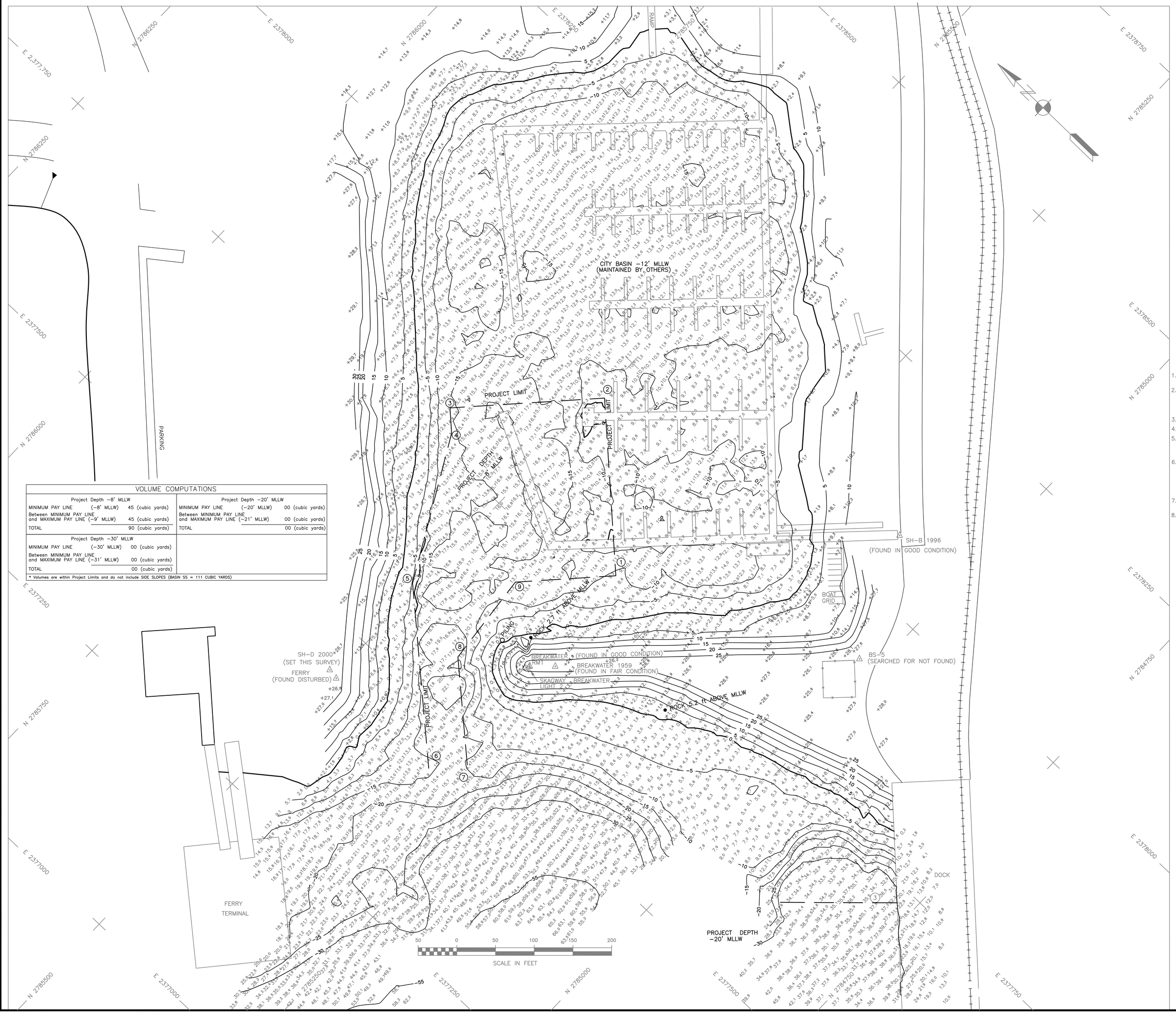

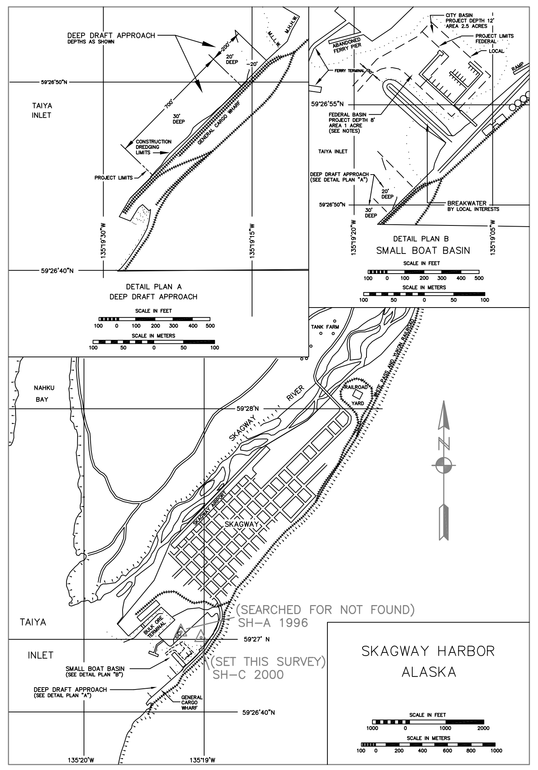

VOLUME COMPUTATIONS

Project Depth −8' MLLW		
MINIMUM PAY LINE	(−8' MLLW)	45 (cubic yards)
Between MINIMUM PAY LINE and MAXIMUM PAY LINE	(−9' MLLW)	45 (cubic yards)
TOTAL		90 (cubic yards)

Project Depth −20' MLLW		
MINIMUM PAY LINE	(−20' MLLW)	00 (cubic yards)
Between MINIMUM PAY LINE and MAXIMUM PAY LINE	(−21' MLLW)	00 (cubic yards)
TOTAL		00 (cubic yards)

Project Depth −30' MLLW		
MINIMUM PAY LINE	(−30' MLLW)	00 (cubic yards)
Between MINIMUM PAY LINE and MAXIMUM PAY LINE	(−31' MLLW)	00 (cubic yards)
TOTAL		00 (cubic yards)

* Volumes are within Project Limits and do not include SIDE SLOPES (BASIN SS = 111 CUBIC YARDS)

NOTES

1. GRID SYSTEM IS ALASKA STATE PLANE, ZONE 1, NAD 83 IN U.S. SURVEY FEET, HOLDING USCGS SBC "BREAKWATER RM1" AS N 2,785,301.27 E 2,377,646.72.
2. VERTICAL CONTROL IS IN FEET, BASED ON MEAN LOWER LOW WATER DATUM (MLLW = 0.0'), HOLDING NOAA/NOS TIDAL BENCHMARK "8 1959" AS 34.19'. THIS VALUE REFLECTS A DATUM UPDATE AS DESCRIBED IN NOAA/NOS TIDAL BENCH MARK LIST, ALASKA 945 2400, SKAGWAY, TAIYA INLET, PUBLISHED 11/02/99.
3. SOUNDINGS ARE IN FEET AND ARE MINUS UNLESS OTHERWISE INDICATED.
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6. BATHYMETRY WAS COLLECTED ON MAY 15, 2000 USING A MULTIBEAM ECHOSOUNDER. SOUNDINGS WERE COLLECTED WITH A RESON 8101 SEABAT. DGPS POSITION AND ATTITUDE OF THE VESSEL WERE MEASURED WITH A SEATEX SEAPATH 200 SYSTEM OPERATING ON CORRECTIONS BROADCAST BY A TRIMBLE 4000SSE BASE STATION INSTALLED AT "SH-D 2000". SOUND VELOCITY WAS COLLECTED WITH AN AML SVPLUS VELOCITY PROFILER. WATER LEVEL WAS COLLECTED AND TELEMETERED WITH A VYNER LOW POWER TIDE GAGE. DATA WAS COLLECTED AND PROCESSED USING RESON 6042 VERSION 7.1 SOFTWARE.
7. THE HORIZONTAL AND VERTICAL CONTROL WERE SURVEYED ON APRIL 9−11, 2000 USING CONVENTIONAL METHODS.
8. SURVEY CONTROL, PROJECT LIMITS AND NAVIGATIONAL AIDS COORDINATES WERE CONVERTED FROM NAD 27 IN US SURVEY FEET TO NAD 83 IN US SURVEY FEET USING CORPSCON 5.11.01.

CONTROL DATA

STATION	NORTHING	EASTING	ELEV.	DESCRIPTION
BRKWATER 1959	2,785,301.27	2,377,646.72	26.05	USCGS SBC
BRKWATER RM1	2,785,326.19	2,377,624.86	27.60	USCGS SBC IN NAV AID BASE
FERRY	2,785,496.49	2,377,441.29	27.27	5/8" X 24" REBAR
~~RAMP~~	~~2,785,977.51~~	~~2,378,444.97~~	~~23.05~~	~~1" ALCAP ON 5/8" X 24" REBAR~~
~~SH-A 1996~~	~~2,786,106.61~~	~~2,378,166.62~~	~~19.12~~	~~3.5" BC IN GRANITE BOULDER~~
SH-B 1996	2,785,095.81	2,378,076.23	28.69	3.5" BC IN CONCRETE SIDEWALK
SH-C 2000	2,785,920.03	2,378,478.22	25.01	SET 3.25" DBC IN CONC. RAMP
SH-D 2000	2,785,509.76	2,377,443.34	27.26	SET 3.25" DBC IN ASPHALT
TIDAL BM 8 1959	———	———	34.19	3.5" SBC IN GRANITE BOULDER

PROJECT LIMITS

CORNER	NORTHING	EASTING	CORNER	NORTHING	EASTING
1	2,785,325.94	2,377,786.00	6	2,785,329.94	2,377,439.19
2	2,785,494.61	2,377,942.37	7	2,785,296.81	2,377,476.63
3	2,785,630.58	2,377,795.71	8	2,785,401.35	2,377,569.40
4	2,785,606.38	2,377,773.27	9	2,785,414.33	2,377,690.68
5	2,785,509.68	2,377,598.21			

DEEP DRAFT LIMITS

1	2,784,156.73	2,377,071.50			
2	2,784,634.71	2,377,583.49			
3	2,784,771.70	2,377,729.49			

NAVIGATION AIDS

DESCRIPTION	USCG No.	NORTHING	EASTING
SKAGWAY BREAKWATER LIGHT 2	23935	2,785,326.5	2,377,621.7

CONTRACT NO. DACW85-98-D-0004

CONTRACTOR TERRA
CITY PALMER STATE ALASKA

ALASKA DISTRICT
CORPS OF ENGINEERS
ANCHORAGE, ALASKA

SURVEYED: KDW/TJH
DRAWN: L.E.S.
CHECKED: T.S.N.
SUBMITTED:

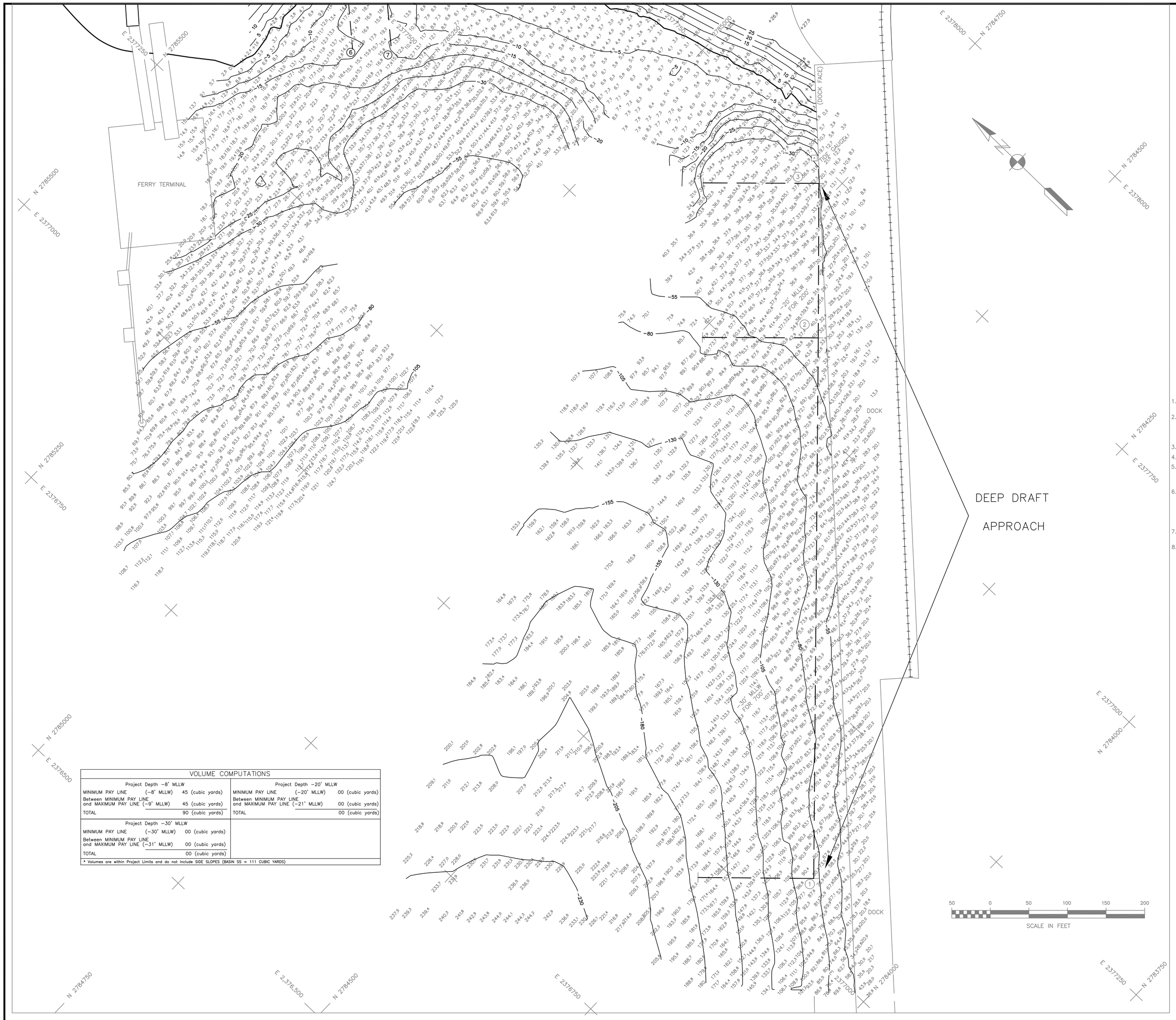
SKAGWAY, ALASKA
SKAGWAY HARBOR
PROJECT CONDITION SURVEY
MAY 15, 2000

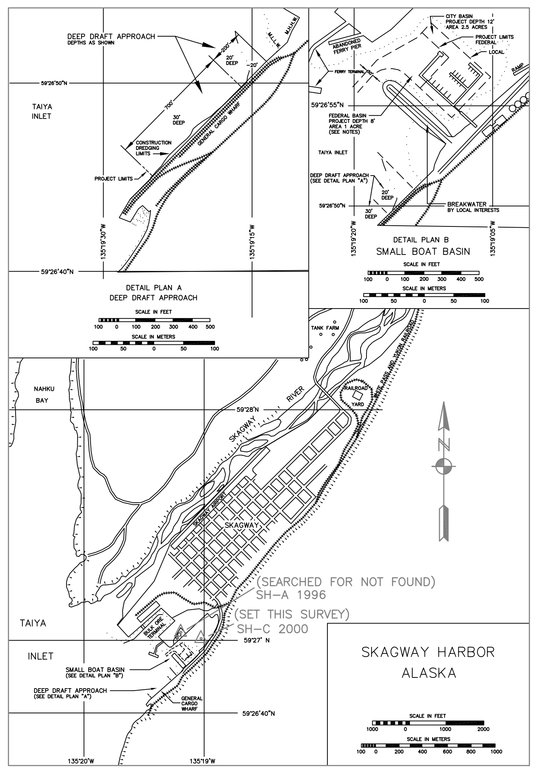
RECOMMENDED: PROJECT MANAGER
APPROVED: CHIEF OPERATIONS-READINESS BRANCH
DATE:

SURVEY NO. 1852-00

SCALE: 1" = 50'

SHEET 1 OF 3





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NAVIGATION AIDS

DESCRIPTION	USCG No.	NORTHING	EASTING
SKAGWAY BREAKWATER LIGHT 2	23935	2,785,326.5	2,377,621.7

VOLUME COMPUTATIONS

Project Depth –8' MLLW			Project Depth –20' MLLW		
MINIMUM PAY LINE	(–8' MLLW)	45 (cubic yards)	MINIMUM PAY LINE	(–20' MLLW)	00 (cubic yards)
Between MINIMUM PAY LINE and MAXIMUM PAY LINE	(–9' MLLW)	45 (cubic yards)	Between MINIMUM PAY LINE and MAXIMUM PAY LINE	(–21' MLLW)	00 (cubic yards)
TOTAL		90 (cubic yards)	TOTAL		00 (cubic yards)
Project Depth –30' MLLW					
MINIMUM PAY LINE	(–30' MLLW)	00 (cubic yards)			
Between MINIMUM PAY LINE and MAXIMUM PAY LINE	(–31' MLLW)	00 (cubic yards)			
TOTAL		00 (cubic yards)			

* Volumes are within Project Limits and do not include SIDE SLOPES (BASIN SS = 111 CUBIC YARDS)

CONTRACTOR TERRA CONTRACT NO. DACW85–98–D–0004
CITY PALMER STATE ALASKA

ALASKA DISTRICT
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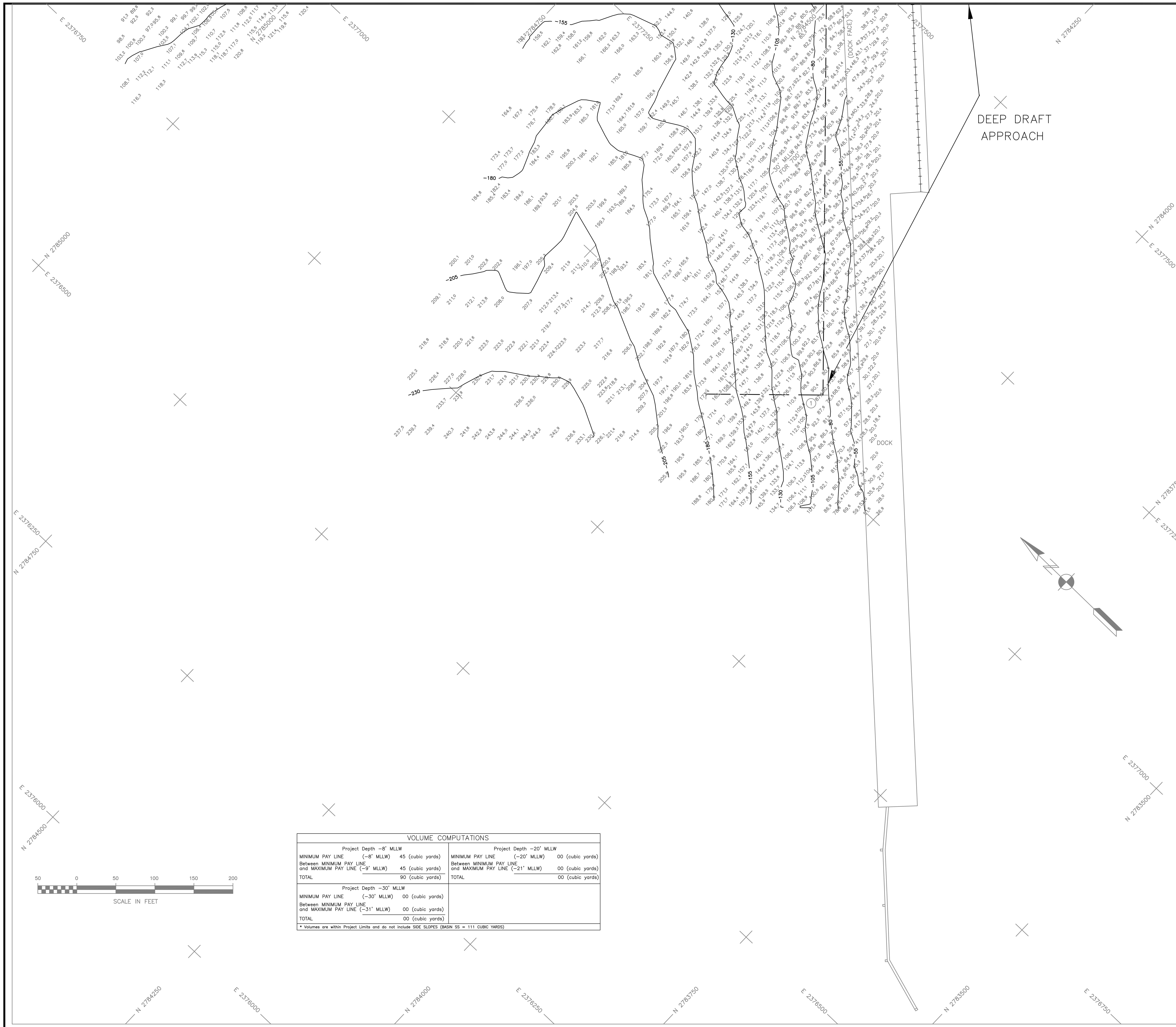
ANCHORAGE, ALASKA

SURVEYED: KDW/TJH
DRAWN: L.E.S.
CHECKED: T.S.N.
SUBMITTED:

SKAGWAY, ALASKA
SKAGWAY HARBOR
PROJECT CONDITION SURVEY
MAY 15, 2000

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

SURVEY NO. 1852–00
SCALE: 1" = 50'
SHEET 2 OF 3



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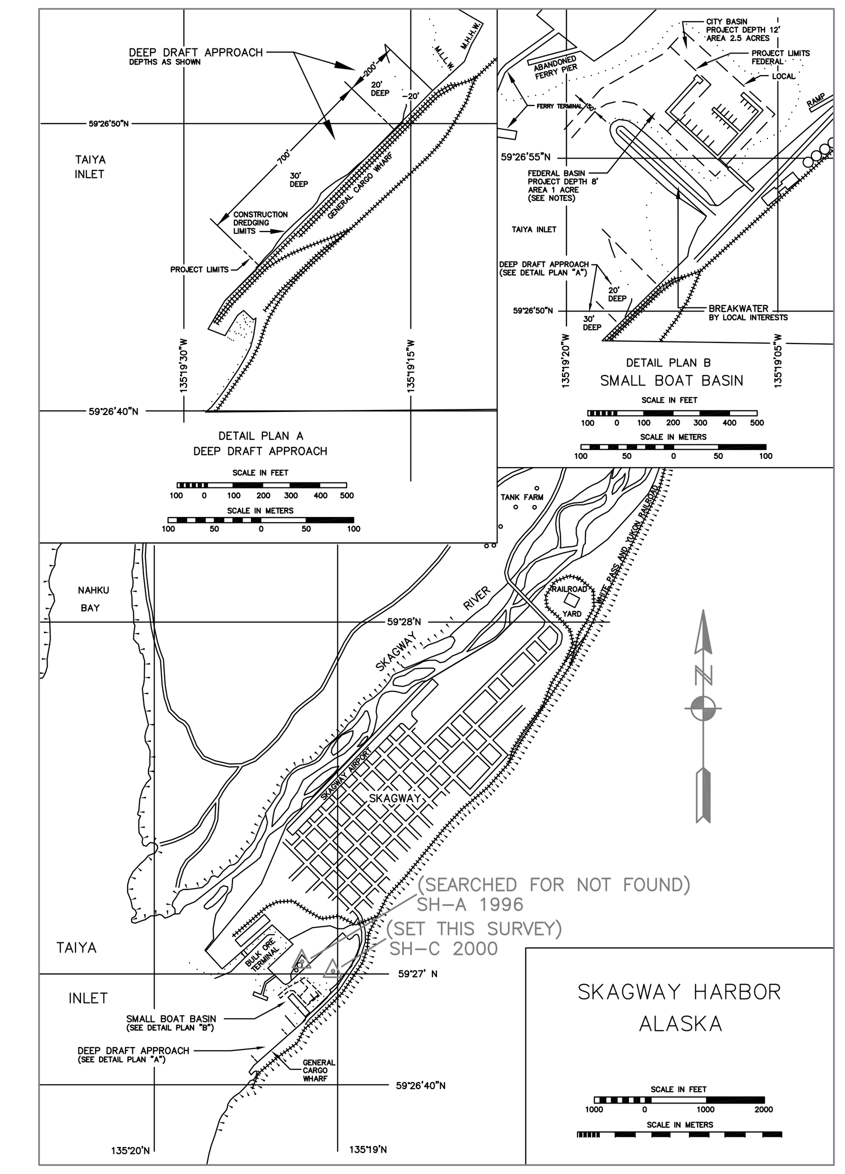

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☆ NAVIGATION AIDS ☆

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