



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: September 3, 2004

EXPIRATION DATE: October 4, 2004

REFERENCE NUMBER: POA-2004-253-2

WATERWAY NUMBER: Colville River

REVISION

This is a revision to the Public Notice POA-2004-253-2 that was published on April 9, 2004. Interested parties are hereby notified that additional information has been received on the applications for Department of the Army (DA) permits for certain work in waters of the United States. The applicant's entire proposal is described below and shown on the attached plans. However, the DA will initially focus its permit evaluation on the proposed CD-3 and CD-4 drill pads and associated infrastructure. The DA will give appropriate consideration to any potential interrelationship with other elements of the proposal. Responses should address the project as described in this notice because it differs from the Applicant's Proposed Action as described in the Alpine Satellite Development Plan Environmental Impact Statement issued September 3, 2004 for public comment.

APPLICANT: ConocoPhillips Alaska, Inc. (CPAI), Post Office Box 100360, Anchorage, Alaska 99510-0360. Point of Contact: Ms. Alice Bullington, WNS Permitting Team Lead, telephone (907) 263-4206, FAX (907) 265-1515.

PROPOSED WORK: CPAI has proposed to place approximately 2,242,000 cubic yards of gravel fill material into approximately 326 acres of waters of the United States (U.S.), including wetlands, to construct five drill pads; a 3.8 mile-long access road from CD-2 to CD-4; a 21.7 mile-long road (NPR-A Access Road) that would begin at CD-2 on the east side of the Nigliq Channel and terminate at proposed CD-7; access roads from CD-5 and CD-6 to the NPR-A Access Road; an airstrip, floating boat dock and a dock access road at CD-3; and a boat ramp and boat ramp access road at CD-4. The NPR-A Access Road would include a 1200-foot-long bridge over the Nigliq Channel of the Colville River, a 120-foot-long bridge over the Ublutuooh (Tinmiaqsiugvik) River, an 80-foot-long bridge, four 40-foot-long bridges, and four culvert batteries. The project also includes a 65-acre gravel mine at the Clover Mine site. Gravel from the Clover Mine Site would be used for facilities in NPR-A. Additionally, the applicant has proposed to use the existing previously permitted ASRC gravel mine as the gravel source (27 acre impact) for CD-3 and CD-4. The entire project is referred to as the Alpine Satellite Development Plan (ASDP).

Refer to following drawings (attached)

001 - ASDP Vicinity Map
002 - ASDP Location Map
003 - ASDP Overview

LOCATION: The proposed Alpine Satellite Development Program (ASDP) projects are located in the North Slope Borough, Alaska, Colville River Delta and the northeastern-most part of the National Petroleum Reserve - Alaska (NPR-A). Specific locations are shown on Table 1 - Location Information (attached).

WETLANDS IMPACTS: The total impacts to wetlands and other waters of the United States from the proposed project are summarized on Table 2 - Footprint Information (attached).

PURPOSE: The primary purpose of the proposed action is to produce hydrocarbons from satellite reservoirs in the Colville River Unit and NPR-A for commercial sale.

CD-3 SATELLITE (formerly called CD-North or Fiord): This proposed site is located within the Colville Delta approximately 5 miles north of the existing Alpine Central Processing Facility (CPF or CD1) and would include the drill site pad, airstrip with apron and taxiway, access road between the pad and airstrip, floating boat launch and a boat launch access road. An emergency generator will be placed on the pad along with warm and cold storage buildings and an emergency living quarters module. Also included is an additional products pipeline to transport diesel and other products from the CPF to CD3. A power line from the CPF to CD3 would be placed in a cable tray located on the pipeline VSMS

Refer to following drawings (attached)

- 001 - ASDP Vicinity Map
- 002 - ASDP Location Map
- 003 - ASDP Overview
- 004 - Overview (CPF to CD-3)
- 010 - Plan view - Pad Footprint (Detail)
- 011 - Plan view - Pad, Access Road and Airstrip
- 015 - Typical Cross-section View - Pipe Section
- 018 - Key Map - Pipeline Route CD-1/CPF to CD-3
- 019 - Pipeline Route, Sheet 1 of 4
- 020 - Pipeline Route, Sheet 2 of 4 (Sakoonang Channel crossing)
- 021 - Pipeline Route, Sheet 3 of 4 (Tamayagiaq Channel crossing)
- 022 - Pipeline Route, Sheet 4 of 4 (Ulamnigiaq Channel crossing)
- 023 - Plan and Profile - Pipeline Bridge Crossing Sakoonang Channel
- 024 - Plan and Profile - Pipeline Bridge Crossing Tamayagiaq Channel
- 025 - Plan and Profile - Pipeline Bridge Crossing Ulamnigiaq Channel
- 026 - Typical Abutment Foundation Elevation
- 046 - Typical Cross Sections (Pad, Airstrip, Taxiway, and Apron Access Road)
- 070 - Boat Launch (Detail)

CD-3 Drill Pad: The proposed drill pad would have a surface area of approximately 13 acres and would be constructed to be above a 200-year return flood event (Q_{200}) plus freeboard (1 foot) and has been designed to meet the thermal criteria. The pad would be oriented parallel to the prevailing wind direction to minimize snow accumulation on the drill pad. The proposed top of pad elevation would be 12.5 feet BPMSL with 2.0 horizontal to 1.0 vertical side slopes (2H:1V). The pad site would be located approximately 200 feet from the surrounding water bodies.

Drill Pad Side-slope Protection (4 cubic yard sandbags, 12-inch minus riprap, geotextile revetment, etc.) would be appropriately placed to protect the facilities from erosion that might result from high-water events including wind/wave run-up, storm surge and break up flooding.

CD-3 Airstrip and Access Road (between the Drill Pad and Airstrip): Access to CD-3 would be air only during summer months. An approximately 3,800-foot-long and 170-foot-wide (toe-to-toe) gravel airstrip is proposed with a 0.4-mile access road

between the airstrip and the drill pad. The airstrip would accommodate fixed-wing aircraft (Casa and Otter) or helicopter. The proposed top of road and airstrip elevation would be 13 feet BPMSL with 2H:1V slope with a finished elevation above a 200-year return flood event (Q_{200}) plus freeboard (1 foot) and has been designed to accommodate storm surge. The access road and airstrip would be built with 2H:1V side slopes and would include drainage structures with erosion, scour, vortex and side-slope protection that would be incorporated in appropriate areas. The site would also be accessed during the winter months via ice road.

CD-3 Floating Dock and Dock Access Road (Spill Response): Access to the dock would be provided by a 200-foot-long by 40-foot-wide (toe-to-toe) secondary access road. An 8-foot-wide by 50-foot-long 2-pile gangway would provide water access. The gangway would be mechanically deployed/removed, e.g. by a 966 loader. The dock access road would not have culverts. BPMSL elevations, exact locations to be armored, and a detailed drawing of the docking structure are not available at this time. Surveys by the applicant were performed this summer (2004).

Excess Road Side-slope Protection: Sandbags, geotextile or rip rap would be used for side-slope protection as appropriate to protect the facilities from erosion that might result from high water events including wind/wave run-up, storm surge and break up flooding.

CD-3 Pipeline: This new pipeline corridor would extend approximately 5.8 miles south on new VSMs to the Alpine CPF. The route follows naturally occurring higher ground, minimizes water crossings, and avoids some of the larger channels of the Colville River. The pipeline would be constructed on a 55-foot spacing between VSMs.

Pipeline Bridges: The bridges on the Ulamnigiaz (600 ft), Tamayayak (690 ft) and the Sakoonang (455 ft) channels would be pipeline bridges only. Each bridge would have one in-stream pier with an ice-breaking cone on the up-stream side.

CD-3 Drilling Schedule: Up to 32 wells would be drilled from the gravel pad. The applicant has proposed a winter drilling program to avoid impacts to wildlife and subsistence activities during summer months. This program would require a minimum of 100 days per season and would allow access by ice road for emergency relief well purposes. Before break-up, the drilling rig would be transported to other sites for use during the summer. It would require 5-7 winter drilling seasons from December until May to complete the development program at CD-3.

CD-4 SATELLITE (formerly called CD-South or Nanuq): This proposed site is located within the Colville Delta approximately 5 miles north of the Village of Nuiqsut and 4 miles south of the Alpine CPF and would include a drill pad, access road from the pad to CD-1, and a boat ramp with access road. A power line from CD-1 to CD-4 would be placed in a cable tray located on the pipeline VSMs.

Refer to following drawings (attached)

- 001 - ASDP Vicinity Map
- 002 - ASDP Location Map
- 003 - ASDP Overview
- 005 - Overview (CPF to CD-4)
- 012 - Plan view - Pad Footprint (Detail)
- 013 - Plan view - Pad, Access Road, and Boat Ramp
- 016 - Typical Pipe Section (CD-4 and Existing Alpine Sales Line)
- 027 - Key Map - Pipeline Route CPF to CD-4
- 028 - Road and Pipeline Route at CPF (Sheet 1 of 3)
- 029 - Road and Pipeline Route (Sheet 2 of 3)
- 030 - Road and Pipeline at CD-4 (Sheet 3 of 3)

- 047 - Typical Cross Sections (Pad and Roadway)
- 057 - Deleted - Lake Passage Roadway Section
- 058 - Deleted - Lake Crossing Culverts
- 059 - Deleted - Lake Crossing Culverts-Cross Flow/Fish Passage Pipe Sections
- 071 - Boat Launch and Boat Launch Access Road (Detail Plan and Section)
- 072 - CD-4 Culvert Battery (Plan and Profile)
- 073 - CD-4 Culvert Battery (Plan and Profile)

Note: Drawings 057 - 059 were deleted because the proposed road route now goes around Lake 9323 instead of through the lake. See Drawings 028, 029, 072 and 073.

CD-4 Drill Pad: The proposed pad would have a surface area of approximately 9 acres and would be constructed to be above a 200-year return flood event (Q_{200}) plus freeboard (1 foot). The proposed top of pad elevation is 19 feet BPMSL (BP mean sea level) with 2H:1V slope. The pad would be oriented parallel to the prevailing wind direction to minimize snow accumulation on the drilling pad. The pad site would be located approximately 130 feet from the nearest surrounding water body and more than 1,000 feet from subsistence fish camps on the Nigliq Channel.

Access Road (CD-4 to Alpine CPF): The proposed gravel road would be 3.8 miles long and have a 32-foot-wide driving surface with 2H:1V side slopes. The finished road elevation would be constructed to be above a 50-year return flood event (Q_{50}) plus freeboard (3 feet). Drainage structures with erosion, scour, vortex and side-slope protection would be incorporated in appropriate areas. The road alignment follows a naturally occurring ridge spanning 80% of the route from the drill pad to the CD-2 access road. The remaining 20% is located on discontinuous sections of the ridge that maintains, though not as prominently, separation of the Nigliq and Sakoonang Channels. The road would be constructed around the east side of lake L9323 with culvert batteries across the paleochannel northeast and southeast of the lake.

CD-4 Boat Launch and Launch Access Road (Spill Response): Access to the concrete boat launch would be provided by a 1,500-foot-long by 40-foot-wide (toe-to-toe) secondary access road. A 22-foot-wide by 130-foot-long concrete boat launch would provide water access. The dock access road would have culverts and scour protection as required. The applicant has stated that the downstream side would not have armoring because of the minimal current in the area. BPMSL elevations, exact locations to be armored, and a detailed drawing of the docking structure are not available at this time. Surveys by the applicant were performed this summer (2004).

Side-slope Protection: Sandbags, geotextile or rip rap would be used for side-slope protection as appropriate to protect the facilities from erosion that might result from high water events including wind/wave run-up, storm surge and break up flooding.

CD-4 Pipeline: CD-4 pipelines would proceed east from the drilling pad for approximately 0.4 miles, then north parallel to and 10-feet west of the existing sales oil pipeline to the Alpine CPF. The existing sales oil pipeline was constructed with a 65-foot spacing between VSMs. The pipeline from CD-4 to the CPF would parallel the existing sales pipeline, both in height and VSM placement, to minimize obstructions to caribou movement.

CD-4 Drilling Schedule: The CD-4 development-drilling program would consist of up to 32 wells. The wells would be drilled in the summer, most likely sharing the rig that drills CD-3 during the winter months.

CD-5 SATELLITE (formerly called Alpine West): This proposed site is located approximately 6 miles southwest of the Alpine CPF and would consist of an

approximately 9-acre drill pad and a 0.1-mile-long spur road from the pad to the NPR-A Access Road. A power line from CD-1 to CD-5 would be placed in a cable tray located on the pipeline VSMs. Because CD-5 is outside of the Colville River Delta, flood-related design features as described for CD-3 and CD-4 are not required.

Refer to following drawings (attached)

001 - ASDP Vicinity Map
002 - ASDP Location Map
003 - ASDP Overview
006 - Overview (CD-2 to CD-5)
014 - Plan view - Pad (typical)
017 - Section view - Pipe Section
048 - Cross Section - Pad and Access Road

CD-6 SATELLITE (formerly called Lookout): This proposed site is approximately 15 miles southwest of the Alpine CPF and would consist of an approximate 9-acre drill pad and a 2.2-mile-long spur road from the pad to the NPR-A Access Road. The spur road would include one 40-foot bridge. CD-6 will include on-site power generation and a backup generator. Because CD-6 is outside of the Colville River Delta, flood-related design features as described for CD-3 and CD-4 are not required.

Refer to following drawings (attached)

001 - ASDP Vicinity Map
002 - ASDP Location Map
003 - ASDP Overview
007 - Overview (CD-2 to CD-6)
014 - Plan view - Pad (typical)
017 - Section view - Pipe Section
048 - Cross Section - Pad and Access Road

CD-7 SATELLITE (formerly called Spark): This proposed site is approximately 20 miles southwest of the Alpine CPF and would consist of an approximately 9 acre drill pad. A power line from CD-6 to CD-7 would be placed in a cable tray located on the pipeline VSMs. Because CD-7 is outside of the Colville River Delta, flood-related design features as described for CD-3 and CD-4 are not required.

Refer to following drawings (attached)

001 - ASDP Vicinity Map
002 - ASDP Location Map
003 - ASDP Overview
008 - Overview (CD-6 to CD-7)
014 - Plan view - Pad (typical)
017 - Section view - Pipe Section
048 - Cross Section - Pad and Access Road

NPR-A Access Road: The approximately 21.7-mile-long road would provide access to CD-5, CD-6, and CD-7. It would begin on the east side of the Nigliq Channel at the existing CD-2 Drill Site and terminate at the proposed CD-7 drill site in the NPR-A with spur roads off of this road to CD-5 and CD-6. The NPR-A Access Road and the spur roads to CD-5 and CD-6 would have a crown width of 32 feet, minimum base width of 53 feet and have a minimum gravel thickness of 5 feet with 2:1 side slopes. The road alignments would avoid water bodies, routing 200 feet or more from them where possible. Culverts or bridges have been proposed to maintain fish passage where needed. Bridges have been proposed at the Nigliq Channel, the Ublutuooh River, and several smaller unnamed drainages. In erosion-prone areas, roads would be armored using riprap, articulated concrete mat, or sandbags.

Refer to following drawings (attached)

- 031 - Key Map - Road and Pipeline Route (CPF to CD-7) (14 sheets)
- 032 - Road/Pipeline (Sheet 1 of 14) CD-2 to CD-5 (1200-Ft Nigliq Channel Bridge)
- 033 - Road/Pipeline (Sheet 2 of 14) CD-2 to CD-5 (80-Ft Bridge)
- 034 - Road/Pipeline (Sheet 3 of 14) CD-5
- 035 - Road/Pipeline (Sheet 4 of 14) CD-5 to CD6 (Culvert Battery & 40-Ft Bridge)
- 036 - Road/Pipeline (Sheet 5 of 14) CD-5 to CD-6 (120-Ft Ublutuoch River Bridge)
- 037 - Road/Pipeline (Sheet 6 of 14) CD-5 to CD-6 (Culvert Battery & 40-Ft Bridge)
- 038 - Road/Pipeline (Sheet 7 of 14) CD-5 to CD-6 (Culvert Battery)
- 039 - Road/Pipeline (Sheet 8 of 14) CD-5 to CD-6
- 040 - Road/Pipeline (Sheet 9 of 14) CD-6 (Spur to CD-6, 40-Ft Bridge)
- 041 - Road/Pipeline (Sheet 10 of 14) Intersection CD6 Spur/NPR-A Rd (40-Ft Bridge)
- 042 - Road/Pipeline (Sheet 11 of 14) CD-6 to CD-7 (40-Ft Bridge)
- 043 - Road/Pipeline (Sheet 12 of 14) CD-6 to CD-7
- 044 - Road/Pipeline (Sheet 13 of 14) CD-6 to CD-7
- 045 - Road/Pipeline (Sheet 14 of 14) CD-7
- 049 - Nigliq Channel Bridge (1200 Ft), Plan and Elevation
- 050 - Nigliq Channel Bridge - Ice-Breaking Pier, Plan and Elevation
- 051 - Typical short Crossing Heavy Duty Bridge Section
- 052 - 40-Foot Heavy Duty Bridge, Plan and Elevation
- 053 - 80-Foot Heavy Duty Bridge, Plan and Elevation
- 054 - 120-Foot Heavy Duty Bridge, Plan and Elevation
- 055 - Roadway Cross-Sections - Typical Fish Passage Culvert
- 056 - Roadway Cross-Sections - Typical Non-Fish Passage Culvert
- 060 - Roadway Cross-Sections - Typical Cross Drainage Culvert

BRIDGES/CULVERTS (NPR-A Access and Spur Roads): To protect against scour and bank migration, bridge abutments would be armored and piles set deep enough so that the structures would remain stable during the design scour event. Bridge structural design accounts for the higher-magnitude, less frequent floods, and slope-protection armor would protect against the more frequent, lower-magnitude floods.

- The Nigliq Channel Bridge would be a 1200-foot long box girder style structure located west of CD2. The bridge would be designed to carry vehicle traffic and pipelines. Pipelines would be placed on the downstream side of the bridge for protection from break-up ice. Bridge height would be designed so the bottom of the bridge structure would maintain a 20-foot space above normal summer water levels in the channel.

- An 80-foot box girder bridge would be located west of the Nigliq Channel Bridge to cross a system of small-elongated lakes. The 80-foot bridge would have one central pier.

- Ublutuoch River Bridge would be a 120-foot long box girder bridge with one central pier.

- Four 40-foot box girder bridges would be located at several locations along the NPR-A access and spur roads. The 40-foot bridges would not have any within-channel piers. Additional drawings of the 40-foot-bridge locations have not been provided at this time because detailed topographic information on these crossings is not available. The applicant has stated that additional hydrological and field surveys would be performed in the future.

- Four culvert batteries would be installed at locations with flow velocities of 230 cfs or less. The culverts would be structural steel pipe culverts and would range from 24 inches to 60 inches in diameter depending on the hydrological characteristics and need for fish passage at each area. Each culvert battery would have up to three culverts. The armor would be 4 cubic yard sandbags

or 12-inch minus rip rap from the mine near Atigun Pass, whichever would be appropriate for the location. All footprints include additional side-slope protection. The side-slope protection has been included in total wetlands impacts. The applicant has not provided additional drawings of culvert battery locations at this time because detailed topographic information on these crossing locations is not available. The applicant has stated that additional hydrological and field surveys would be performed in the future.

- Road Culverts: Cross drainage culverts would be placed in the roads to maintain natural surface drainage patterns. Exact placement would be determined during final design by (1) using aerial photography and (2) site inspections by the design engineers during break-up. The majority of the culverts would be installed prior to break-up but additional culverts would be placed after break-up, as site-specific needs would be further assessed. Generally, a culvert would be placed every 1000 feet along the road to allow cross drainage. Scour protection would be placed at culverts depending upon the localized hydrologic criteria.

PIPELINES: Pipelines would be located 350 to 1,000 feet from roads where possible. To avoid a picket-fence effect, new pipeline VSMS (where parallel to existing pipelines) are aligned to match the existing VSMS where possible. New pipelines would be designed with a muted (non-shiny) coating to avoid bright flashes from sunlight that may frighten wildlife. New pipelines would be constructed so the bottom of the pipe would be at least 7 feet above the tundra as measured at the VSMS, and greater in some places depending on topography. In the NPR-A, pipelines would be designed to be upstream from the proposed roads so that roads would serve as a containment barrier in the event of a pipeline spill. The exception is in the Colville River Delta where the pipeline would be on the downstream side of the bridges to protect the pipeline from ice. In the Colville Delta, pipelines have been designed to withstand a 200-year (Q200) return flood event plus 3 feet of freeboard.

GRAVEL SOURCES: *Refer to following drawings (attached)*

061 - ASRC Pit Gravel Source
062 - Deleted - Clover A Gravel Source (replaced by the following drawings)
062A - Clover A Gravel Source - Vicinity Map
062B - Clover A Gravel Source - Plan and Section View - Year 1
062C - Clover A Gravel Source - Plan and Section View - Year 2
062D - Clover A Gravel Source - Preliminary Rehabilitation Plan

- The ASRC Gravel Source: The Arctic Slope Regional Corporation's Gravel Mine Site would be the material source for the construction of CD-3 and CD-4. Expansion of the existing mine pit is already permitted. The amendments to the existing reclamation plan would be the responsibility of gravel mine permittee (ASRC). The mine site is located 13 miles southeast of CD-3 and 6 miles southeast of CD-4.

- Clover Gravel Mine (same name as exploration site): The Clover A Mine Site is located in the NPR-A, approximately 10 miles east of the Alpine oilfield. The mine site is still in the planning stages as part of the ASDP. This site would be used for the construction of CD-5, CD-6 and CD-7 drill sites, the NPR-A and spur roads. Construction activities are currently scheduled for 2 winter construction seasons, not necessarily concurrent. An exposed working face would remain open after the first year's mining efforts. The site would be accessed using seasonal ice roads. The mining plan is to excavate approximately 1.1 million cubic yards of suitable fill material from approximately 60 acres of wetlands. A mining and reclamation plan has been prepared and targets creation of high-value waterbird habitat, which is currently uncommon in the area.

ADDITIONAL INFORMATION:

Existing Related Facilities (Alpine Development, DA permit POA-1996-874-2): Development in the Colville River Unit (Colville Delta) began with the construction of the Alpine Central Processing Facility (located on the CD-1 drill pad) and CD-2 drill pad and associated facilities. Oil production from CD-1 commenced in November 2000 and from CD-2 in November 2001. Oil production from the proposed new satellites would be transported via a new pipeline supported by new VSMS to the Alpine CPF for processing.

Oil Production (Drilling): All produced fluids would be transported to the Alpine CPF for processing. No hydrocarbon processing facilities would be located at any of the new drill sites. The standard pad design uses 20-foot well spacing. The applicant has stated that a greater number of drilling rigs can operate on 20-foot spacing and that there are only a limited number of rigs that can operate on 10-foot spacing. Also, subsidence problems, which have occurred at Alpine, could be minimized with 20-foot spacing between wells. Snow removal constraints and location of wellhead equipment influenced the well-spacing criteria. Additionally, the increased spacing reduces the impacts to adjacent wells during operations and improves emergency response.

Basic Gravel Pad (Drill Site) Components: The pads would be constructed of gravel fill, which would be a minimum height of 5 feet above tundra grade. The applicant has stated that the drill site locations and material storage space requirements were evaluated in order to minimize the gravel footprint. The pads would be oriented northeast to southwest to minimize snow accumulation on the site. The existing Alpine Storm Water Pollution Prevention Plan (SWPPP) would be amended to include management of pad drainage at the five proposed new drill sites.

The gravel drill pads would have to accommodate rig movement; drilling material storage, valve shelters and well work equipment for drilling up to 32 wells (on 20 foot centers) with wellhead houses. Also, on-pad equipment would include emergency shutdown valve skid; manifold piping; test separator; electrical control module; pig launching/receiving facility; crude heater; chemical injection module; production heaters; chemical and liquid fuel storage; spill response equipment container; well testing equipment; four new pipelines to transport water; miscible injectant; lean gas; and produced fluids between CD1 (CPF) and each drill site; communication towers; and lighting as needed. An emergency generator would be placed on CD-3 and CD-6 for safety and life support needs in case of a power failure. The communications building at CD-3 would double as an emergency shelter for operators stranded by inclement weather. All facilities would be located on the proposed pads. There are no proposed pile-supported structures or buildings adjacent to the pads/road/bridges.

No processing of the production fluids beyond routine well testing and process fluid heating is proposed at this time. However, the applicant has stated that facilities for gas separation or sales may be needed in the future.

Drilling Wastes: No reserve pits would be constructed at any of the drill sites. Drilling wastes (i.e., spent muds and cuttings) would be managed by a combination of methods: annular disposal into permitted development wells onsite, transport and injection into the approved Class II disposal well at the Alpine Facility, and reapplication of washed/tested gravels onto pad and/or road surfaces. A temporary storage facility would be constructed to store gravels that have been washed. The gravel, after testing, would be used to repair the pads and/or road surface. During the initial drilling, and prior to gaining approval for annular injection, a portion of the solid drilling waste may be stored on pad awaiting transport to the Alpine Class II disposal well or the Prudhoe Bay Unit waste disposal facility (DS4 Grind & Inject Facility). All well work waste materials would be managed according to the Alpine Waste Management Plan.

Oil Production (Transportation): Oil produced from the new drill pads would be transported via new pipelines supported by new vertical support members (VSMs) to the Alpine CPF for processing. The pipelines would consist of a 16- to 24-inch diameter 3-phase (oil, water, and gas) production line, a 6- to 10-inch diameter gas miscible injection line, and an 8- to 14-inch diameter water line. Additionally, CD-3 would have a 2-inch products line. All pipelines would be constructed so that any pipe, or electrical cable trays would be at a minimum of 7 feet above the tundra measured at the VSMs.

Nigliq Channel Bridge: The United States Coast Guard will be evaluating the proposed Nigliq bridge in association with the Rivers and Harbors Act of 1899. The Corps of Engineers will review all impacts from fill associated with the Nigliq Channel bridge as regulated under Section 404 of the Clean Water Act.

Utility Lines (Power and Communications): The electric power for CD-3, CD-4 and CD-5 would be provided by the existing Alpine power system. No upgrades are required at the Alpine CPF to provide electrical power to the 3 drill sites. The power and communications lines would be placed in a cable tray located on the pipeline VSMs.

Power for CD-6 and CD-7 would be provided by a generator (2.7 to 3.1 MW) placed at CD-6. The power and communication lines would be placed on cable trays. An emergency generator would be placed on CD-3 and CD-6 for safety and life support needs in case of a power failure.

During construction, temporary power would be provided by portable generator, as necessary.

Construction Methods: Refer to Drawings 063 through 069 for Proposed Ice Road Locations. Multiple ice roads would be built to support construction of the gravel roads, pads, the airstrip, and pipelines and power lines to the drill sites. Construction/drilling operations of CD-3 would require construction of an ice road every winter for 5 to 7 years. After completion of drilling at CD-3, an ice road could be built every few years depending on operational needs. The proposed ice road routes run (1) directly adjacent to the proposed pipeline and road routes, and (2) from mine sites to the proposed road route. An ice pad may be placed near each drill site to support construction and provide storage space. Additional ice road routes may be used; routes shown on the drawings are approximate. Ice road spurs to water source lakes are not shown on the enclosed drawings.

Fresh water would be required for construction and maintenance of ice roads and ice pads, and for drilling activities. Lakes near CD-1 and CD-2 that have permanent water rights would be used as water sources, and temporary water use permits would be used for additional sources. Approximately 1 million gallons of water is typically used to construct 1 mile of ice road. Water withdrawals would be made in compliance with state and BLM water withdrawal requirements.

Construction/Operation: Winter drilling operations at CD-3 would be supported by the construction of ice roads. It is estimated that a total 5 million gallons would be used during the winter construction season including maintenance. Approximately 50,000 gallons/day of water would be required to support drilling operations. Once drilling is completed, water needs will be less than 10,000 gallons per day for dust suppression and other operational uses.

Camp Facilities: No permanent camp facilities would be required at any of the proposed drill sites because production processing would be performed at the Alpine CPF. Construction crews would be housed at the Alpine Facility or at a temporary camp at the drill site or on an ice pad. An additional 100-man camp

could be added to the Alpine base camp for additional bed space during peak construction activities. A temporary camp would likely be used during drilling to support 24-hour drilling operations. During the operation phase at CD-3, the communications module would be designed to accommodate operators who may be stranded due to inclement weather.

Proposed Construction Schedules: Proposed project schedules have been provided by the applicant. The applicant is aware that the project timelines may shift due to the permitting process and/or operational considerations. The following schedule has been provided for the start of work at the different sites:

- Winter 2005 (CD-3 and CD-4): Lay gravel for production pads, drilling (CD-3 only), install VSMs for pipelines, and install module piles. CD-3: Install pipeline bridge foundations (Ulamnigiaq Channel, Tamayayak Channel, and the Sakoonang Channel). CD-4: Install pipelines and power lines.
- Winter 2006 (CD-3): Drilling, install pipelines, install power lines, construct pipeline bridges, install surface facilities, set modules. CD-4: Install surface facilities and set modules.
- Summer 2006 (CD-3 and CD-4): Production startup. CD-4: Drilling.
- Winter 2007 (CD-6): Lay gravel for road and production pad, install VSMs for pipelines, install power lines, install module piles, install bridge piers at the Nigliq Channel, install bridge foundations at the Ublutuock River and other bridge crossings.
- Winter 2008 (CD-6): Drilling, install pipelines and surface facilities; install bridge superstructures on all bridges, set modules.
- Summer 2008 (CD-6): Production startup
- Winter 2009 (CD-5, CD-7 and NPR-A Access Road between CD-6 and CD-7): Construct bridges, lay gravel for road and production pad, install VSMs for pipelines, and install module piles. CD-5 only: Install pipelines and powerlines.
- Winter 2010 (CD-5 and CD-7): Drilling. CD-7 only: Install pipelines and powerlines.
- Summer 2010 (CD-5 and CD-7): Production startup.
- Winter 2011 (CD-5 and CD-7): Drilling

ALPINE SATELLITE DEVELOPMENT PLAN ENVIRONMENTAL IMPACT STATEMENT (ASDP EIS): The BLM and four cooperating agencies - U.S. Army Corps of Engineers, U.S. Environmental Protection Agency, U.S. Coast Guard, and the State of Alaska - have prepared the Alpine Satellite Development Plan Environmental Impact Statement (EIS) to examine the applicant's (CPAI), proposed action to develop five satellite oil accumulations. Three proposed satellites are in the Northeast National Petroleum Reserve-Alaska (NPR-A) and two are in the Colville Delta. The Colville Delta is adjacent to the eastern border of the NPR-A. The EIS examines the potential impacts of CPAI's proposed Development Plan and evaluates a range of alternatives, consistent with applicable law, by which to accomplish the purpose and need of the proposed action while mitigating adverse impacts. The EIS provides National Environmental Policy Act analysis of CPAI's proposal for five new production drill pads and associated infrastructure.

The Final EIS is to be issued on September 3, 2004. Copies of the Final EIS are available for public review at the following locations: The BLM Alaska State

Office, Public Information Center at 222 West 7th Avenue, Anchorage, Alaska 99513-7599; City of Anaktuvuk Pass, Anaktuvuk Pass, Alaska; Loussac Library and Alaska Resources Library and Information Service, Anchorage, Alaska; City of Atqasuk, Atqasuk, Alaska; Tuzzy Public Library, Barrow, Alaska; City of Nuiqsut, Nuiqsut, Alaska; the BLM Northern Field Office, Fairbanks, Alaska; and Noel Wein Library, Fairbanks, Alaska.

The entire document can be reviewed at the project web site at <http://www.alpine-satellites-eis.com>. The Point of Contact for questions regarding the Final EIS is Mr. Jim Ducker, BLM Alaska State Office at (907) 271-3130; or Mr. Gary Foreman, BLM Northern Field Office at (907) 474-2339. The Point of Contact for the applicant is Ms. Alice Bullington, WNS Permitting Team Lead, CPAI, Post Office Box 100360, Anchorage, Alaska 99510-0360; telephone (907) 263-4206, FAX (907) 265-1515.

MITIGATION and/or MINIMIZATION: A range of alternatives for the proposed development, including the No Action alternative, has been analyzed as part of the EIS. Prior to submitting the DA permit application, the applicant has conducted and continues to conduct environmental and technical studies in the areas of the proposed projects, and continues to hold informational meetings with interested parties. Information collected from studies and meetings has been incorporated where practicable as mitigation measures to the proposed project design and operations plan.

WATER QUALITY CERTIFICATION: A permit 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 Management and Budget, Division of Governmental Coordination 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 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. In addition, the applicant contracted an archaeological and cultural resources reconnaissance study for the project area. Field studies and archeological/historical/cultural site clearances were conducted during summer 2000, by Dr. Richard Reanier at CD-4 and CD-3 and surrounding locations. "No new or previously undiscovered resources were identified. Consultations were made with locally knowledgeable residents to incorporate Traditional Knowledge into the site investigation reports. The results were communicated to the State Historic Preservation Office (SHPO) office and the North Slope Borough." The first draft of Reanier's survey report is being reviewed. The Corps has not reached any conclusions based on this report regarding impacts the proposed undertaking will have on historic properties. This application and a copy of the cultural resources survey are being coordinated with the SHPO. Any comments the 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.

ENDANGERED SPECIES: The project area is within the known or historic range of the Stellers's eider (*Polysticta stelleri*), and the spectacled eider (*Somateria fischeri*). This application is being coordinated with the U.S. Fish and Wildlife Service and the National Marine Fisheries Service regarding the described activity and any effects to threatened or endangered species, or their critical habitat designated as endangered or threatened, under the Endangered Species Act of 1973 (87 Stat. 844). The FWS is writing a Biological Opinion (BO) that will address concerns regarding Endangered Species, critical habitat and mitigation measures. The BO will be included in the Final EIS. 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, 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 National Marine Fisheries Service. We have determined that the described activity within the proposed area may negatively impact EFH, including anadromous fish and federally managed fishery resources.

FLOOD PLAIN MANAGEMENT: Evaluation of the described activity will include conformance with appropriate State of local flood plain standards, consideration of alternative sites and methods of accomplishment; and weighing of the positive, concentrated and dispersed, and short and long-term impacts on the flood plain.

SPECIAL AREA DESIGNATION: The Colville River delta area is designated as an "Area Meriting Special Attention" within the North Slope Borough's Coastal Management Plan.

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. The Department of Army's initial permit evaluation will focus on the proposed Colville Delta portion of the proposal, Drill Pads CD-3 and CD-4 and all associated infrastructure. Evaluation of the probable impacts which the proposed activity may have on the public interest requires a careful weighing of all those factors which 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 Ms. Joy B. Earp or Ms. Mary Leykom at (907) 753-2716, or toll free from within Alaska at (800) 478-2712, 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).

Project Drawings (Sheets 001-073), Table 1 (Project Location Information), Table 2 (Footprint Information), 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

TABLE 1 – LOCATION INFORMATION

Locations for Drill Pads and associated features	Township/Range/Sections (Umiat Meridian)	Latitude	Longitude
CD-3 Drill Pad 455' Pipeline Bridge/Sakoonang Channel 690' Pipeline Bridge/Tamayagiaq Channel 600' Pipeline Bridge/Ulaminigiaq Channel Airstrip Airport Access Road Mooring Float Dock Mooring Float Access Road	T12N, R5E, Sec.4,5,8,9, 16,17,20,29,and 32	N 70 25' 15.5"	W 150 54' 69.4"
CD-4 Drill Pad Access Road Causeway Boat Ramp Boat Ramp Access Road	T11N, R4E, Sec. 1,12,13, 24; T11N, R5E, Sec.5,6,7,19; and T12N, R5E, Sec.32;	N 70 17' 32.43	W 150 59' 16.97"
CD-5 Drill Pad Access Road	T11N, R4E, Sec.8	N 70 19' 462"	W 151 10" 580"
CD-6 Drill Pad Access Road	T11N, R2E, Sec.25	N 70 16' 492"	W 151 31' 898"
CD-7 Drill Pad	T10N, R2E, Sec.20	N 70 12' 193"	W 151 41' 777"

Locations for NPR-A Access Road	Township/Range/Section	Latitude	Longitude
Start of road at CD-2	T 11N, R 4E, Sec 2	N70 20' 22.6191"	W 151 02' 29.0243"
1,200 Nigliq Channel Bridge	T 11N, R 4E, Sec. 2,3	N70 20' 37.4920"	W151 04' 20.5526"
80' Bridge	T 11N, R 4E, Sec. 3	N70 20' 14.6270"	W151 06' 15.1848"
Start of CD-5 Access Road	T 11N, R 4E, Sec. 8	N70 19' 29.2861	W151 10' 15.5082"
120' Bridge Ublutuoch River	T 11N, R 3E, Sec. 24,25	N70 17' 05.1292"	W151 15' 31.7023"
40' Bridge #2	T 11N, R 3E, Sec. 26	N70 16' 51.8264"	W151 15' 31.7023"
Culvert Battery #2	T 11N, R 3E, Sec. 27	N70 16' 46.8406"	W151 17' 38.2539"
Culvert Battery #3	T 11N, R 3E, Sec. 28	N70 16' 50.5236"	W151 23' 15.9046"
40' Bridge #3	T 10N, R 3E, Sec. 6	N70 15' 19.4"	W151 29' 37.3"
Start of CD-6 Access Road	T 10N, R 2E, Sec. 1	N70 14' 58.9"	W151 30' 34.5"
40' Bridge #4	T 10N R 2E, Sec. 12	N70 12' 12.9"	W151 37' 19.4"
Culvert Battery #4	T 10N, R2E, Sec 22	N70 14' 09.1"	W 151 31' 23.0"
Road termination at CD-7 pad	T 10N, R 2E, Sec. 20	N70 12' 13.9118"	W151 41' 40.8118"

Mine Site Location	Township/Range/Section	Latitude	Longitude
Clover Mine Site	T10N, R3E, Sec. 12	N70 14' 26.4246"	W151 16' 12.4481"
ASRC Mine Site <i>Note: ConocoPhillips is not the Applicant for this action.</i>	T10N, R5E, Sec. 11	N70 14' 10.2824"	W150 48' 58.8168"

TABLE 2 – FOOTPRINT INFORMATION

The total impacts to wetlands and other waters of the United States from the proposed projects are summarized as follows:

Project Site & Structures	Acres	Cubic Yds of Fill	Length	Dimensions	VSMs
CD-3 Satellite <i>Colville Delta</i>					
Drill Pad	12.6	110,000	--	Irregular: 344' X 745'; 444' X 245' plus 694' X 297'	N/A
Airstrip	15.2	120,000	0.73 mile	3869' X 169'	N/A
<u>Taxiway/Apron:</u> -Taxiway -Apron	1.1	10,000	--	100' X 40' 182' X 232'	N/A
Access road from pad to airstrip	1.7	12,000	0.35 mile	40' X 1850'	N/A
Access Road to Mooring Float - Staging Pad	0.3	2,000	--	40' X 200' 60' X 30'	N/A
<u>Pipeline Bridges:</u> -Sakoonang Channel -TamayagiaqChannel -Ulamnigiaq Channel				Footprints of in-stream structures would include 160 sq.ft. for 3 in-stream piers and 75 sq.ft. for six abutments.	See below
Pipelines	--	--	34,754 ft	Pipelines would comply with design criteria of a 200-yr flood event plus 3 feet.	See below
VSMs	2 sq.ft/VSM (0.029 acres)	0.64 cy/VSM (404 cy)	--	12.75" diameter for support; 19" hole, 16' deep	631 (1 every 55 feet)
Total Fill CD-3	30.9	254,404			

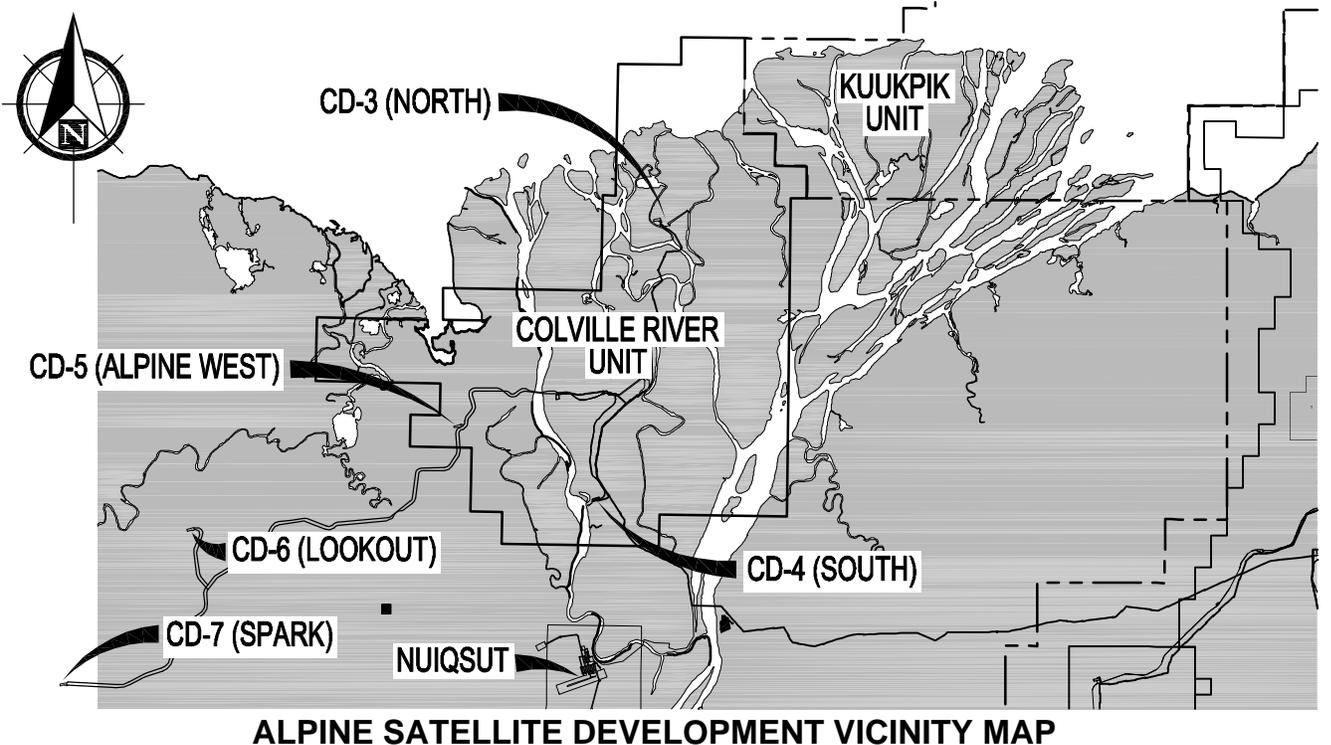
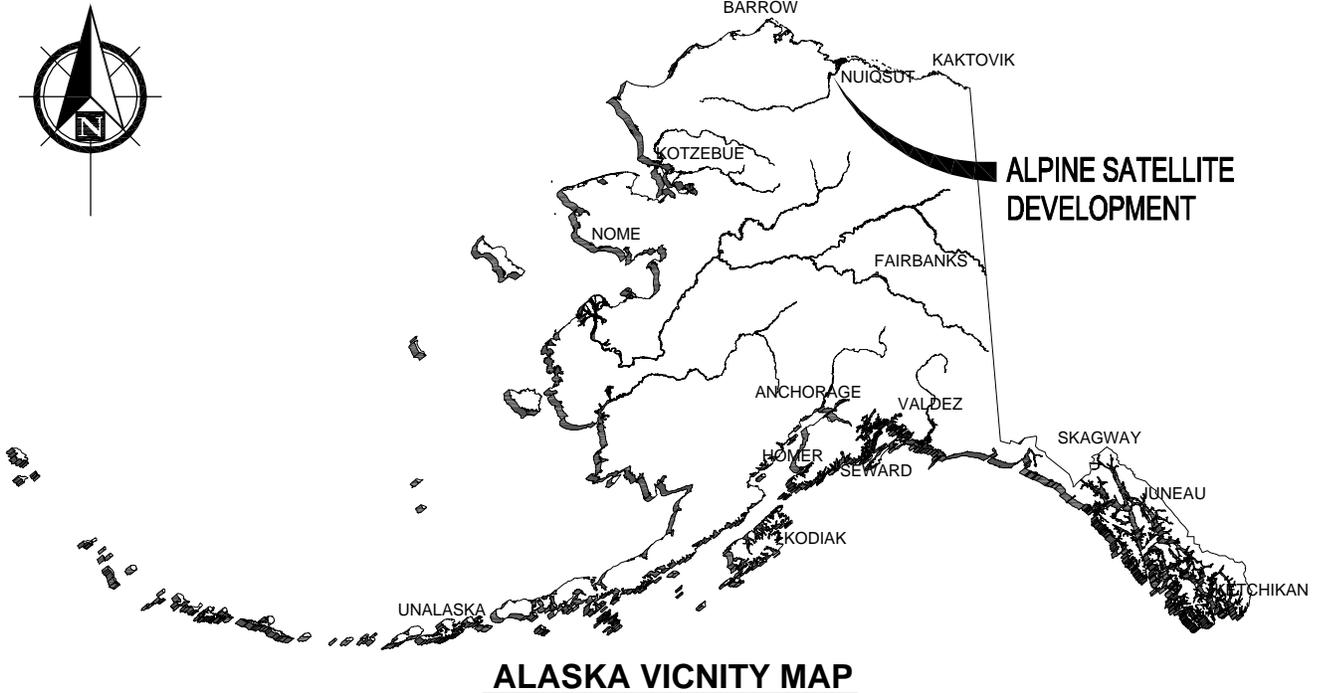
CD-4 Satellite <i>Colville Delta</i>	Acres	Cubic Yds of Fill	Length	Dimensions	VSMs
Drill Pad	9.3	112,000	--	Irregular: 414 X 455 plus 314 X 657	N/A
Access road from pad to Alpine CPF	27	225,000	3.8 miles		N/A
Access Road and Turn Around to Boat Launch	1.7	16,000	1500 ft	1500 X 22	N/A
Concrete Boat Ramp	0.1	1,000	--	22 X 130	N/A
Pipelines	--	--	22,000 ft	Height of pipe rack to tundra grade will be in alignment with existing Alpine lines	See below
VSMs	2 sq. ft/VSM (0.029 acres)	0.64 cy/VSM (256 cy)	--	12.75" diameter for support; 19" hole, 16' deep	400 (1 every 55 feet)
<i>Total Fill CD-4</i>	<i>38.1</i>	<i>354,000</i>			
CD-5 (NPR-A)	Acres	Cubic Yds of Fill	Length	Dimensions	VSMs
Drill Pad	9.1	78,000		Irregular, 753 x 300 plus 400 x 433	N/A
Spur Road (Pad to NPR- A Access Road)	0.5	5,000	0.1 miles		N/A
<i>Total Fill CD-5</i>	<i>9.6</i>	<i>83,000</i>			

CD-6 (NPR-A)	Acres	Cubic Yds	Length	Dimensions	VSMs
Drill Pad	9.1	78,000		Irregular, 753 x 300 plus 400 x 433	N/A
Spur Road (Pad to NPR-A Access Road)	14.5	111,000	2.2 miles		
Total Fill CD-6	23.6	189,000			
CD-7 (NPR-A)	Acres	Cubic Yds	Length	Dimensions	VSMS
Drill Pad	9.1	78,000		Irregular, 753 x 300 plus 400 x 433	
Total Fill CD-7	9.1	78,000			
TOTAL FOR ALL DRILL PADS	111.3	958,404			
NPR-A Pipelines CD-2 to CD-7	Acres	Cubic Yds	Length	Dimensions	VSMS
	2 sq. ft/VSM (0.11 acres)	0.64 cy/VSM (1,475 cy)	24.0 miles	12.75" diameter for support; 19" hole, 16' deep	2,304 (1 every 55 feet)

NPR-A Access Road	In-Stream Piers	Acres	Cubic Yds	Length
<u>Road Section 1:</u> CD-2 to East Bank of Nigliq River		7.1	116,000	0.6 miles
1200-Ft Bridge over Nigliq Channel	6			1200 Feet
<u>Road Section 2:</u> West bank of Nigliq to CD-5 Spur Road Includes an 80-ft bridge	1	24.8	251,000	3.6 miles
	In-Stream Piers	Acres	Cubic Yds	Length
<u>Road Section 3:</u> CD-5 Spur Road to CD-6 Access Road Includes: Culvert Battery #1 40-Ft Bridge #1 120-foot Bridge over the Ublutuoch River 40-Foot Bridge #2 Culvert Battery #2 Culvert Battery #3	0 1 1	74.2	565,000	11.1
<u>Road Section 4:</u> CD-6 Spur Road to CD-7 Pad Includes: Culvert Battery #4 40-Foot Bridge #4	0	43.1	328,000	6.4 miles
<i>Total Fill for NPR-A Access Road</i>		<i>149.2</i>	<i>1,260,000</i>	<i>21.7 miles</i>

MINE SITES	Acreage	Dimensions (Feet)	Material to be Mined (Cubic Yards)
Clover Gravel Mine - Area to be mined - Over Burden Staging Area	65 Ac	1680 X 1680 840 X 1680	Soil and Gravel: 1,750,000 Over Burden: 1,350,000
ASRC Mine Site - Area to be mined <i>Note: ConocoPhillips is not the Applicant for this action.</i>	27 Ac		Soil and Gravel: 836,000 Over Burden: 840,000

REV	DATE	BY	CK	APP	DESCRIPTION	REV	DATE	BY	CK	APP	DESCRIPTION
0	01/04	RLC	JWP	-	ISSUE FOR PERMIT						



08/12/04

P | N | D CONSULTING ENGINEERS
Incorporated

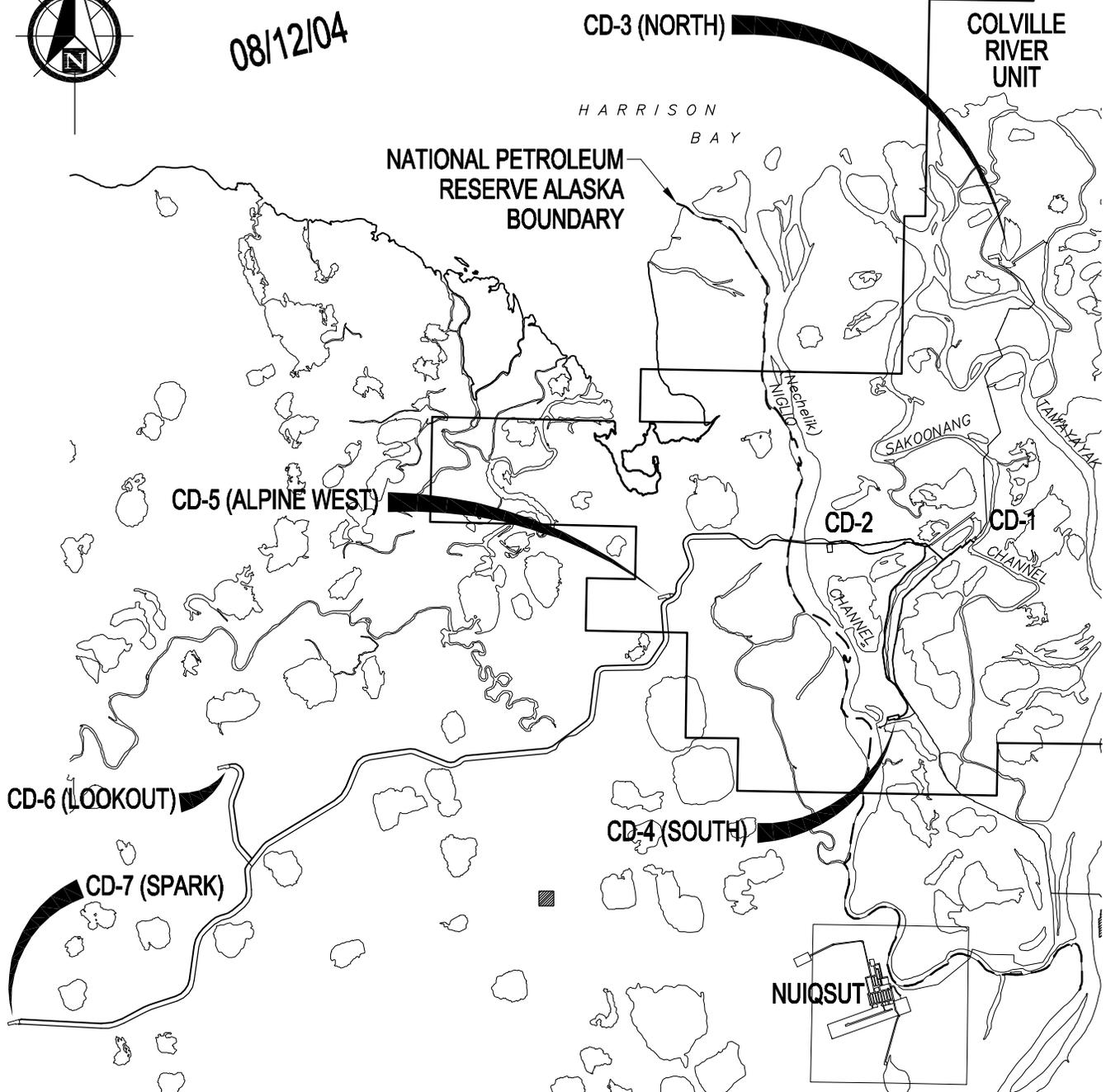
	AREA: 00	MODULE: XXXX	UNIT: R1
	ALPINE SATELLITE DEVELOPMENT PROGRAM VICINITY MAP		
CADD FILE NO.	DRAWING NO:	CEA-R1XX-XXXX	SHEET: 001 OF 73
			REV: 0

J:\2001\0117 NPRA Development\Drawings\Permitting - Dwg Package A01 - Vicinity Map.dwg, 8/12/2004 11:15:43 AM, scott abbett, 1:1

REV	DATE	BY	CK	APP	DESCRIPTION	REV	DATE	BY	CK	APP	DESCRIPTION
0	01/04	RLC	JWP	-	ISSUE FOR PERMIT						

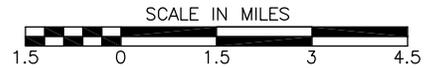


08/12/04



ALPINE SATELLITE DEVELOPMENT LOCATION MAP

- NATIONAL PETROLEUM RESERVE-ALASKA BOUNDARY
- ==== COLVILLE RIVER OIL & GAS UNIT BOUNDARY
- _____ NUIQSUT MUNICIPAL BOUNDARY



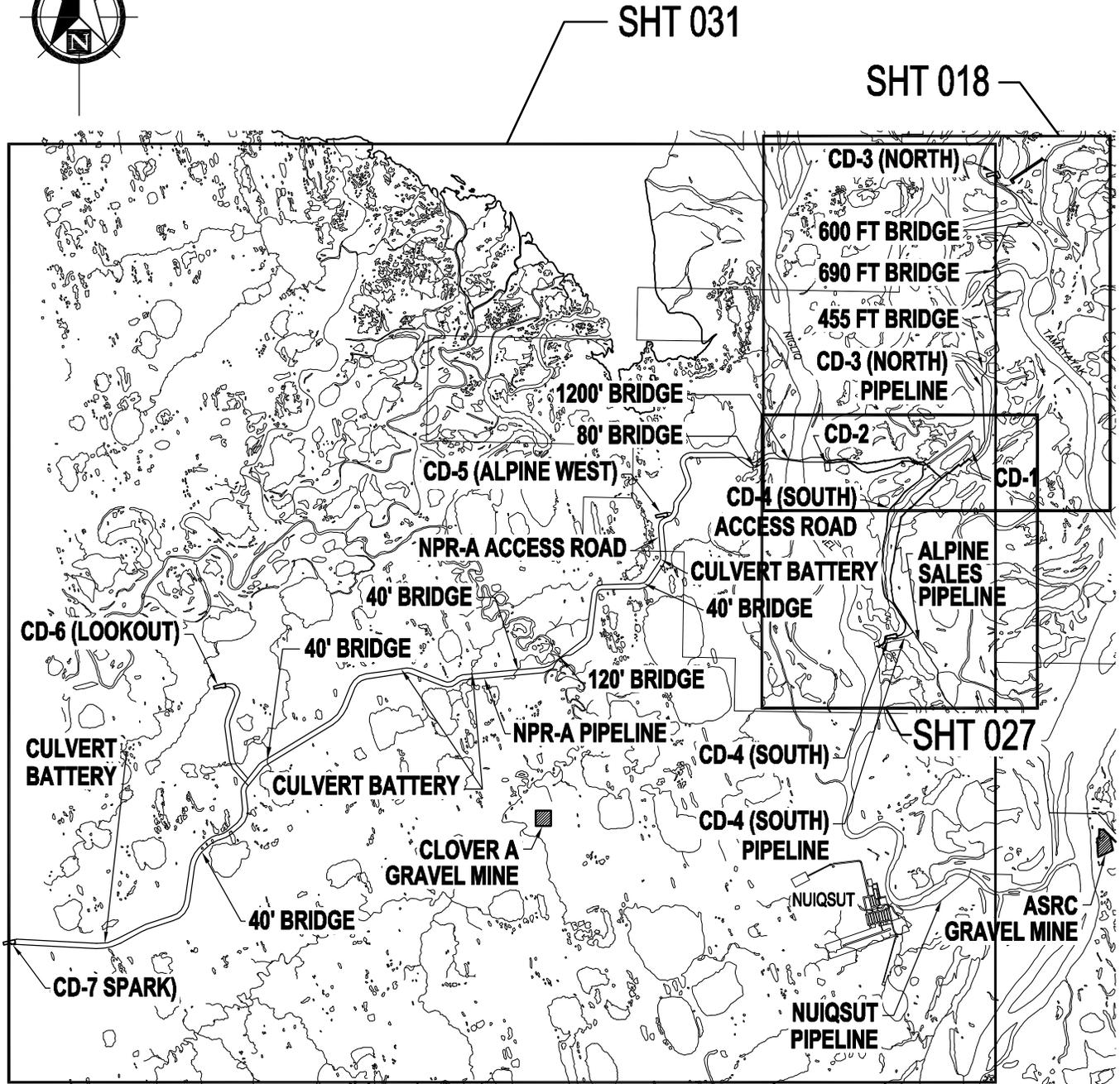
THIS MAP PROJECTION IS BASE UPON ALASKA STATE PLANE, NAD 83. THIS MAP IS BASED ON DATA PROVIDED BY THE U.S. GEOLOGICAL SURVEY, THE ALASKA DEPARTMENT OF NATURAL RESOURCES, AND CONOCO PHILLIPS ALASKA, INC.



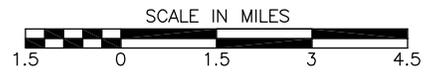
AREA: 00 MODULE: XXXX UNIT: R1
 ALPINE SATELLITE DEVELOPMENT PROGRAM
 LOCATION MAP

CADD FILE NO.	DRAWING NO:	CEA-R1XX-XXXX	SHEET: 002 OF 73	REV: 0
---------------	-------------	---------------	---------------------	-----------

REV	DATE	BY	CK	APP	DESCRIPTION	REV	DATE	BY	CK	APP	DESCRIPTION
0	01/04	RLC	JWP	-	ISSUE FOR PERMIT						



08/12/04



P | N | D CONSULTING ENGINEERS
Incorporated

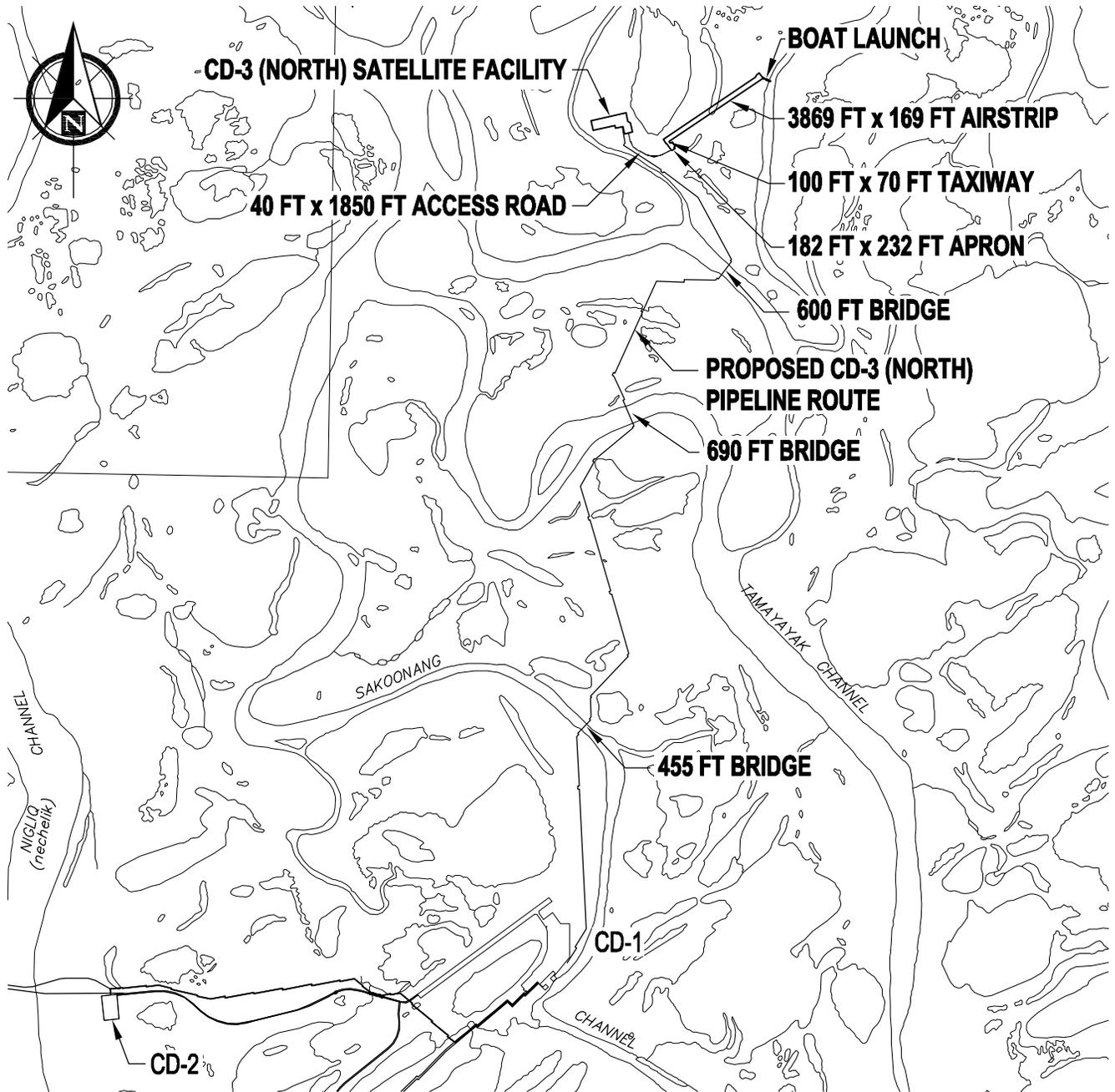
ConocoPhillips
Alaska, Inc.

AREA: 00 MODULE: XXXX UNIT: R1
ALPINE SATELLITE DEVELOPMENT PROGRAM
OVERVIEW

CADD FILE NO.	DRAWING NO: CEA-R1XX-XXXX	SHEET: 003 OF 73	REV: 0
---------------	------------------------------	---------------------	-----------

J:\2001\0117 NPRA Development\Drawings\Permitting - Dwg Package A\03 - NPRA Access Road Overview.dwg, 8/12/2004 11:16:35 AM, scott.abbett, 1:1

REV	DATE	BY	CK	APP	DESCRIPTION	REV	DATE	BY	CK	APP	DESCRIPTION
0	01/04	RLC	JWP	-	ISSUE FOR PERMIT						



CD-3 (NORTH) FACILITIES	
PIPELINE LENGTH	34,754 FT
ACCESS ROAD LENGTH	0.4 MI
AREA OF ACCESS TUNDRA COVER	1.7 ACRES
AREA OF PAD TUNDRA COVER	12.6 ACRES
AREA OF AIRSTRIP TUNDRA COVER	15.2 ACRES
AREA OF TAXIWAY/APRON TUNDRA COVER	1.1 ACRES
AREA OF BOAT LAUNCH TUNDRA COVER	0.3 ACRES
QUANTITY OF ACCESS GRAVEL	12,000 CY
QUANTITY OF PAD GRAVEL	110,000 CY
QUANTITY OF AIRSTRIP GRAVEL	135,000 CY
QUANTITY OF TAXIWAY/APRON GRAVEL	20,000 CY
QUANTITY OF BOAT LAUNCH GRAVEL	2,000 CY

08/12/04



THIS MAP PROJECTION IS BASE UPON ALASKA STATE PLANE, NAD 83. THIS MAP IS BASED ON DATA PROVIDED BY THE U.S. GEOLOGICAL SURVEY, THE ALASKA DEPARTMENT OF NATURAL RESOURCES, AND CONOCO PHILLIPS ALASKA, INC.

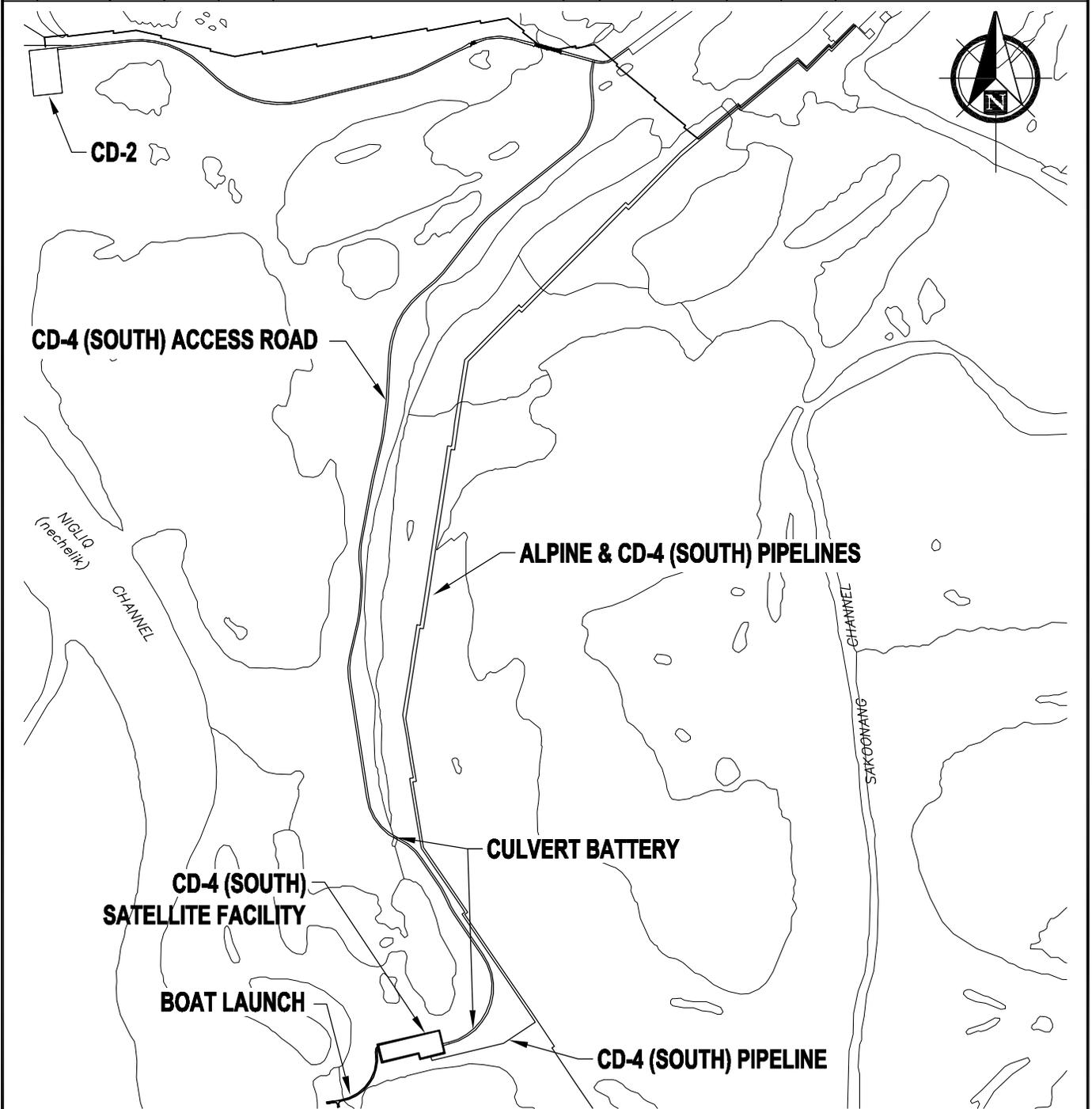
P | N | D CONSULTING ENGINEERS
Incorporated



AREA: 00 MODULE: XXXX UNIT: R1
 ALPINE SATELLITE DEVELOPMENT PROGRAM
 CD-3 (NORTH) SATELLITE FACILITY
 OVERVIEW

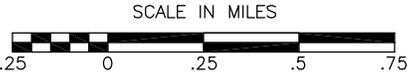
CADD FILE NO.	DRAWING NO:	CEA-R1XX-XXXX	SHEET: 004 OF 73	REV: 0
---------------	-------------	---------------	------------------	--------

REV	DATE	BY	CK	APP	DESCRIPTION	REV	DATE	BY	CK	APP	DESCRIPTION
0	01/04	RLC	JWP	-	ISSUE FOR PERMIT						



CD-4 (SOUTH) FACILITIES	
PIPELINE LENGTH	22,000 FEET
ROAD LENGTH	3.8 MI
AREA OF ROAD TUNDRA COVER	27 ACRES
AREA OF PAD TUNDRA COVER	9.3 ACRES
AREA OF BOAT LAUNCH TUNDRA COVER	1.7 ACRES
QUANTITY OF ROAD GRAVEL	225,000 CY
QUANTITY OF PAD GRAVEL	112,000 CY
QUANTITY OF BOAT LAUNCH GRAVEL	16,000 CY

08/12/04

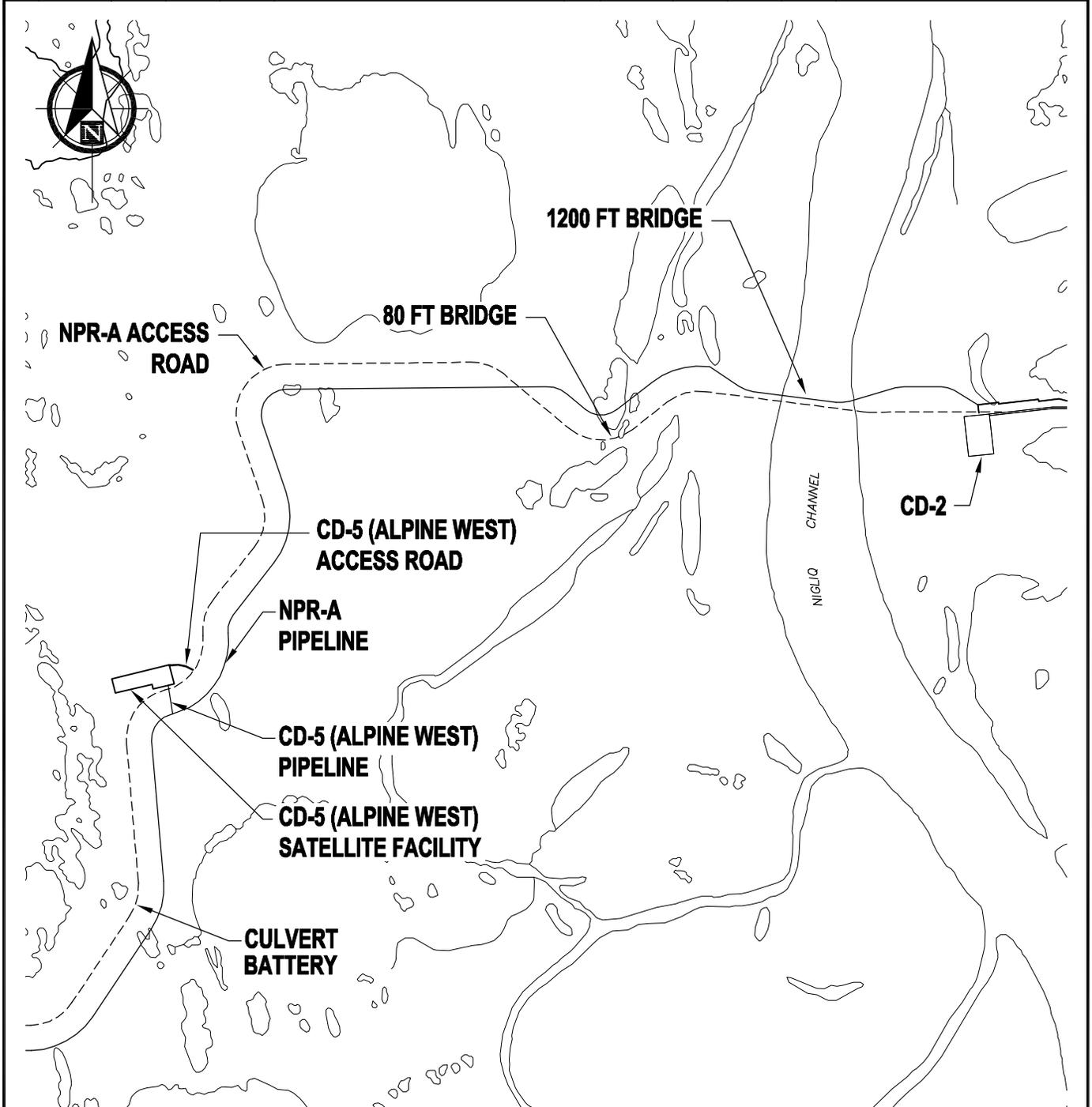


P | N | D CONSULTING ENGINEERS
Incorporated

THIS MAP PROJECTION IS BASE UPON ALASKA STATE PLANE, NAD 83. THIS MAP IS BASED ON DATA PROVIDED BY THE U.S. GEOLOGICAL SURVEY, THE ALASKA DEPARTMENT OF NATURAL RESOURCES, AND CONOCO PHILLIPS ALASKA, INC.

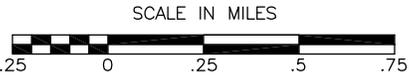
	AREA: 00	MODULE: XXXX	UNIT: R1
	ALPINE SATELLITE DEVELOPMENT PROGRAM CD-4 (SOUTH) SATELLITE FACILITY OVERVIEW		
CADD FILE NO.	DRAWING NO:	CEA-R1XX-XXXX	SHEET: 005 OF 73 REV: 0

REV	DATE	BY	CK	APP	DESCRIPTION	REV	DATE	BY	CK	APP	DESCRIPTION
0	01/04	RLC	JWP	-	ISSUE FOR PERMIT						



CD-5 (ALPINE WEST) FACILITIES	
PIPELINE LENGTH	600 FEET
ACCESS ROAD LENGTH	0.1 MILE
AREA OF ROAD TUNDRA COVER	0.5 ACRES
AREA OF PAD TUNDRA COVER	9.1 ACRES
QUANTITY OF ROAD GRAVEL	5000 CY
QUANTITY OF PAD GRAVEL	78,000 CY

08/12/04

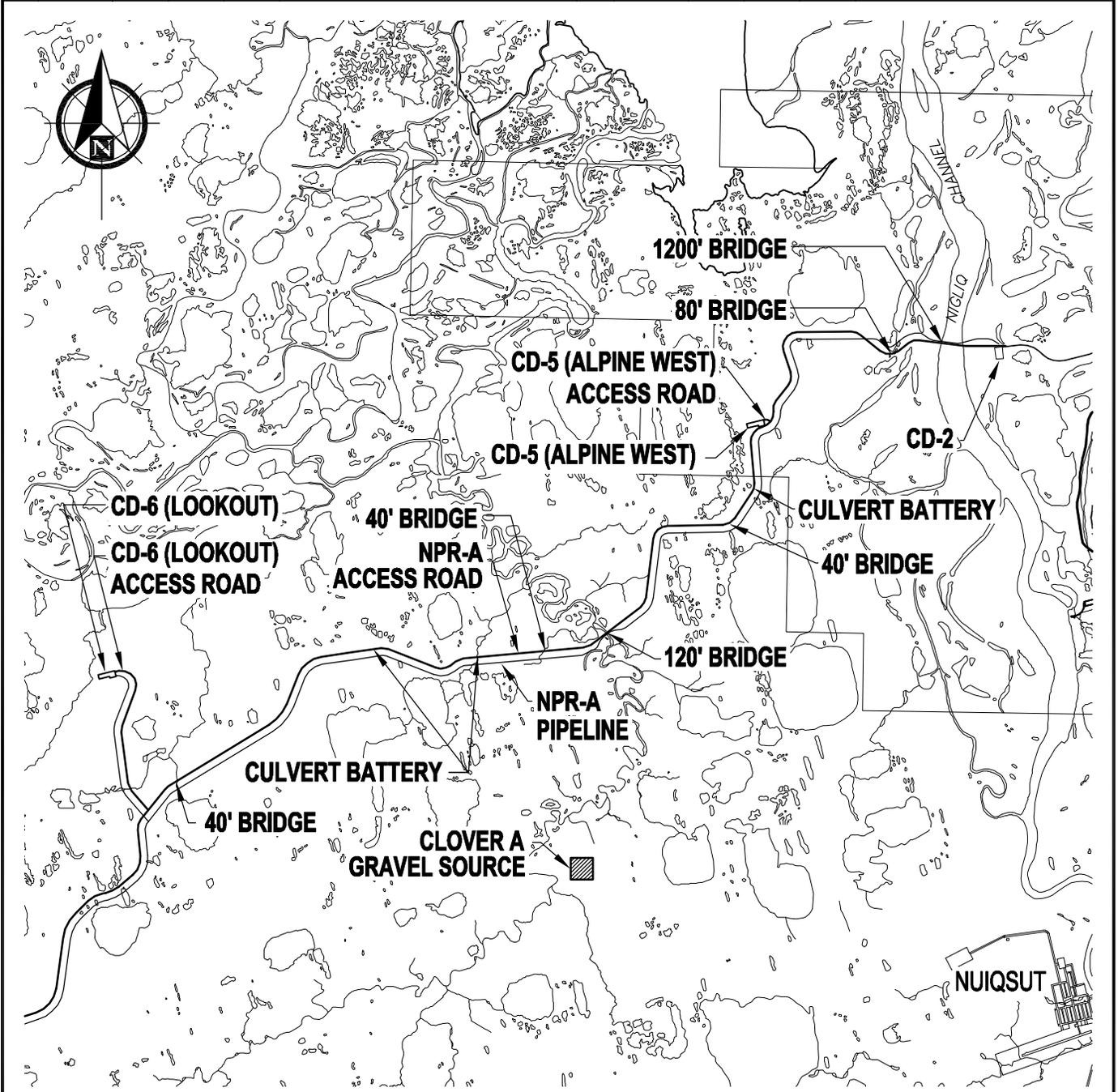


THIS MAP PROJECTION IS BASE UPON ALASKA STATE PLANE, NAD 83. THIS MAP IS BASED ON DATA PROVIDED BY THE U.S. GEOLOGICAL SURVEY, THE ALASKA DEPARTMENT OF NATURAL RESOURCES, AND CONOCO PHILLIPS ALASKA, INC.

P | N | D CONSULTING ENGINEERS
Incorporated

	AREA: 00	MODULE: XXXX	UNIT: R1
	ALPINE SATELLITE DEVELOPMENT PROGRAM CD-5 (ALPINE WEST) SATELLITE FACILITY OVERVIEW		
CADD FILE NO.	DRAWING NO:	SHEET:	REV:
	CEA-R1XX-XXXX	006 OF 73	0

REV	DATE	BY	CK	APP	DESCRIPTION	REV	DATE	BY	CK	APP	DESCRIPTION
0	01/04	RLC	JWP	-	ISSUE FOR PERMIT						



CD-6 (LOOKOUT) FACILITIES	
PIPELINE LENGTH	80,000 FT
MAIN ROAD LENGTH	15.3 MI
ACCESS ROAD LENGTH	2.2 MI
AREA OF MAIN ROAD TUNDRA COVER	106.1 ACRES
AREA OF ACCESS ROAD TUNDRA COVER	14.5 ACRES
AREA OF PAD TUNDRA COVER	9.1 ACRES
QUANTITY OF MAIN ROAD GRAVEL	932,000 CY
QUANTITY OF ACCESS ROAD GRAVEL	111,000 CY
QUANTITY OF PAD GRAVEL	78,000 CY

08/12/04



THIS MAP PROJECTION IS BASE UPON ALASKA STATE PLANE, NAD 83. THIS MAP IS BASED ON DATA PROVIDED BY THE U.S. GEOLOGICAL SURVEY, THE ALASKA DEPARTMENT OF NATURAL RESOURCES, AND CONOCO PHILLIPS ALASKA, INC.

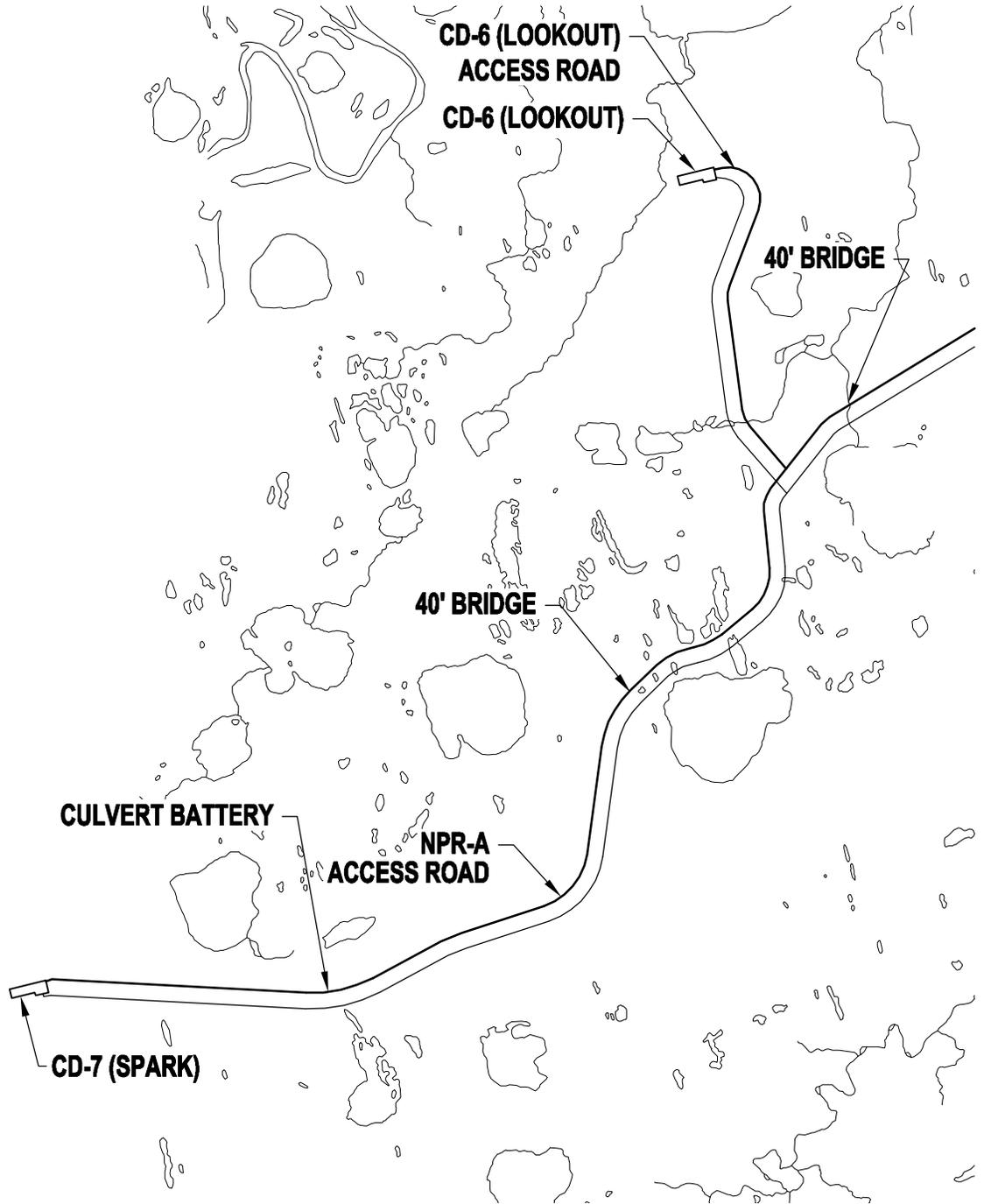
P | N | D CONSULTING ENGINEERS
Incorporated

ConocoPhillips
 Alaska, Inc.

AREA: 00 MODULE: XXXX UNIT: R1
 ALPINE SATELLITE DEVELOPMENT PROGRAM
 CD-6 (LOOKOUT) SATELLITE FACILITY
 OVERVIEW

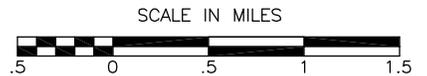
CADD FILE NO.	DRAWING NO:	CEA-R1XX-XXXX	SHEET: 007 OF 73	REV: 0
---------------	-------------	---------------	------------------	--------

REV	DATE	BY	CK	APP	DESCRIPTION	REV	DATE	BY	CK	APP	DESCRIPTION
0	01/04	RLC	JWP	-	ISSUE FOR PERMIT						



CD-7 (SPARK) FACILITIES	
PIPELINE LENGTH	39,000 FT
MAIN ROAD LENGTH	6.4 MI
AREA OF MAIN ROAD TUNDRA COVER	43.1 ACRES
AREA OF PAD TUNDRA COVER	9.1 ACRES
QUANTITY OF MAIN ROAD GRAVEL	328,000 CY
QUANTITY OF PAD GRAVEL	78,000 CY

08/12/04



THIS MAP PROJECTION IS BASE UPON ALASKA STATE PLANE, NAD 83. THIS MAP IS BASED ON DATA PROVIDED BY THE U.S. GEOLOGICAL SURVEY, THE ALASKA DEPARTMENT OF NATURAL RESOURCES, AND CONOCO PHILLIPS ALASKA, INC.



CONSULTING ENGINEERS



AREA: 00 MODULE: XXXX UNIT: R1
 ALPINE SATELLITE DEVELOPMENT PROGRAM
 CD-7 (SPARK) SATELLITE FACILITY
 OVERVIEW

CADD FILE NO.	DRAWING NO:	CEA-R1XX-XXXX	SHEET:	008 of 73	REV:	0
---------------	-------------	---------------	--------	-----------	------	---

REV	DATE	BY	CK	APP	DESCRIPTION	REV	DATE	BY	CK	APP	DESCRIPTION
0	01/04	RLC	JWP	-	ISSUE FOR PERMIT						

SHEET 9 DELETED

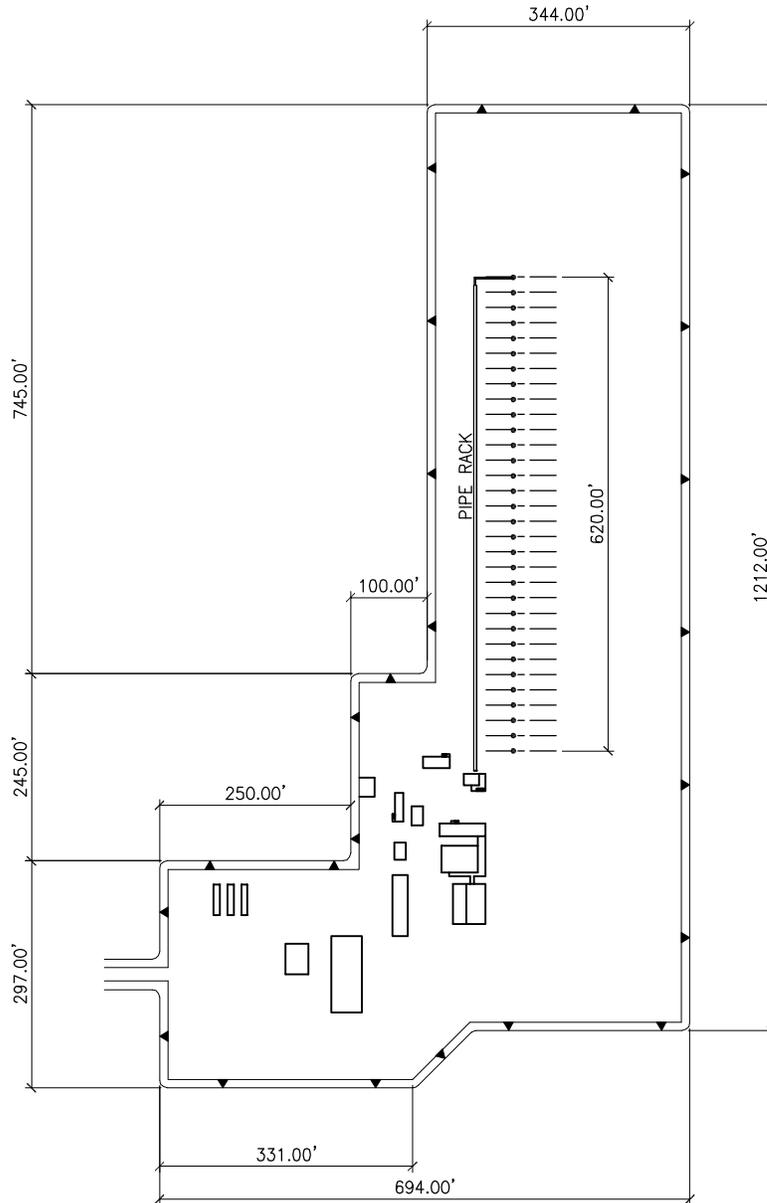
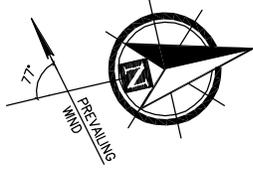
08/12/04

P | N | D
 Incorporated
 CONSULTING ENGINEERS

 ConocoPhillips Alaska, Inc.	AREA: 00	MODULE: XXXX	UNIT: R1
	ALPINE SATELLITE DEVELOPMENT PROGRAM		

CADD FILE NO.	DRAWING NO: CEA-R1XX-XXXX	SHEET: 9 OF 73	REV: 0
---------------	------------------------------	-------------------	-----------

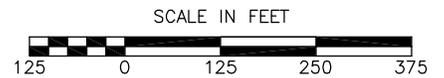
REV	DATE	BY	CK	APP	DESCRIPTION	REV	DATE	BY	CK	APP	DESCRIPTION
0	01/04	RLC	JWP	-	ISSUE FOR PERMIT						



08/12/04

CD-3 (NORTH) PAD QUANTITIES	
AREA OF TUNDRA COVER	12.6 ACRES
QUANTITY OF GRAVEL	110,000 CY
ASSUME AVERAGE FILL DEPTH OF 5.5'	

NOTE:
MINIMUM GRAVEL DEPTH
5.0' WITH 2:1 FILL SLOPES



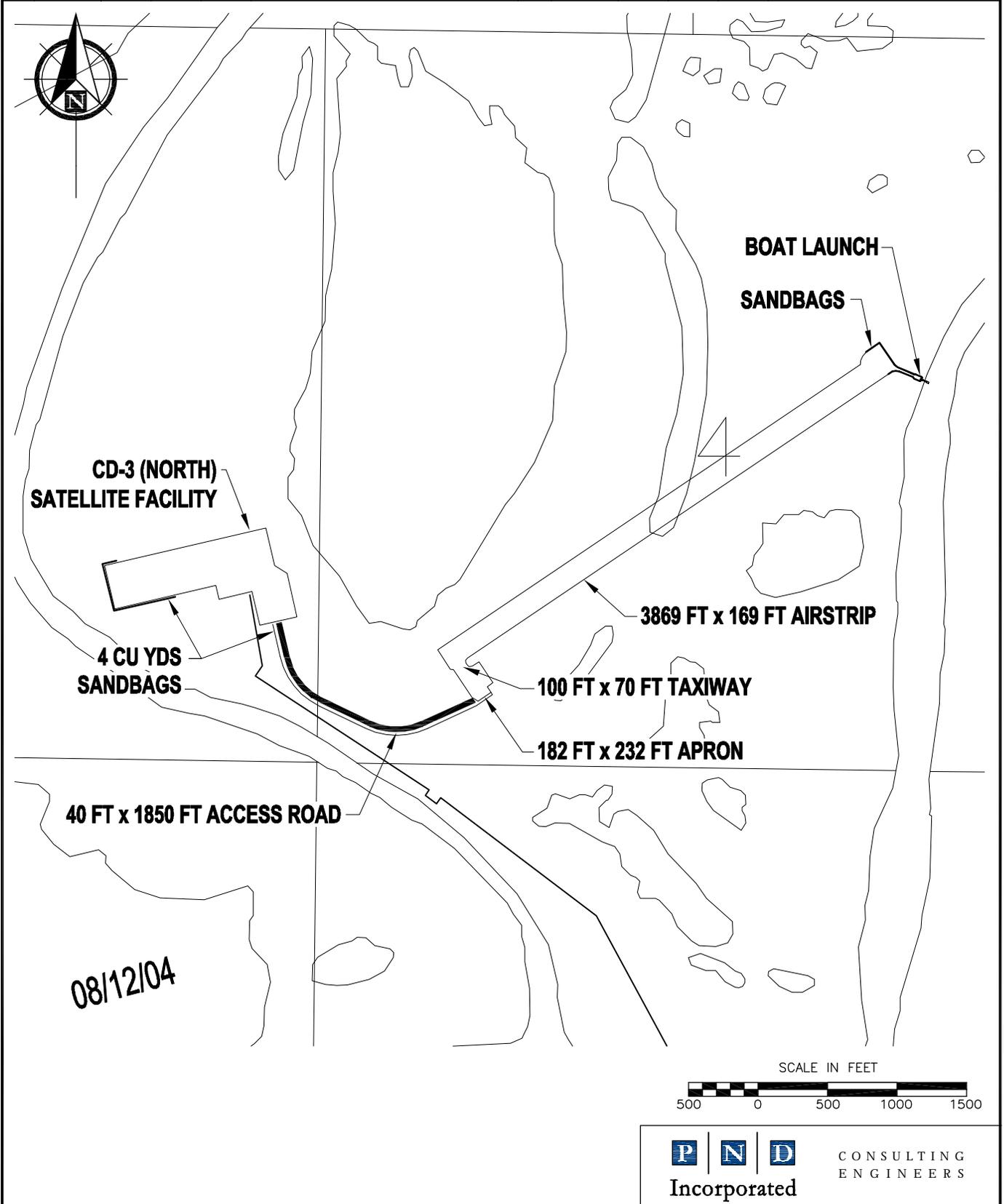
THIS MAP PROJECTION IS BASE UPON ALASKA STATE PLANE, NAD 83. THIS MAP IS BASED ON DATA PROVIDED BY THE U.S. GEOLOGICAL SURVEY, THE ALASKA DEPARTMENT OF NATURAL RESOURCES, AND CONOCO PHILLIPS ALASKA, INC.



AREA: 00 MODULE: XXXX UNIT: R1
ALPINE SATELLITE DEVELOPMENT PROGRAM
CD-3 (NORTH) PAD FOOTPRINT

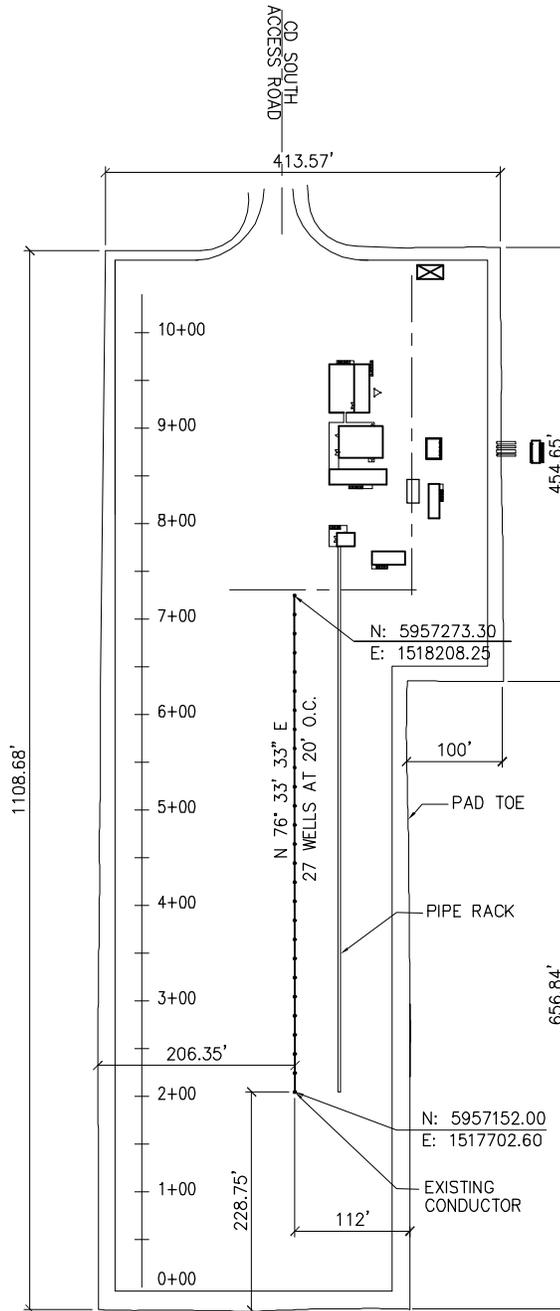
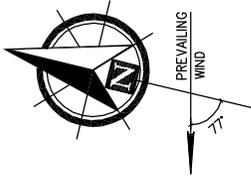
CADD FILE NO.	DRAWING NO: CEA-R1XX-XXXX	SHEET: 010 OF 73	REV: 0
---------------	------------------------------	---------------------	-----------

REV	DATE	BY	CK	APP	DESCRIPTION	REV	DATE	BY	CK	APP	DESCRIPTION
0	01/04	RLC	JWP	-	ISSUE FOR PERMIT						



	AREA: 00	MODULE: XXXX	UNIT: R1
	ALPINE SATELLITE DEVELOPMENT PROGRAM CD-3 (NORTH) PAD, ACCESS ROAD AND AIRSTRIP LAYOUT		
CADD FILE NO.	DRAWING NO:	SHEET:	REV:
	CEA-R1XX-XXXX	011 OF 73	0

REV	DATE	BY	CK	APP	DESCRIPTION	REV	DATE	BY	CK	APP	DESCRIPTION
0	01/04	RLC	JWP	-	ISSUE FOR PERMIT						



08/12/04

CD-4 (SOUTH) PAD QUANTITIES	
AREA OF TUNDRA COVER	9.3 ACRES
QUANTITY OF GRAVEL	112,000 CY

AVERAGE DEPTH OF 7.5', FROM EXISTING TOPOGRAPHIC INFORMATION

NOTE:
MINIMUM GRAVEL DEPTH
5.0' WITH 2:1 FILL SLOPES



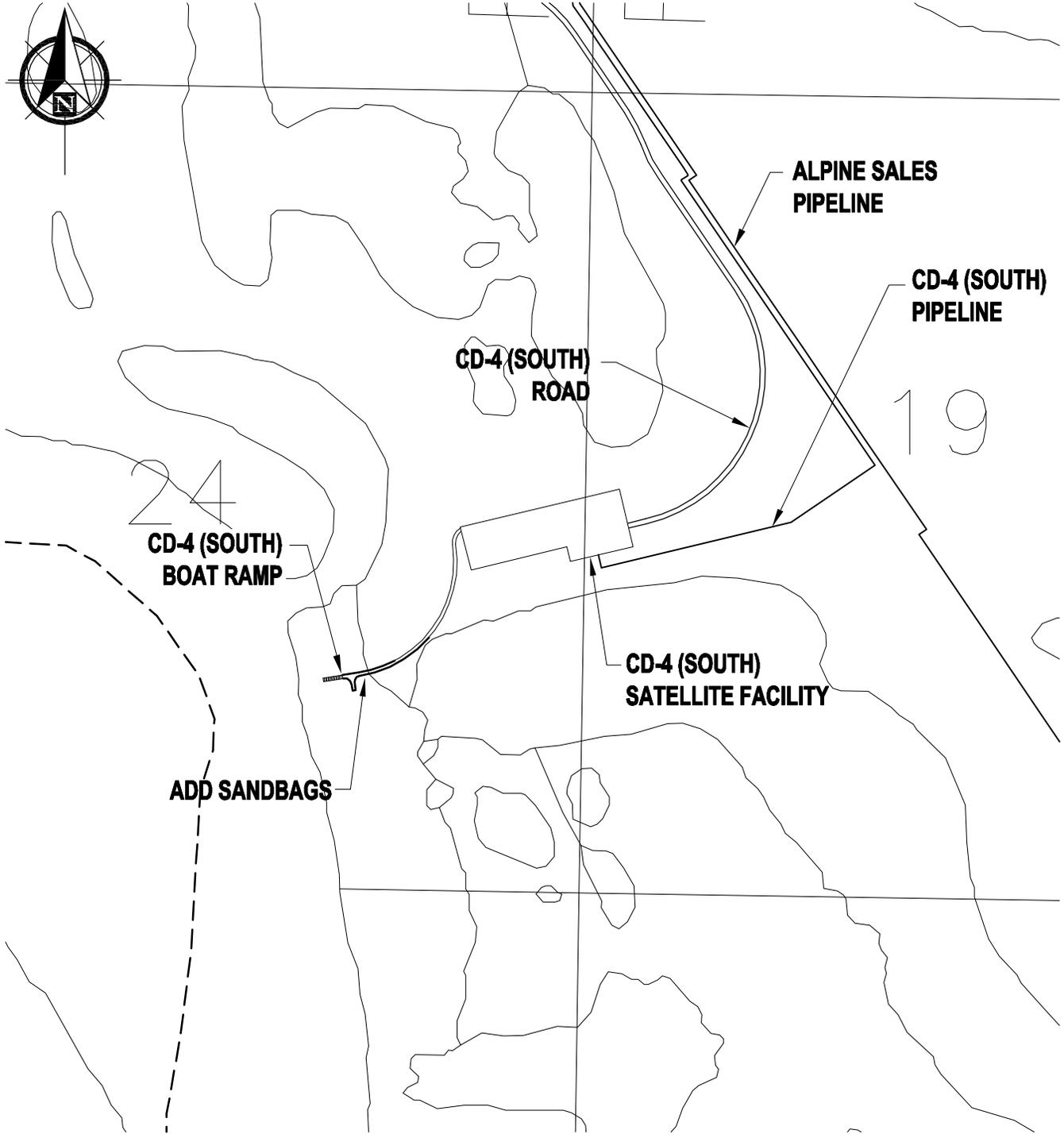
THIS MAP PROJECTION IS BASE UPON ALASKA STATE PLANE, NAD 83. THIS MAP IS BASED ON DATA PROVIDED BY THE U.S. GEOLOGICAL SURVEY, THE ALASKA DEPARTMENT OF NATURAL RESOURCES, AND CONOCO PHILLIPS ALASKA, INC.



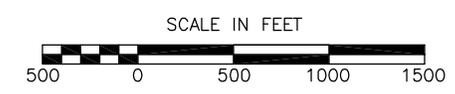
AREA: 00 MODULE: XXXX UNIT: R1
ALPINE SATELLITE DEVELOPMENT PROGRAM
CD-4 (SOUTH) PAD FOOTPRINT

CADD FILE NO.	DRAWING NO: CEA-R1XX-XXXX	SHEET: 012 OF 73	REV: 0
---------------	------------------------------	---------------------	-----------

REV	DATE	BY	CK	APP	DESCRIPTION	REV	DATE	BY	CK	APP	DESCRIPTION
0	01/04	RLC	JWP	-	ISSUE FOR PERMIT						



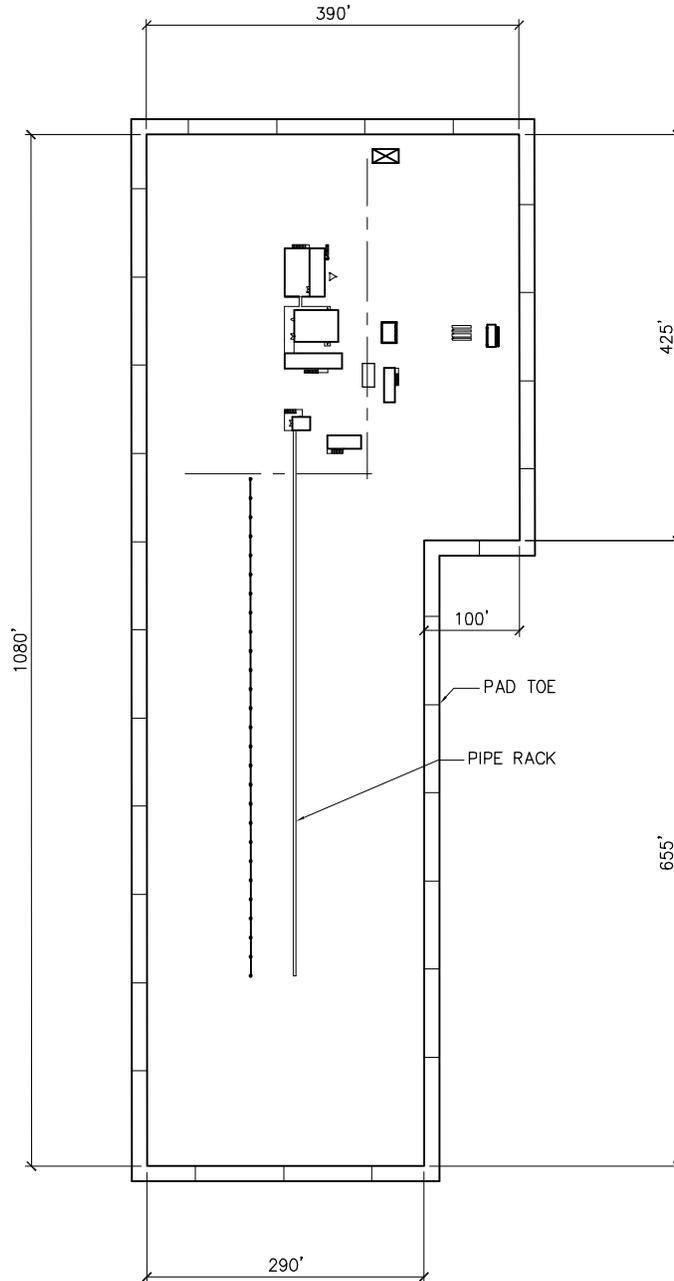
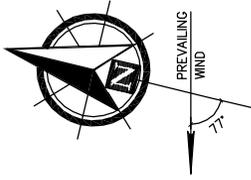
08/12/04



P | N | D CONSULTING ENGINEERS
Incorporated

	AREA: 00	MODULE: XXXX	UNIT: R1
	ALPINE SATELLITE DEVELOPMENT PROGRAM CD-4 (SOUTH) PAD, ACCESS ROAD AND BOAT LAUNCH LAYOUT		
CADD FILE NO.	DRAWING NO:	SHEET:	REV:
	CEA-R1XX-XXXX	013 OF 73	0

REV	DATE	BY	CK	APP	DESCRIPTION	REV	DATE	BY	CK	APP	DESCRIPTION
0	01/04	RLC	JWP	-	ISSUE FOR PERMIT						



CD-5, CD-6 & CD-7 PAD QUANTITIES	
AREA OF TUNDRA COVER	9.1 ACRES
QUANTITY OF GRAVEL	78,000 CY
ASSUME AVERAGE FILL DEPTH OF 5.5'	

NOTE:
 MINIMUM GRAVEL DEPTH
 5.0' WITH 2:1 FILL SLOPES



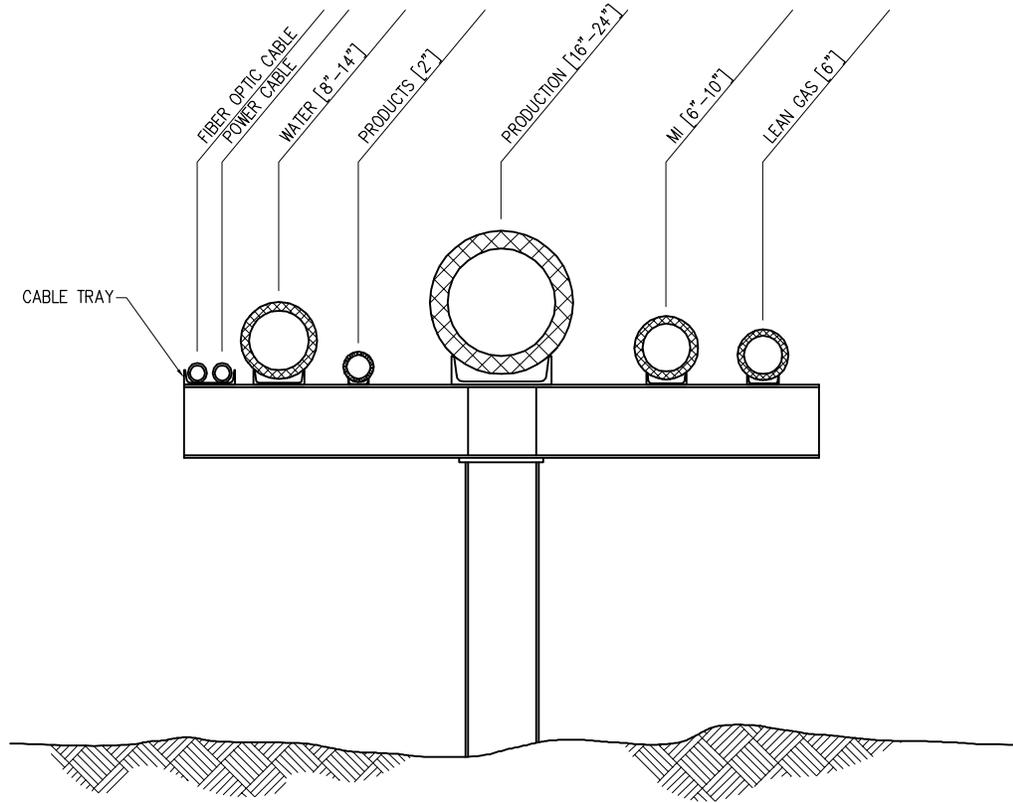
THIS MAP PROJECTION IS BASE UPON ALASKA STATE PLANE, NAD 83. THIS MAP IS BASED ON DATA PROVIDED BY THE U.S. GEOLOGICAL SURVEY, THE ALASKA DEPARTMENT OF NATURAL RESOURCES, AND CONOCO PHILLIPS ALASKA, INC.



AREA: 00 MODULE: XXXX UNIT: R1
 ALPINE SATELLITE DEVELOPMENT PROGRAM
 TYPICAL PAD FOR CD-5 (ALPINE WEST),
 CD-6 (LOOKOUT) AND CD-7 (SPARK)

CADD FILE NO.	DRAWING NO: CEA-R1XX-XXXX	SHEET: 014 OF 73	REV: 0
---------------	------------------------------	---------------------	-----------

REV	DATE	BY	CK	APP	DESCRIPTION	REV	DATE	BY	CK	APP	DESCRIPTION
0	01/04	RLC	JWP	-	ISSUE FOR PERMIT						



CD-3 TYPICAL SECTION

08/12/04

PURPOSE:
INSTALL VSM'S, ASSOCIATED PIPELINES AND UTILITIES.

DATUM:
BRITISH PETROLEUM MEAN SEA LEVEL

ADJACENT PROPERTY OWNERS:
STATE OF ALASKA, KUUKPIK CORPORATION, BLM



CONSULTING
ENGINEERS

Incorporated



AREA: 00 MODULE: XXXX UNIT: R1
ALPINE SATELLITE DEVELOPMENT PROGRAM
CD-3 (NORTH)
PROPOSED PIPE SECTION

CADD FILE NO.

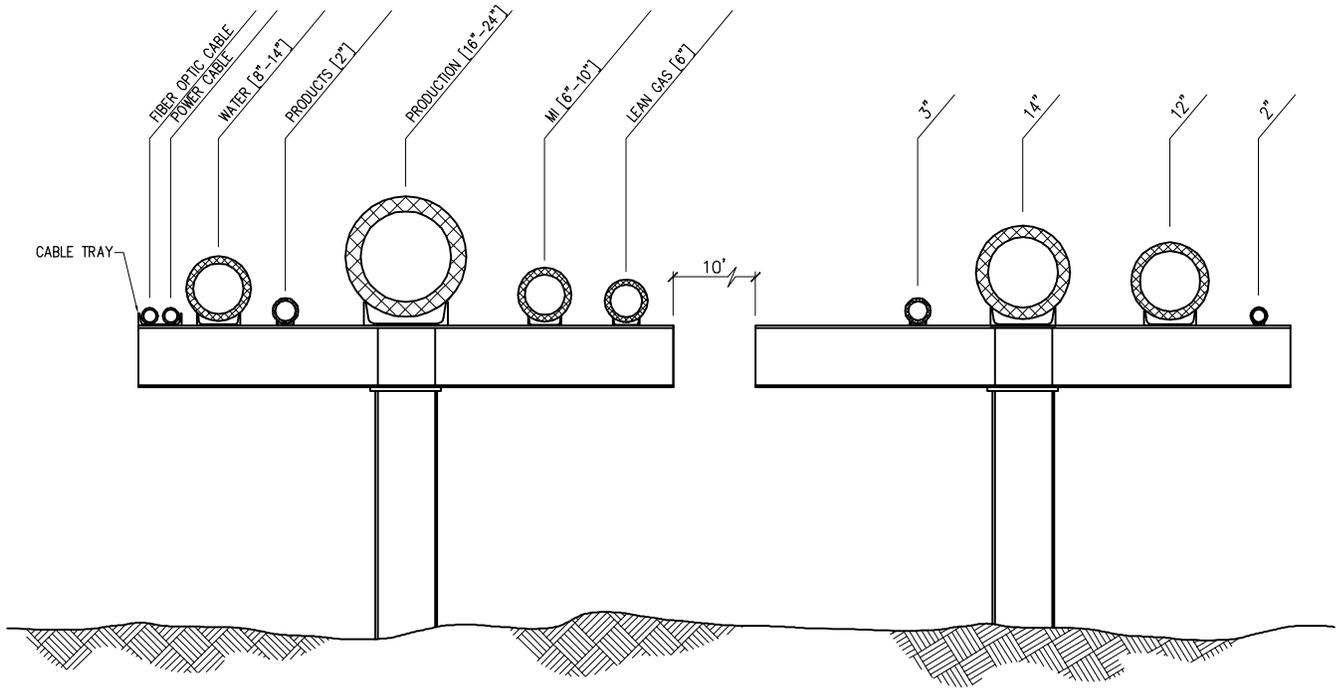
DRAWING NO:

CEA-R1XX-XXXX

SHEET:
015 OF 73

REV: 0

REV	DATE	BY	CK	APP	DESCRIPTION	REV	DATE	BY	CK	APP	DESCRIPTION
0	01/04	RLC	JWP	-	ISSUE FOR PERMIT						



CD-4 TYPICAL SECTION

EXISTING ALPINE SALES PIPELINE

08/12/04

PURPOSE:
INSTALL VSM'S, ASSOCIATED PIPELINES AND UTILITIES.

DATUM:
BRITISH PETROLEUM MEAN SEA LEVEL

ADJACENT PROPERTY OWNERS:
STATE OF ALASKA, KUKUPIK CORPORATION, BLM



CONSULTING
ENGINEERS



AREA: 00 MODULE: XXXX UNIT: R1
ALPINE SATELLITE DEVELOPMENT PROGRAM
CD-4 (SOUTH)
PROPOSED PIPE SECTION

CADD FILE NO.

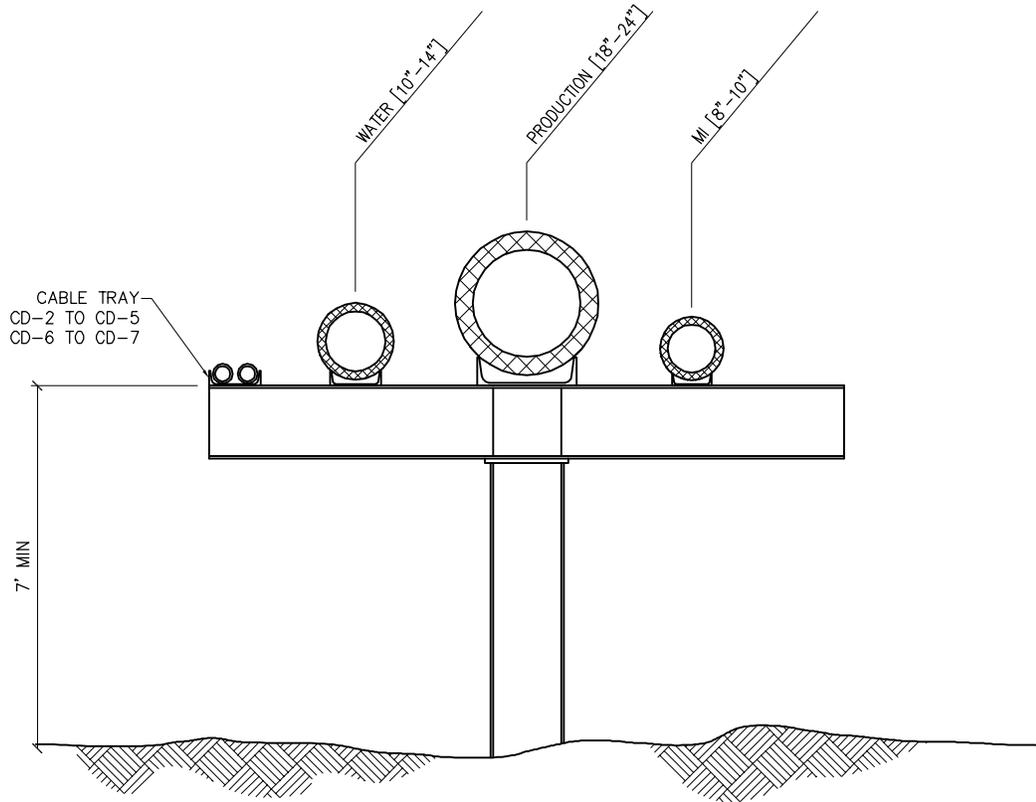
DRAWING NO:

CEA-R1XX-XXXX

SHEET:
016 OF 73

REV: 0

REV	DATE	BY	CK	APP	DESCRIPTION	REV	DATE	BY	CK	APP	DESCRIPTION
0	01/04	RLC	JWP	-	ISSUE FOR PERMIT						



CD-5, CD-6 & CD-7 TYPICAL SECTION

08/12/04

PURPOSE:
INSTALL VSM'S, ASSOCIATED PIPELINES AND UTILITIES.

DATUM:
BRITISH PETROLEUM MEAN SEA LEVEL

ADJACENT PROPERTY OWNERS:
STATE OF ALASKA, KUKPIK CORPORATION, BLM



CONSULTING
ENGINEERS



AREA: 00 MODULE: XXXX UNIT: R1
ALPINE SATELLITE DEVELOPMENT PROGRAM
CD-5(ALPINE WEST), CD-6(LOOKOUT)
& CD-7(SPARK) PROPOSED PIPE SECTION

CADD FILE NO.

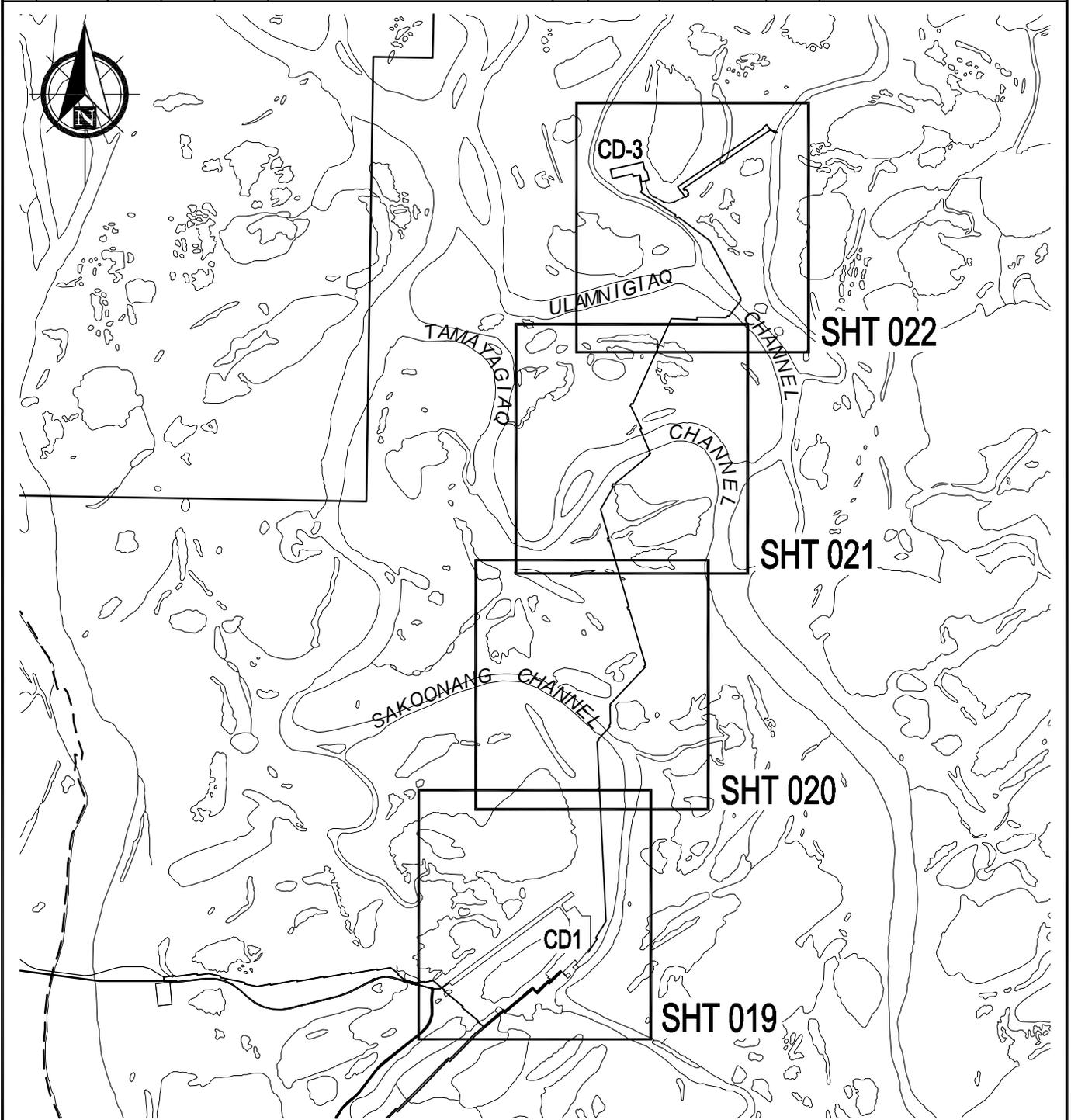
DRAWING NO:

CEA-R1XX-XXXX

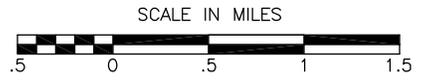
SHEET:
017 OF 73

REV: 0

REV	DATE	BY	CK	APP	DESCRIPTION	REV	DATE	BY	CK	APP	DESCRIPTION
0	01/04	RLC	JWP	-	ISSUE FOR PERMIT						



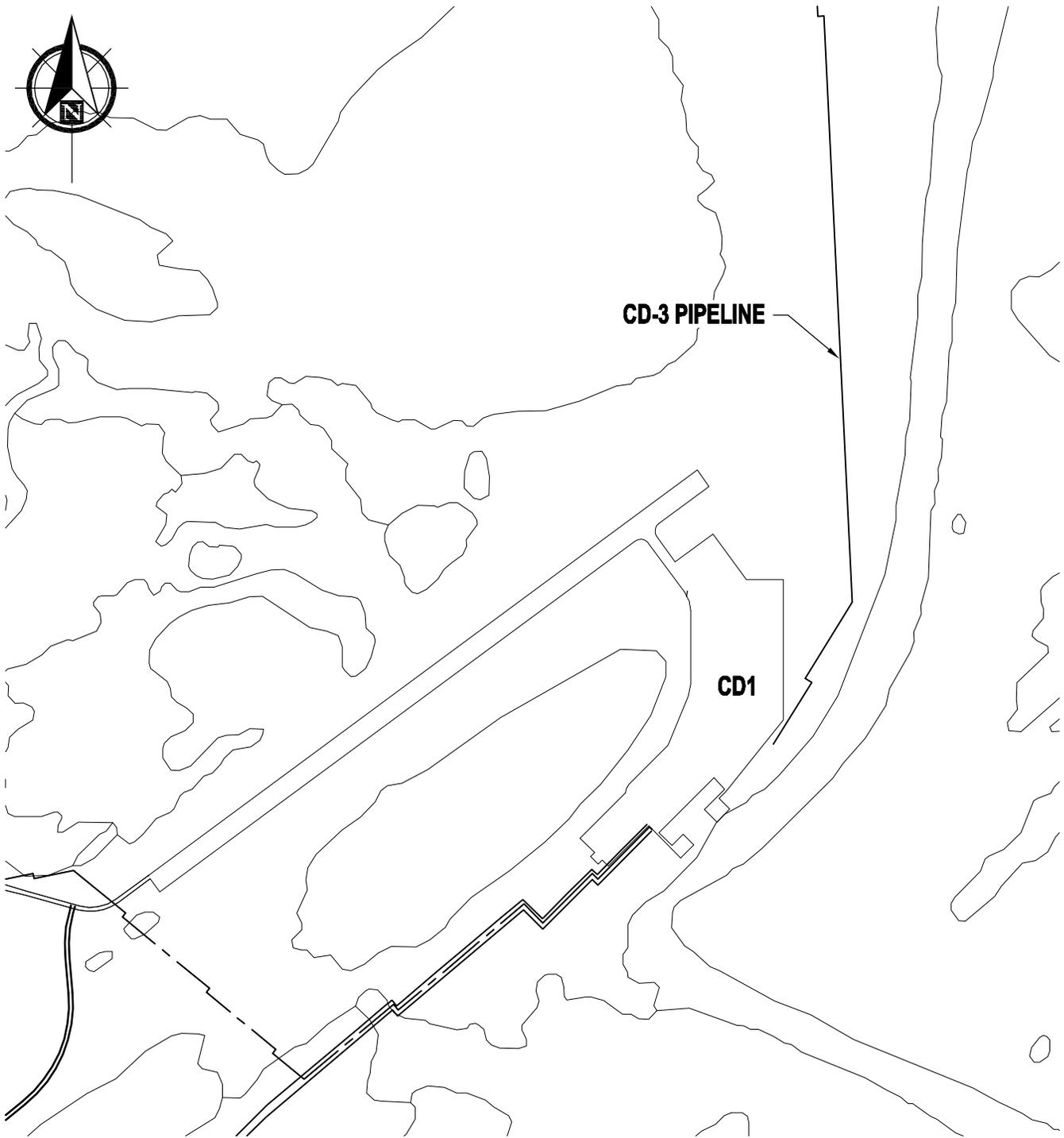
08/12/04



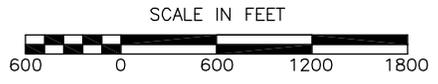
P | N | D CONSULTING ENGINEERS
Incorporated

	AREA: 00	MODULE: XXXX	UNIT: R1
	ALPINE SATELLITE DEVELOPMENT PROGRAM CD-3 PIPELINE ROUTE – KEY MAP		
CADD FILE NO.	DRAWING NO:	CEA-R1XX-XXXX	SHEET: 018 OF 73 REV: 0

REV	DATE	BY	CK	APP	DESCRIPTION	REV	DATE	BY	CK	APP	DESCRIPTION
0	01/04	RLC	JWP	-	ISSUE FOR PERMIT						



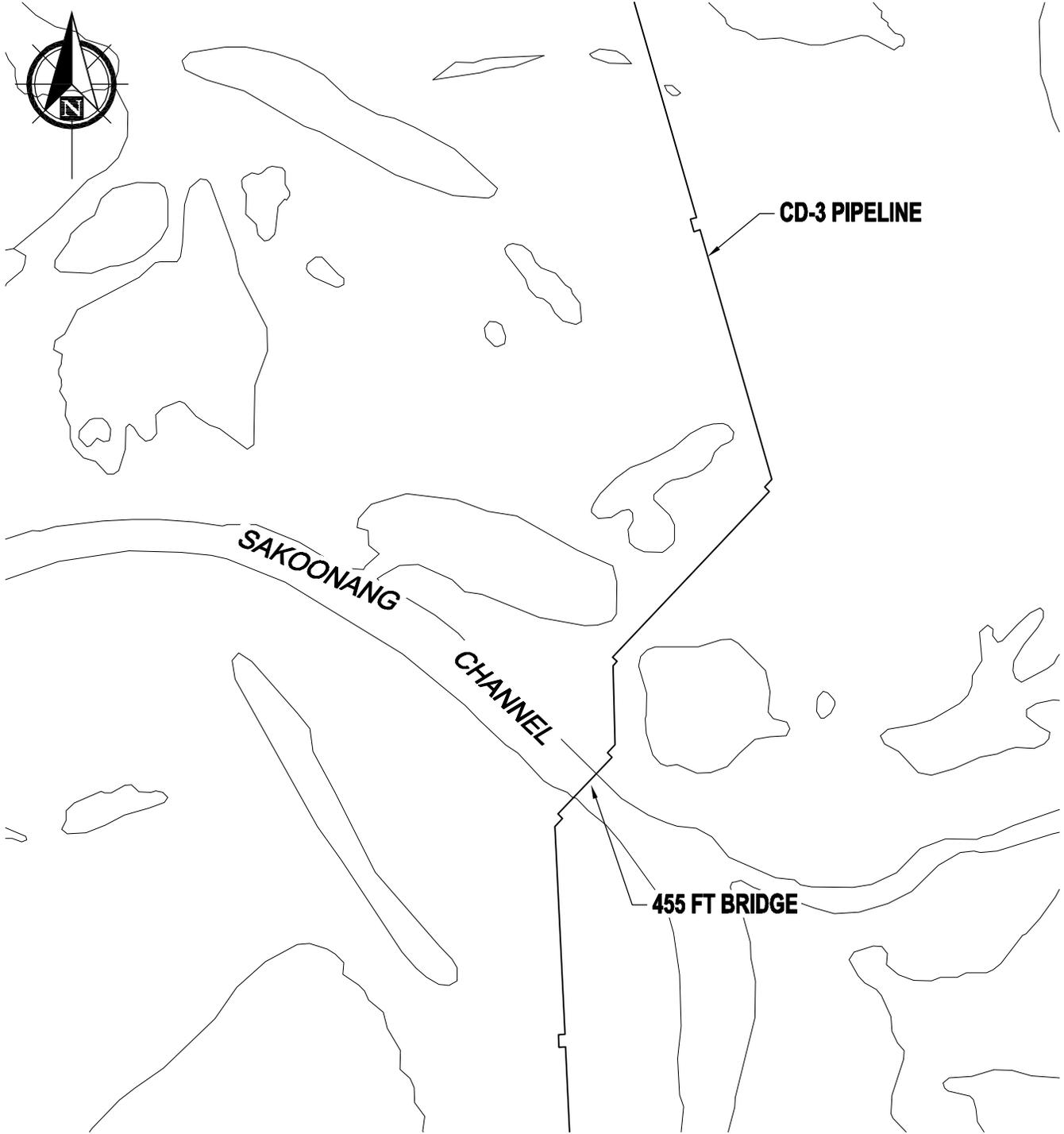
08/12/04



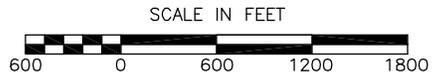
CONSULTING ENGINEERS
Incorporated

	AREA: 00	MODULE: XXXX	UNIT: R1
	ALPINE SATELLITE DEVELOPMENT PROGRAM CD-3 PIPELINE ROUTE - SHEET 1 OF 4		
CADD FILE NO.	DRAWING NO:	CEA-R1XX-XXXX	SHEET: 019 OF 73 REV: 0

REV	DATE	BY	CK	APP	DESCRIPTION	REV	DATE	BY	CK	APP	DESCRIPTION
0	01/04	RLC	JWP	-	ISSUE FOR PERMIT						



08/12/04

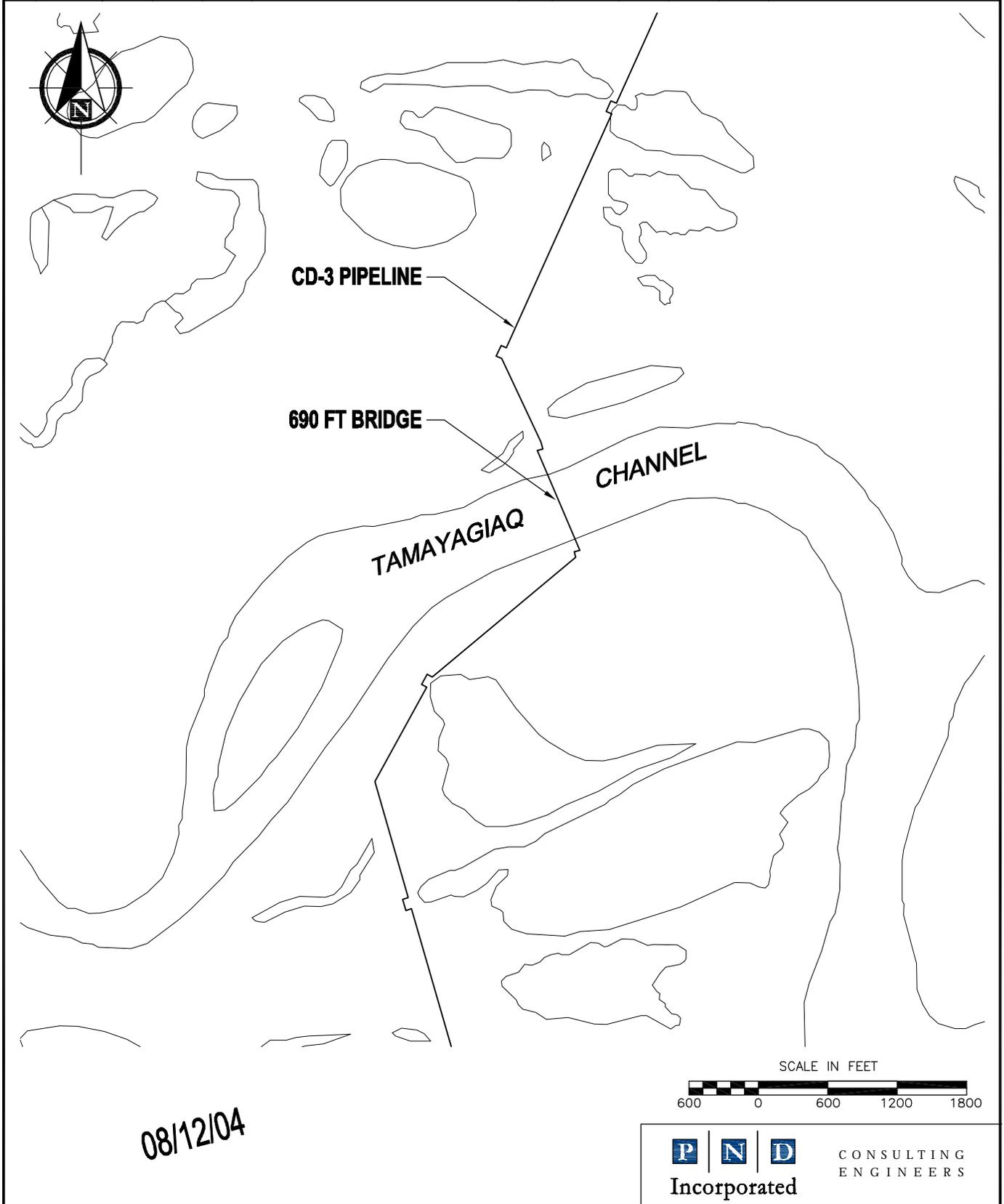


P | N | D CONSULTING ENGINEERS
Incorporated

	AREA: 00	MODULE: XXXX	UNIT: R1
	ALPINE SATELLITE DEVELOPMENT PROGRAM CD-3 PIPELINE ROUTE - SHEET 2 OF 4		

CADD FILE NO.	DRAWING NO:	CEA-R1XX-XXXX	SHEET: 020 OF 73	REV: 0
---------------	-------------	---------------	------------------	--------

REV	DATE	BY	CK	APP	DESCRIPTION	REV	DATE	BY	CK	APP	DESCRIPTION
0	01/04	RLC	JWP	-	ISSUE FOR PERMIT						



SCALE IN FEET

600 0 600 1200 1800

P

N

D

CONSULTING
ENGINEERS

Incorporated



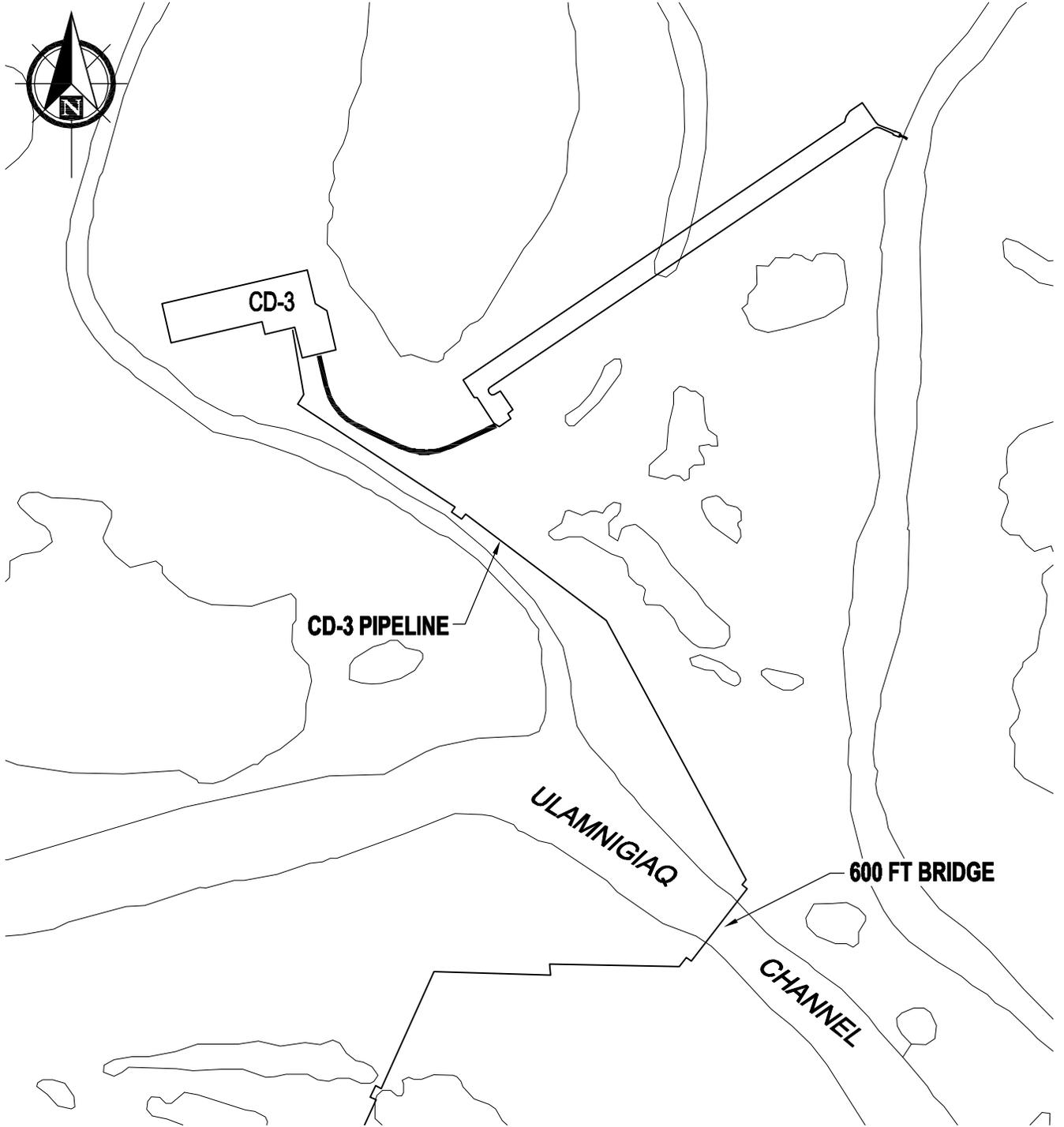
ConocoPhillips
Alaska, Inc.

AREA: 00 MODULE: XXXX UNIT: R1

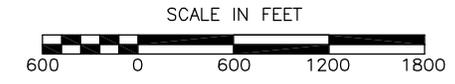
ALPINE SATELLITE DEVELOPMENT PROGRAM
CD-3 PIPELINE ROUTE - SHEET 3 OF 4

CADD FILE NO.	DRAWING NO: CEA-R1XX-XXXX	SHEET: 021 OF 73	REV: 0
---------------	------------------------------	---------------------	-----------

REV	DATE	BY	CK	APP	DESCRIPTION	REV	DATE	BY	CK	APP	DESCRIPTION
0	01/04	RLC	JWP	-	ISSUE FOR PERMIT						



08/12/04



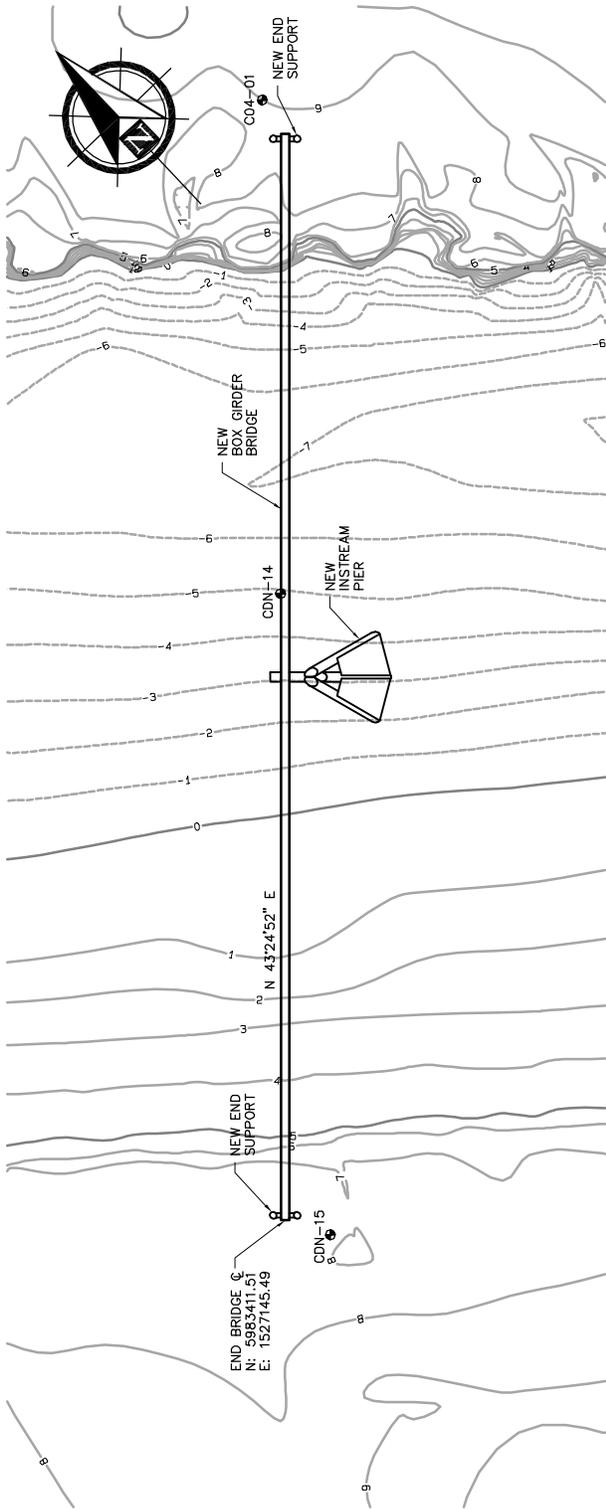
P | N | D CONSULTING ENGINEERS
Incorporated

ConocoPhillips
 Alaska, Inc.

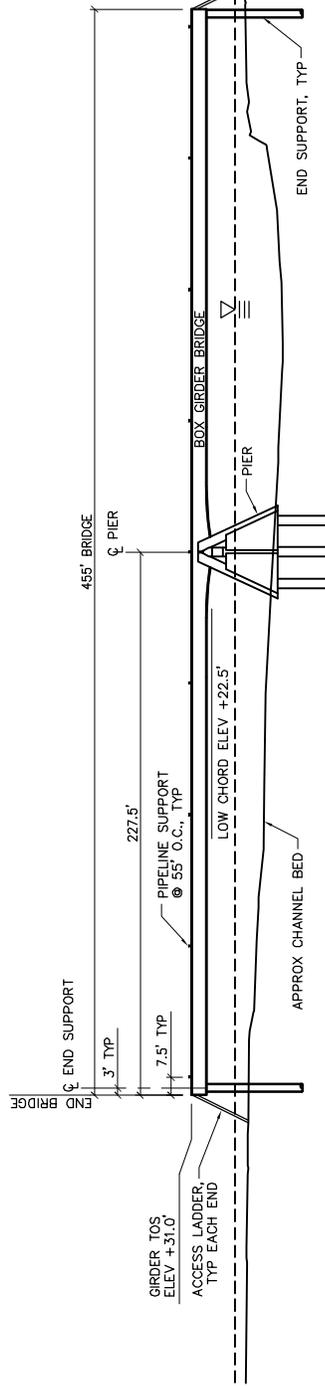
AREA: 00 MODULE: XXXX UNIT: R1
 ALPINE SATELLITE DEVELOPMENT PROGRAM
 CD-3 PIPELINE ROUTE - SHEET 4 OF 4

CADD FILE NO.	DRAWING NO:	CEA-R1XX-XXXX	SHEET:	REV:
			022 OF 73	0

REV	DATE	BY	CK	APP	DESCRIPTION	REV	DATE	BY	CK	APP	DESCRIPTION
0	01/04	RLC	JWP	-	ISSUE FOR PERMIT						



PLAN



PROFILE

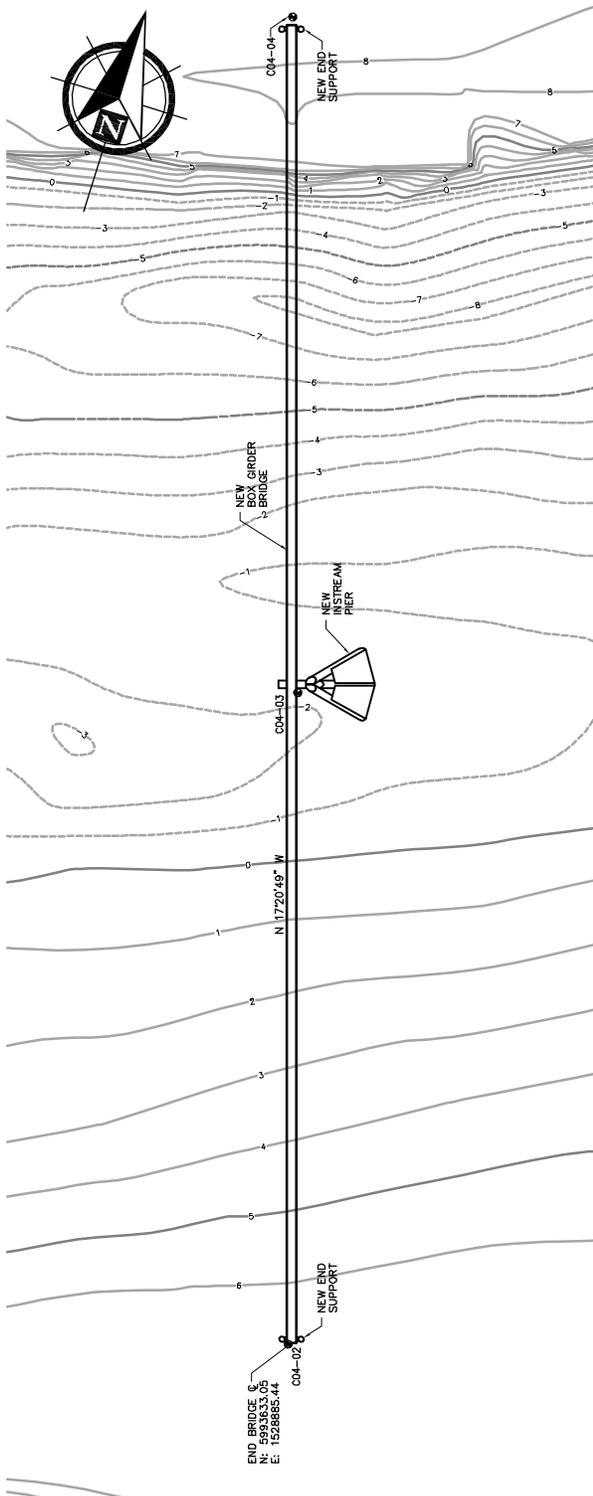


08/12/04

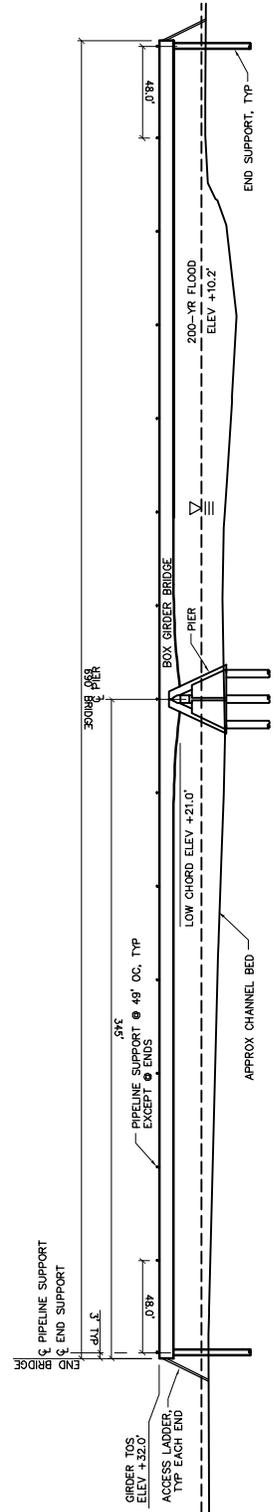

CONSULTING ENGINEERS
Incorporated

	AREA: 00	MODULE: XXXX	UNIT: R1
	ALPINE SATELLITE DEVELOPMENT PROGRAM CD-3 (NORTH) PIPELINE BRIDGE CROSSING SAKOONG CHANNEL		
CADD FILE NO.	DRAWING NO:	CEA-R1XX-XXXX	SHEET: 023 OF 73
			REV: 0

REV	DATE	BY	CK	APP	DESCRIPTION	REV	DATE	BY	CK	APP	DESCRIPTION
0	01/04	RLC	JWP	-	ISSUE FOR PERMIT						



PLAN



PROFILE

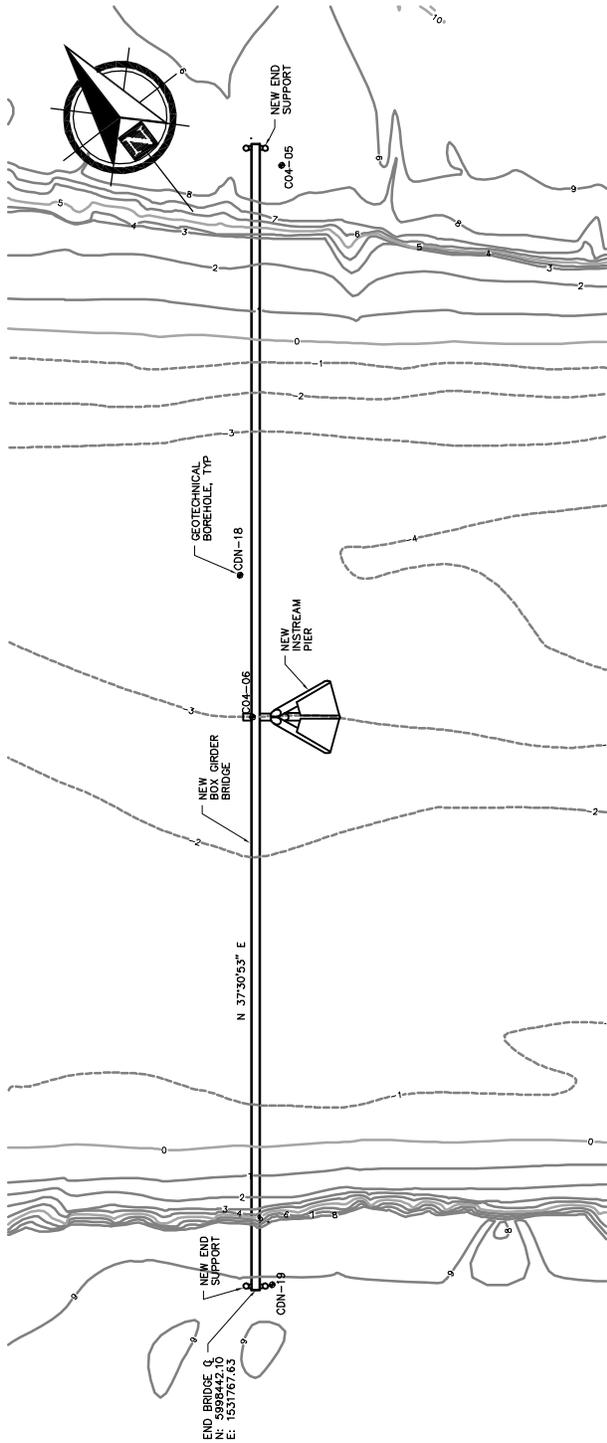


08/12/04

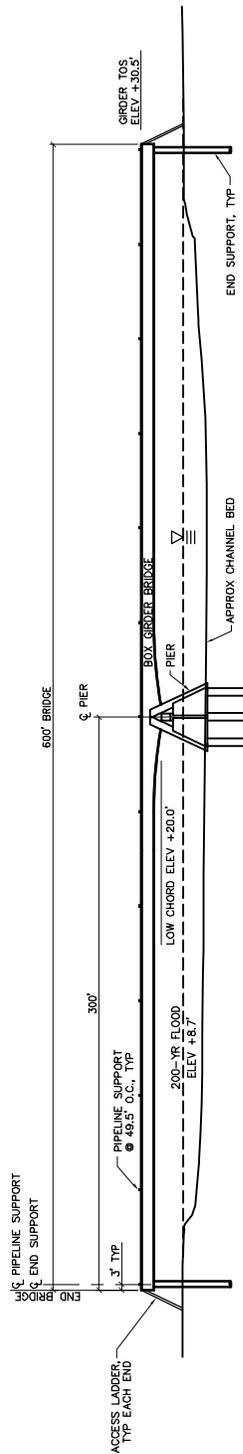

INCORPORATED
 CONSULTING ENGINEERS

	AREA: 00	MODULE: XXXX	UNIT: R1
	ALPINE SATELLITE DEVELOPMENT PROGRAM CD-3 (NORTH) PIPELINE BRIDGE CROSSING TAMAYAGIAQ CHANNEL		
CADD FILE NO.	DRAWING NO:	CEA-R1XX-XXXX	SHEET: 024 OF 73 REV: 0

REV	DATE	BY	CK	APP	DESCRIPTION	REV	DATE	BY	CK	APP	DESCRIPTION
0	01/04	RLC	JWP	-	ISSUE FOR PERMIT						



PLAN



PROFILE



08/12/04



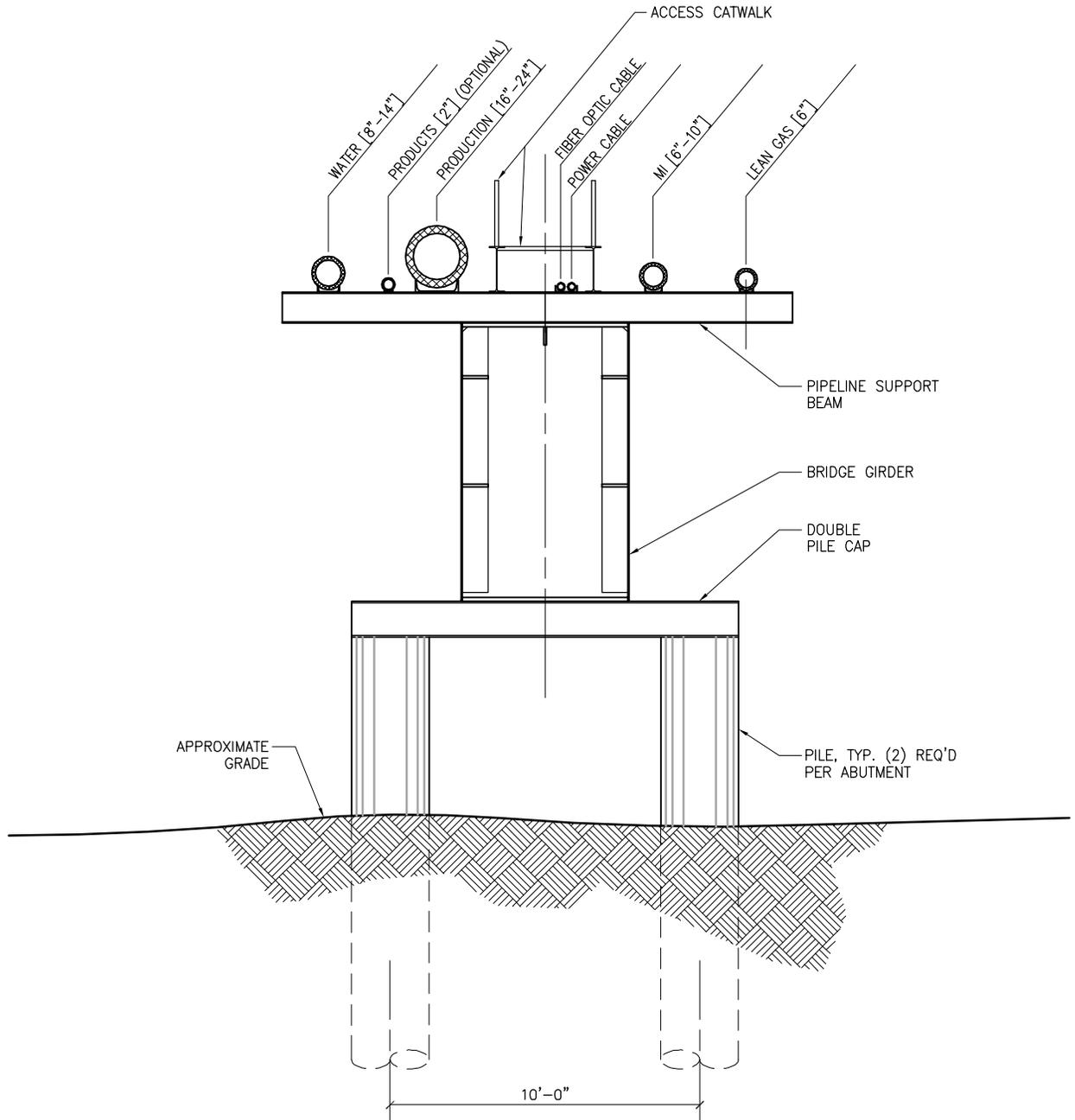
CONSULTING ENGINEERS



AREA: 00 MODULE: XXXX UNIT: R1
 ALPINE SATELLITE DEVELOPMENT PROGRAM
 CD-3 (NORTH) PIPELINE BRIDGE CROSSING
 ULAMNIGIAQ CHANNEL

CADD FILE NO.	DRAWING NO: CEA-R1XX-XXXX	SHEET: 025 OF 73	REV: 0
---------------	------------------------------	---------------------	-----------

REV	DATE	BY	CK	APP	DESCRIPTION	REV	DATE	BY	CK	APP	DESCRIPTION
0	01/04	RLC	JWP	-	ISSUE FOR PERMIT						



ELEVATION

08/12/04

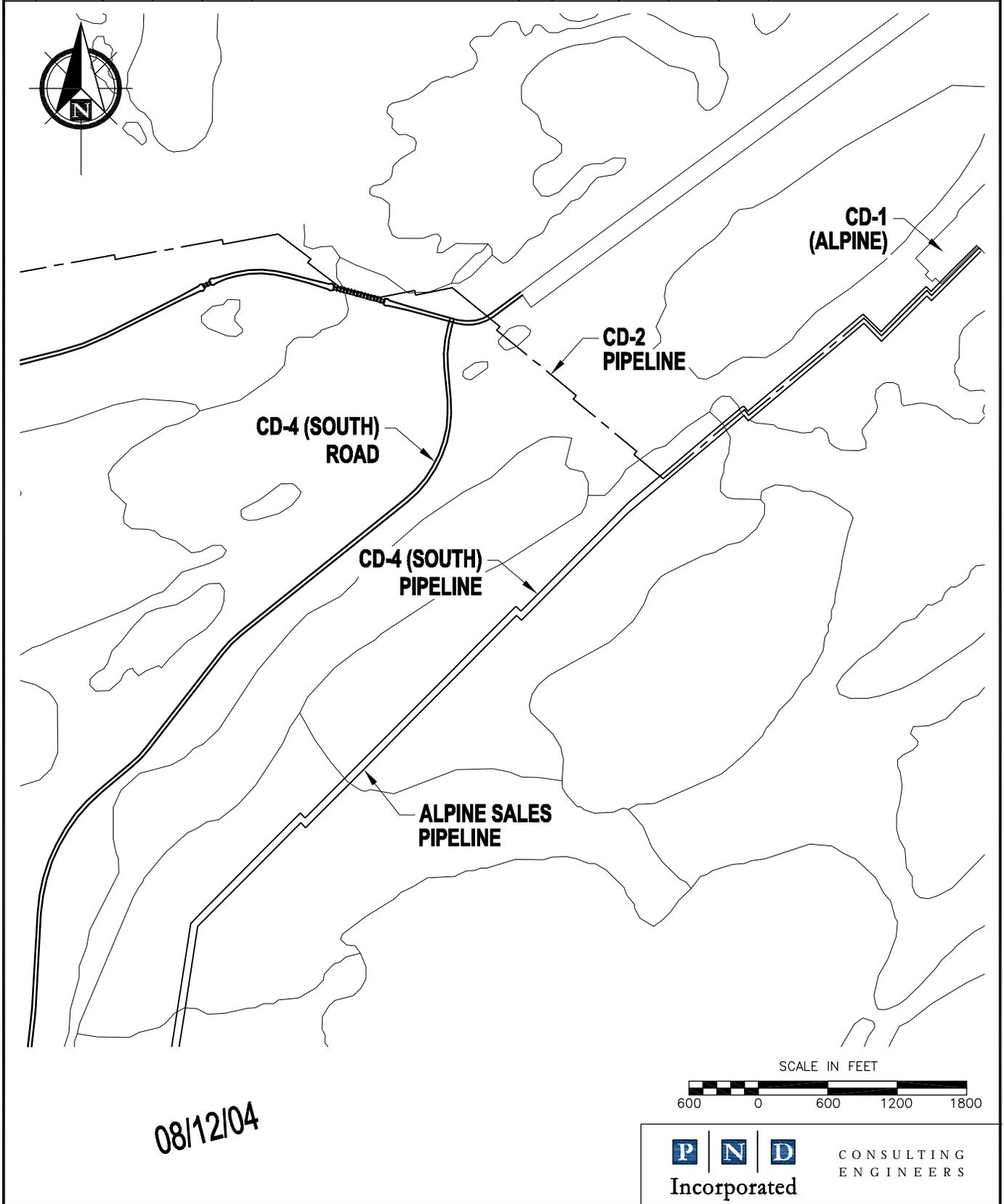
	CONSULTING ENGINEERS
Incorporated	

ConocoPhillips
Alaska, Inc.

AREA: 00 MODULE: XXXX UNIT: R1
ALPINE SATELLITE DEVELOPMENT PROGRAM
TYPICAL ABUTMENT FOUNDATION ELEVATION

CADD FILE NO.	DRAWING NO:	CEA-R1XX-XXXX	SHEET:	026 OF 73	REV:	0
---------------	-------------	---------------	--------	-----------	------	---

REV	DATE	BY	CK	APP	DESCRIPTION	REV	DATE	BY	CK	APP	DESCRIPTION
0	01/04	RLC	JWP	-	ISSUE FOR PERMIT						

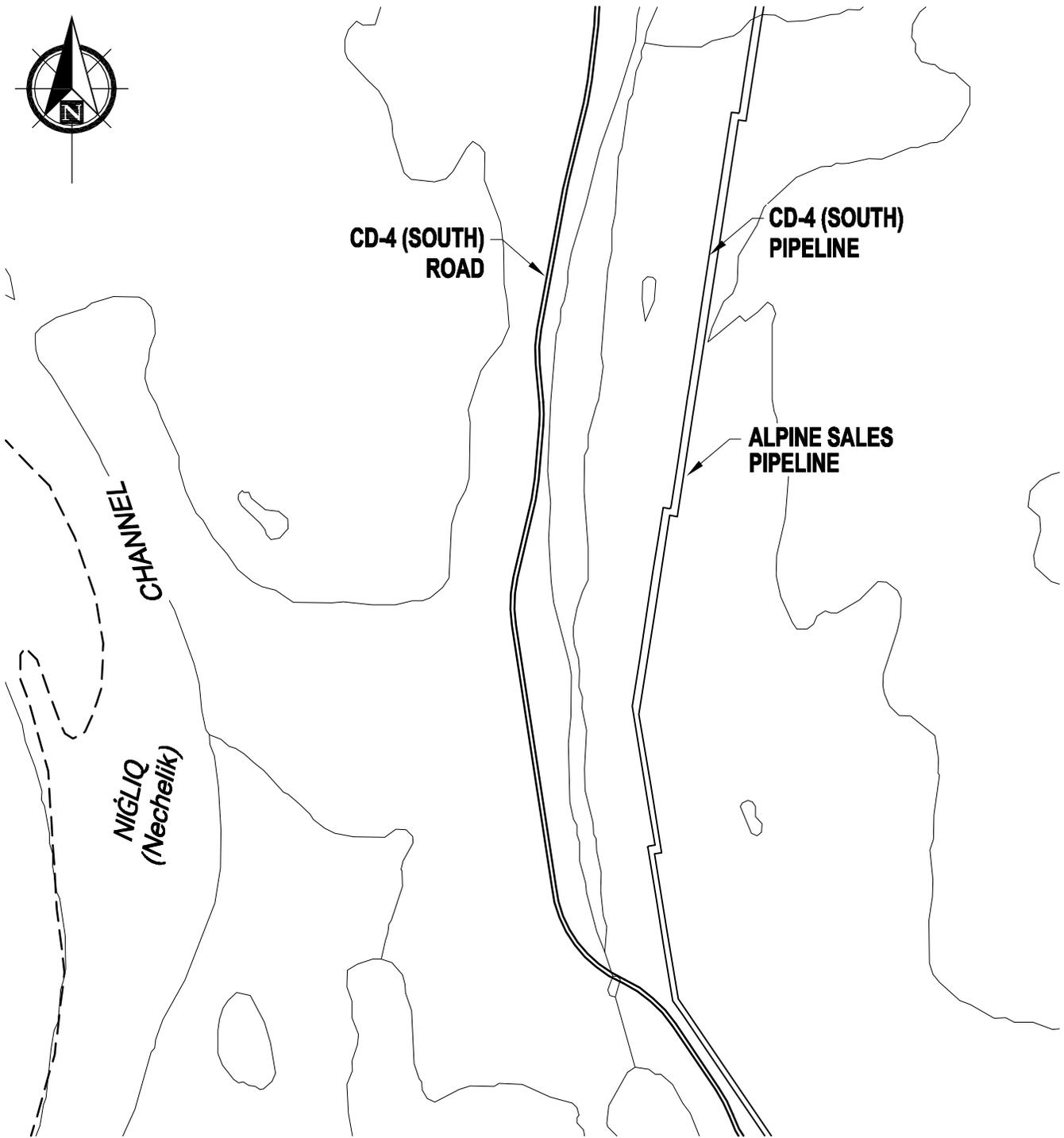


SCALE IN FEET

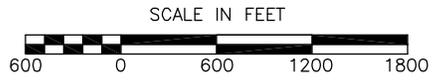

CONSULTING ENGINEERS
Incorporated

 Alaska, Inc.	AREA: 00	MODULE: XXXX	UNIT: R1
	ALPINE SATELLITE DEVELOPMENT PROGRAM CD-4 ROAD AND PIPELINE ROUTE SHEET 1 OF 3		
CADD FILE NO.	DRAWING NO:	CEA-R1XX-XXXX	SHEET: 028 OF 73 REV: 0

REV	DATE	BY	CK	APP	DESCRIPTION	REV	DATE	BY	CK	APP	DESCRIPTION
0	01/04	RLC	JWP	-	ISSUE FOR PERMIT						



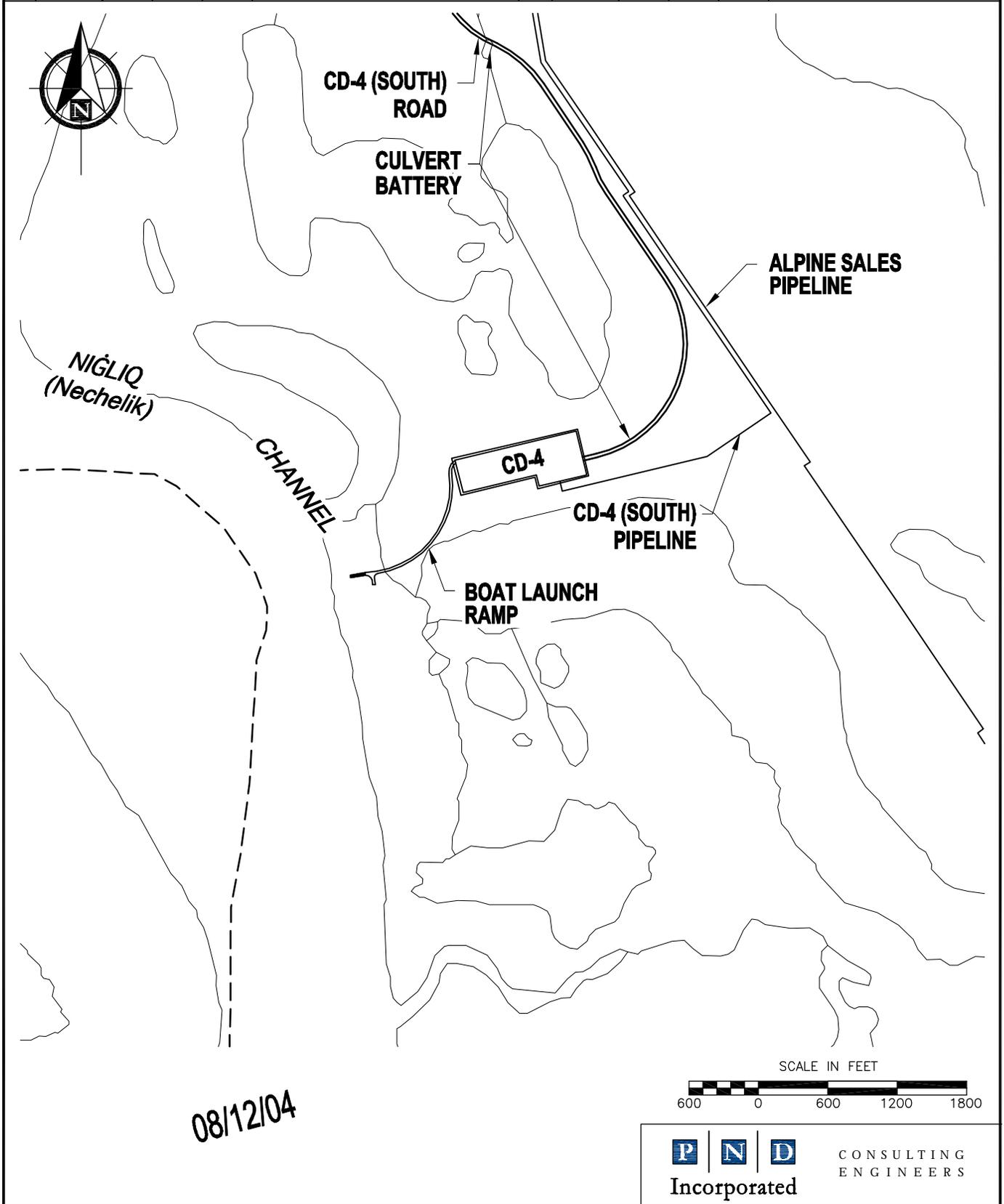
08/12/04




CONSULTING ENGINEERS
Incorporated

 Alaska, Inc.	AREA: 00	MODULE: XXXX	UNIT: R1
	ALPINE SATELLITE DEVELOPMENT PROGRAM CD-4 ROAD AND PIPELINE ROUTE SHEET 2 OF 3		
CADD FILE NO.	DRAWING NO:	SHEET:	REV:
	CEA-R1XX-XXXX	029 OF 73	0

REV	DATE	BY	CK	APP	DESCRIPTION	REV	DATE	BY	CK	APP	DESCRIPTION
0	01/04	RLC	JWP	-	ISSUE FOR PERMIT						



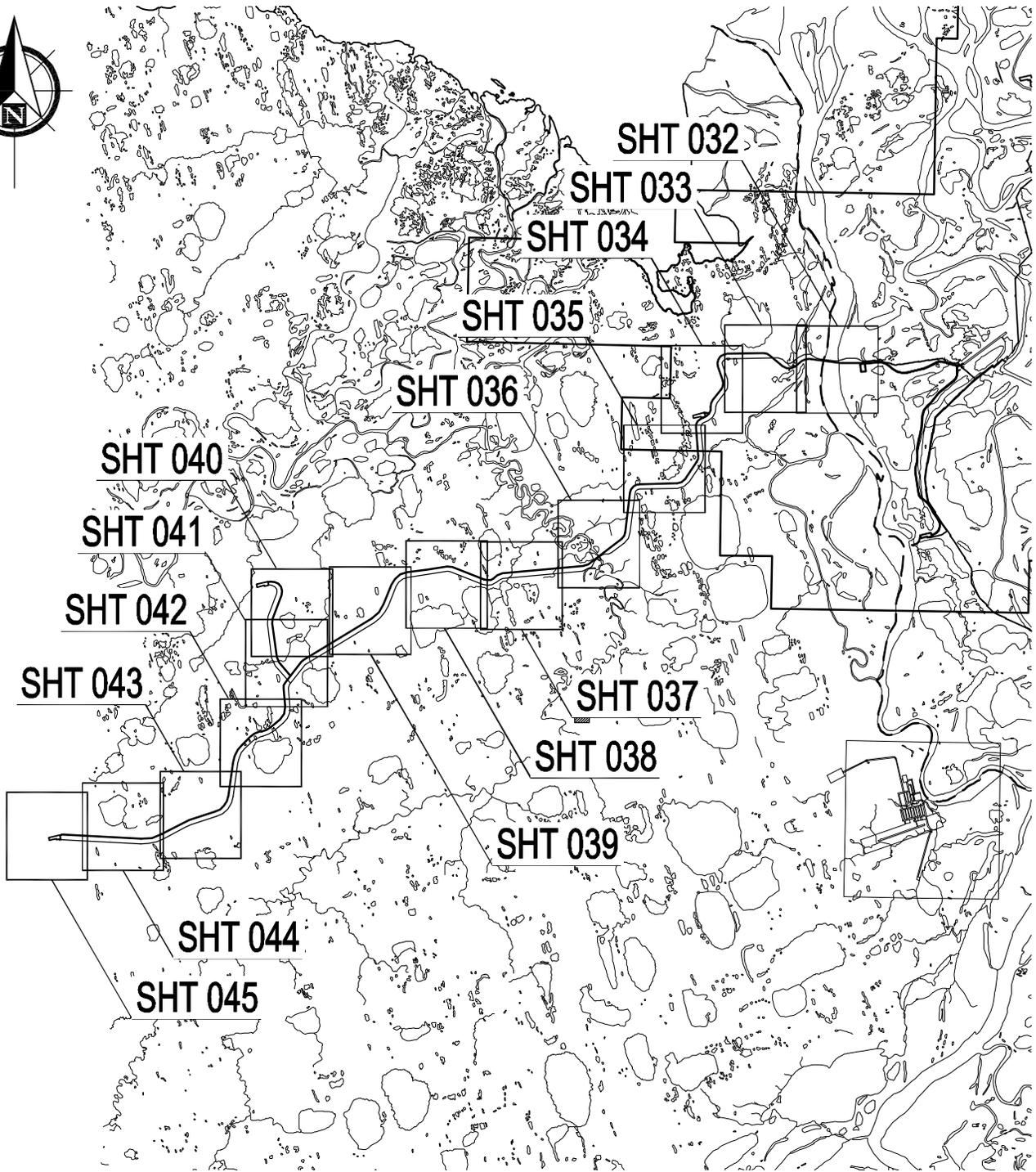
SCALE IN FEET

600 0 600 1200 1800

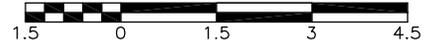

CONSULTING ENGINEERS
Incorporated

 Alaska, Inc.	AREA: 00	MODULE: XXXX	UNIT: R1
	ALPINE SATELLITE DEVELOPMENT PROGRAM CD-4 ROAD AND PIPELINE ROUTE SHEET 3		
CADD FILE NO.	DRAWING NO:	CEA-R1XX-XXXX	SHEET: 030 OF 73 REV: 0

REV	DATE	BY	CK	APP	DESCRIPTION	REV	DATE	BY	CK	APP	DESCRIPTION
0	01/04	RLC	JWP	-	ISSUE FOR PERMIT						



SCALE IN MILES



08/12/04



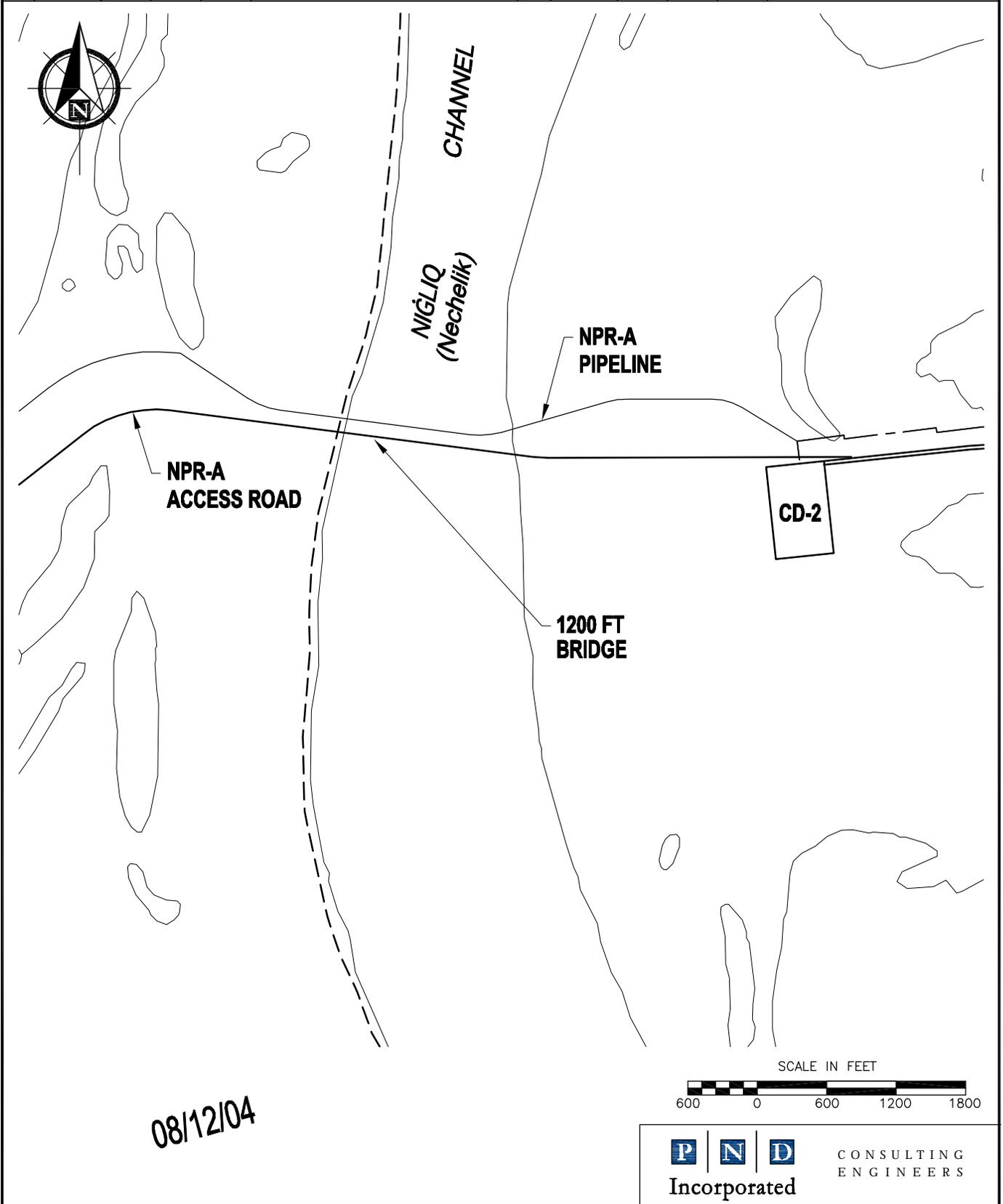
CONSULTING
ENGINEERS



AREA: 00 MODULE: XXXX UNIT: R1
 ALPINE SATELLITE DEVELOPMENT PROGRAM
 NPRA ACCESS ROAD AND PIPELINE ROUTE
 KEY MAP

CADD FILE NO.	DRAWING NO:	CEA-R1XX-XXXX	SHEET:	031 of 73	REV:	0
---------------	-------------	---------------	--------	-----------	------	---

REV	DATE	BY	CK	APP	DESCRIPTION	REV	DATE	BY	CK	APP	DESCRIPTION
0	01/04	RLC	JWP	-	ISSUE FOR PERMIT						



SCALE IN FEET

600 0 600 1200 1800

P

N

D

CONSULTING
ENGINEERS

Incorporated



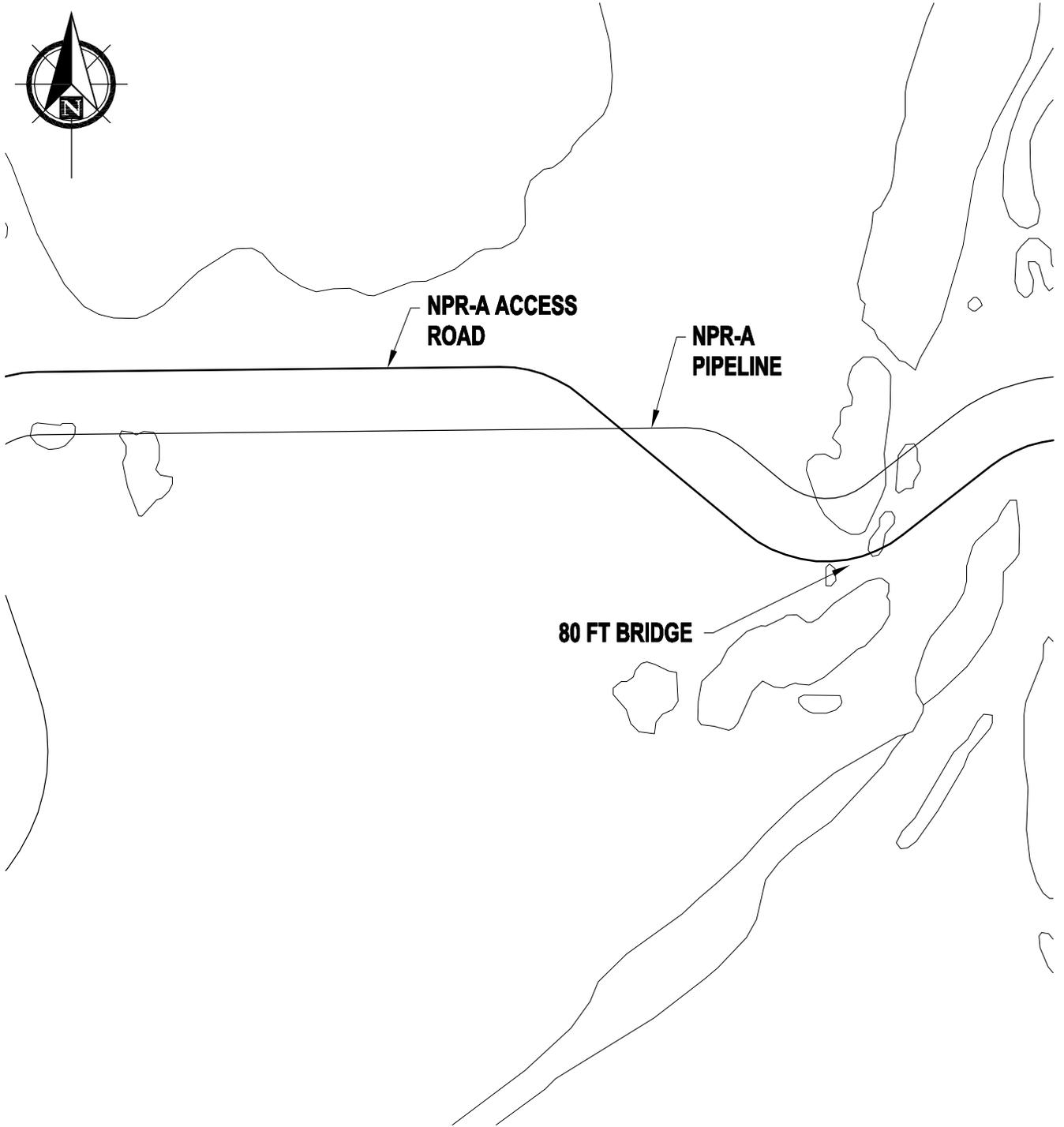
ConocoPhillips
Alaska, Inc.

AREA: 00 MODULE: XXXX UNIT: R1

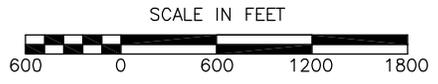
ALPINE SATELLITE DEVELOPMENT PROGRAM
NPRA ACCESS ROAD AND PIPELINE ROUTE
SHEET 1 OF 14

CADD FILE NO.	DRAWING NO:	CEA-R1XX-XXXX	SHEET:	REV:
			032 OF 73	0

REV	DATE	BY	CK	APP	DESCRIPTION	REV	DATE	BY	CK	APP	DESCRIPTION
0	01/04	RLC	JWP	-	ISSUE FOR PERMIT						



08/12/04

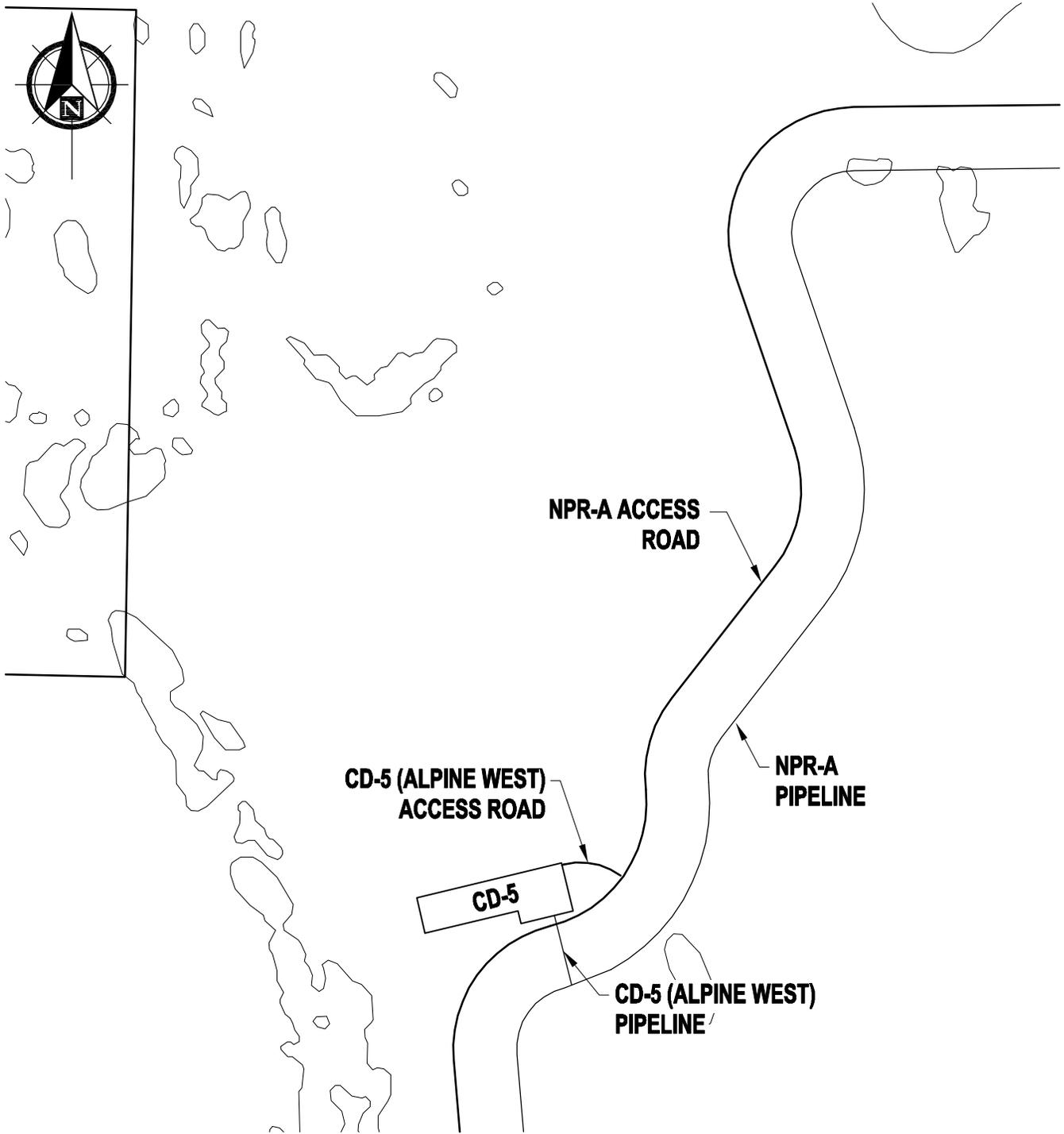


P | N | D CONSULTING ENGINEERS
Incorporated

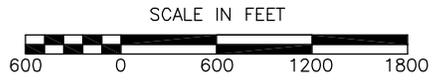
	AREA: 00	MODULE: XXXX	UNIT: R1
	ALPINE SATELLITE DEVELOPMENT PROGRAM NPRA ACCESS ROAD AND PIPELINE ROUTE SHEET 2 OF 14		

CADD FILE NO.	DRAWING NO: CEA-R1XX-XXXX	SHEET: 033 OF 73	REV: 0
---------------	------------------------------	---------------------	-----------

REV	DATE	BY	CK	APP	DESCRIPTION	REV	DATE	BY	CK	APP	DESCRIPTION
0	01/04	RLC	JWP	-	ISSUE FOR PERMIT						



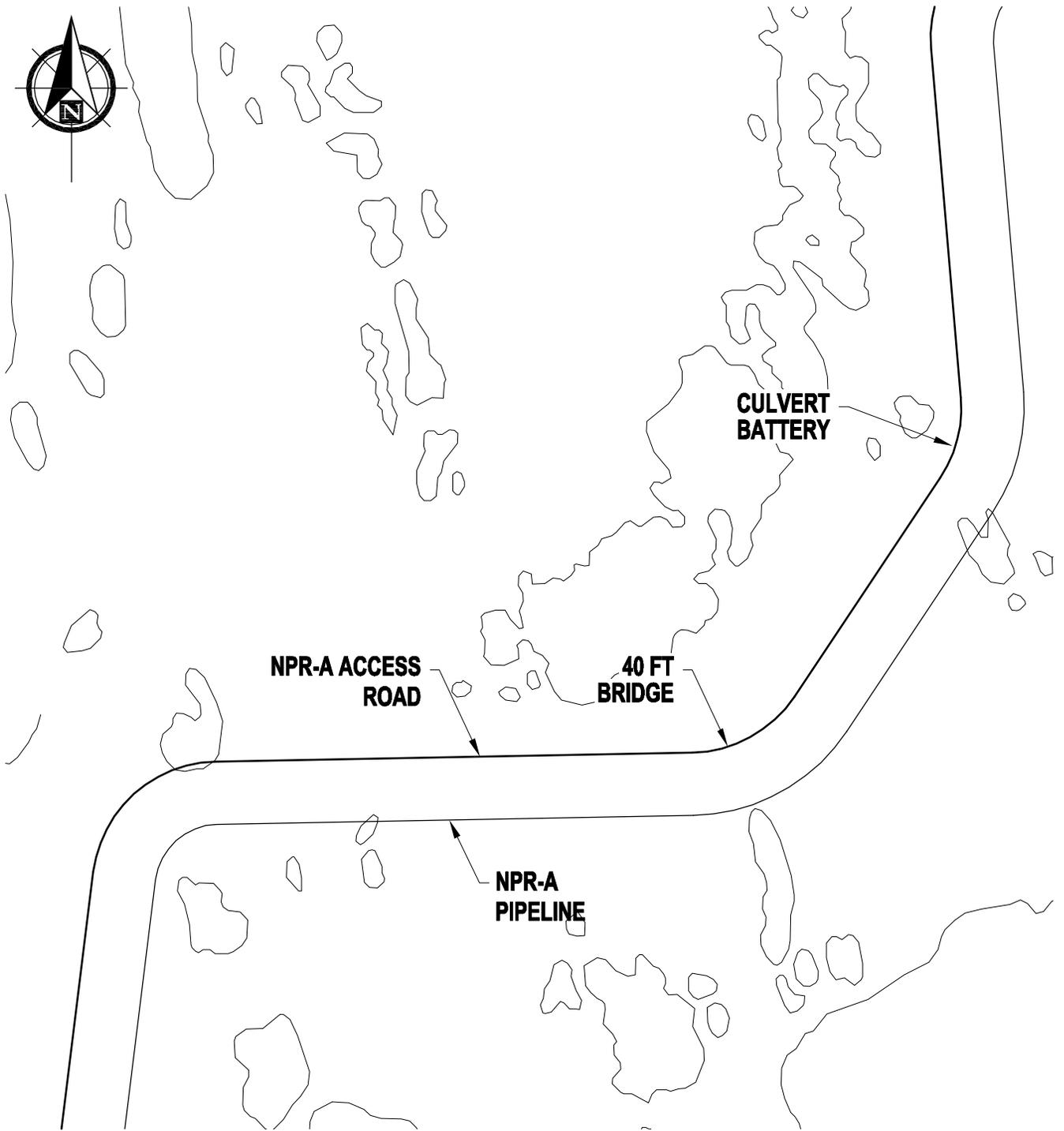
08/12/04



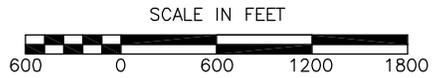

CONSULTING ENGINEERS
Incorporated

 Alaska, Inc.	AREA: 00	MODULE: XXXX	UNIT: R1
	ALPINE SATELLITE DEVELOPMENT PROGRAM NPRA ACCESS ROAD AND PIPELINE ROUTE SHEET 3 OF 14		
CADD FILE NO.	DRAWING NO:	CEA-R1XX-XXXX	SHEET: 034 OF 73 REV: 0

REV	DATE	BY	CK	APP	DESCRIPTION	REV	DATE	BY	CK	APP	DESCRIPTION
0	01/04	RLC	JWP	-	ISSUE FOR PERMIT						



08/12/04

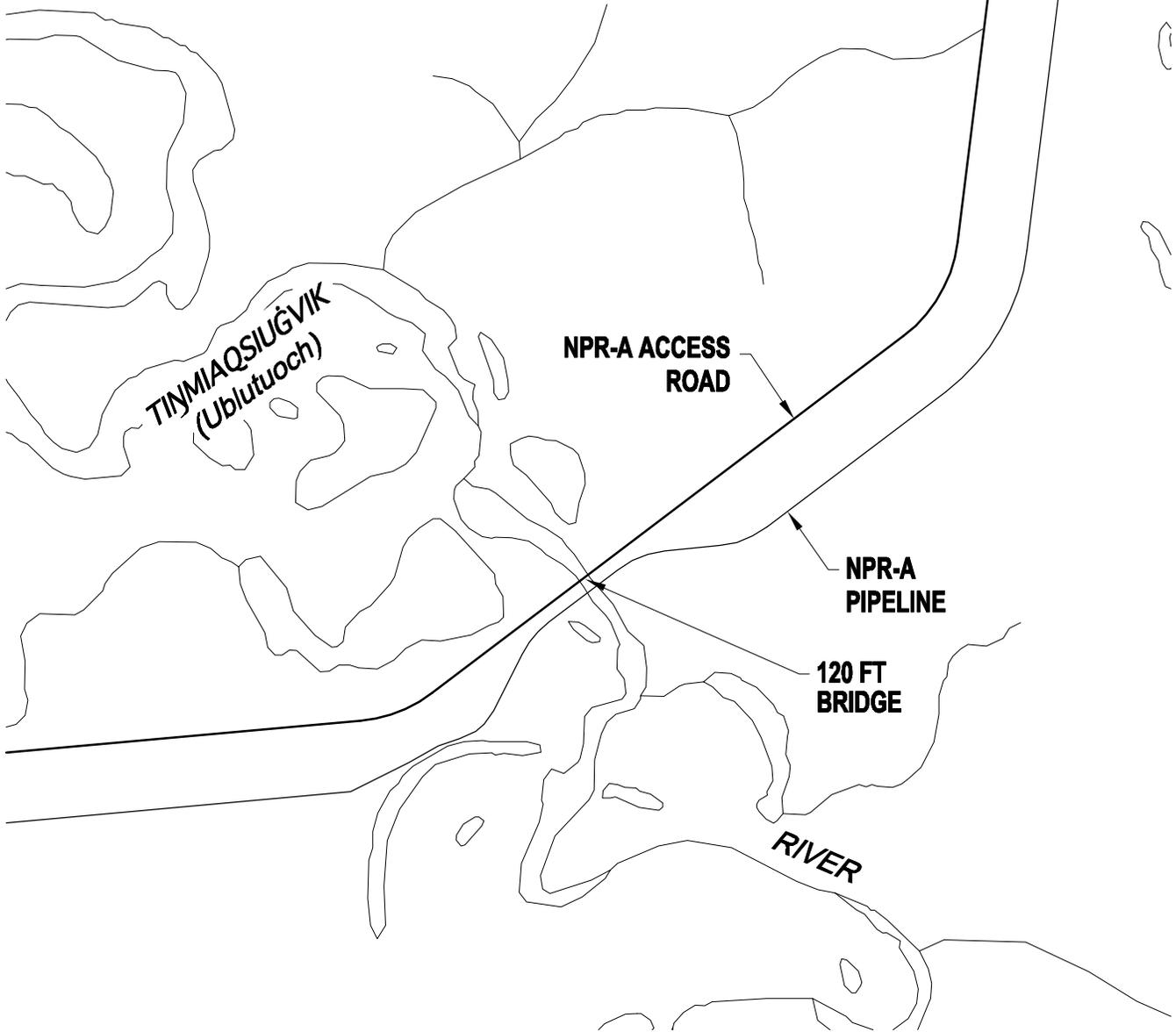



CONSULTING ENGINEERS
Incorporated

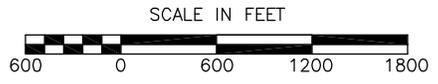
 Alaska, Inc.	AREA: 00	MODULE: XXXX	UNIT: R1
	ALPINE SATELLITE DEVELOPMENT PROGRAM NPRA ACCESS ROAD AND PIPELINE ROUTE SHEET 4 OF 14		

CADD FILE NO.	DRAWING NO: CEA-R1XX-XXXX	SHEET: 035 OF 73	REV: 0
---------------	------------------------------	---------------------	-----------

REV	DATE	BY	CK	APP	DESCRIPTION	REV	DATE	BY	CK	APP	DESCRIPTION
0	01/04	RLC	JWP	-	ISSUE FOR PERMIT						



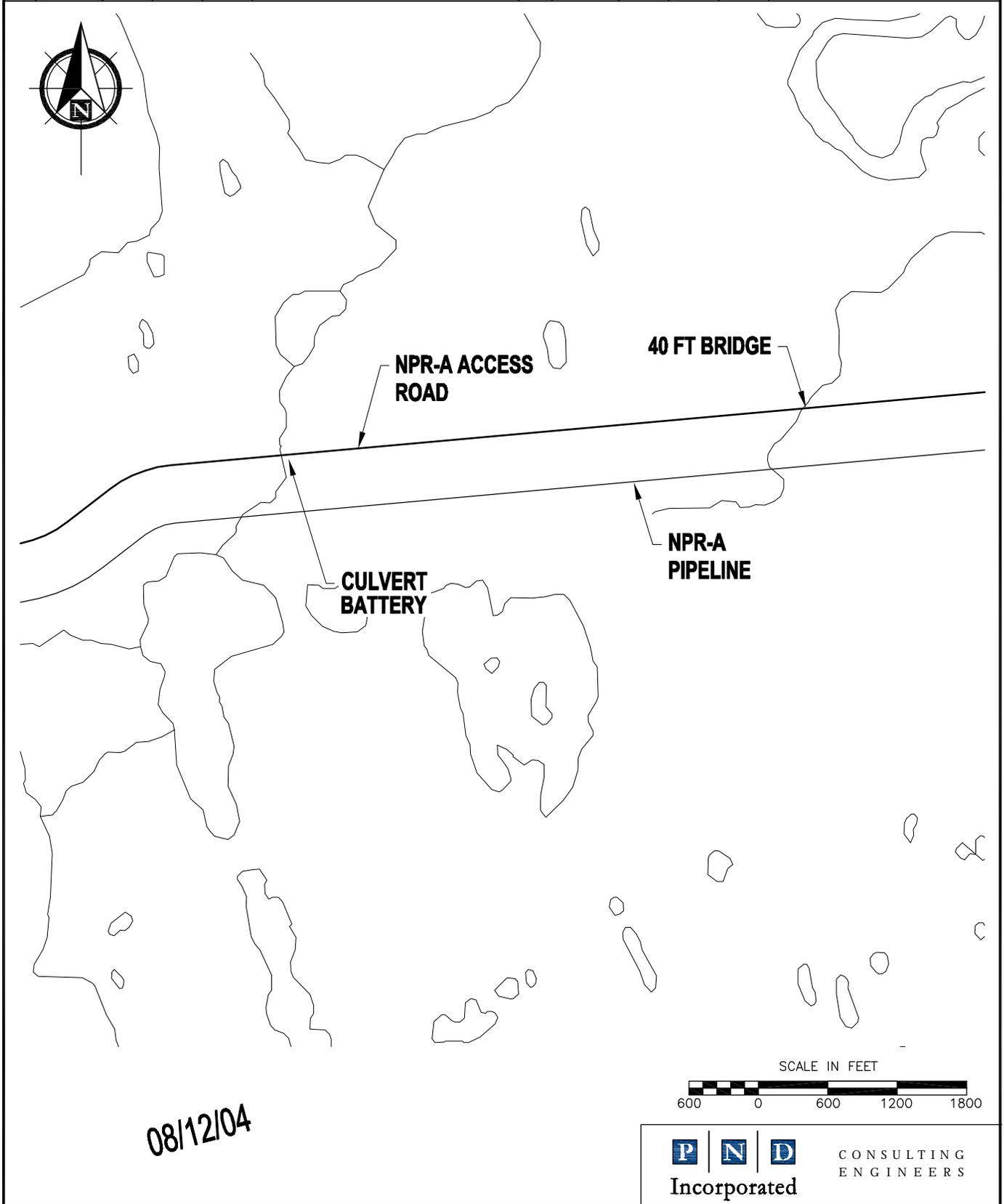
08/12/04




CONSULTING ENGINEERS
Incorporated

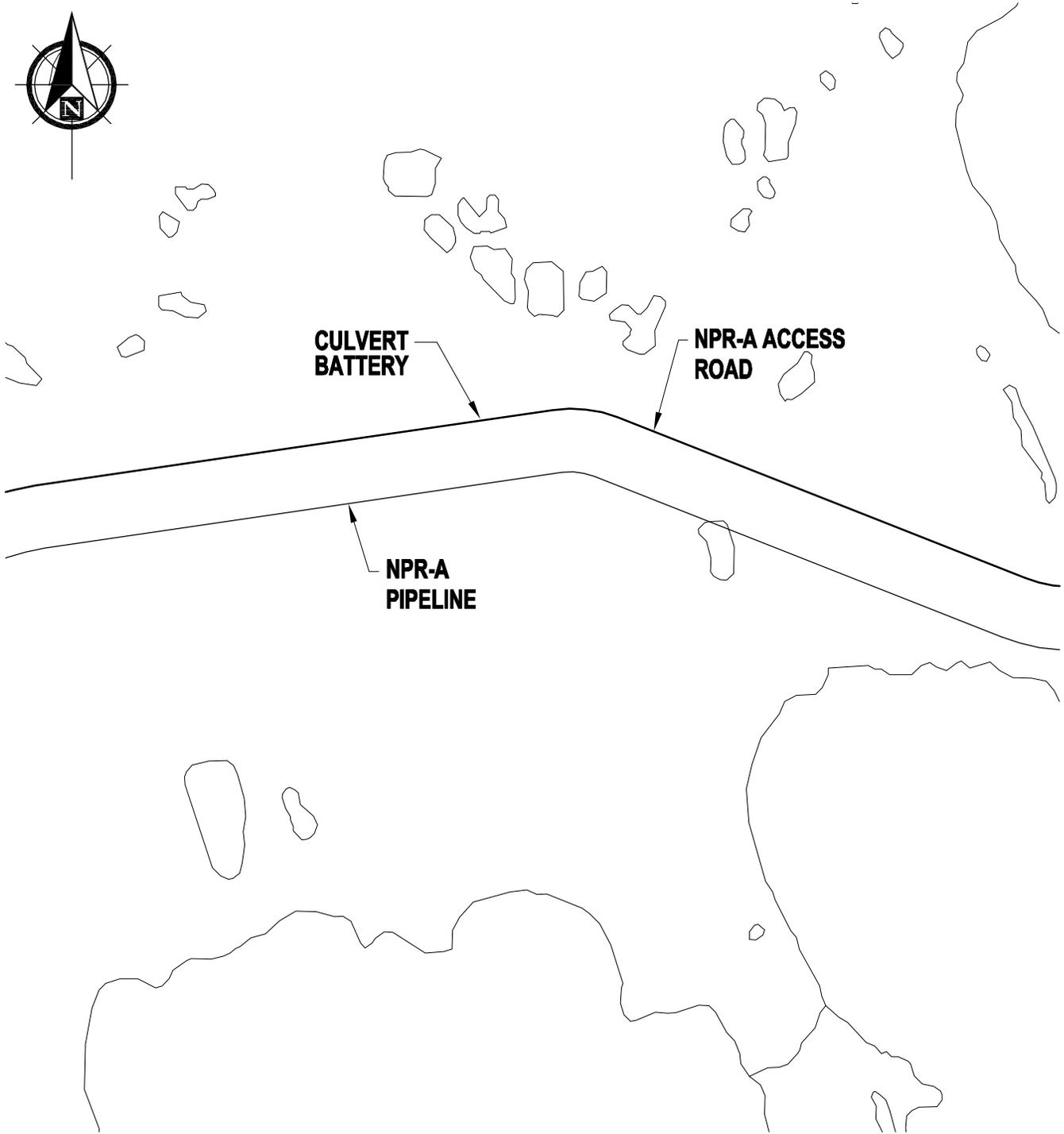
 Alaska, Inc.	AREA: 00	MODULE: XXXX	UNIT: R1
	ALPINE SATELLITE DEVELOPMENT PROGRAM NPR-A ACCESS ROAD AND PIPELINE ROUTE SHEET 5 OF 14		
CADD FILE NO.	DRAWING NO:	CEA-R1XX-XXXX	SHEET: 036 OF 73 REV: 0

REV	DATE	BY	CK	APP	DESCRIPTION	REV	DATE	BY	CK	APP	DESCRIPTION
0	01/04	RLC	JWP	-	ISSUE FOR PERMIT						

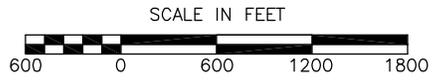


	AREA: 00	MODULE: XXXX	UNIT: R1
	ALPINE SATELLITE DEVELOPMENT PROGRAM CD-6 ROAD AND PIPELINE ROUTE SHEET 6 OF 14		
CADD FILE NO.	DRAWING NO:	SHEET:	REV:
	CEA-R1XX-XXXX	037 OF 73	0

REV	DATE	BY	CK	APP	DESCRIPTION	REV	DATE	BY	CK	APP	DESCRIPTION
0	01/04	RLC	JWP	-	ISSUE FOR PERMIT						



08/12/04




CONSULTING ENGINEERS
Incorporated

	AREA: 00	MODULE: XXXX	UNIT: R1
	ALPINE SATELLITE DEVELOPMENT PROGRAM NPR-A ACCESS ROAD AND PIPELINE ROUTE SHEET 7 OF 14		
CADD FILE NO.	DRAWING NO:	CEA-R1XX-XXXX	SHEET: 038 OF 73 REV: 0

REV	DATE	BY	CK	APP	DESCRIPTION	REV	DATE	BY	CK	APP	DESCRIPTION
0	01/04	RLC	JWP	-	ISSUE FOR PERMIT						



NPR-A ACCESS ROAD

NPR-A PIPELINE

SCALE IN FEET



08/12/04



CONSULTING ENGINEERS

ConocoPhillips
Alaska, Inc.

AREA: 00 MODULE: XXXX UNIT: R1
ALPINE SATELLITE DEVELOPMENT PROGRAM
NPRA ACCESS ROAD AND PIPELINE ROUTE
SHEET 8 OF 14

CADD FILE NO.

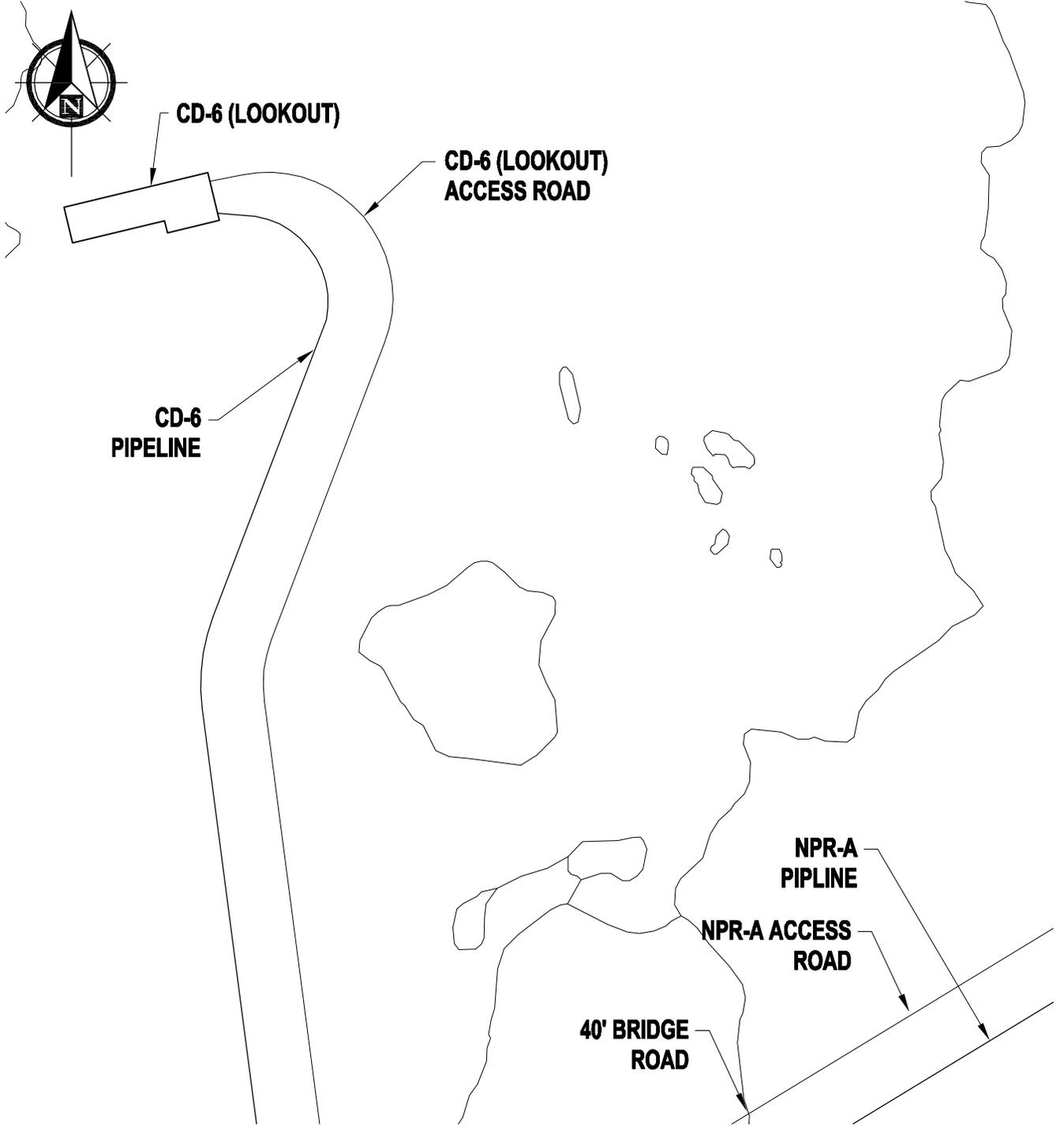
DRAWING NO:

CEA-R1XX-XXXX

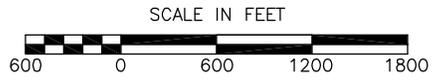
SHEET: 039 OF 73

REV: 0

REV	DATE	BY	CK	APP	DESCRIPTION	REV	DATE	BY	CK	APP	DESCRIPTION
0	01/04	RLC	JWP	-	ISSUE FOR PERMIT						



08/12/04

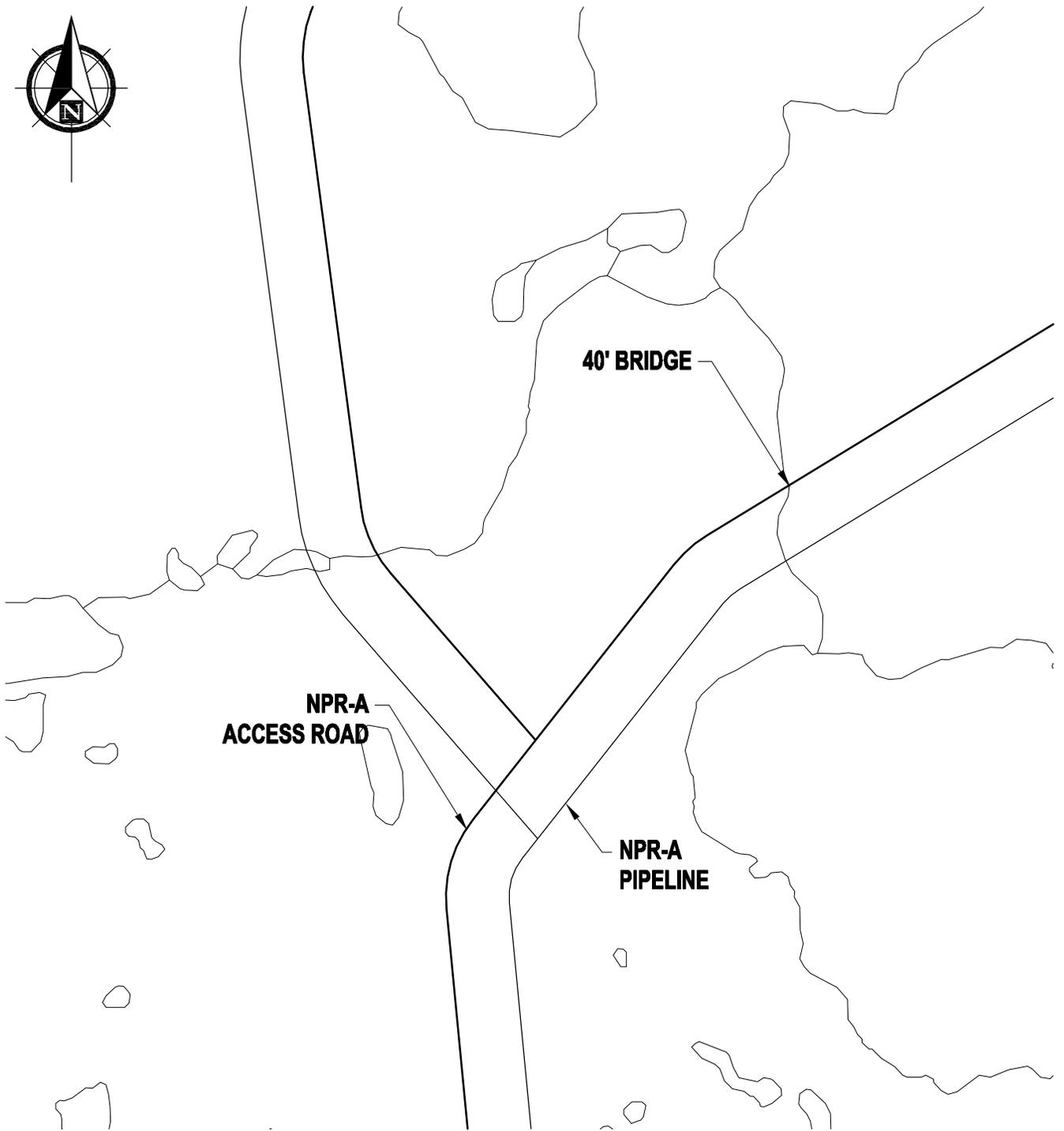


P | N | D CONSULTING ENGINEERS
Incorporated

	AREA: 00	MODULE: XXXX	UNIT: R1
	ALPINE SATELLITE DEVELOPMENT PROGRAM NPR-A ACCESS ROAD AND PIPELINE ROUTE SHEET 9 OF 14		
CADD FILE NO.	DRAWING NO:	CEA-R1XX-XXXX	SHEET: 040 OF 73 REV: 0

J:\2001\0117 NPR-A Development\Drawings\Permitting - Dwg Package A\40 - NPR-A Access Road Sht 09.dwg, 8/12/2004 11:17:42 AM, scott abbett, 1:1

REV	DATE	BY	CK	APP	DESCRIPTION	REV	DATE	BY	CK	APP	DESCRIPTION
0	01/04	RLC	JWP	-	ISSUE FOR PERMIT						

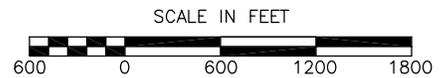


**NPR-A
ACCESS ROAD**

40' BRIDGE

**NPR-A
PIPELINE**

08/12/04



P | N | D CONSULTING
ENGINEERS
Incorporated

ConocoPhillips
Alaska, Inc.

AREA: 00 MODULE: XXXX UNIT: R1
ALPINE SATELLITE DEVELOPMENT PROGRAM
NPR-A ACCESS ROAD AND PIPELINE ROUTE
SHEET 10 OF 14

CADD FILE NO.

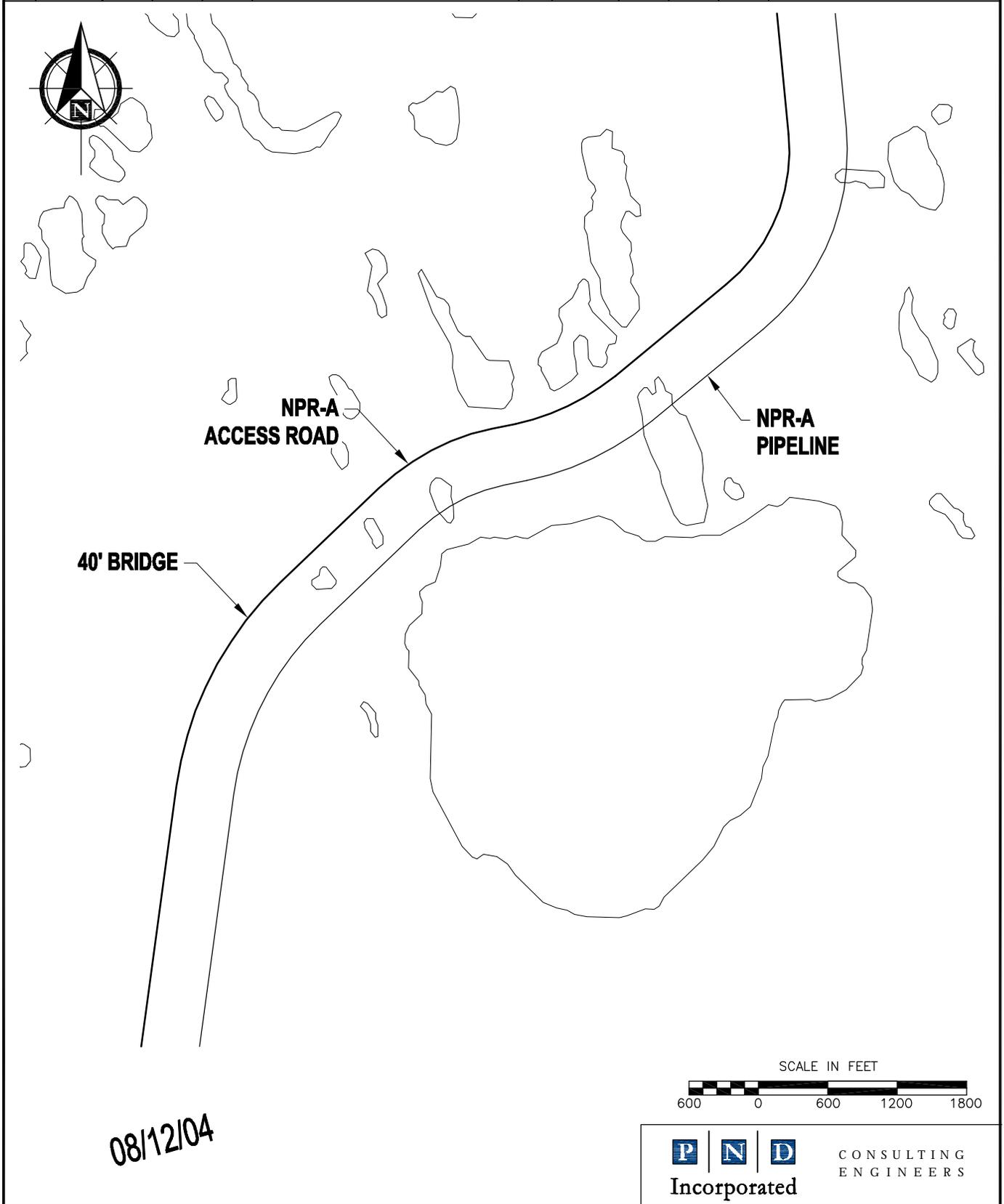
DRAWING NO:

CEA-R1XX-XXXX

SHEET:
041 OF 73

REV:
0

REV	DATE	BY	CK	APP	DESCRIPTION	REV	DATE	BY	CK	APP	DESCRIPTION
0	01/04	RLC	JWP	-	ISSUE FOR PERMIT						



SCALE IN FEET

600 0 600 1200 1800

P

N

D

CONSULTING
ENGINEERS

Incorporated



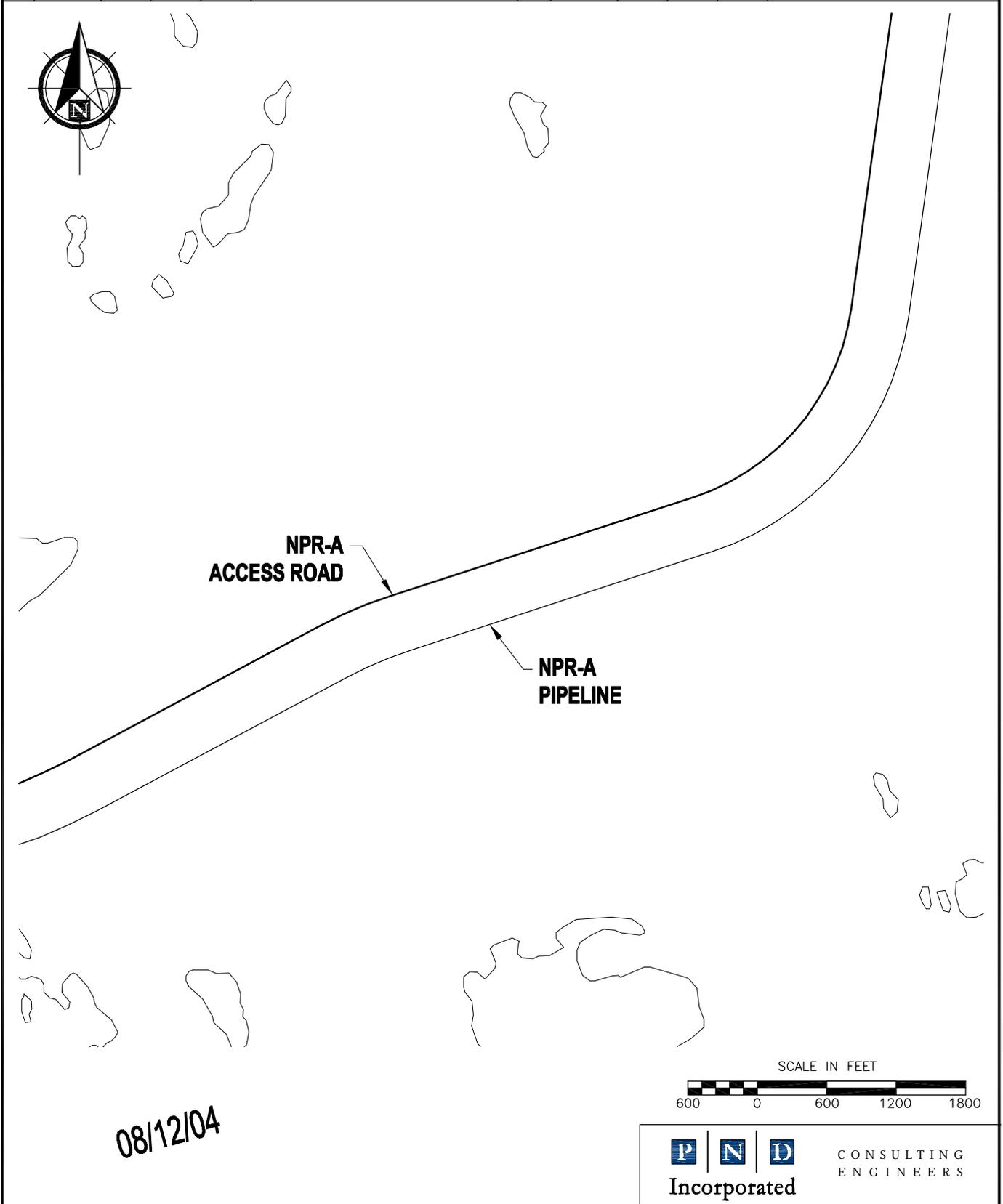
ConocoPhillips
Alaska, Inc.

AREA: 00 MODULE: XXXX UNIT: R1

ALPINE SATELLITE DEVELOPMENT PROGRAM
NPR-A ACCESS ROAD AND PIPELINE ROUTE
SHEET 11 OF 14

CADD FILE NO.	DRAWING NO:	CEA-R1XX-XXXX	SHEET:	042 OF 73	REV:	0
---------------	-------------	---------------	--------	-----------	------	---

REV	DATE	BY	CK	APP	DESCRIPTION	REV	DATE	BY	CK	APP	DESCRIPTION
0	01/04	RLC	JWP	-	ISSUE FOR PERMIT						



	AREA: 00	MODULE: XXXX	UNIT: R1
	ALPINE SATELLITE DEVELOPMENT PROGRAM NPRA ACCESS ROAD AND PIPELINE ROUTE SHEET 12 OF 14		
CADD FILE NO.	DRAWING NO:	CEA-R1XX-XXXX	SHEET: 043 OF 73 REV: 0

REV	DATE	BY	CK	APP	DESCRIPTION	REV	DATE	BY	CK	APP	DESCRIPTION
0	01/04	RLC	JWP	-	ISSUE FOR PERMIT						

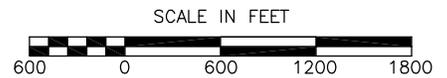


**NPR-A
ACCESS ROAD**

**CULVERT
BATTERY**

**NPR-A
PIPELINE**

08/12/04



CONSULTING
ENGINEERS

ConocoPhillips
Alaska, Inc.

AREA: 00 MODULE: XXXX UNIT: R1
ALPINE SATELLITE DEVELOPMENT PROGRAM
NPR-A ACCESS ROAD AND PIPELINE ROUTE
SHEET 13 OF 14

CADD FILE NO.

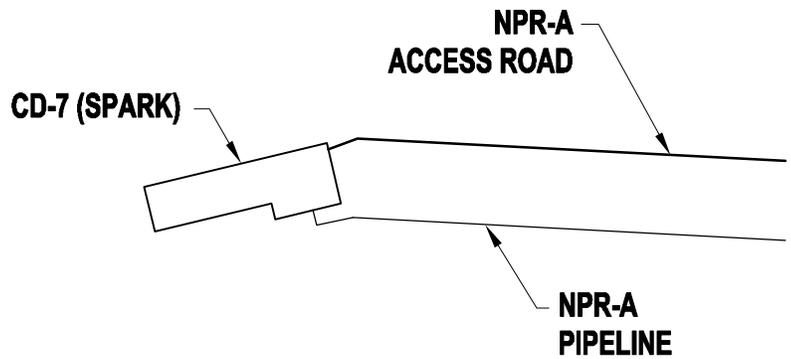
DRAWING NO:

CEA-R1XX-XXXX

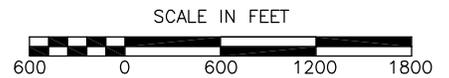
SHEET:
044 OF 73

REV: 0

REV	DATE	BY	CK	APP	DESCRIPTION	REV	DATE	BY	CK	APP	DESCRIPTION
0	01/04	RLC	JWP	-	ISSUE FOR PERMIT						



08/12/04



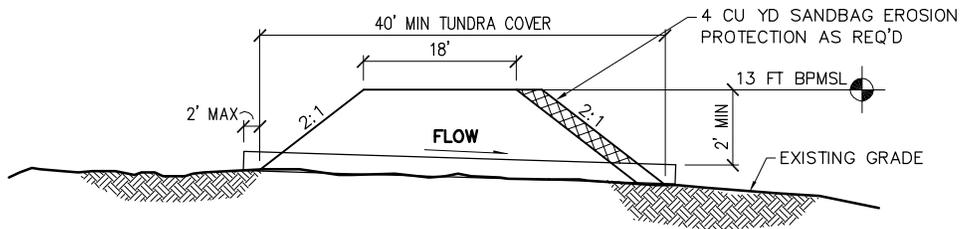
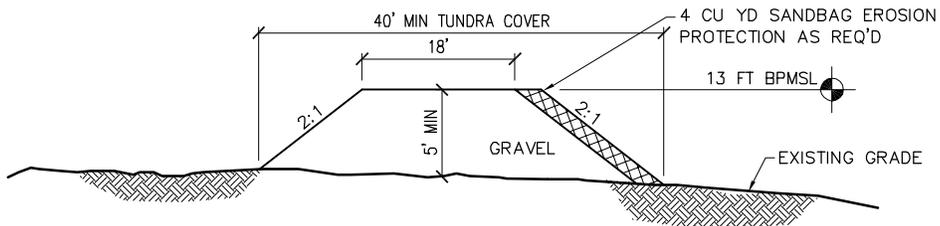
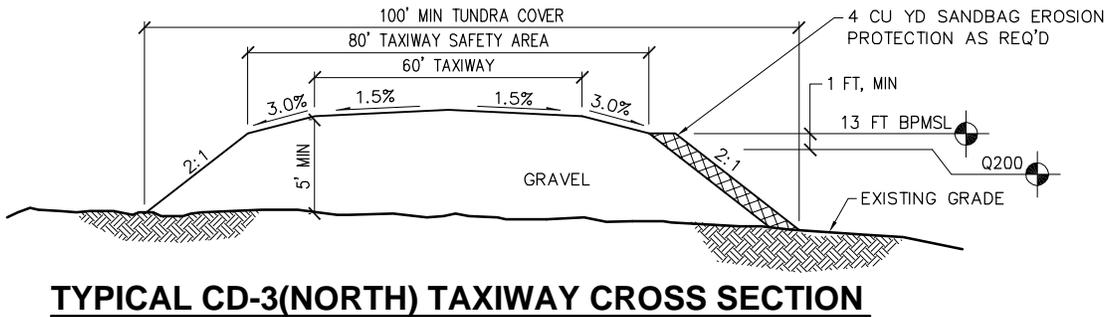
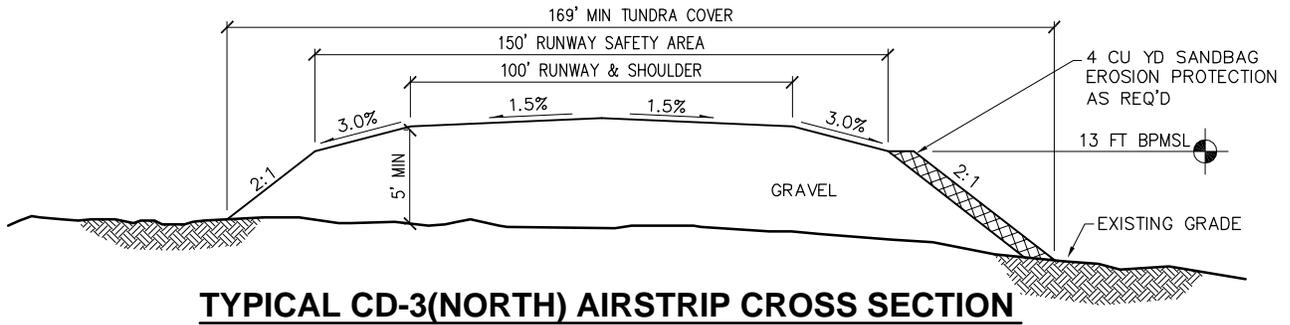
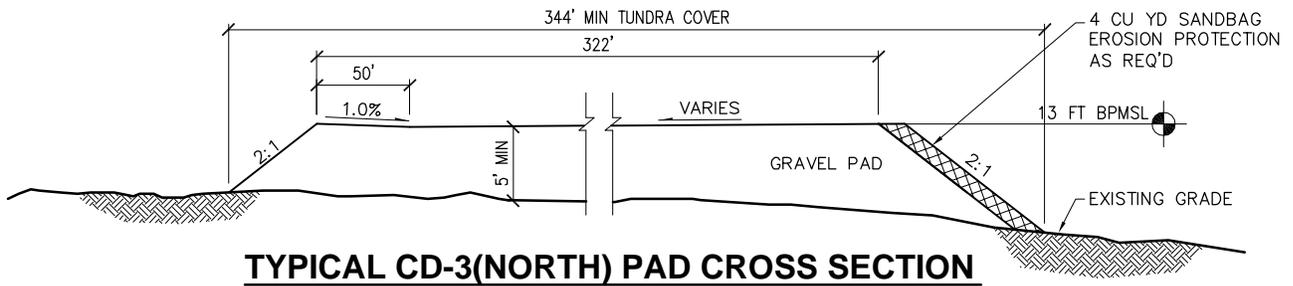
P | N | D CONSULTING ENGINEERS
Incorporated

ConocoPhillips
 Alaska, Inc.

AREA: 00 MODULE: XXXX UNIT: R1
 ALPINE SATELLITE DEVELOPMENT PROGRAM
 NPR-A ACCESS ROAD AND PIPELINE ROUTE
 SHEET 14 OF 14

CADD FILE NO.	DRAWING NO: CEA-R1XX-XXXX	SHEET: 045 OF 73	REV: 0
---------------	------------------------------	---------------------	-----------

REV	DATE	BY	CK	APP	DESCRIPTION	REV	DATE	BY	CK	APP	DESCRIPTION
0	01/04	RLC	JWP	-	ISSUE FOR PERMIT						



08/12/04

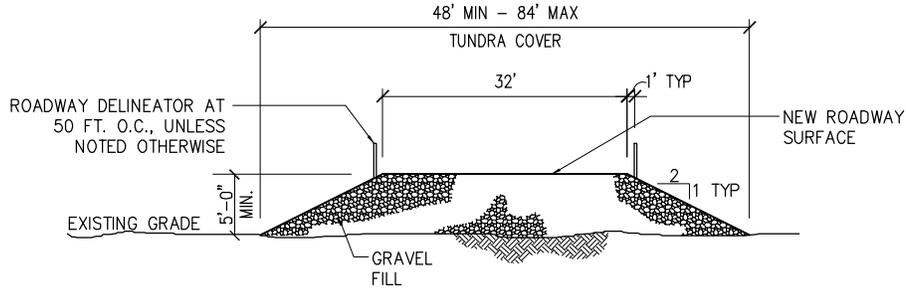
P | N | D CONSULTING ENGINEERS
Incorporated

ConocoPhillips
Alaska, Inc.

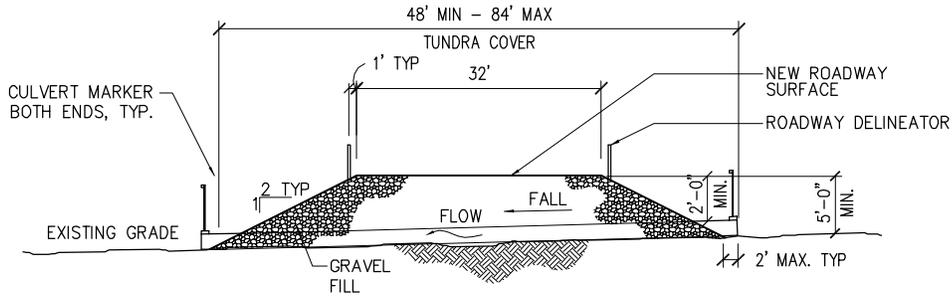
AREA: 00 MODULE: XXXX UNIT: R1
ALPINE SATELLITE DEVELOPMENT PROGRAM
CD-3(NORTH) TYPICAL SECTIONS

CADD FILE NO.	DRAWING NO:	CEA-R1XX-XXXX	SHEET:	REV:
			046 OF 73	0

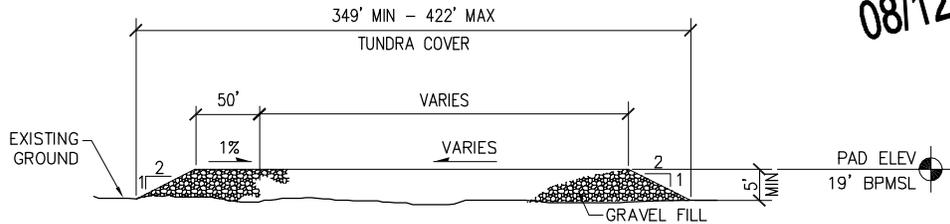
REV	DATE	BY	CK	APP	DESCRIPTION	REV	DATE	BY	CK	APP	DESCRIPTION
0	01/04	RLC	JWP	-	ISSUE FOR PERMIT						



CD-4 (SOUTH) TYPICAL GRAVEL ROADWAY SECTION
NOT TO SCALE



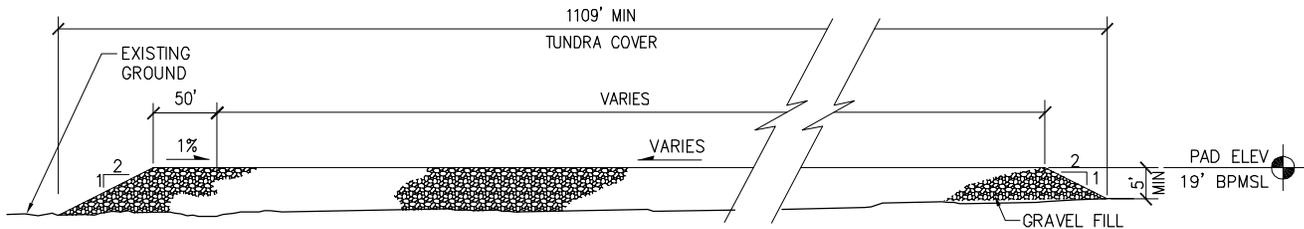
CD-4 (SOUTH) TYPICAL GRAVEL ROADWAY SECTION AT CULVERTS
NOT TO SCALE



08/12/04

CD-4 (SOUTH) TYPICAL WELL PAD SECTION A-A
NOT TO SCALE

NOTE:
TOE TO TOE DIMENSIONS
ARE BASED ON A MINIMUM
FILL DEPTH.



CD-4 (SOUTH) TYPICAL WELL PAD SECTION B-B
NOT TO SCALE

P | N | D
Incorporated

CONSULTING
ENGINEERS

ConocoPhillips
Alaska, Inc.

AREA: 00 MODULE: XXXX UNIT: R1
ALPINE SATELLITE DEVELOPMENT PROGRAM
CD-4(SOUTH) TYPICAL SECTIONS

CADD FILE NO.

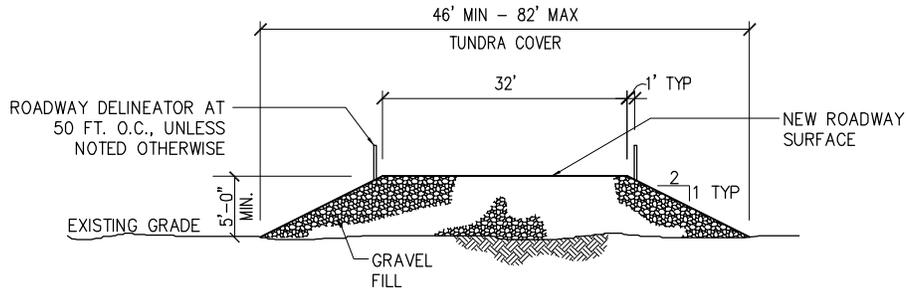
DRAWING NO:

CEA-R1XX-XXXX

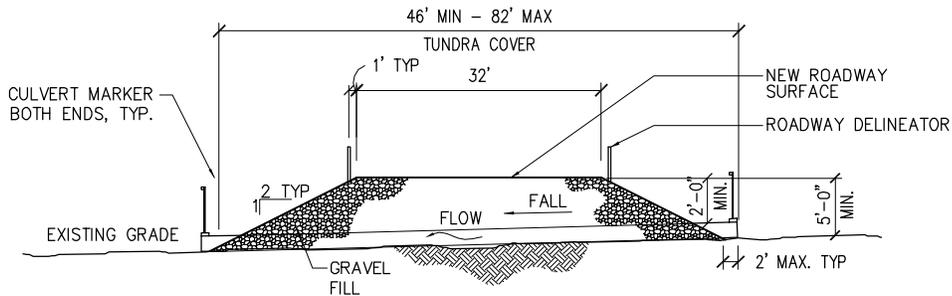
SHEET:
047 OF 73

REV:
0

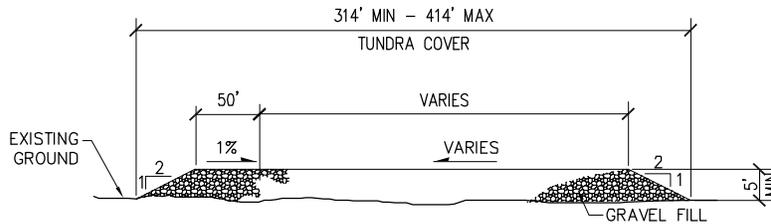
REV	DATE	BY	CK	APP	DESCRIPTION	REV	DATE	BY	CK	APP	DESCRIPTION
0	01/04	RLC	JWP	-	ISSUE FOR PERMIT						



CD-5, CD-6 & CD-7 TYPICAL GRAVEL ROADWAY SECTION
NOT TO SCALE



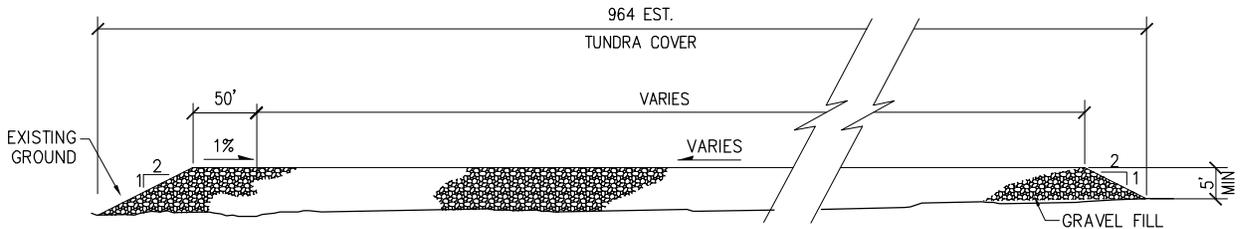
CD-5, CD-6 & CD-7 TYPICAL GRAVEL ROADWAY SECTION AT CULVERTS
NOT TO SCALE



CD-5, CD-6 & CD-7 TYPICAL WELL PAD SECTION A-A
NOT TO SCALE

08/12/04

NOTE:
TOE TO TOE DIMENSIONS
ARE BASED ON A MINIMUM
FILL DEPTH.



CD-5, CD-6 & CD-7 TYPICAL WELL PAD SECTION B-B
NOT TO SCALE

P | N | D
Incorporated

CONSULTING
ENGINEERS

ConocoPhillips
Alaska, Inc.

AREA: 00 MODULE: XXXX UNIT: R1
ALPINE SATELLITE DEVELOPMENT PROGRAM
CD-5 (ALPINE WEST), CD-6 (LOOKOUT)
AND CD-7 (SPARK) TYPICAL SECTIONS

CADD FILE NO.

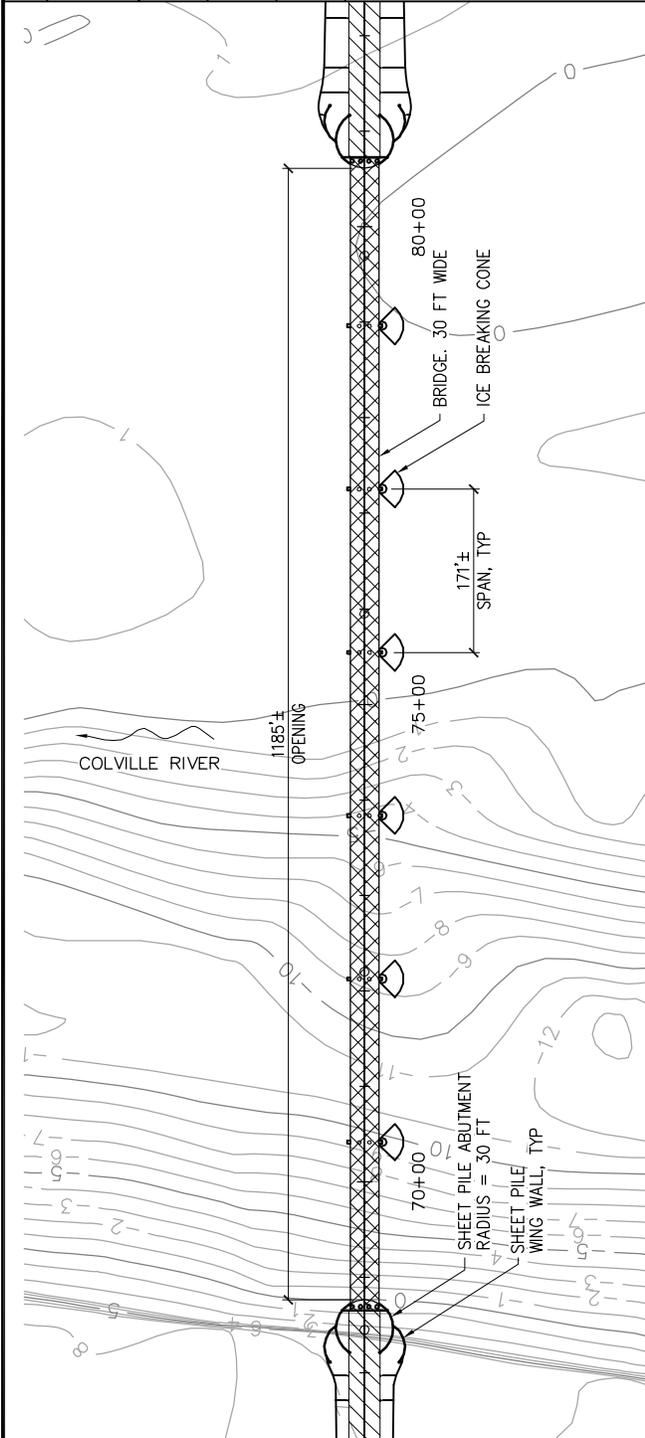
DRAWING NO:

CEA-R1XX-XXXX

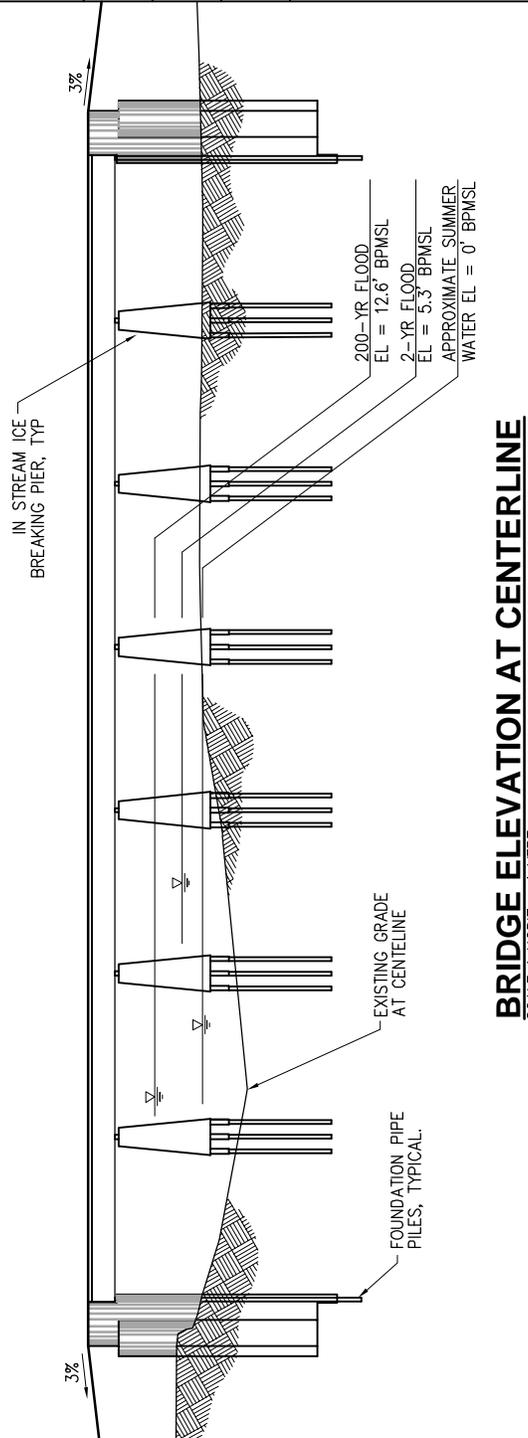
SHEET:
048 OF 73

REV:
0

REV	DATE	BY	CK	APP	DESCRIPTION	REV	DATE	BY	CK	APP	DESCRIPTION
0	01/04	RLC	JWP	-	ISSUE FOR PERMIT						



BRIDGE PLAN
NTS



BRIDGE ELEVATION AT CENTERLINE
SCALE 1" HORIZ : 4' VERT

PURPOSE:
PLACE FILL AND STEEL PILE AS PART OF THE CONSTRUCTION OF AN ACCESS ROAD BRIDGE

DATUM:
BRITISH PETROLEUM MEAN SEA LEVEL

ADJACENT PROPERTY OWNERS:
STATE OF ALASKA, KUUPIK COORPORATION, BLM

08/12/04



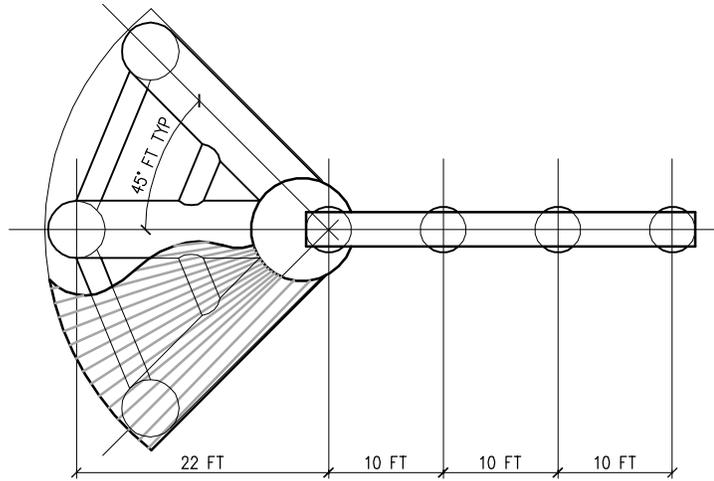
CONSULTING ENGINEERS



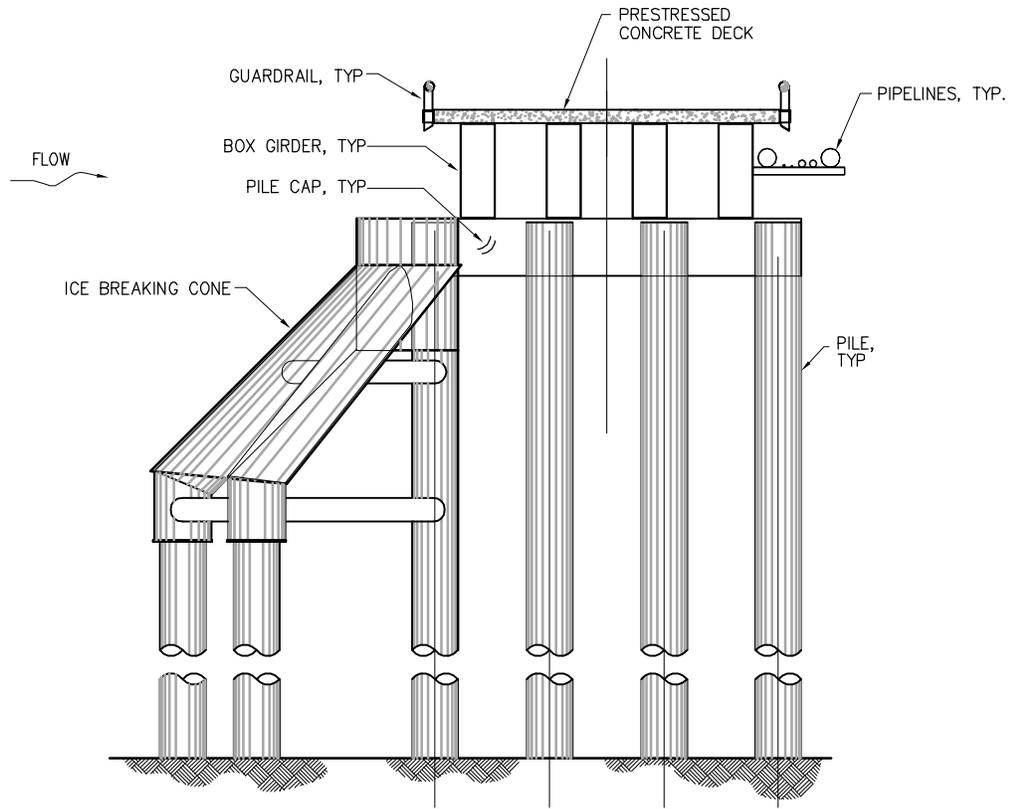
AREA: 00 MODULE: XXXX UNIT: R1
ALPINE SATELLITE DEVELOPMENT PROGRAM
1200 FT HEAVY DUTY BRIDGE
PLAN AND ELEVATION

CADD FILE NO.	DRAWING NO:	CEA-R1XX-XXXX	SHEET: 049 OF 73	REV: 0
---------------	-------------	---------------	------------------	--------

REV	DATE	BY	CK	APP	DESCRIPTION	REV	DATE	BY	CK	APP	DESCRIPTION
0	01/04	RLC	JWP	-	ISSUE FOR PERMIT						



PLAN



ELEVATION

PURPOSE:
PLACE FILL AND STEEL PILE AS PART OF THE
CONSTRUCTION OF AN ACCESS ROAD BRIDGE

DATUM:
BRITISH PETROLEUM MEAN SEA LEVEL

ADJACENT PROPERTY OWNERS:
STATE OF ALASKA, KUUKPIK COORPORATION, BLM

08/12/04



CONSULTING
ENGINEERS

Incorporated



AREA: 00 MODULE: XXXX UNIT: R1
ALPINE SATELLITE DEVELOPMENT PROGRAM
1200 FT HEAVY DUTY BRIDGE
ICE-BREAKING PIER PLAN AND ELEVATION

CADD FILE NO.

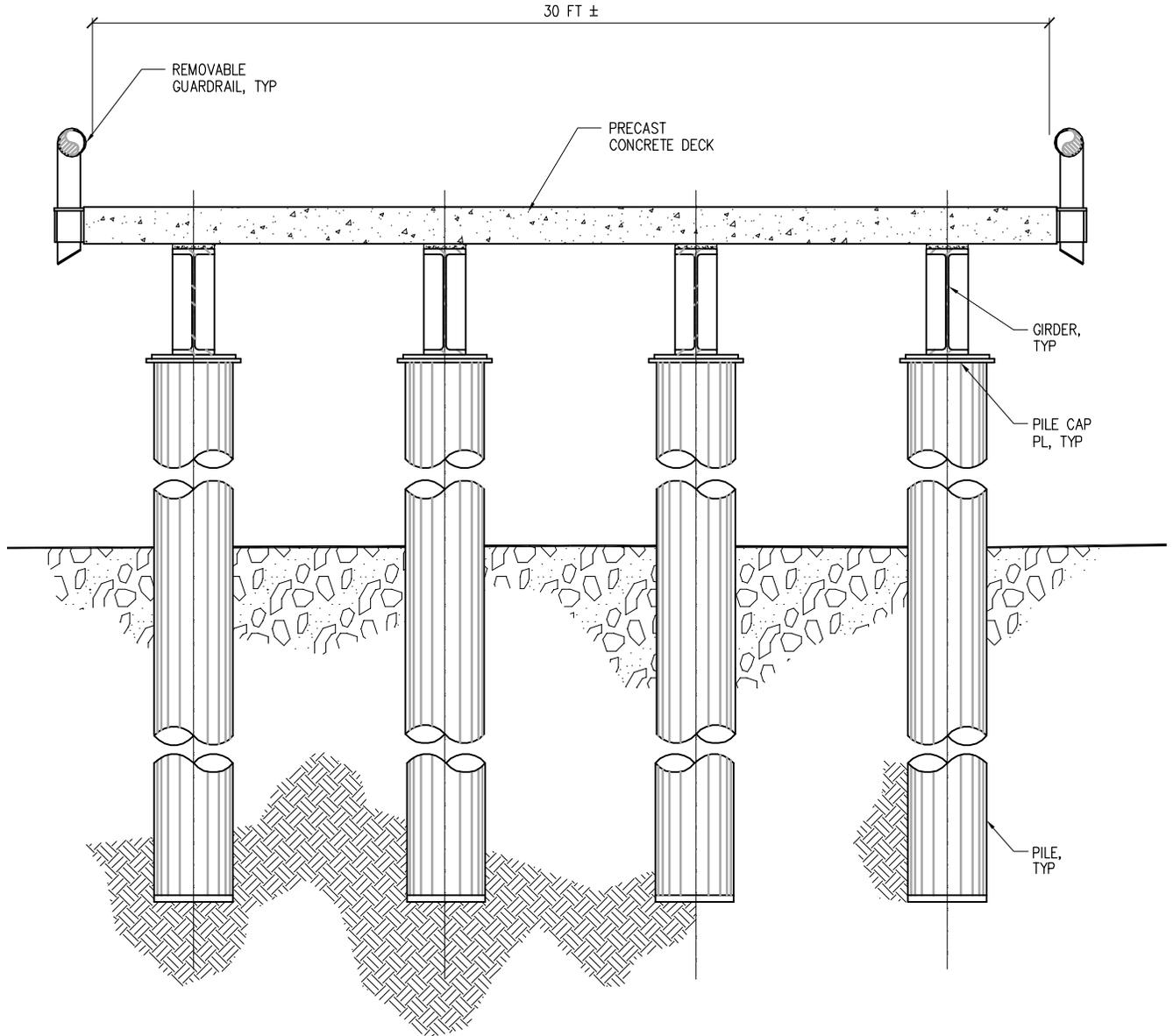
DRAWING NO:

CEA-R1XX-XXXX

SHEET:
050 OF 73

REV:
0

REV	DATE	BY	CK	APP	DESCRIPTION	REV	DATE	BY	CK	APP	DESCRIPTION
0	01/04	RLC	JWP	-	ISSUE FOR PERMIT						



SHORT CROSSING BRIDGE SECTION
NTS

PURPOSE:
PLACE FILL AND STEEL PILE AS PART OF THE
CONSTRUCTION OF AN ACCESS ROAD BRIDGE

DATUM:
BRITISH PETROLEUM MEAN SEA LEVEL

ADJACENT PROPERTY OWNERS:
STATE OF ALASKA, KUUPIK COORPORATION, BLM

08/12/04



CONSULTING
ENGINEERS

Incorporated



AREA: 00 MODULE: XXXX UNIT: R1

ALPINE SATELLITE DEVELOPMENT PROGRAM
TYPICAL SHORT CROSSING
HEAVY DUTY BRIDGE SECTION

CADD FILE NO.

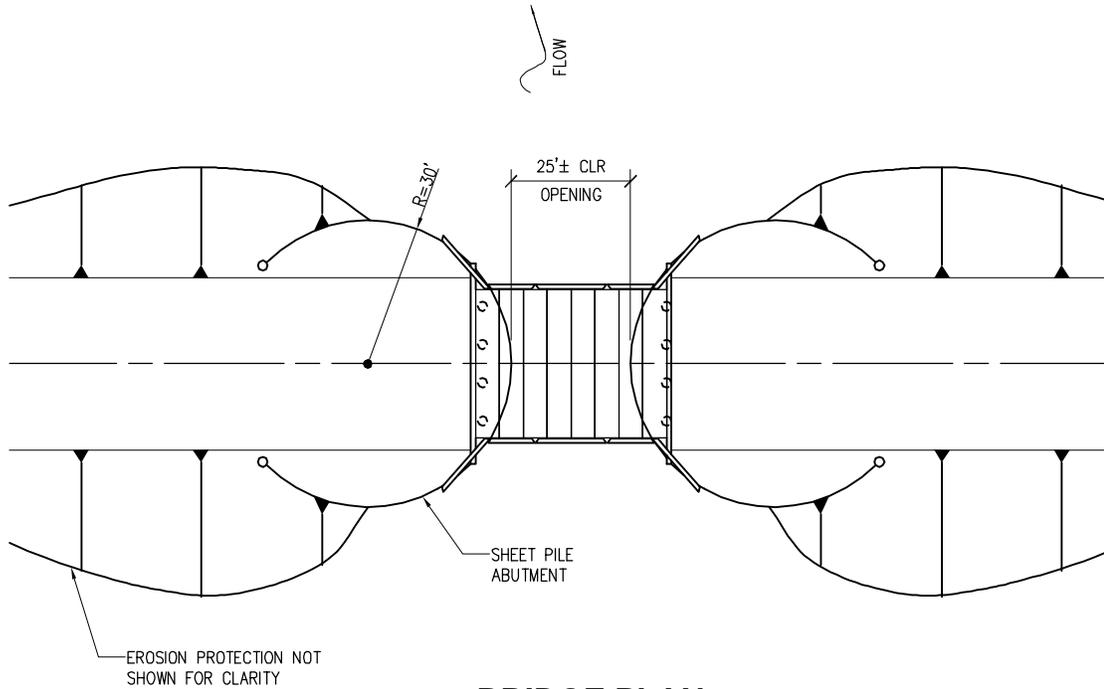
DRAWING NO:

CEA-R1XX-XXXX

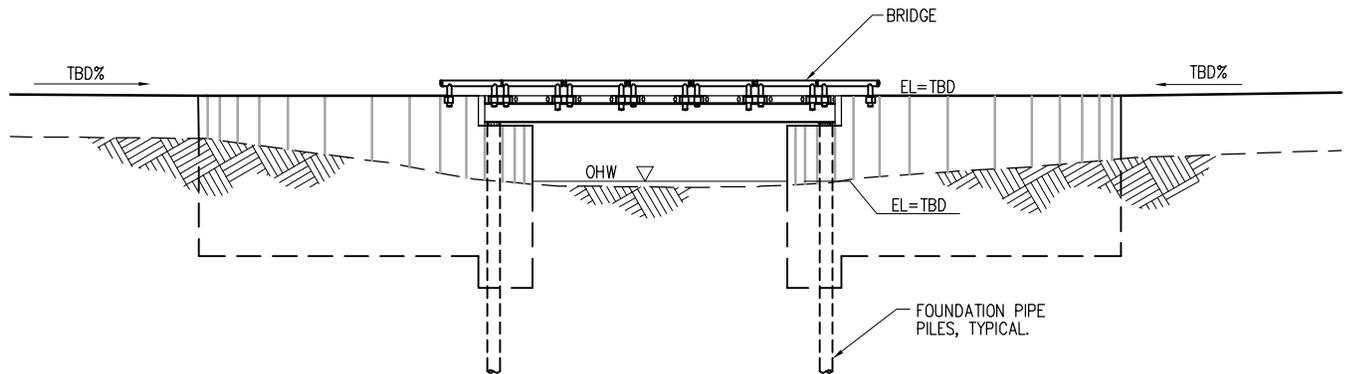
SHEET:
051 OF 73

REV:
0

REV	DATE	BY	CK	APP	DESCRIPTION	REV	DATE	BY	CK	APP	DESCRIPTION
0	01/04	RLC	JWP	-	ISSUE FOR PERMIT						



BRIDGE PLAN
NTS



BRIDGE ELEVATION AT CENTERLINE
NTS

HYDROLOGIC DATA

APPROX. ORDINARY HIGH WATER (OHW) ELEVATION = TBD
2 YR PEAK DISCHARGE = TBD

QUANTITIES SUMMARY

NFS GRAVEL BELOW OHW TBD CY
FILL AREA BELOW OHW

PURPOSE:
PLACE FILL AND STEEL PILE AS PART OF THE CONSTRUCTION OF AN ACCESS ROAD BRIDGE

DATUM:
BRITISH PETROLEUM MEAN SEA LEVEL

ADJACENT PROPERTY OWNERS:
STATE OF ALASKA, KUUUKPIK COOPERATION, BLM

08/12/04



CONSULTING ENGINEERS

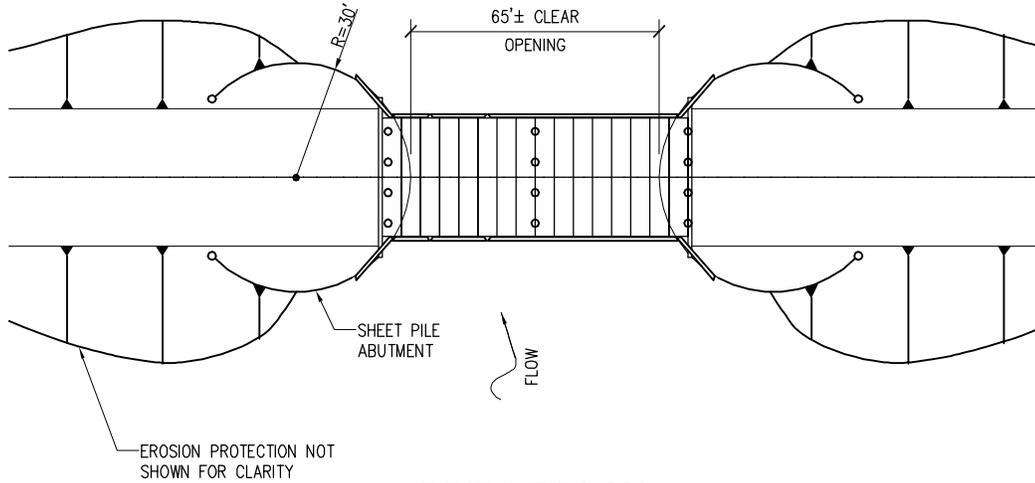
Incorporated



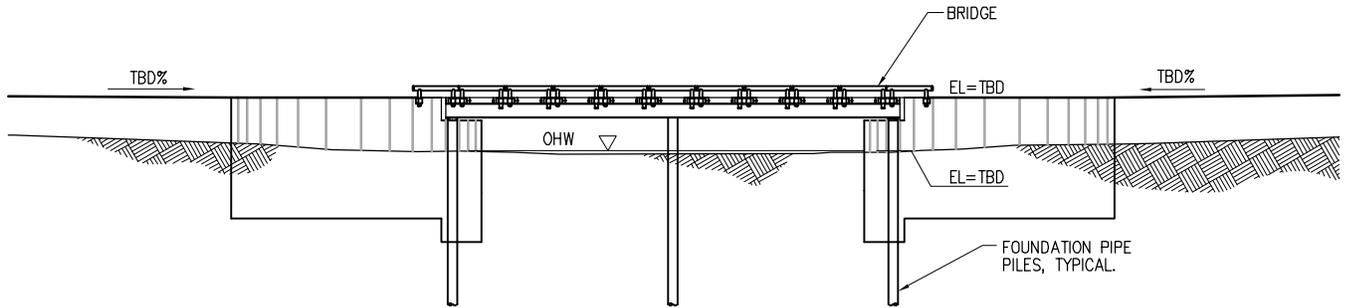
AREA: 00 MODULE: XXXX UNIT: R1
ALPINE SATELLITE DEVELOPMENT PROGRAM
40 FT HEAVY DUTY BRIDGE
PLAN AND ELEVATION

CADD FILE NO.	DRAWING NO:	CEA-R1XX-XXXX	SHEET:	052 OF 73	REV:	0
---------------	-------------	---------------	--------	-----------	------	---

REV	DATE	BY	CK	APP	DESCRIPTION	REV	DATE	BY	CK	APP	DESCRIPTION
0	01/04	RLC	JWP	-	ISSUE FOR PERMIT						



BRIDGE PLAN
NTS



BRIDGE ELEVATION AT CENTERLINE
NTS

HYDROLOGIC DATA

APPROX. ORDINARY HIGH WATER (OHW) ELEVATION = TBD
2 YR PEAK DISCHARGE = TBD

QUANTITIES SUMMARY

NFS GRAVEL BELOW OHW TBD CY
FILL AREA BELOW OHW TBD ACRE

08/12/04

PURPOSE:

PLACE FILL AND STEEL PILE AS PART OF THE CONSTRUCTION OF AN ACCESS ROAD BRIDGE

DATUM:

BRITISH PETROLEUM MEAN SEA LEVEL

ADJACENT PROPERTY OWNERS:

STATE OF ALASKA, KUUUPIK COORPORATION, BLM



CONSULTING ENGINEERS

Incorporated



AREA: 00

MODULE: XXXX

UNIT: R1

ALPINE SATELLITE DEVELOPMENT PROGRAM
80 FT HEAVY DUTY BRIDGE
PLAN AND ELEVATION

CADD FILE NO.

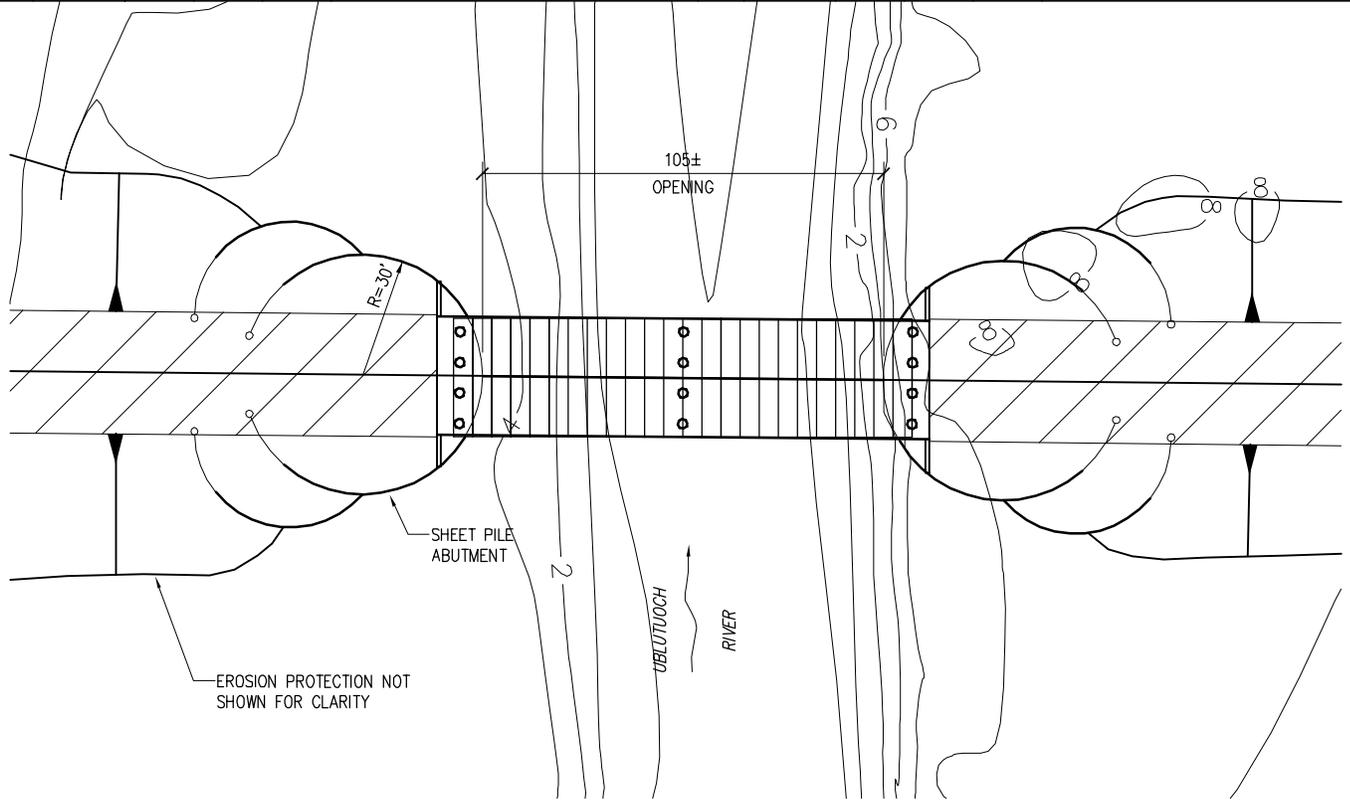
DRAWING NO:

CEA-R1XX-XXXX

SHEET: 053 OF 73

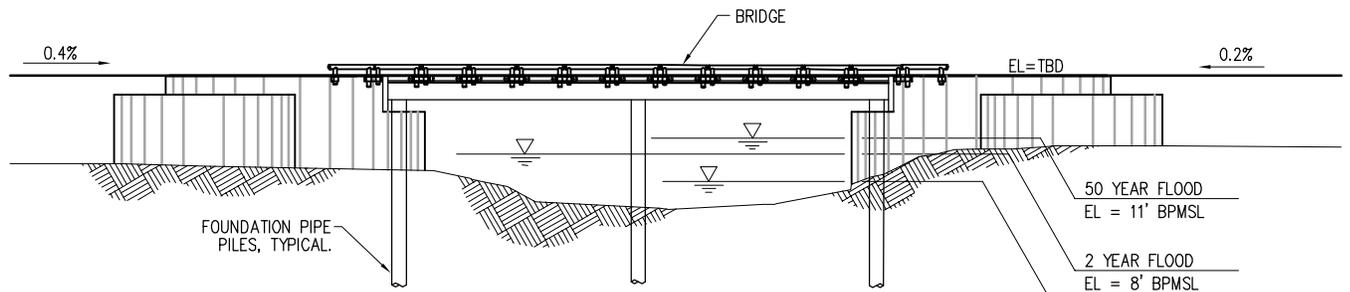
REV: 0

REV	DATE	BY	CK	APP	DESCRIPTION	REV	DATE	BY	CK	APP	DESCRIPTION
0	01/04	RLC	JWP	-	ISSUE FOR PERMIT						



BRIDGE PLAN

NTS



BRIDGE ELEVATION AT CENTERLINE

NTS

HYDROLOGIC DATA

APPROX. ORDINARY HIGH WATER (OHW) ELEVATION = TBD
 2 YR PEAK DISCHARGE = TBD

QUANTITIES SUMMARY

NFS GRAVEL BELOW OHW TBD CY
 FILL AREA BELOW OHW TBD ACRE

PURPOSE:

PLACE FILL AND STEEL PILE AS PART OF THE CONSTRUCTION OF AN ACCESS ROAD BRIDGE

DATUM:

BRITISH PETROLEUM MEAN SEA LEVEL

ADJACENT PROPERTY OWNERS:

STATE OF ALASKA, KUUKPIK COORPORATION, BLM

08/12/04



CONSULTING ENGINEERS



AREA: 00

MODULE: XXXX

UNIT: R1

ALPINE SATELLITE DEVELOPMENT PROGRAM
 120 FT HEAVY DUTY BRIDGE
 PLAN AND ELEVATION

CADD FILE NO.

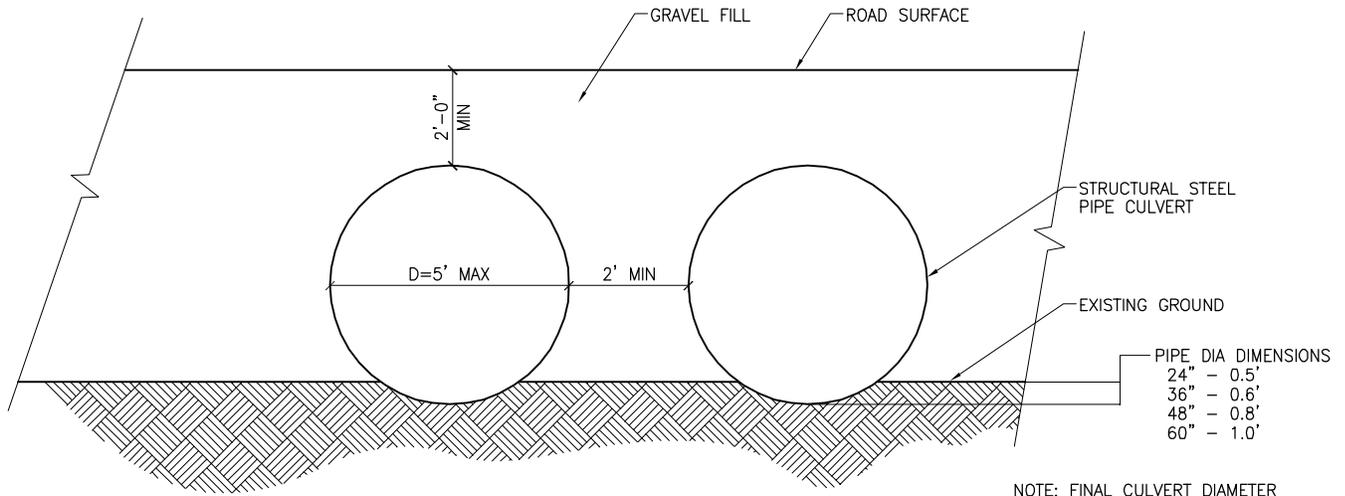
DRAWING NO:

CEA-R1XX-XXXX

SHEET: 054 OF 73

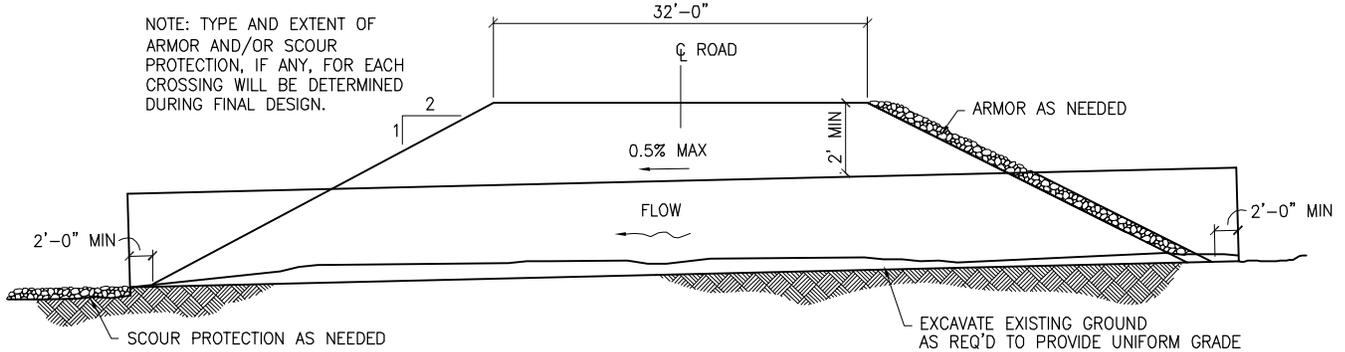
REV: 0

REV	DATE	BY	CK	APP	DESCRIPTION	REV	DATE	BY	CK	APP	DESCRIPTION
0	01/04	RLC	JWP	-	ISSUE FOR PERMIT						



**CULVERT BATTERY
FISH PASSAGE ELEVATION**

NOTE: FINAL CULVERT DIAMETER "D" AND NUMBER OF CULVERTS REQUIRED FOR EACH STREAM CROSSING WILL BE DETERMINED DURING FINAL DESIGN.



FISH PASSAGE SECTION

08/12/04

CULVERT BATTERY	Q ₅₀	PIPE CULVERTS
1	< 200 CFS	2 - 48"φ
2	230 CFS	3 - 48"φ
3	< 200 CFS	2 - 48"φ
4	< 100 CFS	1 - 48"φ

PURPOSE:
PLACE FILL AND CULVERT AS PART OF THE ROAD CONSTRUCTION

DATUM:
BRITISH PETROLEUM MEAN SEA LEVEL

ADJACENT PROPERTY OWNERS:
STATE OF ALASKA, KUUKPIK CORPORATION, BLM



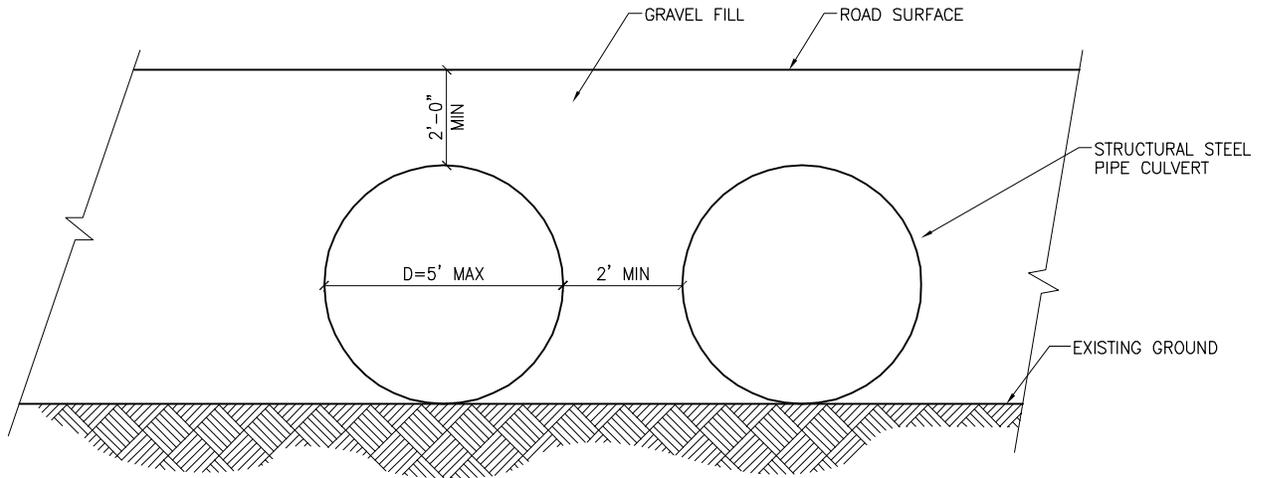
Incorporated CONSULTING ENGINEERS


 Alaska, Inc.

AREA: 00 MODULE: XXXX UNIT: R1
 ALPINE SATELLITE DEVELOPMENT PROGRAM
 TYPICAL FISH PASSAGE CULVERT
 CROSS SECTIONS

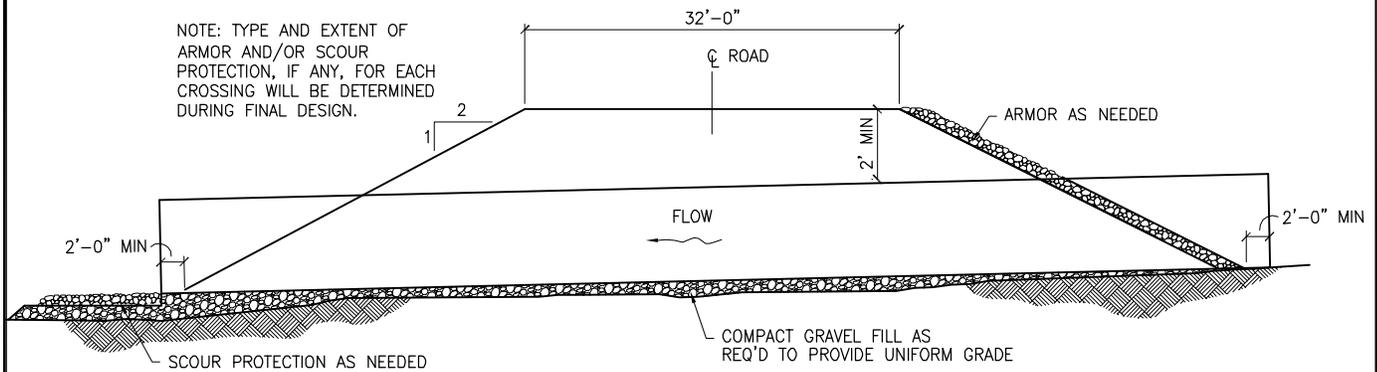
CADD FILE NO.	DRAWING NO: CEA-R1XX-XXXX	SHEET: 055 OF 73	REV: 0
---------------	------------------------------	---------------------	-----------

REV	DATE	BY	CK	APP	DESCRIPTION	REV	DATE	BY	CK	APP	DESCRIPTION
0	01/04	RLC	JWP	-	ISSUE FOR PERMIT						



CULVERT BATTERY
NON-FISH PASSAGE INLET ELEVATION

NOTE: FINAL CULVERT DIAMETER "D" AND NUMBER OF CULVERTS REQUIRED FOR EACH DRAINAGE CROSSING WILL BE DETERMINED DURING FINAL DESIGN.



NOTE: TYPE AND EXTENT OF ARMOR AND/OR SCOUR PROTECTION, IF ANY, FOR EACH CROSSING WILL BE DETERMINED DURING FINAL DESIGN.

NON-FISH PASSAGE SECTION

PURPOSE:
PLACE FILL AND CULVERT AS PART OF THE ROAD CONSTRUCTION

DATUM:
BRITISH PETROLEUM MEAN SEA LEVEL

ADJACENT PROPERTY OWNERS:
STATE OF ALASKA, KUUUKPIK CORPORATION, BLM

08/12/04

P | N | D

CONSULTING ENGINEERS

Incorporated

ConocoPhillips
Alaska, Inc.

AREA: 00

MODULE: XXXX

UNIT: R1

ALPINE SATELLITE DEVELOPMENT PROGRAM
TYPICAL NON-FISH PASSAGE CULVERT
CROSS SECTIONS

CADD FILE NO.

DRAWING NO:

CEA-R1XX-XXXX

SHEET:
056 OF 73

REV:
0

REV	DATE	BY	CK	APP	DESCRIPTION	REV	DATE	BY	CK	APP	DESCRIPTION
0	01/04	RLC	JWP	-	ISSUE FOR PERMIT						

SHEET 57 DELETED

08/12/04



CONSULTING
ENGINEERS

ConocoPhillips
Alaska, Inc.

AREA: 00 MODULE: XXXX UNIT: R1
ALPINE SATELLITE DEVELOPMENT PROGRAM
CD-4 (SOUTH) LAKE PASSAGE
ROADWAY SECTION

CADD FILE NO.

DRAWING NO:

CEA-R1XX-XXXX

SHEET:
057 OF 73

REV: 0

REV	DATE	BY	CK	APP	DESCRIPTION	REV	DATE	BY	CK	APP	DESCRIPTION
0	01/04	RLC	JWP	-	ISSUE FOR PERMIT						

SHEET 58 DELETED

08/12/04



CONSULTING
ENGINEERS

Incorporated



AREA: 00 MODULE: XXXX UNIT: R1
 ALPINE SATELLITE DEVELOPMENT PROGRAM
 CD-4 (SOUTH) LAKE CROSSING CULVERTS
 PLAN AND PROFILE

CADD FILE NO.

DRAWING NO:

CEA-R1XX-XXXX

SHEET:
058 of 73

REV: 0

REV	DATE	BY	CK	APP	DESCRIPTION	REV	DATE	BY	CK	APP	DESCRIPTION
0	01/04	RLC	JWP	-	ISSUE FOR PERMIT						

SHEET 59 DELETED

08/12/04



CONSULTING
ENGINEERS



AREA: 00 MODULE: XXXX UNIT: R1
ALPINE SATELLITE DEVELOPMENT PROGRAM
CD-4 (SOUTH) LAKE CROSSING CULVERTS
SECTIONS

CADD FILE NO.

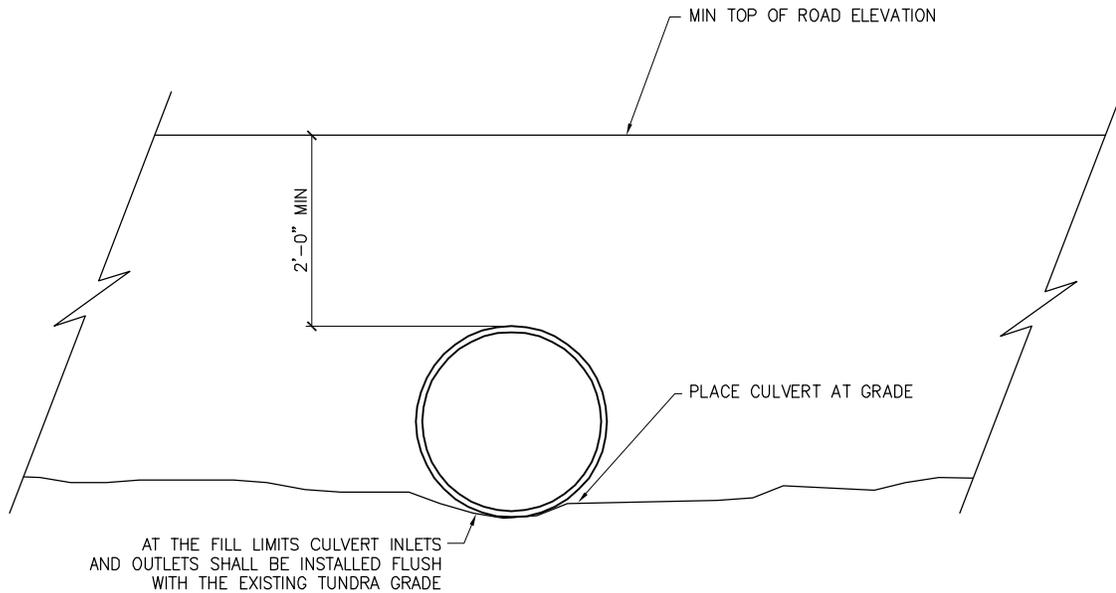
DRAWING NO:

CEA-R1XX-XXXX

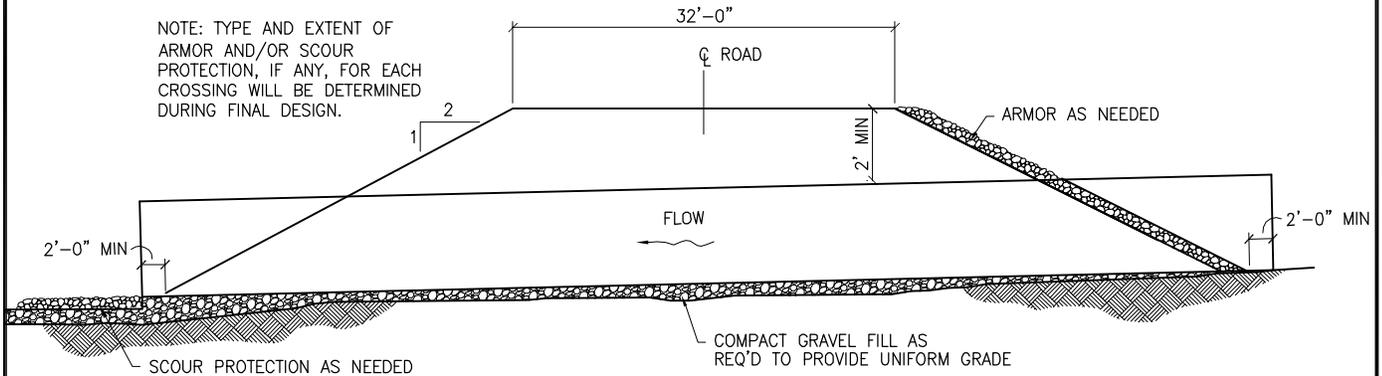
SHEET:
059 OF 73

REV: 0

REV	DATE	BY	CK	APP	DESCRIPTION	REV	DATE	BY	CK	APP	DESCRIPTION
0	01/04	RLC	JWP	-	ISSUE FOR PERMIT						



CULVERT CROSS DRAINAGE ELEVATION



CULVERT CROSS DRAINAGE SECTION

PURPOSE:
PLACE FILL AND CULVERT AS PART OF THE ROAD CONSTRUCTION

DATUM:
BRITISH PETROLEUM MEAN SEA LEVEL

ADJACENT PROPERTY OWNERS:
STATE OF ALASKA, KUUKPIK CORPORATION, BLM

08/12/04



CONSULTING ENGINEERS

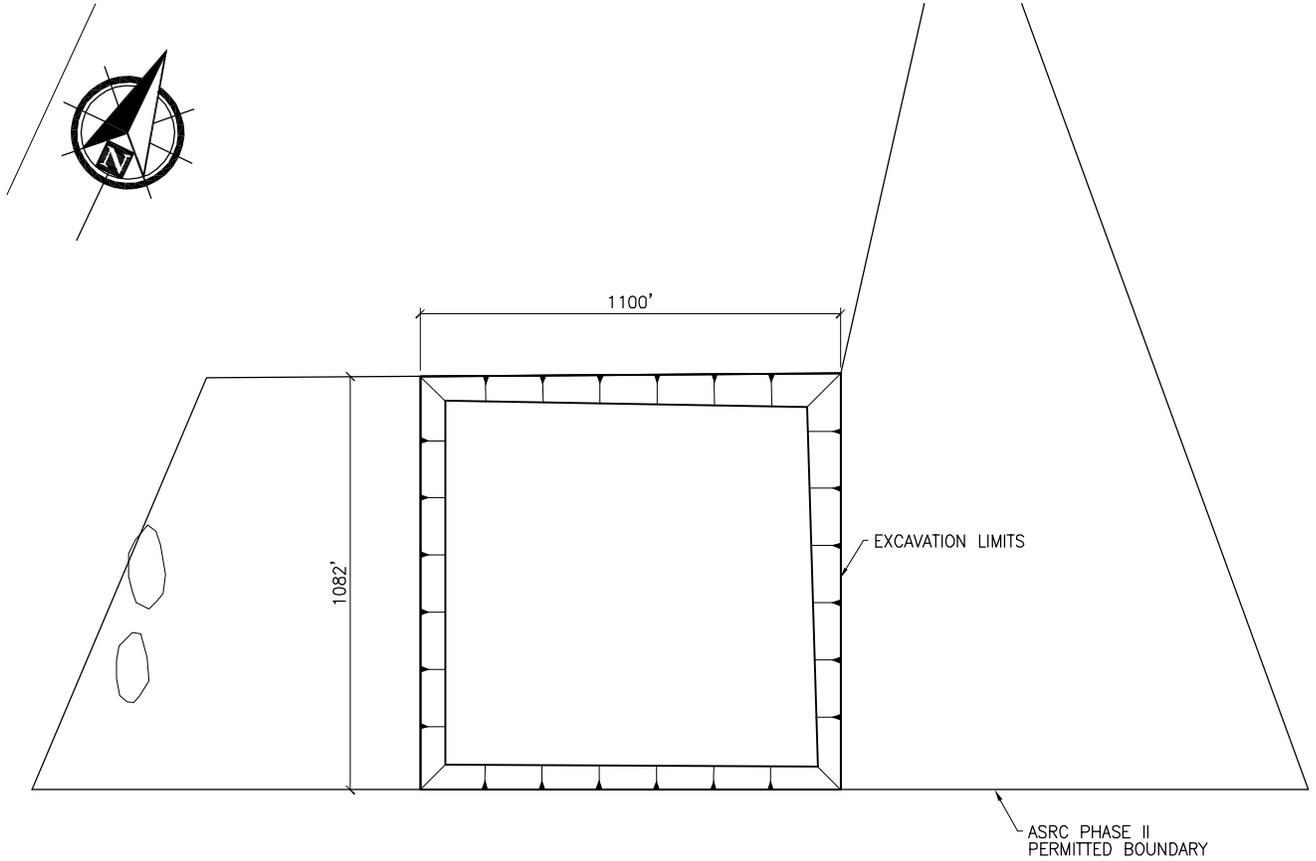
Incorporated



AREA: 00 MODULE: XXXX UNIT: R1
ALPINE SATELLITE DEVELOPMENT PROGRAM
TYPICAL CROSS DRAINAGE CULVERT
CROSS SECTIONS

CADD FILE NO.	DRAWING NO:	CEA-R1XX-XXXX	SHEET: 060 OF 73	REV: 0
---------------	-------------	---------------	------------------	--------

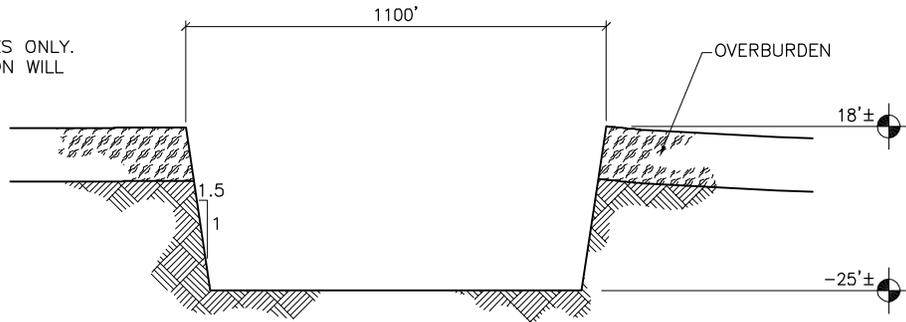
REV	DATE	BY	CK	APP	DESCRIPTION	REV	DATE	BY	CK	APP	DESCRIPTION
0	01/04	RLC	JWP	-	ISSUE FOR PERMIT						



NOTES:

- OVERBURDEN TO BE STAGED FOR USE IN REMEDIATION OF MATERIAL SOURCE AREA UPON COMPLETION OF PROJECT.
- PIT LAYOUT IS FOR INFORMATIONAL PURPOSES ONLY. THE FINAL CONFIGURATION WILL CONFORM TO PERMIT STIPULATION.

PLAN



SECTION

ESTIMATED QUANTITIES

SOIL AND GRAVEL: 836,000 CY
OVERBURDEN: 840,000 CY
FOOT PRINT: 27 ACRES

08/12/04



P | N | D CONSULTING ENGINEERS
Incorporated

ConocoPhillips
Alaska, Inc.

AREA: 00 MODULE: XXXX UNIT: R1
ALPINE SATELLITE DEVELOPMENT PROGRAM
ASRC PIT GRAVEL SOURCE

CADD FILE NO.	DRAWING NO:	CEA-R1XX-XXXX	SHEET:	061 OF 73	REV:	0
---------------	-------------	---------------	--------	-----------	------	---

REV	DATE	BY	CK	APP	DESCRIPTION	REV	DATE	BY	CK	APP	DESCRIPTION
0	01/04	RLC	JWP	-	ISSUE FOR PERMIT						

SHEET 62 DELETED

08/12/04



P | N | D CONSULTING
ENGINEERS
Incorporated

ConocoPhillips
Alaska, Inc.

AREA: 00 MODULE: XXXX UNIT: R1
ALPINE SATELLITE DEVELOPMENT PROGRAM
CLOVER A GRAVEL SOURCE

CADD FILE NO.

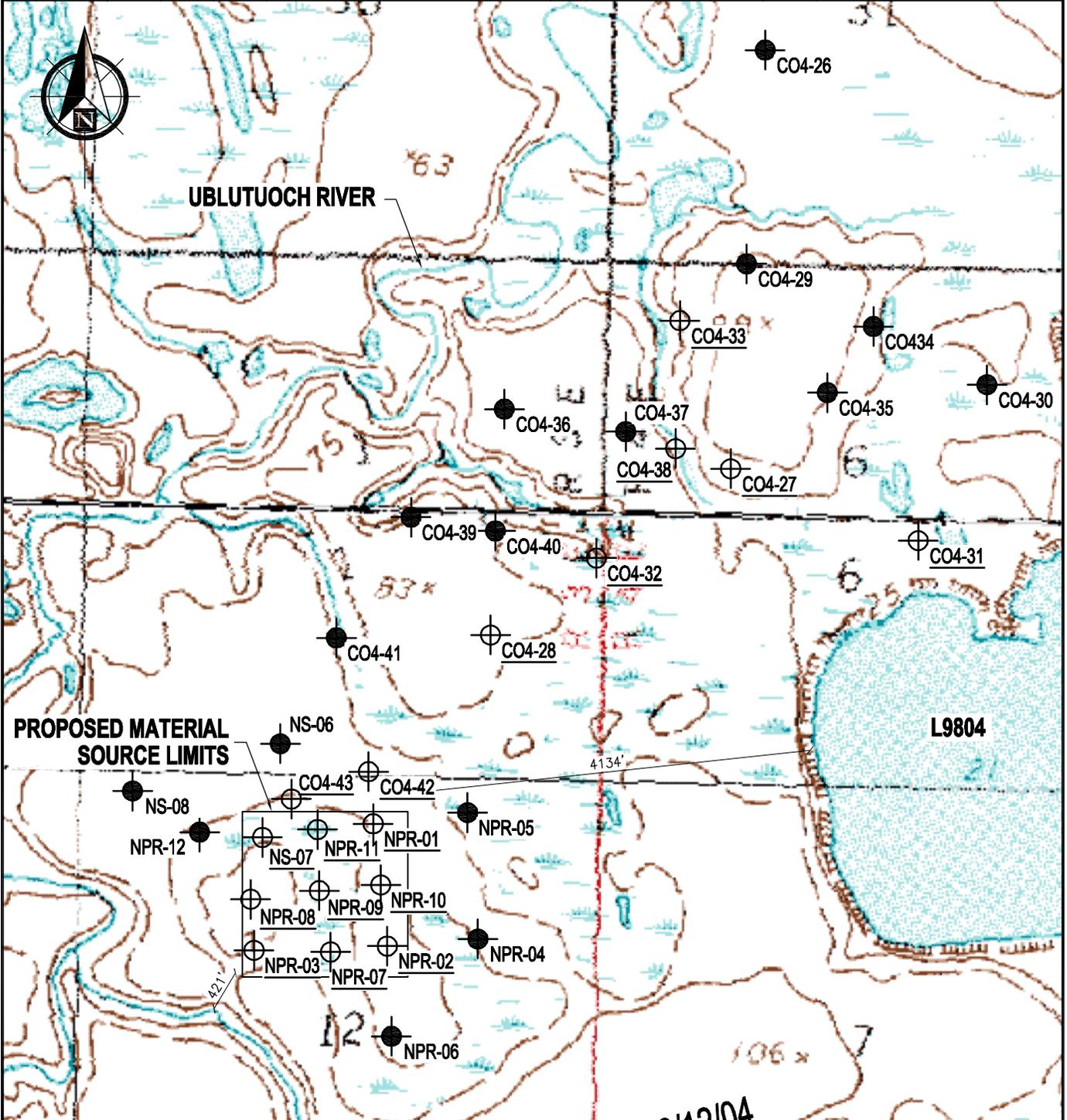
DRAWING NO:

CEA-R1XX-XXXX

SHEET:
062 OF 73

REV: 0

REV	DATE	BY	CK	APP	DESCRIPTION	REV	DATE	BY	CK	APP	DESCRIPTION
0	01/04	RLC	JWP	-	ISSUE FOR PERMIT						



MATERIAL SOURCE FOOTPRINT: 65
 ACRES TOTAL POTENTIAL NEATLINE EXCAVATION: 5,600,000 CY ESTIMATED
 OVERBURDEN QUANTITY: 1,800,000 CY
 LOCATION: T10N R3E, S12, UMIAT MERIDIAN
 MATERIAL SOURCE TO BE ACCESSED BY SEASONAL ICE ROAD ONLY

- DMA BOREHOLE - NOT SUTABLE MATERIAL PER DMA
- DMA BOREHOLE - SUITABLE MATERIAL PER DMA

08/12/04



P | N | D
Incorporated

CONSULTING ENGINEERS

ConocoPhillips
 Alaska, Inc.

AREA: 00 MODULE: XXXX UNIT: R1
 ALPINE SATELLITE DEVELOPMENT PROGRAM
 CLOVER A GRAVEL SOURCE
 VICINITY MAP

CADD FILE NO.

DRAWING NO:

CEA-R1XX-XXXX

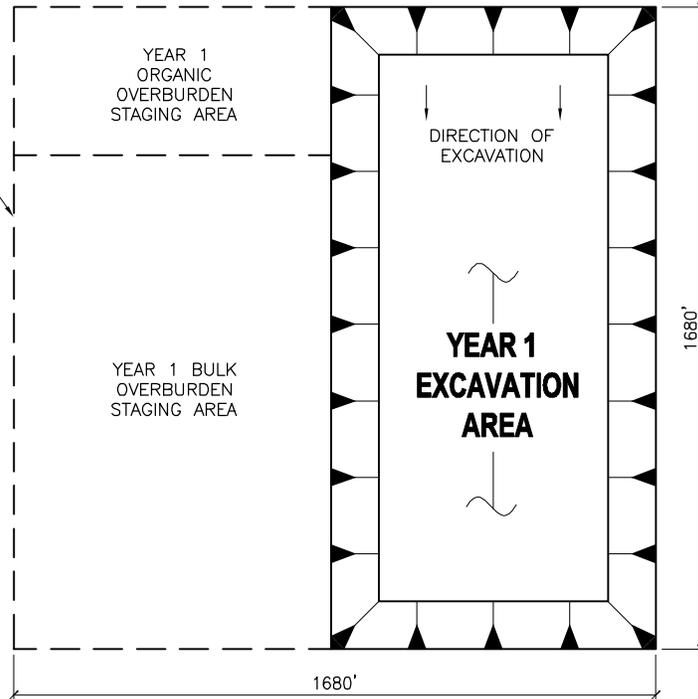
SHEET: 062A OF 73

REV: 0

REV	DATE	BY	CK	APP	DESCRIPTION	REV	DATE	BY	CK	APP	DESCRIPTION
0	01/04	RLC	JWP	-	ISSUE FOR PERMIT						



PROPOSED MATERIAL SOURCE LIMITS

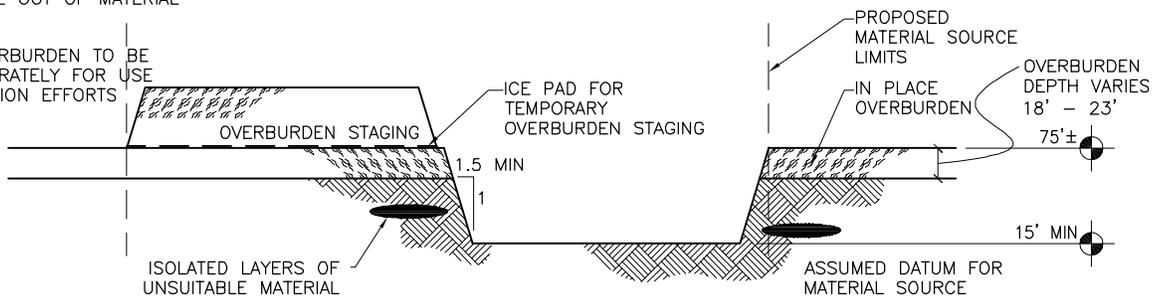


NOTES:

1. OVERBURDEN TO BE STAGED WITHIN MATERIAL SOURCE LIMITS FOR USE IN REMEDIATION OF MATERIAL SOURCE AREA UPON YEAR'S CLOSE OUT OF MATERIAL SOURCE.

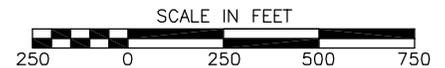
2. ORGANIC OVERBURDEN TO BE STAGED SEPARATELY FOR USE IN REVEGETATION EFFORTS

PLAN



SECTION

08/12/04



P | N | D CONSULTING ENGINEERS
Incorporated

ConocoPhillips
 Alaska, Inc.

AREA: 00 MODULE: XXXX UNIT: R1
 ALPINE SATELLITE DEVELOPMENT PROGRAM
 CLOVER A GRAVEL SOURCE, DRAWING 1 OF 3
 YEAR 1

CADD FILE NO.

DRAWING NO:

CEA-R1XX-XXXX

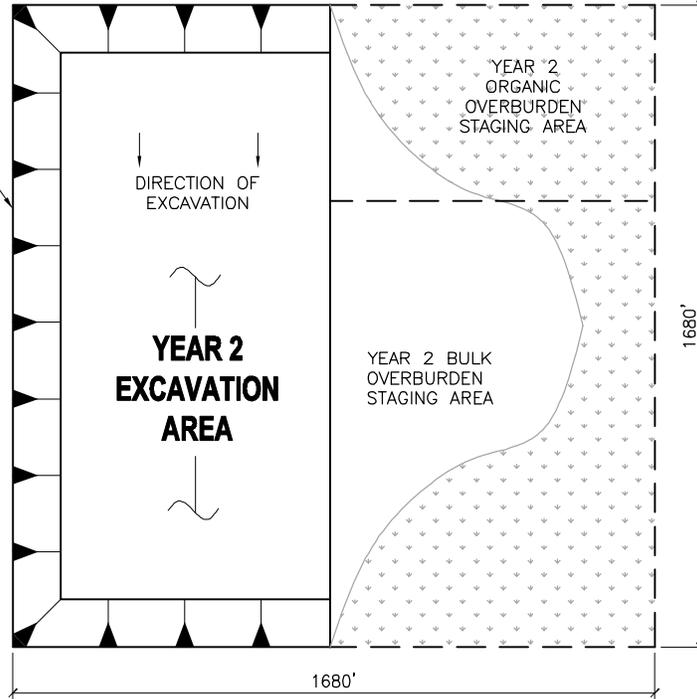
SHEET: 062B OF 73

REV: 0

REV	DATE	BY	CK	APP	DESCRIPTION	REV	DATE	BY	CK	APP	DESCRIPTION
0	01/04	RLC	JWP	-	ISSUE FOR PERMIT						



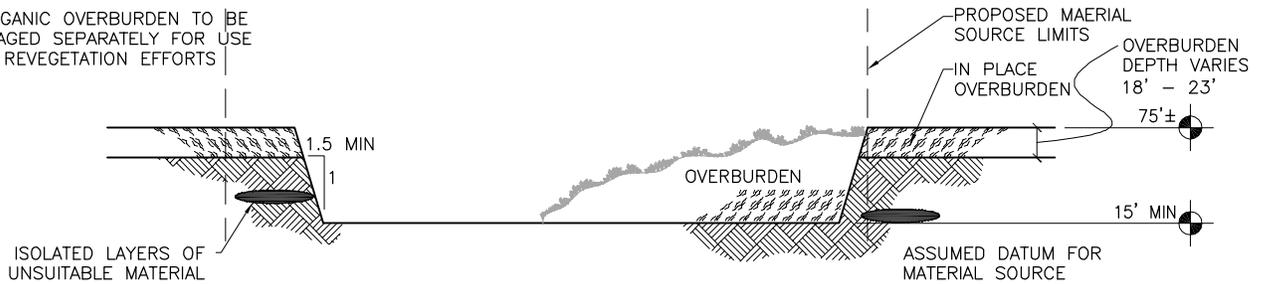
PROPOSED MATERIAL SOURCE EXCAVATION LIMITS



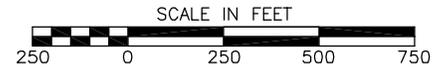
NOTES:

1. OVERBURDEN TO BE PLACED IN REMEDIATION AREA UPON YEAR'S CLOSE OUT OF MATERIAL SOURCE.
2. ORGANIC OVERBURDEN TO BE STAGED SEPARATELY FOR USE IN REVEGETATION EFFORTS

PLAN



SECTION



08/12/04



CONSULTING ENGINEERS

Incorporated



AREA: 00 MODULE: XXXX UNIT: R1
 ALPINE SATELLITE DEVELOPMENT PROGRAM
 CLOVER A GRAVEL SOURCE, DRAWING 2 OF 3
 YEAR 2

CADD FILE NO.

DRAWING NO:

CEA-R1XX-XXXX

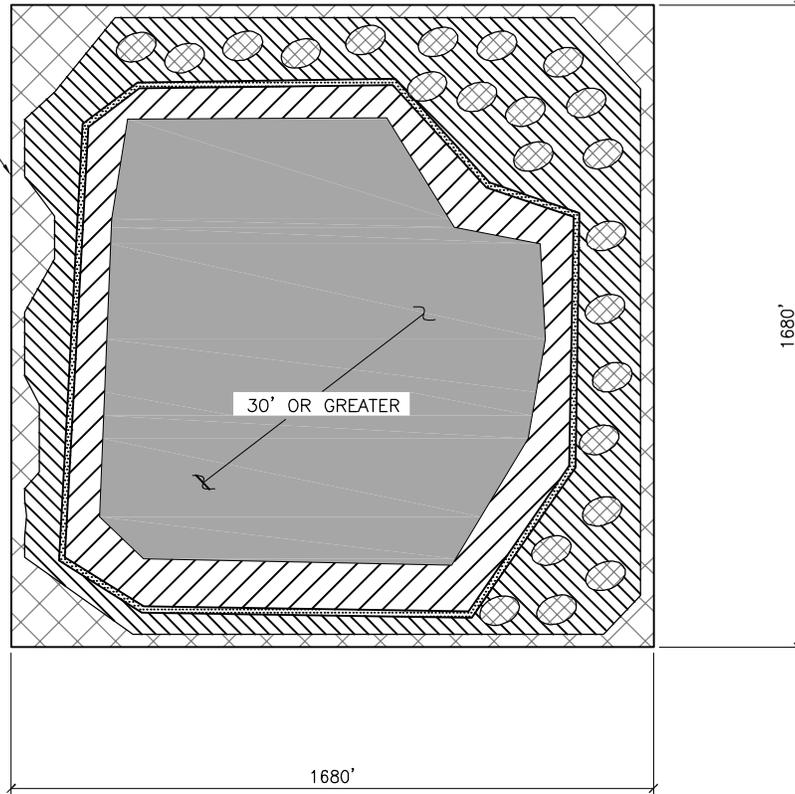
SHEET: 062C OF 73

REV: 0

REV	DATE	BY	CK	APP	DESCRIPTION	REV	DATE	BY	CK	APP	DESCRIPTION
0	01/04	RLC	JWP	-	ISSUE FOR PERMIT						



MATERIAL SOURCE LIMITS



PLAN

LEGEND:

- PROPOSED
- GROUND LEVEL 1-3' ABOVE TUNDRA
 - 1' ABOVE TUNDRA TO WATERLINE
 - WATERLINE TO 1.5' DEEP
 - 1.5' TO 6' DEEP
 - 6' DEEP TO 30' DEEP
 - GREATER THAN 30' DEEP

REHABILITATION EFFORT IS INTENDED TO PROVIDE NESTING, FEEDING, AND RESTING HABITAT FOR WATER BIRDS.

ESTIMATED QUANTITIES

- ± 5% ISLAND HABITAT BY AREA
- > 20% LITTORIAL HABITAT BY AREA

CONCEPTUAL
TO BE FINALIZED UPON
CLOSURE OF MATERIAL SOURCE

08/12/04



P | N | D CONSULTING ENGINEERS
Incorporated



AREA: 00 MODULE: XXXX UNIT: R1
ALPINE SATELLITE DEVELOPMENT PROGRAM
CLOVER A GRAVEL SOURCE, DRAWING 3 OF 3
PRELIMINARY REHABILITATION PLAN

CADD FILE NO.

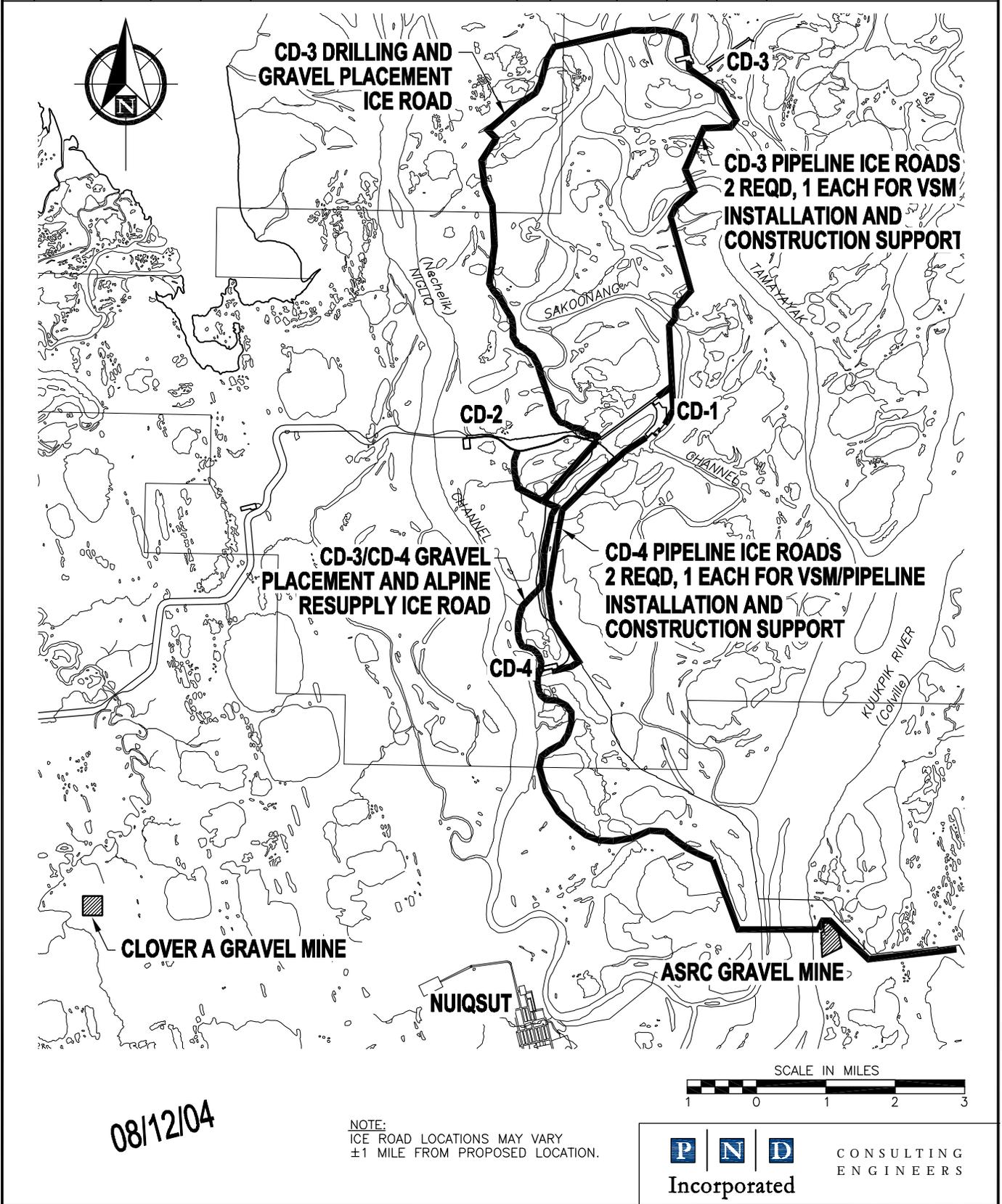
DRAWING NO:

CEA-R1XX-XXXX

SHEET: 062D OF 73

REV: 0

REV	DATE	BY	CK	APP	DESCRIPTION	REV	DATE	BY	CK	APP	DESCRIPTION
0	01/04	RLC	JWP	-	ISSUE FOR PERMIT						



08/12/04

NOTE:
ICE ROAD LOCATIONS MAY VARY
±1 MILE FROM PROPOSED LOCATION.



CONSULTING
ENGINEERS

Incorporated

ConocoPhillips
Alaska, Inc.

AREA: 00 MODULE: XXXX UNIT: R1
ALPINE SATELLITE DEVELOPMENT PROGRAM
2005 PROPOSED ICE ROADS

CADD FILE NO.

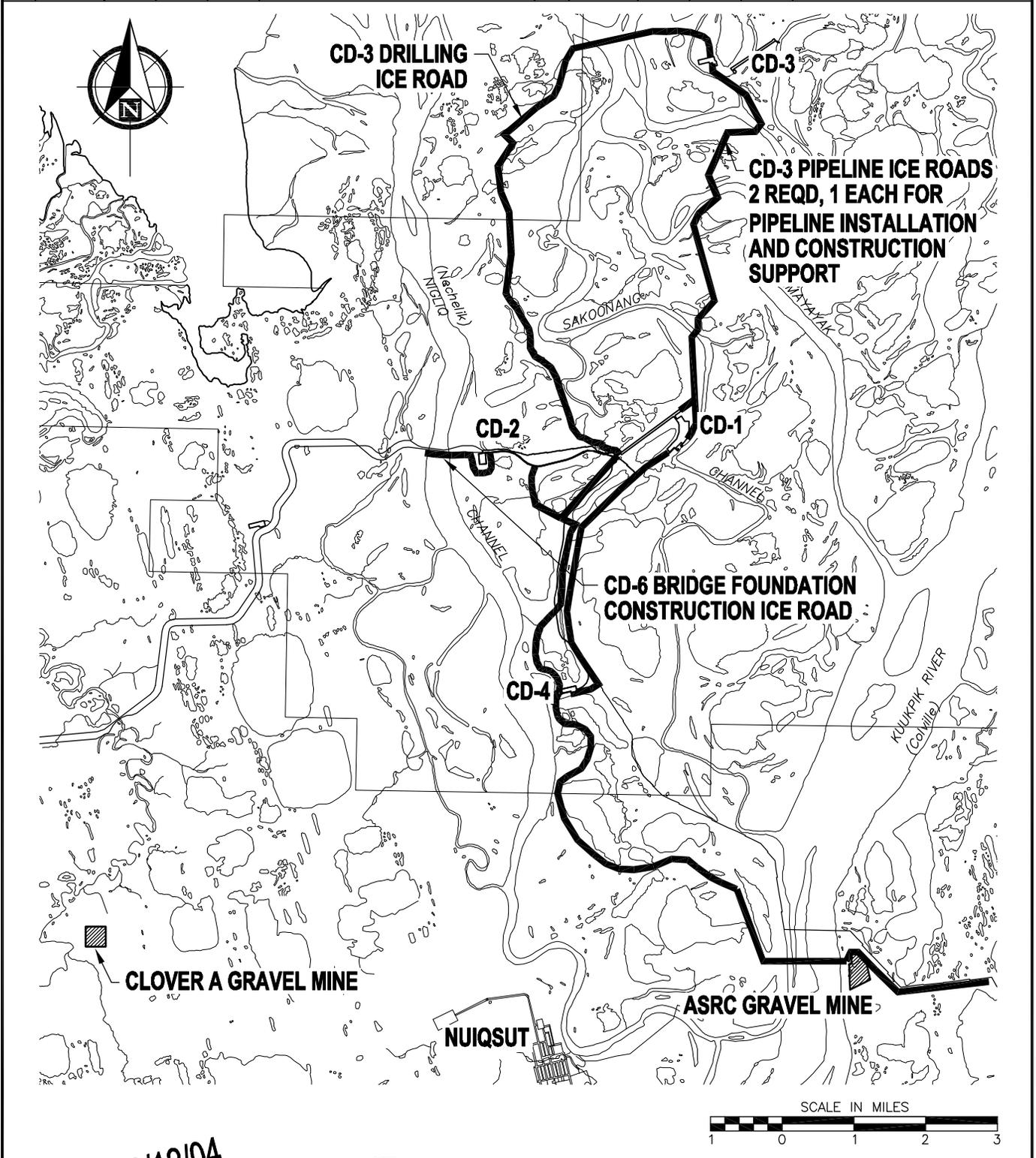
DRAWING NO:

CEA-R1XX-XXXX

SHEET:
063 OF 73

REV: 0

REV	DATE	BY	CK	APP	DESCRIPTION	REV	DATE	BY	CK	APP	DESCRIPTION
0	01/04	RLC	JWP	-	ISSUE FOR PERMIT						



08/12/04

NOTE:
ICE ROAD LOCATIONS MAY VARY
±1 MILE FROM PROPOSED LOCATION.



CONSULTING
ENGINEERS

Incorporated

ConocoPhillips
Alaska, Inc.

AREA: 00 MODULE: XXXX UNIT: R1
ALPINE SATELLITE DEVELOPMENT PROGRAM
2006 PROPOSED ICE ROADS

CADD FILE NO.

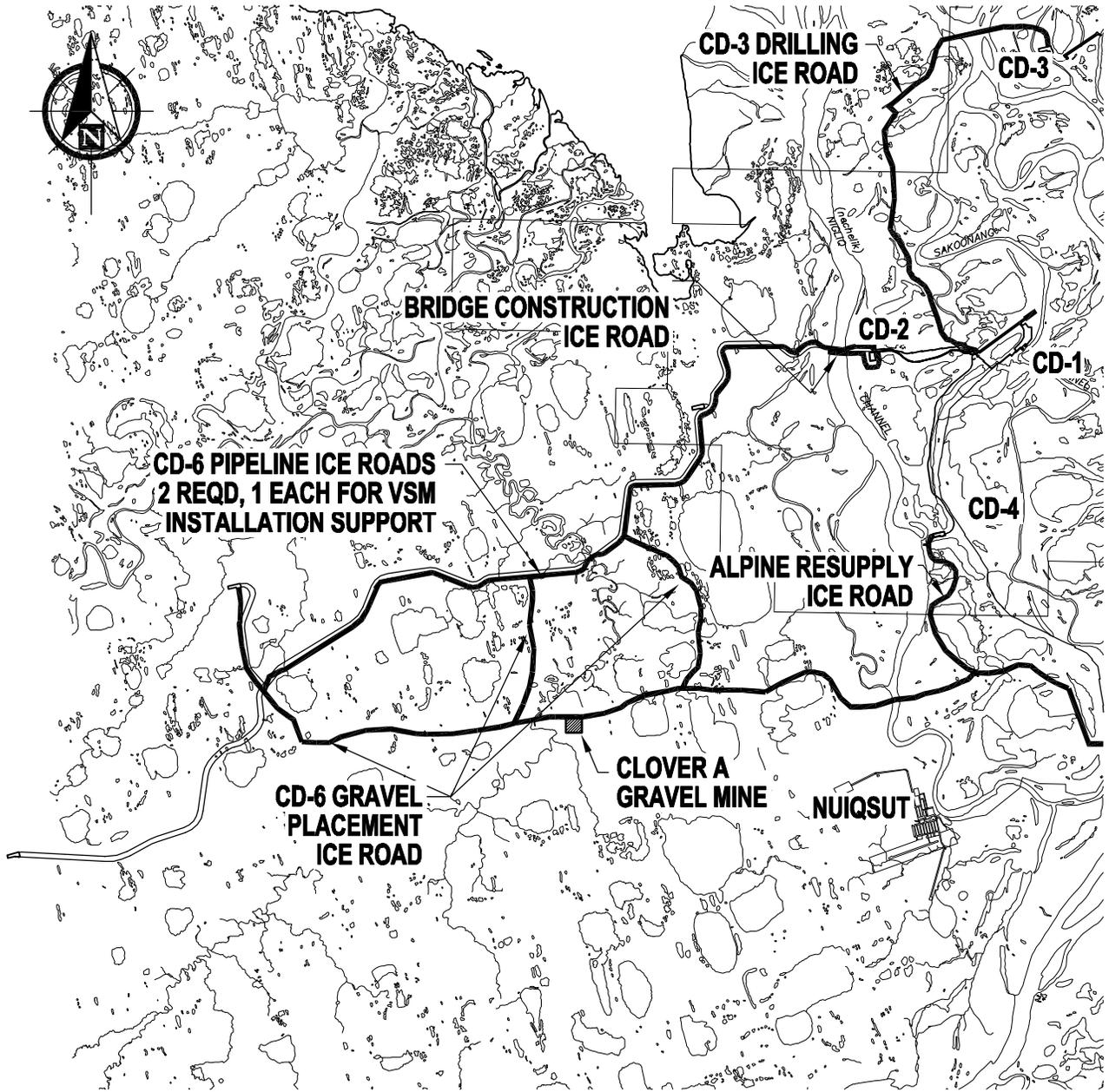
DRAWING NO:

CEA-R1XX-XXXX

SHEET:
064 OF 73

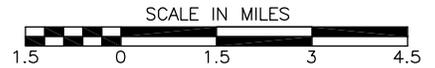
REV:
0

REV	DATE	BY	CK	APP	DESCRIPTION	REV	DATE	BY	CK	APP	DESCRIPTION
0	01/04	RLC	JWP	-	ISSUE FOR PERMIT						



08/12/04

NOTE:
ICE ROAD LOCATIONS MAY VARY
±1 MILE FROM PROPOSED LOCATION.



P | N | D CONSULTING ENGINEERS
Incorporated

ConocoPhillips
Alaska, Inc.

AREA: 00 MODULE: XXXX UNIT: R1
ALPINE SATELLITE DEVELOPMENT PROGRAM
2007 PROPOSED ICE ROADS

CADD FILE NO.

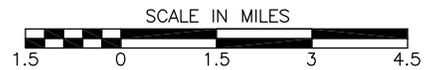
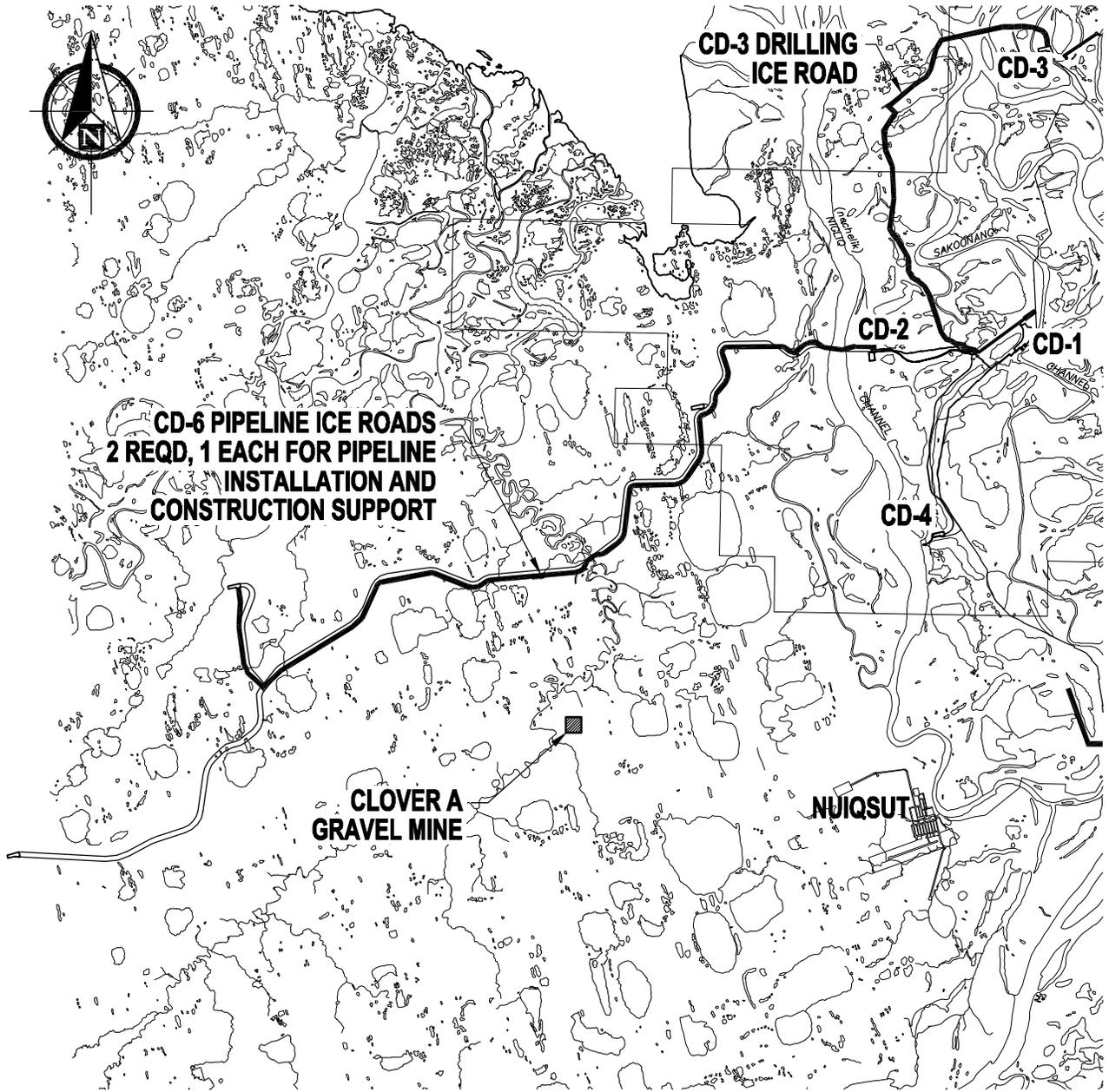
DRAWING NO:

CEA-R1XX-XXXX

SHEET:
065 OF 73

REV:
0

REV	DATE	BY	CK	APP	DESCRIPTION	REV	DATE	BY	CK	APP	DESCRIPTION
0	01/04	RLC	JWP	-	ISSUE FOR PERMIT						



08/12/04

NOTE:
ICE ROAD LOCATIONS MAY VARY
±1 MILE FROM PROPOSED LOCATION.



CONSULTING
ENGINEERS

Incorporated

ConocoPhillips
Alaska, Inc.

AREA: 00 MODULE: XXXX UNIT: R1
ALPINE SATELLITE DEVELOPMENT PROGRAM
2008 PROPOSED ICE ROADS

CADD FILE NO.

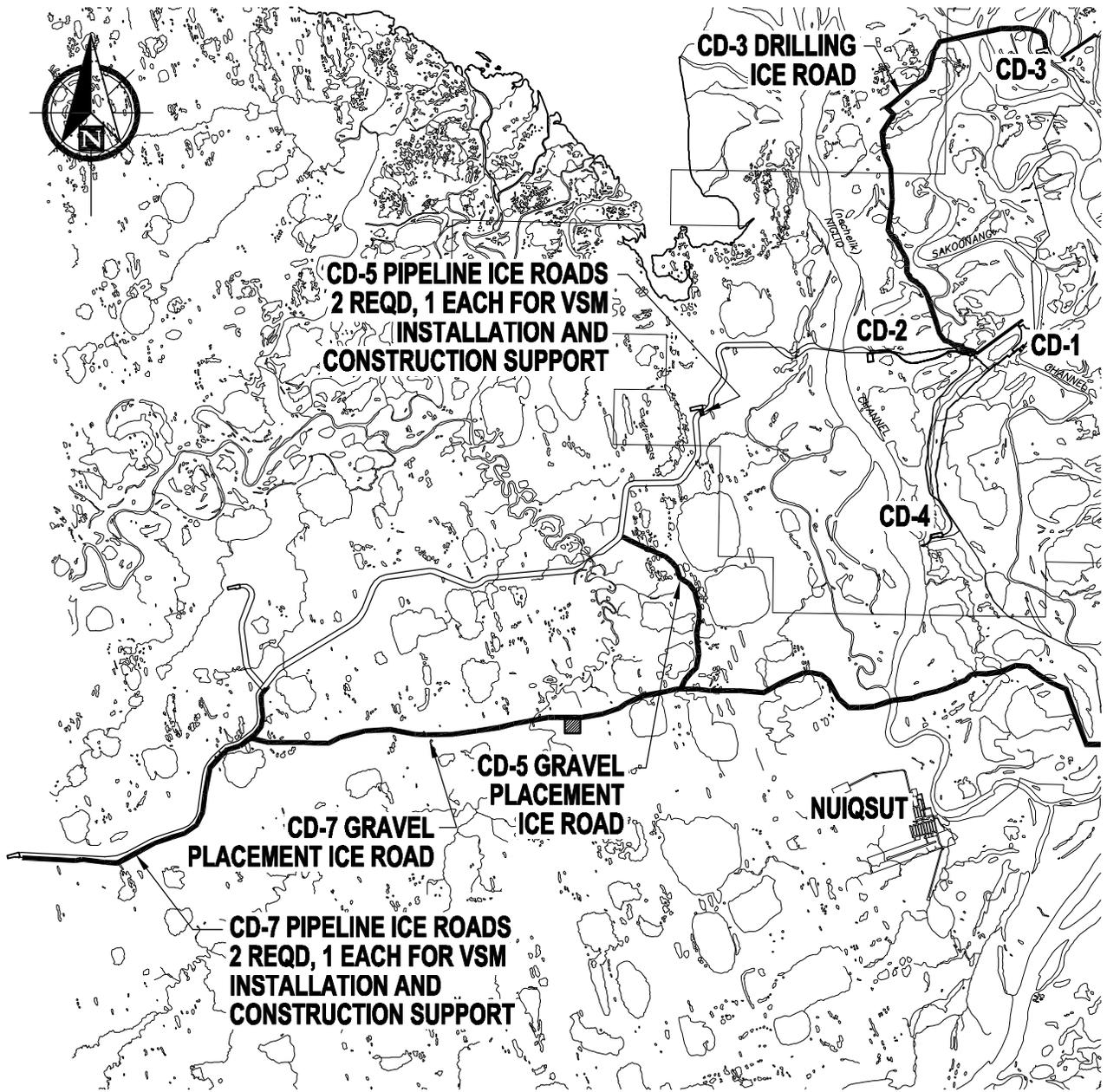
DRAWING NO:

CEA-R1XX-XXXX

SHEET:
066 OF 73

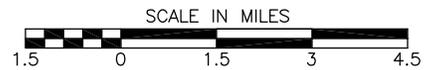
REV:
0

REV	DATE	BY	CK	APP	DESCRIPTION	REV	DATE	BY	CK	APP	DESCRIPTION
0	01/04	RLC	JWP	-	ISSUE FOR PERMIT						



08/12/04

NOTE:
ICE ROAD LOCATIONS MAY VARY
±1 MILE FROM PROPOSED LOCATION.



P | N | D CONSULTING ENGINEERS
Incorporated

ConocoPhillips
Alaska, Inc.

AREA: 00 MODULE: XXXX UNIT: R1
ALPINE SATELLITE DEVELOPMENT PROGRAM
2009 PROPOSED ICE ROADS

CADD FILE NO.

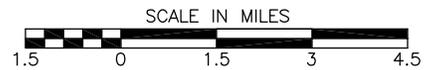
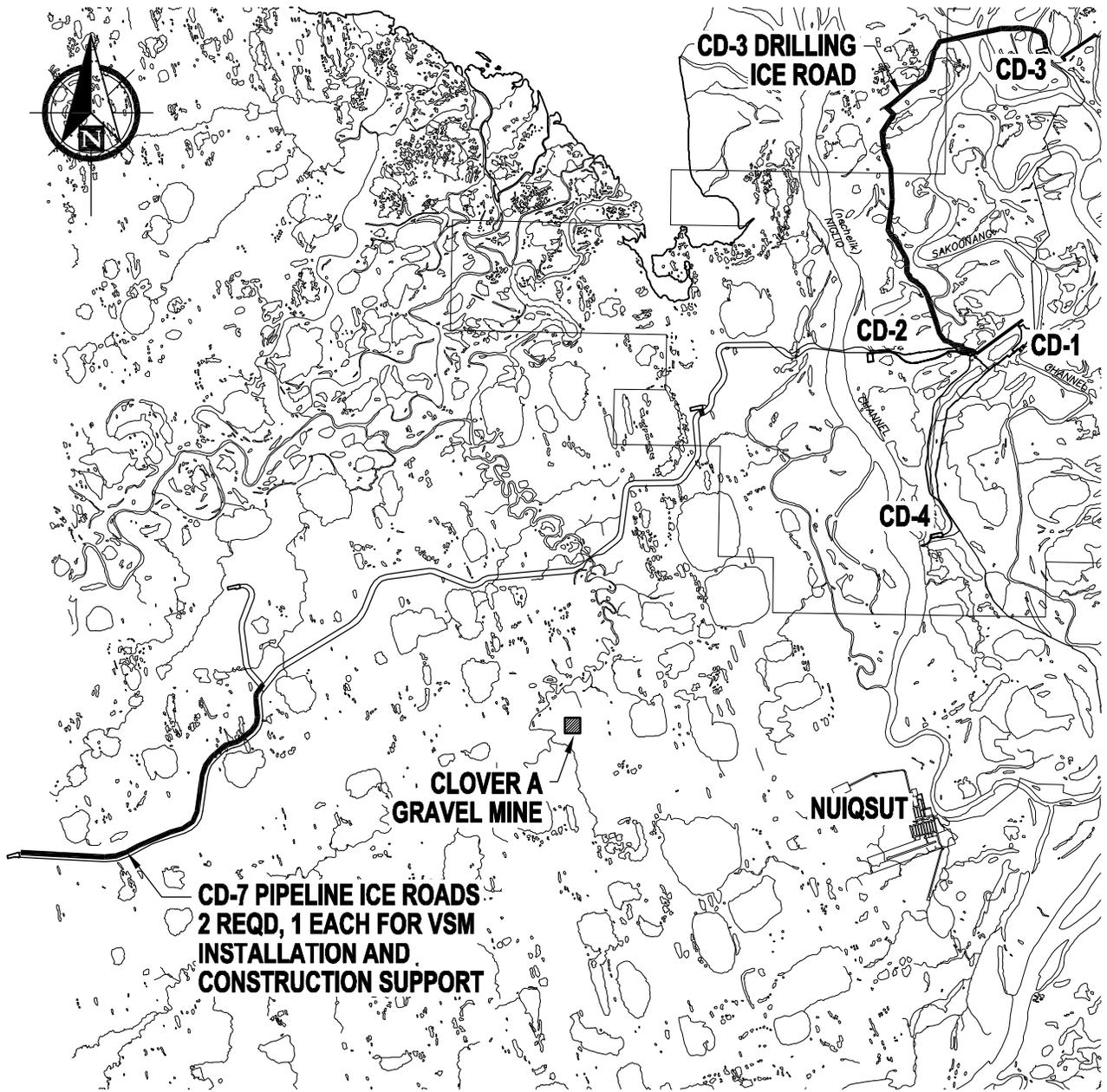
DRAWING NO:

CEA-R1XX-XXXX

SHEET:
067 OF 73

REV: 0

REV	DATE	BY	CK	APP	DESCRIPTION	REV	DATE	BY	CK	APP	DESCRIPTION
0	01/04	RLC	JWP	-	ISSUE FOR PERMIT						



08/12/04

NOTE:
ICE ROAD LOCATIONS MAY VARY
±1 MILE FROM PROPOSED LOCATION.



CONSULTING
ENGINEERS

Incorporated

ConocoPhillips
Alaska, Inc.

AREA: 00 MODULE: XXXX UNIT: R1
ALPINE SATELLITE DEVELOPMENT PROGRAM
2010 PROPOSED ICE ROADS

CADD FILE NO.

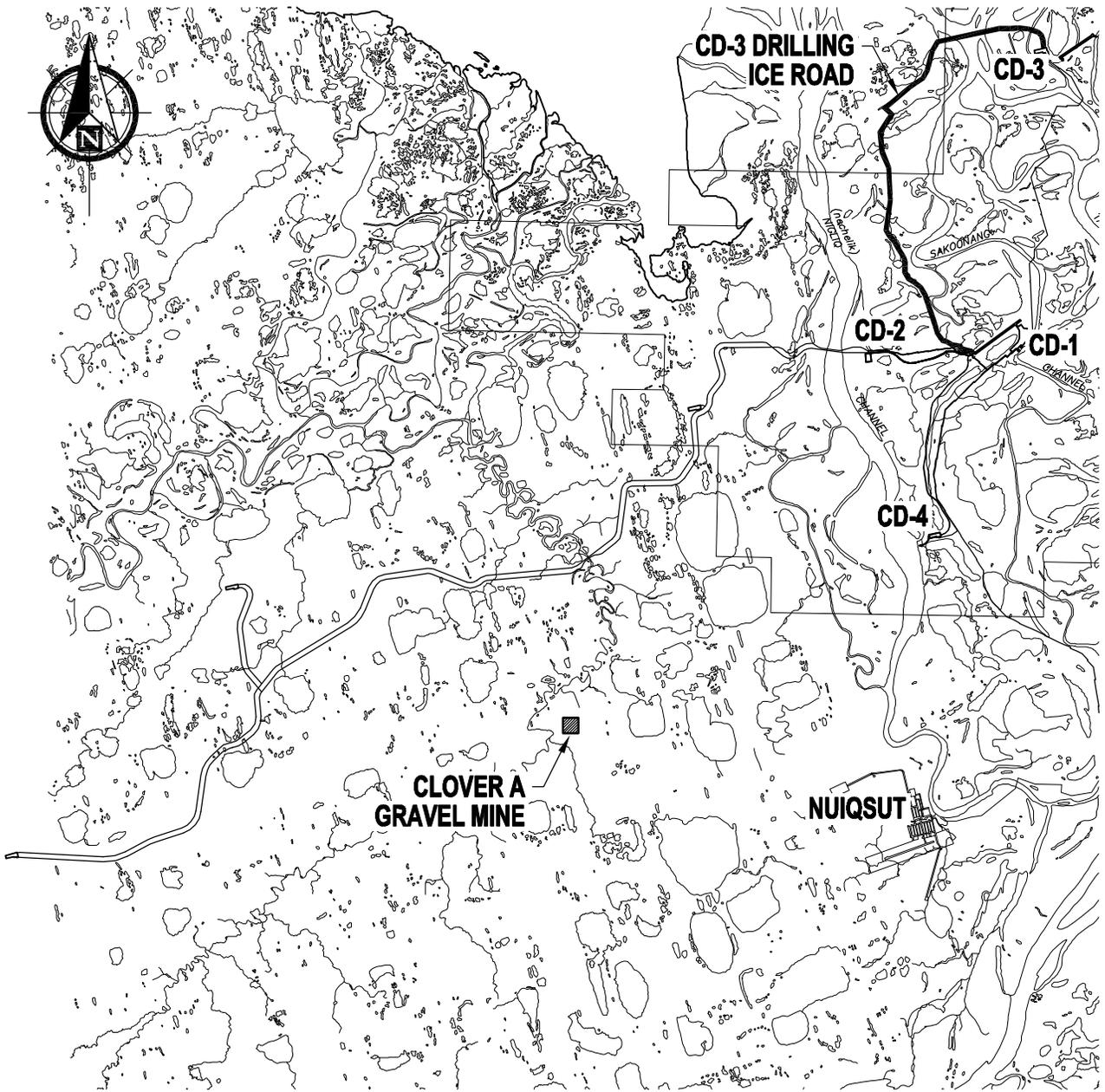
DRAWING NO:

CEA-R1XX-XXXX

SHEET:
068 OF 73

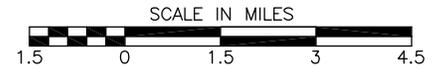
REV:
0

REV	DATE	BY	CK	APP	DESCRIPTION	REV	DATE	BY	CK	APP	DESCRIPTION
0	01/04	RLC	JWP	-	ISSUE FOR PERMIT						



08/12/04

NOTE:
ICE ROAD LOCATIONS MAY VARY
±1 MILE FROM PROPOSED LOCATION.



P | N | D CONSULTING ENGINEERS
Incorporated

ConocoPhillips
Alaska, Inc.

AREA: 00 MODULE: XXXX UNIT: R1
ALPINE SATELLITE DEVELOPMENT PROGRAM
2011 PROPOSED ICE ROADS

CADD FILE NO.

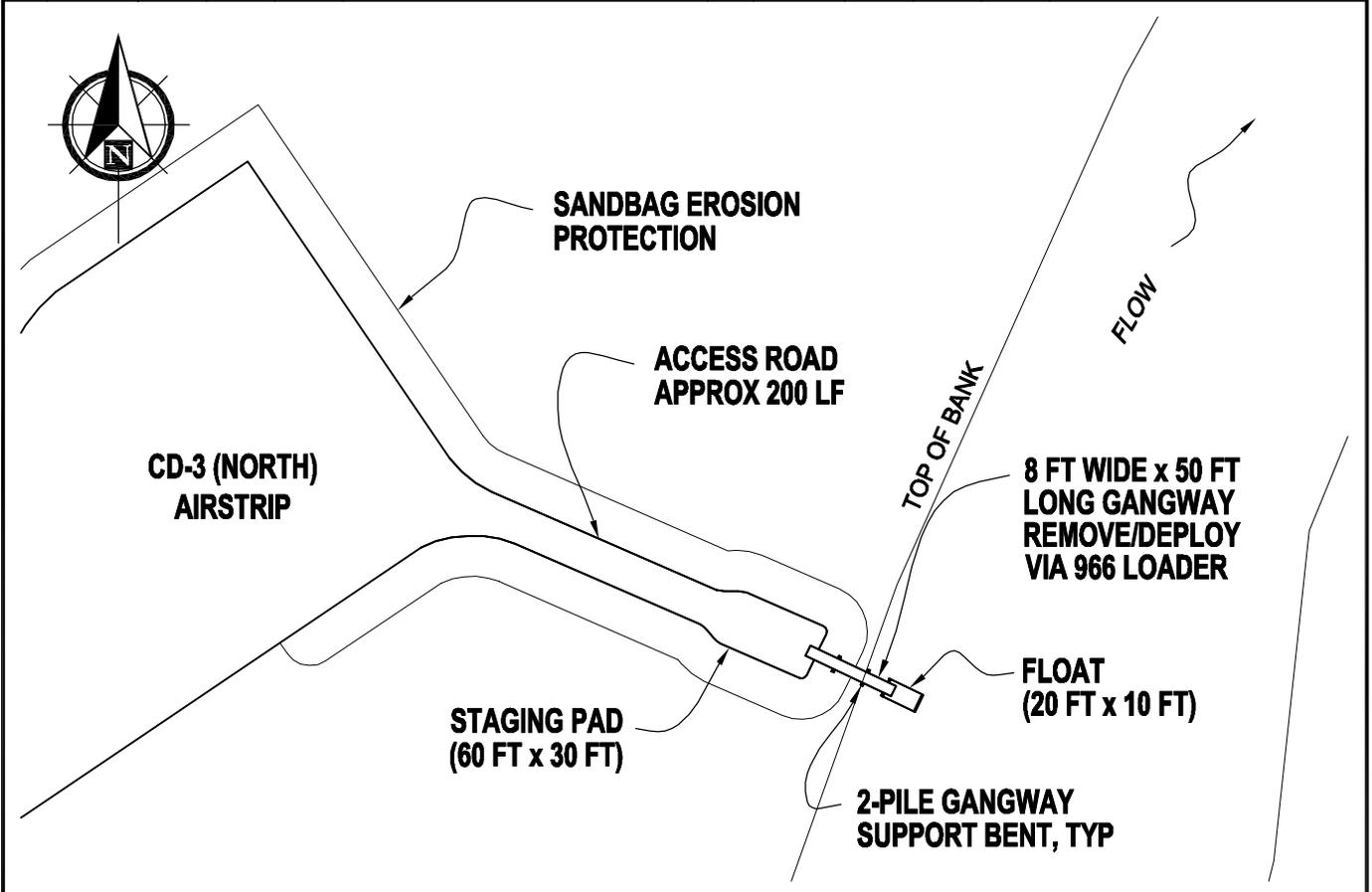
DRAWING NO:

CEA-R1XX-XXXX

SHEET:
069 OF 73

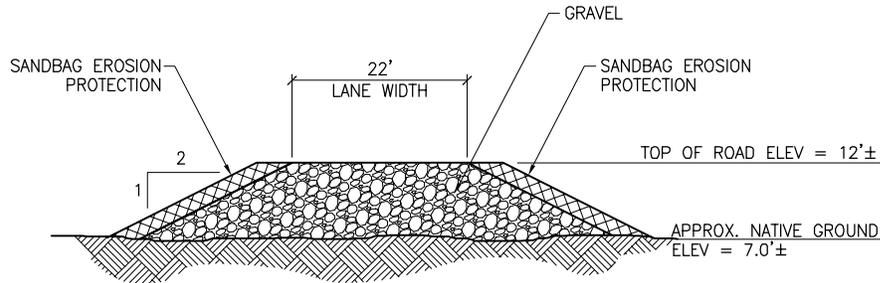
REV:
0

REV	DATE	BY	CK	APP	DESCRIPTION	REV	DATE	BY	CK	APP	DESCRIPTION
0	01/04	RLC	JWP	-	ISSUE FOR PERMIT						



PLAN

SCALE IN FEET



CD-3 TYPICAL ROAD SECTION

NTS

08/12/04



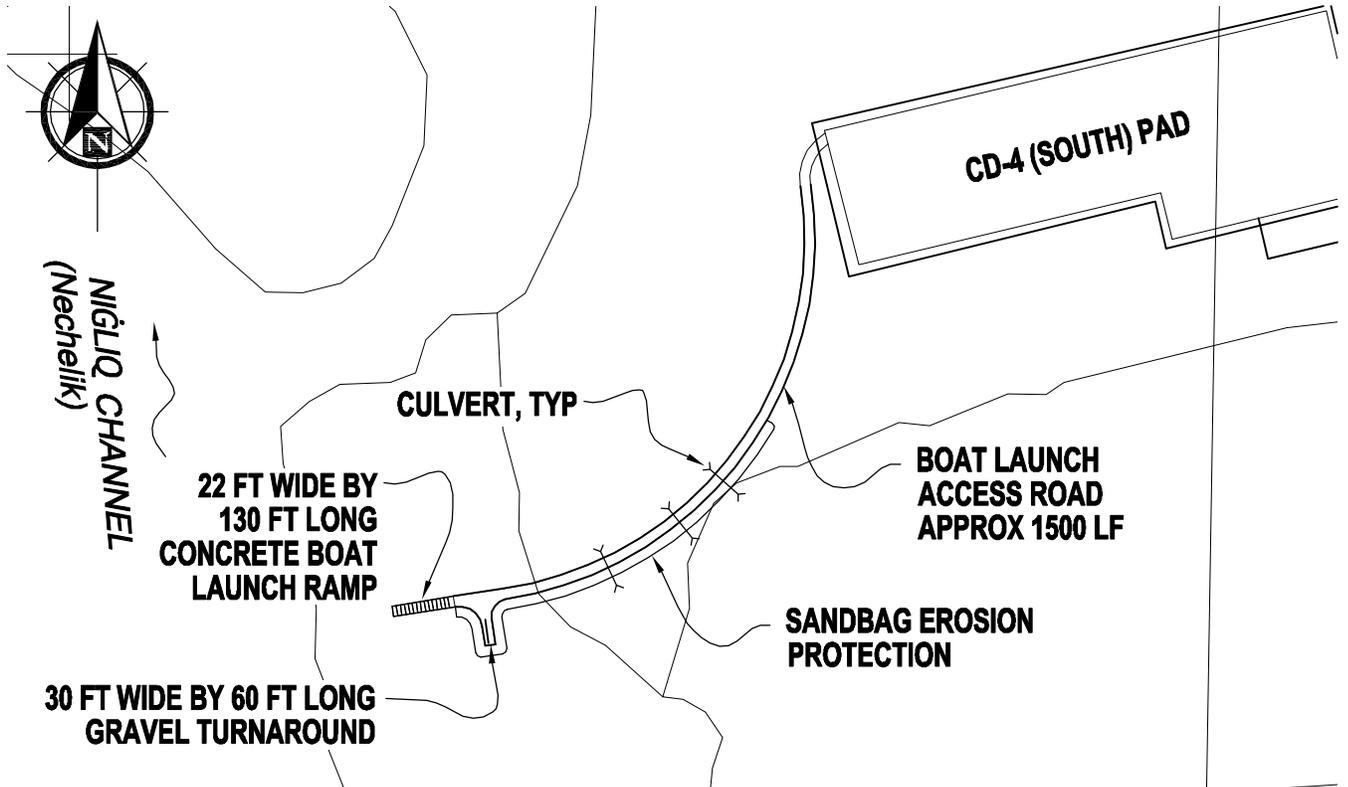
CONSULTING ENGINEERS



AREA: 00 MODULE: XXXX UNIT: R1
 ALPINE SATELLITE DEVELOPMENT PROGRAM
 CD-3 (NORTH) BOAT LAUNCH

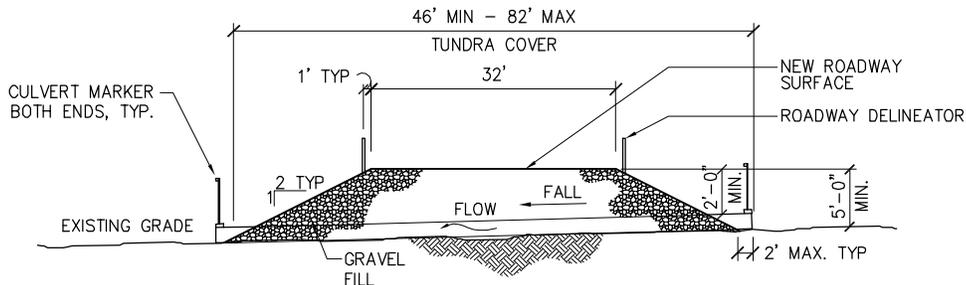
CADD FILE NO.	DRAWING NO:	CEA-R1XX-XXXX	SHEET: 070 OF 73	REV: 0
---------------	-------------	---------------	------------------	--------

REV	DATE	BY	CK	APP	DESCRIPTION	REV	DATE	BY	CK	APP	DESCRIPTION
0	01/04	RLC	JWP	-	ISSUE FOR PERMIT						



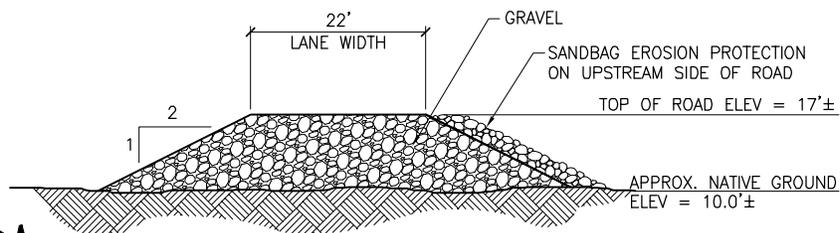
PLAN

SCALE IN FEET



CD-4 TYPICAL ROADWAY SECTION AT CULVERTS

NOT TO SCALE



08/12/04

CD-4 TYPICAL ROAD SECTION



CONSULTING ENGINEERS



AREA: 00 MODULE: XXXX UNIT: R1
 ALPINE SATELLITE DEVELOPMENT PROGRAM
 CD-4 (SOUTH) BOAT LAUNCH

CADD FILE NO.

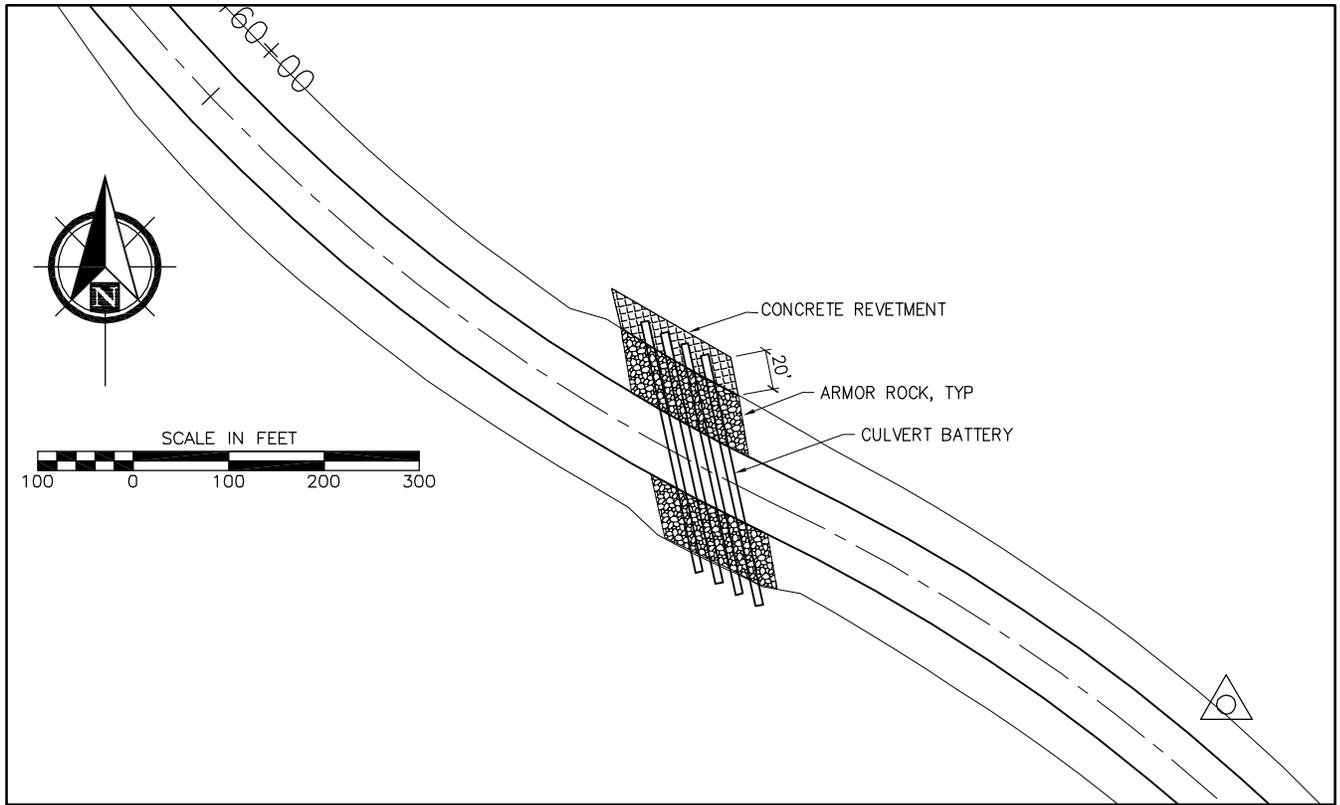
DRAWING NO:

CEA-R1XX-XXXX

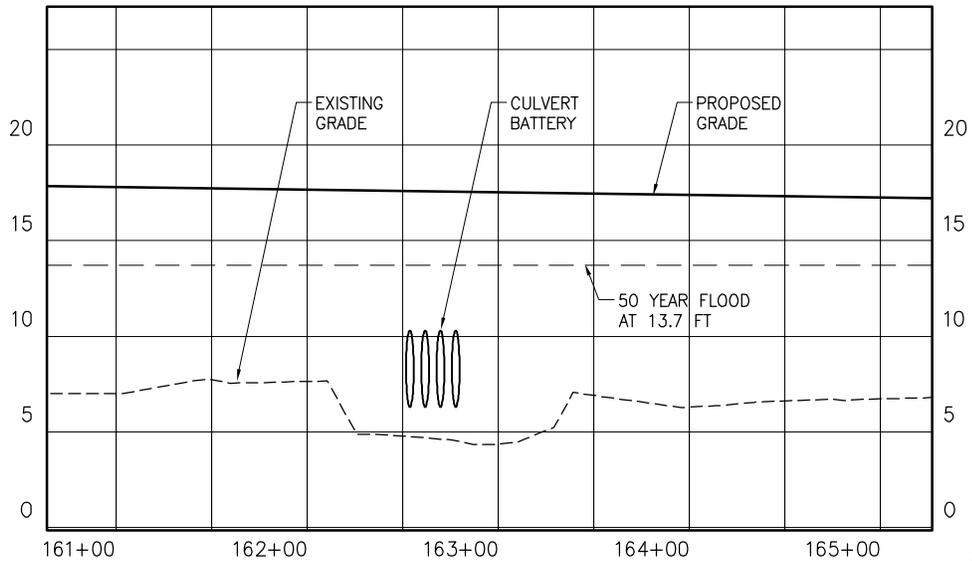
SHEET: 071 OF 73

REV: 0

REV	DATE	BY	CK	APP	DESCRIPTION	REV	DATE	BY	CK	APP	DESCRIPTION
0	01/04	RLC	JWP	-	ISSUE FOR PERMIT						



PLAN



PROFILE

08/12/04

THIS MAP PROJECTION IS BASE UPON ALASKA STATE PLANE, NAD 83. THIS MAP IS BASED ON DATA PROVIDED BY THE U.S. GEOLOGICAL SURVEY, THE ALASKA DEPARTMENT OF NATURAL RESOURCES, AND CONOCO PHILLIPS ALASKA, INC.



CONSULTING ENGINEERS



AREA: 00 MODULE: XXXX UNIT: R1
ALPINE SATELLITE DEVELOPMENT PROGRAM
CD4 CULVERT BATTERY

CADD FILE NO.

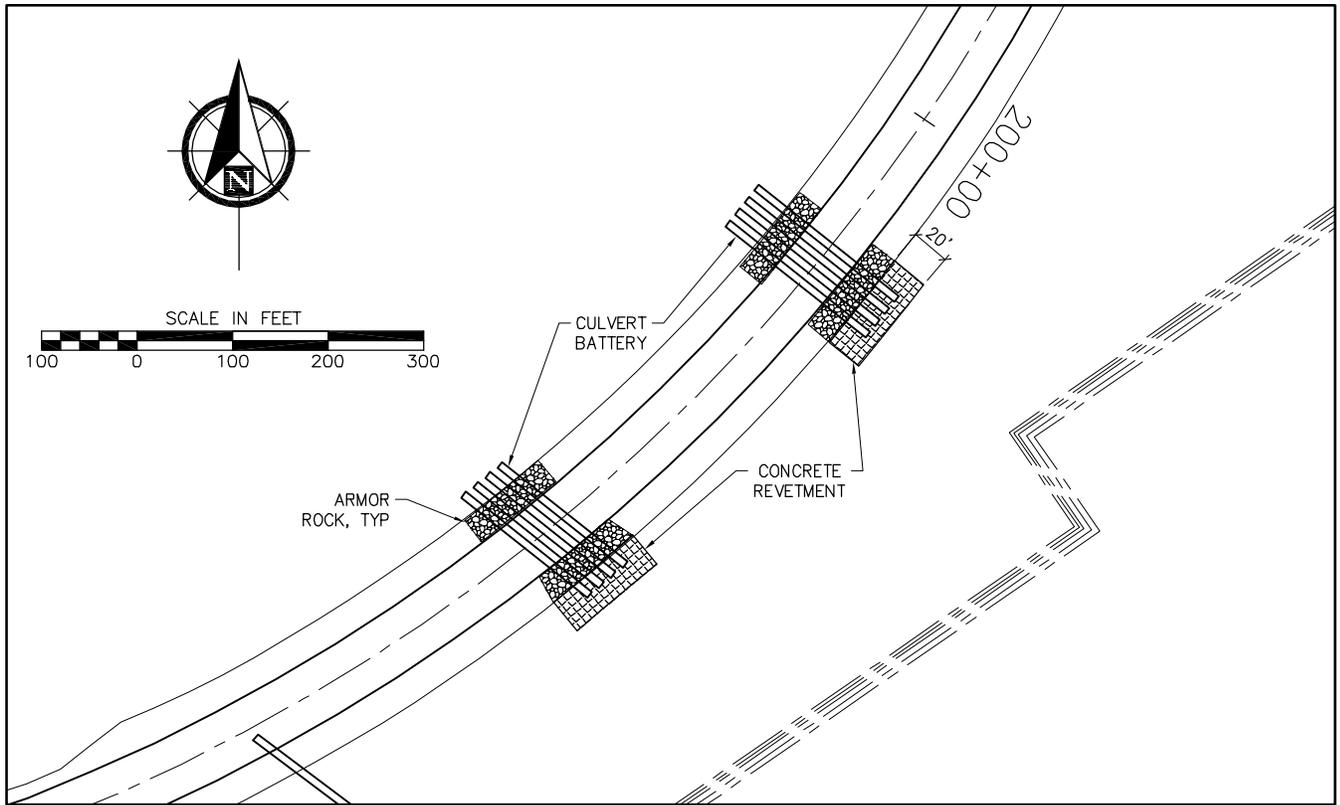
DRAWING NO:

CEA-R1XX-XXXX

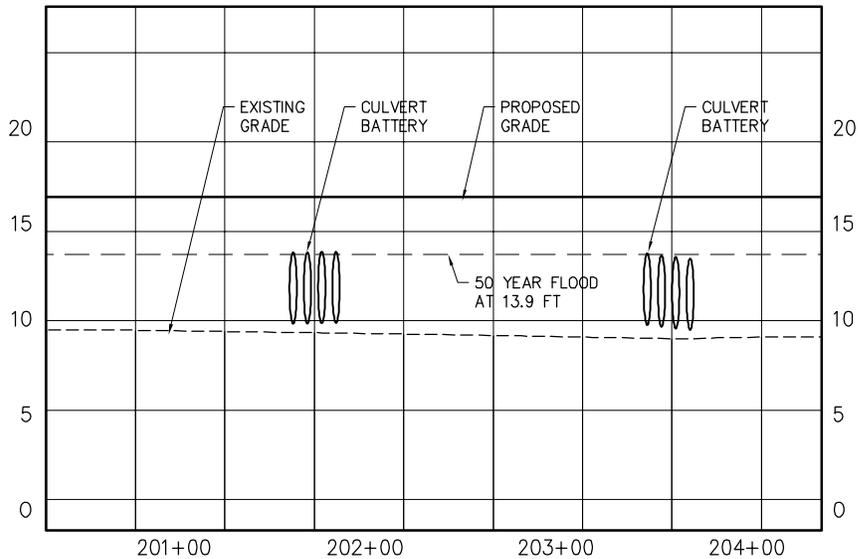
SHEET: 072 OF 73

REV: 0

REV	DATE	BY	CK	APP	DESCRIPTION	REV	DATE	BY	CK	APP	DESCRIPTION
0	01/04	RLC	JWP	-	ISSUE FOR PERMIT						



PLAN



PROFILE

08/12/04

THIS MAP PROJECTION IS BASE UPON ALASKA STATE PLANE, NAD 83. THIS MAP IS BASED ON DATA PROVIDED BY THE U.S. GEOLOGICAL SURVEY, THE ALASKA DEPARTMENT OF NATURAL RESOURCES, AND CONOCO PHILLIPS ALASKA, INC.



CONSULTING ENGINEERS



AREA: 00 MODULE: XXXX UNIT: R1
 ALPINE SATELLITE DEVELOPMENT PROGRAM
 CD4 CULVERT BATTERY

CADD FILE NO.

DRAWING NO:

CEA-R1XX-XXXX

SHEET: 073 OF 73

REV: 0

FRANK H. MURKOWSKI,
GOVERNOR

STATE OF ALASKA

OFFICE OF THE GOVERNOR

**DEPARTMENT OF NATURAL RESOURCES
OFFICE OF PROJECT MANAGEMENT AND PERMITTING**

ALASKA COASTAL ZONE MANAGEMENT
550 WEST 7TH AVENUE, SUITE 1660
ANCHORAGE, ALASKA 99501-3568

**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 Office of Project Management and Permitting 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. **POA-2004-253-2, Colville River**, will comply with the Alaska Coastal Management Program and that the project will be conducted in a manner consistent with that program.

The Office of Project Management and Permitting requests your comments, particularly on the proposed project's consistency with the affected local coastal district management program. For more information on the consistency review contact OPMP at (907) 269-7470 or (907) 465-3562, or visit the ACMP web site at <http://www.gov.state.ak.us/gdc/Projects/projects.html>.

Attachment 3

STATE OF ALASKA

OFFICE OF THE GOVERNOR

DEPT. OF ENVIRONMENTAL CONSERVATION

DIVISION OF WATER

401 Certification Program

Non-Point Source Water Pollution Control 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. **POA-2004-253-2, Colville River**, 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
555 Cordova Street
Anchorage, Alaska 99501-2617
Telephone: (907) 269-6281
FAX: (907) 269-7508