



US Army Corps
of Engineers
Alaska District

Public Notice of Application for Permit

Regulatory Division (1145)
CEPOA-RD
2175 University Avenue, Suite 201E
Fairbanks, Alaska 99709-4910

PUBLIC NOTICE DATE: September 24, 2008

EXPIRATION DATE: October 24, 2008

REFERENCE NUMBER: POA-2006-696

WATERWAY: Tanana River

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

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 **Ellen Lyons** at (907) 474-2166, by fax at (907) 474-2164, or by email at **Ellen.H.Lyons@usace.army.mil** if further information is desired concerning this notice.

APPLICANT: Alaska Department of Transportation and Public Facilities (ADOT&PF), 2301 Peger Road, Fairbanks, Alaska 99709

AGENT: Ms. Valerie Baxter, Environmental Impact Analyst, (907) 451-5289

LOCATION: The project site is located at milepost 1303.3 of the Alaska Highway, approximately 10 miles east of Tok, Alaska, within Section 25, T. 18 N., R. 14 E., Copper River Meridian; USGS Quad Map Tanacross B-4; Latitude 63.3169° N., Longitude 142.6462° W.

PURPOSE: The applicant's stated purpose is to replace Tanana River Bridge #505 and realign approximately one mile of highway to match the approaches to the new bridge is to address deficiencies in the bridge, enhance safety to the traveling public, and improve vehicular height, width, and weight limitations for the transportation of goods to and from Alaska via the Alaska Highway.

PROPOSED WORK: The applicant proposes to replace Tanana River Bridge #505, realign approximately one mile of highway to match the approaches to the new bridge, relocate the boat ramp/parking area, reduce the size of the east side pullout by placing excess material in pullout, and construct a new wayside near the east abutment of the existing bridge with interpretive displays. The proposed project would result in the discharge of approximately 43,000 cubic yards of fill into 7.65 acres of wetlands. The project would also include the discharge of fill and work in a Section 10 navigable water, the Tanana River. All work would be performed in accordance with the enclosed plan (sheets 1-14), dated August 2008.

ADDITIONAL INFORMATION:

The proposed action would replace Tanana River Bridge #505, realign approximately one mile of highway to match the approaches to the new bridge, relocate the boat ramp/parking area, reduce the size of the east side pullout by placing excess material in pullout, and construct a new wayside near the east abutment of the existing bridge with interpretive displays. The Alaska Highway is the only overland route into the interior of the state of Alaska.

The project is within the Tok River and Tanana River floodplain wetland complex. The project area is predominantly uplands on the east side of the Tanana River Bridge, and predominantly wetlands on the west side. Wetland types within the project area include riverine, palustrine forest, palustrine scrub-shrub, and palustrine emergent (see Sheet 5).

The Tanana River (Alaska Department of Fish & Game #334-40-11000-2490) provides habitat for anadromous fish, chum and coho salmon, and resident fish including arctic grayling, northern pike, round whitefish, humpback whitefish, least cisco, longnose sucker, and slimy sculpin.

The Tanana River has been determined navigable by the U.S. Coast Guard, and supports the use of small motorized water craft, typically 24 feet and shorter. At the proposed bridge site, the river has a width of about 800 feet at ordinary high water (OHW). The average depth estimated for the 100-year flood is 11.5-ft.

Excess material generated from the east side road realignment would be transported to two upland sites: the pullout area east of the river and the depleted material site 62-2-001-5 approximately three miles west of the project area. Material placed in the pullout area would be graded and seeded. A new, smaller pullout would be constructed after placement of the excess material. Material placed in the depleted material site would be graded to recreate natural contours and re-vegetated (see attached Potential Material Site and Material Sites MS62-2-005-5(2) figures, sheets 11 and 12, and Section 5, Material Sites, in the Revised EA which can be accessed at http://dot.alaska.gov/stwdplng/projectinfo/project_pages/tanana_river_bridge505/).

Construction is expected to begin in January 2009.

PERMANENT ACTIVITIES

New Bridge

A new 900-foot-long bridge would be constructed approximately 225 feet downstream from the existing bridge (see Preliminary Bridge Plans figure, 4 of 14) and would require 4,817 feet of roadway re-alignment. The new bridge will consist of a concrete bulb-tee girder deck on single circular column pier shaft foundations (see Concrete Bulb-Tee Girder Bridge figure, sheet 3).

The new bridge will have five 10-foot diameter piers. Each new pier would be drilled to a depth up to 150 feet. Installation of each pier would generate approximately 840 cubic yards of spoils (4,200 cubic yards total) and 170,000 gallons of water (850,000 gallons total). Each new pier would also require approximately four driven piles as placement guides for the pier. These piles would likely be installed and removed using a vibratory and/or impact hammer. The west abutment of the existing bridge would remain in place to provide additional protection of the new abutment. Riprap would be placed below OHW at both the old and new west abutments for scour protection and would extend north along the shore to surround the new concrete boat ramp (see Proposed Riprap Layout and Cross Section Figures, sheets 9 and 10 of 14). The riprap would match the existing contours of the channel and bank to the extent practicable.

The existing bridge would be demolished after completion of the new bridge.

Roadway Re-alignment, Relocated Boat Launch and Access Road

The roadway re-alignment on the west side of the Tanana River Bridge, construction staging area, and relocation of the boat launch will have permanent impacts to wetlands (see Permanent Wetland Impacts figure, sheet 5).

The roadway re-alignment will have two 12-foot lanes with 8-foot shoulders, matching the existing Alaska Highway typical section (see Roadway Typical Sections figure, sheet 6).

The boat ramp and parking area would be relocated within the new right of way, up to 200 feet downstream of the existing facility (see Proposed Project figure, 2 of 14). ADOT&PF has contracted Alaska Department of Natural Resources (ADNR) Division of Parks and Recreation to design the new boat launch facility, along with input and coordination from the Sport Fish Division of Alaska Department of Fish and Game (ADF&G). The new facility will have a paved access road, parking surfaces and a concrete ramp. It will have striped parking for up to 30 vehicles with trailers, and room for vehicles to turnaround. No trash or toilet facilities will be included in the design unless ADOT&PF could arrange for a responsible party to maintain these amenities. Public river access will be maintained throughout construction of the project.

The construction staging area will be incorporated into the new boat launch/access road and parking area. The areas of the staging area that do not get paved will be graded and seeded to ensure soil stability and provide green space adjacent to the new facility (see Revegetation Plan figures, sheets 13 and 14).

A total of 43,000 cubic yards of fill will be placed in 7.65 acres of wetlands.

TEMPORARY ACTIVITIES

Bridge Construction/Demolition

The contractor would need to develop temporary construction access to the river for both construction and demolition activities (see Temporary Features and Temporary Work Pad at Pier, sheets 7 and 8). The contractor would likely develop access from the west side of the river, which has relatively flat terrain. Separate or additional temporary access features will likely be required for bridge construction and demolition activities due to the distance between the new and old structures.

Potential access methods include:

- Temporary bridge (year round use):
This method would typically consist of rows of driven piles supporting a timber deck. The contractor would be required to design the temporary bridge based on the loads required by his operation, and to include a navigational opening for river traffic. Installation and removal of piles would disturb approximately 565 square feet of river bottom.
- Floating work platform (year round use):
This method would include the use of modular pontoon type barges which would be trucked to the site, assembled to the necessary size, and used for a temporary work platform/bridge. It is likely "H" piles would be driven into the river bottom to make this temporary structure stationary. This method would potentially utilize up to 50% fewer driven piles than a temporary bridge. The bridge site is not accessible by conventional barges via the river, due to the many sandbars and shallow channels of the Tanana River. The presence of driven piles at the corners of the floating platform would impact approximately 200 square feet of river bottom.
- Temporary work pad (year round use):
This method would include an earthen work pad constructed to pier #2 that may also serve as the temporary bridge abutment.

It would be constructed as follows: geotextile fabric would be placed within the work pad footprint, and fill material (likely from the cut on the east side of the river) would be placed and compacted. Then, riprap would be installed on three sides. The riprap, fill material and fabric would be removed when the work pad was no longer necessary for construction and demolition activities. After removal, the majority of the work pad footprint would be graded and riprap would be installed to protect the new abutment.

A total of 4,100 cubic yards of material would have a footprint of 0.22 acres.

- Cofferdams:

Cofferdams would likely be used during construction and demolition activities. During construction of the new piers, a sixteen foot diameter shoring casing would be used as a cofferdam for the installation of each 10-foot diameter drilled shaft. The shoring casings are driven into the river substrate. After the casings are installed, a four foot thick concrete seal would be poured at the bottom of the shoring casing (below the surface of the river bottom - see Concrete Bulb Tee Girder Bridge figure, sheet 3). This concrete fill would remain after the removal of the casing. The footprint for each of these casings is 200 square feet, and the concrete fill quantity is 30 cubic yards, for a total footprint of 1000 square feet, and 150 cubic yards of fill.

The existing bridge has old cofferdams surrounding the footing at the base of each pier. These are visible at low water, but are not in good enough condition to be used during the demolition process. New cofferdams would probably be driven around the existing cofferdams and piers during bridge demolition. The existing piers are 16 feet wide and 64 feet long and a cofferdam around these piers would have a footprint of approximately 2615 square feet.

Both uses of cofferdams would require water removal (de-watering) from within the structures to isolate construction and demolition activities.

- Causeway (winter and low water use only):

This method would include an earthwork road (approximately six foot thick), constructed on the sandbar in the river. A causeway would provide access to construct the new piers, and to the old bridge for demolition. For hydrologic reasons, a causeway could only be present in the river during periods of low water (October 1 to April 1), otherwise it may increase scour at the existing pier locations. This method requires the causeway be removed for spring and other periods of high water.

The causeway would be constructed as follows: geotextile fabric would be placed within the footprint of the causeway, and fill material would be placed and compacted. Maintenance, if necessary, would include grading. The fill material and fabric would be removed prior to breakup.

The footprint of the causeway would be 1.06 acres and the amount of fill material would be 10,000 cubic yards.

- Ice bridge/Ice road (winter use only):

It is likely this method would only be used for demolition activities, since the weight capacity is limited, and working loads will be lower for bridge demolition than bridge construction.

Typically an ice bridge or road would be constructed as follows: Snow is bermed along the edges of the proposed road (on existing ice), then water is pumped from the river onto the proposed road until the desired thickness of ice is obtained. It is then removed naturally in the spring as the river breaks up.

MITIGATION: The applicant proposes the following mitigation measures to avoid, minimize, and compensate for impacts to waters of the United States from activities involving discharges of dredged or fill material:

Wetlands

Minimization measures have been incorporated into the preliminary design such as steepening side slopes for approximately 50% of the length of the new roadway approach to the bridge and limiting the width of the fill footprint to the minimum necessary for a stable road base in wetland areas. In addition, the entire existing boat ramp facility would be incorporated into the footprint of the downstream alternatives and the footprint of the construction staging area.

Avoidance and minimization measures include:

- Location of the new wayside (with interpretive displays) within the existing right of way, on uplands previously disturbed by the Alaska Highway
- Location of material sites in upland areas and using existing depleted material sites for excess material placement and material site reclamation
- Avoidance of the nearby higher value palustrine emergent wetland and preservation of drainage patterns with culvert placement
- Effective revegetation of fill slopes to minimize sediment loading of runoff and maximize pollution filtering
- Minimization of surface disturbance beyond the footprint during construction
- Clear marking of construction limits to minimize accidental disturbance and any consequent temporary or permanent impacts

In-water Work

Although best management practices would be used, it is likely that some sediment would be released during this project. The impact of this sediment plume would be localized and short term in nature, and may be minimized by performing in-water work when the Tanana River water level is low or during periods of high turbidity.

Best Management Practices:

- Drilling for pier construction would be isolated from river water and water discharges would be monitored and contained if necessary
- The contractor will be responsible for maintaining state water quality standards
- Use of equipment in-water would be minimized to the extent possible

Minimization measures:

- Water flow impacts from fill placement and cofferdam installation may be minimized through timing of construction activities
- In-water sound pressure levels would be limited to 220 dB or less.
- In-water drilling and driving would be limited to 12 hours daily
- A construction window for in-water work would be established in conjunction with ADF&G Office of Habitat and NMFS to avoid periods of fish migration. DOT&PF would coordinate timing of any in-water work with ADF&G Office of Habitat to avoid sensitive stages of salmon populations. To avoid fish impacts ADF&G Office of Habitat has indicated a potential timing window during salmon spawning migration (July 1 to August 15).
- All demolition methods would be required to contain and keep lead painted debris from entering the river.
- Noise and vibration impacts will be minimized through restricting activity duration to 12 hours maximum per day, and through sound pressure monitoring

Water Quality

An Erosion and Sediment Control Plan, Storm Water Pollution Prevention Plan, and Hazardous Materials Control Plan would be implemented prior to construction to protect and minimize the introduction of sediment and runoff to the adjacent wetlands and waterbody. ADOT&PF will use Best Management Practices (BMPS) to ensure that state water quality standards are adhered to during the project.

Best Management Practices:

- Stockpiles would be located above ordinary high water and annual flood areas
- Equipment storage areas would be located at least 100 feet from the active river channel
- Fuel and motor oil would be stored in double walled tanks or within a lined, bermed area
- A riprap drainage swale would be constructed for treatment of storm water runoff from the new bridge
- The contractor will be responsible for maintaining state water quality standards

Compensation for unavoidable impacts to waters of the U.S., including wetlands:

This project has unavoidable impacts to wetlands and waters of the U.S. and these impacts are discussed in detail in the Environmental Assessment, "Alaska Highway: Tanana River Bridge #505."

ADOT&PF would like to propose the following mitigation plan:

In January of 2008, ADOT&PF acquired 6.808 acres of right of way on the west side of the river, the same land that the proposed construction staging area and new boat ramp and parking area will be located. This piece of land is also the location of the majority of the permanent impacts to wetlands. ADOT&PF would like to propose a 1 to 1, or acre for acre in-lieu fee, paid to the Conservation Fund, based on the actual land prices we paid in January. Our proposal would be:

Value per acre (from 1/2008 acquisition)	\$ 763.00
Number of acres permanently impacted by this project	7.65 acres
Amount of in-lieu fee to be paid	\$5,837.00
Ten percent overhead and fees for Conservation Fund	\$584.00
Total amount of in-lieu compensatory mitigation	\$6,421.00

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

CULTURAL RESOURCES: The latest published version of the Alaska Heritage Resources Survey (AHRs) has been consulted for the presence or absence of historic properties, including those listed in or eligible for inclusion in the National Register of Historic Places. There is a registered or eligible property in the vicinity of the worksite. It has been designated **TNX-0116, Tanana River Bridge #505**. Because the historic bridge has been proposed to be demolished, a determination of effect will be made in consultation with the State Historic Preservation Officer (SHPO). ADOT&PF has initiated consultation with the State Historic Preservation Officer. A MOA between the Federal Highway Administration and the Alaska State Historic Preservation Office

regarding the Alaska Highway Tanana River Bridge #505 project (BR-)A2-1(8)/61637) was signed on July 17, 2008. Consultation of the AHRS constitutes the extent of cultural resource investigations by the District Commander at this time. Any comments SHPO may have concerning presently unknown archeological or historic data that may be lost or destroyed by work under the requested permit will be considered in our final assessment of the described work.

ENDANGERED SPECIES: No threatened or endangered species are known to use the project area.

Preliminarily, the described activity will not affect threatened or endangered species, or modify their designated critical habitat, under the Endangered Species Act of 1973 (87 Stat. 844). This application is being coordinated with the U.S. Fish and Wildlife Service and the National Marine Fisheries Service (NMFS). Any comments they may have concerning endangered or threatened wildlife or plants or their critical habitat will be considered in our final assessment of the described work.

ESSENTIAL FISH HABITAT: The Magnuson-Stevens Fishery Conservation and Management Act, as amended by the Sustainable Fisheries Act of 1996, requires all Federal agencies to consult with the NMFS on all actions, or proposed actions, permitted, funded, or undertaken by the agency, that may adversely affect Essential Fish Habitat (EFH).

The ADF&G Catalog of Water Important to the Spawning, Rearing or Migration of Anadromous Fishes indicates the stretch of the Tanana River (ADF&G #334-40-11000-2490) that may be affected by this proposed project supports chum (*Onchorhynchus keta*) and coho (*Onchorhynchus kisutch*) salmon during adult and smolt migration. Preliminarily, the described activity may affect EFH in the project area. This Public Notice initiates EFH consultation with the NMFS. Any comments or recommendations they may have concerning EFH will be considered in our final assessment of the described work.

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

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.

EVALUATION: The decision whether to issue a permit will be based on an evaluation of the probable impacts including cumulative impacts of the proposed activity and its intended use on the public interest. Evaluation of the probable impacts, which the proposed activity may have on the public interest, requires a careful weighing of all the factors that become relevant in each particular case. The benefits, which reasonably may be expected to accrue from the proposal, must be balanced against its reasonably foreseeable detriments. The outcome of the general balancing process would determine whether to authorize a proposal, and if so, the conditions under which it will be allowed to occur. The 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 Commander 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.

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 and Notice of Application for State Water Quality Certification are enclosed with this Public Notice.

District Commander
U.S. Army, Corps of Engineers

Enclosures

STATE OF ALASKA

DEPT. OF ENVIRONMENTAL CONSERVATION
DIVISION OF WATER
401 Certification Program
Non-Point Source Water Pollution Control Program

DEPARTMENT OF ENVIRONMENTAL CONSERVATION
WQM/401 CERTIFICATION
555 CORDOVA STREET
ANCHORAGE, ALASKA 99501-2617
PHONE: (907) 269-7564/FAX: (907) 334-2415

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-2006-696, Tanana River**, serves as application for State Water Quality Certification from the Department of Environmental Conservation.

After reviewing the application, the Department may certify there is reasonable assurance 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.

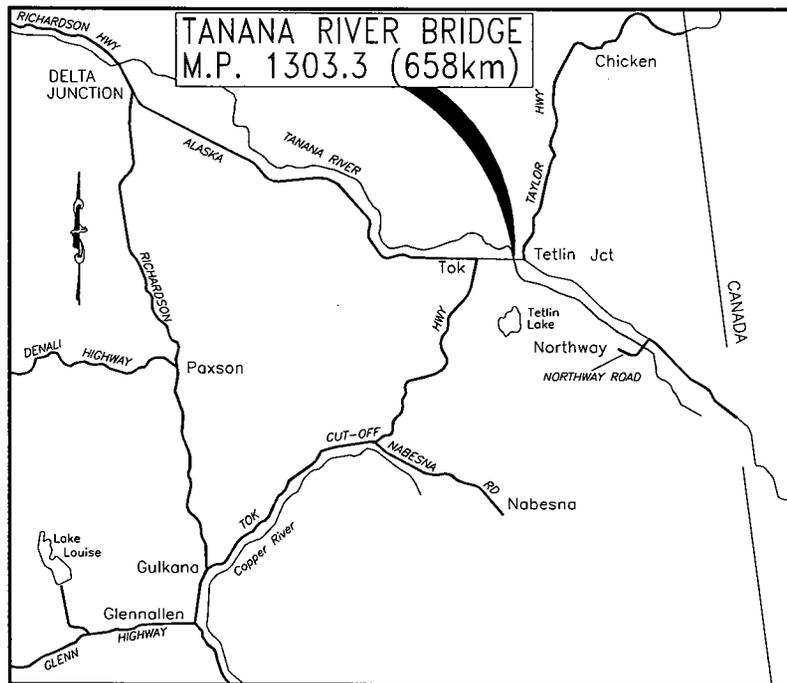
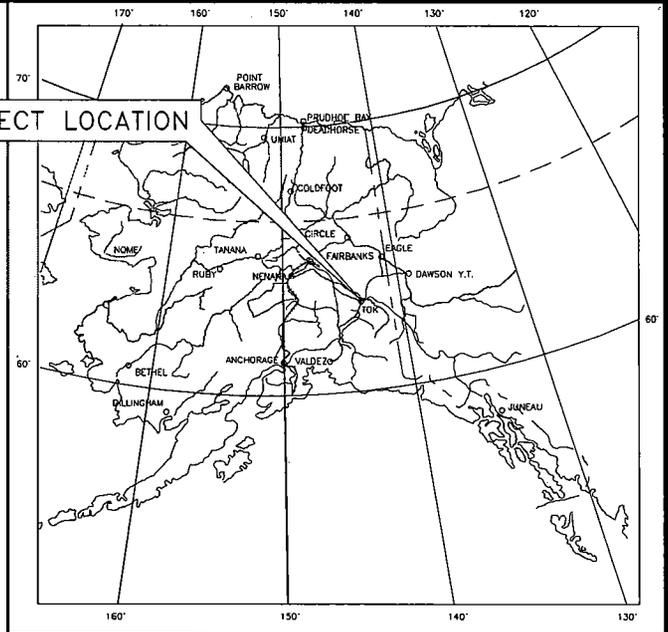
Any person desiring to comment on the project, with respect to Water Quality Certification, may submit written comments to the address above by the expiration date of the Corps of Engineer's Public Notice.

ALASKA HIGHWAY:
 TANANA RIVER BRIDGE
 #505
 M.P. 1303.3 (658km)

LOCATION & VICINITY
 MAP

BR-0A2-1(8)/61637

PROJECT LOCATION



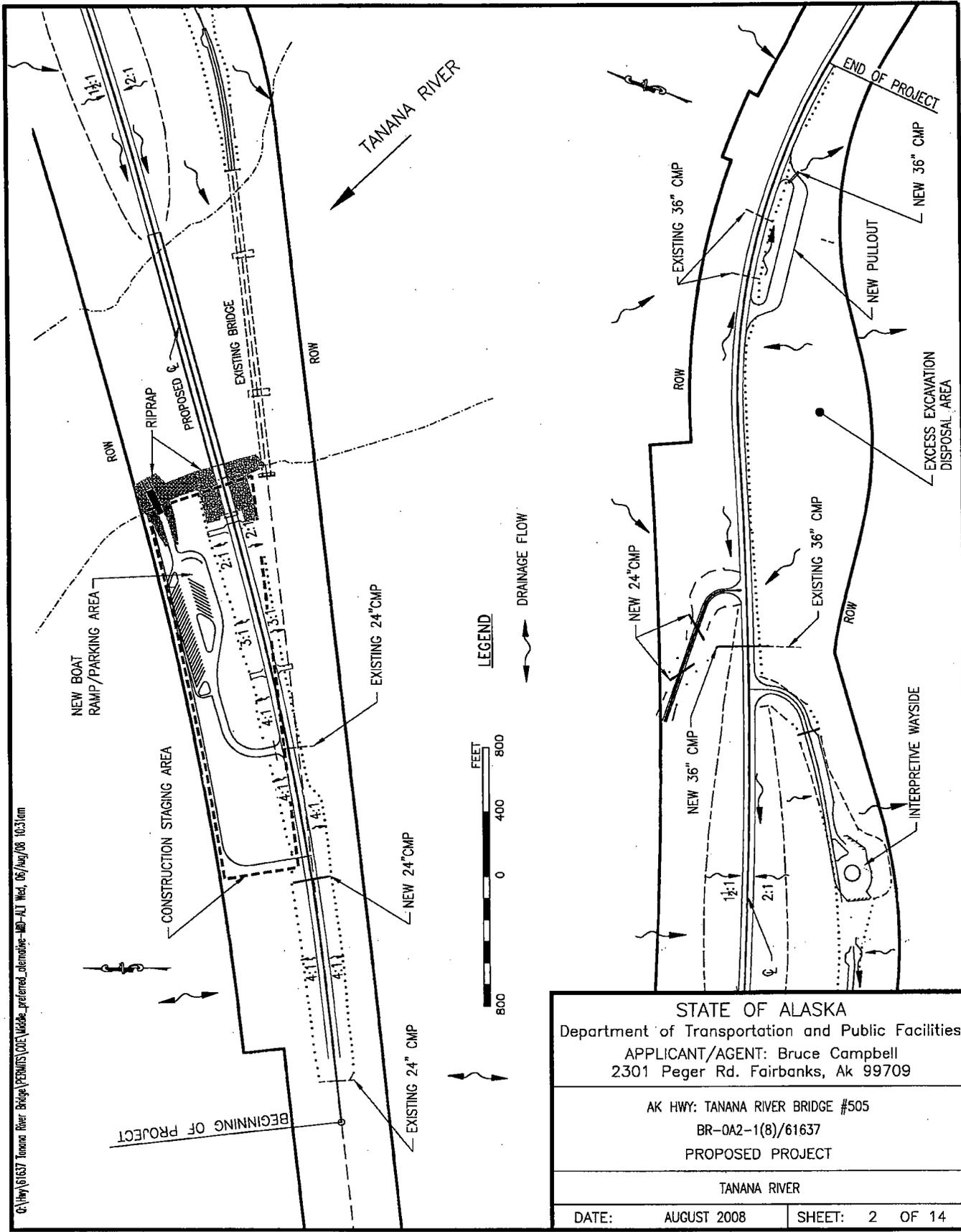
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STATE OF ALASKA
 Department of Transportation and Public Facilities
 APPLICANT/AGENT: Bruce Campbell
 2301 Peger Rd. Fairbanks, Ak 99709

AK HWY: TANANA RIVER BRIDGE #505
 BR-0A2-1(8)/61637
 LOCATION MAP

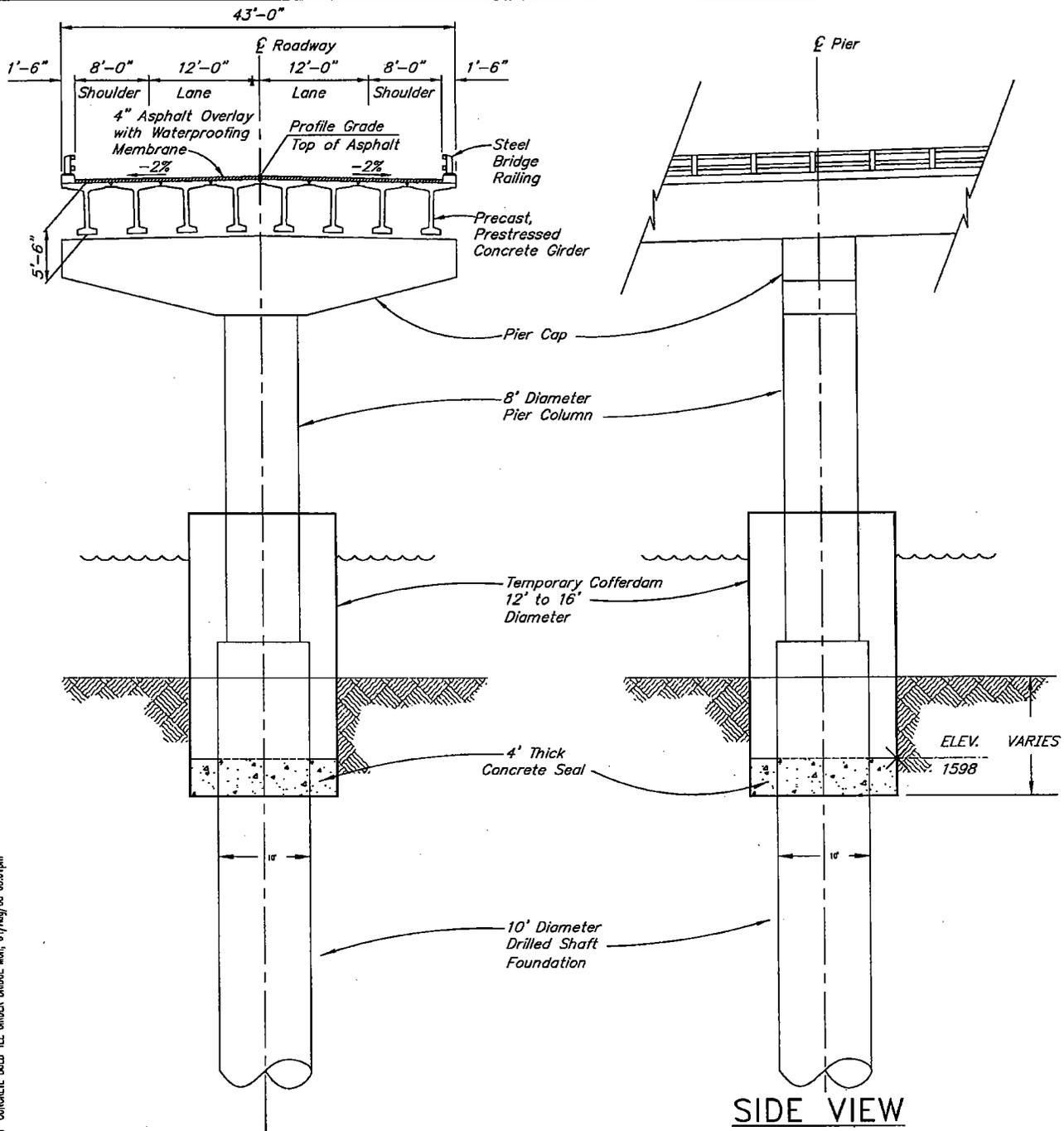
TANANA RIVER

DATE: AUGUST 2008 SHEET: 1 OF 14



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STATE OF ALASKA Department of Transportation and Public Facilities APPLICANT/AGENT: Bruce Campbell 2301 Peger Rd. Fairbanks, Ak 99709	
AK HWY: TANANA RIVER BRIDGE #505 BR-0A2-1(8)/61637 PROPOSED PROJECT	
TANANA RIVER	
DATE: AUGUST 2008	SHEET: 2 OF 14



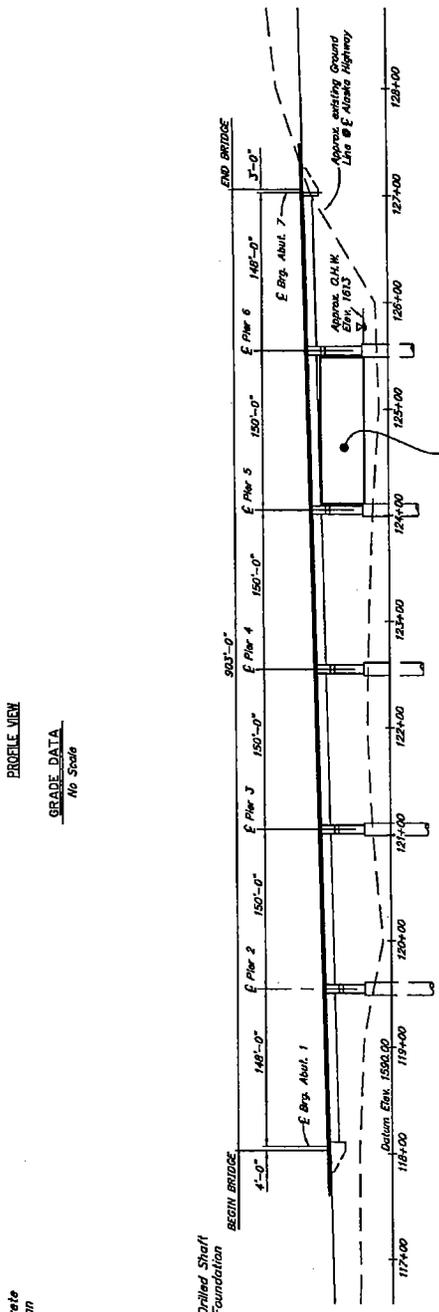
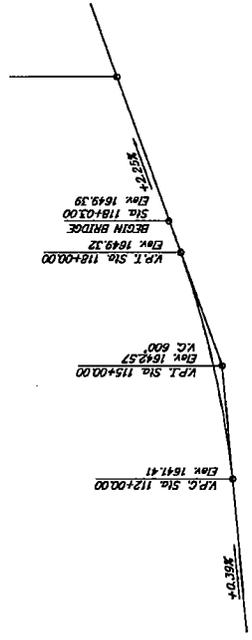
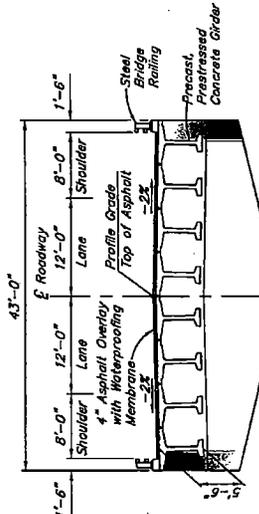
FRONT VIEW

SIDE VIEW

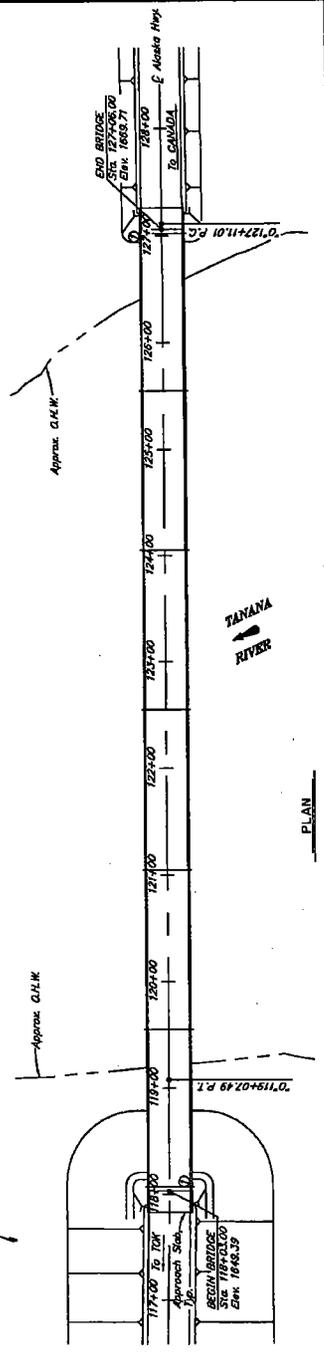
© Hwy/61637 Tanana River Bridge (PERMITS) (C&E) LOCATION MAP-CONCRETE BULB-TEE GIRDER BRIDGE MAR. 04/AUG/08 03:50:1pm

STATE OF ALASKA Department of Transportation and Public Facilities APPLICANT/AGENT: Bruce Campbell 2301 Peger Rd. Fairbanks, Ak 99709	
AK HWY: TANANA RIVER BRIDGE #505 BR-0A2-1(8)/61637 CONCRETE BULB-TEE GIRDER BRIDGE	
TANANA RIVER	
DATE:	AUGUST 2008
SHEET:	3 OF 14

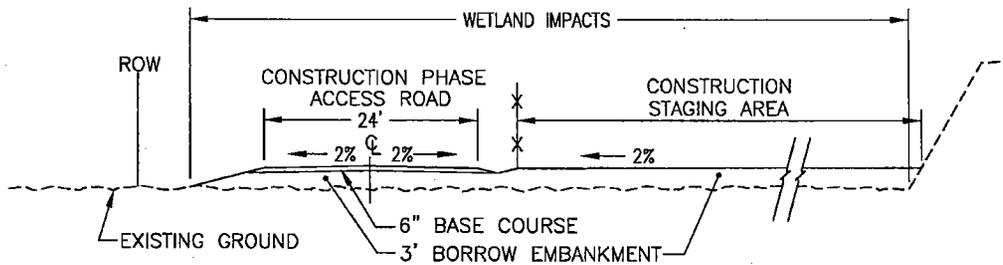
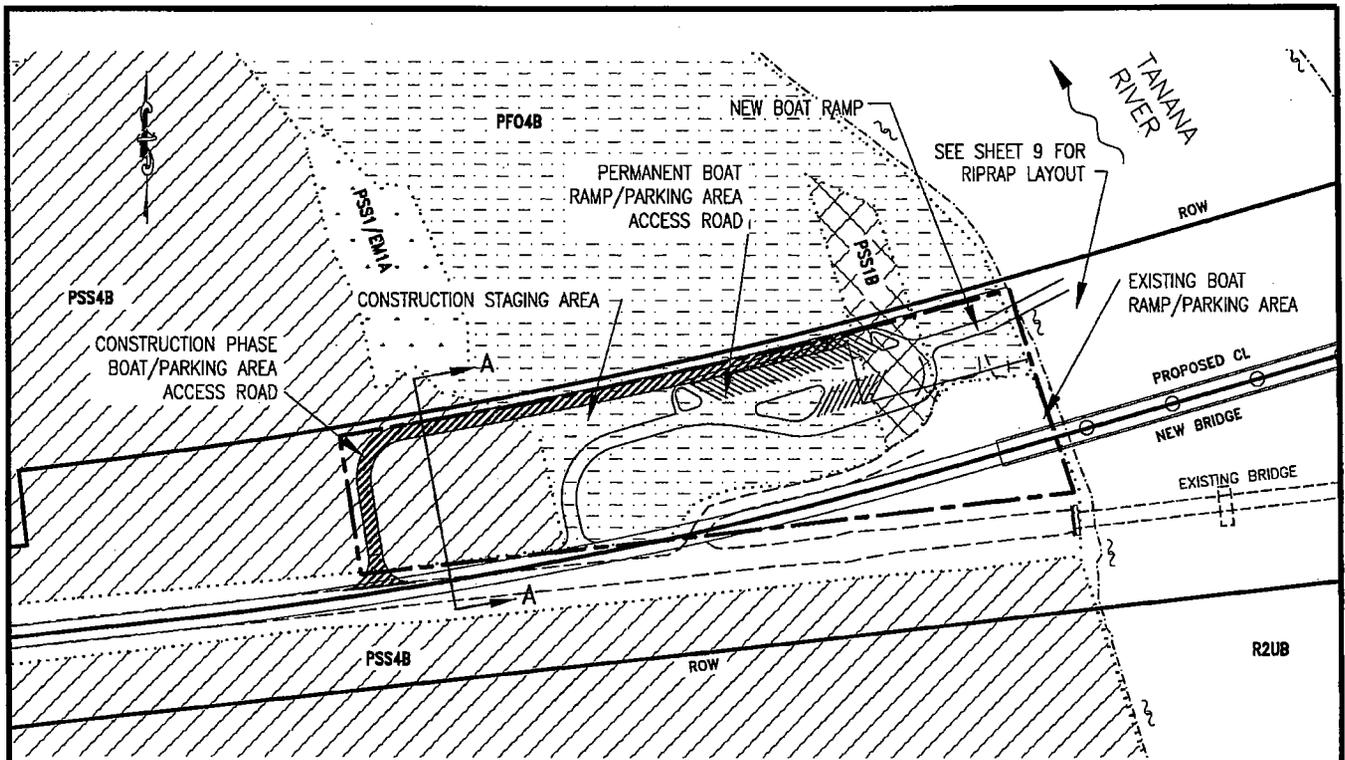
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MAXIMUM CLEARANCE:
 APPROXIMATE CLEARANCE = 138' (42m)
 VERTICAL CLEARANCE = 42' (12.8m)
 NOTE: A TEMPORARY WORK BRIDGE OR PLATFORM WILL BE REQUIRED TO MAINTAIN 12' (3.6m) X 40' (12.2m) MINIMUM NAVIGATION OPENING.



STATE OF ALASKA Department of Transportation and Public Facilities APPLICANT/AGENT: Bruce Campbell 2301 Peger Rd. Fairbanks, Ak 99709	
AK HWY: TANANA RIVER BRIDGE #505 BR-0A2-1(8)/61637 PRELIMINARY BRIDGE PLANS	
TANANA RIVER	
DATE: AUGUST 2008	SHEET: 4 OF 14



SECTION A-A
ACCESS ROAD AND STAGING AREA

PERMANENT WETLAND IMPACT		
WETLAND TYPE	FILL AREA (ACRES)	FILL VOLUME (CUBIC YARDS)
PSS1B	0.7	3,700
PF04B	4.4	23,100
R2UB AND R5USC	0.35	3,000
PSS4B	2.2	13,200

STATE OF ALASKA
 Department of Transportation and Public Facilities
 APPLICANT/AGENT: Bruce Campbell
 2301 Peger Rd. Fairbanks, Ak 99709

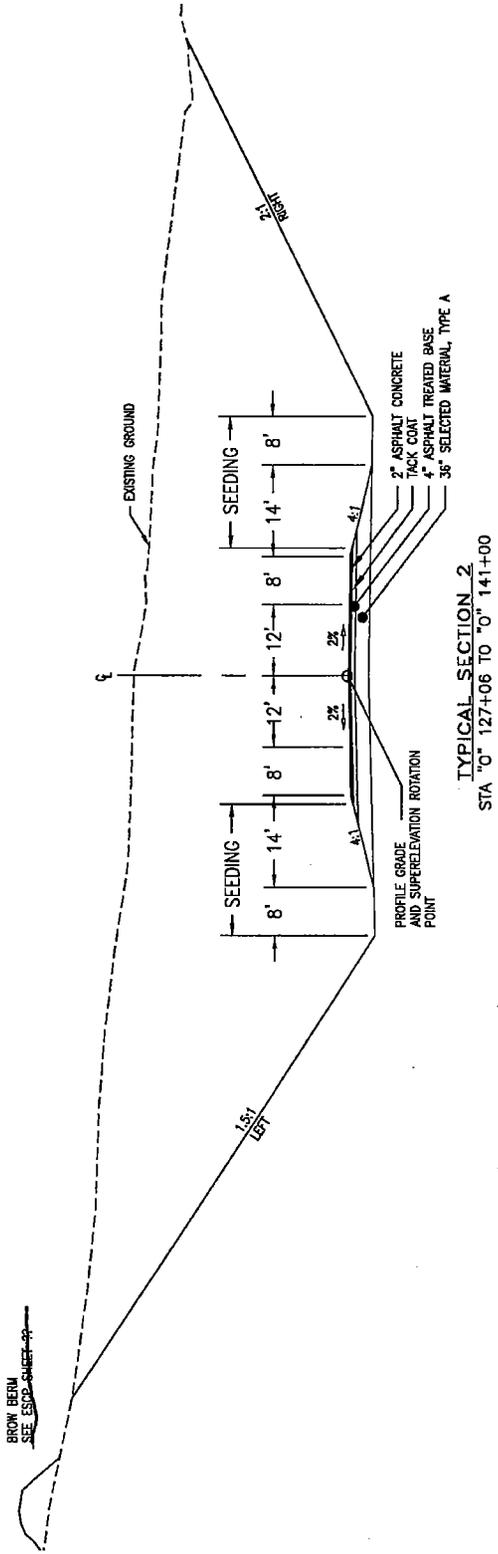
AK HWY: TANANA RIVER BRIDGE #505
 BR-0A2-1(8)/61637
 PERMANENT WETLAND IMPACTS

TANANA RIVER

DATE: AUGUST 2008 SHEET: 5 OF 14

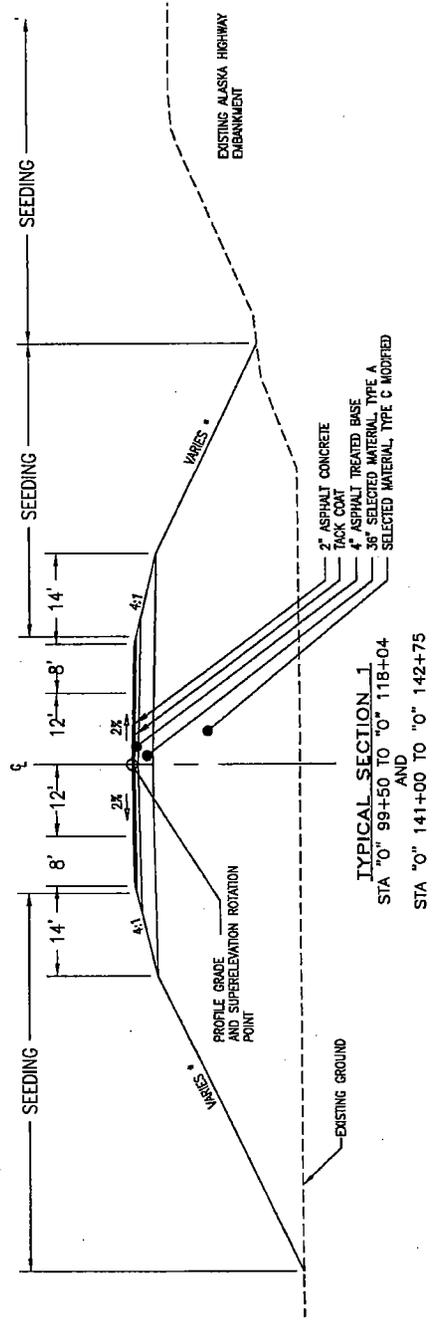
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***VARIABLE FILL SLOPE TABLE**

HEIGHT	SLOPE
0'-5'	4:1
5'-10'	3:1
10'+	2:1



STATE OF ALASKA
Department of Transportation and Public Facilities

APPLICANT/AGENT: Bruce Campbell
2301 Peger Rd. Fairbanks, Ak 99709

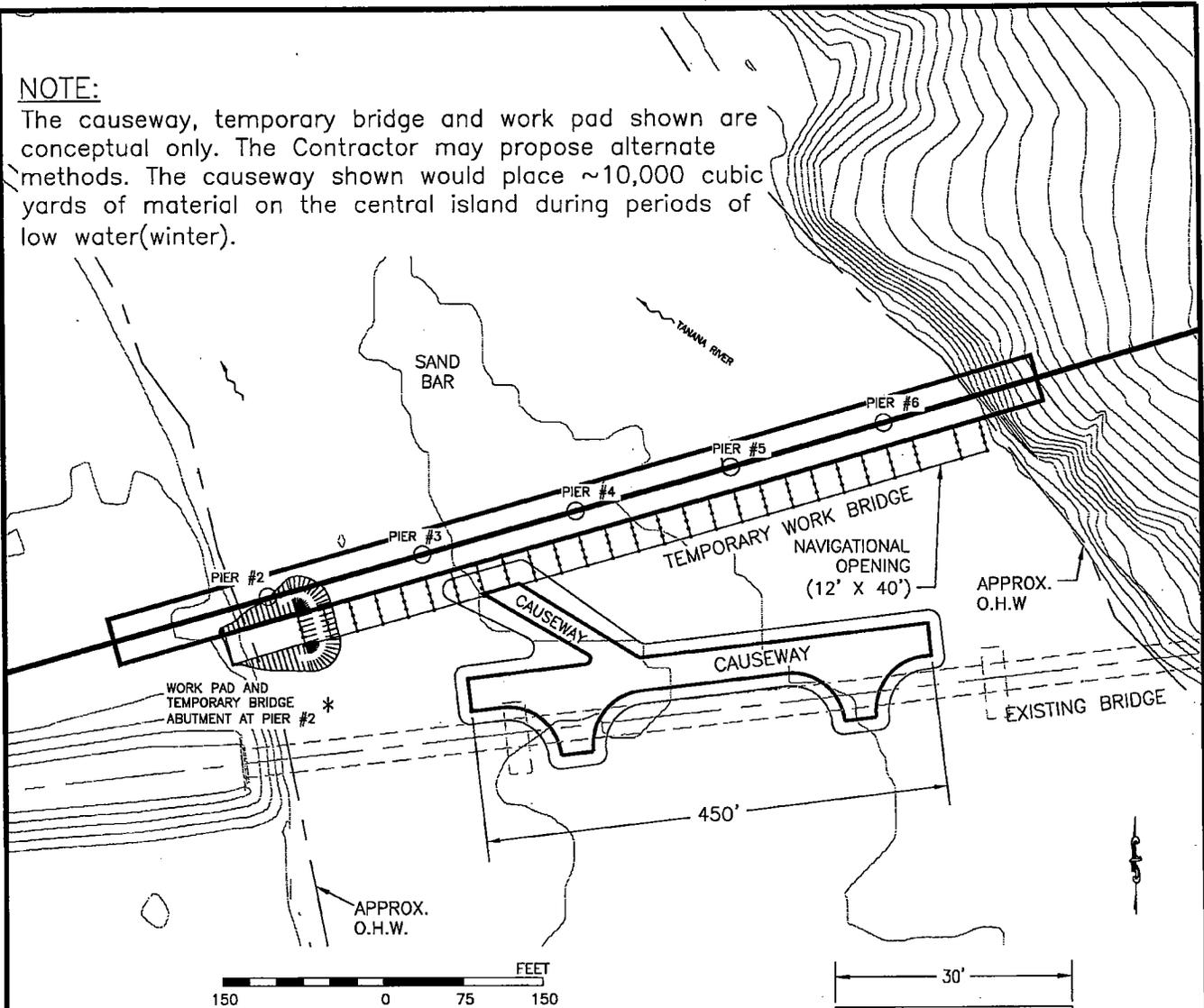
AK HWY: TANANA RIVER BRIDGE #505
BR-0A2-1(8)/61637
ROADWAY TYPICAL SECTIONS

TANANA RIVER

DATE: AUGUST 2008	SHEET: 6 OF 14
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NOTE:

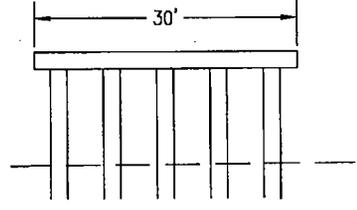
The causeway, temporary bridge and work pad shown are conceptual only. The Contractor may propose alternate methods. The causeway shown would place ~10,000 cubic yards of material on the central island during periods of low water(winter).



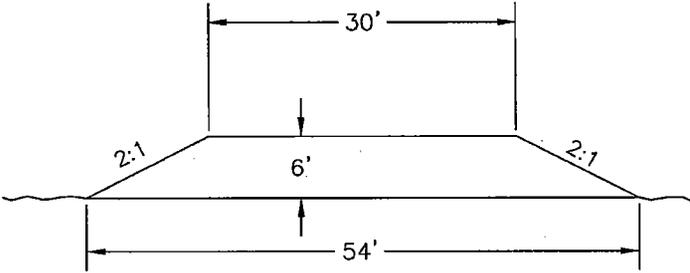
WORK PAD AND
TEMPORARY BRIDGE
ABUTMENT AT PIER #2 *



* SEE TEMPORARY WORK PAD AT PIER
2 ON SHEET 8



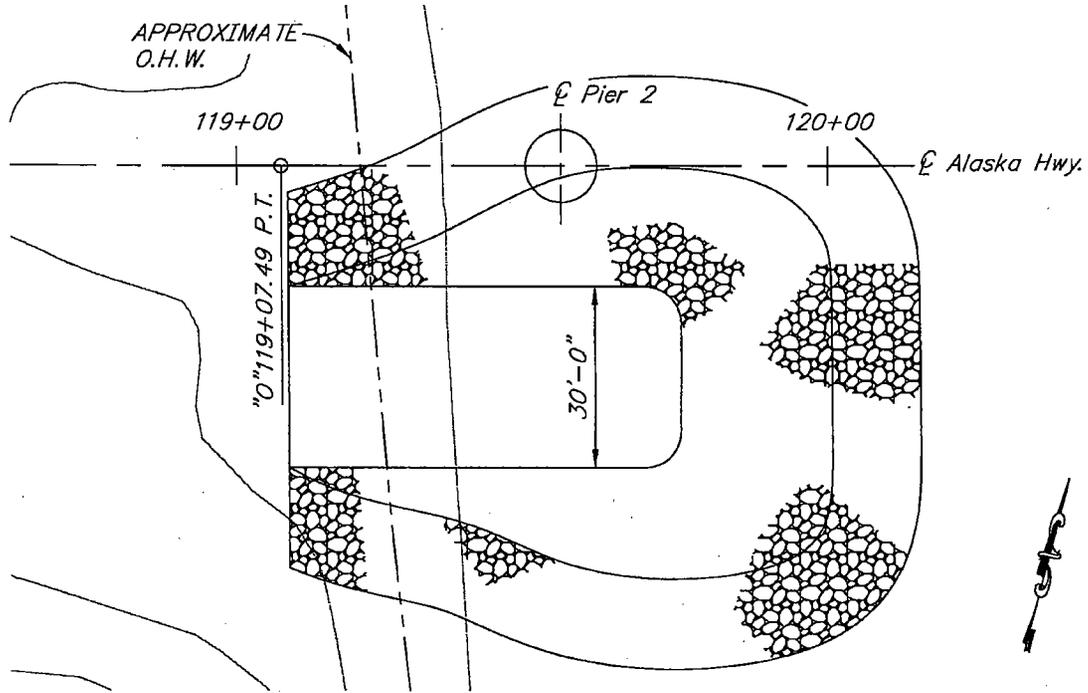
TEMPORARY WORK BRIDGE



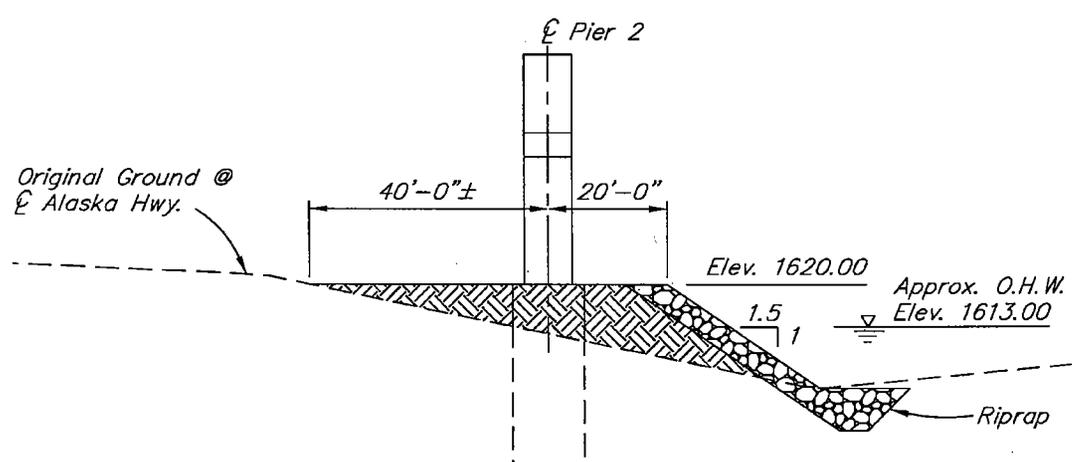
CAUSEWAY TYPICAL SECTION

STATE OF ALASKA Department of Transportation and Public Facilities APPLICANT/AGENT: Bruce Campbell 2301 Peger Rd. Fairbanks, Ak 99709	
AK HWY: TANANA RIVER BRIDGE #505 BR-0A2-1(8)/61637 TEMPORARY FEATURES	
TANANA RIVER	
DATE: AUGUST 2008	SHEET: 7 OF 14

Q:\HWY\51637_Tanana_River_Bridge\PERMITS\COE\PAD AND CAUSEWAY.dwg



PLAN

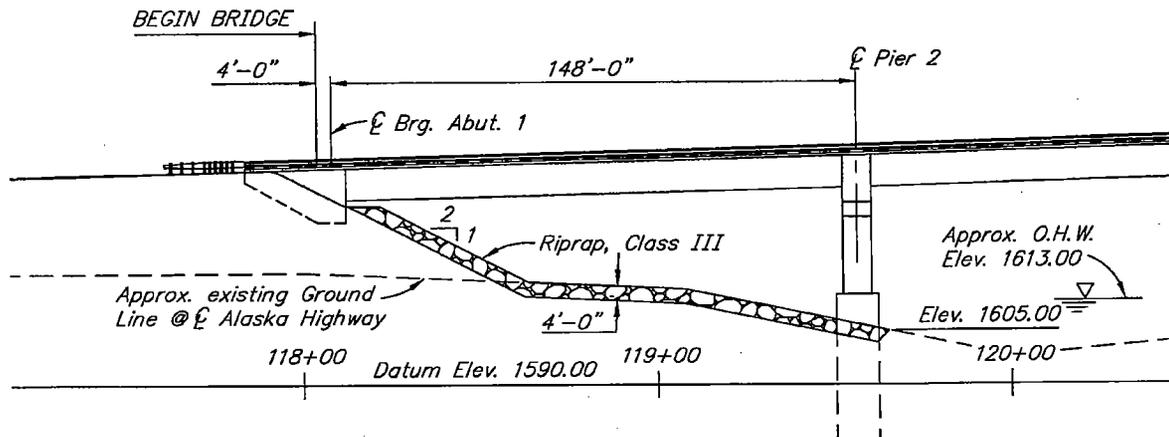


SECTION

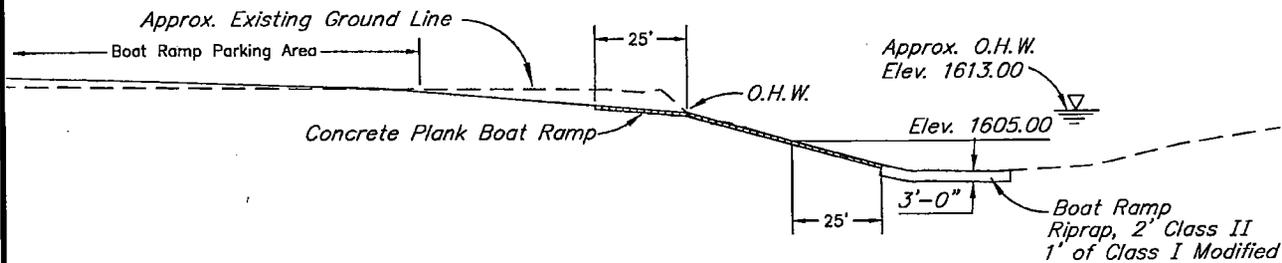


C:\hwy\61637 Tanana River Bridge\PERMITS\02E\LOCATION MAP-pier2 Mon, 04/Aug/08 03:03pm

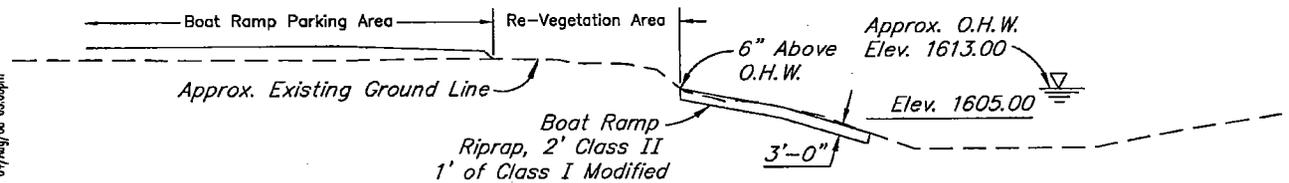
STATE OF ALASKA Department of Transportation and Public Facilities APPLICANT/AGENT: Bruce Campbell 2301 Peger Rd. Fairbanks, Ak 99709	
AK HWY: TANANA RIVER BRIDGE #505 BR-0A2-1(8)/61637 TEMPORARY WORK PAD AT PIER 2	
TANANA RIVER	
DATE: AUGUST 2008	SHEET: 8 OF 14



BRIDGE ABUTMENT RIPRAP SECTION



BOAT RAMP RIPRAP LAYOUT B-B

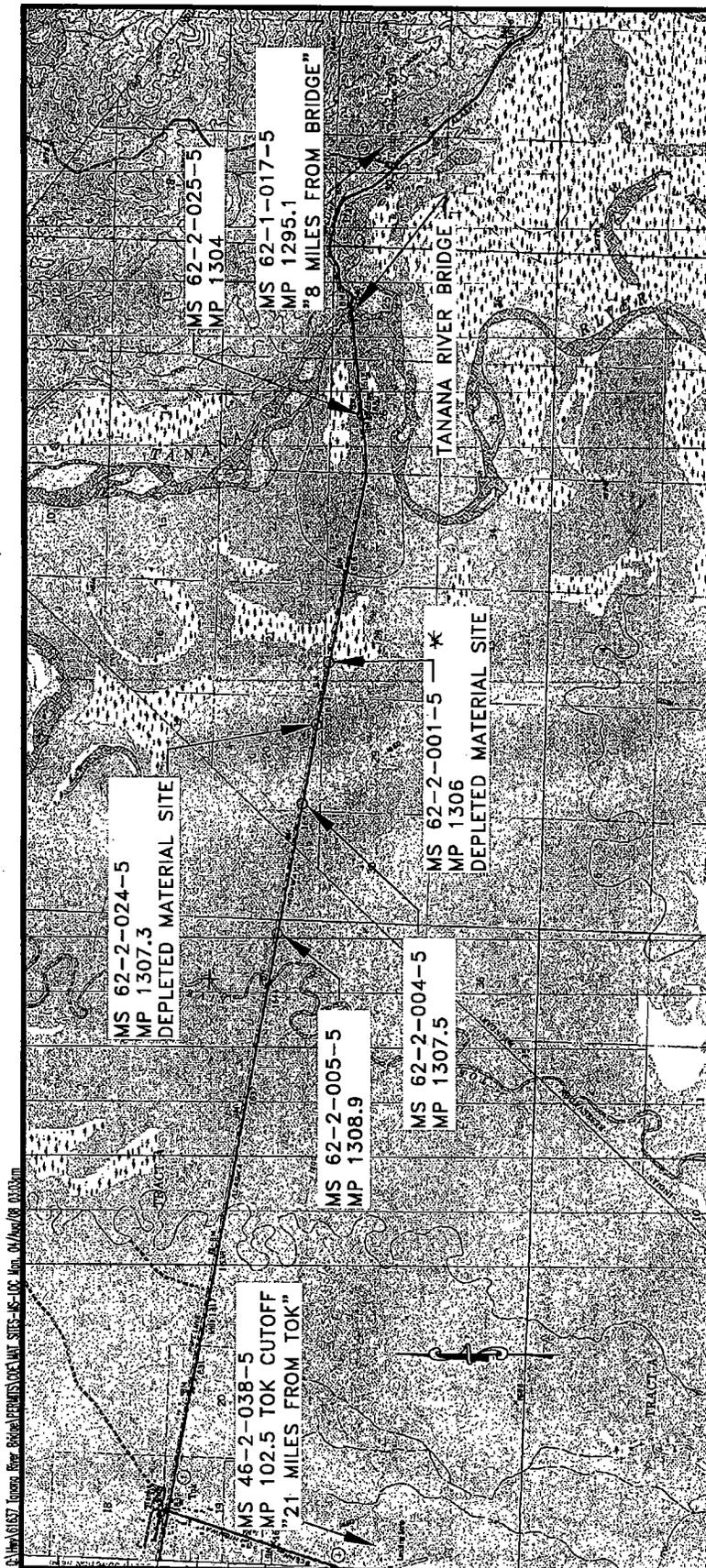


BOAT RAMP RIPRAP LAYOUT A-A



Q:\HWY\01637 Tanana River Bridge\PERMITS\COE\LOCATION\MAP-Riprap Men. 04/Aug/08 03:03pm

STATE OF ALASKA Department of Transportation and Public Facilities APPLICANT/AGENT: Bruce Campbell 2301 Peger Rd. Fairbanks, Ak 99709	
AK HWY: TANANA RIVER BRIDGE #505 BR-0A2-1(8)/61637 PROPOSED RIPRAP CROSS SECTIONS	
TANANA RIVER	
DATE: AUGUST 2008	SHEET: 10 OF 14



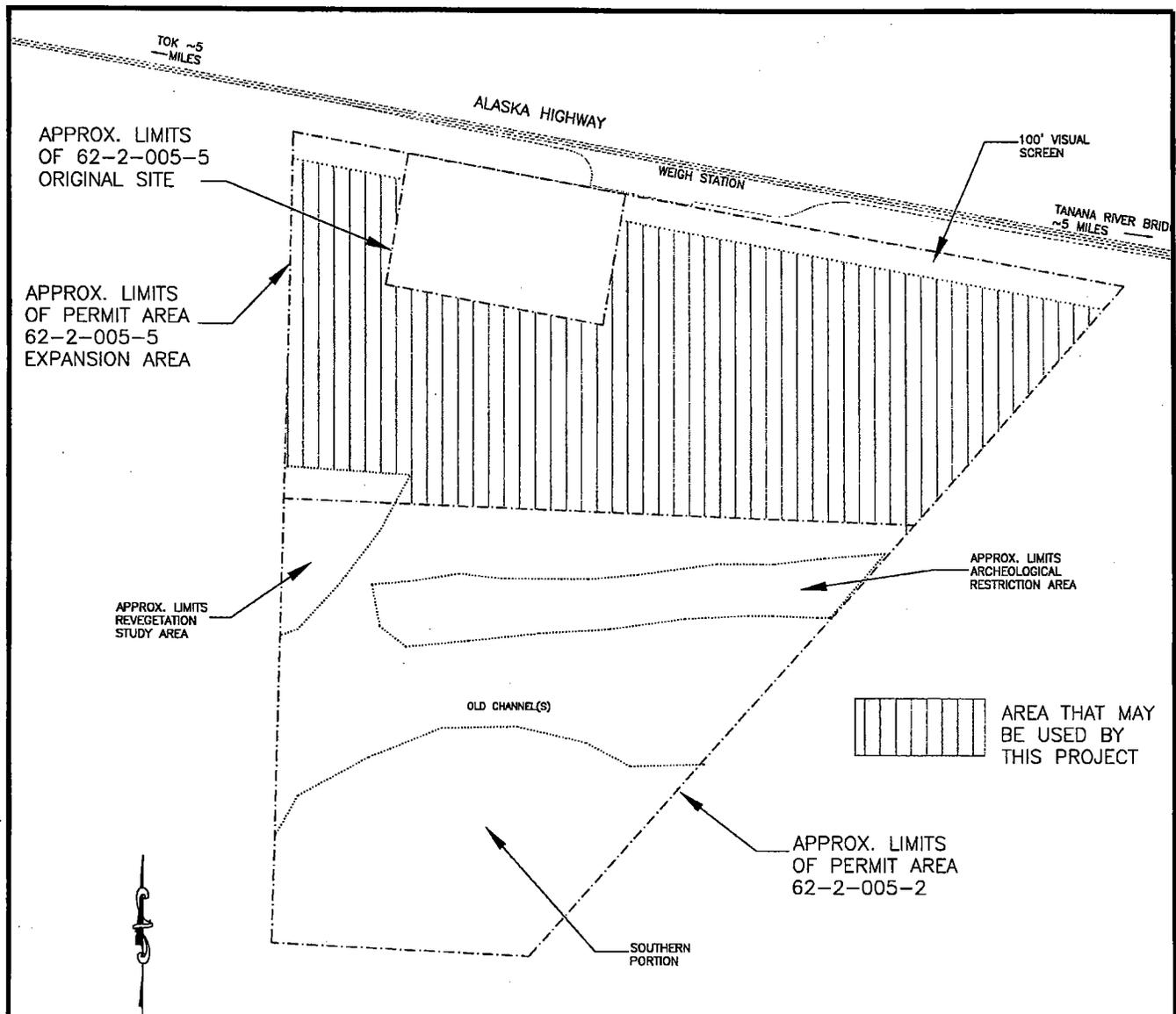
* Only depleted material site
 MS 62-2-001-5 will be used for
 disposal of excess material.
 It is located in uplands.

STATE OF ALASKA
 Department of Transportation and Public Facilities
 APPLICANT/AGENT: Bruce Campbell
 2301 Peger Rd. Fairbanks, Ak 99709

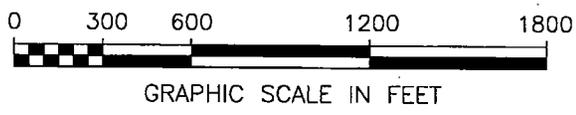
AK HWY: TANANA RIVER BRIDGE #505
 BR-0A2-1(B)/61637
 POTENTIAL MATERIAL SITES

TANANA RIVER

DATE: AUGUST 2008 SHEET: 11 OF 14

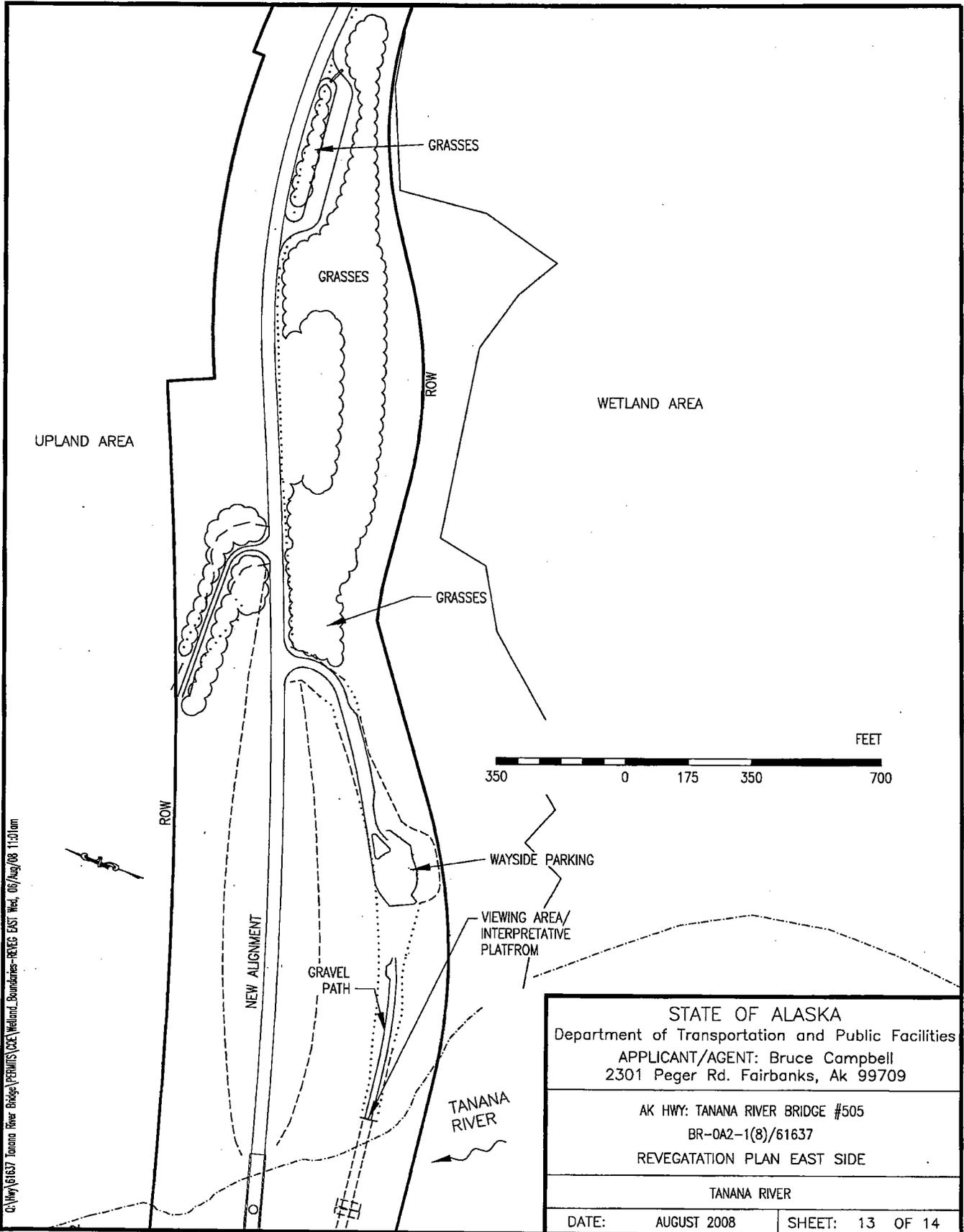


THIS IS A PLANNING DOCUMENT ONLY. THE MATERIAL SITE BOUNDARIES SHOWN ON THIS DRAWING ARE APPROXIMATE. OWNERSHIP OF THE LANDS ADJACENT TO THIS SITE ARE UNKNOWN. THE ACCESS ROW SHOULD BE VERIFIED.



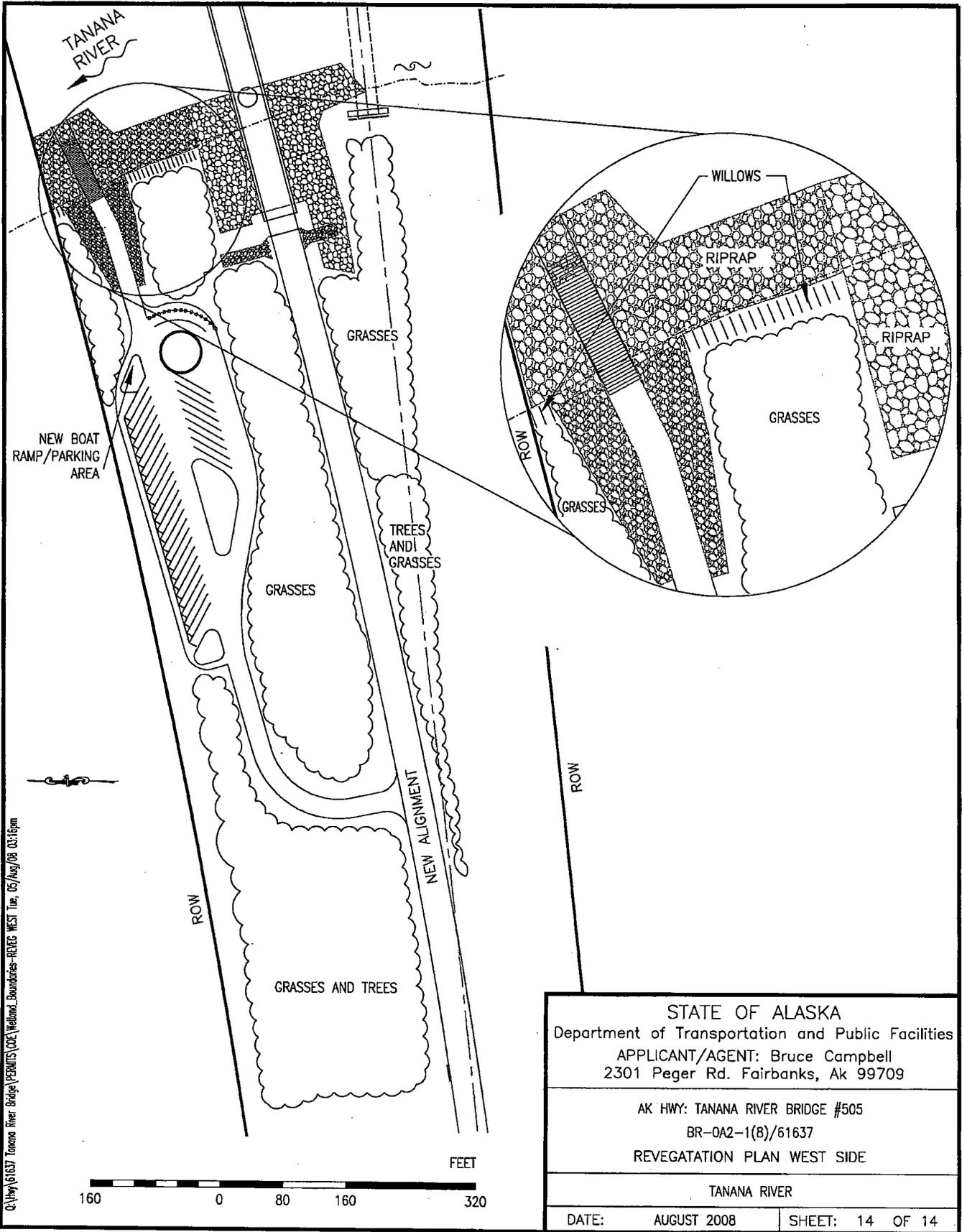
Q:\V\161637 Tanana River Bridge\PERMITS\02E\MAT_SITES\MAT-SITE-Mon_04/Aug/08 03:03pm

STATE OF ALASKA Department of Transportation and Public Facilities APPLICANT/AGENT: Bruce Campbell 2301 Peger Rd. Fairbanks, Ak 99709	
AK HWY: TANANA RIVER BRIDGE #505 BR-0A2-1(8)/61637 MATERIAL SITE MS62-2-005-5(2)	
TANANA RIVER	
DATE:	AUGUST 2008
SHEET:	12 OF 14



C:\hwy\61637 Tanana River Bridge\PERMITS\CEE\Wetland_Boundaries-REGG EAST West_05/Aug/08 11:01am

STATE OF ALASKA Department of Transportation and Public Facilities APPLICANT/AGENT: Bruce Campbell 2301 Peger Rd. Fairbanks, Ak 99709	
AK HWY: TANANA RIVER BRIDGE #505 BR-0A2-1(8)/61637 REVEGETATION PLAN EAST SIDE	
TANANA RIVER	
DATE:	AUGUST 2008
SHEET:	13 OF 14



C:\hwy\61637 Tanana River Bridge\PERMITS\CAE\Nelland_Boundaries-REVEG WEST Tie_05/Aug/08 03:16pm

STATE OF ALASKA Department of Transportation and Public Facilities APPLICANT/AGENT: Bruce Campbell 2301 Peger Rd. Fairbanks, Ak 99709	
AK HWY: TANANA RIVER BRIDGE #505 BR-0A2-1(8)/61637 REVEGATATION PLAN WEST SIDE	
TANANA RIVER	
DATE:	AUGUST 2008
SHEET:	14 OF 14