US Army Corps
of Engineers
Alaska District

Public Notice of Application for Permit

Regulatory Branch (1145b)
Post Office Box 6898
Elmendorf AFB, Alaska 99506-6898

PUBLIC NOTICE DATE: 14 January 2004

EXPIRATION DATE: 13 February 2004

REFERENCE NUMBER: Q-1981-0442

WATERWAY NUMBER: Tongass Narrows 364

Interested parties are hereby notified that an application has been received for a Department of the Army permit for certain work in waters of the United States as described below and shown on the attached plan.

APPLICANT: Alaska Industrial Developmental Export Authority, 813 W. Northern Lights Blvd., Anchorage, Alaska, Agent: Craig Freas, Tryck Nyman Hayes, Inc. 911 W. 8th Avenue, Suite 300, Anchorage, Alaska 99501, (907) 343-0277

LOCATION: The proposed project is located within section 23, T. 75 S., R. 90 E., Copper River Meridian, in Ketchikan, Alaska. Longitude 131° 42′, Latitude 55° 21′

WORK: To dredge approximately 75,000 cubic yards (cy) from approximately 2.6 acres below the mean high water (MHW) of Tongass Narrows and discharge 1650 cy of dredge spoils within waters of the U.S. Construct six grounding grids supported by six 36-inch piles driven to ~52 feet below finished grade. Remove two existing dolphins and install one new dolphin. Relocate utility lines, which would involve trench excavation and backfilling. Install a new marine cable between the project site and Gravina Island affecting approximately 1600 linear feet of substrate. Riprap would be placed over the top of the backfilled trenches. Approximately 0.3 acres below high tide line (HTL) would be impacted for utility lines.

PURPOSE: To upgrade the shipyard to accommodate more vessels.

ADDITIONAL INFORMATION: There would be some fill placed behind the south bulkhead and some regarding of the material near the mouth of Carlanna Creek at the north end of the east bulkhead (see sheets 2 and 3 of 9). The material would wrap around the bulkhead starting at about 0.0 feet mean lower low water (MLLW) on the west face of the east bulkhead near the north end and end at 23.0 feet MLLW on the backside of the bulkhead where it turns east and then south squaring off the north end of the bulkhead.

A clamshell dredging method has been proposed and the material would be loaded onto a barge with filter fabric to screen fines from the return water. The majority of the spoils would be stock piled at an upland site, and be utilized for beneficial uses.

Prior to dredging, the sampling data would be provided to the Corps of Engineers for evaluation of in-water disposal and special handling requirements of the dredge spoils.

MITIGATION: As a result of early project planning and pre-application coordination, the applicant has proposed the following mitigation efforts to reduce impacts to the aquatic environment: 1. perform all in-water work during the Alaska Department of Natural Resources-Office of Habitat Management and Permitting (OHMP) recommended timeframes; 2. perform work on the tidelands during low tides; 3. place filter fabric on the barge to screen fines from the return water; 4. pay a `$20,000 fee in-lieu for unavoidable impacts to moderate functioning tidelands.

WATER QUALITY CERTIFICATION: A permit for the described work will not be issued until a certification or waiver of certification as required under Section 401 of the Clean Water Act (Public Law 95-217), has been received from the Alaska Department of Environmental Conservation.

COASTAL ZONE MANAGEMENT ACT CERTIFICATION: Section 307(c)(3) of the Coastal Zone, Management Act of 1972, as amended by 16 U.S.C. 1456(c)(3), requires the applicant to certify that the described activity affecting land or water uses in the Coastal Zone complies with the Alaska Coastal Management Program. A permit will not be issued until the Office of Project Management and Permitting, Department of Natural Resources has concurred with the applicant's certification.

PUBLIC HEARING: Any person may request, in writing, within the comment period specified in this notice, that a public hearing be held to consider this application. Requests for public hearings shall state, with particularity, reasons for holding a public hearing.

CULTURAL RESOURCES: The latest published version of the Alaska Heritage Resources Survey (AHRS) has been consulted for the presence or absence of historic properties, including those listed in or eligible for inclusion in the National Register of Historic Places. There are no listed or eligible properties in the vicinity of the worksite. Consultation of the AHRS constitutes the extent of cultural resource investigations by the District Engineer at this time, and he is otherwise unaware of the presence of such resources. This application is being coordinated with the State Historic Preservation Office (SHPO). Any comments SHPO may have concerning presently unknown archeological or historic data that may be lost or destroyed by work under the requested permit will be considered in our final assessment of the described work.

TRIBAL CONSULTATION: The Alaska District fully supports tribal self-governance and government-to-government relations between the Federal government and Federally recognized Tribes. This notice invites participation by agencies, Tribes, and members of the public in the Federal decision-making process. In addition, Tribes with protected rights or resources that could be significantly affected by a proposed Federal action (e.g., a permit decision) have the right to consult with the Alaska District on a government-to-government basis. Views of each Tribe regarding protected rights and resources will be accorded due consideration in this process. This Public Notice serves as notification to the Tribes within the area potentially affected by the proposed work and invites their participation in the Federal decision-making process regarding the protected Tribal right or resource. The affected Tribe, upon written request to the District Engineer, may initiate consultation during the public comment period.

ENDANGERED SPECIES: The project area is within the known or historic range of the Humpback whale (*Megaplera novaeangliae)* and the Steller sea lion (*Eumetopias jubatus)*, listed as endangered and threatened under the Endangered Species Act (ESA), respectively. Preliminarily, it has been determined that the described activity will not affect threatened or endangered species, or their critical

habitat designated as endangered or threatened, under the ESA of 1973 (87 Stat. 844). This application is being coordinated with the U.S. Fish and Wildlife Service (USFWS) and the National Marine Fisheries Service (NMFS). Any comments they may have concerning endangered or threatened wildlife or plants or their critical habitat will be considered in our final assessment of the described work.

ESSENTIAL FISH HABITAT: The proposed work is being evaluated for possible effects to Essential Fish Habitat (EFH) pursuant to the Magnuson Stevens Fishery Conservation and Management Act of 1996 (MSFCMA), 16 U.S.C. et seq and associated federal regulations found at 50 CFR 600 Subpart K. The Alaska District includes areas of EFH as Fishery Management Plans. We have reviewed the January 20, 1999, North Pacific Fishery Management Council's Environmental Assessment to locate EFH area as identified by the NMFS.

We have determined that the described activity may adversely affect EFH. The proposed work may affect approximately 2.6 acres of EFH for juvenile/adult salmon, adults and late juvenile pacific cod, arrowtooth flounder, pacific ocean perch, walleye Pollock, dusky rockfish, shortraker and rougheye rockfish, yelloweye rockfish, sculpin and skate. This Public Notice initiates consultation requirements with the NMFS under the MSFCMA. We have insufficient information at this time to assess the cumulative effects of the proposed work on EFH, but cumulative effects will be considered in our final assessment of the described work. Any conservation recommendations regarding EFH for federally managed fish will also be considered in our final assessment of the described work. This proposed project may also adversely affect associated species such as major prey or predator species, which are not covered by Fishery Management Plans. The applicant proposes to minimize impacts to EFH by performing in-water work during the OHMP recommended timeframes, use filter-fabric to screen fines from return water, and perform tidal work during low tide events. In addition, the applicant has proposed to pay a fee in-lieu of ~$20,000 to be used for fishery enhancement or preservation.

SPECIAL AREA DESIGNATION: None.

EVALUATION: The decision whether to issue a permit will be based on an evaluation of the probable impacts including cumulative impacts of the proposed activity and its intended use on the public interest. Evaluation of the probable impacts, which the proposed activity may have on the public interest, requires a careful weighing of all the factors that become relevant in each particular case. The benefits, which reasonably may be expected to accrue from the proposal, must be balanced against its reasonably foreseeable detriments. The decision whether to authorize a proposal, and if so, the conditions under which it will be allowed to occur, are therefore determined by the outcome of the general balancing process. That decision should reflect the national concern for both protection and utilization of important resources. All factors, which may be relevant to the proposal, must be considered including the cumulative effects thereof. Among those are conservation, economics, aesthetics, general environmental concerns, wetlands, cultural values, fish and wildlife values, flood hazards, floodplain values, land use, navigation, shore erosion and accretion, recreation, water supply and conservation, water quality, energy needs, safety, food and fiber production, mineral needs, considerations of property ownership, and, in general, the needs and welfare of the people. For activities involving 404 discharges, a permit will be denied if the discharge that would be authorized by such permit would not comply with the Environmental Protection Agency's 404(b)(1) guidelines. Subject to the preceding sentence and any other applicable guidelines or criteria (see Sections 320.2 and 320.3), a permit will be granted unless the District Engineer determines that it would be contrary to the public interest.

The Corps of Engineers is soliciting comments from the public; Federal, State, and local agencies and officials; Indian Tribes; and other interested parties in order to consider and evaluate the impacts of this proposed activity. Any comments

received will be considered by the Corps of Engineers to determine whether to issue, modify, condition or deny a permit for this proposal. To make this decision, comments are used to assess impacts on endangered species, historic properties, water quality, general environmental effects, and the other public interest factors listed above. Comments are used in the preparation of an Environmental Assessment and/or an Environmental Impact Statement pursuant to the National Environmental Policy Act. Comments are also used to determine the need for a public hearing and to determine the overall public interest of the proposed activity.

Comments on the described work, with the reference number, should reach this office no later than the expiration date of this Public Notice to become part of the record and be considered in the decision. Please contact Dr. Jan Stuart at (907) 753-2720, toll free from within Alaska at (800) 478-2712, or by email at jan.f.stuart@poa02.usace.army.mil if further information is desired concerning this notice.

AUTHORITY: This permit will be issued or denied under the following authorities:

(X) Perform work in or affecting navigable waters of the United States - Section 10 Rivers and Harbors Act 1899 (33 U.S.C. 403).

(X) Discharge dredged or fill material into waters of the United States - Section 404 Clean Water Act (33 U.S.C. 1344). Therefore, our public interest review will consider the guidelines set forth under Section 404(b) of the Clean Water Act (40 CFR 230).

A plan, Notice of Application for Certification of Consistency with the Alaska Coastal Management Program, and Notice of Application for State Water Quality Certification are attached to this Public Notice.

District Engineer
U.S. Army, Corps of Engineers

Attachments

FRANK H. MURKOWSKI, GOVERNOR

STATE OF ALASKA

OFFICE OF THE GOVERNOR

OFFICE OF PROJECT MANAGEMENT AND PERMITTING
ALASKA DEPARTMENT OF NATURAL RESOURCES

OFFICE OF PROJECT MANAGEMENT AND PERMITTING
302 GOLD STREET, SUITE 202
JUNEAU, ALASKA 99801-1127
PHONE: (907) 465-3562/FAX: (907) 465-3075

NOTICE OF APPLICATION
FOR
CERTIFICATION OF CONSISTENCY WITH THE ALASKA COASTAL MANAGEMENT PROGRAM

Notice is hereby given that a request is being filed with the Division of Governmental Coordination for a consistency determination, as provided in Section 307(c)(3) of the Coastal Zone Management Act of 1972, as amended [16 U.S.C. 1456(c)(3)], that the project described in the Corps of Engineers Public Notice No. **Q-1981-0442,Tongass Narrows 364,** will comply with the Alaska Coastal Management Program and that the project will be conducted in a manner consistent with that program.

This project is being reviewed for consistency with the Alaska Coastal Management Program. Written comments about the consistency of the project with the applicable ACMP statewide standards and district policies must be submitted to the Alaska Division of Governmental Coordination. For information about
this consistency review, contact DGC at (907) 269-7470 or (907) 465-3562, or visit the DGC web site at http://www.gov.state.ak.us/gdc/Projects/projects.html.

Attachment 2

FRANK H. MURKOWSKI, GOVERNOR

STATE OF ALASKA

OFFICE OF THE GOVERNOR

DEPT. OF ENVIRONMENTAL CONSERVATION

DIVISION OF AIR AND WATER QUALITY
Non-Point Source Control Section
401 Certification Program

NOTICE OF APPLICATION
FOR
STATE WATER QUALITY CERTIFICATION

Any applicant for a federal license or permit to conduct an activity that might result in a discharge into navigable waters, in accordance with Section 401 of the Clean Water Act of 1977 (PL95-217), also must apply for and obtain certification from the Alaska Department of Environmental Conservation that the discharge will comply with the Clean Water Act, the Alaska Water Quality Standards, and other applicable State laws. By agreement between the U.S. Army Corps of Engineers and the Department of Environmental Conservation, application for a Department of the Army permit to discharge dredged or fill material into navigable waters under Section 404 of the Clean Water Act also may serve as application for State Water Quality Certification.

Notice is hereby given that the application for a Department of the Army Permit described in the Corps of Engineers' Public Notice No. **Q-1981-0442,Tongass Narrows 364**, serves as application for State Water Quality Certification from the Department of Environmental Conservation.

After reviewing the application, the Department may certify that there is reasonable assurance that the activity, and any discharge that might result, will comply with the Clean Water Act, the Alaska Water Quality Standards, and other applicable State laws. The Department also may deny or waive certification.

Any person desiring to comment on the project with respect to Water Quality Certification may submit written comments within 30 days of the date of the Corps of Engineer's Public Notice to:

Department of Environmental Conservation
WQM/401 Certification
410 Willoughby Avenue
Juneau, Alaska 99801-1795
Telephone: (907) 465-5321
FAX: (907) 465-5274

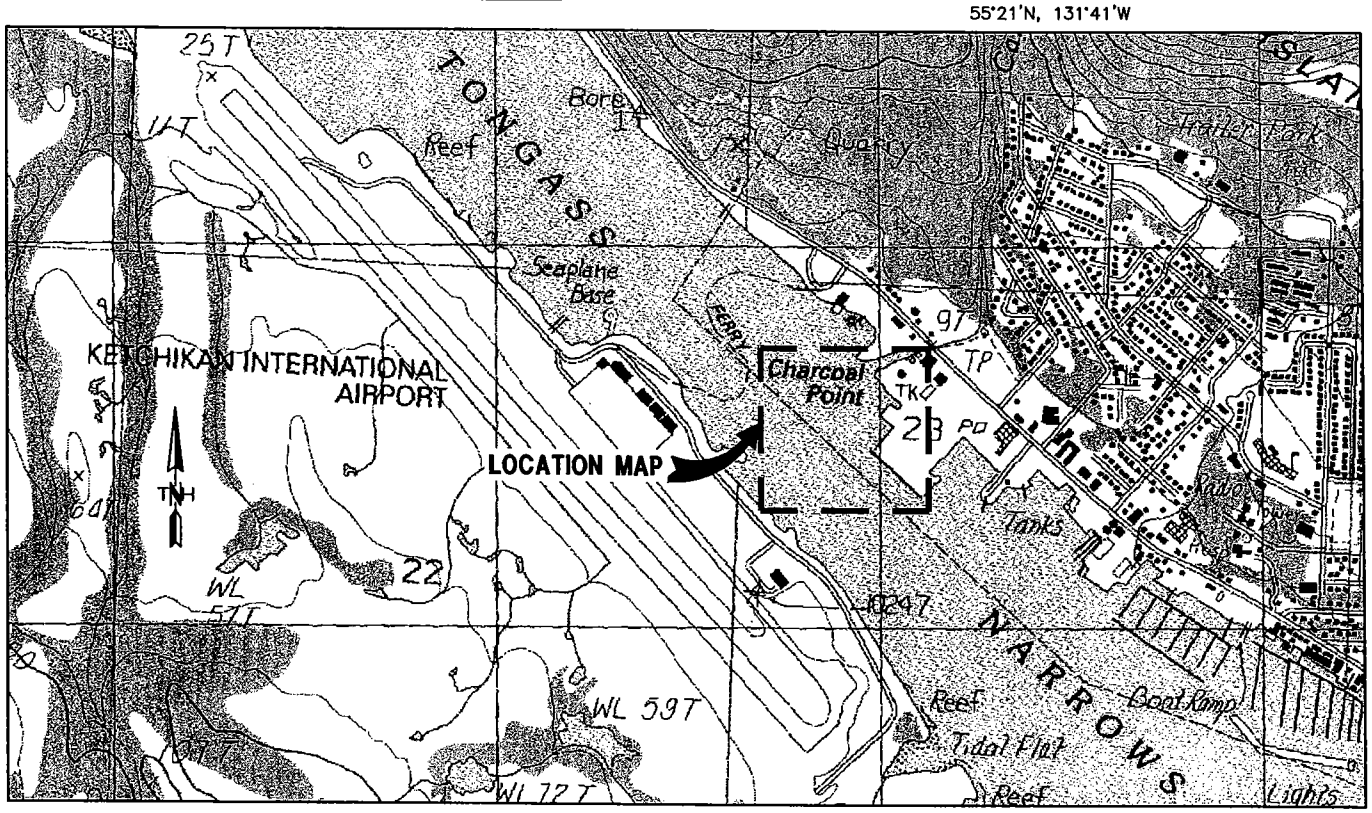
Attachment 3

TIDAL INFORMATION	
HIGHEST OBSERVED WATER LEVEL	21.3'
HIGH TIDE LEVEL (H.T.L.)	19.4'
MEAN HIGHER HIGH WATER (M.H.H.W.)	15.4'
MEAN HIGH WATER (M.H.W.)	14.4''
MEAN TIDE LINE (M.T.L.)	8.1'
MEAN LOWER LOW WATER (M.L.L.W.)	0.0'
LOWEST OBSERVED WATER LEVEL	-5.2'

PROPERTY OWNERS

LOT 1, TRACK 1007
SOUTH COAST INC., P.O. BOX 8620
KETCHIKAN, AK 99901
LOT 1, BLOCK 15AA
CITY OF KETCHIKAN
334 FRONT STREET, KETCHIKAN AK 99901
LOT 1, BLOCK 16 AA
STATE OF ALASKA, AIDEA
480 WEST TUDOR, KETCHIKAN, AK 99503
LOT 2, BLOCK 16 AA
STATE OF ALASKA, ADOT/PF
6850 GLACIER HIGHWAY, JUNEAU, AK 99802

APPROXIMATE LATITUDE & LONGITUDE:
55°21'N, 131°41'W



PURPOSE:
CONSTRUCT 2500-TON SHIP LIFT

PERMIT: Q-1981-0442
TONGASS NARROWS
DATUM: M.L.L.W. = 0.0'
ADJACENT PROPERTY OWNERS:
UPLANDS: CITY OF KETCHIKAN
OFFSHORE: STATE OF ALASKA

VICINITY MAP

SCALE: N.T.S.

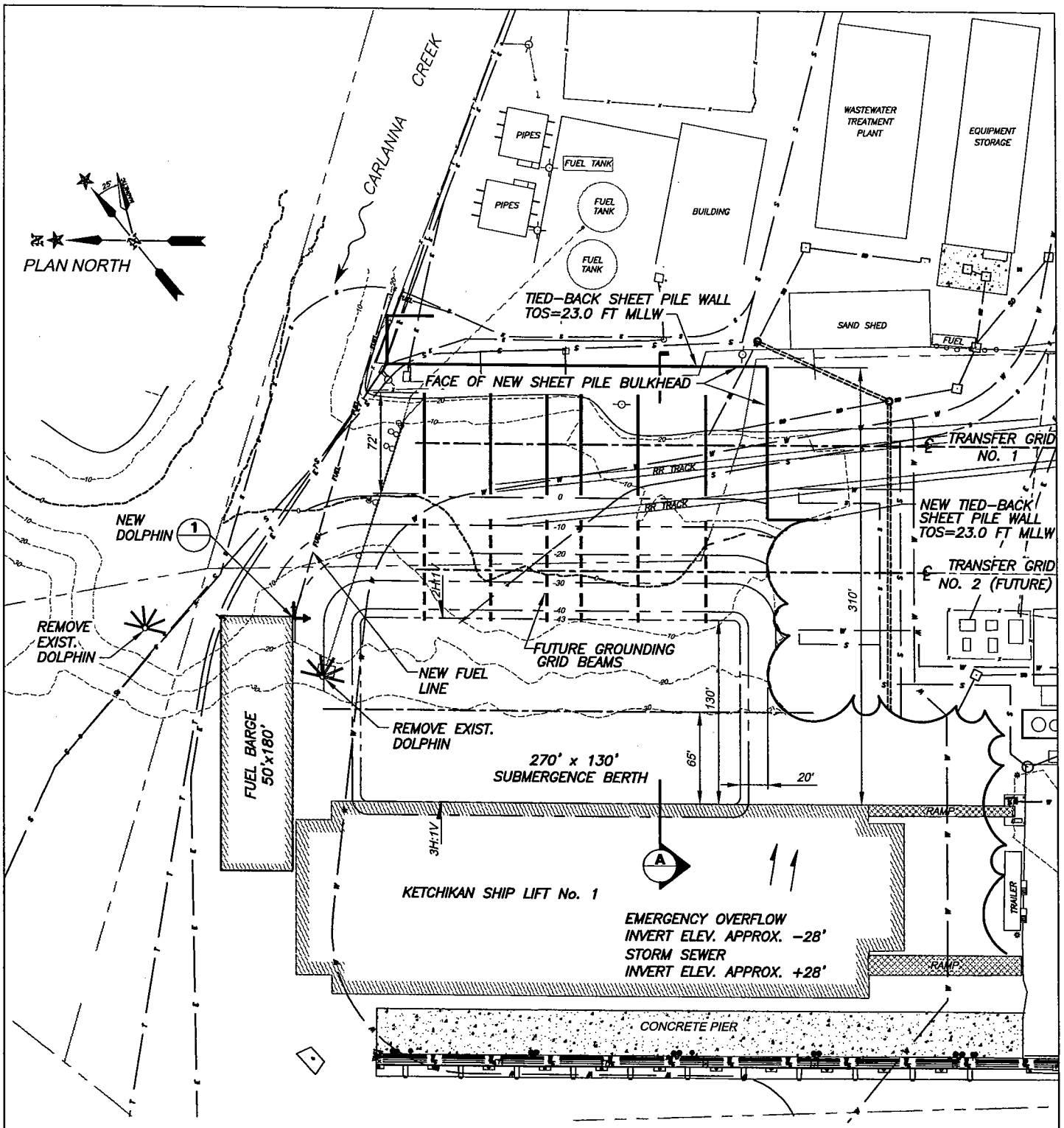
ALASKA INDUSTRIAL DEVELOPMENTAL EXPORT AUTHORITY
813 W. NORTHERN LIGHTS BLVD.
ANCHORAGE, ALASKA

KETCHIKAN SHIPYARD AND DRYDOCK
IN: TONGASS NARROWS
AT: KETCHIKAN, ALASKA

APPLICATION BY:
ALASKA INDUSTRIAL DEVELOPMENTAL EXPORT AUTHORITY
813 W. NORTHERN LIGHTS BLVD.
ANCHORAGE, ALASKA
SHEET: 1 OF 9 DATE: 12/05/03

DWG. FILE: 2158COE_P1.dwg PLOT SCALE: 1:1 JOB NO.: 02158.000 REV.: 12/19/03

Q-1981-0442 Tongass Narrows 64



PURPOSE:
CONSTRUCT 2500-TON SHIP LIFT

PERMIT: Q-1981-0442
TONGASS NARROWS
DATUM: M.L.L.W. = 0.0'
ADJACENT PROPERTY OWNERS:
UPLANDS: CITY OF KETCHIKAN
OFFSHORE: STATE OF ALASKA

PROPOSED SHIP LIFT SITE

100 0 100

SCALE: 1"=100'

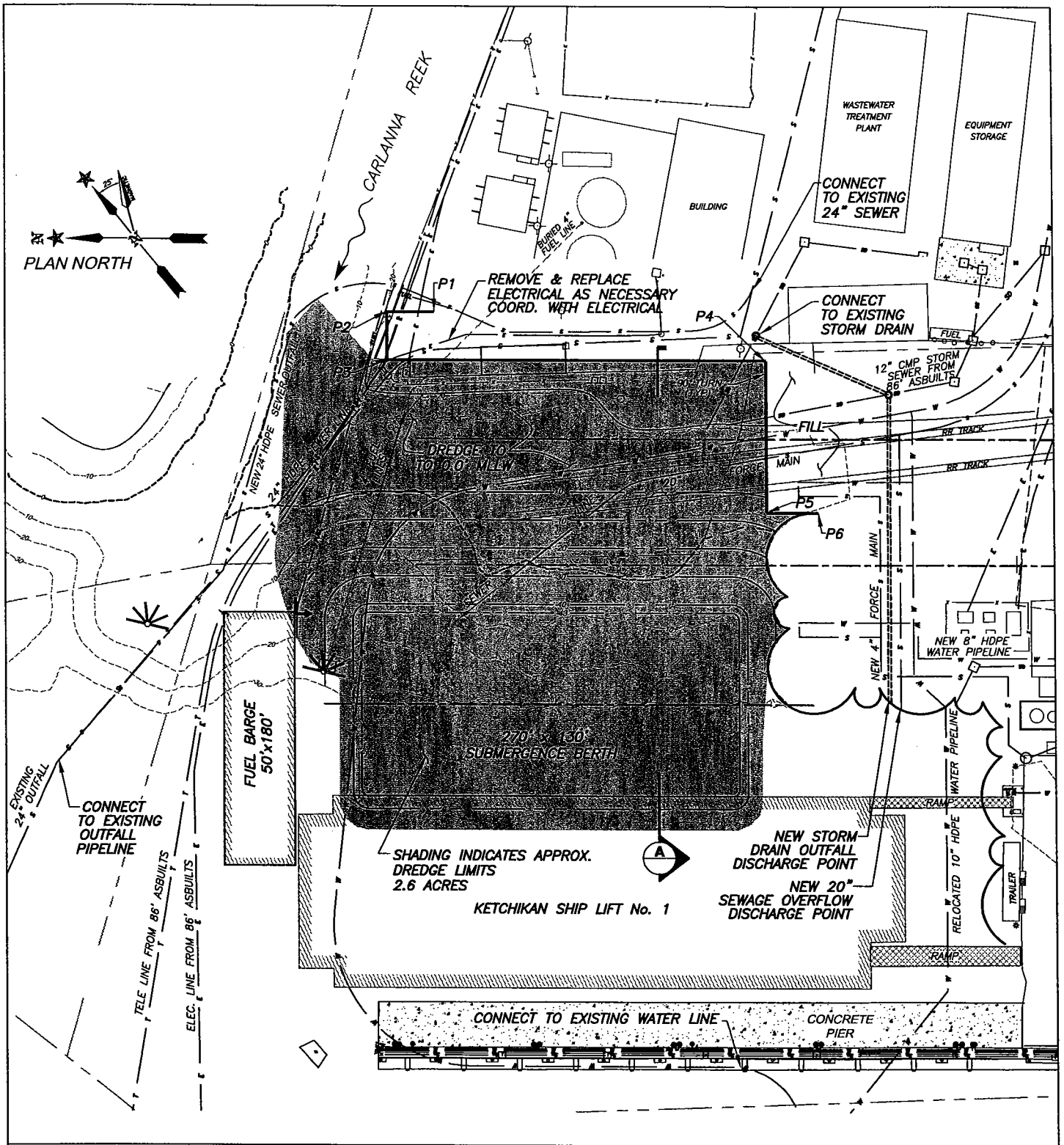
ALASKA INDUSTRIAL DEVELOPMENTAL EXPORT AUTHORITY
813 W. NORTHERN LIGHTS BLVD.
ANCHORAGE, ALASKA

KETCHIKAN SHIPYARD AND DRYDOCK
IN: TONGASS NARROWS
AT: KETCHIKAN, ALASKA

APPLICATION BY:
ALASKA INDUSTRIAL DEVELOPMENTAL EXPORT AUTHORITY
813 W. NORTHERN LIGHTS BLVD.
ANCHORAGE, ALASKA
SHEET: 2 OF 9 DATE: 12/05/03

DWG. FILE: 2158C0E_P2.dwg PLOT SCALE: 1:1 JOB NO.: 02158.000 REV.: 12/19/03

Q-1981-0442 Tongass Narrows 364



PURPOSE:
CONSTRUCT 2500-TON SHIP LIFT

PERMIT: Q-1981-0442
TONGASS NARROWS
DATUM: M.L.L.W. = 0.0'
ADJACENT PROPERTY OWNERS:
UPLANDS: CITY OF KETCHIKAN
OFFSHORE: STATE OF ALASKA

DREDGING LIMITS

100 0 100

SCALE: 1"=100'

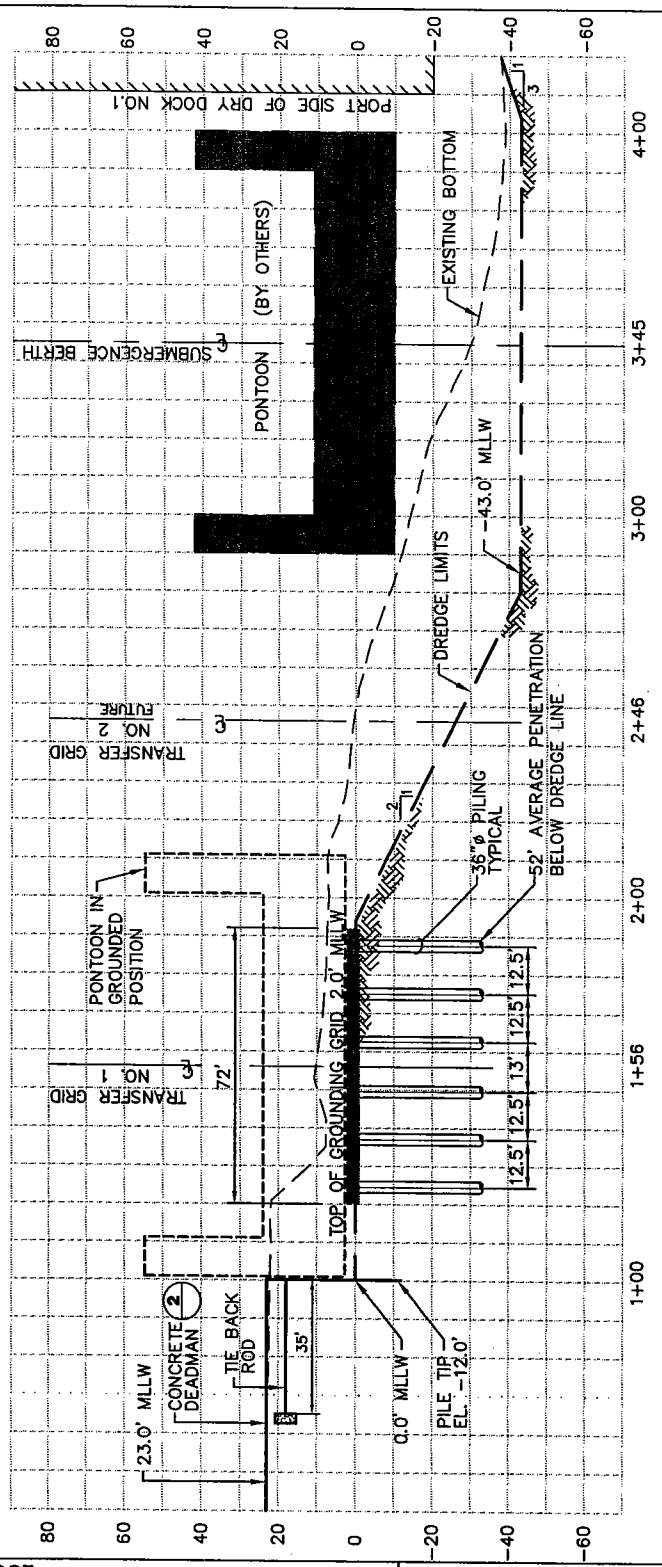
ALASKA INDUSTRIAL DEVELOPMENTAL EXPORT AUTHORITY
813 W. NORTHERN LIGHTS BLVD.
ANCHORAGE, ALASKA

KETCHIKAN SHIPYARD AND DRYDOCK
IN: TONGASS NARROWS
AT: KETCHIKAN, ALASKA

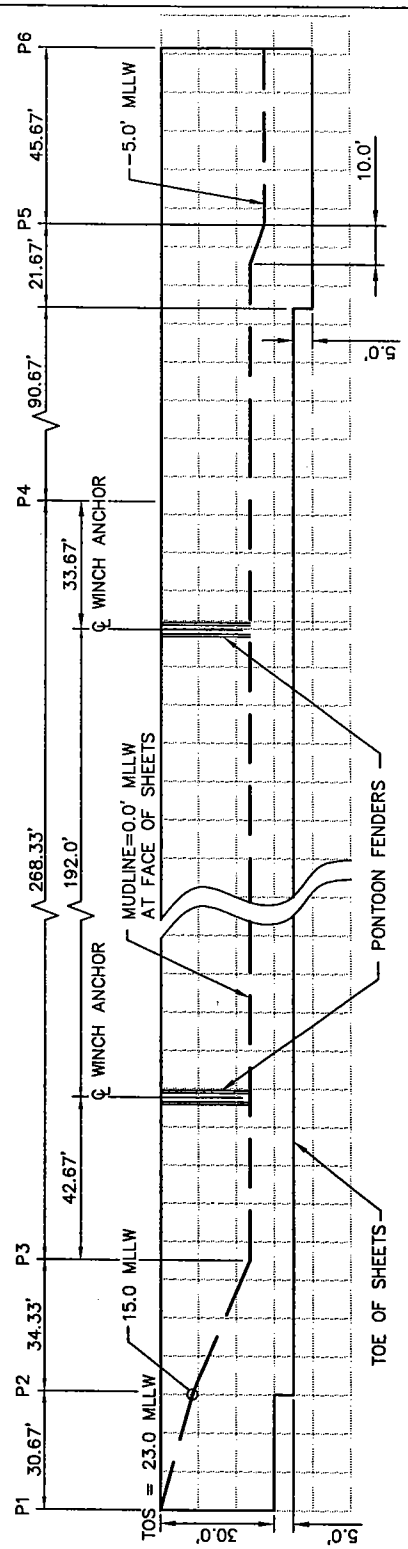
APPLICATION BY:
ALASKA INDUSTRIAL DEVELOPMENTAL EXPORT AUTHORITY
813 W. NORTHERN LIGHTS BLVD.
ANCHORAGE, ALASKA
SHEET: 3 OF 9 DATE: 12/05/03

DWG. FILE: 2158COE_P3.dwg PLOT SCALE: 1:1 JOB NO.: 02158.000 REV.: 12/19/03

Q-1981-0442 364



A SECTION A
SCALE: 1" = 50'



1 SHEET PILE PROFILE
SCALE: 1" = 50'

PURPOSE:
CONSTRUCT 2500-TON SHIP LIFT

PERMIT: Q-1981-0442
TONGASS NARROWS
DATUM: M.L.L.W. = 0.0'
ADJACENT PROPERTY OWNERS:
UPLANDS: CITY OF KETCHIKAN
OFFSHORE: STATE OF ALASKA

SECTION AND PROFILE

50 0 50
SCALE: 1" = 50'

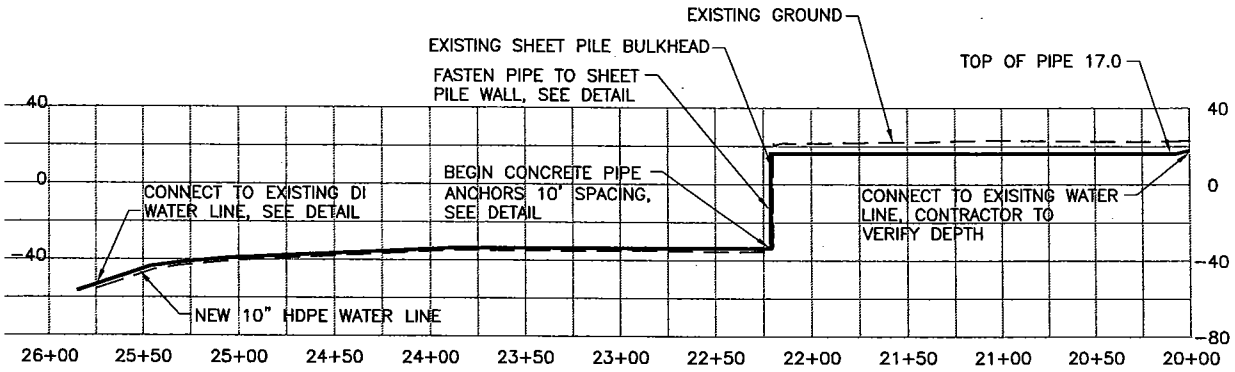
ALASKA INDUSTRIAL DEVELOPMENTAL EXPORT AUTHORITY
813 W. NORTHERN LIGHTS BLVD.
ANCHORAGE, ALASKA

KETCHIKAN SHIPYARD AND DRYDOCK
IN: TONGASS NARROWS
AT: KETCHIKAN, ALASKA

APPLICATION BY:
ALASKA INDUSTRIAL DEVELOPMENTAL EXPORT AUTHORITY
813 W. NORTHERN LIGHTS BLVD.
ANCHORAGE, ALASKA
SHEET: 4 OF 9 DATE: 12/05/03

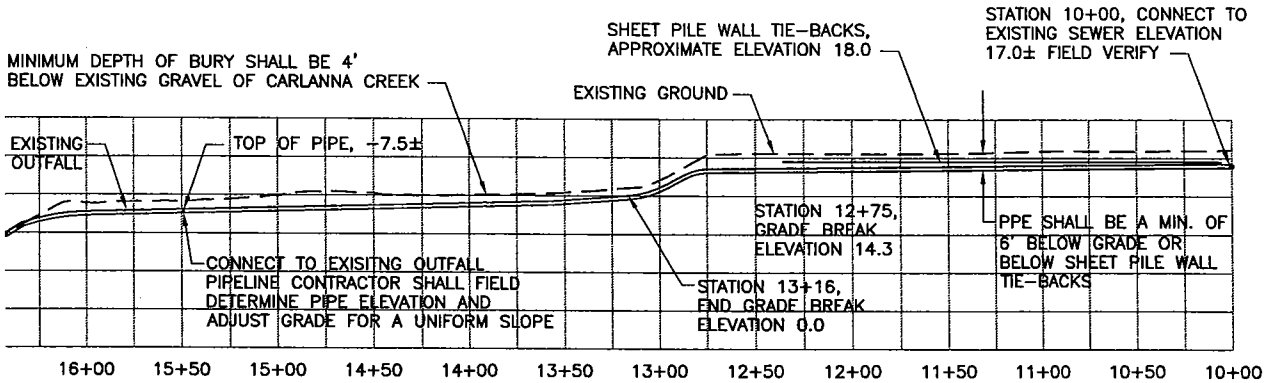
DWG. FILE: 2158C0E_P4.dwg PLOT SCALE: 1:1 JOB NO.: 02158.000 REV.: 12/19/03

Q-1981-0442, Tongass Narrows 384



2 WATER LINE PROFILE

SCALE: 1" = 100'



3 SEWER OUTFALL PROFILE

SCALE: 1" = 100'

PURPOSE:
CONSTRUCT 2500-TON SHIP LIFT

PERMIT: Q-1981-0442
TONGASS NARROWS
DATUM: M.L.L.W. = 0.0'
ADJACENT PROPERTY OWNERS:
UPLANDS: CITY OF KETCHIKAN
OFFSHORE: STATE OF ALASKA

PROFILES

100 0 100

SCALE: 1"=100'

ALASKA INDUSTRIAL DEVELOPMENTAL EXPORT AUTHORITY
813 W. NORTHERN LIGHTS BLVD.
ANCHORAGE, ALASKA

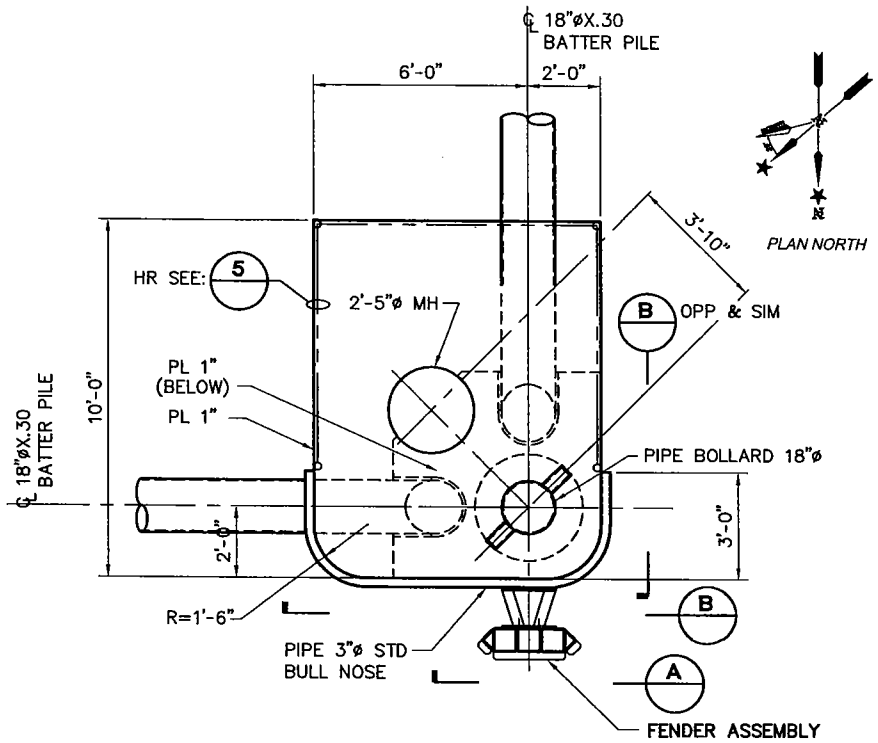
KETCHIKAN SHIPYARD AND DRYDOCK
IN: TONGASS NARROWS
AT: KETCHIKAN, ALASKA

APPLICATION BY:
ALASKA INDUSTRIAL DEVELOPMENTAL EXPORT AUTHORITY
813 W. NORTHERN LIGHTS BLVD.
ANCHORAGE, ALASKA

SHEET: 5 OF 9 DATE: 12/05/03

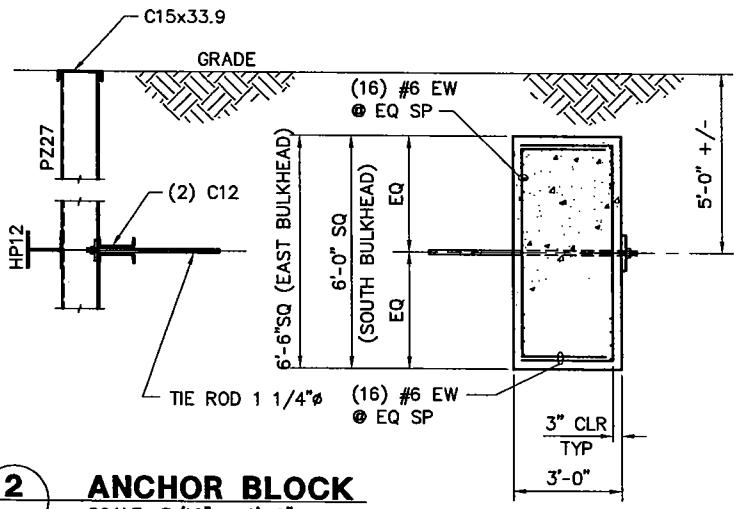
DWG. FILE: 2158C0E_P5.dwg PLOT SCALE: 1:1 JOB NO.: 02158.000 REV.: 12/19/03

Q-1981-0442 Tongass Narrows 384



1 DOLPHIN PLAN

SCALE: 3/16" = 1'-0"



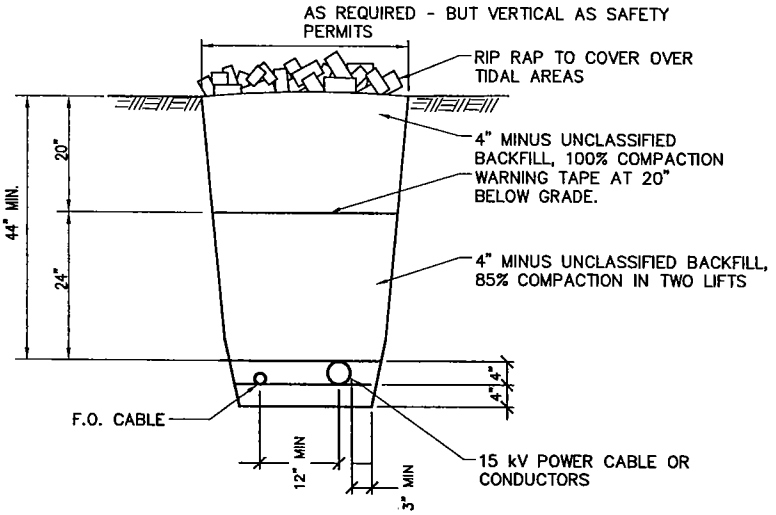
2 ANCHOR BLOCK

SCALE: 3/16" = 1'-0"

PURPOSE: **CONSTRUCT 2500-TON SHIP LIFT** PERMIT: Q-1981-0442 TONGASS NARROWS DATUM: M.L.L.W. = 0.0' ADJACENT PROPERTY OWNERS: UPLANDS: CITY OF KETCHIKAN OFFSHORE: STATE OF ALASKA	**PLAN AND DETAIL** SCALE: AS SHOWN ALASKA INDUSTRIAL DEVELOPMENTAL EXPORT AUTHORITY 813 W. NORTHERN LIGHTS BLVD. ANCHORAGE, ALASKA	**KETCHIKAN SHIPYARD AND DRYDOCK** IN: TONGASS NARROWS AT: KETCHIKAN, ALASKA APPLICATION BY: ALASKA INDUSTRIAL DEVELOPMENTAL EXPORT AUTHORITY 813 W. NORTHERN LIGHTS BLVD. ANCHORAGE, ALASKA SHEET: 6 OF 9 DATE: 12/05/03

DWG. FILE: 2158C0E_P6.dwg PLOT SCALE: 1:1 JOB NO.: 02158.000 REV.: 12/19/03

Q-1981-0442, Tongass Narrows 384

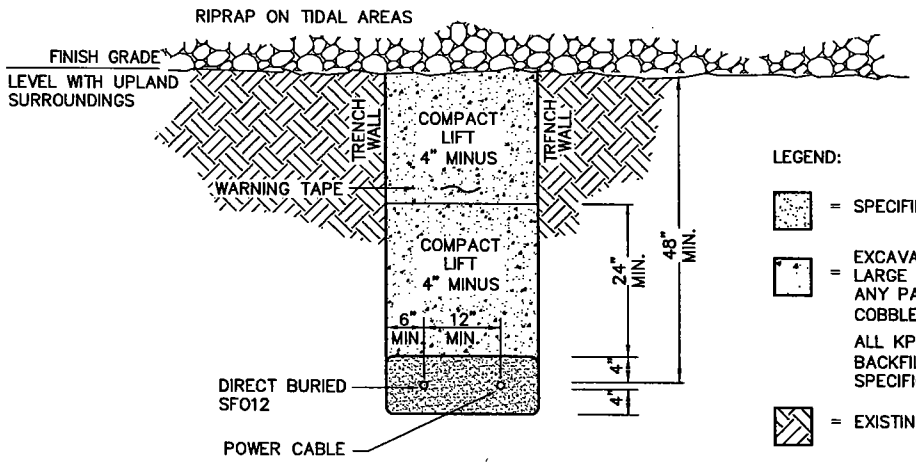


NOTE:

TRENCH IS TO BEGIN 10' BELOW LOW MEAN WATER. BEDDING ON BOTTOM, NO COMPACTION UNTIL OUT OF WATER. WORK TO BE DONE AT LOW TIDE TO MAXIMIZE COMPACTION, PLACE RIP RAP OVER TOP

1 TYPICAL TRENCH DETAIL

SCALE: NOT TO SCALE



LEGEND:

= SPECIFIED MATERIAL TYPE: D-1, COMPACT

= EXCAVATED BACKFILL: COMPACT @ 24 INCH LIFTS. LARGE BOULDERS SHALL NOT BE INCLUDED IN ANY PART OF THE BACKFILL. NO STONE OR COBBLE SHALL EXCEED 4" IN ANY DIRECTION.

ALL KPU, CONDUIT PLACEMENT, BEDDING, AND BACKFILL SHALL CONFORM TO NESC/NEC SPECIFICATIONS.

= EXISTING UNDISTURBED NATIVE SOIL.

2 TYPICAL TRENCH DETAIL AT BEACH LANDING

SCALE: NOT TO SCALE

PURPOSE:
CONSTRUCT 2500-TON SHIP LIFT

PERMIT: Q-1981-0442
TONGASS NARROWS
DATUM: M.L.L.W. = 0.0'
ADJACENT PROPERTY OWNERS:
UPLANDS: CITY OF KETCHIKAN
OFFSHORE: STATE OF ALASKA

DETAILS

SCALE: N.T.S.

ALASKA INDUSTRIAL DEVELOPMENTAL EXPORT AUTHORITY
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ANCHORAGE, ALASKA

KETCHIKAN SHIPYARD AND DRYDOCK
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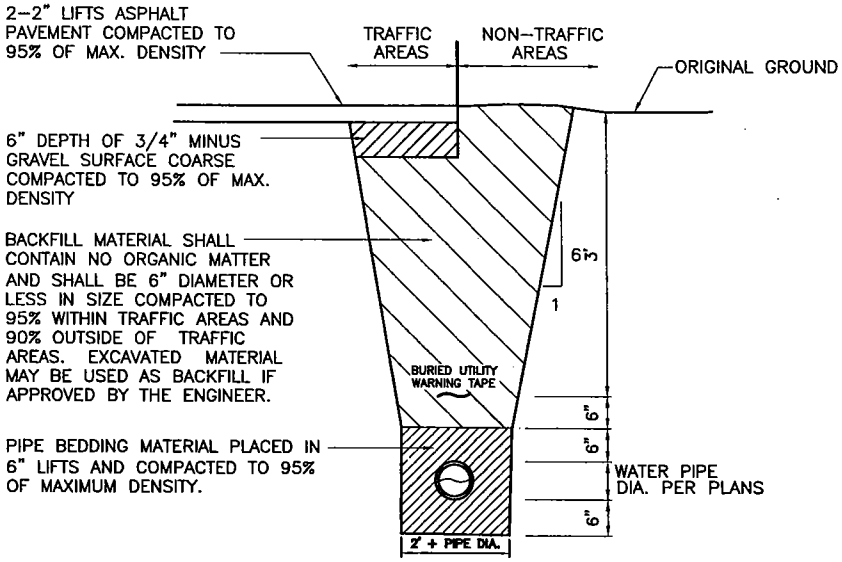
ANCHORAGE, ALASKA
SHEET: 7 OF 9 DATE: 12/05/03

DWG. FILE: 2158C0E_P7.dwg PLOT SCALE: 1:1 JOB NO.: 02158.000 REV.: 12/19/03

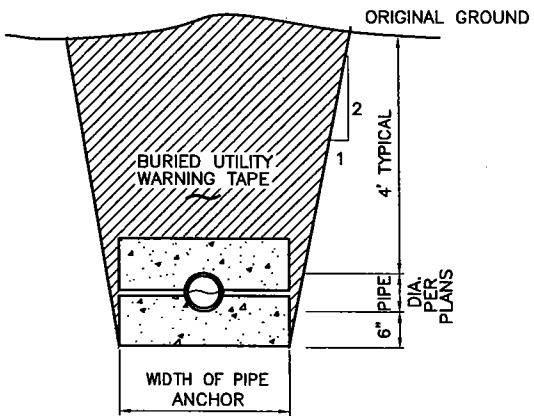


NOTES:

1. BACKFILL MATERIAL SHALL BE PLACED IN 12" MAXIMUM LIFTS.
2. TRENCH EXCAVATION AND SHORING SHALL COMPLY WITH LOCAL, STATE, AND OSHA REGULATIONS AND REQUIREMENTS. INDICATED SLOPE IS FOR PAY QUANTITY DETERMINATION ONLY FOR IMPORTED BACKFILL GRAVEL AND RESURFACING REQUIREMENTS.
3. IF UNSUITABLE PIPE FOUNDATION MATERIAL IS ENCOUNTERED DURING EXCAVATION, ENGINEER MAY DIRECT THE CONTRACTOR TO OVER-EXCAVATE AND BACKFILL WITH SUITABLE MATERIAL.
4. THE DITCH LINE, IF ONE EXISTS, SHALL BE RESHAPED IN SUCH A MANNER TO ALLOW POSITIVE DRAINAGE TO MATCH PRE-CONSTRUCTION CONDITIONS.

1 TYPICAL UPLAND TRENCH SECTION

SCALE: NOT TO SCALE



NOTES:

1. BACKFILL MATERIAL & PIPE BEDDING SHALL BE NATIVE GRAVEL.
2. COMPLETELY EXCAVATE FOR PIPE ANCHOR SO PIPE IS FULLY SUPPORTED.
3. CONTRACTOR SHALL MINIMIZE DISTURBANCE OF ADJACENT TIDELANDS FROM EQUIPEMENT OR EXCAVATED MATERIALS.

2 TYPICAL MARINE SEWER OUTFALL TRENCH SECTION

SCALE: NOT TO SCALE

PURPOSE:
CONSTRUCT 2500-TON SHIP LIFT

PERMIT: Q-1981-0442
TONGASS NARROWS
DATUM: M.L.L.W. = 0.0'
ADJACENT PROPERTY OWNERS:
UPLANDS: CITY OF KETCHIKAN
OFFSHORE: STATE OF ALASKA

SECTIONS

SCALE: N.T.S.

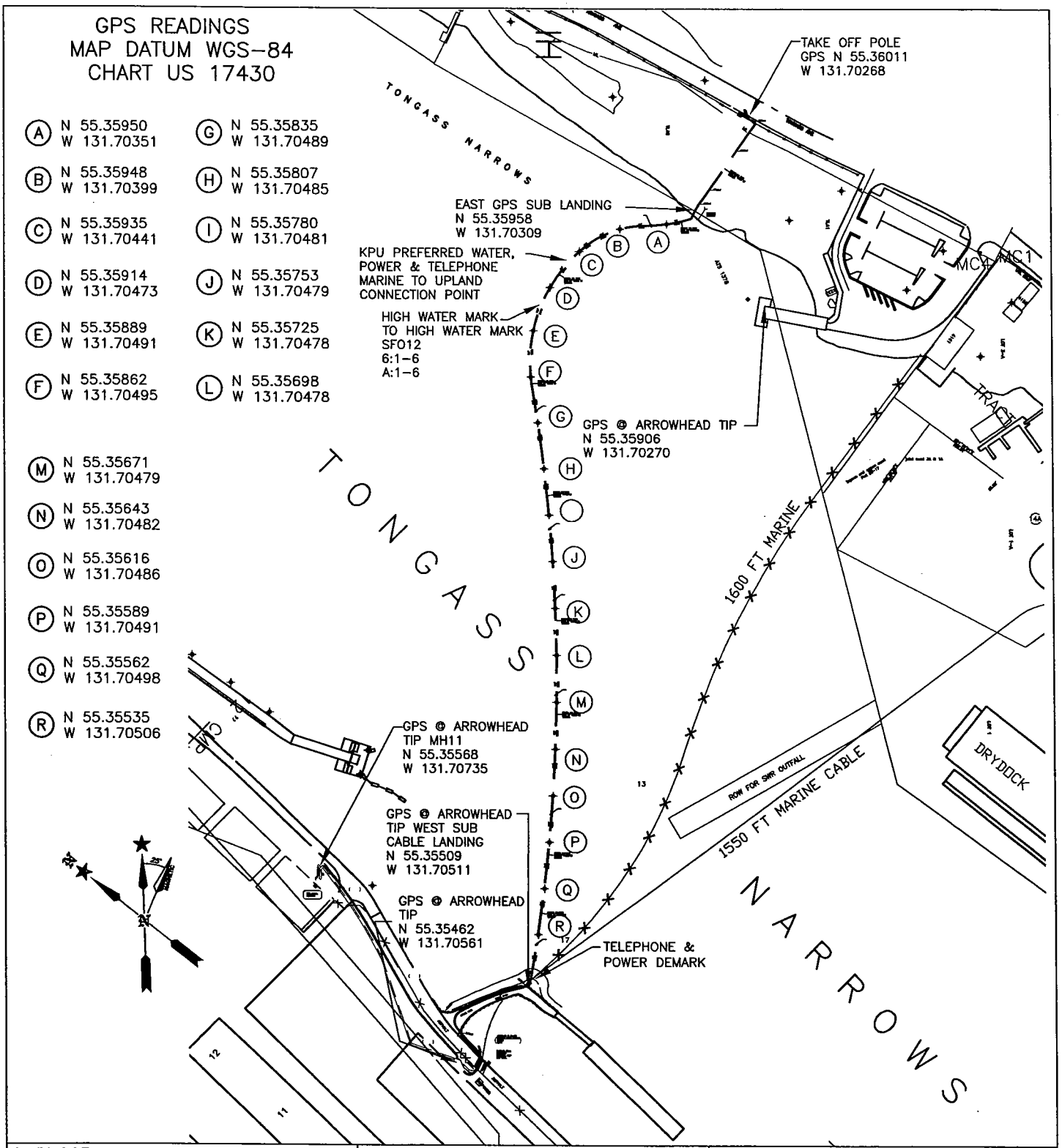
ALASKA INDUSTRIAL DEVELOPMENTAL EXPORT AUTHORITY
813 W. NORTHERN LIGHTS BLVD.
ANCHORAGE, ALASKA

KETCHIKAN SHIPYARD AND DRYDOCK
IN: TONGASS NARROWS
AT: KETCHIKAN, ALASKA

APPLICATION BY:
ALASKA INDUSTRIAL DEVELOPMENTAL EXPORT AUTHORITY
813 W. NORTHERN LIGHTS BLVD.
ANCHORAGE, ALASKA
SHEET: 8 OF 9 DATE: 12/05/03

DWG. FILE: 2158C0E_P8.dwg PLOT SCALE: 1:1 JOB NO.: 02158.000 REV.: 12/19/03

Q-1981-0442, Tongass Narrows 384



PURPOSE:
CONSTRUCT 2500-TON SHIP LIFT

PERMIT: Q-1981-0442
TONGASS NARROWS
DATUM: M.L.L.W. = 0.0'
ADJACENT PROPERTY OWNERS:
UPLANDS: CITY OF KETCHIKAN
OFFSHORE: STATE OF ALASKA

CABLE RELOCATION

400 0 400

SCALE: 1"=300'

ALASKA INDUSTRIAL DEVELOPMENTAL EXPORT AUTHORITY
813 W. NORTHERN LIGHTS BLVD.
ANCHORAGE, ALASKA

KETCHIKAN SHIPYARD AND DRYDOCK
IN: TONGASS NARROWS
AT: KETCHIKAN, ALASKA

APPLICATION BY:
ALASKA INDUSTRIAL DEVELOPMENTAL EXPORT AUTHORITY
813 W. NORTHERN LIGHTS BLVD.
ANCHORAGE, ALASKA
SHEET: 9 OF 9 DATE: 12/5/03

DWG. FILE: 2158C0E_P9.dwg PLOT SCALE: 1:1 JOB NO.: 02158.000 REV.: 12/19/03

Q-1981-0442 Tongass Narrows 384