Appendix H
Construction Reference Documents

Contents of Appendix H

Item No.	Date and Type	Title	Prepared By
H1	8/10/2007 to 8/15/2011 404 Permits	Conformed 404-10 Permit	USACE
H2	12/10/2010 Inspection Report	PIEP North Extension/ Wet Barge Berth Sheet Pile Inspections	ICRC
H3	2/26/2008 to 7/16/2008	Synopsis No. DTMA1R08002 and Contract DTMA1D08012	MARAD
H4	2/5/2008	Addendum 8, Invitation to Bid #4414-1-S100, 2008 Marine Terminal Development	ICRC
H5	8/24/2005 404 and 403 Permits	POA-2003-502-2 404 and 403 Authorization	USACE
H6	7/01/2010 As-built plan	North Extension Bulkhead Project Open Cell Layout As-built Plan	PND
H7	2009 Inspection Reports	Sampling of Cell By Cell Inspection reports	ICRC, PND, DOWL
H8	10/14/2008	RFI #51 – Driving Conditions	MKB
H9	6/1/2009	QAP Letter 087 Seaward Wall Movement	QAP
H10	6/14/2009	RFI #97 – Vibracompaction Refusal	MKB
H11	6/19/2009	QAP Letter 094 Request for Suspension of Work	QAP
H12	6/21/2009 Letter	ICRC Letter 047 Non conformance of OCSP® Installation	ICRC
H13	7/14/2009	QAP Letter 101 Response to ICRC #46	QAP
H14	8/5/2009	QAP Letter re: RFI 97 and 110	QAP
H15	6/26/2009	QAP Letter 120, Notice of Intent to Claim	QAP
H16	12/9/2008 Plan drawing	North Extension Cross Section Conformed Drawings	PND
H17	1/11/2011 Draft Report	Port of Anchorage Expansion Project Draft Report on Sheet Pile Driving Problems for MKB Constructors	Lachel & Associates
H18	10/4/2011 Table	Summary Report by ICRC Citing 34% Damaged Piles	ICRC
H19	2/21/2008 Table	Side-by-Side Comparison of QAP, AIC, and Kiewit Bids	Not stated
H20	3/27/2009 E-mail	No Take Ruling	Wayne Leong, MARAD
H21	4/9/2009 E-mail	Diana Carlson, ICRC, 19-Point Letter	Diana Carlson, ICRC
H22	4/11/2011 Final rule	Final Rules IHA April 2009 Federal Regulation, 50 CFR Part 226 [Docket No. 090224232-0457-04] RIN 0648-AX50 Endangered and Threatened Species: Designation of	National Marine Fisheries Service, National Oceanic and Atmospheric Administration, Commerce

Item H1:

Conformed 404-10 Permit

This notice of authorization must be conspicuously displayed at the site of work.

United States Army Corps of Engineers
SHIP CREEK

A permit to: DISCHARGE DREDGED AND FILL MATERIAL IN WATERS OF THE U.S., INCLUDING WETLANDS, NECESSARY FOR THE EXPANSION OF THE PORT OF ANCHORAGE

at: WITHIN KNIK ARM AT AND ADJACENT TO THE PORT OF ANCHORAGE AND WITHIN WETLANDS LOCATED NORTHEAST OF THE PORT ON ELMENDORF AIR FORCE BASE, ALASKA

has been issued to: THE PORT OF ANCHORAGE **on:** AUG 1 0 2007

Address of Permittee: 2000 ANCHORAGE PORT ROAD, ANCHORAGE, ALASKA 99501

Permit Number:

POA-2003-502-N

Kevin J. Wilson
Colonel, Corps of Engineers
District Commander

ENG FORM 4336, Jul 81 (33 CFR 320-330) EDITION OF JUL 70 MAY BE USED

(Proponent: CECW-O)

DEPARTMENT OF THE ARMY PERMIT

Permittee: Port of Anchorage

Permit No.: POA-2003-502-N

Issuing Office: U.S. Army Engineer District, Alaska

NOTE: The term "you" and its derivatives, as used in this permit, means the permittee or any future transferee. The term "this office" refers to the appropriate district or division office of the Corps of Engineers having jurisdiction over the permitted activity or the appropriate official of that office acting under the authority of the commanding officer.

You are authorized to perform work in accordance with the terms and conditions specified below.

Project Description:

This permit authorizes work necessary for the construction of the Marine Terminal Redevelopment (Port Expansion) Project to expand, reorganize and improve the existing facilities at the Port of Anchorage to replace functionally obsolete structures; increase POA capacity, efficiency, and security; and accommodate the needs of the U.S. military for rapid deployment. The project involves the construction of a new open cell sheet pile (OCSP) dock in the tidelands west, northwest, and southwest of the existing dock. This permit authorizes the following work:

1. The discharge of fill material over 20.5 acres of wetlands associated with the development of the Cherry Hill and North End Runway borrow pits;

2. The dredging of approximately 258,000 cubic yards of sediment over approximately 21 acres necessary for the construction of the expanded dock and the discharge of the material at the existing Port of Anchorage maintenance dredging disposal site;

3. The discharge of approximately 9,663,420 cubic yards of clean fill material over 111 acres of intertidal and nearshore subtidal waters of Knik Arm necessary for the construction of the expanded dock.

All work will be performed in accordance with the attached plan, 9 sheets, dated July 2007.

Project Location:
The Port of Anchorage is located in the Knik Arm of Upper Cook Inlet, within section 31, T. 14 N., R. 3 W.; and sections 6 & 7, T. 13 N., R. 3 W; Seward Meridian; Latitude 61° 15' N., Longitude 149° 52' W.; in Anchorage, Alaska. The gravel extraction sites are located within sections 5 & 6, T. 13 N., R. 3 W.; and within sections 27, 28, 33, and 34, T. 14 N., R. 3 W.; Seward Meridian; on Elmendorf Air Force Base, northeast of the Port of Anchorage. Construction dredge material will be disposed at the designated maintenance dredging disposal area, located approximately 3,000 feet west of the existing dock.

Permit Conditions:

General Conditions:

1. The time limit for completing the work authorized ends on **August 31, 2014**. If you find that you need more time to complete the authorized activity, submit your request for a time extension to this office for consideration at least one month before the above date is reached.

2. You must maintain the activity authorized by this permit in conformance with the terms and conditions of this permit. You are not relieved of this requirement if you abandon the permitted activity, although you may make a good faith transfer to a third party in compliance with General Condition 4 below. Should you wish to cease to maintain the authorized activity or should you desire to abandon it without a good

faith transfer, you must obtain a modification of this permit from this office, which may require restoration of the area.

3. If you discover any previously unknown historic or archeological remains while accomplishing the activity authorized by this permit, you must immediately notify this office of what you have found. We will initiate the Federal and State coordination required to determine if the remains warrant a recovery effort or if the site is eligible for listing in the National Register of Historic Places.

4. If you sell the property associated with this permit, you must obtain the signature of the new owner in the space provided and forward a copy of the permit to this office to validate the transfer of this authorization.

5. If a conditioned water quality certification has been issued for your project, you must comply with the conditions specified in the certification as special conditions to this permit. For your convenience, a copy of the certification is attached if it contains such conditions.

6. You must allow representatives from this office to inspect the authorized activity at any time deemed necessary to ensure that it is being or has been accomplished in accordance with the terms and conditions of your permit.

Special Conditions:

I. Navigation:
The following conditions are to preserve free navigation, prevent navigational hazards, and to protect the interests of the United States in existing and future federal projects [(33 CFR Part 320.4(o)(3)].

1. Your use of the permitted activity must not interfere with the public's right to free navigation on all navigable waters of the United States.

2. You must install and maintain, at your expense, any safety lights and signals prescribed by the United States Coast Guard (USCG), through regulations or otherwise, on your authorized facilities. The USCG may be reached at the following address and telephone number: Commander (DPW), 17th Coast Guard District, P.O. Box 25517, Juneau, Alaska 99802; (907) 463-2269.

3. The permittee understands and agrees that, if future operations by the United States require the removal, relocation, or other alteration, of the structure or work herein authorized, or if, in the opinion of the Secretary of the Army or his authorized representative, said structure or work shall cause unreasonable obstruction to the free navigation of the navigable waters, the permittee will be required, upon due notice from the Corps of Engineers, to remove, relocate, or alter the structural work or obstructions caused thereby, without expense to the United States. No claim shall be made against the United States on account of any such removal or alteration.

4. Appropriate and practicable mitigation measures shall be employed as needed to minimize adverse affects to federal dredging operations, adjacent properties, and/or flow patterns of waters of the U.S. from temporary changes in sedimentation patterns during the construction phases of the project. The Port of Anchorage shall cooperate with adjacent industrial businesses (e.g., barge terminals) to ensure that all appropriate and practicable mitigation measures are implemented during construction to both minimize and compensate for adverse affects to their operations.

II. Cultural Resources
The following two conditions are to ensure compliance with Section 106 of the National Historic Preservation Act and at the request of the applicant.

1. Procedures for managing inadvertent discoveries of cultural resources or skeletal remains shall be employed as described in the Cultural Resources Monitoring Plan for Cherry Hill and North End Material Extraction report (Anchorage Port Expansion Team, April 2006, or approved revisions).

2. Prior to ground disturbing activities, POA shall photograph and document site conditions of and around the trees of interest identified by representatives of the Native Village of Eklutna (Anchorage

Port Expansion Team, Cultural Resources Survey: Port of Anchorage Haul Road, Appendix D; October, 2006.).

III. Borrow Pits:

The following condition is to prevent and minimize impacts to nesting migratory birds. Under the Migratory Bird Treaty Act (MBTA) (16 U.S.C. 703), it is illegal to "take" migratory birds, their eggs, feathers or nests.

1. To prevent impacts to nesting migratory birds, no vegetation clearing, fill placement, excavation, stockpiling, grading or other disturbing construction activities at the material extraction sites shall be conducted between 1 May and 15 July, except at sites that have been sufficiently disturbed or altered to the extent that suitable nesting habitat has been eliminated (e.g., covered or otherwise removed) prior to 1 May. If disturbing construction activities in areas containing potential nesting habitat are proposed after 1 May, the Port of Anchorage shall submit a plan to the Corps that demonstrates how compliance with the MBTA will be ensured. This plan must be coordinated with the USFWS and approved by the Corps prior to commencement of work that would potentially affect nesting habitat between 1 May and 15 July.

The following two conditions are necessary to prevent and minimize impacts to wetlands and aquatic organisms

2. The POA will establish a buffer between ground disturbing activities at the gravel extraction sites and adjacent wetland areas as necessary to prevent hydrological disturbances from development activities. Additionally, a buffer area shall be established around the Triangle/Fish Lake wetland complex and delineated onsite with silt fencing and signage and verified as adequate by the Corps prior to commencing extraction activities within 600 feet of the wetland complex. The extent and/or distance of the buffer boundaries shall be determined onsite based on vegetation, topography and hydrology as necessary to prevent an adverse disturbance to the wetland complex. The POA shall install and monitor a series of groundwater wells or piezometers in the western portion of the North End Borrow Pit to assure that gravel mining activities do not adversely affect adjacent wetland hydrology.

3. POA shall, to the extent practicable, limit disturbances to wetlands and open water areas where wood frogs are present to periods of time other than those known for breeding and tadpole growth (1 April to 15 July).

IV. Beluga Whales:

The following conditions are to prevent and minimize adverse impacts to marine mammals and to ensure compliance with the Marine Mammal Protection Act.

1. The POA has submitted petitions for an Incidental Harassment Authorization (IHA) for the 2007 construction season and a Letter of Authorization (LOA) for construction seasons 2008-2012 (Anchorage Port Expansion Team, Final Petition; January 2007) for Small Take Authorizations from the NOAA/NMFS under the Marine Mammal Protection Act (MMPA) for the incidental and unintentional taking of marine mammals. The conditions of the IHA and LOA Small Take Authorizations under the MMPA will be carried as special conditions of this DA permit unless otherwise noted by the Corps. The POA shall comply with the interim mitigation measures listed below to minimize project related adverse impacts to beluga whales. Upon receipt of the IHA and/or LOA MMPA authorizations, the Corps will reevaluate the terms or conditions of this permit and modify any conflicting conditions, if necessary.

   A. The POA shall measure and evaluate construction and operationally generated noise introduced in Knik Arm at the Port of Anchorage. The applicant shall develop a 'Sound Index' to accurately represent noise levels associated with Port of Anchorage operations and construction activities, which must specifically include noise levels generated from pile driving, dockside activities, vessel traffic in the channel, dredging, and docking activities. The evaluation shall characterize current baseline operational noise levels at the Port of Anchorage and develop an engineering report that identifies structural and/operational noise reduction measures, if necessary, to minimize the baseline operational noise levels at the expanded port to the maximum extent practicable. The final report will be provided to the NMFS two years prior to construction completion.

The Port of Anchorage Sound Index will be collaborated with the concurrent beluga whale monitoring program to correlate construction and operationally generated noise exposures with beluga whale presence, absence, and any altered behavior observed during construction and operations (i.e., a dose-response analysis). An annual review of beluga observations and noise exposure data shall be provided to NMFS no later than 1 Feb annually. The annual review shall also identify relevant technological advances in sound attenuation. The POA shall employ practicable noise minimization measures identified in the annual reports in subsequent POA construction activities.

B. In collaboration with the NMFS, the Port of Anchorage shall continue to develop and maintain a beluga monitoring program to estimate the frequency at which beluga whales are present in the project footprint; characterize habitat use and behavior of belugas near the Port during ice free months; map sound levels and distance attenuation related to POA background noise and expansion activity; and to characterize and assess the impacts of received noise from the POA on beluga whale behavior and movements. POA shall consult with NMFS to develop the program and shall include the following:

   a. Include visual observations (shore-based and opportunistic vessel observations) to monitor beluga movements, timing, group size, locations, identifiable behaviors and patterns, and use of the area in the vicinity of the Project during operations through the construction period. The POA will also provide one year of post-construction monitoring in continued consultation with NOAA/NMFS.

   b. Include a passive acoustic monitoring plan to correlate with visual observations. The POA shall install hydrophones (or employ other effective methodologies) necessary to detect and localize passing whales and to determine the proportion of belugas missed from visual surveys.

   c. The POA will employ a marine mammal observation team, separate from the construction contractor observer activities, for the duration of all construction activities.

C. The Port of Anchorage shall establish and enforce safety radii and shut down standards around the in-water pile driving areas. Initially, the safety radii requiring shut down shall be for any whale observed within 650 meters of pile driving. The Port of Anchorage shall conduct on-site underwater noise surveys to verify the 190, 180 and 160 dB re 1 µPa rms isopleths from in-water pile driving activities for the POA expansion. Safety zones appropriate to the POA site conditions and equipment will then be empirically determined and implemented. The 160 dB re 1 µPa rms safety zone should be in force unless the POA obtains authorization under the section 101 (a) of the Marine Mammal Protection Act for the incidental and unintentional taking of marine mammals; in which case the safety zones should be those provided within the authorization. The safety zone around pile driving areas shall be monitored for the presence of marine mammals before, during, and after any pile driving activity. If the safety radius is obscured by fog or poor lighting conditions, pile driving will cease until the entire safety radius is visible.

D. Prior to the start of seasonal pile driving activities, the POA will require construction supervisors and crews, the marine-mammal monitoring team, the acoustical monitoring team, and all project managers to attend a briefing. The purpose of the briefing will be to establish the responsibilities of each party, define the chains of command, discuss communication procedures, provide an overview of monitoring purposes, and review operational procedures.

E. The Port of Anchorage shall formally notify the NMFS prior to the seasonal commencement of pile driving and provide weekly monitoring reports. A summary monitoring report will be submitted at the end of annual construction activities and a final report will be submitted at the end of the one year post construction monitoring season.

F. The POA will establish daily "soft start" or "ramp up" procedures for pile-driving activities. The soft start technique will be used at the beginning of each piling installation to allow any marine mammal that may be in the area to leave before pile driving activities reach full energy. The soft start procedure will require contractors to initiate noise from vibratory hammers for 15 seconds at

reduced energy followed by a 1-minute waiting period. This procedure will be repeated two additional times. If an impact hammer is used, contractors will be required to provide an initial start of 3 strikes at 40-percent energy, followed by a 1-minute waiting period, then two subsequent 3-strike sets. If marine mammals are sighted within the safety zone prior to pile driving or during the soft start, the contractor will delay pile-driving continuation until the mammal has moved outside the safety zone. Pile installation will resume only after a qualified observer confirms that the marine mammal has moved outside the safety zone or after 15 minutes have elapsed since the marine mammal was last sighted.

G. The POA will erect whale-notification signage in the waterfront viewing areas near the Ship Creek Public Boat Launch and within the secured Port entrance that is visible to all Port users. This signage will provide information on the beluga whale and notification procedures for reporting beluga whale sightings to the NMFS. The POA will consult with the NMFS to establish the signage criteria.

H. During in-water construction activities, the POA shall ensure that construction contractors delegate supervisory responsibility to include on-site construction personnel to observe, record, and report marine mammal sightings and response actions taken, to include shut down or delay.

I. The POA shall establish a long-term, formalized marine-mammal sighting and notification procedure for all Port users, visitors, tenants, or contractors prior to and after construction activities. The notification procedure shall clearly identify roles and responsibilities for reporting all marine mammal sightings. The POA will forward documentation of all reported marine mammal sightings to the NMFS.

2. In-water impact pile-driving, excluding work when the entire pile is out of the water due to shoreline elevation or tidal stage, shall not occur within two hours of either side of each low tide.

V. Fish

The following conditions are necessary to minimize impacts to anadromous fish populations.

1. The Port of Anchorage shall either avoid pile driving activities between 15 May and 15 August or conduct an on-site fish study to analyze the impacts of vibratory and impact hammer sheet pile driving activities on salmonids at various distances and measured sound pressure levels. The study plan shall be developed in consultation with local representatives of the U.S. Fish and Wildlife Service, the National Marine Fisheries Service, the Environmental Protection Agency, and approved by the Corps. The study plan should include a live cage fish study and hydroacoustic monitoring to assess the impacts of pile driving on the health and behavior of fish groups and individuals. The study plan shall be completed by 1 January 2008 and initiated in the 2008 construction season. The results shall be analyzed following the completion of the 2008 construction season and coordinated with the Corps and the aforementioned resource agencies. Based on the results of the study, this condition may be modified and/or supplemented to minimize adverse impacts to salmonids (including timing restrictions).

2. No in water fill placement or pile driving activities shall occur within a one week period following smolt releases from the Ship Creek Hatchery. The Port shall coordinate with hatchery staff to ensure compliance with this condition.

3. In-water sheet piles shall be driven with a vibratory hammer to the maximum extent possible (i.e., until desired depth is achieved and/or to refusal, prior to using an impact hammer).

4. The final design shall, wherever possible, incorporate end-of-phase construction joints that provide potential refuge habitat areas for salmonids in the non-structural voids. Although the spacing, size, and configuration of these structural joints will be dictated by stability and construction requirements, void spaces within these joints shall be developed to maximize the potential salmonid refuge value of the space. The design of the refuge area within the void space shall be approved by the Corps, in consultation with other federal resource agencies. The refuge area shall be monitored by the Port of Anchorage between 15 May and 15 August for a minimum of 2 years following construction to determine the extent and nature of use by salmonids. Based on the monitoring observations, this condition may be modified to improve the functional value of refuge areas if necessary.

VI. Design Coordination:

The following three conditions are to prevent and minimize adverse impacts to public safety and security and to protect the interests of the United States in existing and future federal projects:

1. A final analysis of the global and internal structural stability of the open cell sheet pile structure under static and seismic conditions shall be submitted to the Corps of Engineers a minimum of two months prior to sheetpile installation activities of 2008. The analysis shall state the assumptions made, data used, computational analyses performed, modeling input criteria used and output results generated (where modeling is applicable) that led to the final analysis. Additionally, to the maximum extent practicable, the final analysis shall, at minimum, include the following:

   a. Test the borrow source(s) to confirm the stability model input and determine the densification requirements. Provide your Quality Assurance Plan and the acceptance criteria for validating the densification of the backfill.

   b. For each soil profile, run static stability models with six feet of over dredge below the design project depth and at a water elevation of -5 ft. MLLW.

   c. Submit a plan that describes the proposed piezometer placements and all other instrumentation to be used to confirm how consolidation (and associated strength gain) is expected to occur, and to what degree. Additionally, the POA will submit annual reports of actual findings.

   d. Conduct a parametric sensitivity analysis, investigating strength, modulus, and geometry, with the model for seismic loading to determine if the model is sensitive to small changes in input parameters. The study shall further evaluate possible failure modes, to include toe heave.

   e. Define the target Factor of Safety for internal stability and model each construction phase area. All engineering parameters and design calculations for internal stability evaluation shall be included in the design analysis.

   f. Further evaluate earthquake loading by considering a minimum of five accelograms, with no more than two being synthetic, and refined target design response spectra criteria in the analysis. Specifically, develop design target spectra based on deterministic spectra for MCE scenario earthquakes from the Castle Mountain fault and Megathrust sources using M_{max} and closest distance parameters. Use a suite of ground motion attenuation models that are appropriate for the region and source. Combine this suite of models either by a weighting or enveloping procedure to develop final target spectra and match the selected accelograms to the target spectra. Review the latest information on USGS Alaska seismic hazard maps to assist in the selection of parameters and ground motion attenuation models. The development of the final suite of design ground motions shall be conducted by a professional engineering seismologist experienced with current practice for developing design ground motions for critical facilities.

   g. In light of the large strains predicted during an MCE, include laboratory residual shear strength tests in your analysis to investigate potential material responses.

   h. Develop compatible designs for adjacent cells with different seismic performance objectives.

2. The POA shall submit Open Cell Sheetpile design modifications to the Corps for review.

3. The POA shall submit as-built drawings of the OCSP structures, approved and stamped by the Engineer-of-Record, following completion of construction phases and the overall structure.

VII. Fill Material:

The following conditions are required to minimize adverse impacts of the discharge on special aquatic sites and other waters outside of the project area [33 CFR 320.4 (r), 40 CFR230.5 (j) and 40CFR 230 Subpart H, including parts 230.71, 230.72, 230.73, 230.75]]

1. Fill material shall consist of clean fill, free of unsuitable material (e.g., trash, debris, asphalt, etc.), and free of toxic pollutants.

2. All fill material shall be stabilized as necessary to prevent erosion and encroachment of fill material outside the authorized footprint before, during, and after construction. No fill or construction materials shall be stockpiled on adjacent mudflats outside of the authorized project boundary.

VIII. Compensatory Mitigation:
The following conditions are required to compensate for resource losses important to the human and aquatic environment. (33 CFR 320.4(r) and 40 CFR Parts 230.41 and 230.42)]

1. The Port of Anchorage shall provide funding equivalent to the monetary value of the debits of the authorized project impacts, as determined by the Anchorage Debit Credit Methodology, in accordance to the attached Memorandum of Agreement (MOA) concerning compensatory mitigation for the overall project. Compensatory mitigation funds from the account will be allocated primarily for construction related costs of selected mitigation projects, as specified in the MOA. In addition to the funding requirements, the Port of Anchorage shall provide for the project management actions necessary to obtain any applicable permits and/or authorizations, the preparation of necessary engineered designs, and monitoring of all selected mitigation projects as necessary.

2. In addition to the mitigation requirements specified above, the Port of Anchorage shall conduct a feasibility study to identify the most practicable and beneficial aquatic habitat restoration, enhancement, creation, and preservation projects available in the Lower Ship Creek watershed and estuary. The projects identified in this study will be used by the Corps, under consultation with a mitigation advisory committee (consisting of federal, state, and local resource agencies and other applicable stakeholders, as appropriate) to determine which project(s) shall be implemented and funded as part of the compensatory mitigation requirements of this permit. The content of the final feasibility study plan shall be approved by the Corps to ensure compliance with this requirement.

Special Information:

Any condition incorporated by reference into this permit by General Condition 5, remains a condition of this permit unless expressly modified or deleted, in writing, by the District Engineer or his authorized representative.

Further Information:

1. Congressional Authorities: You have been authorized to undertake the activity described above pursuant to:

(X) Section 10 of the Rivers and Harbors Act of 1899 (33 U.S.C. 403).

(X) Section 404 of the Clean Water Act (33 U.S.C. 1344).

( ) Section 103 of the Marine Protection, Research, and Sanctuaries Act of 1972 (33 U.S.C. 1413).

2. Limits of this authorization.

a. This permit does not obviate the need to obtain other Federal, State, or local authorization required by law.

b. This permit does not grant any property rights or exclusive privileges.

c. This permit does not authorize any injury to the property or rights of others.

d. This permit does not authorize interference with any existing or proposed Federal project.

3. Limits of Federal Liability. In issuing this permit, the Federal Government does not assume any liability for the following:

a. Damages to the permitted project or uses thereof as a result of other permitted or unpermitted activities or from natural causes.

b. Damages to the permitted project or uses thereof as a result of current or future activities undertaken by or on behalf of the United States in the public interest.

c. Damages to persons, property, or to other permitted or unpermitted activities or structures caused by the activity authorized by this permit.

d. Design or construction deficiencies associated with the permitted work.

e. Damage claims associated with any future modification, suspension, or revocation of this permit.

4. Reliance on Applicant's Data: The determination of this office that issuance of this permit is not contrary to the public interest was made in reliance on the information you provided.

5. Reevaluation of Permit Decision. This office may reevaluate its decision on this permit at any time the circumstances warrant. Circumstances that could require a revaluation include, but are not limited to, the following:

a. You fail to comply with the terms and conditions of this permit.

b. The information provided by you in support of your permit application proves to have been false, incomplete, or inaccurate (See 4 above).

c. Significant new information surfaces which this office did not consider in reaching the original public interest decision.

Such a reevaluation may result in a determination that it is appropriate to use the suspension, modification, and revocation procedures contained in 33 CFR 325.7 or enforcement procedures such as those contained in 33 CFR 326.4 and 326.5. The referenced enforcement procedures provide for the issuance of an administrative order requiring you to comply with the terms and conditions of your permit and for the initiation of legal action where appropriate. You will be required to pay for any corrective measures ordered by this office, and if you fail to comply with such directive, this office may in certain situations (such as those specified in 33 CFR 209.170) accomplish the corrective measures by contract or otherwise and bill you for the cost.

6. Extensions. General Condition 1 establishes a time limit for the completion of the activity authorized by this permit. Unless there are circumstances requiring either a prompt completion of the authorized activity or a reevaluation of the public interest decision, the Corps will normally give favorable consideration to a request for an extension of this time limit.

Your signature below, as permittee, indicates that you accept and agree to comply with the terms and conditions of this permit.

William J. Shuffler
(PERMITTEE) AND TITLE

8-10-07
(DATE)

This permit becomes effective when the Federal official, designated to act for the Secretary of the Army, has signed below.

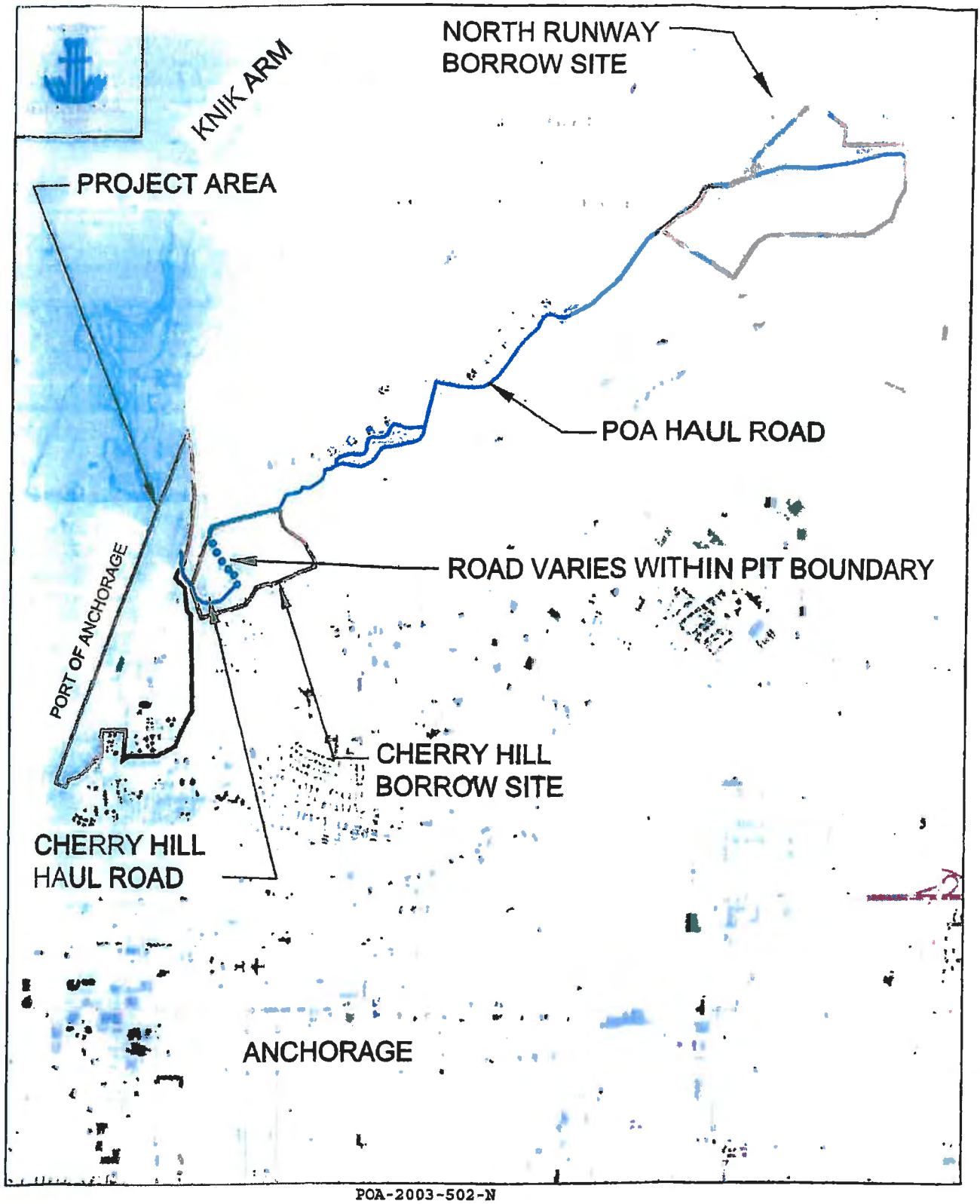
KEVIN J. WILSON
COLONEL, CORPS OF ENGINEERS
DISTRICT COMMANDER

10 Aug 2007
(DATE)

When the structures or work authorized by this permit are still in existence at the time the property is transferred the terms and conditions of this permit will continue to be binding on the new owner(s) of the property. To validate the transfer of this permit and the associated liabilities associated with compliance with its terms and conditions have the transferee sign and date below.

(TRANSFEREE)

(DATE)



POA-2003-502-N

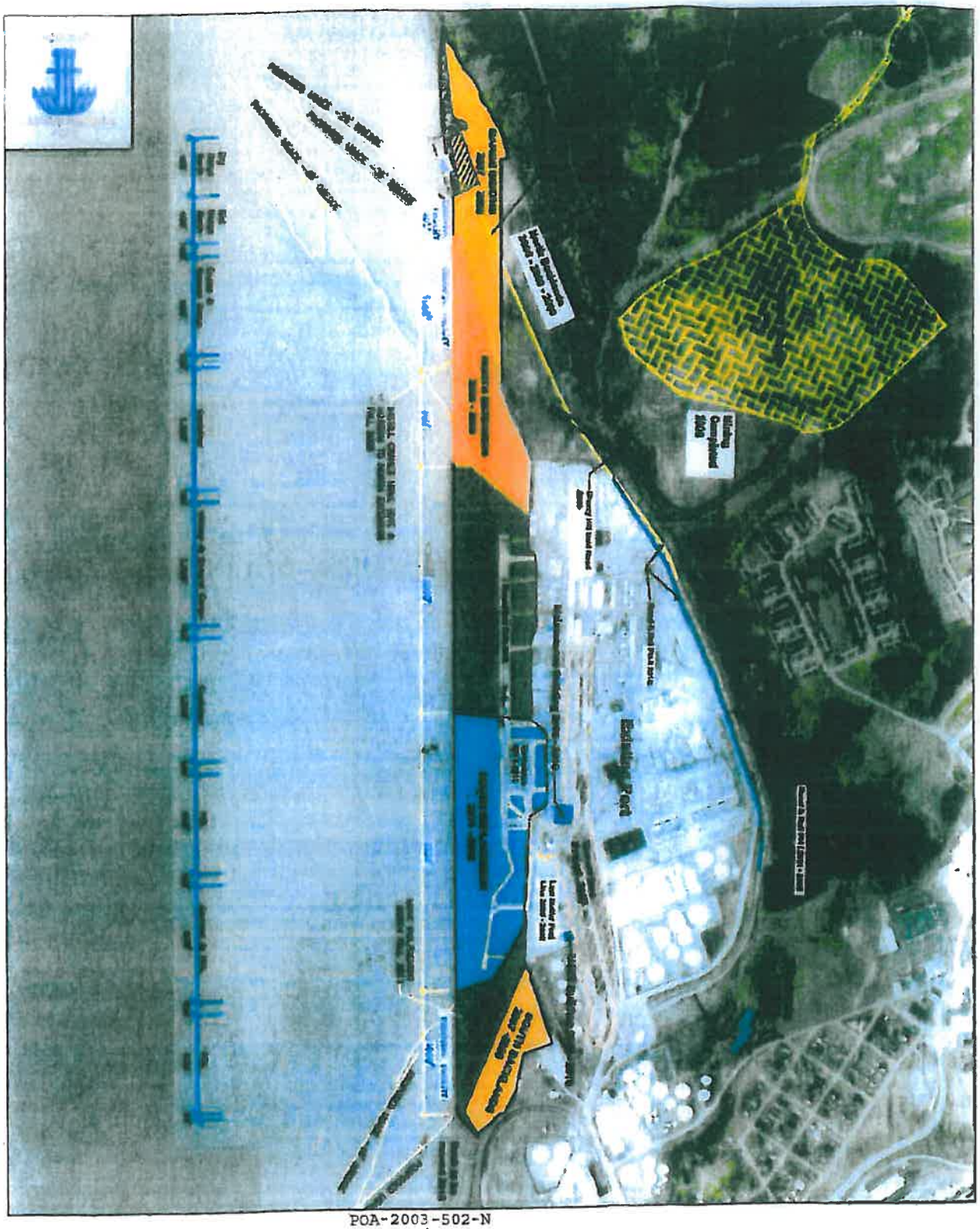
Sheet 1 of 9

July 2007

MARINE TERMINAL REDEVELOPMENT PROJECT
VICINITY MAP

(McMahan and Holmes 1996)
(Anchorage, Alaska , United States 01 Jul 1965)

PHASE II APPLICATION



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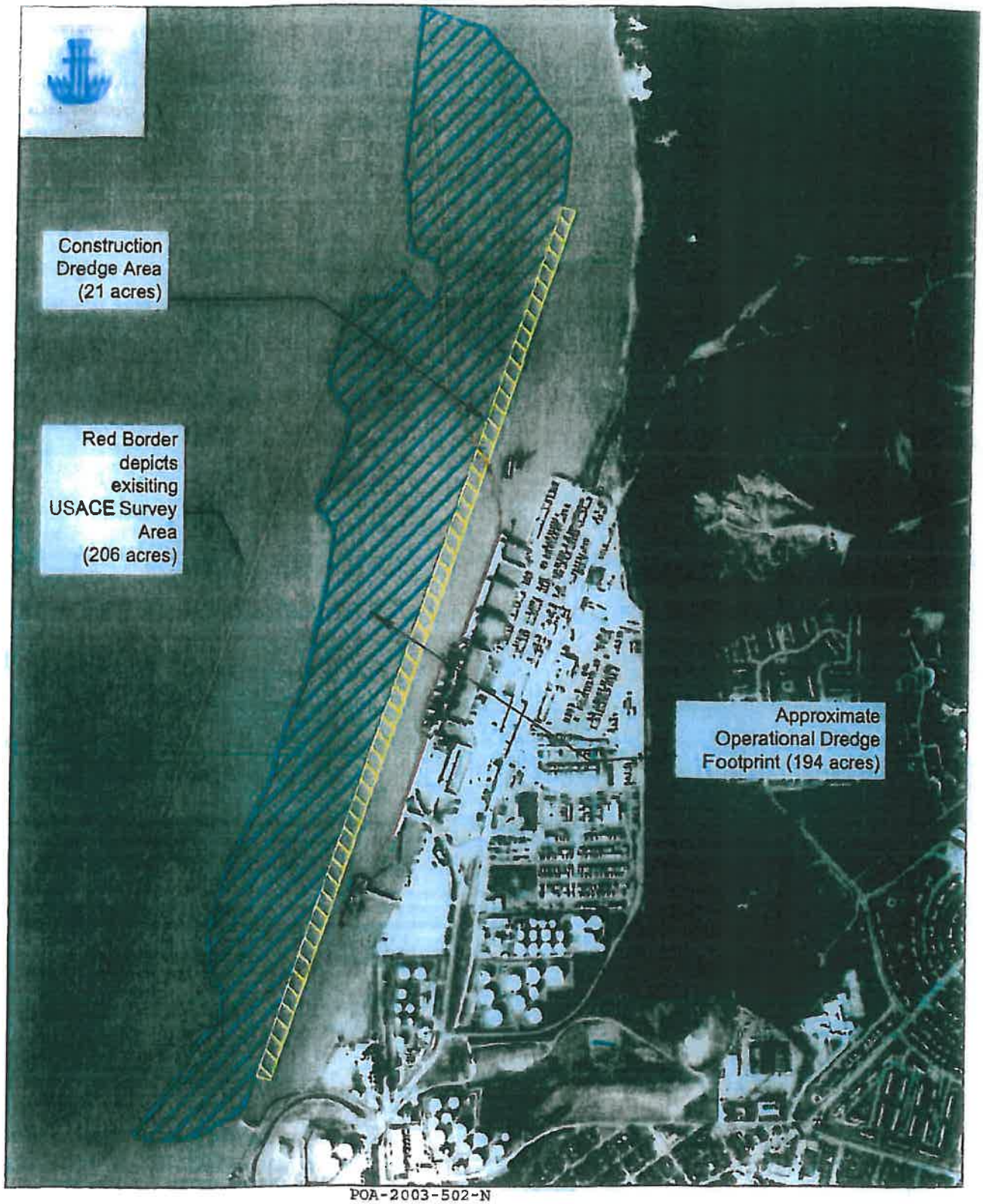
July 2007

Phasing Plan

PHASE II APPLICATION



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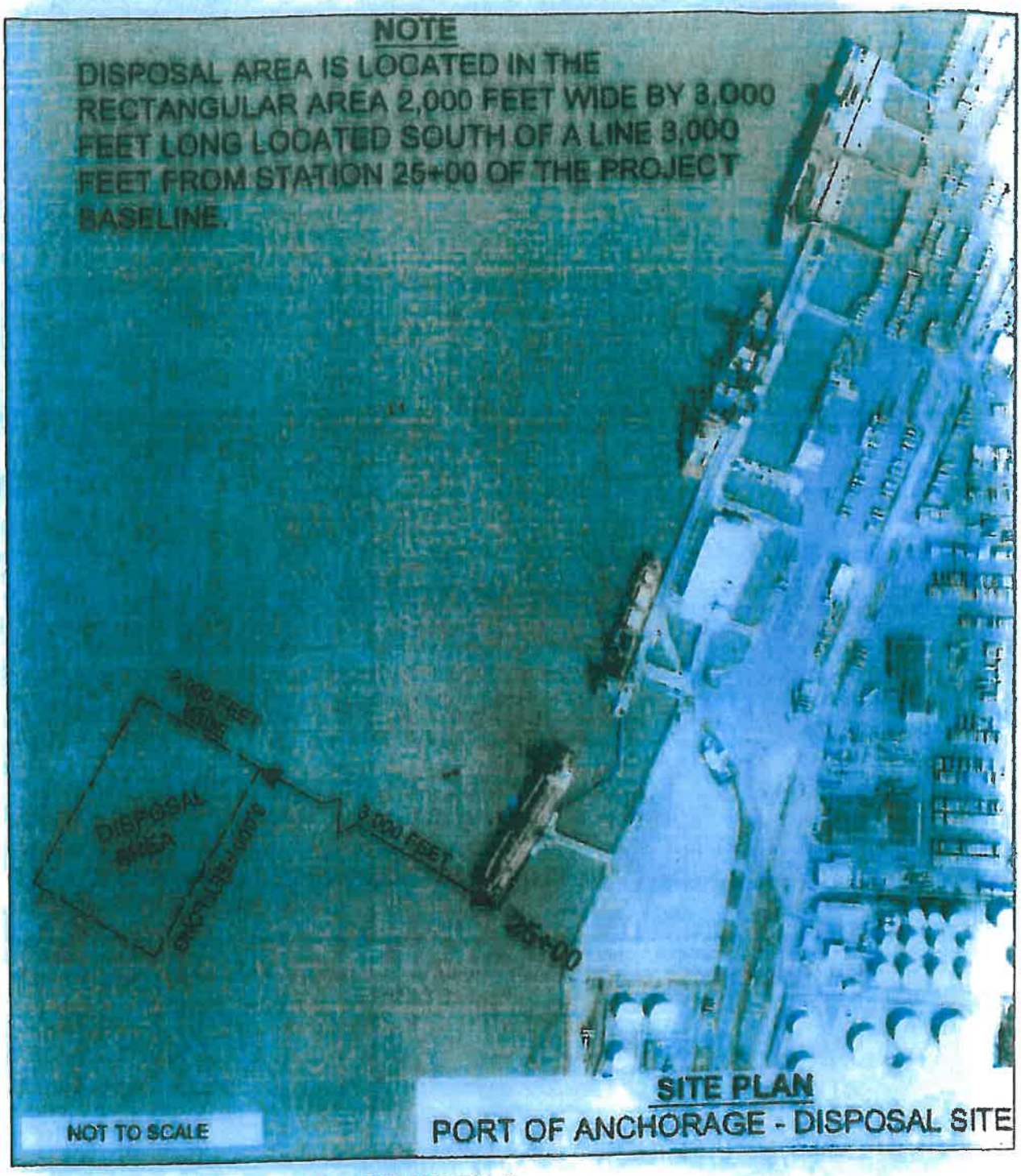
July 2007

USACE and Marine Terminal Redevelopment Project Dredge Areas

PHASE II APPLICATION



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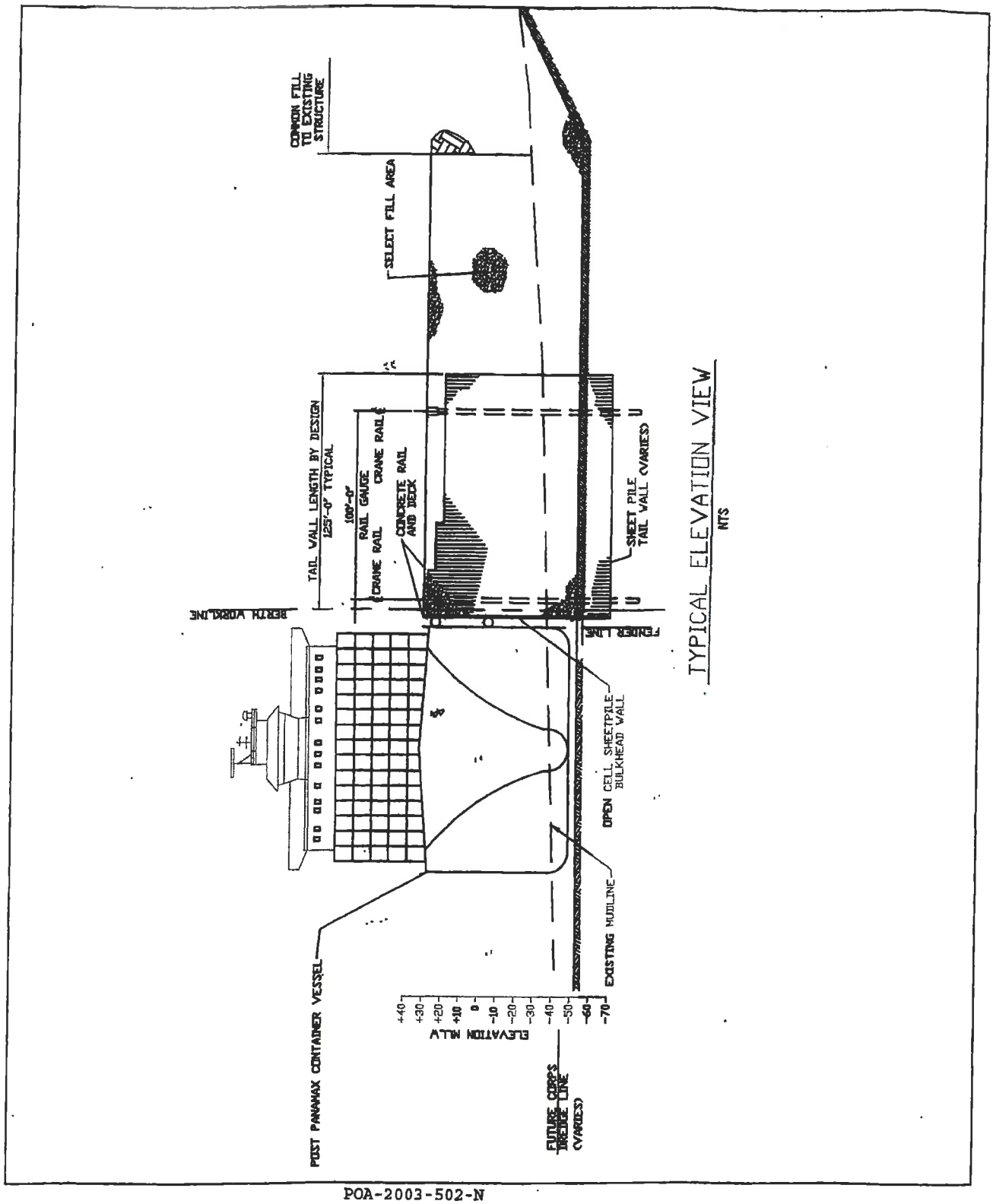
July 2007

Anchorage

NON-CONTAMINATED DREDGED MATERIAL DISPOSAL SITE

N

PHASE II APPLICATION



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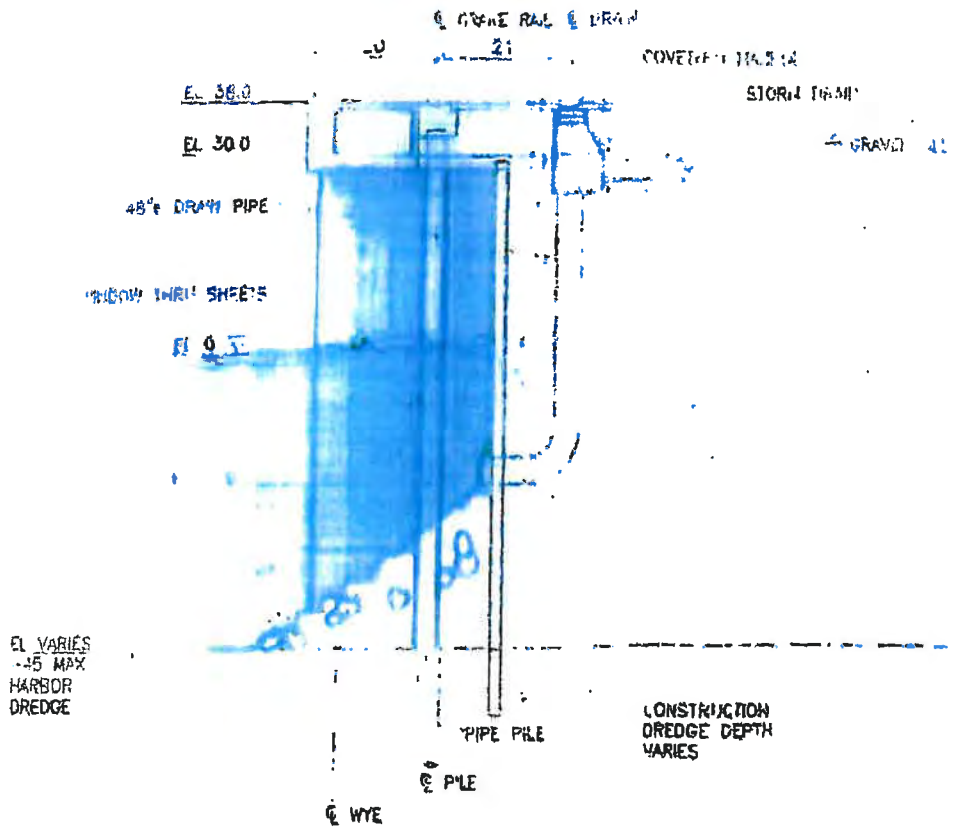
July 2007

Anchorage

Example Cross Section through Dock

PHASE II APPLICATION

Proposed Construction Joint Locations



Typical Section @ Sheet Pile Cell Unit Construction Cell

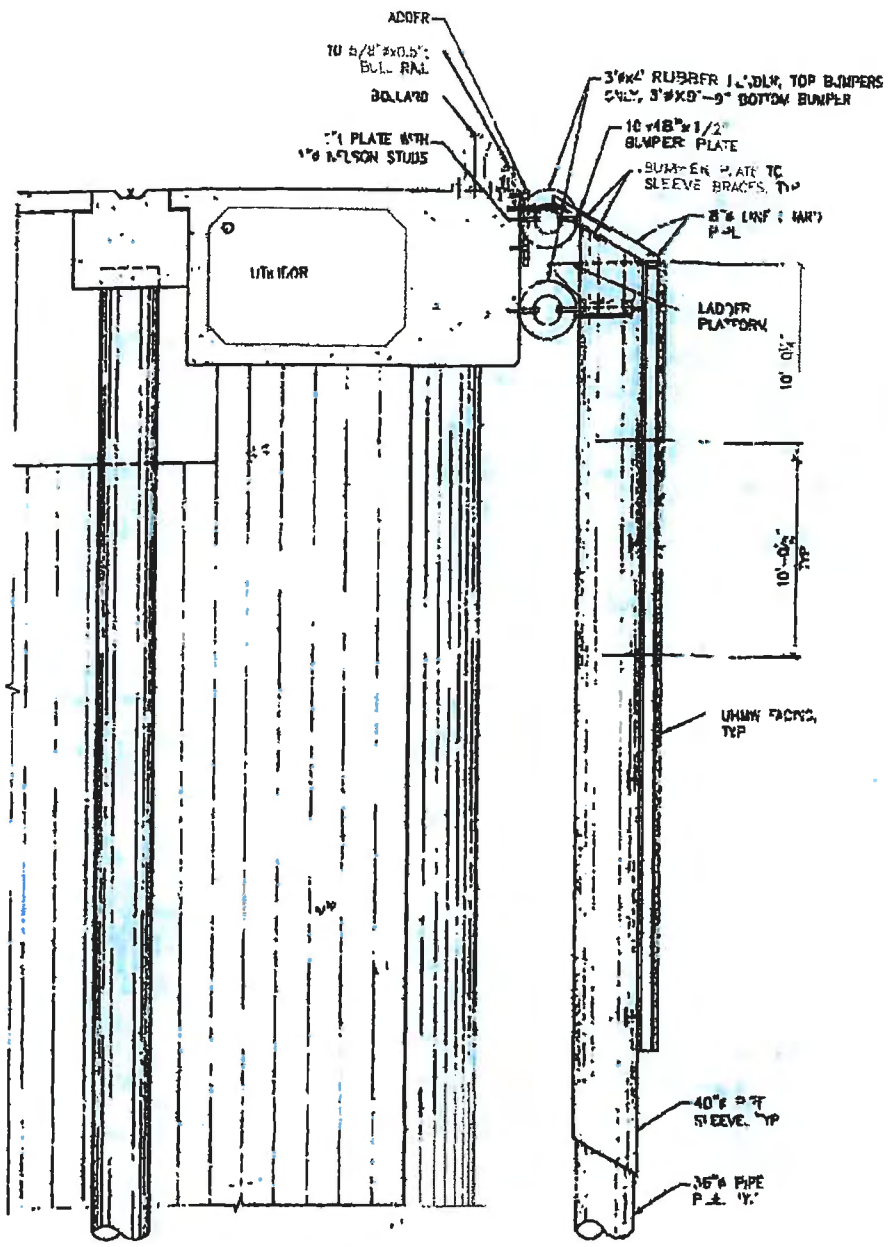
POA-2003-502-N

Sheet 6 of 9

July 2007

Construction Joint Locations

PHASE II APPLICATION



Typical Fendering @ 55' Spacing

POA-2003-502-N

Sheet 7 of 9

July 2007

TYPICAL FENDERING

PHASE II APPLICATION

POA-2003-502-N

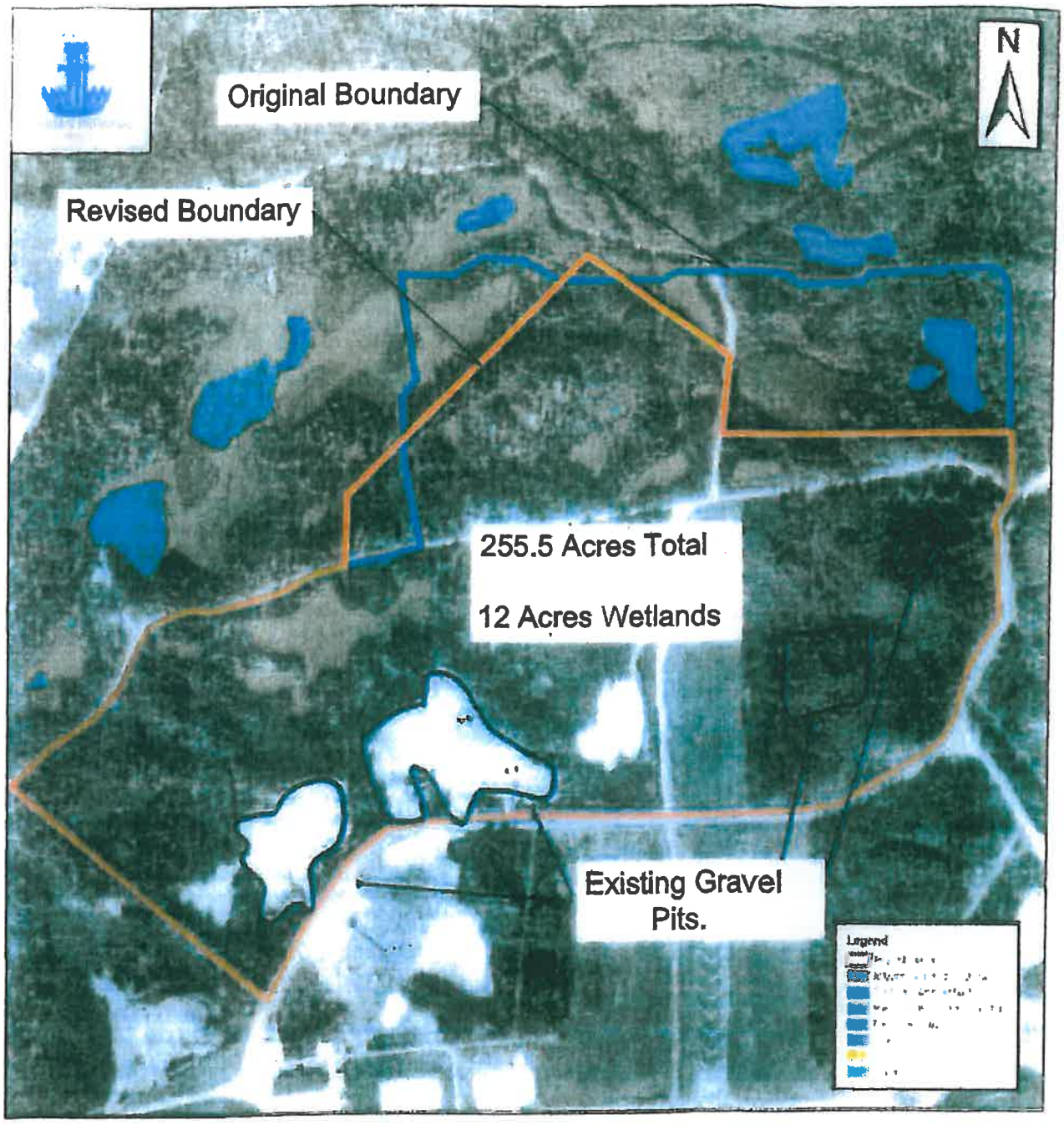
Sheet 8 of 9

July 2007

Cherry Hill
Borrow Site

N

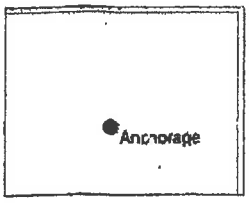
PHASE II APPLICATION



POA-2003-502-N

Sheet 9 of 9

July 2007



North End North / South Runway
Borrow Site

PHASE II APPLICATION

STATE OF ALASKA
DEPARTMENT OF ENVIRONMENTAL CONSERVATION
CERTIFICATE OF REASONABLE ASSURANCE

A Certificate of Reasonable Assurance, in accordance with Section 401 of the Federal Clean Water Act and the Alaska Water Quality Standards, is issued to Port of Anchorage, 2000 Anchorage Port Road, Anchorage, AK 99501 for the proposed Marine Terminal Redevelopment Project. This project involves the construction of a new sheet pile constructed dock in the tidelands west, northwest, and southwest of the existing dock. The overall port expansion project involves a total discharge of fill material over approximately 135 acres of intertidal and subtidal waters of upper Cook Inlet and construction and operational dredging within 235 acres. Phase I (for regulatory purposes) of the project was previously permitted and encompasses 27 acres of the intertidal fill area on the north end of the Port. This certificate covers the following: a discharge of approximately 9.4 million cubic yards of fill material over the remaining 108 acres of intertidal and subtidal fill; the dredging of approximately 633,000 cubic yards of material, over approximately 47 acres, required for the construction of the proposed sheet pile dock; the construction of an 8,800 foot long open cell sheet pile dock; and the roads, which would cumulatively remove approximately 34.5 acres of wetlands.

The Port of Anchorage indicated that any suspect fill material mined from Elmendorf Air Force Base or from commercial sources would be tested for hydrocarbon and metal contaminates. DEC recommends sampling be done in accordance with the Environmental Protection Agency (EPA) methodology and standard operating procedures. Please refer to EPA guidelines for the most current sampling protocols.

The proposed activity is located in Upper Cook Inlet, within Section 31, T. 14 N., R. 3 W., and Sections 6 and 7, T. 13 N., R. 3 W., Seward Meridian, in Anchorage, Alaska.

Public notice of the application for this certification was given as required by 18 AAC 15.180.

Water Quality Certification is required under Section 401 because the proposed activity will be authorized by a Corps of Engineers permit, reference number POA-2003-502-N, and a discharge may result from the proposed activity.

Having reviewed the application and comments received in response to the public notice, the Alaska Department of Environmental Conservation certifies that there is reasonable assurance that the proposed activity, as well as any discharge which may result, will comply with applicable provisions of Section 401 of the Clean Water Act and the Alaska Water Quality Standards, 18 AAC 70, provided

that the following alternative measures are adhered to.

1. Petrochemical and other hazardous substance spill cleanup equipment shall be available on site. Material such as sorbent pads and booms shall be available and used immediately to contain and cleanup oil, fuel, hydraulic fluid, antifreeze or other pollutant spills as a result of construction and in water activities.

2. Reasonable precautions and controls must be used to prevent incidental and accidental discharge of petroleum products. Petroleum storage and handling activities must be sited, constructed and conducted so that there is no contamination of surface runoff by petroleum products.

3. Runoff discharged to surface water from a construction site disturbing 1 or more acres must be covered under EPA's NPDES General Permit for Storm Water Discharges from Large and Small Construction Activities in Alaska (AKR10-0000). This permit requires that a Storm Water Pollution Prevention Plan (SWPPP), describing construction runoff and erosion control, be prepared. For projects that disturb greater than 5 acres, this SWPPP must also be submitted to ADEC (Greg Drzewiecki phone 907-269-7692) prior to construction. Please contact EPA directly concerning the NPDES storm water permit

4. Design plans for the post-construction (permanent) collection and treatment of stormwater runoff must be submitted to and approved by the Alaska Department of Environmental Conservation (Greg Drzewiecki, 907-269-7692) prior to construction (18 Alaska Administrative Code 72.600). The plans must demonstrate that the storm water management system has the ability to remove total suspended solids particles greater than 20 microns in size from storm water runoff during storms equal to or less than the 2-year 6-hour rainfall event.

5. Fill material must be free from petroleum products and toxic contaminants in toxic amounts.

6. If contaminated soils or dredge spoils are encountered or petroleum sheen appears during excavation, dredging or fill activities, all work within the suspected contaminated area shall immediately cease. Linda Nuechterlein, ph. 907-269-7530 at the Department of Environmental Conservation (DEC) Contaminated Sites Section Anchorage Office shall be contacted and approval given before work resumes in that area. DEC Contaminated Sites Program Department approval is necessary to insure contaminated soils are not carried to other locations and appropriate monitoring of the site for contamination movement is not hindered.

7. Along the POA haul road and at any upland site prior to fill placement, a silt fence or similar structure shall be installed on a line parallel to and within 5' of the proposed fill toe of slope within all wetland areas containing standing water that are connected to any natural body of water or where the fill toe is within 25' of such a water body. This structure shall remain in place until the fill has been stabilized or contained in another manner and shall be removed when permanent site stabilization has been achieved.

8. Silt and sediment from the site excavation and fill materials may not enter wetlands or waters outside the necessary working area. Site preparation, excavation, fill placement, and construction activities must be conducted to prevent, minimize and contain the generation of silt and sediment that could be carried off-site by surface runoff. If silt and sediment are evident in standing or flowing water outside the excavation and fill area, the Port of Anchorage, or its contractors, shall apply appropriate control and containment measures. These measures may include fabric fences, straw bales, other effective filters, matting, settling ponds, or avoiding work during heavy precipitation.

9. Natural drainage patterns must be maintained, to the extent practicable, without introducing ponding or drying. Control of drainage must be provided by appropriate ditching, culverts, and other measures. Drainage ways must be vegetated to help control the transport of fine sediments.

10. During fill placement, the applicant shall limit the introduction of silts and organics into Knik Arm. To the extent practicable the creation of a turbidity plume during construction shall be minimized. Techniques to minimize the formation of a plume include, but are not limited to, use of silt curtains, use of fill clean of silts and organics, use of a fill dike to enclose the area to be filled, or construction during low water.

11. Portions of the material site that will not remain in operation after construction shall be re-contoured, stabilized, and revegetated as soon as practicable. During reclamation stockpiled organic material shall be spread over the contoured mine workings to promote natural plant growth. The goal of this condition is to promote the natural succession of vegetation that is representative of the area. Acceptable indicators that this process is occurring would be a reasonable presence, density, and distribution of pioneer species of plants typical to the area. The goal is to achieve a 40% live plant cover of the reclaimed area within two complete growing seasons.

This certification expires five (5) years after the date the certification is signed. If your project is not completed by then and work under Corps of Engineers Permit will continue, you must submit an application for renewal of this certification no later than 30 days before the expiration date (18AAC15.100).

Date July 21, 2006

James Rypkema
Program Manager

DEPARTMENT OF THE ARMY
U.S. ARMY ENGINEER DISTRICT, ALASKA
ANCHORAGE FIELD OFFICE
1600 A STREET
ANCHORAGE, ALASKA 99501

REPLY TO
ATTENTION OF:

AUG 15 2011

Regulatory Division
POA-2003-502-M7

Governor William J. Sheffield
Port Director
Port of Anchorage
2000 Anchorage Port Road
Anchorage, Alaska 99501-1024

Dear Governor Sheffield:

Enclosed is the signed Department of the Army (DA) permit modification, file number POA-2003-502-M7, Cook Inlet. This is the seventh permit modification of the original permit. Also enclosed is a Notice of Authorization that should be posted in a prominent location near the authorized work.

If changes to the plans or location of the work are necessary for any reason, plans must be submitted to us immediately. Federal law requires approval of any changes before construction begins.

Nothing in this letter excuses you from compliance with other Federal, State, or local statutes, ordinances, or regulations.

Also enclosed is a Notification of Administrative Appeals Options and Process and Request for Appeal form regarding this DA Permit Modification (see section labeled "Initial Proffered Permit").

You may contact me via email at Mary.Plumb-Mentjes@usace.army.mil, by mail at the address above, by phone at 753-2789, if you have questions. For additional information about our Regulatory Program, visit our web site at www.poa.usace.army.mil/reg.

Sincerely,

Mary Lee Plumb-Mentjes

Mary Lee Plumb-Mentjes
Project Manager

Enclosures

DEPARTMENT OF THE ARMY
U.S. ARMY ENGINEER DISTRICT, ALASKA
ANCHORAGE FIELD OFFICE
1600 A STREET, SUITE 110
ANCHORAGE, ALASKA 99501

REPLY TO
ATTENTION OF:

AUG 15 2011

Regulatory Division
POA-2003-502-M7

DEPARTMENT OF THE ARMY
PERMIT MODIFICATION

Department of the Army (DA) permit number POA-2003-502, Ship Creek, was issued to the Port of Anchorage (POA) on August 24, 2005, to:

> Discharge approximately 1,075,000 cubic yards of dredged and/or fill material within 27 acres of intertidal area north of existing Port facilities, for the construction of a transit/staging area for Department of Defense cargo deployment.

On November 3, 2005, Special Condition 13 of the permit (POA-2003-502-M1) was modified. Special Condition 13 was modified to read as follows:

> "13. Prior to commencement of work, funds in the amount of $995,998 will be deposited into an escrow account established to fund restoration/enhancement projects for compensatory mitigation of the impacts associated with the development in waters of the U.S. authorized by Department of the Army permit POA-2003-502-2. The escrow account language must be approved by the Corps for any distribution of funds. The Corps with resource agency consultation, will approve mitigation project(s) and subsequently provide written authorization directing the release of specified amounts from the account for specified purposes."

On August 10, 2007, DA permit number POA-2003-502-M2 (formerly known as Mod N), Cook Inlet, was issued to the POA to conduct the work necessary for the construction of the Marine Terminal redevelopment (Port Expansion) Project. Specifically, this modification authorized:

1. The discharge of fill material over 20.5 acres of wetlands associated with the development of the Cherry Hill and North End Runway borrow pits;

2. The dredging of approximately 258,000 cubic yards of sediment over approximately 21 acres necessary for the construction of the expanded dock and the discharge of the material at the existing Port of Anchorage maintenance dredging disposal site; and

3. The discharge of approximately 9,663,420 cubic yards of clean fill material over 111 acres of intertidal and nearshore subtidal waters of Knik Arm necessary for the construction of the expanded dock.

On August 3, 2010, the permit was modified (DA permit number POA-2003-502-M3, Cook Inlet), to remove Special Conditions V-1 and V-2.

On September 17, 2010, DA permit number POA-2003-502-M4, Cook Inlet, was issued to the Port of Anchorage to change condition VIII-1 concerning the compensatory mitigation funds. The modification directed that the balance of the monies in the Municipality of Anchorage Port Mitigation account, be transferred to the Great Land Trust (GLT) by September 30, 2010. The balance of the ILF owed ($2,815,533.78) is be paid to the GLT in two increments of $1,407,766.89, no later than October 15, 2010, and October 15, 2011.

On March 16, 2010, DA permit number, POA-2003-502-M5, Cook Inlet, was issued to the Port of Anchorage; it was an inhouse modification because of the minor nature of its impacts. The permit was modified as follows:

> Under this authorization winter maintenance shall only be done three times at the TOTE berth (T3): in February, March, and April 2011. Each time will involve no more than two days, with equipment operating up to four hours a day. The maximum amount of sediment moved per time will be 200 cubic yards.

On April 7, 2011, a request for comments concerning an additional DA permit modification, POA-2003-502-M6, Cook Inlet, to authorize additional dredging and disposal of more than a million cubic yards was sent to resource agencies and other interested parties. The file was closed on June 17, 2011, until additional engineering information can be provided.

This is the seventh modification, POA-2003-502-M7, of the original permit. The permit is hereby modified to authorize an additional 50,000 cubic yards of dredging and associated disposal necessary to allow safe inspection of sheet piles associated with the Port expansion at the dry and wet barge berths and at the north extension areas. In addition, the Port requests authorization of discharge of 15,000 cy of filter rock and Class IV armor rock to harden the South Backlands (1,500 feet in length, an area of 7,500 square yards) to prevent shoreside erosion.

The new work will be performed in accordance with the enclosed narrative and plans (10 sheets, dated June 29, 2011). The time limit for completing the work authorized ends on August 31, 2014.

All other conditions under which the subject authorization was made remain in full force and effect.

This authorization and the enclosed modified plans should be attached to the original permit. Also enclosed is a Notice of Authorization that should be posted in a prominent location near the authorized work.

BY AUTHORITY OF THE SECRETARY OF THE ARMY:

Mary Lee Plumb-Mentjes

Mary Lee Plumb-Mentjes
Project Manager

NARRATIVE A
REQUEST ADDITIONAL DREDGE & DISPOSAL QUANTITIES
for the Port of Anchorage Intermodal Expansion Project
June 28, 2011

A.1.0 PURPOSE

The purpose of this modification request is for an increase in dredging and disposal quantities to continue the construction activities at the Port of Anchorage Intermodal Expansion Project (PIEP), Marine Terminal Redevelopment (MTR). Since the issuance of the original permit (POA-2003-502-N) on August 10, 2007, the need for construction-related dredging and disposal has increased, in part due to an identified need for bulkhead inspection and possible repair efforts. The currently permitted quantities are not sufficient to complete work at the North End. This is a request for an interim, incremental increase to allow the inspection and repair work to proceed while USACE reviews identified changes in dredge, disposal and fill quantities for the full PIEP necessary to accommodate the current and projected construction/operational needs. Under this request, authorized permit dredge and disposal quantities would increase. Total fill volume may also increase, but sufficient capacity is available in the existing permit quantities. Fill area will not increase as work is occurring in previously filled areas.

Table 1, Permit Base Conditions, shows the status of the existing permit base conditions as of the date of this application.

Table 1 – Permit Base Conditions

Status	Wetland Fill (ac)	Dredging Volume (cy)	Disposal Volume (cy)	Dredge Area (ac)	Fill Volume (cy)	Fill Area (ac)
Permitted	*20.5*	*258,600**	*258,000*	*21*	*9,663,420*	*111*
To Date	8.5	221,662	211,562	5.8	2,332,100	43.9
Remaining Permit Quantity	*12.0*	*36,938*	*46,438*	*15.2*	*7,331,320*	*67.1*

*Modification M5 added 600 cy to the original total.
cy = cubic yards
ac = acres

A.2.0 LOCATION

This modification request encompasses the MTR along the North End of the project site. The North End MTR work site includes activities in Sections 6 of Township 13N, Range 3W, Seward Meridian. The activity will occur inside the project boundary, (140 feet east of the proposed bulkhead control line).

Figure 1, Vicinity Map, shows the vicinity of the Port, and Figure 2, North End Potential Dredging Area, shows the potential areas at which the requested incremental increased dredge quantities may be utilized. Activities that may require permitted quantities are: inspections repairs, and other construction dredging as needed.

Sheet 1 of 10
29 June 2011

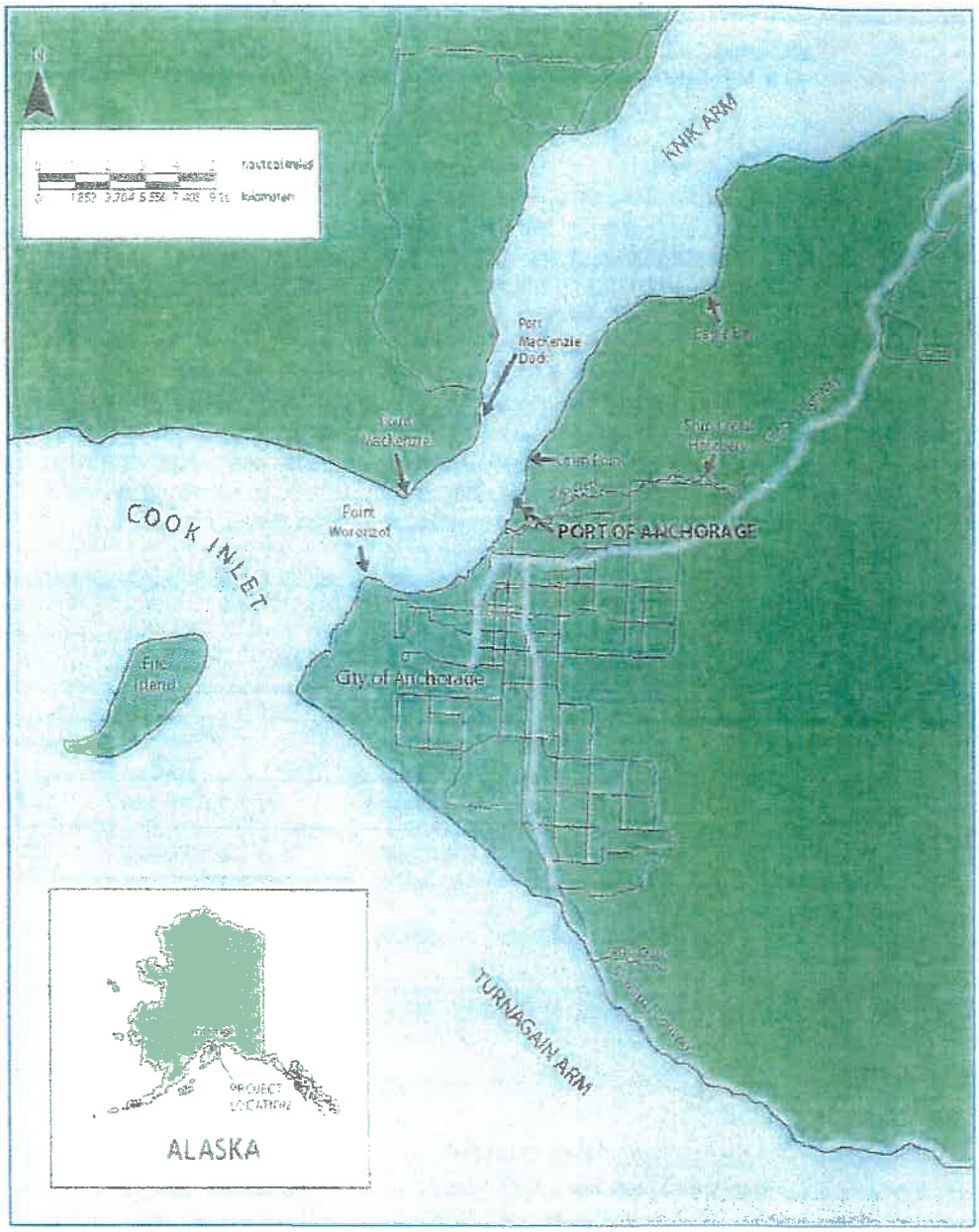


Figure 1 – Vicinity Map

Sheet 2 of 10

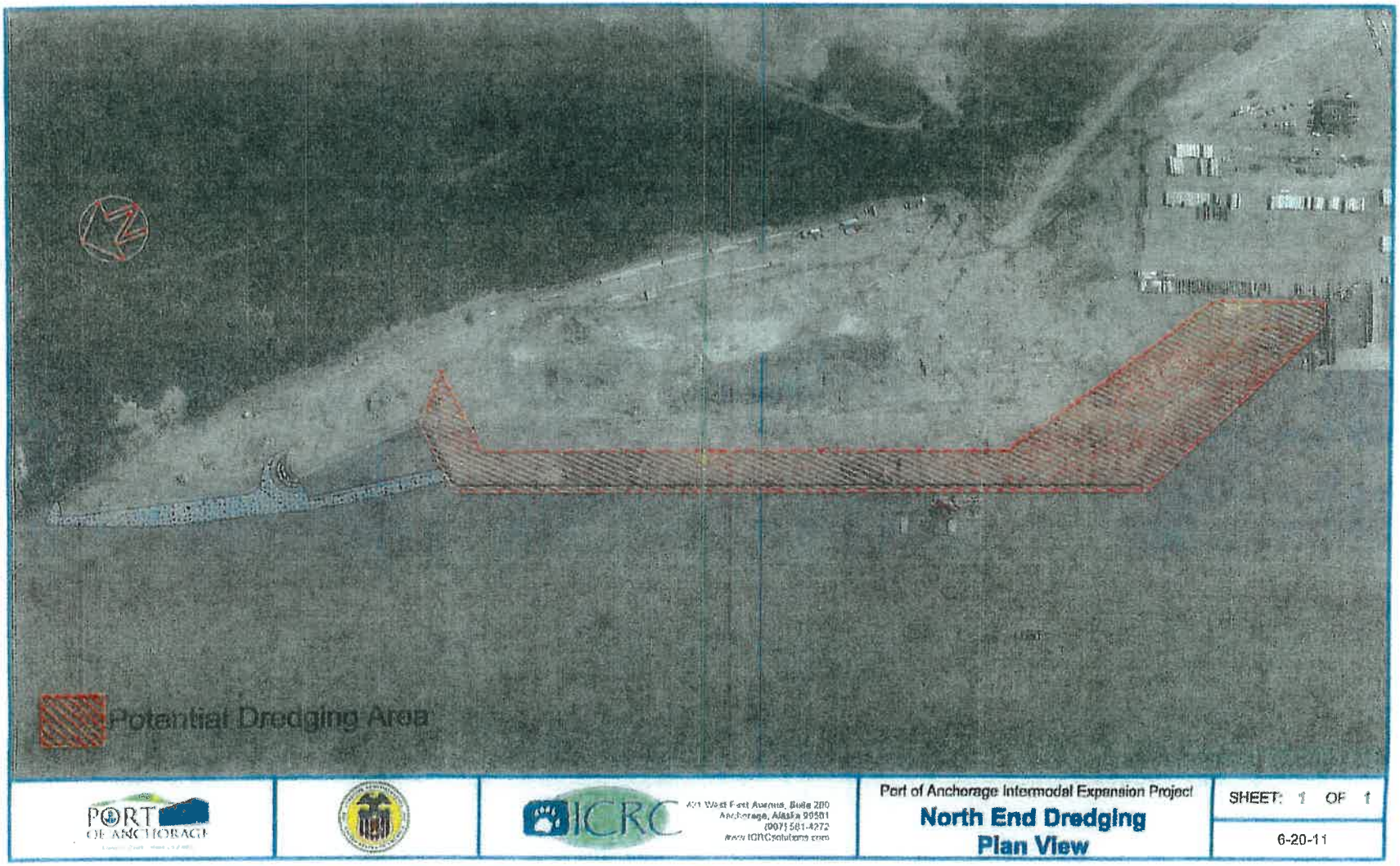


Figure 2 – North End Potential Dredging Area

Sheet 3 of 10
29 June 2011

A.3.0 DESCRIPTION

Dredging is required to facilitate sheet pile inspection and repair activities in 2011-12. This modification requests an expedited incremental increase from the permit quantity increase requested under modification 6. Modification 6 has been submitted to the USACE for review, and is awaiting the submission of additional documentation prior to final approval.

A.3.1 Inspection and Repair Activities

Inspection Dredging

Inspection for non-conforming sheet pile installation will occur by excavating previously placed fill material and naturally occurring sediments from inside sheet pile cells to an elevation of approximately -40 feet Mean Lower Low Water (MLLW); the design maximum dredge depth. Divers will provide visual and tactile inspections of the sheet pile and sheet pile interlocks to evaluate and document the existing installed condition and/or to identify and quantify areas where remedial/repair work is required to meet the design intent.

Dredging to below the – 40 MLLW depth may be necessary in some areas of non-conforming work in order to repair or replace selected sheet pile. A dredging section for sheet pile inspection is provided in Figure 3 North End Dredging Concept. The incremental dredge and disposal quantities requested include a contingency for additional repair dredging. Limited dredging may also occur on the water side of the sheet pile bulkhead, if necessary, to enact repairs or relieve soil pressure on excavated cells.

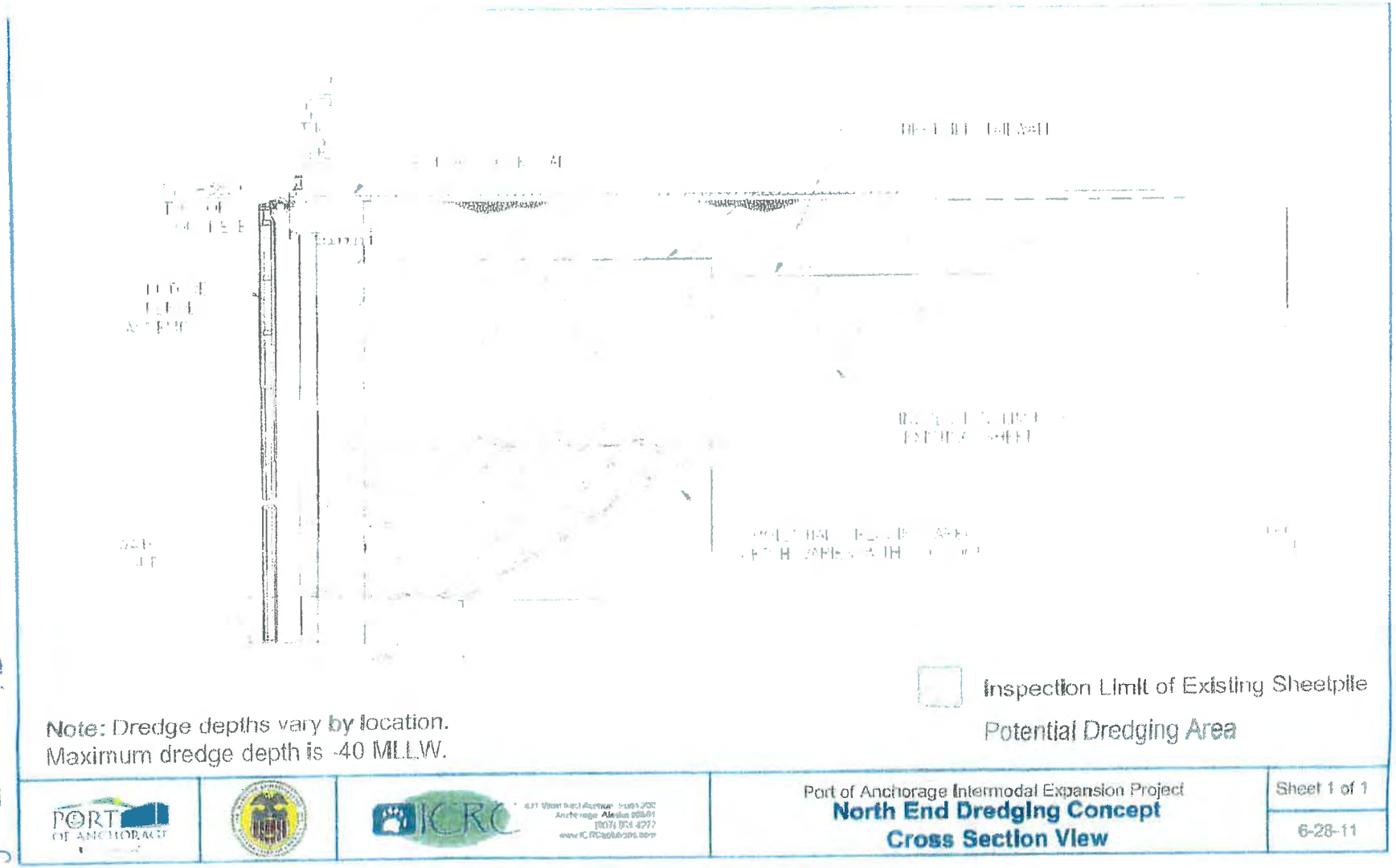


Figure 3 – North End Dredging Concept

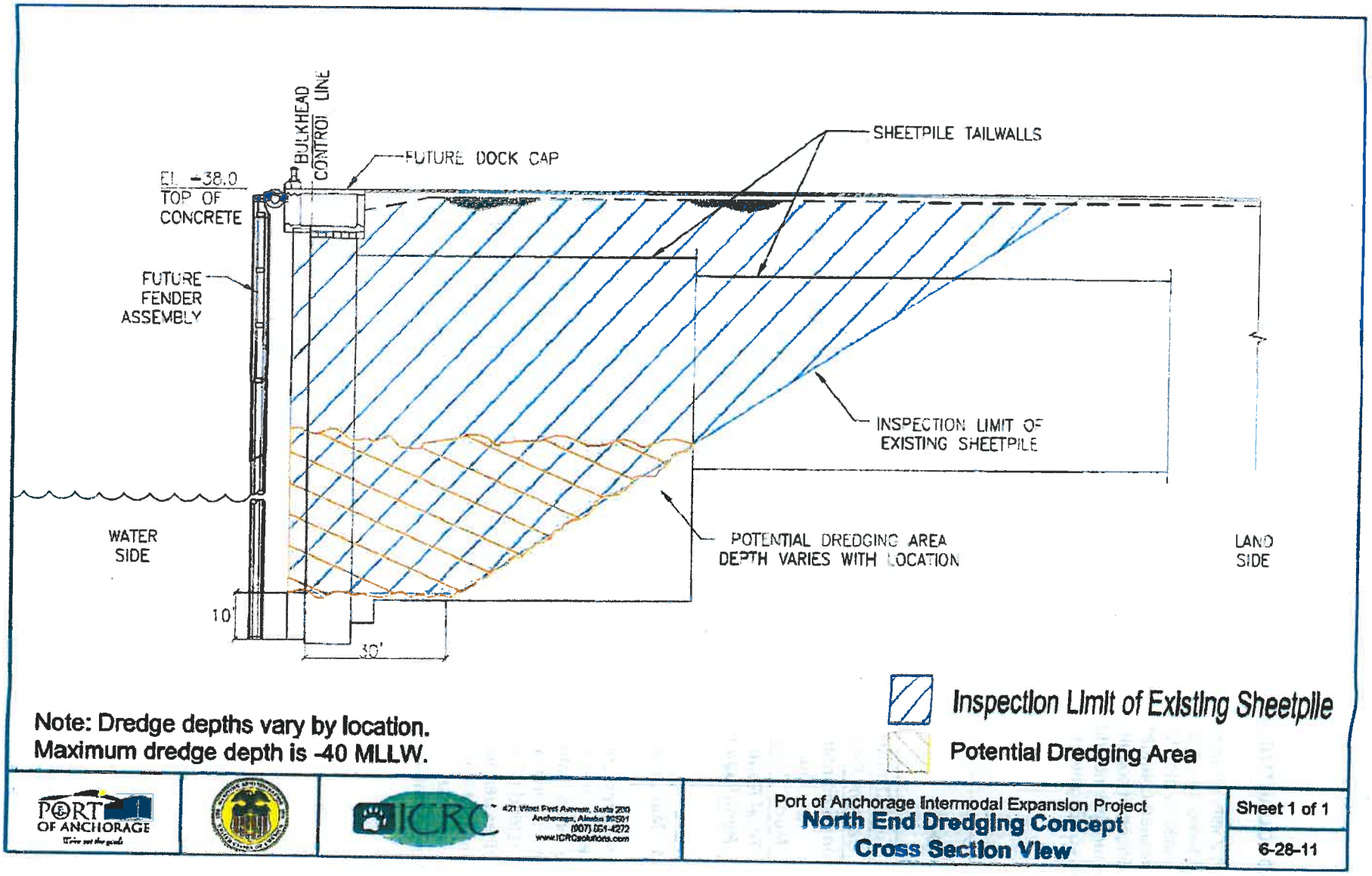


Figure 3 – North End Dredging Concept

Sheet 5 of 10 (enhanced copy)

A.4.0 QUANTITIES

Table 2 lists proposed dredging and disposal quantities. The 50,000 cubic yards requested is considered an incremental increase and will be subtracted from the 1.5 million cubic yards requested in modification 6. Dredging quantities include a small contingency to accommodate unforeseen changes in dredge quantity related to actual characteristics of materials and site conditions encountered and/or the need for additional dredging to support identified repair work. This request includes disposal of the dredged material into the authorized United States Army Corps of Engineers (USACE) disposal site in Knik Arm.

Table 2 – Proposed Dredging & Disposal Quantities

Phase	Dredge/Disposal Quantity (cy)	Area (ac)
Total Dredge Quantity Required Per Mod 6	1,510,562	41
Current Permit Allowance Per Mod 5	258,600	21
Incremental Dredge and Disposal Permit Quantity Requested Mod 7 June 2011	50,000	21
Total Requested and approved Permit Quantity within Mod 7	***308,600***	***21***

A.4.1 Marine Mammals and the Environment

The required core construction activities have not changed from the original permit application. Since the original permit was issued, the MTR project has benefited from three years of experience with construction-related and navigational dredging, design and construction methods, and actual field conditions related to dredging and sheet pile installation are better understood. The project impacts to the environment have been reviewed by resource agencies for other permitting actions and construction noise has been identified as a primary concern. The increase in quantities requested does not result in any change to construction noise and will not increase impacts to marine mammals. All necessary natural resource permits and mitigation measures are in place

NARRATIVE B
SOUTH BACKLANDS SLOPE HARDENING
for the Port of Anchorage Intermodal Expansion Project
28 June 2011

B.1.0 PURPOSE

The purpose of this modification request is to facilitate the construction of shore side hardening along the South Backlands for the Port of Anchorage Intermodal Expansion Project (PIEP). Marine Terminal Redevelopment (MTR). Since the original permit was issued on August 10, 2007, changes in funding availability have caused a shift in construction priorities for MTR projects. The South Backlands area was filled during 2008 and at that time installation of the bulkhead on the water-side (South Extension) was scheduled for completion in the 2010-2011 time frame. Priority shifts have created a revised construction schedule, wherein completion of the South Backlands and South Extension has shifted to beyond 2015. As such, it is considered prudent to ensure that the site is stabilized for the longer duration to eliminate the possibility of shore side erosion.

The project is in compliance with its Storm Water Pollution Prevention Plan (SWPPP) and best management practice (BMP) storm water erosion controls are being used.

B.2.0 LOCATION

This modification request encompasses the South Backlands waterside area. The South Backlands work site includes activities in Sections 7 of Township 13N, Range 3W, Seward Meridian. The activity will occur inside the project boundary, (140 feet west of the proposed bulkhead control line). Limited excavation and the placement of geotextile fabrics and Armor Rock will take place on the existing shoreline.

Figure 1, Vicinity Map, shows the vicinity of the Port. Figure 4 PIEP Phasing Plan v6 Detail shows the location of the South Backlands in relation to the south components of the port project. Figure 5, South Backlands Stabilization Concept Drawing, shows the location of the proposed work effort on the South Backlands, south of the existing terminal and dock.

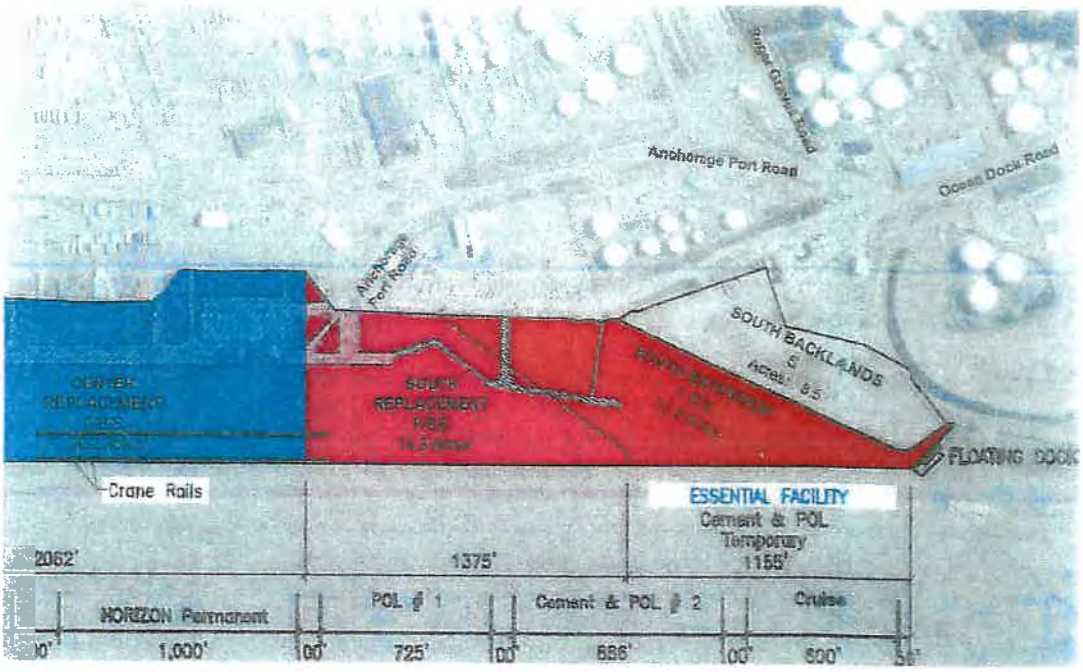


Figure 4 – PIEP Draft Phasing Plan v6 Detail

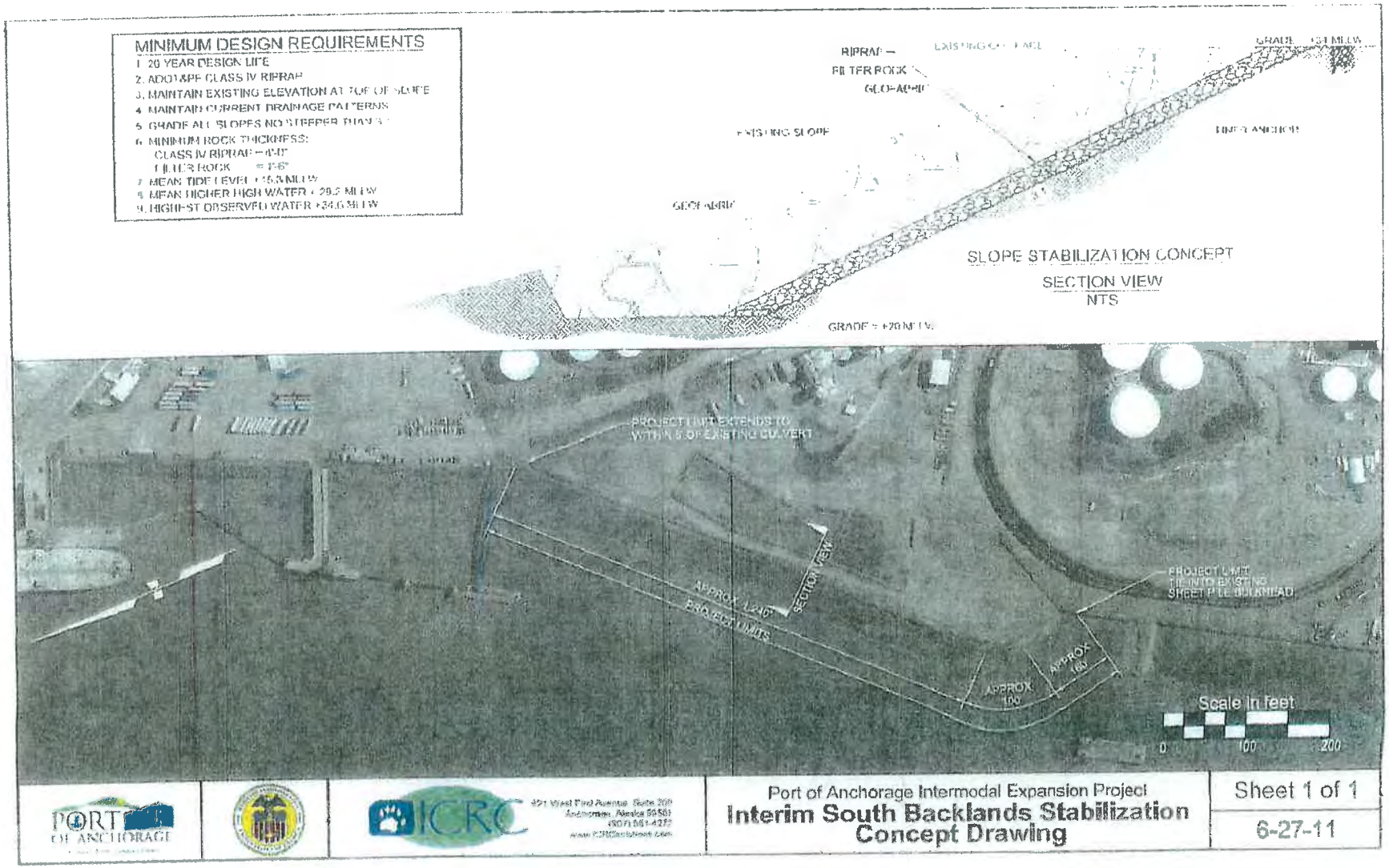


Figure 5 – South Backlands Stabilization Concept Drawing

Sheet 9 of 10
29 June 2011

B.3.0 DESCRIPTION OF THE ACTIVITIES

This modification requests a change to the permit to allow the construction of shore side hardening at the South Backlands

B.3.1 Proposed Hardening Concept

The proposed hardening concept depicted in Figure 2, consists of 4 primary construction elements.

1. Grade the existing shoreline to a three to one slope (3:1, horizontal:vertical) between the current surface elevation of +34 feet (ft) mean lower low water (MLLW), and approximately +20 ft MLLW. This elevation range is the most susceptible to erosion from wave, tide, and ice actions. An anchor trench will be excavated along the top of the slope.
2. Line the graded slope with geotextile fabric anchored in the excavated trench at the top of the slope and pinned in place over the extent of the slope.
3. Place 18 inches of filter rock on top of the geotextile fabric along both the slope face and in the anchor trench. This will help to secure the fabric in place and reduce loss of soil in the future.
4. Place a four feet thick layer of Armor Rock on top of the filter rock. The Armor Rock shall consist of class IV rip rap as specified by the Alaska Department of Transportation and Public Facilities. The geotextile fabric will prevent the fines from migrating out with the wave and current action. The filter rock will prevent the larger Armor Rock from damaging the fabric. The Armor rock will absorb, deflect, and diffuse the energy from waves and currents keeping filter rock, fabric, and soil in place.

The proposed area for hardening is approximately 1,500 ft in length and covers approximately 7,500 square yards. The estimated material quantities are as follows:

- Geotextile Fabric — 12,500 square yards
- Filter Rock — 4,000 cubic yards
- Class IV Rip Rap (Armor Rock) — 11,000 cubic yards

No dredging or pile driving is required under the proposed activities. Construction activities will be limited to grading the site, placing the fabric and rock, and maintaining all SWPPP BMPs. Most of the work can be performed out of the water, although limited in water work may be necessary to meet schedule constraints. Any in-water work will follow the appropriate marine mammal monitoring and protection requirements.

B.4.0 ANTICIPATED EFFECT TO MARINE MAMMALS AND THE ENVIRONMENT FROM THE PROPOSED ACTIVITY

The requested shore side hardening effort is an attempt to prevent long term erosion of fill materials currently in place. The required construction activities are consistent with those described in the original permit application. The project impacts to the environment have been reviewed by resource agencies for other permitting actions and in-water construction noise has been identified as a primary concern. The proposed activity is not anticipated to produce significant impacts to marine mammals. A 50-meter safety zone for "other in-water work" will be monitored and enforced as necessary. Mitigation measures to protect the marine environment and aquatic life in the area are in place and will be followed for the proposed construction activities.

This notice of authorization must be conspicuously displayed at the site of work.

United States Army Corps of Engineers
Cook Inlet

A permit to: **Perform** WINTER MAINTENANCE A TOTAL OF THREE TIMES IN FEBRUARY, MARCH, AND APRIL 2011, DISPLACING A TOTAL OF 600 CY.

at: TOTE BERTH (T3) AT THE PORT OF ANCHORAGE IN UPPER COOK INLET, LATITUDE 61.13.73 N., LONGITUDE -149.53.784 W., ANCHORAGE, ALASKA.

has been issued to: MUNICIPALITY OF ANCHORAGE, PORT OF ANCHORAGE

on: MAR 16 2011 **and expires on:** MAR 31 2016

Address of Permittee: 2000 ANCHORAGE PORT RD., ANCHORAGE, ALASKA 99501

Permit Number:

POA-2003-502-M5

Mary Lee Plumb-Mentjes

FOR: DISTRICT COMMANDER
MARY LEE PLUMB-MENTJES
PROJECT MANAGER
REGULATORY DIVISION

ENG FORM 4336, Jul 81 (33 CFR 320-330) EDITION OF JUL 70 MAY BE USED (Proponent: CECW-O)

REPLY TO
ATTENTION OF:

DEPARTMENT OF THE ARMY
U.S. ARMY ENGINEER DISTRICT, ALASKA
ANCHORAGE FIELD OFFICE
1600 A STREET
ANCHORAGE, ALASKA 99501

MAR 16 2011

Regulatory Division
POA-2003-502-M5

Governor William J. Sheffield
Port Director
Port of Anchorage
2000 Anchorage Port Road
Anchorage, Alaska 99501-1024

Dear Governor Sheffield:

Enclosed is the signed Department of the Army (DA) permit modification, file number POA-2003-502-M5, Cook Inlet. This is the fifth permit modification of the original permit. Also enclosed is a Notice of Authorization that should be posted in a prominent location near the authorized work.

If changes to the plans or location of the work are necessary for any reason, plans must be submitted to us immediately. Federal law requires approval of any changes before construction begins.

Nothing in this letter excuses you from compliance with other Federal, State, or local statutes, ordinances, or regulations.

Also enclosed is a Notification of Administrative Appeals Options and Process and Request for Appeal form regarding this DA Permit Modification (see section labeled "Initial Proffered Permit").

You may contact me via email at Mary.Plumb-Mentjes@usace.army.mil, by mail at the address above, by phone at 753-2789, if you have questions. For additional information about our Regulatory Program, visit our web site at www.poa.usace.army.mil/reg.

Sincerely,

Mary Lee Plumb-Mentjes

Mary Lee Plumb-Mentjes
Project Manager

Enclosures

DEPARTMENT OF THE ARMY
U.S. ARMY ENGINEER DISTRICT, ALASKA
ANCHORAGE FIELD OFFICE
1600 A STREET, SUITE 110
ANCHORAGE, ALASKA 99501

REPLY TO ATTENTION OF:

MAR 16 2011

Regulatory Division
POA-2003-502-M5

DEPARTMENT OF THE ARMY
PERMIT MODIFICATION

Department of the Army (DA) permit number POA-2003-502, Ship Creek, was issued to the Port of Anchorage(POA) on August 24, 2005, to:

> Discharge approximately 1,075,000 cubic yards of dredged and/or fill material within 27 acres of intertidal area north of existing Port facilities, for the construction of a transit/staging area for Department of Defense cargo deployment.

On November 3, 2005, Special Condition 13 of the permit (POA-2003-502-M1) was modified. Special Condition 13 was modified to read as follows:

> "13. Prior to commencement of work, funds in the amount of $995,998 will be deposited into an escrow account established to fund restoration/enhancement projects for compensatory mitigation of the impacts associated with the development in waters of the U.S. authorized by Department of the Army permit POA-2003-502-2. The escrow account language must be approved by the Corps for any distribution of funds. The Corps with resource agency consultation, will approve mitigation project(s) and subsequently provide written authorization directing the release of specified amounts from the account for specified purposes."

On August 10, 2007, DA permit number POA-2003-502-M2 (formerly known as Mod N), Cook Inlet, was issued to the POA to conduct the work necessary for the construction of the Marine Terminal redevelopment (Port Expansion) Project. Specifically, this modification authorized:

1. The discharge of fill material over 20.5 acres of wetlands associated with the development of the Cherry Hill and North End Runway borrow pits;

2. The dredging of approximately 258,000 cubic yards of sediment over approximately 21 acres necessary for the construction of the expanded dock and the discharge of the material at the existing Port of Anchorage maintenance dredging disposal site; and

3. The discharge of approximately 9,663,420 cubic yards of clean fill material over 111 acres of intertidal and nearshore subtidal waters of Knik Arm necessary for the construction of the expanded dock.

On August 3, 2010, the permit was modified (DA permit number POA-2003-502-M3, Cook Inlet), to remove Special Conditions V-1 and V-2.

On September 17, 2010, DA permit number POA-2003-502-M4, Cook Inlet, was issued to the Port of Anchorage to change condition VIII-1 concerning the compensatory mitigation funds. The modification directed that the balance of the monies in the Municipality of Anchorage Port Mitigation account, be transferred to the Great Land Trust (GLT) by September 30, 2010. The balance of the ILF owed ($2,815,533.78) is be paid to the GLT in two increments of $1,407,766.89, no later than October 15, 2010, and October 15, 2011.

This is the fifth modification, POA-2003-502-M5, of the original permit; it is an inhouse modification because of the minor nature of its impacts. The permit is hereby modified as follows:

> Under this authorization winter maintenance shall only be done three times at the TOTE berth (T3): in February, March, and April 2011. Each time will involve no more than two days, with equipment operating up to four hours a day. The maximum amount of sediment moved per time will be 200 cubic yards.

The work will be performed in accordance with the enclosed 3-page narrative, dated March 14, 2011, and plans, sheets 1-3, dated March 10, 2011, which are incorporated in and made a part of this Permit Modification.

The new work will be at the TOTE berth (T3), which is located at the Port of Anchorage in the Knik Arm of Upper Cook Inlet, within section 6, T. 13 N., R.3 W., S.M.; Latitude 61.13.73° N., Longitude -149.53.784° W.; in Anchorage, Alaska.

All other conditions under which the subject authorization was made remain in full force and effect.

This authorization and the enclosed modified plans should be attached to the original permit. Also enclosed is a Notice of Authorization that should be posted in a prominent location near the authorized work.

BY AUTHORITY OF THE SECRETARY OF THE ARMY:

Mary Lee Plumb-Mentjes

Mary Lee Plumb-Mentjes
Project Manager

Attachment to Permit

Winter Maintenance Dredging Process at the Port of Anchorage
14 March 2011

Purpose:
The purpose of the Winter Maintenance Dredging is to remove limited areas of high sediment deposition during negative mean lower low (MLLW) conditions (extreme low tides) to enable Port of Anchorage (POA) tenant Totem Ocean Trailer Express (TOTE) to access the terminal without running aground. TOTE docks at Terminal 3 twice a week on Tuesday and Sundays. This type of emergency activity will only occur three times through April 30, 2011 in the winter season when USACE cannot perform maintenance dredging.

Location:
The Winter Maintenance Dredging takes place at Terminal 3 at the Port of Anchorage facility (Port). Terminal 3 is located at the north end of the existing pier in Section 6, Township 13N, Range 3W, Seward Meridian. The activity occurs adjacent to the active pier in the tidal waters below. Figure 1 shows the location of the Port of Anchorage and Figure 2 shows the location of Terminal 3 at the Port.

Description of the Activity:
The process involves suspending recently deposited sediment in a limited area to allow the tides to carry it away from the pier. A routine bathymetric survey is used to identify high elevation locations (high spots) at the pier. A small drilling rig is positioned close to the edge of the pier above the location of the area with a high elevation of sediment. A rigid drill pipe (approximately 4.5 inches outside diameter) and drill head is lowered into the water to the bottom sediment. The drill head is inserted into the top two to three feet of loose sediment at the area being worked. Using an air compressor located on the pier, air is blown down the length of the drill pipe, which produces 850 cubic feet of air discharging at pressures between 50 to 75 pounds per square inch. The air pressure causes the loose sediments to be stirred up into the surrounding water column.

In concert with the air being discharged from the pipe, a tug boat with "Z-Tractor" independently-steerable engines and propellers is positioned, bow to the dock, using one engine to hold it in place. The tug then uses the second engine at lower speeds to direct the suspended sediments toward the general flow of the currents. This direction is accomplished by the propeller action of the tug boat. Sediments are carried away from their original position to areas where they can fall out of suspension without causing unacceptable in-fill. Figure 3 shows a schematic of the activity.

The duration of the activity is up to four hours each time and disturbs a maximum of 170 cubic yards of sediment (rounded up to 200 cubic yards for the permit request) each time.

Anticipated Effect to Marine Mammals:

Q:\2-ENV\Permit Compliance\404-10 Permit Mod 2011\Mod 5 Request Winter Maintenance Dredging 2011\Narrative USACE Mod 5 Winter Maintenance Dredging .docx

POA-2003-502-M5

Considering the operations and construction activities that have been ongoing at the Port for several decades, this limited process does not appear to pose additional significant harassment to marine mammals at that location:

1. The National Marine Fisheries Service (NMFS), Alaska Region issued a Biological Opinion on July 13, 2009 after Section 7 consultation for the Cook Inlet beluga whales under the Endangered Species Act. NMFS concurred with the Biological Assessment (provided during consultation) determination that dredging at the Port by the USACE was not likely to adversely affect the Cook Inlet beluga whales (first un-numbered page of the Opinion).

2. The USACE Civil Works Division currently conducts maintenance dredging at the Port, including Terminal 3, every year from approximately May through October. In addition, the entire area in front of the pier face has been disturbed by ongoing Port operations and vessel traffic for the last 50 years.

3. The dredge material at the Port has been evaluated previously and determined suitable for in-water discharge. In the National Marine Fisheries Service (NMFS) Biological Opinion, July 13, 2009 it is stated on page 34 that "While the volume of dredging in Cook Inlet is comparable to St. Lawrence (more than 844,000 cubic yards in 2003 at the Port of Anchorage), the material does not appear to contain harmful level of contaminants." This Winter Maintenance Dredging activity does provide a small increase in suspended solids over a relatively small area. The quantity and duration is minimal compared to what has been occurring for many years at this location with typical operations and dredging.

4. This short term activity only occurs in the winter, on days just prior to ship berthing during extreme low tides.

5. The POA administers a year-round Opportunistic Sighting Program, whereas POA employees, dock workers, tenants, and visitors are requested to report sightings of any marine mammal within the harbor. This information is provided by the POA to NMFS each year. The POA has reviewed their sighting data and report that from 2007 through 2010, the average number of marine mammal sightings for December is 1; for January through April there have been no reported sightings.

6. The equipment used to suspend the recently deposited sediment and the impact, are similar or the same as the vessel traffic that operates at the Terminal 3. Tugs are routinely utilized to assist in docking vessels at the berth.

7. The noise generated is comprised of 1) blowing compressed air through a rigid pipe embedded into the sediment adjacent to the pier, and 2) use of a tug boat propeller to direct the sediment into the tide. The tug engines have rubber dampeners to absorb shock. According to the tug boat operators, cavitation on tug boat engines is limited to when engines are run at maximum speed, and then only when conditions exist to

exacerbate the situation (i.e. ice over the thrusters, a bent propeller blade, a line in the wheel, or some other obstruction that may kill the engine). Accomplishing this dredging process does not require the tug's engines to operate at maximum speed and thus, will not result in engine cavitation. These sounds are similar or typical of Port operations and are expected to generate lower decibel levels than the NMFS-published Level B harassment levels of 120 decibels for non-pulsed noise or 160 decibels for pulsed noise.

POA-2003-502-MS

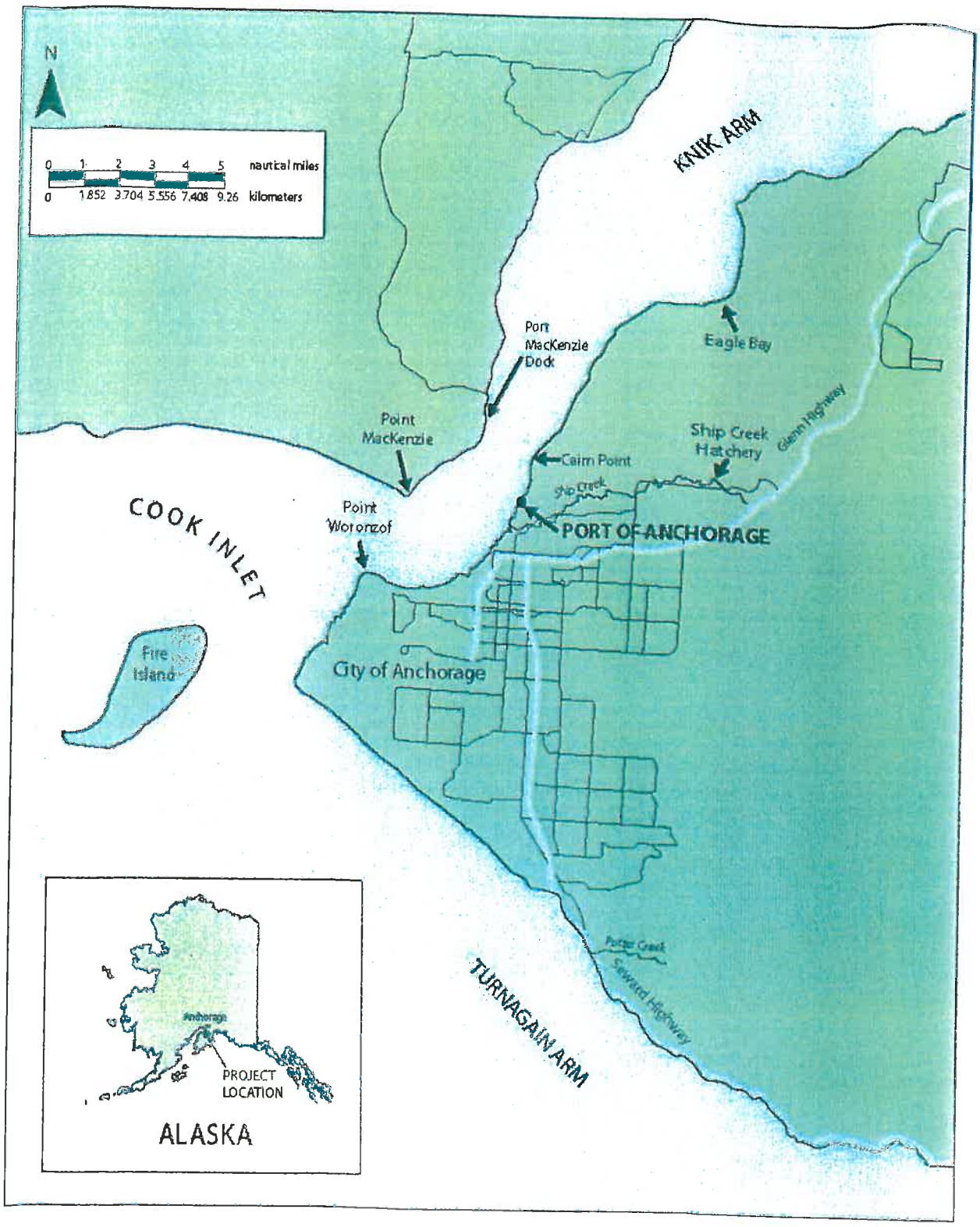
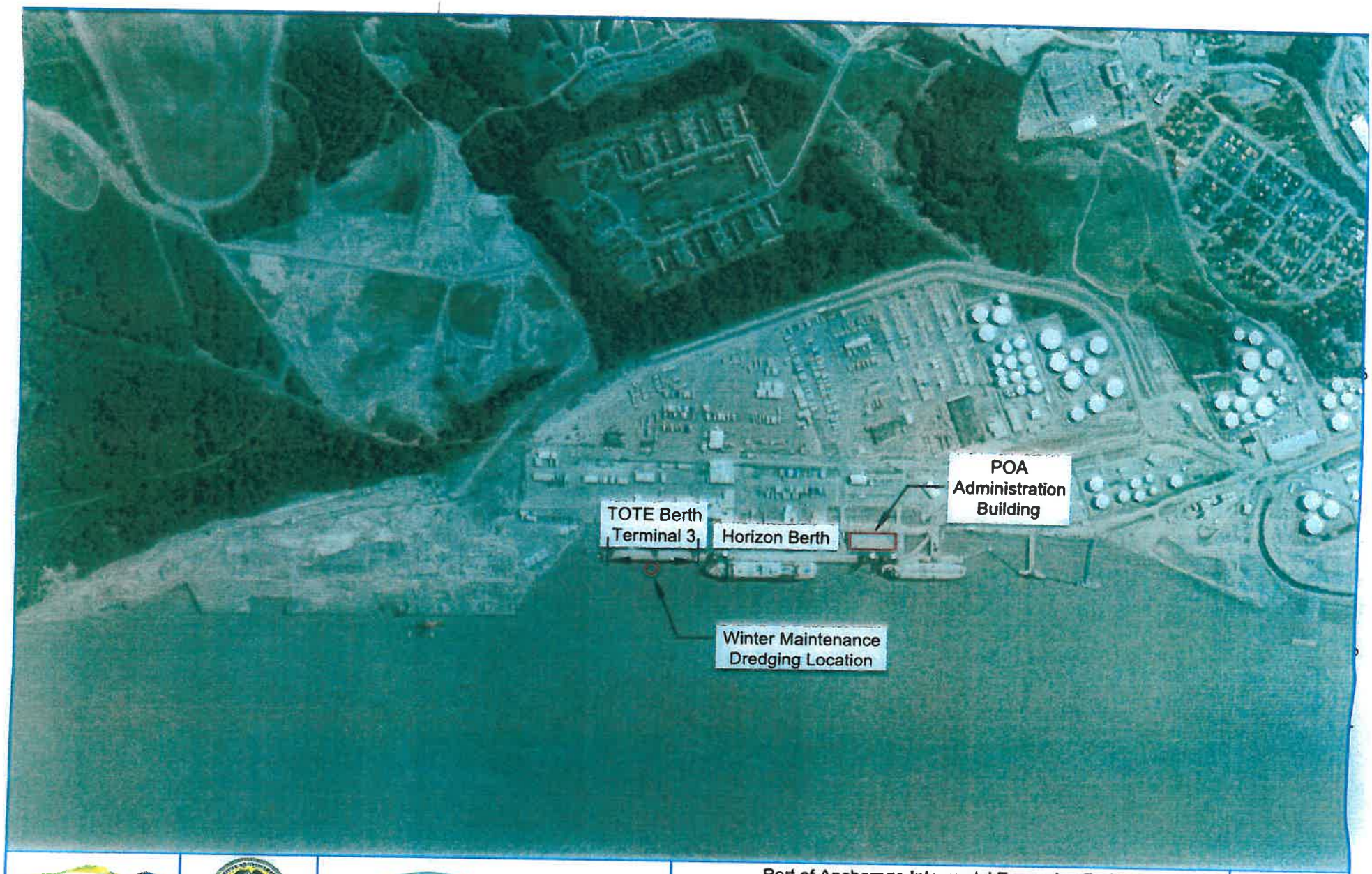


Figure 1 Vicinity Map

POA-2003-502-M5



PORT OF ANCHORAGE

ICRC

Port of Anchorage Intermodal Expansion Project

POA Terminal 3 (TOTE)

Winter Maintenance Dredging Location

Figure 2

3-10-11

POA-2003-502-M5

Terminal 3 Winter Maintenance Dredging

TERMINAL 3: Maintenance dredge consists of lowering a drilling pipe 3 feet into the sediment (red) area and running 55-75 psi compressed air through the pipe to loosen sediment.

Drill pipe with 55-75 PSI Compressed air

Screw and Jet wash from a tractor tug will blow sediment from the area to prevent damage to a ship's propeller during a negative MLLW condition (coincides 3-5 times per year with a ship's schedule).

Figure 3

Estimated Area to be removed (30'x30'x5'; 170 cuyds)

www.portofanchorage.org

PORT OF ANCHORAGE

ICRC

POA-2003-502-M5
March 10, 2011

REPLY TO
ATTENTION OF:

DEPARTMENT OF THE ARMY
U.S. ARMY ENGINEER DISTRICT, ALASKA
REGULATORY DIVISION
P.O. BOX 6898
ELMENDORF AFB, ALASKA 99506-0898

SEP 17 2010

Regulatory Division
POA-2003-502-M4

Governor William Sheffield
Port Director
Port of Anchorage
2000 Anchorage Port Rd.
Anchorage, Alaska 99501

Dear Governor Sheffield:

Enclosed is the signed Department of the Army (DA) permit modification, file number POA-2003-502-M4. This is the 4th permit modification of the original permit.

Nothing in this letter excuses you from compliance with other Federal, State, or local statutes, ordinances, or regulations.

You may contact Nicole Hayes, Anchorage Field Office Supervisor, via email at nicole.m.hayes@usace.army.mil, by mail at the address above, or by phone at 753-2792, if you have questions.

Sincerely,

Steve Meyers
South Branch Chief

Enclosures

U.S. ARMY ENGINEER DISTRICT, ALASKA
REGULATORY DIVISION
P.O. BOX 6898
ELMENDORF AFB, ALASKA 99506-0898

SEP 17 2010

REPLY TO
ATTENTION OF:

Regulatory Division
POA-2003-502-M4

DEPARTMENT OF THE ARMY
PERMIT MODIFICATION

Department of the Army permit number POA-2003-502, Ship Creek, was issued to Port of Anchorage on August 24, 2005, to:

> Discharge approximately 1,075,000 cubic yards of dredged and/or fill material within 27 acres of intertidal area north of existing Port facilities, for the construction of a transit/staging area for Department of Defense cargo deployment.

On November 3, 2005, Special Condition 13 of the permit (POA-2003-502-M1) was modified. Special Condition 13 was modified to read as follows:

#1

> "13. Prior to commencement of work, funds in the amount of $955,998 will be deposited into an escrow account established to fund restoration/enhancement projects for compensatory mitigation of the impacts associated with the development in waters of the U.S. authorized by Department of the Army permit POA-2003-502-2. The escrow account language must be approved by the Corps for any distribution of funds. The Corps, with resource agency consultation, will approve appropriate mitigation project(s) and subsequently provide written authorization directing the release of specified amounts from the account for specified purposes."

On August 10, 2007, the permit was modified (POA-2003-502-M2) to:

#2

> 1. Discharge fill material over approximately 20 acres of wetlands associated with the Cherry Hill and North End Runway borrow pits;
>
> 2. Dredge approximately 258,000 cubic yards of sediment over approximately 21 acres necessary for the construction of the expanded dock and the discharge of the material at the existing Port of Anchorage maintenance dredging disposal site;
>
> 3. Discharge approximately 9,663,420 cubic yards of clean fill material over 111 acres of intertidal and nearshore subtidal waters of Knik Arm necessary for construction of the expanded dock.

#3 On August 3, 2010, the permit was modified (POA-2003-502-M3), to remove Special Conditions V-1 and V-2.

The permit is hereby modified to change condition VIII-1. It reads:

"The Port of Anchorage shall provide funding equivalent to the monetary value of the debits of the authorized project impacts, as determined by the Anchorage Debit Credit Methodology, in accordance to the attached Memorandum of Agreement (MOA) concerning compensatory mitigation for the overall project. Compensatory mitigation funds from the account will be allocated primarily for the construction related costs of selected mitigation projects, as specified in the MOA. In addition to the funding requirements, the Port of Anchorage shall provide for the project management actions necessary to obtain any applicable permits and/or authorizations, the preparation of necessary engineered designs, and monitoring of all selected mitigation projects as necessary."

The new condition is as follows:

To compensate for the unavoidable impacts to waters of the U.S., resulting from the Port of Anchorage Expansion project, the Port of Anchorage shall pay an in-lieu fee (ILF) to Great Land Trust (GLT). The ILF amount was determined by the habitat impacts and the ILF amounts set by GLT in 2007, as follows:

DA Permit Number	*Description*	*Debits and Relative Ecological Value (REV)*	*In-Lieu Fee Amount*
POA-2003-502-2	*Phase I*	*17.45 REV 2*	*$955,998*
POA-2003-502-D	*Haul Road*	*.11 REV 2*	*$12,511.62*
POA-2003-502-N	*Phase II*	*11.04 REV 1; 48.40 REV 2; 20.07 REV 3*	*$7,039,355.94*
TOTAL			*$8,007,865.56.24*

The balance of the monies in the Municipality of Anchorage Port Mitigation account, Wells Fargo account number 16914909, shall be transferred to the GLT by September 30, 2010. The balance of the ILF owed ($2,815,533.78) shall be paid to the GLT in two increments of $1,407,766.89 no later than October 15, 2010, and October 15, 2011.

All other conditions under which the subject authorization and subsequent modifications were made remain in full force and effect.

This authorization should be attached to the original permit.

BY AUTHORITY OF THE SECRETARY OF THE ARMY:

Steve Meyers
South Branch Chief

DEPARTMENT OF THE ARMY
U.S. ARMY ENGINEER DISTRICT, ALASKA
ANCHORAGE FIELD OFFICE CEPOA-RD-SA
1600 A STREET SUITE 110
ANCHORAGE, ALASKA 99501-5146

REPLY TO
ATTENTION OF:

AUG 03 2010

Regulatory Division
POA-2003-502-M3

Governor William Sheffield
Port Director
Port of Anchorage
2000 Anchorage Port Rd.
Anchorage, Alaska 99501

Dear Governor Sheffield:

Enclosed is the signed Department of the Army (DA) permit modification, file number POA-2003-502-M3, Ship Creek. This is the 3rd permit modification of the original permit.

If changes to the plans or location of the work are necessary for any reason, plans must be submitted to us immediately. Federal law requires approval of any changes before construction begins. Nothing in this letter excuses you from compliance with other Federal, State, or local statutes, ordinances, or regulations. Also enclosed is a Notification of Administrative Appeals Options and Process and Request for Appeal form regarding this DA Permit Modification (see section labeled "Initial Proffered Permit").

You may contact me via email at leslie.w.tose@usace.army.mil, by mail at the address above, by phone at (907) 753-5515, or toll free from within Alaska at (800) 478-2712, if you have questions.

Sincerely,

Leslie W. Tose

Leslie W. Tose
Project Manager

Enclosures

REPLY TO
ATTENTION OF:

DEPARTMENT OF THE ARMY
U.S. ARMY ENGINEER DISTRICT, ALASKA
ANCHORAGE FIELD OFFICE CEPOA-RD-SA
1600 A STREET SUITE 110
ANCHORAGE, ALASKA 99501-5146

Regulatory Division
POA-2003-502-M3

AUG 03 2010

DEPARTMENT OF THE ARMY
PERMIT MODIFICATION

Department of the Army permit number POA-2003-502, Ship Creek, was issued to Port of Anchorage on August 24, 2005, to:

Discharge approximately 1,075,000 cubic yards of dredged and/or fill material within 27 acres of intertidal area north of existing Port facilities, for the construction of a transit/staging area for Department of Defense cargo deployment.

On November 3, 2005, Special Condition 13 of the permit (POA-2003-502-M1) was modified. Special Condition 13 was modified to read as follows:

"13. Prior to commencement of work, funds in the amount of $955,998 will be deposited into an escrow account established to fund restoration/enhancement projects for compensatory mitigation of the impacts associated with the development in waters of the U.S. authorized by Department of the Army permit POA-2003-502-2. The escrow account language must be approved by the Corps for any distribution of funds. The Corps, with resource agency consultation, will approve appropriate mitigation project(s) and subsequently provide written authorization directing the release of specified amounts from the account for specified purposes."

On August 10, 2007, the permit was modified (POA-2003-502-M2) to:

1. Discharge fill material over approximately 20 acres of wetlands associated with the Cherry Hill and North End Runway borrow pits;

2. Dredge approximately 258,000 cubic yards of sediment over approximately 21 acres necessary for the construction of the expanded dock and the discharge of the material at the existing Port of Anchorage maintenance dredging disposal site;

3. Discharge approximately 9,663,420 cubic yards of clean fill material over 111 acres of intertidal and nearshore subtidal waters of Knik Arm necessary for construction of the expanded dock.

This is the 3rd modification of the original permit (POA-2003-502-M3). Special Conditions V-1 and V-2 were originally written as follows:

"Special Condition V-1. The Port of Anchorage shall either avoid pile driving activities between 15 May and 15 August or conduct an on site fish study to analyze the impacts of vibratory and impact hammer sheet pile driving activities on salmonids at various distances and measured sound pressure levels. The study plan shall be developed in consultation with the U.S. Fish and Wildlife Service the Environmental Protection Agency, and approved by the Corps. The study plan should include a live cage fish study and hydroacoustic monitoring to assess the impacts of pile driving on the health and behavior of fish groups and individuals.

The study plan shall be completed by 1 January 2008 and initiated in the 2008 construction season and coordinated with the Corps and the aforementioned resource agencies. Based on the results of the study, this condition may be modified and / or supplemented to minimize adverse impacts.

Special Condition V-2. No in water fill placement or pile driving activities shall occur within a one week period following smolt releases from the Ship Creek Hatchery. The Port shall coordinate with hatchery staff to ensure compliance with thus condition."

The permit is hereby modified to **remove** Special Conditions V-1 and V-2.

The Port of Anchorage is located within Section 31, T. 14 N., R. 3 W., and sections 6 and 7, T. 13 N., R. 3 W., Seward Meridian; USGS Quad Map Anchorage A-8; Latitude 61.24306° N., Longitude 149.89806° W.; in Anchorage, Alaska. The gravel extraction sites are located within sections 5 and 6, T. 13 N., R. 3 W.; and within sections 27,28, 33 and 34, T. 14 N., R.3 W., Seward Meridian; on Elmendorf Air Force Base, northeast of the Port of Anchorage.

The time limit for completing the work authorized ends on August **31, 2014**. If you find that you need more time to complete the authorized activity, please submit your request for a time extension to the Corps of Engineers for consideration at least one month before permit expiration.

All other conditions under which the subject authorization was made remain in full force and effect.

This authorization should be attached to the original permit.

BY AUTHORITY OF THE SECRETARY OF THE ARMY:

Leslie W. Tose
Project Manager