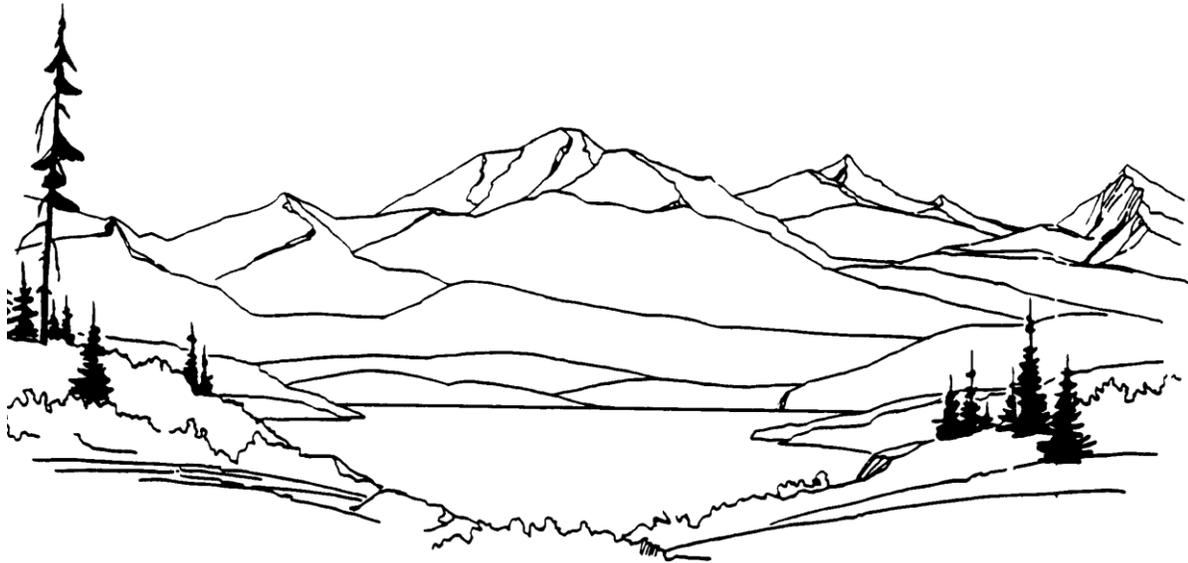


**STATE OF ALASKA
DEPARTMENT OF NATURAL RESOURCES**

**DIVISION OF PARKS
AND
OUTDOOR RECREATION**



**PROPOSAL, CONTRACT, BOND,
AND SPECIAL PROVISIONS**

**KASILOF RIVER SUA
NORTH SITE IMPROVEMENTS
PROJECT NO. 76058-1**

TABLE OF CONTENTS

(State Funded)

1. Invitation

INVITATION FOR BIDS 25D-7DNR (06/11)
SPECIAL NOTICE TO BIDDERS

2. Bid Notices

REQUIRED DOCUMENTS 25D-4DNR (11/10)

3. Forms

SUBCONTRACTOR LIST 25D-5DNR (10/12)
CONTRACTOR'S QUESTIONNAIRE 25D-8DNR (11/10)
BID FORM 25D-9DNR (06/11)
ALASKA PRODUCTS PREFERENCE WORKSHEET
BID SCHEDULE
CONSTRUCTION CONTRACT 25D-10ADNR (06/11)
PAYMENT BOND 25D-12DNR (11/10)
PERFORMANCE BOND 25D-13DNR (11/10)
BID BOND 25D-14DNR (11/10)
BID MODIFICATION 25D-16DNR (11/10)

4. Contract Provisions and Specifications

SPECIAL PROVISIONS
APPENDIX A – PERMITS
APPENDIX B – SURVEY REQUIREMENTS
APPENDIX C – EROSION AND SEDIMENT CONTROL PLAN
APPENDIX D – SPECIAL REPORTS
APPENDIX E – MASTER CERTIFICATION LIST (MCL)

5. State Wage Rates

State wage rates can be obtained at <http://www.labor.state.ak.us/lss/pamp600.htm>. Use the State wage rates that are in effect 10 days before Bid Opening. The Department will include a paper copy of the state wage rates in the signed Contract.

STATE OF ALASKA
DEPARTMENT OF NATURAL RESOURCES



INVITATION FOR BIDS
for Construction Contract

Date August 26, 2016

Kasilof River SUA North Site Improvements, Project No. 76058-1

Project Name and Number

Location of Project: Kasilof Beach Stub, Kalifornsky, Alaska
Contracting Officer: Rys Miranda, P.E., Chief of Design and Construction
Issuing Office: Design & Construction Section, Division of Parks and Outdoor Recreation
State Funded Federal Aid

Description of Work:

Work includes earthwork, guardrail, dune fencing, asphalt pavement, elevated light penetrating walkway, curb and gutter, signage, roadway reconditioning, helical piles, riprap, and park amenities.

The Engineer's Estimate is: Less than \$100,000 Between \$1,000,000 and \$2,500,000
 Between \$100,000 and \$250,000 Between \$2,500,000 and \$5,000,000
 Between \$250,000 and \$500,000 Greater than \$5,000,000
 Between \$500,000 and \$1,000,000

All work shall be completed in N/A Calendar Days, or by September 30, 2017.
Interim Completion date is shown in subsection 105-1.19 of the Special Provisions.

Bidders are invited to submit sealed bids, in single copy, for furnishing all labor, equipment, and materials and for performing all work for the project described above. Bids will be opened publicly at 2:00 PM local time, at 550 W. 7th Ave., Suite 1380; Anchorage, AK 99501 on the 16 of September 2016.

SUBMISSION OF BIDS

ALL BIDS INCLUDING ANY AMENDMENTS OR WITHDRAWALS MUST BE RECEIVED PRIOR TO BID OPENING. BIDS SHALL BE SUBMITTED ON THE FORMS FURNISHED AND MUST BE IN A SEALED ENVELOPE MARKED AS FOLLOWS:

Bid for Project: Kasilof River SUA North Site Improvements Project No. 76058-1	ATTN: Design & Construction Section Division of Parks & Outdoor Recreation 550 W. 7th Ave., Suite 1380 Anchorage AK 99501
---	---

Bids, amendments or withdrawals transmitted by mail must be received at the above specified address no later than 30 minutes prior to the scheduled time of bid opening. Hand-delivered bids, amendments or withdrawals must be received at the above specified address prior to the scheduled time of bid opening. Faxed bid amendments must be addressed to the above specific address. Fax number: (907) 269-8917.

A bid guaranty is required with each bid in the amount of 5% of the amount bid. (Alternate bid items as well as supplemental bid items appearing on the bid schedule shall be included as part of the total amount bid when determining the amount of bid guaranty required for the project.)

The Department hereby notifies all bidders that it will affirmatively insure that in any contract entered into pursuant to this Invitation, Disadvantaged Business Enterprises (DBEs) will be afforded full opportunity to submit bids and will not be discriminated against on the grounds of race, color, national origin, or sex in consideration for an award.

NOTICE TO BIDDERS

Bidders are hereby notified that data to assist in preparing bids is available as follows:

SEE SPECIAL NOTICE TO BIDDERS

Plans and Specifications may be downloaded from: <http://dnr.alaska.gov/parks/designconstruct/bidcalresults.htm>
For additional information contact:

Kathleen Raynor
550 W. 7th Ave., Suite 1380
Anchorage AK 99501
Phone: (907) 269-8731

All questions relating to design features, constructability, quantities, or other technical aspects of the project should be directed to the following. Bidders requesting assistance in viewing the project must make arrangements at least 48 hours in advance with:

Luke Randall, P.E.
Project Manager
Fax: (907) 269-8917 Phone: (907) 269-8734 Email: luke.randall@alaska.gov

All questions concerning bidding procedures should be directed to:

Rys Miranda, P.E.
Chief, Design & Construction
550 W. 7th Ave., Suite 1340
Anchorage AK 99501
Phone: (907) 269-8736

Other Information:

Bid results are available approximately 30 minutes after each bid opening at
<http://dnr.alaska.gov/parks/designconstruct/bidcalresults.htm>

SPECIAL NOTICE TO BIDDERS

The Department hereby notifies bidders that information to assist in preparing bids is available.

1. Publications. These items are available upon request in the Anchorage Department of Transportation and Public Facilities Building Plans Room located at 4111 Aviation Avenue:
 - a. Standard Specifications for Highway Construction 2004. (\$25.00) Available online at: http://www.dot.state.ak.us/stwddes/dcsspecs/pop_hwyspecs_english.shtml
 - b. Alaska Test Methods Manual (Lab & Field), 2016 Edition. (\$25.00) Available online at: http://www.dot.state.ak.us/stwddes/desmaterials/mat_waqtc/pop_testman.shtml
2. Other Publications. These items are available upon request from the Department of Natural Resources, Division of Parks & Outdoor Recreation, Design & Construction Section (DNR-DPOR-D&C) at 550 West 7th Avenue, Suite 1380, Anchorage, AK:
 - a. Quantity Computations.
3. Materials Certification List (MCL). The MCL provides the Engineer with the appropriate approving authority. Contractor, submit certification for each material to the Engineer. The MCL is included in Appendix E.
4. High Visibility Clothing. The Department requires all workers within the project limits to wear an outer visible surface or layer of high visibility color and retroreflectivity. See subsection 643-3.11.
5. Prevailing Wage Requirements. The Lt. Governor certified the revised regulatory definition of "on-site" in 8 AAC 30.910 to clarify the scope of activities covered by Alaska's Little Davis Bacon Act (AS 36.05.010 - AS 36.05.110) as proposed by the Department of Labor and Workforce Development (DOLWD) proposed a. For a copy of the revised definition of 8 AAC 30.910, go to:
<https://aws.state.ak.us/OnlinePublicNotices/Notices/Attachment.aspx?id=92888>

The Commissioner of the DOLWD has made a determination effective July 1, 2015 through June 30, 2017 requiring a 90 percent Alaska Resident hiring preference on public works contracts throughout the State. For a copy of this determination, go to:
http://labor.alaska.gov/lss/forms/2015-07-01-Res_Hire_Info_Notice.pdf
6. Section 641. ESCP has been provided by the Department in the Appendix C.
7. Interim Completion Date. The interim completion date for installation of item 607(7) Dune Fencing, 642(1) Surveying, and Clearing under 201(3A) by October 31, 2016. Refer to Subsection 105-1.19 Interim Completion for further information.



STATE OF ALASKA
DEPARTMENT OF NATURAL RESOURCES

REQUIRED DOCUMENTS

State Funded Contracts

REQUIRED FOR BID. Bids will not be considered if the following documents are not completely filled out and submitted at the time of bidding:

1. **Bid Form (Form 25D-9DNR)**
 2. **Bid Schedule**
 3. **Bid Security (Form 25D-14DNR or Certified Check)**
 4. Any bid revisions must be submitted by the bidder prior to bid opening on the following form:
Bid Modification (Form 25D-16DNR)
-

REQUIRED AFTER NOTICE OF APPARENT LOW BIDDER. The apparent low bidder is required to complete and submit the following document within 5 working days after receipt of written notification:

1. **Subcontractor List (Form 25D-5DNR)**
-

REQUIRED FOR AWARD. In order to be awarded the contract, the successful bidder must completely fill out and submit the following documents within the time specified in the intent to award letter:

1. **Construction Contract (Form 25D-10ADNR)**
2. **Payment Bond (Form 25D-12DNR)**
3. **Performance Bond (Form 25D-13DNR)**
4. **Contractor's Questionnaire (Form 25D-8DNR)**
5. **Certificate of Insurance (from carrier)**



STATE OF ALASKA
DEPARTMENT OF NATURAL RESOURCES

SUBCONTRACTOR LIST

Kasilof River SUA North Site Improvements, Project No. 76058-1

Project Name and Number

The apparent low bidder shall complete this form and submit it so as to be received by the Contracting Officer prior to the close of business on the fifth working day after receipt of written notice from the Department.

Failure to submit this form with all required information by the due date will result in the bidder being declared nonresponsive and may result in the forfeiture of the Bid Security.

Scope of work must be clearly defined. If an item of work is to be performed by more than one firm, indicate the portion or percent of work to be done by each.

Check as applicable: All Work on the above-referenced project will be accomplished without subcontracts greater than 1/2 of 1% of the contract amount.

or

Subcontractor List is as follows:

LIST FIRST TIER SUBCONTRACTORS ONLY

FIRM NAME, ADDRESS, PHONE NO.	AK BUSINESS LICENSE NO., CONTRACTOR'S REGISTRATION NO.	SCOPE OF WORK TO BE PERFORMED

CONTINUE SUBCONTRACTOR INFORMATION ON REVERSE

For projects with federal-aid funding, I hereby certify Alaska Business Licenses and Contractor registrations will be valid for all subcontractors prior to award of the subcontract. For projects without federal-aid funding (State funding only), I hereby certify the listed Alaska Business Licenses and Contractor's Registration were valid at the time bids were opened for this project.

Signature of Authorized Company Representative

Title

Company Name

Company Address (Street or PO Box, City, State, Zip)

Date

Phone Number

2. What percent of the total value of this contract do you intend to subcontract? _____%

3. Do you propose to purchase any equipment for use on this project?

NO YES If YES, describe type, quantity, and approximate cost:

4. Do you propose to rent any equipment for this work?

NO YES If YES, describe type and quantity:

5. Is your bid based on firm offers for all material necessary for this project?

NO YES If NO, explain:

C. EXPERIENCE

1. Have you had previous construction contracts or subcontracts with the State of Alaska?

NO YES If YES, explain:

2. List, as an attachment to this questionnaire, other construction projects you have completed, the dates of completion, scope of work, and total contract amount for each project completed in the past 12 months.

I hereby certify that the above statements are true and complete.

Name of Contractor

Name & Title of Person Signing

Signature

Date



STATE OF ALASKA
DEPARTMENT OF NATURAL RESOURCES

BID FORM

for

Kasilof River SUA North Site Improvements, Project No. 76058-1

Project Name and Number

by

Company Name

Company Address (Street or PO Box, City, State, Zip)

**TO THE CONTRACTING OFFICER,
DEPARTMENT OF NATURAL RESOURCES:**

In compliance with your Invitation for Bids dated August 26, 2016, the Undersigned proposes to furnish and deliver all the materials and do all the work and labor required in the construction of the above-referenced Project, located at or near Kalifornsky, Alaska, according to the plans and specifications and for the amount and prices named herein as indicated on the Bid Schedule consisting of 3 sheets, which is made a part of this Bid.

The Undersigned declares that he has carefully examined the contract requirements and that he has made a personal examination of the site of the work; that he understands that the quantities, where such are specified in the Bid Schedule or on the plans for this project, are approximate only and subject to increase or decrease, and that he is willing to perform increased or decreased quantities of work at unit prices bid under the conditions set forth in the Contract Documents.

The Undersigned hereby agrees to execute the said contract and bonds within fifteen calendar days, or such further time as may be allowed in writing by the Contracting Officer, after receiving notification of the acceptance of this bid, and it is hereby mutually understood and agreed that in case the Undersigned does not, the accompanying bid guarantee shall be forfeited to the State of Alaska, Department of Natural Resources as liquidated damages, and the said Contracting officer may proceed to award the contract to others.

The Undersigned agrees to commence the work within 10 calendar days, and to complete the work within N/A calendar days, after the effective date of the Notice to Proceed, or by September 30, 2017, unless extended in writing by the Contracting Officer.

The Undersigned proposes to furnish Payment Bond in the amount of **100%** (of the contract) and Performance Bond in the amount of **100%** (of the contract), as surety conditioned for the full, complete and faithful performance of this contract.

INSTRUCTIONS FOR ALASKA PRODUCTS PREFERENCE WORKSHEET

Special Notice: All procurements, except those funded from Federal sources, shall contain Contract provisions for the preference of Alaska products. To be considered for the Alaska Product Preference, each product listed by the Bidder on this worksheet must have current certification from the Alaska Products Preference Program at the time of Bid Opening. A product with expired certification at the bid opening date will not be considered eligible. Products that are not specified for use on the project will not be considered eligible. The Alaska Product Preference Program List of certified products is available online at: <http://www.commerce.state.ak.us/ded/dev/prodpref/prodpref.htm> or may be obtained by contacting the local DCED office or writing: Dept. of Commerce & Economic Development, Alaska Products Preference List, P.O. Box 110800, Juneau, Alaska 99811-0800.

BIDDERS INSTRUCTIONS:

- A. General.** The contracting Agency may request documentation to support entries made on this form. False presentations may be subject to AS 36.30.687. All Bidder's entries must conform to the requirements covering bid preparations in general. Discrepancies in price extensions shall be resolved by multiplying the declared total value times the preference percentage and adjusting any resulting computation(s) accordingly.
- B. Form Completion – BASIC BIDS.**
- (1) Enter project number and name, the words "Basic Bid" and the CONTRACTOR'S name in the heading of each page as provided.
 - (2) The Bidder shall compare those candidate products appearing on the preference listing (see Special Notice comments above) against the requirements of the technical specifications appearing in the contract documents. If the Bidder determines that a candidate product can suitably meet the contract requirements, then that product may be included in the worksheet as follows.
 - (3) For each suitable product submitted under the "Basic Bid" enter:
 - The product name, generic description and its corresponding technical specification section number under the heading "PRODUCT",
 - The company name of the Alaska producer under the heading "Manufacturer", and
 - The product class (I, II, or III) and preference percentage (3, 5, or 7% respectively) under the "CLASS/%" heading.
 - (4) For each product appearing on the list and to be utilized by the CONTRACTOR enter:
 - Under the heading "TOTAL DECLARED VALUE" the manufacturer's quoted price of the product, (caution: this value is to be the manufacturer's quoted price at the place of origin and shall not include costs for freight, handling or miscellaneous charges of incorporating the product into the Work,) and
 - The resulting preference – i.e. the preference percentage times the total declared value amount – under the heading "REDUCTION AMOUNT".
 - (5) Continue for all "suitable" basic bid products. If the listing exceeds one page enter the words "Page # ___ SUB" in front of the word "TOTAL" and on the first line of the following pages enter "SUBTOTAL OF REDUCTION AMOUNT FROM PREVIOUS PAGE".
 - (6) On the final page of the listing enter "BASIC BID PREFERENCE GRAND" immediately before the word "TOTAL".
 - (7) Total the entries in the "REDUCTION AMOUNT" column for each page by commencing at the first entry for that page. If a continuation page exists, ensure that the subtotal from the previous page is computed into the running total. Number pages as appropriate.
 - (8) Compute a Grand Total for the Basic Bid Preference. Enter the amount on the final page of the worksheet. (Note: When solicitations require written bids this amount should also be entered on line "C" of the Basic Bid Schedule.) Submit worksheet(s) with the Bid Schedule.
- C. Form Completion – ALTERNATE BIDS.**
- (1) Enter project number and name, the words "ALTERNATE BID #___", and CONTRACTOR'S name in the heading of each page as provided.
 - (2) On the first entry line enter "ADDITIONAL ALASKA PRODUCTS FOR ALTERNATE BID #___", and repeat procedures 2 through 5 under part B these Bidder's instructions except that references to "Basic Bid" shall be replaced with the words "Alternate Bid #___".
 - (3) Following the listing of all additional Alaska products enter the words "ADDITIONAL PRODUCTS PREFERENCE FOR ALTERNATE BID #___ - SUBTOTAL" and enter a subtotal amount for all additional products as listed. Subtotal amount to be determined by adding all additional product entries in the "REDUCTION AMOUNT" column.
 - (4) Skip three lines and enter "LESS THE FOLLOWING NON-APPLICABLE ALASKA PRODUCTS:
 - (5) Beginning on the next line, enter the product name and manufacturer of each Alaska Product appearing on the "Basic Bid" listing which would be deleted or reduced from the Project should the "Alternate Bid" be selected. Details of entry need only be sufficient to clearly reference the subject product. (i.e. "Pre-hung doors by Alaska Door Co., Anchorage.") Products being reduced shall specify the amount of the reduction. Should no products require deletion enter "None". When a product is listed as a "NON-APPLICABLE ALASKA PRODUCT" for this alternate bid and if under the basic bid the Bidder received a preference on his basic bid as a result of that product, then the applicable entries under the headings "TOTAL DECLARED VALUE" and "REDUCTION AMOUNT" (for each product and from the basic bid listing) shall also be entered into the corresponding headings of this form. Where only a portion of the products has been deleted, the entry (which will differ from those on the basic bid listing) may be "pro-rated" or as otherwise substantiated.
 - (6) Following the listing of all non-applicable Alaska products enter the words "NON-APPLICABLE PRODUCTS PREFERENCE FROM BASIC BID ___ SUBTOTAL" and enter a subtotal amount for all non-applicable products listed. Subtotal amount to be determined by adding all non-applicable entries in the "REDUCTION AMOUNT" column.
 - (7) At the bottom of the final page enter the words "ALTERNATE BID #___ PREFERENCE GRAND" immediately before the word "TOTAL".
 - (8) Compute a Grand Total for the Alternate Bid Preference (for Alternate #___) by subtracting the non-applicable product preference subtotal from the additional product preference subtotal. Enter on the final page. (Note: When solicitations require written bids this amount should also be entered on line "C" of the Alternate Bid Schedule.) Submit separate worksheet(s) with each Alternate Bid.

BID SCHEDULE

STATE OF ALASKA – DEPARTMENT OF NATURAL RESOURCES – DIVISION OF PARKS AND OUTDOOR RECREATION

Project Name: Kasilof River SUA North Site Improvements

Project Number: 76058-1

Before preparing this bid schedule, read carefully, Section 102 of the 2015 edition of the Standard Specifications for Highway Construction, and the following:

The Bidder shall insert, as called for, a unit price or lump sum price in figures opposite each pay item for which an estimated quantity appears in the bid schedule. A unit price or lump sum price is not to be entered or tendered for any pay item not appearing in the bid schedule. The estimated quantity of work for payment on a lump sum basis will be "All Required" (All Req'd) and as further specified in the contract.

Whenever a Contingent Sum is shown for any item in this schedule, such amount shall govern and be included in the bid total.

Conditioned or qualified bids will be considered non-responsive.

Notice: Contract award will be made on the basis of the total adjusted basic bid.

The bidder shall insert a unit bid price for each pay item listed below. Type or print legibly.

Pay Item Number	Pay Item Description	Pay Unit	Quantity	Unit Bid Price	Amount Bid
***** BASIC BID *****					
201(3A)	Clearing and Grubbing	Acre	3.2	\$	\$
202(1)	Removal of Structures and Obstructions	L.S.	All Req'd	\$	\$
203(3)	Unclassified Excavation	C.Y.	1,000	\$	\$
203(6A)	Borrow, Type A	C.Y.	11,385	\$	\$
301(1)	Aggregate Base Course, Grading D-1	Ton	4,400	\$	\$
401(1B)	Hot Mix Asphalt, Type II; Class B	Ton	1,240	\$	\$
303(1)	Reconditioning	Station	20	\$	\$
505(5)	Furnish Structural Steel Helical Pile	L.F.	180	\$	\$
505(12)	Drive Structural Steel Helical Pile	Each	12	\$	\$

BID SCHEDULE
 Kasilof River SUA
 North Site Improvements
 Project No. 76058-1

Name of Bidding Firm _____

Pay Item Number	Pay Item Description	Pay Unit	Quantity	Unit Bid Price	Amount Bid
-----------------	----------------------	----------	----------	----------------	------------

***** CONTINUE BASIC BID *****

603(1)	18 Inch CSP	L.F.	220	\$	\$
603(3)	End Section for 18 Inch CSP	Each	8	\$	\$
604(8)	Curb Drain	Each	1	\$	\$
606(1)	W-Beam Guardrail	L.F.	2,833	\$	\$
606(13)	Parallel Guardrail Terminal	Each	4	\$	\$
607(7)	Dune Fencing	L.F.	3,180	\$	\$
609(2)	Curb and Gutter, Type I	L.F.	1,600	\$	\$
611(1)	Riprap, Class I	Ton	15	\$	\$
615(1)	Standard Sign	S.F.	129.75	\$	\$
618(2)	Seeding	Pound	41	\$	\$
620(1)	Topsoil, Class B	S.Y.	4,450	\$	\$
630(1)	Geotextile, Separation	S.Y.	10,360	\$	\$
640(1)	Mobilization and Demobilization	L.S.	All Req'd	\$	\$
641(1)	Erosion, Sediment, and Pollution Control Administration	L.S.	All Req'd	\$	\$
641(2)	Temporary Erosion, Sediment, and Pollution Control	C.S.	All Req'd	\$15,000.00	\$15,000.00
641(6)	SWPPP Price Adjustment	C.S.	All Req'd	\$	\$
642(1)	Construction Surveying	L.S.	All Req'd	\$	\$
642(3)	Three Person Survey Party	Hour	15	\$	\$
643(2)	Traffic Maintenance	L.S.	All Req'd	\$	\$

BID SCHEDULE
Kasilof River SUA
North Site Improvements
Project No. 76058-1

Name of Bidding Firm _____

Pay Item Number	Pay Item Description	Pay Unit	Quantity	Unit Bid Price	Amount Bid
-----------------	----------------------	----------	----------	----------------	------------

***** CONTINUE BASIC BID *****

646(1)	CPM Scheduling	L.S.	All Req'd	\$	\$
647(6)	Hydraulic Excavator, 1 CY, 100HP Minimum	Hour	20	\$	\$
650(12)	ELP Walkway	L.S.	All Req'd	\$	\$
650(20A)	Removable Barrier Post	Each	2	\$	\$
650(21)	Barrier Rock	Each	37	\$	\$
650(39B)	Orientation Kiosk	Each	1	\$	\$
669(1)	Automated Traffic Recorder	Each	2	\$	\$
670(1)	Traffic Markings	L.S.	All Req'd	\$	\$
a) TOTAL BASIC BID (BB)					\$
b) ALASKA BIDDER PREFERENCE					-
c) ALASKA PRODUCTS PREFERENCE					-
d) AK VETERAN'S PREFERENCE					-
e) ADJUSTED BASIC BID AMOUNT					\$

No: _____ Expires _____
Alaska Business License

No: _____ Expires _____
Alaska Contractor's License

BID SCHEDULE
Kasilof River SUA
North Site Improvements
Project No. 76058-1

Name of Bidding Firm _____



STATE OF ALASKA
DEPARTMENT OF NATURAL RESOURCES

CONSTRUCTION CONTRACT

Kasilof River SUA North Site Improvements, Project No. 76058-1

Project Name and Number

This CONTRACT, between the STATE OF ALASKA, DEPARTMENT OF NATURAL RESOURCES, herein called the Department, acting by and through its Contracting Officer, and

Company Name

Company Address (Street or PO Box, City, State, Zip)

a/an Individual Partnership Joint Venture Sole Proprietorship Corporation incorporated under the laws of the State of _____ its successors and assigns, herein called the Contractor, is effective the date of the signature of the Contracting Officer on this document.

WITNESSETH: That the Contractor, for and in consideration of the payment or payments herein specified and agreed to by the Department, hereby covenants and agrees to furnish and deliver all the materials and to do and perform all the work and labor required in the construction of the above-referenced project at the prices bid by the Contractor for the respective estimated quantities aggregating approximately the sum of

_____ Dollars (\$ _____), and such other items as are mentioned in the original Bid, which Bid and prices named, together with the Contract Documents are made a part of this Contract and accepted as such.

It is distinctly understood and agreed that no claim for additional work or materials, done or furnished by the Contractor and not specifically herein provided for, will be allowed by the Department, nor shall the Contractor do any work or furnish any material not covered by this Contract, unless such work is ordered in writing by the Department. In no event shall the Department be liable for any materials furnished or used, or for any work or labor done, unless the materials, work, or labor are required by the Contract or on written order furnished by the Department. Any such work or materials which may be done or furnished by the Contractor without written order first being given shall be at the Contractor's own risk, cost, and expense and the Contractor hereby covenants and agrees to make no claim for compensation for work or materials done or furnished without such written order.

The Contractor further covenants and agrees that all materials shall be furnished and delivered and all labor shall be done and performed, in every respect, to the satisfaction of the Department, on or before: **September 30, 2017** or within N/A calendar days. It is expressly understood and agreed that in case of the failure on the part of the Contractor, for any reason, except with the written consent of the Department, to complete the furnishing and delivery of materials and the doing and performance of the work before the aforesaid date, the Department shall have the right to deduct from any money due or which may become due the Contractor, or if no money shall be due, the Department shall have the right to recover (See Section 108-1.07) _____ dollars (\$ _____) per day for each calendar day elapsing between the time stipulated for the completion and the actual date of completion in accordance with the terms hereof; such deduction to be made, or sum to be recovered, not as a penalty but as liquidated damages.

The bonds given by the Contractor in the sum of \$ **(100% of Contract)** Payment Bond, and \$ **(100% of Contract)** Performance Bond, to secure the proper compliance with the terms and provisions of this Contract, are submitted herewith and made a part hereof.

IN WITNESS WHEREOF, the parties hereto have executed this Contract and hereby agree to its terms and conditions.

CONTRACTOR

Company Name

Signature of Authorized Company Representative

Typed Name and Title

Date

(Corporate Seal)

**STATE OF ALASKA
DEPARTMENT OF NATURAL RESOURCES**

Design & Construction Duly Authorized Representative (Signature)

Date

Typed Name

Signature of Contracting Officer

Date

Typed Name



STATE OF ALASKA
DEPARTMENT OF NATURAL RESOURCES

PAYMENT BOND

Bond No. _____

For

Kasilof River SUA North Site Improvements, Project No. 76058-1

Project Name and Number

KNOW ALL WHO SHALL SEE THESE PRESENTS:

That _____
of _____ as Principal,
and _____
of _____ as Surety,
firmly bound and held unto the State of Alaska in the penal sum of _____ Dollars

(\$ _____) good and lawful money of the United States of America for the payment whereof, well and truly to be paid to the State of Alaska, we bind ourselves, our heirs, successors, executors, administrators, and assigns, jointly and severally, firmly by these presents.

WHEREAS, the said Principal has entered into a written contract with said State of Alaska, on the _____ of _____ A.D., 20____, for construction of the above-referenced project, said work to be done according to the terms of said contract.

Now, THEREFORE, the conditions of the foregoing obligation are such that if the said Principal shall comply with all requirements of law and pay, as they become due, all just claims for labor performed and materials and supplies furnished upon or for the work under said contract, whether said labor be performed and said materials and supplies be furnished under the original contract, any subcontract, or any and all duly authorized modifications thereto, then these presents shall become null and void; otherwise they shall remain in full force and effect.

IN WITNESS WHEREOF, we have hereunto set our hands and seals at _____, _____ this _____ day of _____ A.D., 20____.

Principal: _____

Address: _____

By: _____

Contact Name: _____

Phone: () _____

Surety: _____

Address: _____

By: _____

Contact Name: _____

Phone: () _____

The offered bond has been checked for adequacy under the applicable statutes and regulations:

Alaska Department of Natural Resources Authorized Representative

Date

See Instructions on Reverse

INSTRUCTIONS

1. This form, for the protection of persons supplying labor and material, shall be used whenever a payment bond is required. There shall be no deviation from this form without approval from the Contracting Officer.
2. The full legal name, business address, phone number, and point of contact of the Principal and Surety shall be typed on the face of the form. Where more than a single surety is involved, a separate form shall be executed for each surety.
3. The penal amount of the bond, or in the case of more than one surety the amount of obligation, shall be typed in words and in figures.
4. Where individual sureties are involved, a completed Affidavit of Individual Surety shall accompany the bond. Such forms are available upon request from the Contracting Officer.
5. The bond shall be signed by authorized persons. Where such persons are signing in a representative capacity (e.g., an attorney-in-fact), but is not a member of the firm, partnership, or joint venture, or an officer of the corporation involved, evidence of authority must be furnished.



STATE OF ALASKA
DEPARTMENT OF NATURAL RESOURCES

PERFORMANCE BOND

Bond No. _____

For

Kasilof River SUA North Site Improvements, Project No. 76058-1

Project Name and Number

KNOW ALL WHO SHALL SEE THESE PRESENTS:

That _____
of _____ as Principal,
and _____
of _____ as Surety,
firmly bound and held unto the State of Alaska in the penal sum of _____ Dollars

(\$ _____) good and lawful money of the United States of America for the payment whereof, well and truly to be paid to the State of Alaska, we bind ourselves, our heirs, successors, executors, administrators, and assigns, jointly and severally, firmly by these presents.

WHEREAS, the said Principal has entered into a written contract with said State of Alaska, on the _____ of _____ A.D., 20____, for construction of the above-named project, said work to be done according to the terms of said contract.

Now, THEREFORE, the conditions of the foregoing obligation are such that if the said Principal shall well and truly perform and complete all obligations and work under said contract and if the Principal shall reimburse upon demand of the Department of Transportation and Public Facilities any sums paid him which exceed the final payment determined to be due upon completion of the project, then these presents shall become null and void; otherwise they shall remain in full force and effect.

IN WITNESS WHEREOF, we have hereunto set our hands and seals at _____, this _____ day of _____ A.D., 20____.

Principal: _____
Address: _____
By: _____
Contact Name: _____
Phone: () _____

Surety: _____
Address: _____
By: _____
Contact Name: _____
Phone: () _____

The offered bond has been checked for adequacy under the applicable statutes and regulations:

Alaska Department of Natural Resources Authorized Representative

Date

See Instructions on Reverse

INSTRUCTIONS

1. This form shall be used whenever a performance bond is required. There shall be no deviation from this form without approval from the Contracting Officer.
2. The full legal name, business address, phone number, and point of contact of the Principal and Surety shall be typed on the face of the form. Where more than a single surety is involved, a separate form shall be executed for each surety.
3. The penal amount of the bond, or in the case of more than one surety the amount of obligation, shall be typed in words and in figures.
4. Where individual sureties are involved, a completed Affidavit of Individual Surety shall accompany the bond. Such forms are available upon request from the Contracting Officer.
5. The bond shall be signed by authorized persons. Where such person is signing in a representative capacity (e.g., an attorney-in-fact), but is not a member of the firm, partnership, or joint venture, or an officer of the corporation involved, evidence of authority must be furnished.



STATE OF ALASKA
DEPARTMENT OF NATURAL RESOURCES

BID BOND

For

Kasilof River SUA North Site Improvements, Project No. 76058-1

Project Name and Number

DATE BOND EXECUTED: _____

PRINCIPAL (Legal name and business address):

TYPE OF ORGANIZATION:

	<input type="checkbox"/> Individual	<input type="checkbox"/> Partnership
	<input type="checkbox"/> Joint Venture	<input type="checkbox"/> Corporation
STATE OF INCORPORATION:		

SURETY(IES) (Name and business address):

A.	B.	C.

PENAL SUM OF BOND:	DATE OF BID:

We, the PRINCIPAL and SURETY above named, are held and firmly bound to the State (State of Alaska), in the penal sum of the amount stated above, for the payment of which sum will be made, we bind ourselves and our legal representatives and successors, jointly and severally, by this instrument.

THE CONDITION OF THE FOREGOING OBLIGATION is that the Principal has submitted the accompanying bid in writing, date as shown above, on the above-referenced Project in accordance with contract documents filed in the office of the Contracting Officer, and under the Invitation for Bids therefor, and is required to furnish a bond in the amount stated above.

If the Principal's bid is accepted and he is offered the proposed contract for award, and if the Principal fails to enter into the contract, then the obligation to the State created by this bond shall be in full force and effect.

If the Principal enters into the contract, then the foregoing obligation is null and void.

PRINCIPAL

Signature(s)	1.	2.	3.
Name(s) & Title(s) (Typed)	1.	2.	3.

Corporate Seal

See Instructions on Reverse

CORPORATE SURETY(IES)

Surety A	Name of Corporation	State of Incorporation	Liability Limit \$
Signature(s)	1.	2.	Corporate Seal
Name(s) & Titles (Typed)	1.	2.	

Surety B	Name of Corporation	State of Incorporation	Liability Limit \$
Signature(s)	1.	2.	Corporate Seal
Name(s) & Titles (Typed)	1.	2.	

Surety C	Name of Corporation	State of Incorporation	Liability Limit \$
Signature(s)	1.	2.	Corporate Seal
Name(s) & Titles (Typed)	1.	2.	

INSTRUCTIONS

1. This form shall be used whenever a bid bond is submitted.
2. Insert the full legal name and business address of the Principal in the space designated. If the Principal is a partnership or joint venture, the names of all principal parties must be included (e.g., "Smith Construction, Inc. and Jones Contracting, Inc. DBA Smith/Jones Builders, a joint venture"). If the Principal is a corporation, the name of the state in which incorporated shall be inserted in the space provided.
3. Insert the full legal name and business address of the Surety in the space designated. The Surety on the bond may be any corporation or partnership authorized to do business in Alaska as an insurer under AS 21.09. Individual sureties will not be accepted.
4. The penal amount of the bond may be shown either as an amount (in words and figures) or as a percent of the contract bid price (a not-to-exceed amount may be included).
5. The scheduled bid opening date shall be entered in the space marked Date of Bid.
6. The bond shall be executed by authorized representatives of the Principal and Surety. Corporations executing the bond shall also affix their corporate seal.
7. Any person signing in a representative capacity (e.g., an attorney-in-fact) must furnish evidence of authority if that representative is not a member of the firm, partnership, or joint venture, or an officer of the corporation involved.
8. The states of incorporation and the limits of liability of each surety shall be indicated in the spaces provided.
9. The date that bond is executed must not be later than the bid opening date.

SPECIAL PROVISIONS

to the

STATE OF ALASKA

DEPARTMENT OF TRANSPORTATION AND PUBLIC FACILITIES
2015 STANDARD SPECIFICATIONS for HIGHWAY CONSTRUCTION

KASILOF RIVER SUA

NORTH SITE IMPROVEMENTS

PROJECT NUMBER 76058-1

SECTION 101

DEFINITIONS AND TERMS

101-1.03 DEFINITIONS.

DEPARTMENT. Replace with the following: The Alaska Department of Natural Resources, Division of Parks and Outdoor Recreation. (01/01/01)PARKS-Special Provision

ROADWAY. Replace with the following: The portion of a highway or facility including shoulders within the limits of construction. (01/01/01)PARKS-Special Provision

SECTION 102

BIDDING REQUIREMENTS AND CONDITIONS

102-1.04 EXAMINATION OF PLANS, SPECIFICATIONS, SPECIAL PROVISIONS, AND WORK SITE. Replace the second paragraph with the following: Material Reports and/or Soils Investigation Reports are not available for this project. (01/01/01)PARKS-Special Provision

SECTION 105

CONTROL OF WORK

105-1.02 PLANS AND WORKING DRAWINGS. Add the following to the first paragraph: Full size plan sheets are 11” by 17”. Plans are not available in CAD digital format. (01/01/01)PARKS-Special Provision

(01/27/07)E33-Standard Modification

105-1.06 UTILITIES. Add the following:

Request locates from the utilities having facilities in the area. Use the Alaska Digline, Inc. Locate Call Center for the following utilities.

ALASKA DIGLINE, INC.

Locate Call Centers:

Anchorage	278-3121
Statewide	(800) 478-3121

Contact the Central Region Maintenance & Operations Office at (907) 269-0760 to obtain the appropriate District Superintendent’s phone number for this project.

(5/24/07)R3-Special Provisions

105-1.13 MAINTENANCE DURING CONSTRUCTION.

Replace the first sentence of the first paragraph with the following: The Contractor shall maintain the entire area located within the project limits from the date construction begins until the Contractor receives a letter of substantial completion. (08/24/16) PARKS-Special Provision

105-1.15 PROJECT COMPLETION. In the third paragraph, first sentence, delete: “Subsection 621-3.04” and replace with: Subsection 618-3.06 and 621-3.04.

(02/02/15) PARKS-Special Provision

105-1.16 FINAL ACCEPTANCE AND RECORD RETENTION.

Add the follow to the first paragraph:

6. Submit a Performance Guarantee at the completion of the final estimate in accordance with Subsection 618-5.01 if a second application of fertilizer is required in accordance with Subsection 618-3.04.

(01/01/01)PARKS-Special Provision

105-1.17 CLAIMS. Add the following: Any appeal to the superior court under AS 36.30.685 must be filed in the third judicial district. (03/21/01)R93-Special Provision

Add the following Subsection:

105-1.19 INTERIM COMPLETION. This project includes one interim completion phase.

Interim Completion Phase:

Date: October 31st, 2016

Work: Complete all work under item 607(7) Dune fencing, 642(1) Surveying: Clearing limits, centerline information to assist with dune fence layout, property line staking, and Clearing under 201(3A) by the interim completion date.

Final Completion Phase:

Date: See the Invitation for Bids for the final completion date.

Work: All other work.

(02/09/11)CR1052-Special Provision

SECTION 106

CONTROL OF MATERIAL

106-1.01 SOURCE OF SUPPLY AND QUALITY REQUIREMENTS. Add the following: Pursuant to AS 36.15.050 and AS 36.30.322, agricultural/wood products harvested in Alaska shall be used in state funded projects whenever they are priced no more than seven percent above agricultural/wood products harvested outside the state and are of a like quality as compared with agricultural/wood products harvested outside the state.

The Contractor shall maintain records which establish the type and extent of agricultural/wood products utilized. When such products are not utilized, the Contractor shall document the efforts he made towards obtaining agricultural/wood products harvested in Alaska and include in this documentation a written statement that he contacted the manufacturers and suppliers identified on the Department of Commerce and Economic Development's list of suppliers of Alaska forest products concerning the availability of agricultural/wood products harvested in Alaska and, if available, the product prices. The Contractor shall complete this documentation at a time determined by the Contracting Officer.

The Contractor's use of agricultural/wood products that fail to meet the requirements of this Subsection shall be removed and replaced in accordance with the last paragraph of Subsection 105-1.03, Conformity with Plans and Specifications.

(05/07/91)S18-Special Provision

SECTION 107

LEGAL RELATIONS AND RESPONSIBILITY TO PUBLIC

107-1.02 PERMITS, LICENSES, AND TAXES.

Add the following to the second paragraph:

3. See Appendix A for the permits received by the Department for the Contractor's behalf.

Add the following to the fourth paragraph:

5. Provide a wetland specialist to conduct the determination and delineations of sites outside the project limits or not previously permitted, impacted by the Contractor's operations. These delineations will be subject to Corps of Engineers approval. The wetland specialist shall conduct wetlands determinations and delineations according to the Corps of Engineers 1987 Wetland Delineation Manual, and the Regional Supplement to the Corps of Engineers Wetland Delineations Manual (Alaska Region, Version 2.0, September 2007).

(03/21/11)PARKS-Special Provision

107-1.11 PROTECTION AND RESTORATION OF PROPERTY AND LANDSCAPE.

Add the following: If water is required for a construction purpose from a nonmunicipal water source, obtain a Temporary Water Use Permit from the Water Resource Manager, and provide a copy to the Engineer. The Water Resource Manager is with the Department of Natural Resources in Anchorage and may be contacted at (907) 269-8645.

(02/08/10)CR7-Special Provision

Add the following: All clearing and/or grubbing activities shall take place outside of the Migratory Bird Treaty Act (MBTA) window as determined by the U.S. Fish and Wildlife Service (FWS) under the website publication for the construction year:

http://alaska.fws.gov/fisheries/fieldoffice/anchorage/pdf/vegetation_clearing.pdf

(06/30/98)PARKS-Special Provision

Add the following:

Bald Eagles are protected under the Bald Eagle Protection Act (16 U.S.C. 668-668c) which prohibits "takes" of bald eagles, their eggs, nests, or any part of the bird. The Act

SPECIAL PROVISIONS
Kasilof River SUA
North Site Improvements
Project Number 76058-1

defines “taking” as “to pursue, shoot, shoot at, poison, wound, kill, capture, trap, collect, molest, or disturb.”

Maintain a Primary Zone of a minimum 330 ft as an undisturbed habitat buffer around nesting bald eagles. If topography or vegetation does not provide an adequate screen or separation, extend this buffer to 0.25 miles, or a sufficient distance to screen the nest from human activities. The actual distance will depend on site conditions and the individual eagle’s tolerance for human activity. Within the Secondary Zone, between 330 ft and 660 ft from eagles nest tree no obtrusive facilities or major habitat modifications shall occur. If nesting occurs in sparse stands of trees, treeless areas, or where activities would occur within line-of-site of the nest, this buffer shall extend up to 0.5 miles. No blasting, logging and other noisy, disturbing activities should occur during the nesting period (March 1 – August 31) within the primary or secondary zones.

Extremely noisy activities such as road construction or other activities that occur within the Secondary Zone shall be conducted outside the nesting period to avoid disturbance to eagles. If activities occur in proximity to a nest site, employ an individual qualified to observe and assess the impact of such activities on nesting eagles. Behavior generally associated with disturbed eagles includes alarm calls, birds flushed from their nest or perch, and aggressiveness.

If nest trees are discovered within the vicinity of the project site, the U.S. Fish and Wildlife Service must be notified immediately by calling (907) 786-3503 or (907) 271-2772, before starting construction activities, for further site evaluation.

(08/12/10)CR1071-Special Provision

SECTION 108

PROSECUTION AND PROGRESS

108-1.01 SUBLETTING OF CONTRACT. Delete paragraph one and replace with the following: The Contractor shall submit a Contractor Self Certification for Subcontractors and Lower Tier Subcontractors, Form 25D-042, before the Contractor or any subcontractor sublets, sells, transfers, assigns, or otherwise disposes of the Contract or any portion of the Contract. The Department has authority to review subcontracts and to deny permission to sublet work. The Department may penalize the Contractor for false statements or omissions made in connection with Form 25D-042.

Delete paragraph four and replace with the following:

1. The Contractor shall ensure that for all subcontracts (agreements):
 - a. The Department is furnished with one completed Contractor Self certification, Form 25D-042, for each subcontract;
 - b. The required prompt payment provisions of AS 36.90.210, as well as other items listed in Form 25D-042, are included in the subcontracts;
 - c. The subcontractors pay current prevailing rate of wages as per Subsection 107-1.04 and file certified payrolls with the Engineer and DOLWD for all work performed on the project; and
 - d. Upon receipt of a request for more information regarding subcontracts, the requested information is provided to the Department within 5 calendar days.

(05/02/11)PARKS-Special Provision

108-1.02 NOTICE TO PROCEED. Add the following: The Contractor may request a Limited Notice to Proceed after the Award has been made, to permit him to order long lead materials which would cause delays in project completion. However, granting is within the sole discretion of the Contracting Officer, and refusal or failure to grant a Limited Notice to Proceed shall not be a basis for claiming for delay, extension of time, or alteration of price.

(6/30/98)PARKS-Special Provision

108-1.03 PROSECUTION AND PROGRESS. Replace the last sentence of the first paragraph with the following: Submit the following at the Preconstruction Conference:

Replace item 1. A progress schedule. with the following:

SPECIAL PROVISIONS
Kasilof River SUA
North Site Improvements
Project Number 76058-1

1. A Critical Path Method (CPM) Schedule is required, in a format acceptable to the Engineer, showing the order the work will be carried out and the contemplated dates the Contractor and subcontractors will start and finish each of the salient features of the work, including scheduled periods of shutdown. Indicate anticipated periods of multiple shift work in the CPM Schedule. Revise to the proposed CPM Schedule promptly. Promptly submit a revised CPM Schedule if there are substantial changes to the schedule, or upon request of the Engineer.

(12/13/02)R261-Special Provisions

108-1.07 FAILURE TO COMPLETE ON TIME. Delete the first sentence of the first paragraph and substitute the following:

For each calendar day that the work remains incomplete after the expiration of the contract time or the interim completion dates as set forth in Subsection 105-1.19 Interim Completion, the liquidated damages per day given in the table below shall be deducted from any monies due the Contractor.

Delete Table 108-1 and replace with:

**TABLE 108-1
DAILY CHARGE FOR LIQUIDATED DAMAGES
FOR EACH CALENDAR DAY OF DELAY**

Completion Date	Daily Charge
1 st Interim Completion Date	\$1,000
Contract Completion Date	\$1,000

(11/03/09)CR1081-Special Provision

SECTION 109

MEASUREMENT AND PAYMENT

109-1.02 MEASUREMENT OF QUANTITIES. Add the following:

14. Hour. Measured items by the hour shall be full payment for the work described in the contract including labor, equipment, and operating costs of the equipment. Items to be measured by the hour will be recorded to the nearest quarter-hour by the Engineer. The measurement shall start when the required equipment & operator, surveyor, or survey party begins work at the specified location as directed by the Engineer. The measurement will stop when the required work is accomplished, when the equipment fails, when directed to stop work by the Engineer, or when the operator stops work. Times will be reconciled with the Contractor on a daily basis.

(02/23/15)PARKS-Special Provision

109-1.05 COMPENSATION FOR EXTRA WORK ON TIME AND MATERIALS BASIS. Under item 3. Equipment, subitem a. Hourly Rental Rate, add the following to the second paragraph: The rental rate area adjustment factors for this project shall be as specified on the adjustment maps for the Alaska – **Central**). (04/31/05)R14-Special Provision

SECTION 201

CLEARING AND GRUBBING

201-3.01 GENERAL. Add the following: All clearing and/or grubbing activities shall abide by the Migratory Bird Treaty Act (MBTA). (09/15/08)PARKS-Special Provision

Add the following: Timber with a 5 inch diameter or larger at breast height shall be cut into 8-foot lengths, de-limbed, and stacked at locations approved by the Engineer for public removal. These locations shall be adjacent to the nearest side street or other approved site which does not create a traffic hazard due to lack of adequate parking for the public. The Department will notify the public of the availability of the timber once it has been stacked. The Contractor shall schedule the clearing and grubbing work so as to provide two weeks for the public to access those areas of the project where such timber is available prior to completion of the clearing and grubbing work in those areas.

Add the following: The Contractor shall perform the work necessary to preserve and/or restore land monuments and property corners from damage. A land monument or property corner that is disturbed shall be restored according to Section 642 at the Contractor's expense. An undisturbed area 5 foot in diameter may be left around existing monuments and property corners. A list of land monuments and property corners is shown on the Right of Way maps.

(06/10/04)R107-Special Provision

201-3.02 CLEARING. Add the following: Remove branches to provide 12 feet vertical clearance above road surface, shoulder to shoulder. Remove branches to provide 10 feet vertical clearance above sidewalk, deck, trail and pathway surfaces. (01/01/01)PARKS-Special Provision

201-3.03 GRUBBING. Add the following: The Contractor has the option to screen organic soil obtained from grubbing to meet the gradation for topsoil as specified under Section 726, or as approved by the Engineer. The screened material may be used for topsoil onsite. (05/02/11)PARKS-Special Provision

201-3.06 DISPOSAL. Replace paragraphs three and four with the following: Combustible material from any operations shall be disposed of by transporting to locations outside the park controlled lands. Burning will not be permitted in other areas close to the park to cause, as determined by the Engineer, a fire danger to the park resources.

Burning will not be permitted on private lands without the written approval of the property owner. The approval of the Engineer shall be required on a day to day basis when burning is within a two mile radius of the park lands. Constant care by competent watchmen with immediate access to adequate fire fighting equipment shall be required

SPECIAL PROVISIONS
Kasilof River SUA
North Site Improvements
Project Number 76058-1

during burning operations. Full compliance with applicable laws and ordinances will be the Contractor's responsibility.

(01/01/01)PARKS-Special Provision

Add the following Subsection:

201-3.07 TUB GRINDING. Material obtained from clearing and grubbing may be processed onsite into a mulch-soil mixture by means of tub grinding. Tub grinding shall be performed with tub grinding equipment capable of reducing clearing and grubbing material down to a homogenous organic material. The resulting material shall not have pieces larger than 6 inches.

The final product is an acceptable substitute for topsoil. Placing, maintaining, and repairing shall comply with Section 620.

Material from tub grinding in excess of what is required for use on the project shall be disposed of by the Contractor in accordance with Subsection 201-3.06.

(05/02/11)PARKS-Special Provision

201-4.01 METHOD OF MEASUREMENT.

Add the following: Removal of branches for vertical clearance in accordance with Subsection 201-3.02 will not be measured directly for payment but will be considered subsidiary to work in this Section. (01/01/01)PARKS-Special Provision

Add the following: The work required to cut, de-limb and stack timber for public removal and to preserve and restore land monuments and property corners will be subsidiary to Item 201(3A) (06/10/04)R107USC04-Special Provision

201-5.01 BASIS OF PAYMENT.

Add the following:

Material from screening and tub grinding incorporated into the project as topsoil will be paid for as topsoil under Section 620. Screening and tub grinding operations shall be subsidiary to Section 620 items.

Material not incorporated into the project and is disposed of offsite shall be subsidiary to clearing and grubbing items.

(05/06/11)PARKS-Special Provision

SECTION 202

REMOVAL OF STRUCTURES AND OBSTRUCTIONS

202-1.01 DESCRIPTION. Replace the first sentence with the following: This work shall consist of, but not be limited to, the removal of signs and bases, buoys, concrete structures, chain, wire, chain link fence, and any other obstructions which are not designated or permitted to remain, except for the obstructions to be removed and disposed of under other items in the contract. (08/24/16)PARKS-Special Provision

Add the following:

Materials which are designated to be salvaged and remain the property of the Division of Parks and Outdoor Recreation are the 5' diameter Buoys. The Buoys are intended to be reused onsite. (08/24/16)PARKS-Special Provision

202-3.01 GENERAL. Replace paragraphs three, four, and five with the following: Remove and satisfactorily dispose of materials not designated to be salvaged and materials determined by the Engineer to be unusable to the Department. (01/01/01)PARKS-Special Provision

SECTION 203

EXCAVATION AND EMBANKMENT

203-3.03 EMBANKMENT CONSTRUCTION. Add the following:

Cut and fill slopes shall be constructed to template. At the direction of the Engineer, the Contractor may be required to finish all slopes by a method of hand raking. This work shall be at no additional cost to the State. The finished slope surface parallel to the shoulder line shall not vary more than 0.10 foot when tested using a 10-foot straightedge. The finished slope surface perpendicular to the shoulder line shall not vary more than 0.10 foot for the following slope ratios and corresponding straightedge lengths: 2:1 slope and two-foot length; 3:1 slope and three-foot length; 4:1 slope and four-foot length; 5:1 slope and five-foot length; and 6:1 slope and six-foot length. (01/01/01)PARKS-Special Provision

Add the following: Mound construction will not be measured directly for payment but will be considered subsidiary to other Section 203 items. (01/31/94)PARKS-Special Provision

203-5.01 BASIS OF PAYMENT. Add the following: The contract unit price for borrow is for furnishing the material if suitable selected material is not available in the unclassified excavation. The cost for placing and compacting the imported material is included in the contract unit price. The cost for placing and compacting selected material acquired from unclassified excavation shall be included in the contract unit price for the excavation items. Material paid for as excavation will not be paid for again as selected material. (01/01/01)PARKS-Special Provision

SECTION 204

STRUCTURE EXCAVATION FOR CONDUITS AND MINOR STRUCTURES

204-3.01 CONSTRUCTION REQUIREMENTS. In the first sentence of paragraph four, delete: “bedding and” (01/27/07)E37-Standard Modification

Add the following after the third paragraph: Excavation, bedding, backfill, and compaction for culverts outside the roadbed may be visually inspected and approved by the Engineer. (02/06/08)R204-Special Provision

204-5.01 BASIS OF PAYMENT. Replace the third and fourth paragraphs with the following: When Item 204(1), Structure Excavation, does not appear in the Bid Schedule, structure excavation required to complete other items of work will not be paid for directly but will be considered as subsidiary to those items. Excavation of unsuitable material for culverts and pipe required from below a plane 12 inches below the invert elevation of conduits, or from beyond the excavations limits shown on the plans and standard drawings for structures will be considered extra work.

Any backfill material or bedding material required for conduits whose source is other than excavation will be paid for at the contract unit price for the material being used, or as extra work if no unit price has been established. Any backfill material or bedding material required for structures other than conduits will be considered as subsidiary to those items.

(11/21/08)PARKS-Special Provision

SECTION 301

AGGREGATE BASE COURSE

301-2.01 MATERIALS. Add the following after the first sentence: Recycled asphalt material (RAM) may be substituted for aggregate base course, inch for inch, if the following conditions are met:

1. RAM shall be crushed or processed to 100 percent by weight passing the 1.5 inch sieve and 95-100 percent by weight passing the 1 inch sieve.
2. The gradation of the extracted aggregate shall meet the following:

Sieve	Percent Passing by Weight
1 inch	100
3/4 inch	70-100
3/8 inch	42-90
No. 4	28-78
No. 16	11-54
No. 50	5-34
No. 100	3-22
No. 200	2-12

3. The asphalt content shall be 2.5 - 5.0 percent by weight of the RAM

(01/24/07)R176-Special Provision

301-3.03 SHAPING AND COMPACTION. Add the following: If recycled asphalt material is substituted for aggregate base course, the following conditions shall be met:

1. Density acceptance will be based determined by control strip method ATM 412. Use a test strip with a vibratory compactor with a minimum dynamic force of 40,000 pounds. The optimum density will be determined by the Engineer using a nuclear densometer gauge to monitor the test strip. Adequate water shall be added to aid compaction.
2. After the appropriate coverage with the vibratory compactor, a minimum of 6 passes with a pneumatic tire roller shall be completed. Tires shall be inflated to 80 psi (\pm 5 psi), and the roller shall have a minimum operating weight per tire of 3,000 pounds.

SPECIAL PROVISIONS
Kasilof River SUA
North Site Improvements
Project Number 76058-1

(01/24/07)R176-Special Provision

301-5.01 BASIS OF PAYMENT. Add the following: If recycled asphalt material is substituted for aggregate base course, it will be paid for as Item 301(1) Aggregate Base Course at the unit price shown on the bid schedule for that item. (01/24/07)R176-Special Provision

Replace 401 with the following:

SECTION 401

HOT MIX ASPHALT

401-1.01 DESCRIPTION. Construct one or more courses of plant-mixed, hot mix asphalt (HMA) pavement on the areas as shown on the plans.

MATERIALS

401-2.01 COMPOSITION OF MIXTURE - JOB MIX DESIGN. Use an Alaska DOT&PF Type II, Class B approved Job Mix Design. The Job Mix Design must have been accepted within the calendar year of construction.

401-2.02 TACK COAT. Special Tack Emulsion, STE-1 conforming to Subsection 702-2.03.

401-2.03 PROCESS QUALITY CONTROL. Sample and test materials for quality control of the asphalt concrete mixture according to Subsection 106-1.03.

Submit a paving and plant control plan at the pre-paving meeting to be held a minimum of 5 working days before initial paving operations. Address the sequence of operations and joint construction. Outline steps to assure product consistency, to minimize segregation, and to prevent premature cooling of the asphalt concrete mixture. Include a proposed quality control testing frequency for gradation, asphalt cement content, and compaction.

CONSTRUCTION REQUIREMENTS

401-3.01 WEATHER LIMITATIONS. Do not place the hot mix asphalt on a wet surface, on an unstable/yielding roadbed, when the base material is frozen, or when weather conditions prevent proper handling or finishing of the mix. Do not place hot mix asphalt unless the roadway surface temperature is 40 °F or warmer.

401-3.02 EQUIPMENT, GENERAL. Use equipment in good working order and free of hot mix asphalt buildup. Make equipment available for inspection and demonstration of operation a minimum of 24 hours before placement of hot mix asphalt.

401-3.03 ASPHALT MIXING PLANT. Meet AASHTO M 156. Use an asphalt plant designed to dry aggregates, maintain accurate temperature control, and accurately proportion asphalt cement and aggregates. Calibrate the asphalt plant and furnish copies of the calibration data to the Engineer at least 4 hours before hot mix asphalt production.

SPECIAL PROVISIONS
Kasilof River SUA
North Site Improvements
Project Number 76058-1

Provide a scalping screen at the asphalt plant to prevent oversize material or debris from being incorporated into the hot mix asphalt.

401-3.04 HAULING EQUIPMENT. Haul hot mix asphalt in trucks with tight, clean, smooth metal beds, thinly coated with a minimum amount of paraffin oil, lime water solution, or an approved manufactured asphalt release agent. Do not use petroleum fuel as an asphalt release agent.

During hot mix asphalt hauling activities, the hauling vehicle will have covers attached and available for use. Be prepared to demonstrate deployment of the covers when hauling material or empty. Illustrate the efficiency of deployment and how the materials are protected from the environment and the environment is protected from the materials. Cover the hot mix asphalt in the hauling vehicle(s) when directed by the Engineer.

401-3.05 ASPHALT PAVERS. Use self-propelled pavers equipped with a heated vibratory screed. Control grade and cross slope with automatic grade and slope control devices. Use an erected string line, a 30-foot minimum mobile stringline (ski) or other approved grade follower, to automatically actuate the paver screed control system. Use grade control either (a) both the high and low sides or (b) grade control on the high side and slope control on the low side.

Equip the paver with a receiving hopper having sufficient capacity for a uniform spreading operation and a distribution system to place the hot mix asphalt uniformly in front of the screed.

Use a screed assembly that produces a finished surface of the required smoothness, thickness, and texture without tearing, shoving, or displacing the hot mix asphalt.

Equip the paver with a means of preventing segregation of the coarse aggregate particles from the remainder of the hot mix asphalt when carried from the paver hopper back to the augers. Use means and methods approved by the paver manufacturer. Means and methods may consist of chains, deflector plates, or other similar devices or combination of devices. Provide a Certificate of Compliance that verifies the means and methods required to prevent segregation are being used.

401-3.06 ROLLERS. Use both steel-wheel (static or vibratory) and pneumatic-tire rollers. Avoid crushing or fracturing aggregate. Use rollers designed to compact hot mix asphalt mixtures and reverse without backlash.

Use fully skirted pneumatic-tire rollers having a minimum operating weight of 3,000 pounds per tire.

401-3.07 PREPARATION OF EXISTING SURFACE. Prepare existing surface in conformance with the Plans and Specifications. Clean existing paved surfaces of loose material.

Uniformly coat contact surfaces of curbing, gutters, sawcut pavement, cold joints, manholes, and other structures with tack coat material prior to placing the hot mix asphalt. Allow tack coat to break before placement of hot mix asphalt.

401-3.08 PREPARATION OF ASPHALT. Provide a continuous supply of asphalt cement to the asphalt mixing plant at a uniform temperature, within the allowable mixing temperature range.

401-3.09 PREPARATION OF AGGREGATES. Dry the aggregate so the moisture content of the hot mix asphalt does not exceed 0.5% (by total weight of mix), as determined by WAQTC FOP for AASHTO T 329.

Heat the aggregate for hot mix asphalt to a temperature compatible with the mix requirements specified.

Adjust the burner on the dryer to avoid damage to the aggregate and to prevent the presence of unburned fuel on the aggregate. Hot mix asphalt containing soot or fuel is considered unacceptable and is subject to the requirements of Subsection 105.-1.11.

401-3.10 MIXING. Combine the aggregate, asphalt cement, and additives in the mixer in the amounts required by the Job Mix Design. Mix to obtain 98% coated particles when tested according to AASHTO T 195.

For batch plants, put the dry aggregate in motion before addition of asphalt cement.

401-3.11 PLACING AND SPREADING. Place the hot mix asphalt upon the approved surface, spread, strike off, and adjust surface irregularities. Use asphalt pavers to distribute hot mix asphalt, including leveling courses. The maximum compacted lift thickness allowed is 3 inches.

Use hand tools to spread, rake, and lute the hot mix asphalt in areas where irregularities or unavoidable obstacles make the use of mechanical spreading and finishing equipment impractical.

Do not pave against new Portland cement concrete pads or curbing until it has cured for at least 72 hours.

401-3.12 COMPACTION. Thoroughly and uniformly compact the hot mix asphalt by rolling. In areas not accessible to large rollers, compact with mechanical tampers or trench rollers.

The target value for density is 96% of the maximum specific gravity (MSG), as determined by WAQTC FOP for AASHTO T 209.

Do not leave rollers or other equipment standing on hot mix asphalt that has not cooled sufficiently to prevent indentation.

401-3.13 JOINTS. Minimize the number of joints. Ensure that all joints have the same texture and smoothness as other sections of the course.

Remove to full depth improperly formed joints resulting in surface irregularities. Replace with new material, and thoroughly compacted.

Precut all pavement removal to a neat line with a power saw or by other approved method.

Form transverse joints by cutting back on the previous run to expose the full depth of the layer. Saw cut the joint, use a removable bulkhead, or other method approved by the Engineer.

401-3.14 PATCHING DEFECTIVE AREAS. Remove any hot mix asphalt that becomes contaminated with foreign material, is segregated, flushing, bleeding, or is in any way determined to be defective. Do not skin patch. Remove defective materials for the full thickness of the course. Cut the pavement so that all edges are vertical, the sides are parallel to the direction of traffic. Coat edges with a tack coat and allow to cure. Place and compact fresh hot mix asphalt to grade and smoothness requirements.

401-4.01 METHOD OF MEASUREMENT. Section 109 and the following:

Hot Mix Asphalt.

By weighing. No deduction will be made for the weight of asphalt cement or anti-stripping additive.

Job Mix Design, asphalt cement, anti-strip additive, tack coat, and other incidentals to complete the work under this Section will not be measured separately for payment but shall be considered subsidiary to the respective hot mix asphalt pay item.

401-5.01 BASIS OF PAYMENT.

Item 401(1) Hot Mix Asphalt, Type II; Class B will be paid for by the ton in place completed and accepted. Job Mix Design, asphalt cement, anti-strip additive, tack coat, and other incidentals are subsidiary to this pay item.

Payment will be made under:

Pay Item	Pay Unit
401(1) Hot Mix Asphalt, Type II; Class B	Ton

(05/02/11)PARKS-Special Provision

Replace Section 505 with the following:

SECTION 505

PILING

505-1.01 DESCRIPTION. Work under this section consists of furnishing and installing helical piles, pile caps, for a boardwalk pier.

Furnish piles sufficient in length to obtain the required ultimate bearing capacity and to extend to the minimum tip elevation shown on the Plans.

(01/27/15) PARKS-Special Provisions

505-1.02 EXPERIENCE REQUIREMENTS. The Contractor shall have helical pile construction experience in soil conditions similar to that of the project. The Contractor shall provide a resume showing proof of having successfully completed at least 2 projects in the past five years involving helical pile construction. Pile driving work is not authorized without the Engineer's written approval.

505-2.01 MATERIALS. Structural steel pipe shall meet ASTM A53 Grade B, standard weight, for the steel pile.

Structural steel for pile caps shall conform to the requirements of ASTM Specification A36 (Standard Specification for Carbon Structural Steel).

(06/09/09)PARKS-Special Provisions

CONSTRUCTION REQUIREMENTS

505-3.01 GENERAL. Helical piles shall be driven in accordance to the helical pile manufacturer's directions and specifications. The Contractor shall provide installation torque units, rotary type, forward and reverse capability, electric or hydraulic powered. The Contractor shall be capable of positioning the pile at the designated angle. The Contractor shall have the minimum drive equipment rating to equal or exceed the maximum torque rating of the specified pile, The installation unit shall be equipped with a torque monitoring device as part of the installing unit or as a separate in-line device. All piles shall be installed so the torque indicates the pile will support the ultimate bearing capacity specified in the Plans. All piles shall be driven to the minimum depth indicated on the Plans and still maintain design elevations.

All piles shall be installed plumb within 2 inches of the intended location. Piles not installed with this accuracy will be removed and replaced at the Contractor's expense. Monitoring and inspection of the pile installation operation by the Engineer is required. Piles shall not be installed in the Engineer's absence.

Hand operated torque units may be used if the minimum depth and bearing capacity requirements are achievable.

SPECIAL PROVISIONS

Kasilof River SUA

North Site Improvements

Project Number 76058-1

Other helical pile types may be substituted with other shaft types with approval of the Engineer. Substituted shaft types must meet the requirements of the plans and specifications. Substitution request must be made in writing and at least 30 days prior to pile installation.

Install couplers recommended by the pile manufacturer. Couplers exposed above ground shall be welded in place and painted to ensure pile rigidity and allow the pile to meet the ultimate bearing capacity specified in the plans. Welded splices will not be allowed prior to driving piles. Welded splices after pile driving are allowed only upon the Engineer's approval and shall conform to the requirements of the latest edition of the American Welding Society (AWS) Structural Welding Code D1.1.

Helical piles damaged during installation shall be extracted and replaced with a new unit. Field repairs will not be allowed.

505-3.02 PILE DRIVING PLAN. No less than 14 days prior to the anticipated start of pile driving, submit for approval the details of the proposed driving system. Include in the pile driving plan:

- a. A completed Pile Driving Equipment Data form (Form 25D-098).
- b. Manufacturer's specifications and manuals for pile driving equipment being used.
- c. A description of the techniques to be used to ensure proper alignment and placement of the piles, obtaining the minimum bearing capacity, and advancing the piles to the proper tip elevation.

The Engineer's approval of the pile driving plan will not relieve the Contractor of the responsibility for:

- Removing and replacing damaged piles damaged during pile driving operations,
- Obtaining the bearing capacity required by the contract, or
- Meeting the pile tip elevation specified in the Contract documents.

Do not mobilize driving equipment to the site without an approved pile driving plan. Allow at least 5 days for the Engineer's approval of pile driving plan revisions.

(08/17/16)PARKS-Special Provisions

505-3.03 DRIVING PILES. Pile shall be driven to a minimum depth of 15 feet below original ground. For frozen ground pile driving conditions, it is the Contractor's responsibility to provide an appropriate heating method to thaw ground as needed for installation.

(06/09/09)PARKS-Special Provisions

SPECIAL PROVISIONS

Kasilof River SUA

North Site Improvements

Project Number 76058-1

505-3.04 COATING OF STEEL PILES AND SHELLS. Replace with the following subsection: Steel piles shall be hot-dip galvanized. Apply zinc rich galvanizing paint containing at least 65% metallic zinc by weight or 92% metallic zinc by weight in dry film to field welds per the requirements of section 650-3.06 of the specifications.

(03/30/16)PARKS-Special Provisions

505-3.05 WELDING. Welding and inspection shall conform to the requirements of the latest edition of the American Welding Society (AWS) Structural Welding Code, D1.1.

1. Qualification of Process, Procedures and Joint Details. For each joint to be used in construction, the joint details, electrode classification or grade, electrode diameter, voltage, amperage, order and relative position of passes, number and thickness of layers and other pertinent information shall be clearly presented in the welding procedure(s) shall be submitted by the Contractor for the approval of the Engineer.

Requirement for procedures qualification is waived if the Contractor's welding procedure is according to requirements of the welding procedures specification contained within the AWS Structural Welding Code, D1.1.

2. Welders, Certification and Testing. Certify welders and welding operators conform to the AWS Structural Welding Code, D1.1. Welders or welding operators lacking current AWS Structural Welding Code D1.1 certification will not be permitted to perform welding on this project. Submit welder certificates to the Engineer for approval at least 3 working days before any welding activity begins.
3. Obligation of Contractor. It is the Contractor's responsibility to comply with requests of the Engineer to correct improper workmanship and to remove and replace, or correct as instructed, welds found defective or deficient by visual inspection or by nondestructive testing.
4. Visual Inspection. Visually inspect welds. A weld shall be acceptable by visual inspection if it shows that:
 - a. the weld has no cracks,
 - b. thorough fusion exists between adjacent layers of weld metal and between weld metal and base metal,
 - c. craters are filled to the full cross section, and,
 - d. the completed weld conforms to the provisions of the AWS Structural Welding Code, D1.1.
5. Preparation of the Weld. The edges of the parts to be joined by welding shall be prepared by accurately cutting, grinding or machining to shape as indicated on the Contract Drawings and will be visually inspected before welding by the Engineer.

6. Cleaning. Thoroughly clean each completed bead of all slag, or other foreign matter, before proceeding with the next bead. Hand clipping, power driven wire brushed, needle scalers, or grinders shall be used.

Full compensation for welding, including necessary tools, equipment, scaffolding and other support facilities required to perform welding, are subsidiary to the price bid for the piling items of the Contract and no separate payment will be made.

(08/17/2016) PARKS-Special Provisions

505-3.06 PROTECTION OF EXISTING FACILITIES. Protect existing structures from damage incurred during construction. Damage to existing structures shall be repaired by the Contractor and no expense to the Department. Refer to Section 641 Erosion, Sediment, and Pollution Control for the environmental protection requirements.

(03/06/15) PARKS-Special Provisions

505-4.01 METHOD OF MEASUREMENT. Item 505(11), Drive Structural Steel Pile, shall be measured by each helical pile constructed in place in the completed structure, conforming to the contract, and accepted by the Engineer.

Item 505(12), Furnish Structural Steel Helical Pile, shall be measured by the sum of the lengths of the piles in place in the completed structure, conforming to the Contract, measured along the centerline of piles from the tip of the pile to the intersection with the cut-off elevation shown on the plans.

(02/12/15) PARKS-Special Provisions

505-5.01 BASIS OF PAYMENT. In addition to furnishing steel helical pile, all work required to furnish and install paint and pile caps per the plans and specifications is subsidiary to item 505(12) Furnish Structural Steel Helical Pile and will not be measured separately for payment.

(02/12/15) PARKS-Special Provisions

Payment will be made under:

Pay Item	Pay Unit
505(5) Furnish Structural Steel Helical Pile	Linear Foot
505(12) Drive Structural Steel Helical Pile	Each

SECTION 603

CULVERTS AND STORMDRAINS

603-1.01 DESCRIPTION. Add the following: This work shall also consist of installing culvert marker posts.

603-2.01 MATERIALS. Delete the second paragraph and substitute the following:

When Item 603(17-xx), Pipe, is listed in the bid schedule, furnish either Corrugated Steel Pipe (CSP) or Reinforced Concrete Pipe. Corrugated Polyethylene Pipe is not allowed. End Sections for Metal Pipe must be of the same material as the pipe.

Add the following:

Culvert marker posts shall meet the requirements of subsection 730-2.05, Flexible Delineator Posts. The color shall be blue with no other markings. The 2.5 inch by 6 foot post shall be rectangular in cross section with reinforcing ribs capable of a minimum bending radius of 9 inches.

(08/27/03)CR42-Special Provision

603-3.03 JOINING PIPE.

2. Metal Pipe. Add the following after the 2nd sentence:

Install a gasket in all pipe joints; joints between new sections of pipe and joints between new and existing sections of pipe of similar or dissimilar materials, regardless of the type of coupling band. Except, the end section joint does not require a gasket. Use flexible watertight gaskets (ASTM D 1056 2B3) as specified in Subsection 705-2.05.

(03/24/11)CR6031-Special Provision

Add the following Subsection:

603-3.06 CULVERT MARKER POSTS. Culvert marker posts shall be installed on the approach side of storm drain outfalls 30 inches and smaller, field inlets not in paved parking lots, all end sections to cross culverts, or as directed by the Engineer. Forty-two inches of post shall remain above the ground after driving.

603-4.01 METHOD OF MEASUREMENT. Add the following: Culvert marker posts will not be measured for payment.

603-5.01 BASIS OF PAYMENT. Replace the first sentence with:

Coupling bands, gaskets and other items necessary for the proper joining of the sections are subsidiary.

SPECIAL PROVISIONS

Kasilof River SUA

North Site Improvements

Project Number 76058-1

(03/24/11)CR6031-Special Provision

Add the following: Culvert marker posts will not be paid for directly, but will be subsidiary to pipe items. (08/27/03)CR42-Special Provision

Add the following:

Payment will be under:

Pay Item	Pay Unit
603(1) 18 Inch CSP	Linear Foot
603(3) End Section for 18 Inch CSP	Each

(01/01/01) PARKS-Special Provision

SECTION 604

MANHOLES AND INLETS

604-1.01 DESCRIPTION. Replace with the following: This work shall consist of the construction of cast-in-place curb drain in conformance with the plans.

604-2.01 MATERIALS. Replace this section with the following: Concrete shall be 6-sack concrete conforming to Section 501. Reinforcing steel shall conform to the requirements of Section 503. Drain Rock shall conform to Section 703. Steel diamond treat plate and fasteners shall conform to details on the plans.

604-3.01 CONSTRUCTION REQUIREMENTS. Add the following: Construct curb drain in accordance with the plans and specifications.

604-5.01 BASIS OF PAYMENT. Add the following: At the contract price per unit of measurement for the pay item listed below. All incidental materials, equipment, and labor are subsidiary to item 604(8).

Pay Item	Pay Unit
604(8) Curb Drain	Each

(01/01/01) PARKS-Special Provision

SECTION 606

GUARDRAIL

606-1.01 DESCRIPTION. Add the following:

Furnish and install bollard(s) included in the Plans and Specifications.

(06/29/11)CR6069-Special Provision

Delete Subsection 606-2.01 and replace with the following:

606-2.01 MATERIALS. Use materials that conform to the following:

Concrete, Class A or W (or an approved, pre-mixed, sacked concrete)	Subsection 501-3.01
Wire Cable	Subsection 709-2.02
Metal Beam Rail.....	Subsection 710-2.04
Guardrail Posts and Blocks.....	Subsection 710-2.06
Guardrail Hardware.....	Subsection 710-2.07
Guardrail Terminals	Subsection 710-2.11

Terminal Markers - Flexible (marker). The marker includes the pole/post/rod (pole), reflective and retroreflective sheeting and mounting hardware.

The marker materials shall be durable, resistant to impact from (snow and vehicle), vandals, ultraviolet light, moisture, ozone, and hydrocarbons.

When the pole is loaded, the marker shall bend/flex, remain flexible and oriented as installed continuing to function as designed without permanent displacement along the length of the member. The flexibility may be in the primary vertical element, a connecting device between the vertical element and connection to the support member (spring or other) or a combination.

Provide a connection sufficient to transfer the loads from the pole to the supporting member without reducing the strength, flexibility, or durability of either. The connection shall not negatively impact the performance of the guardrail. Provide approval of the connection from the marker manufacturer and support member manufacturer (if proprietary).

- Design Loads:
 - Impact load from snow thrown by snowplows
 - Weight of snow covering the pole as a result of snow thrown from snowplows
 - Wind loads (100 mph, 3 sec gust)

- Service Temperature Range: -40° F to +140° F.
- Pole:
 1. Material:
 - Steel, or
 - Stainless Steel, or
 - Other Poles:
 - (a) Continuous glass fiber and marble reinforced thermosetting composite, or
 - (b) Engineered plastic alloy, or
 - (c) Fiberglass Reinforced Polyester (FRP)
 - (d) High-Impact Polyolefins
 2. Dimensions
 - Top of Pole: 60 inches to 84 inches above top of guardrail
 - Width/Diameter: minimum = 1 1/4 inches, maximum = 2 inches (steel/stainless steel may not be greater than 5/8 inch diameter)
 - Thickness: as required by design
 3. Visibility:
 - Daytime: Pole - color orange
 - a. Steel and Stainless Steel Poles: Applied permanent finish.
 - b. Other Poles: Color pigment ultraviolet stabilized and solid through the cross section from end to end.
 - Nighttime: Added retroreflective sheeting - color white
 - a. Approximately 12 square inches visible from the traveled way before and after the marker. Applied to a flag attached to the pole or as banding applied directly to the pole. (A flag is required when using steel/stainless steel poles.)
 - b. Place top edge of flag/banding 1 inch from top of pole.
 - (1) Flag: Single retroreflective sheet each face
 - (2) Banding: Two bands completely around marker, 4 inches between bands
- Hardware and Fasteners:
 - Steel, and/or
 - Stainless Steel, or
 - Aluminum alloy (hardware only)

Manufacturers of flexible markers (snowpoles):

Manufacturer	Model	Type	Contact
Nordic Fiberglass, Inc.	FF2	Steel Pole w/ Flag	Ph: (218) 745-5095
PEXCO	Model 3639	High-Impact Polyolefins	Ph: (404) 564-8560
New Century Northwest, LLC	NCN2549	Engineered Plastic Alloy	Ph: (541) 485-5566

Carsonite Composites, LLC	SNFB	Continuous glass fiber and marble reinforced thermosetting composite	Ph: (800) 648-7916
---------------------------	------	--	--------------------

Submit manufacturer's specifications to the Engineer for review and approval before ordering markers.

Guardrail Reflector Assembly Brackets Section 730

Fabricate from aluminum alloy or galvanized steel.

Retroreflective Sheeting..... AASHTO M 268, Type VIII or IX

(11/04/10)CR6062-Special Provision

CONSTRUCTION REQUIREMENTS

606-3.01 GENERAL. Install bollards, guardrail, and terminals at the locations shown in the Plans.

(06/29/11)CR6069-Special Provision

Replace the second paragraph with the following:

At locations where public traffic is adjacent to guardrail work, have all materials on site, including crashworthy terminals that are required to completely install a segment of guardrail before beginning work on the segment.

Start guardrail installation at the "upstream" end (the end adjacent traffic will encounter first) by either installing a crashworthy terminal, connecting to an existing barrier or shielding the end with a truck mounted attenuator (TMA) meeting NCHRP 350, Test Level 3. Continue installation in the direction of traffic. Exception: if the guardrail run will connect to existing barrier, buried in the backslope, or guardrail, existing or new bridge railing, or other existing structure at the "downstream" end, guardrail installation may be started at the point of connection. The exception allows for starting at the downstream end, a temporary crash cushion or TMA is required at all incomplete upstream guardrail ends.

Do not leave posts installed for guardrail within the clear zone for more than 48 hours before installing the rail.

If guardrail runs are not completed within 10 calendar days after beginning installation, install temporary crash cushions meeting NCHRP 350 or MASH test Level 3 at all non-

crashworthy guardrail ends within the clear zone. Apply Traffic Price Adjustment if the Contractor does not comply with the crash cushion requirement.

(11/04/10)CR6063-Special Provision

606-3.02 POSTS. Delete the first two numbered items and replace with:

1. Exclusive of end treatments, use one type of post in each run of guardrail.

Replace 3.a. with:

- a. The underlying material is no larger than six inches; and

Replace No. 4. with:

4. Backfill and compact around posts with material as specified in the typical section to firmly support the post laterally and vertically. Compact under and around posts to the Engineer's satisfaction.

(11/04/10)CR6064-Special Provision

606-3.03 BEAM RAIL. In the first paragraph, second sentence, replace "150 feet" with "100 feet"

(11/04/10)CR6065-Special Provision

606-3.05 TERMINAL SECTIONS. Delete the second paragraph.

Replace the fourth paragraph with the following:

Attach flexible markers, in a vertical position, to the terminal end directly to the backside of the rail face, the face away from the traveled way, or the first post of each parallel guardrail terminal. Attach flexible markers to the "P.T." post of the Controlled Release Terminals. Provide an additional marker where the flare begins for guardrail terminal widening. Provide two markers at the end of each run of guardrail; coordinate the locations with the Engineer.

The connection shall not negatively impact the performance of the guardrail as noted in 606-2.01.

(11/04/10)CR6062-Special Provision

606-3.06 REMOVAL AND RECONSTRUCTION OF GUARDRAIL. Add the following:

Guardrail removed and to be replaced with new guardrail shall have the entire new run installed within 14 calendar days after removal.

Guardrail located within 50 feet of bridge ends shall have the new guardrail installed by the end of the shift in which the existing guardrail is removed.

(11/04/10)CR6066-Special Provision

606-3.09 FLEXIBLE MARKERS. For each slotted rail terminal, a flexible marker shall be attached to the extreme piece of rail. The flexible markers shall be attached using hardware and attachment methods recommended by the manufacturer.

(11/04/10)CR6062-Special Provision

Add the following Subsection 606-3.10 Length of Need Verification.

606-3.10 LENGTH OF NEED VERIFICATION. After shaping the slopes and staking the proposed guardrail locations, notify the Engineer to field verify the beginning and ends. The Engineer will approve the staked location of the guardrail before installation. The Engineer may determine additional guardrail is necessary and the Contractor shall comply without delay.

(11/04/10)CR6068-Special Provision

606-5.01 BASIS OF PAYMENT. Add the following:

Payment for temporary crash cushions or TMA installed to protect motorists from guardrail installations that have not been completed within 10 calendar days of beginning installation is subsidiary to other items.

2. Terminal Sections. Replace a. with the following:

- a. Parallel Guardrail Terminal. The contract price includes rail elements, posts, blocks, pipe sleeves, cable assemblies, guardrail extruders, terminal markers, and all associated hardware required for a complete installation.

Delete b.

- c. Controlled Release Terminals (CRT).

Replace "object markers" with "terminal markers"

Add d.:

- d. Buried in Backslope Guardrail Terminal. The contract price includes rail elements, posts, blocks, concrete, rebar, anchors, and all associated hardware required for a complete installation.

Payment will be made under:

SPECIAL PROVISIONS
Kasilof River SUA
North Site Improvements
Project Number 76058-1

Delete Pay Item 606(10) Slotted Rail Terminal and 606(11) Extruder Terminals.

Add Pay Item 606(13) Parallel Guardrail Terminal:

Pay Item	Pay Unit
606(13) Parallel Guardrail Terminal	Each

(11/04/10)CR6061-Special Provision

Bollards will be subsidiary to Item 606(1) including:

Bollard(s). Payment for bollard Pay Items is full compensation for furnishing all labor, equipment, and materials required for a complete installation as shown in the Plans and included in the Specifications. The following are considered part of a complete installation when shown in the Plans or included in the Specifications and are subsidiary to the Pay Item:

- Concrete
- Excavation & backfill
- Galvanizing & repair
- Grading
- Marker(s)
- Padlock(s)
- Painting & repair
- Preservative treatment & repair
- Removable bollard hardware
- Retroreflective bands
- Steel reinforcing

Other items included in the Plans or Specifications associated with the bollards(s)

SECTION 607

FENCES

607-1.01 DESCRIPTION. Replace Paragraphs 1-4 with the following: Construct Dune Fencing as shown on the plans. Locations of fence to be surveyed/located per the plans by the contractor and final locations will be laid out by the Department.

607-2.01 MATERIALS. Add the following:

Chain Grade 28, Galvanized, 3/8" Links
Fence Posts 3" Diameter, Galvanized, Schedule 80 Pipe

607-5.01 BASIS OF PAYMENT. Add the following:

Pay Item	Pay Unit
607(7) Dune Fencing	L.F.

(01/01/01)PARKS -Special Provision

SECTION 615

STANDARD SIGNS

615-1.01 DESCRIPTION. Add the following: Custom signs are standard signs that require additional definition of layout, including characters, symbols, borders, size, and color. Custom signs that are to be included on this project are as follow:

DESIGNATION	COLOR	DESCRIPTION
CS-1	White on Brown	Beach Access Only Loose Sand Ahead

CS-1 is a directional guide sign for recreational areas in accordance with Chapter 2H. Recreational and Cultural Interest Area Signs of MUTCD. The drawing included in this Section gives the general layout for the sign. The design characteristics of this sign shall conform to MUTCD Chapter 2A.

615-2.01 MATERIALS.

Add the following under 2. Sign Fabrication:

d. Custom Signs: The signs shall have high intensity reflective sheeting with color as specified. White sheeting for symbols, letters, and borders shall match the 3M Scotchlite High Intensity Reflective Sheeting #3870 or #6870. Brown sheeting for background shall match 3M Scotchlite Reflective Sheeting #3879 or #6879.

(01/01/01)PARKS -Special Provision

Replace this entire Section with the following:

SECTION 618

SEEDING

618-1.01 DESCRIPTION. This work consists of establishing a perennial stand of grass or other specified living vegetative cover in the areas indicated on the Plans and to acceptably maintain the cover for the term of the Contract.

Topsoil and seed all new or disturbed slopes and any other areas directed by the Engineer. Track soil and apply seed, mulch, fertilizer and water. Provide a living ground cover on all slopes as soon as possible.

618-2.01 MATERIALS. Use materials that conform to the Special Provisions and the following:

Seed	Section 724
Fertilizer	Section 725
Mulch	Subsection 727-2.01
Water	Subsection 712-2.01

CONSTRUCTION REQUIREMENTS

618-3.01 SOIL PREPARATION. Clear all areas to be seeded of stones 4 inches in diameter and larger and of all weeds, plant growth, sticks, stumps, and other debris or irregularities that might interfere with the seeding operation, growth of grass, or subsequent maintenance of the grass-covered areas.

Make areas to be seeded reasonably free of ruts, holes, and humps.

Apply seed as detailed in Subsection 618-3.03 immediately after the shaping of the slopes. Cover all slopes to be seeded with topsoil in accordance with Section 620. Complete slope preparation as soon as topsoil is placed on the slopes.

(01/01/01)PARKS-Special Provision

Roughen the surface to be seeded by grooving the soil in a uniform pattern that is perpendicular to the fall of the slope. Use one or more of the following grooving methods with associated equipment before the application of seed:

1. Manual raking with landscaping rakes;
2. Mechanical track walking with track equipment; or
3. Mechanical raking with a scarifying slope board. Form one inch wide grooves spaced no more than six inches apart.

SPECIAL PROVISIONS

Kasilof River SUA

North Site Improvements

Project Number 76058-1

Rounding the top and bottom of slopes to facilitate tracking or raking and to create a pleasant appearance is acceptable, but disrupting drainage flow lines is not.

(01/27/07)E42-Standard Modification

Flat surfaces shall also be topsoiled and roughened by using one of the methods described above.

(01/01/01)PARKS-Special Provision

618-3.02 SEEDING SEASONS. Seed disturbed areas that require seeding within 14 days of the permanent cessation of ground disturbing activities in that area.

(01/27/07)E42-Standard Modification

Seed and fertilize during the local growing season. Do not seed during windy conditions or when climatic conditions or ground conditions would hinder placement or proper growth. The seeding season is from

May 15 and September 1. (Southcentral Alaska)

Written approval from the Engineer is required to seed at a different date.

618-3.03 APPLICATION. Apply seed, mulch and fertilizer as follows per 1000 ft². Apply seed and mulch in one application using the hydraulic method. Apply all fertilizer with the hydraulic method.

Item	Ingredients	Application Rate (per 1000 S.F.)
Seed Mix	Beach Wild Rye	0.50 lbs
	Bering Hairgrass (Norcoast)	0.30 lbs
	Reeds Bluejoint	0.15 lbs
	Annual Ryegrass (Lolium)	<u>0.05 lbs</u>
		Total = 1.00 lbs
Mulch		35.0 lbs
Fertilizer	20-20-10	12.0 lbs

Do not remove the required tags from the seed bags.

Use the following method unless otherwise specified:

Hydraulic Method.

- a. Furnish and place a slurry made of seed, fertilizer, water, and other components as required by the Special Provisions.

- b. Use hydraulic seeding equipment that will maintain a continuous agitation and apply a homogeneous mixture through a spray nozzle. The pump must produce enough pressure to maintain a continuous, non-fluctuating spray that will reach the extremities of the seeding area with the pump unit located on the roadbed. Provide enough hose to reach areas not practical to seed from the nozzle unit situated on the roadbed.
- c. If mulch material is required, it may be added to the water slurry in the hydraulic seeder after adding the proportionate amounts of seed and fertilizer. Add seed to the slurry mixture no more than 30 minutes before application.
- d. Mix the slurry and apply it evenly.

618-3.04 PLANT ESTABLISHMENT AND MAINTENANCE. Protect seed areas against traffic and erosion. Promptly repair surfaces that are gullied or otherwise damaged following seeding by re-grading, reseeding, and re-mulching as needed.

Water and maintain seeded areas until acceptance of the work. Use equipment that can water all seeded areas without damaging the seed bed.

Reseed any areas not showing evidence of satisfactory growth within 3 weeks of seeding. Erosion gullies over 4 inches deep must be filled and reseeded. Fill the entire erosion gully to surrounding grade, including the portions less than 4 inches deep.

A reapplication of fertilizer shall be applied with water between May 1 and June 30 of the year following seeding. Re-fertilization shall be applied at a rate of one-half the initial application.

(01/01/01)PARKS-Special Provision

618-3.05 ACCEPTANCE. During final inspection the Engineer will perform a visual inspection of seeding to determine final stabilization. During the visual inspection each station and each side of the road will be considered a separate area. The Engineer will accept seeding that has become a vegetative matt with 70% cover density in the inspection area.

Reseed areas that are not acceptable to the Engineer.

618-3.06 PERIOD OF ESTABLISHMENT. Establishment periods extend for one complete growing season following acceptable seeding. Employ possible means to preserve the new vegetative matt in a healthy and vigorous condition to ensure successful establishment. Reseed areas that do not meet the specifications. Watering and reseeding after the final inspection are subsidiary.

The Engineer may, but is not required to, determine the Project is complete except for the period of establishment, and issue a letter of final acceptance. After final acceptance, work or materials due under this subsection during any remaining period of

establishment are considered warranty obligations that continue to be due following final acceptance in accordance with subsection 105-1.16.

(01/27/07)E42-Standard Modification

618-4.01 METHOD OF MEASUREMENT.

Seeding by the acre. By the area of ground surface acceptably seeded and maintained. Seed, mulch, water, and fertilizer are subsidiary.

Seeding by the pound. Weight of seed acceptably placed and maintained. Water, mulch, and fertilizer are subsidiary.

The amounts of fertilizer, seed, mulch and water for application used in this work, including any required reseeding and re-fertilization are subsidiary to other 618 items. The work described under subsection 618-3.01 Soil Preparation is subsidiary to seeding.

Water used in maintenance of seeded areas will not be measured directly for payment but will be considered subsidiary to the seeding item.

618-5.01 BASIS OF PAYMENT. At the contract unit price per unit of measurement for the pay items listed below that appear on the bid schedule.

Payment will be made under:

Pay Item	Pay Unit
618(2) Seeding	Pound

The Contractor may receive final payment prior to the second application of fertilizer by submitting an approved written guarantee that the second application of fertilizer will be accomplished per specifications. A Performance Guarantee form is available from the Engineer.

(01/01/01)PARKS-Special Provision

SECTION 620

TOPSOIL

620-2.01 MATERIALS. Replace this Subsection with the following:

Provide topsoil of the class specified on the Plans. Use material that conform to the following:

Topsoil Section 726 or as approved by the Engineer

Topsoil shall be free of invasive material. Any invasive plants found in the topsoil will be removed at the contractors expense.

08/24/16)PARKS-Special Provision

SECTION 640

MOBILIZATION AND DEMOBILIZATION

640-1.01 DESCRIPTION. Add the following:

6. Comply with the Alaska Department of Labor and Workforce Development (DOLWD) requirements for Worker Meals and Lodging, or Per Diem; as described in their July 25, 2005 memo WHPL #197 (A2) and the State Laborer's and Mechanic's Minimum Rates of Pay (current issue). On Federal-aid projects, PL 109-59, 119 STAT. 1233, Sec. 1409(c) also applies.

Ensure subcontractors comply with the Federal and State DOLWD requirements.

Ensure facilities meet the Alaska Administrative Code 8 AAC 61.1010 and 8 AAC 61.1040 *Occupational Safety and Health Standards*, 18 AAC 31 *Alaska Food Code*, and U.S. Code of Federal Regulations 29 CFR Section 1910.142 *Temporary Labor Camps*.

Do not consider the cost of Meals and Lodging, or Per Diem in setting wages for the worker or in meeting wage requirements under AS 23.10.065 or AS 36.05.

640-4.01 METHOD OF MEASUREMENT. Delete the numbered paragraph 3 and substitute the following:

3. The remaining balance of the amount bid for Mobilization and Demobilization will be paid after all submittals required under the Contract are received and approved.

(05/28/10)E89-Standard Modification

Add the following:

4. Progress payments for Worker Meals and Lodging, or Per Diem will be subsidiary to 640(1) Mobilization and Demobilization.

(09/15/07)PARKS-Special Provision

Replace Section 641 with the following:

SECTION 641

EROSION, SEDIMENT, AND POLLUTION CONTROL

641-1.01 DESCRIPTION. Provide project administration and Work relating to control of erosion, sedimentation, and discharge of pollutants, according to this section and applicable local, state, and federal requirements, including the Construction General Permit.

641-1.02 DEFINITIONS. These definitions apply only to Section 641.

Alaska Certified Erosion and Sediment Control Lead (AK-CESCL). A person who has completed training, testing, and other requirements of, and is currently certified as, an AK-CESCL from an AK-CESCL Training Program (a program developed under a Memorandum of Understanding between the ADOT&PF and others). The Department recognizes AK-CESCLs as “qualified personnel” required by the CGP. An AK-CESCL must be recertified every three years.

Alaska Department of Environmental Conservation (ADEC). The state agency authorized by EPA to administer the Clean Water Act’s National Pollutant Discharge Elimination System.

Alaska Pollutant Discharge Elimination System (APDES). A system administered by ADEC that issues and tracks permits for storm water discharges.

Best Management Practices (BMPs). Temporary or permanent structural and non-structural devices, schedules of activities, prohibition of practices, maintenance procedures, and other management practices to prevent or minimize the discharge of pollutants to waters of the United States. BMPs also include, but are not limited to, treatment requirements, operating procedures, and practices to control plant site runoff, spillage or leaks, sludge or waste disposal, or drainage from material storage.

Clean Water Act (CWA). Federal Water Pollution Control Amendments of 1972, as amended (33 U.S.C. 1251 et seq.).

Construction Activity. Physical activity by the Contractor, Subcontractor or utility company; that may result in erosion, sedimentation, or a discharge of pollutants into storm water. Construction Activity includes soil disturbing activities (e.g. clearing, grubbing, grading, excavating); and construction materials or equipment storage or maintenance (e.g. material piles, borrow area, concrete truck chute washdown, fueling); and other industrial storm water directly related to the construction process (e.g. concrete or asphalt batch plants).

Construction General Permit (CGP). The permit authorizing storm water discharges from Construction Activities, issued and enforced by ADEC. It authorizes stormwater discharges provided permit conditions and water quality standards are met.

Electronic Notice of Intent (eNOI). The electronic Notice of Intent submitted to ADEC, to obtain coverage under the CGP.

Electronic Notice of Termination (eNOT). The electronic Notice of Termination submitted to ADEC, to end coverage under the CGP.

Environmental Protection Agency (EPA). A federal agency charged to protect human health and the environment.

Erosion and Sediment Control Plan (ESCP). The Department's project specific document that illustrates measures to control erosion and sediment on the project. The ESCP provides bidders with the basis for cost estimating and guidance for developing an acceptable Storm Water Pollutant Prevention Plan (SWPPP).

Final Stabilization. Is defined in this section as it is defined in the CGP.

Hazardous Material Control Plan (HMCP). The Contractor's detailed project specific plan for prevention of pollution from storage, use, transfer, containment, cleanup, and disposal of hazardous material (including, but are not limited to, petroleum products related to construction activities and equipment). The HMCP is included as an appendix to the SWPPP.

Inspection. An inspection required by the CGP or the SWPPP, usually performed together by the Contractor's Storm Water Lead and Department's Project Engineer.

Multi-Sector General Permit (MSGP). The Alaska Pollutant Discharge Elimination System General Permit for storm water discharges associated with industrial activity.

Operator(s). The party or co-parties associated with a regulated activity that has responsibility to obtain permit coverage under the CGP. "Operator" for the purpose of the CGP and in the context of stormwater associated with construction activity, means any party associated with a construction project that meets either of the following two criteria:

1. The party has operational control over construction plans and specifications, including the ability to make modifications to those plans and specifications; or
2. The party has day to day operational control of those activities at a project which are necessary to ensure compliance with a SWPPP for the site or other permit conditions (e.g. they are authorized to direct workers at a site to carry out activities required by the SWPPP or comply with other permit conditions).

Pollutant. Any substance or item meeting the definition of pollutant contained in 40 CFR § 122.2. A partial listing from this definition includes: dredged spoil, solid waste, sewage, garbage, sewage sludge, chemical wastes, biological materials, wrecked or discarded equipment, rock, sand, cellar dirt and industrial or municipal waste.

Project Area. The physical area provided by the Department for Construction. The Project Area includes the area of the facility under construction, project staging and equipment areas, and material and disposal sites; when those areas, routes and sites, are provided by the Department by the Contract and are directly related to the Contract.

Support Activities including material sites, material processing sites, disposal sites, haul routes, staging and equipment storage areas; that are furnished by the Contractor or a commercial operator, are not included in the Project Area.

Records. Any record, report, information, document, or photograph required to be created or maintained pursuant to the requirements of the CGP storm water requirements of the Clean Water Act; and applicable local, state, and federal laws and regulations regarding document preservation.

Storm Water Discharges From Municipal Separate Storm Sewer Systems (MS4s). A conveyance or system of conveyances including roads with drainage systems, municipal streets, catch basins, curbs, gutters, ditches, man-made channels, or storm drains that discharges into waters of the United States and is owned or operated by a public agency.

Spill Prevention, Control, and Countermeasure Plan (SPCC Plan). The Contractor's detailed plan for petroleum spill prevention and control measures that meet the requirements of 40 CFR 112.

Spill Response Field Representative. The Contractor's representative with authority and responsibility for managing, implementing, and executing the HMCP and SPCC Plan.

Storm Water Pollution Prevention Plan (SWPPP). The Contractor's detailed project specific plan to minimize erosion and contain sediment within the Project Area, and to prevent discharge of pollutants that exceed applicable water quality standards. The SWPPP includes, but is not limited to, amendments, records of activities, inspection schedules and reports, qualifications of key personnel, and all other documentation, required by the CGP and this specification, and other applicable local, state, and federal laws and regulations.

Storm Water Lead. The Contractor's qualified representative who conducts Inspections and has authority to suspend work and to implement corrective actions required for CGP compliance.

Storm Water Pollution Prevention Plan Two (SWPPP2). The Contractor's detailed project specific plan to comply with CGP or MSGP requirements, for Contractor construction-related Support Activities outside the Project Area.

Subcontractor Spill Response Coordinator. The subcontractor's representative with authority and responsibility for coordinating the subcontractor's activities in compliance with the HMCP and SPCC Plan.

Subcontractor SWPPP Coordinator. The subcontractor's representative with authority to direct the subcontractor's work, and who is responsible for coordination with the Superintendent and Storm water lead, and for the subcontractor's compliance with the SWPPP.

Superintendent. The Superintendent has responsibility and authority for the overall operation of the Project and for Contractor furnished sites and facilities directly related to the Project.

Support Activities. See ADEC CGP definition. Further defined as construction activities in which the Department is not an operator and the activity is outside the Project Area.

SWPPP Amendment. A revision or document that adds to, deletes from, or modifies the SWPPP.

SWPPP Preparer. The Contractor's qualified representative who is responsible for developing the initial SWPPP.

Utility Spill Response Coordinator. The Utility's representative with authority and responsibility for coordinating the Utility's activities in compliance with the HMCP and SPCC Plan.

Utility SWPPP Coordinator. The Utility's representative with authority to direct the Utility's work, and who is responsible for coordination with the Superintendent and Storm Water Lead, and for the Utility's compliance with the SWPPP.

641-1.03 PLAN AND PERMIT SUBMITTALS. For plans listed in Subsection 108-1.03.5 (SWPPP and HMCP) use the Contractor submission and Department review deadlines identified in Subsection 641-1.03.

Partial and incomplete submittals will not be accepted for review. Any submittal that is re-submitted or revised after submission, but before the review is completed, will restart the submittal review timeline. No additional Contract time or additional compensation will be allowed due to delays caused by partial or incomplete submittals, or required re-submittals.

1. Storm Water Pollution Prevention Plan. Submit one hard copy of the SWPPP to the Project Engineer for approval. Deliver this document to the Project Engineer at least

21 days before beginning Construction Activity. Organize and bind the SWPPP and related documents for submittal according to the requirements of Subsection 641-2.01.2. The Department will review the SWPPP submittals within 14 days after they are received. Submittals will be returned to the Contractor, and marked as either “rejected” with reasons listed or as “approved” by the Department. When the submittal is rejected, the Contractor must revise and resubmit the SWPPP. The 14 day review period will restart when the contractor submits an electronic copy and three hard copies of the revised SWPPP to the Project Engineer for approval.

Once the SWPPP is approved by the Department, submit two complete copies of the SWPPP to the Project Engineer.

2. Hazardous Material Control Plan. Submit the HMCP, as an appendix to the SWPPP, to the Project Engineer for approval. The HMCP submittal and review timeline, and signature requirements are the same as the SWPPP.
3. Spill Prevention, Control and Countermeasure Plan. When a SPCC Plan is required under Subsection 641-2.03, submit an two signed hard copies of the SPCC Plan to the Project Engineer. Deliver these documents to the Project Engineer at least 21 days before beginning Construction Activity. The Department reserves the right to review the SPCC Plan and require modifications.
4. CGP Coverage. The Contractor is responsible for permitting of Contractor and subcontractor Construction Activities related to the Project. The Contractor cannot use the SWPPP for Support Activities outside the Project Area where the Department is not an operator.

After Department approval of the SWPPP and prior to beginning Construction Activity, submit an eNOI with the required fee to ADEC for coverage under the Construction General Permit (CGP). Submit a copy of the signed eNOI and ADEC’s acknowledgement letter to the Project Engineer when the eNOI is submitted to ADEC.

Do not begin Construction Activity until the conditions listed in Subsection 641-3.01.1 are completed.

The Department will submit an eNOI to ADEC for Construction Activities inside the Project Area. The Project Engineer will provide the Contractor with a copy of the Department’s eNOI and ADEC’s acknowledgment letter, for inclusion in the SWPPP.

5. Ending CGP Coverage. Submit an eNOT to ADEC, and submit both a copy of the signed eNOT and ADEC’s acknowledgement letter to the Department, within 30 days after the Project Engineer has determined the conditions listed in Subsection 641-3.01.6 have been met.
6. ADEC SWPPP Review. When CGP, Part 2.1.3 - requires ADEC SWPPP review:

- a. Transmit a copy of the Department-approved SWPPP to ADEC using delivery receipt confirmation;
 - b. Transmit a copy of the delivery receipt confirmation to the Project Engineer within seven days of receiving the confirmation; and
 - c. Retain a copy of delivery receipt confirmation in the SWPPP.
7. Local Government SWPPP Review. When local government or the CGP Part 2.1.4 requires local government review:
- a. Transmit a copy of the Department-approved SWPPP and other information, as required, to local government, with the required fee using delivery receipt confirmation;
 - b. Transmit a copy of the delivery receipt confirmation to the Project Engineer within seven days of receiving the confirmation;
 - c. Transmit a copy of any comments by the local government to the Project Engineer within seven days of receipt;
 - d. Amend the SWPPP as necessary to address local government comments and transmit SWPPP Amendments to the Project Engineer within seven days of receipt of the comments;
 - e. Include a copy of local government SWPPP review letter in the SWPPP; and
 - f. Before ending permit coverage file a project ending notification with local government and allow them to inspect the work.
8. Modifying Contractor's eNOI. When required by The CGP Part 2.7, modify your eNOI to update or correct the information. Reasons for modification include change to the start or end dates, small changes in number of acres to be disturbed, change in decision to use or not use treatment chemicals, or changed location of SWPPP Records.

The Contractor must submit an eNOT and then submit a new eNOI instead of an eNOI modification when: the operator has changed, the original eNOI indicates disturbed area less than five acres and the project will disturb more than five acres, or a project over five disturbed acres grows by more than 50%.

641-1.04 PERSONNEL QUALIFICATIONS. The SWPPP Preparer must meet at least one of the following qualifications:

- a. Current certification as a Certified Professional in Erosion and Sediment Control (CPESC);
- b. Current certification as AK-CESCL, and at least two years experience in erosion and sediment control, as a Storm Water Lead or SWPPP writer, or equivalent. Provide documentation including project names, project timelines, and work responsibilities demonstrating the experience requirement; or
- c. Professional Engineer registered in the State of Alaska with current certification as AK-CESCL

For Projects disturbing more than 20 acres, the SWPPP Preparer must also have completed a Department approved SWPPP Preparation course.

The Superintendent must meet the following qualifications:

- a. Current certification as AK-CESCL; and
- b. Duly authorized representative, as defined in the CGP, Appendix A, Part 1.12.3

The Storm Water Lead must have current certification as AK-CESCL, and be knowledgeable in the requirements of that position as defined in the CGP, Appendix C, Qualified Person.

The Active Treatment System (ATS) operator must have current certification as AK-CESCL, and be knowledgeable in the principals and practices of treatment systems in general, and the operation of the ATS in particular. Minimum experience to be 6 months field experience or completion of an ATS manufacturer's training course.

The Department accepts people having any of the following certificates as equivalent to AK-CESCL, if the certificates are current according to the sponsoring organization's policies:

- a. CPESC, Certified Professional in Erosion and Sediment Control; or
- b. CISEC, Certified Inspector in Sediment and Erosion Control

641-1.05 SIGNATURE/CERTIFICATION REQUIREMENTS AND DELEGATIONS.

1. eNOI and eNOT. The eNOI and eNOT must be signed and certified by a responsible corporate officer according to CGP Appendix A, Part 1.12.2. Signature and certification authority for the eNOI and eNOT cannot be delegated.
2. Delegation of Signature Authority for Other SWPPP Documents and Reports. Use Form 25D-108 to delegate signature authority and certification authority to the Superintendent position, according to CGP Appendix A, Part 1.12.3, for the SWPPP, Inspection Reports and other reports required by the CGP. The Project Engineer will provide the Department's delegation Form 25D-107, which the Contractor must include in the SWPPP.
3. Subcontractor Certification. Subcontractors must certify that they have read and will abide by the CGP and the conditions of the project SWPPP.

641-1.06 RESPONSIBILITY FOR STORM WATER PERMIT COVERAGE.

1. The Department and the Contractor are jointly responsible for permitting and permit compliance within the Project Area.
2. The Contractor is responsible for permitting and permit compliance outside the Project Area for Support Activities. The Contractor has sole responsibility for compliance with ADEC and other applicable federal, state, and local requirements, and for securing all necessary clearances, rights, and permits. Subsection 107-1.02

SPECIAL PROVISIONS

Kasilof River SUA

North Site Improvements

Project Number 76058-1

describes the requirement to obtain permits, and to provide permit documents to the Project Engineer.

3. An entity that owns or operates, a commercial plant (as defined in Subsection 108-1.01.3) or material source or disposal site outside the Project Area, is responsible for permitting and permit compliance. The Contractor has sole responsibility to verify that the entity has appropriate permit coverage. Subsection 107-1.02 describes the requirement to obtain permits, and to provide permit documents to the Project Engineer.
4. The Department is not responsible for permitting or permit compliance, and is not liable for fines resulting from noncompliance with permit conditions:
 - a. For areas or Support Activities outside the Project Area and
 - b. For commercial plants, commercial material sources, and commercial disposal sites.

641-1.07 UTILITY RELOCATION COVERAGE. A Utility company is not an Operator when utility relocation is performed concurrently with the Project, as outlined in Section 105-1.06. The Department maintains operational control over the Utility's plans and specifications for coordination with project construction elements, and the Contractor has day-to-day control over the various utility construction activities that occur in support of the Project. A Utility company is considered a subcontractor for concurrent relocation.

After the Contractor has an active NOI for the Project, a Utility Company performing advance relocation work under a separate SWPPP no longer has Operator status and files the NOT for the Utility Company's SWPPP covering only the completed utility work. Remaining utility relocation work is included in and performed under the Project SWPPP.

641-2.01 STORM WATER POLLUTION PREVENTION PLAN (SWPPP) REQUIREMENTS.

1. SWPPP Preparer and Pre-Construction Site Visit. Use a SWPPP Preparer to develop the SWPPP and associated documents, according to the requirements of the CGP. The SWPPP Preparer must put their name, qualifications (including the expiration date of any certifications), title and company name in the SWPPP.

The SWPPP Preparer must conduct a pre-construction inspection at the Project site before construction activity begins. If the SWPPP Preparer is not a Contractor employee, the SWPPP Preparer must visit the site accompanied by the Contractor. Give the Department at least seven days notice of the site visit, so that the Department may participate.

During the pre-construction inspection, the SWPPP Preparer must identify, or if a draft of the SWPPP has already been prepared verify that the SWPPP fully addresses and describes:

- a. Opportunities to phase construction activities;
- b. Appropriate BMPs and their sequencing; and
- c. Sediment controls that must be installed prior to beginning Construction Activities.

Document the SWPPP Preparer's pre-construction inspection in the SWPPP on Form 25D-106, SWPPP Pre-Construction Site Visit, including the names of attendees and the date.

2. Developing the SWPPP. Use the Department's ESCP and other Contract documents as a starting point for developing the SWPPP. The approved SWPPP replaces the ESCP.

Develop the SWPPP framework according to the ADNR SWPPP template with additional information as required. Include information required by the CGP, Part 5, and this specification.

When using the ADNR SWPPP template:

The following appendices can found on the ADNR D&C website:
<http://dnr.alaska.gov/parks/designconstruct/swppp.htm>

- Include the following appendices:
 - Appendix A– Site Maps and Drawings
 - Appendix B– BMP Details
 - Appendix C– Project Schedule
 - Appendix D– Supporting Documentation: TMDLs, Endangered Species, Historical Properties, & Project Permits
 - Appendix E– Certifications and Delegation of Authority
 - Appendix F – Subcontractor Certifications
 - Appendix G – Permit Conditions: Copy of Signed Notice of Intent (Include both Department's and Contractor's), Confirmation of Delivery of NOI to ADEC (Include both Department's and Contractor's), Copy of Letter from ADEC Authorizing Coverage with ADEC NOI Tracking Number (Include both Department's and Contractor's), and Copy of 2011 Alaska Construction General Permit
 - Appendix H– Personnel Qualifications and Training Certificates for:
 - SWPPP Preparer
 - Storm Water Lead/Inspector
 - Contractor's ATS Operator

- Qualified personnel must be described in a list with names and dates in positions
- Appendix I – SWPPP Pre-Construction Site Visit
- Appendix J – Amendment Log
- Appendix K – Corrective Action Log
- Appendix L – Grading and Stabilization Records
- Appendix M – Hazardous Material Control Plan
- Appendix N – Training Log
- Appendix O – Rainfall Record
- Appendix P – Inspection Reports
- Appendix Q – Delayed Action Item Report
- Appendix R – Project Staff Tracking Form
- Appendix S – Monitoring Plan (If applicable) and Reports

Obtain the following forms after they have been completed by the Department and include them in the SWPPP:

- SWPPP Delegation of Signature Authority – ADNR (25D-107)
- SWPPP Certification for ADNR (25D-109)

Use the following Department forms for recording information in the SWPPP:

- SWPPP Amendment Log (25D-114)
- SWPPP Certification for Contractor (25D-111)
- SWPPP Construction Site Inspection Report (25D-100)
- SWPPP Corrective Action Log (25D-112)
- SWPPP Daily Record of Rainfall (25D-115)
- SWPPP Delegation of Signature Authority – Contractor (25D-108)
- SWPPP Grading and Stabilization Activities Log (25D-110)
- SWPPP Pre-Construction Site Visit (25D-106)
- SWPPP Project Staff Tracking (25D-127)
- SWPPP Subcontractor Certification (25D-105)
- SWPPP Training Log (25D-125)

SWPPP Forms are at: <http://dnr.alaska.gov/parks/designconstruct/swppp.htm>

Compile the SWPPP in three ring binders with tabbed and labeled dividers for each section and appendix.

3. SWPPP Considerations and Contents.

The SWPPP must provide erosion and sediment control measures for all Construction Activity within the Project Area. Support Activities outside the Project

Area must have permit coverage, using separate SWPPP2s, and separate Contractor Inspections.

The SWPPP must consider the activities of the Contractor and all subcontractors and utility companies performing work in the Project Area. The SWPPP must describe the roles and responsibilities of the Contractor, subcontractors, utility companies, and the Department with regard to implementation of the SWPPP. The SWPPP must identify all operators for the Project, including utility companies performing Construction Activity, and identify the areas:

- a. Over which each operator has operational control; and
- b. Where the Department and Contractor are co-operators.

For work outside the Project Area the SWPPP must identify the entity that has stormwater permit coverage, the operator, and the areas that are:

- a. Dedicated to the Project and where the Department is not an operator; and
- b. Not dedicated to the project, but used for the project.

Develop the SWPPP according to the requirements of the CGP and this specification, and account for the Contractor's construction methods and phasing.

Design temporary BMPs for a 2 year 24 hour precipitation amount. Describe BMPs in the SWPPP and in SWPPP Amendments, including source controls, sediment controls, discharge points, and all temporary and permanent stabilization measures. Describe the design, placement, installation, and maintenance of each BMP, using words and drawings as appropriate. Provide a citation to the BMP Manual or publication used as a source for the BMP, including the title of the BMP Manual or publication, the author (individual or agency), and date of publication. If no published source was used to select or design a BMP, then the SWPPP or SWPPP amendment must state that "No BMP manual or publication was used for this design."

Describe the sequence and timing of activities that disturb soils and of BMP implementation and removal. Phase earth disturbing activities to minimize unstabilized areas, and to achieve temporary or final stabilization quickly. Whenever practicable incorporate final stabilization work into excavation, embankment, and grading activities.

Identify in the SWPPP whether Inspections are conducted:

- a. Areas where the mean annual precipitation is 15 inches or less, inspect once at least once every fourteen (14) calendar days and within twenty-four (24) hours of the end of a storm event that resulted in a discharge from the project area.
- b. Areas where the mean annual precipitation is greater than 15 and less than 40 inches: inspect once every seven (7) days;

- c. Areas where the mean annual precipitation is 40 inches or greater: inspect once every seven (7) days, and twice every seven days during periods of relatively continuous precipitation or sequential storm events.

The SWPPP must cite and incorporate applicable requirements of the Project permits and commitments related to historic preservation. Make additional consultations or obtain permits as necessary for Contractor specific activities which were not included in the Department's permitting and consultation.

The SWPPP is a dynamic document. Keep the SWPPP current by noting installation, modification, and removal of BMPs, and by using amendments, SWPPP amendment logs, Inspection Reports, corrective action logs, records of land disturbance and stabilization, and any other records necessary to document storm water pollution prevention activities and to satisfy the requirements of the CGP and this specification. See Subsection 641-3.03 for more information.

4. Recording Personnel and Contact Information in the SWPPP.

Include in the SWPPP, Records of the AK-CESCL cards or certificates for the Storm Water Lead, and for any acting Storm Water Lead. If the Storm Water Lead is replaced permanently or temporarily, by an acting Storm Water Lead; record in the SWPPP (use Form 25D-127) the names of the replacement personnel, the date of the replacement. For temporary personnel record their beginning and ending dates.

Provide 24 hour contact information for the Storm Water Lead. The Storm Water Lead must have 24 hour contact information for all Subcontractor SWPPP Coordinators and Utility SWPPP Coordinators.

Include in the SWPPP, Records of the AK-CESCL cards or certificates of storm water inspectors, and ATS operators. Record their beginning and ending dates.

641-2.02 HAZARDOUS MATERIAL CONTROL PLAN (HMCP) REQUIREMENTS.

Prepare the HMCP for prevention of pollution from storage, use, containment, cleanup, and disposal of all hazardous material, including petroleum products related to construction activities and equipment. Include the HMCP as an appendix to the SWPPP. Compile Material Safety Data Sheets in one location and reference that location in the HMCP.

Designate a Contractor's Spill Response Field Representative with 24 hour contact information. Designate a Subcontractor Spill Response Coordinator for each subcontractor. The Superintendent and Contractor's Spill Response Field Representative must have 24 hour contact information for each Subcontractor Spill Response Coordinator and the Utility Spill Response Coordinator.

List and give the location and estimated quantities of hazardous materials (Including materials or substances listed in 40 CFR 117 and 302, and petroleum products) to be

used or stored on the Project. Hazardous materials must be stored in covered storage areas. Include secondary containment for all hazardous material storage areas.

Identify the locations where fueling and maintenance activities will take place, describe the activities, and list controls to prevent the accidental spillage of petroleum products and other hazardous materials. Controls include placing absorbent pads or other suitable containment under fill ports while fueling, and under equipment during maintenance or repairs.

Use secondary containment under all stationary equipment (equipment that does not have a seat for driving) that contains petroleum products. Use secondary containment under pumps, compressors, and generators.

List the types and approximate quantities of response equipment and cleanup materials available on the Project. Include a list and location map of cleanup materials, at each different work site and readily available off site (materials sources, material processing sites, disposal sites, staging areas, etc). Spill response materials must be stored in sufficient quantity at each work location, appropriate to the hazards associated with that site.

Describe procedures for containment and cleanup of hazardous materials. Describe a plan for the prevention, containment, cleanup, and disposal of soil and water contaminated by spills. Describe a plan for dealing with contaminated soil and water encountered during construction. Clean up of spills or contaminated surfaces must be initiated immediately and completed as soon as practicable.

Describe methods of disposing of waste petroleum products and other hazardous materials generated by the Project, including routine maintenance. Identify haul methods and final disposal areas. Assure final disposal areas are permitted for hazardous material disposal.

Describe methods of complying with the requirements of AS 46.04.010-900, Oil and Hazardous Substances Pollution Control, and 18 AAC 75. Include contact information for reporting hazardous materials and petroleum product spills to the Project Engineer and reporting to federal, state and local agencies.

641-2.03 SPILL PREVENTION, CONTROL AND COUNTERMEASURE PLAN (SPCC Plan) REQUIREMENTS. Prepare and implement an SPCC Plan when required by 40 CFR 112; when both of the following conditions are present on the Project:

- a. Oil or petroleum products from a spill may reach navigable waters (as defined in 40 CFR 112); and
- b. Total above ground storage capacity for oil and any petroleum products is greater than 1,320 gallons (not including onboard tanks for fuel or hydraulic fluid used primarily to power the movement of a motor vehicle or ancillary onboard oil-filled operational equipment, and not including containers with a storage capacity of less than 55 gallons)

Reference the SPCC Plan in the HMCP and SWPPP.

641-2.04 RESPONSIBILITY AND AUTHORITY OF THE SUPERINTENDENT AND STORM WATER LEAD

The Superintendent is responsible for the overall operation of the Project and all Contractor furnished sites and facilities directly related to the Project. The Superintendent shall sign and certify the SWPPP. The Storm Water Lead shall sign and certify the SWPPP, Inspection Reports and other reports required by the CGP, except the NOI and NOT. The Superintendent and Storm Water Lead may not delegate the task or responsibility of signing and certifying the SWPPP submitted under Subsection 641-1.03.1, Inspection Reports, and other reports required by the CGP.

The Superintendent may assign certain duties to the Storm Water Lead; those duties may include:

1. Ensuring Contractor's and subcontractor's compliance with the SWPPP and CGP;
2. Ensuring the control of erosion, sedimentation, or discharge of pollutants;
3. Directing and overseeing installation, maintenance, and removal of BMPs;
4. Performing Inspections; and
5. Updating the SWPPP including adding amendments and forms.

The Storm Water Lead has authority to work in the following positions named in the CGP, Appendix C, Qualified Person: Storm Water Lead and Storm Water Inspector. The Storm Water Lead has authority to work in all the position of ATS Operator if they meet the knowledge and experience qualifications listed in 1.04..

The Superintendent and Storm Water Lead shall be knowledgeable in the requirements of this Section 641, the SWPPP, CGP, BMPs, HMCP, SPCC Plan, environmental permits, environmental commitments, and historic preservation commitments.

The Superintendent and Storm Water Lead shall have the Contractor's complete authority and be responsible for suspending construction activities that do not conform to the SWPPP or CGP.

641-2.05 MATERIALS. Use materials suitable to withstand hydraulic, wind, and soil forces, and to control erosion and trap sediments according to the requirements of the CGP and the Specifications.

- Use the temporary seed mixture specified by special provision, or use annual rye grass if no temporary seed mix is specified.
- Use soil stabilization material as specified in Section 727.
- Use silt fences as specified in Section 729.
- Use straw that is certified as free of noxious weed by the United States Department of Agriculture, Natural Resources Conservation Service, Local Soil

and Water Conservative District. Alaska Weed Free Forage Certification Program must be used when available. Hay may not be substituted for straw.

- Use a rain gauge.

641-2.06 CONTRACTOR REQUIREMENTS. The Contractor must be familiar with the requirements of the CGP because Contractor's employees will be conducting duties that relate to compliance with the CGP.

641-3.01 CONSTRUCTION REQUIREMENTS. Comply with the SWPPP and CGP requirements.

1. Before Construction Activity may Begin.

a. Confirm the following:

- 1) The SWPPP Preparer must visit the Project, the visit must be documented in the SWPPP, and the SWPPP must be developed (or amended) with findings from the visit;
- 2) The SWPPP must be approved by the Project Engineer;
- 3) The Contractor must be authorized to begin by the Project Engineer;
- 4) The Project eNOIs for the Department and for the Contractor, as well as any other eNOIs if there are additional operators, must be listed as Active Status on the ADEC website; and
- 5) The Department approved SWPPP must be submitted to ADEC and Local Government (when required).

b. Post notices containing the following information:

- 1) Copy of all eNOIs related to this project;
- 2) Name and 24 hour phone number of Storm Water Lead; and
- 3) Location of the SWPPP.

Post notices on the outside wall of the Contractor's project office, and near the main entrances of the construction project. Protect postings from the weather. Locate postings so the public can read them without obstructing construction activities or the traveling public (for example, at an existing pullout). Do not use retroreflective signs for the SWPPP posting. Do not locate SWPPP signs in locations where the signs may be confused with traffic control signs or devices. Update the notices if the listed information changes, for instance if the location of the SWPPP or contact person changes during the winter.

c. Install an outdoor rain gauge per manufacturer's guidance, in a accessible location on the Project.

d. Delineate the site for both land disturbing activities and areas that will be left undisturbed. Install sediment controls and other BMPs that must be placed prior to the initiation of Construction Activity.

The CGP Part 4.10.3 allows cutting of trees and brush while the ground is frozen, without disturbing the vegetative mat, prior to submitting an eNOI.

2. During Construction.

Make copies of the applicable portions of the SWPPP available to subcontractors and utility companies before they begin soil disturbing activities. Inform subcontractors and utility companies of amendments that affect them in a timely manner. Ensure all subcontractors who engage in soil-disturbing activities understand and comply with the SWPPP and the CGP, and have signed a SWPPP Subcontractor Certification, Form 25D-105, before they conduct the activity. Include SWPPP Subcontractor Certifications as an appendix to the SWPPP. Provide SWPPP information to utility companies. Coordinate with subcontractors and utility companies doing work in the Project Area so that BMPs, including temporary and permanent stabilization, are installed, maintained, and protected from damage.

Provide on-going training to employees and subcontractors, on control measures at the site and applicable storm water pollution prevention procedures. Training must be specific to the installation, maintenance, protection, and removal of control measures. Training must be given at a frequency that will be adequate to ensure proper implementation and protection of control measures. Document on the SWPPP Training Log, Form 25D-125, the dates and attendees to these trainings. Include the SWPPP Training Log as an appendix to the SWPPP.

Notify the Project Engineer immediately if the actions of any utility company or subcontractor do not comply with the SWPPP and the CGP.

Comply with Subsection 107-1.11 Protection and Restoration of Property and Landscape. Do not install concrete washout containment within 100 feet of wetlands and/or other water bodies.

Fuel in designated areas. Place absorbent pads or other suitable containment under fill ports while fueling, and under equipment during maintenance or repairs. Install secondary containment under all stationary equipment that contains petroleum products.

Comply with requirements of the HMCP and SPCC Plan, and all local, state and federal regulations that pertain to the handling, storage, containment, cleanup, and disposal of petroleum products or other hazardous materials.

Keep the SWPPP and HMCP current (refer to Subsection 641-2.01.3, SWPPP Considerations and Contents)

3. Pollutant and Hazardous Materials Reporting Requirements.

If there has been an incident of non-compliance with the CGP that may endanger health or the environment, immediately report the incident to ADEC according to the CGP, Appendix A, Part 3.0. Notify the Project Engineer immediately and to the extent possible coordinate reports to ADEC with the Project Engineer. The report must include:

- A description of the noncompliance and its causes;
- The exact dates and times of noncompliance ;
- If not yet corrected the anticipated time the project will be brought back into compliance; and
- The corrective actions taken, or planned, to reduce, eliminate and prevent reoccurrence.

Report spills of petroleum products or other hazardous materials to the Project Engineer and other agencies as required by law. Use the HMCP and SPCC Plan (if available) for contact information to report spills to regulatory agencies. See CGP Part 4.8.

4. Corrective Action and Maintenance of BMPs.

a. Implement corrective action:

- 1) If an incident of non-compliance with the SWPPP, or CGP is identified;
- 2) If an Inspection identifies the SWPPP or any part of the SWPPP is ineffective in preventing erosion, sedimentation or the discharge of pollutants;
- 3) If the Project Engineer determines the SWPPP or any part of the SWPPP is ineffective in preventing the erosion, sedimentation, or the discharge of pollutants;
- 4) If a required BMP was never installed, was installed incorrectly, or not in accordance with the CGP Part 4.0;
- 5) If any BMP is not operating as intended, or has not been maintained in an effective operation condition, or is unable to effectively perform the intended function;
- 6) Before sediment or debris fills a BMP to the percentage of design capacity or available storage allowed by the CGP (or manufacturer's specifications or SWPPP requirements, whichever is lower);
- 7) Whenever there is a change in conditions, design, construction, operation, or maintenance that could result in erosion, sedimentation, or the discharge of pollutants;
- 8) If a prohibited discharge as specified in CGP Part 4.6 is occurring or will occur; or
- 9) If there are accumulations and tracking of sediment or other pollutants, in or near any storm water conveyance channels, on roadways or parking lots within and adjacent to the project area, in the immediate vicinity of control measures, at discharge points or entry points into the storm sewer system, or in other areas within the project area.

- b. Implement corrective actions so that all of the following time requirements are satisfied:
- 1) Conditions that are easily remedied (i.e. removal of tracked sediment, maintenance of control measure, or spill clean-up), initiate corrective action within 24 hours and complete as soon as possible;
 - 2) Corrective action is completed before the next storm event;
 - 3) Corrective action is completed in time to protect water quality; and
 - 4) Corrective action is completed no later than the Complete-by-Date that was entered in an Inspection Report (see Subsection 641-3.03.2 for more information).

If a corrective action is not implemented within the time requirements of this section, document the situation in the SWPPP, notify the Project Engineer, and implement corrective action as soon as possible.

If a corrective action could affect a subcontractor, notify the subcontractor within three days of taking the corrective action.

Train subcontractors to identify conditions that require corrective action. Subcontractors are required to notify the Contractor within 24 hours of becoming aware of a condition(s) that requires corrective action.

5. Stabilization.

Stabilization may be accomplished using temporary or permanent measures. Initiate stabilization of disturbed soils, erodible stockpiles, disposal sites, and of erodible aggregate layers so that all of the following conditions are satisfied:

- a. As soon as practicable;
- b. As soon as necessary to avoid erosion, sedimentation, or the discharge of pollutants; and
- c. As identified in the SWPPP.

Land may be disturbed and stabilized multiple times during a project. Coordinate work to minimize the amount of disturbed soil at any one time. Do not disturb more soil than you can stabilize with the resources available.

Temporarily stabilize from wind and water erosion portions of disturbed soils, portions of stockpiles, and portions of disposal sites, that are not in active construction. Temporary stabilization measures may require a combination of measures including but not limited to vegetative cover, mulch, stabilizing emulsions, blankets, mats, soil binders, non-erodible cover, dust palliatives, or other approved methods.

Temporary or Permanent Seeding.

When temporary or permanent seeding is required, provide a working hydro seeding equipment located within 100 miles of the project by road; with 1,000 gallon or more tank capacity, paddle agitation of tank, and the capability to reach the seed areas with an uniform mixture of water, seed, mulch and tackifier. If the project is located in an isolated community the hydro-seeder must be located at the project.

Before applying temporary or permanent seeding, prepare the surface to be seeded to reduce erosion potential and to facilitate germination and growth of vegetative cover. Apply seed and maintain seeded areas. Reseed areas where growth of temporary vegetative cover is inadequate to stabilize disturbed ground.

Apply permanent seed according to Sections 618 and 724, within the time periods allowed by the CGP and the Contract, at locations where seeding is indicated on the plans and after land-disturbing activity is permanently ceased.

Stream By Pass.

When installing a culvert or other drainage structure where stream bypass is not used, install temporary or permanent stabilization concurrently or immediately after placing the culvert or drainage structure in a manner that complies with the SWPPP, applicable project permits and prevents discharge of pollutants.

Install temporary and permanent stabilization:

- a. At the culvert or drainage structure inlet and outlet; and
- b. In the areas upstream and downstream that may be disturbed by the process of installing the culvert, culvert end walls, culvert end sections, or drainage structure.

Before deactivating a stream bypass or stream diversion used for construction of a bridge, culvert, or drainage structure, install permanent stabilization:

- a. At the inlet and outlet of the culvert, drainage structure, or bridge;
- b. In the area upstream and downstream of the culvert, drainage structure, or bridge, that is disturbed during installation or construction of the culvert, drainage structure, or bridge; and
- c. Under the bridge.

6. Ending CGP Coverage and BMP Maintenance.

The Project Engineer will determine the date that all the following conditions for ending CGP coverage have been met within the Project Area:

- a. Land disturbing activities have ceased;
- b. Final Stabilization has been achieved (including at Department furnished material sources, disposal sites, staging areas, equipment areas, etc.); and
- c. Temporary BMPs have been removed.

After the Project Engineer has determined the conditions for ending CGP coverage have been met, the Department will:

- a. Send written notice to the Contractor with the date that the conditions were met;
- b. Submit an eNOT to ADEC; and
- c. Provide a copy of the eNOT and ADEC's acknowledgement letter to the Contractor.

The Contractor is responsible for ending permit coverage within the Project Area, by submitting an eNOT to ADEC within 30 days of meeting the conditions for ending CGP coverage. The Contractor is responsible for BMP maintenance and SWPPP updates until permit coverage is ended.

If the Contractor's CGP eNOI acreage includes Support Activities where the Department is not an Operator, the Contractor may not be able to file an eNOT at the same time as the Department. In this case, the Contractor must amend the SWPPP and separate SWPPP2(s), to indicate the Department's CGP coverage has ended, and the Department is no longer an Operator within the Project Area.

The Contractor must indicate in the SWPPP the areas that have reached Final Stabilization, and the dates land disturbing activities ended and Final Stabilization was achieved. The Contractor must submit an eNOT to ADEC, and insert copies of the Department's and the Contractor's eNOTs with ADEC's acknowledgement letters in the appendix of the SWPPP.

The Contractor must submit a copy of each signed eNOT and ADEC's acknowledgement letter to the Department within 30 days of receiving them.

7. Transmit final SWPPP.

Transmit one copy of the final SWPPP, including all amendments and appendices, to the Project Engineer when the project eNOTs are filed, or within 30 days of the Department's eNOT being filed, whichever is sooner. Transmittal must be by both electronic and hard copy.

641-3.02 SWPPP DOCUMENTS, LOCATION ON-SITE, AVAILABILITY, AND RECORD RETENTION. The SWPPP and related documents maintained by the Contractor are the Record for demonstrating compliance with the CGP. Copies of SWPPP documents transmitted to the Project Engineer under the requirements of this specification are informational and do not relieve the Contractor's responsibility to maintain complete records as required by the CGP and this specification.

Keep the SWPPP, HMCP and SPCC Plan at the on-site project office. If there is not an on-site project office, keep the documents at a locally available location that meets CGP requirements and is approved by the Project Engineer. Records may be moved to another office for record retention after the eNOTs are filed. Records may be moved to

another office during winter shutdown, but this will require updating on-site posted notices. Provide the Department with copies of all Records.

Retain Records and a copy of the SWPPP, for at least three years after the date of eNOT. If EPA or ADEC inspects the project, issues a Notice of Violation (NOV), or begins investigation for a potential NOV before the retention period expires, retain the SWPPP and all Records related to the SWPPP and CGP until at least three years after EPA and/or ADEC has determined all issues related to the investigation are settled.

The SWPPP and related documents must be made available for review and copy, to the Department and other regulatory agencies that request them. The Project, including any related off-site areas or support activities, must be made available for inspection, or sampling and monitoring, by the Department and other regulatory agencies. See CGP Parts 5.10, 6.6 and 9.4.

641-3.03 SWPPP INSPECTIONS, AMENDMENTS, REPORTS, AND LOGS. Perform Inspections, prepare Inspection Reports, and prepare SWPPP Amendments in compliance with the SWPPP and the CGP. Update SWPPP Corrective Action Log, SWPPP Amendment Log, SWPPP Grading and Stabilization Activities Log, and SWPPP Daily Record of Rainfall forms. For active projects update the Records daily.

1. Inspection during Construction.

Conduct Inspections according to the schedule and requirements of the SWPPP and CGP:

- a. Areas where the mean annual precipitation is 15 inches or less inspect once at least every fourteen (14) calendar days and within twenty-four (24) hours of the end of a storm event that resulted in a discharge from the project area.
- b. Areas where the mean annual precipitation is greater than 15 and less than 40 inches: inspect once every seven (7) days.
- c. Areas where the mean annual precipitation is 40 inches or greater: inspect once every seven (7) days, and twice every seven days during periods of relatively continuous precipitation or sequential storm events.

Inspections required by the CGP and SWPPP must be performed by the Contractor's Storm Water Lead. The Department's Project Engineer shall be contacted 24 hours prior to an Inspection. The Department's Project Engineer shall be present during inspections if available. If Department's Project Engineer is unavailable to attend the Inspection, the Contractor shall provide a copy of the Inspection to Project Engineer within three days of the Inspection date and pictures taken during the inspection.

2. Inspection Reports.

Use only the ADNR SWPPP Construction Site Inspection Report, Form 25D-100 to record Inspections. Changes or revisions to Form 25D-100 are not permitted; except

for adding or deleting data fields that list: Location of Discharge Points and Site Specific BMPs. Complete all fields included on the Inspection Report form; do not leave any field blank.

Unless otherwise directed by the Project Engineer, insert a Complete-by-Date for each corrective action listed that is (1) a date that complies with the time requirements listed in Subsection 641-3.01.4, or (2) seven days from the date of the Inspection, whichever is sooner. Provide a copy of the completed, unsigned Inspection Report to the Project Engineer by noon of the day after inspection.

The Superintendent must review the Inspection Report. The Project Engineer may coordinate with the Superintendent to review the Inspection Report. Corrections are limited to adding missing information or correcting entries to match field notes and conditions present at the time the Inspection was performed. Deliver a copy of the signed and certified Inspection Report to the Project Engineer with three days.

The Project Engineer may recommend corrections on the Inspection Report after the Superintendent has signed and certified the Inspection Report. If the Superintendent makes corrections, the Superintendent must recertify the Inspection Report by entering a new signature and date in the white space below the original signature and date lines. Send a copy of the recertified Inspection Report to the Project Engineer on the day it is recertified.

3. Inspection before Seasonal Suspension of Work.

Conduct an Inspection before seasonal suspension of work to confirm BMPs are installed and functioning according to the requirements of the SWPPP and CGP.

4. Reduced Inspection Frequencies.

Conduct Inspections according to the inspection schedule indicated in the approved SWPPP. Any change in inspection frequency must be approved by the Project Engineer, and beginning and ending dates documented as an amendment to the SWPPP.

The Project Engineer may waive winter Inspection requirements 14 days after the freeze-up. Inspections must resume inspections 21 days before thawing conditions are expected to result in a discharge, if all the following requirements are met:

- a. Frozen conditions are anticipated to continue for more than one month; and
- b. Soil disturbing or soil stabilizing activities have been suspended.

The Project Engineer may waive requirements for updating the Grading and Stabilization Activities Log and Daily Record of Rainfall during seasonal suspension of work. If so, resume collecting and recording weather data on the Daily Record of Rainfall form one month before thawing conditions are expected to result in runoff.

Resume recording land disturbance and stabilization activities on the Grading and Stabilization Activities Log when Construction Activity resumes.

5. Stabilization before Seasonal Thaw.

Construction Activities within the Project Area must be stabilized with appropriate BMPs prior to seasonal thaw. Seasonal thaw is the annual (first) recurrence of snow and ice melting after a prolonged period of freezing conditions.

6. Inspection before Project Completion.

Conduct Inspection to ensure Final Stabilization is complete throughout the Project, and temporary BMPs that are required to be removed are removed. Temporary BMPs that are biodegradable and are specifically designed and installed with the intent of remaining in place until they degrade, may remain in place after project completion.

7. Items and Areas to Inspect.

Conduct Inspections of the areas required by the CGP and SWPPP.

8. SWPPP Amendments and SWPPP Amendment Log.

The Superintendent and the Storm Water Lead are the only persons authorized to amend the SWPPP and update the SWPPP Amendment Log, Form 25D-114. The Superintendent or the Storm Water Lead must sign and date amendments to the SWPPP and updates to the SWPPP Amendment Log.

SWPPP Amendments must be approved by the Project Engineer.

Amendments must occur:

- a. Whenever there is a change in design, construction operation, or maintenance at the construction site that has or could cause erosion, sedimentation or the discharge of pollutants that has not been previously addressed in the SWPPP;
- b. If an Inspection identifies that any portion of the SWPPP is ineffective in preventing erosion, sedimentation, or the discharge of pollutants;
- c. Whenever an Inspection identifies a problem that requires additional or modified BMPs
- d. Whenever a BMP is modified during construction, or a BMP not shown in the original SWPPP is added;
- e. If the Inspection frequency is modified (note beginning and ending dates); or
- f. When there is a change in personnel who are named in the SWPPP, according to Subsection 641-2.01.4.

Do not record removal of BMPs as amendments to the SWPPP. See Subsection 641-3.03.9 for documenting removal of BMPs.

Amend the SWPPP narrative as soon as practicable after any change or modification, but in no case, later than seven days following identification of the need for an amendment. Every SWPPP Amendment must be signed and dated. Cross-reference the amendment number with the Corrective Action Log or SWPPP page number, as applicable. When a BMP is modified or added, describe the BMP according to Subsection 641-2.01.3.

Keep the SWPPP Amendment Log current. Prior to performing each scheduled Inspection, submit to the Project Engineer a copy of the pages of the Amendment Log that contain new entries since the last submittal. Include copies of any documents amending the SWPPP.

Keep the SWPPP Amendment Log as an appendix to the SWPPP.

9. Site Maps.

Document installation, routine maintenance, and removal of BMPs by making notes on the SWPPP Site Maps. Include the date and the recording person's initials by these notes. Identify areas where Construction Activities begin, areas where Construction Activities temporarily or permanently cease, and areas that are temporarily or permanently stabilized.

10. Corrective Action Log.

The Storm Water Lead is the only person authorized to make entries on the SWPPP Corrective Action Log, Form 25D-112. Document the need for corrective action within 24 hours of discovery.

Modification or replacement of a BMP, installation of a new BMP not shown in the original SWPPP, or overdue maintenance (after a sediment trap exceeds 50% of design capacity) is a corrective action and must be documented on the Corrective Action Log. Do not record removal of BMPs on the Corrective Action Log.

After each Inspection Report has been signed and certified, update the corrective action log with the date of inspection and include all proposed corrective actions noted on the Inspection Report.

After the corrective action has been accomplished, note the action taken, if a SWPPP amendment was needed, and date and initial the entry.

Keep the Corrective Action Log current and submit a copy to the Project Engineer prior to performing each scheduled SWPPP Inspection.

Keep the Corrective Action Log as an appendix to the SWPPP.

11. Grading and Stabilization Activities Log.

The Storm Water Lead is the only person authorized to date and initial entries on the SWPPP Grading and Stabilization Activities Log, Form 25D-110. Use the SWPPP Grading and Stabilization Activities Log, to record land disturbance and stabilization activities.

Keep the Grading and Stabilization Activities Log current and submit a copy to the Project Engineer prior to performing each scheduled SWPPP Inspection.

Keep the Grading and Stabilization Activities Log as an appendix to the SWPPP.

12. Daily Record of Rainfall.

Use SWPPP Daily Record of Rainfall, Form 25D-115, to record weather conditions at the Project. Update the form daily and include the initials of the person recording each day's entry. Submit a copy to the Project Engineer prior to performing each scheduled Inspection. Keep the Daily Record of Rainfall as an appendix to the SWPPP.

641-3.04 FAILURE TO PERFORM WORK. The Project Engineer has authority to suspend work and withhold monies, for an incident of non-compliance with the CGP or SWPPP that may endanger health or the environment. If the suspension is to protect workers, the public, or the environment from imminent harm, the Project Engineer may orally order the suspension of work. Following an oral order of suspension, the Project Engineer will promptly give written notice of suspension. In other circumstances, the Project Engineer will give the Contractor written notice of suspension before suspension of work. A notice of suspension will state the defects or reasons for a suspension, the corrective actions required to stop suspension, and the time allowed to complete corrective actions.

1. If the Contractor fails to take the corrective action within the specified time, the Project Engineer may:

- a. Suspend the work until corrective action is completed;
- b. Withhold monies due the Contractor until corrective action is completed;
- c. Assess damages or equitable adjustments against the Contract Amount; and
- d. Employ others to perform the corrective action and deduct the cost from the Contract amount.

2. Reasons for the Project Engineer to take action under this section include, but are not limited to, the Contractor's failure to:

- a. Obtain appropriate permits before Construction Activities occur;
- b. Perform SWPPP Administration;
- c. Perform timely Inspections;

- d. Update the SWPPP;
- e. Transmit updated SWPPP, Inspection Reports, and other updated SWPPP forms to the Project Engineer;
- f. Maintain effective BMPs to control erosion, sedimentation, and pollution in accordance with the SWPPP, the CGP, and applicable local, state, and federal requirements;
- g. Perform duties according to the requirements of this Section 641; or
- h. Meet requirements of the CGP, SWPPP, or other permits, laws, and regulations related to erosion, sediment, or pollution control.

No additional Contract time or additional compensation will be allowed due to delays caused by the Project Engineer’s suspension of work under this subsection.

641-4.01 METHOD OF MEASUREMENT. Section 109.

641-5.01 BASIS OF PAYMENT. See Subsection 641-3.04 Failure to Perform Work, for additional work and payment requirements.

The total value of this Contract will be adjusted as specified herein. Withholding will be determined by the Department and assessed under Pay Item 641(6) SWPPP Price Adjustment, as follows:

**TABLE 641-1 BMP VALUES
- RESERVED -**

**TABLE 641-2 EROSION, SEDIMENT AND POLLUTION CONTROL – LIQUIDATED DAMAGES
- RESERVED -**

1. Fines and Penalties: A Price adjustment equal to any penalties and fines levied against the Department by local, state, or federal agencies for pollutant violations, including violations of the CWA and the CGP, except when due to Department negligence. An amount equal to the anticipated penalties and fines for the violation or violations, excluding any due to negligence by the Department, will be withheld until the actual cost of the penalties and fines is known. Anticipated penalties and fines will be determined by the Project Engineer. The Contractor is also responsible for the payment of penalties and fines levied against the Contractor.
2. Failure to perform Inspections: By each 24 hour period, that a required SWPPP inspection is delayed or is not signed, certified, or completed in accordance with the schedule identified in the approved SWPPP a price adjustment of \$750 will be assessed.
3. Failure to perform Corrective Action. By each 24 hour period following 24 hours after written notice by the Project Engineer, per occurrence, a price adjustment of \$750 will be assessed where the Contractor:

- fails to complete SWPPP administrative requirements as identified in the Contract or the CGP,
- fails to initiate work required by the SWPPP, or
- fails to initiate corrective action to respond to a deficiency noted during an inspection or by the Project Engineer.

The same deficiency remaining uncorrected will be considered an additional occurrence for each additional 24 hour period, without requiring additional written notice by the Project Engineer.

Item 641(1) Erosion, Sediment and Pollution Control Administration. At the Contract lump sum price for administration of all work under this Section. Includes, but is not limited to, SWPPP and HMCP and SPCC Plan preparation, agency fees for SWPPP reviews, Storm Water Lead (when not included as a separate Pay Item under 641(7)) SWPPP amendments, pre-construction Inspections, Inspections, monitoring, reporting, and Record keeping or copying Records related to the SWPPP and required by the CGP, and Record retention.

Work required by the HMCP and SPCC Plan including hazardous material storage, containment, removal, cleanup and disposal, are subsidiary to Pay Item 641(1) Erosion, Sediment and Pollution Control Administration.

Item 641(2) Temporary Erosion, Sediment and Pollution Control. At the contingent sum prices specified for all labor, supervision, material, equipment, and incidentals to install, maintain, remove and dispose of approved temporary erosion, sedimentation, and pollution control BMPs required to implement the SWPPP and SPCC Plan.

Item 641(3) Temporary Erosion, Sediment and Pollution Control. At the Contract lump sum price for all labor, supervision, material, equipment, and incidentals to install, maintain, remove and dispose of temporary erosion, sedimentation, and pollution control BMPs identified in the SWPPP and SPCC Plan.

Item 641(4) Temporary Erosion Sediment and Pollution Control Additives. At the contingent sum prices specified in the Directive to authorize the work, for all labor, supervision, materials, equipment, and incidentals for extra, additional, or unanticipated work, to install, maintain, remove and dispose of temporary erosion, sedimentation, and pollution control BMPs. All additional Erosion, Sediment, and Pollution Control Administration necessary due to this item will not be paid for separately but will be subsidiary to other bid items.

Item 641(5) Temporary Erosion Sediment and Pollution Control by Directive. At the contingent sum prices specified in the Directive using time and materials to authorize the work, for all labor, supervision, materials, equipment, and incidentals to install, maintain, remove and dispose of temporary erosion, sedimentation, and pollution control BMPs. Prices for this item will be by time and materials according to Subsection 109-1.05, or by mutual agreement between the Project Engineer and Contractor. All

additional Erosion, Sediment, and Pollution Control Administration necessary due to this item will not be paid for separately but will be subsidiary to other bid items.

Item 641(6) SWPPP Price Adjustment. Withholding according to Section 641-3.04, equal to any penalties and fines levied against the Department by local, state, or federal agencies for pollutant violations, including violations of the CWA, CGP, and any other Permit, except when due to the Department's sole negligence. The Contractor is also responsible for the payment of any and all penalties and fines levied against the Department or Contractor by entities (including agencies) other than the Department.

The Department will not release performance bonds until penalties and fines, assessed according to Section 641, are paid to the Department; and all requirements, according to Subsection 103-1.05, are satisfied.

Subsidiary Items. Temporary erosion, sediment, and pollution control measures that are required outside the Project Area are subsidiary. Work required by the HMCP and SPCC Plan including hazardous material storage, containment, removal, cleanup and disposal, are subsidiary to Item 641(1) Erosion, Sediment and Pollution Control Administration.

Work under other pay items. Work that is paid for directly or indirectly under other pay items will not be measured and paid for under Section 641. This work includes but is not limited to:

- a. Dewatering;
- b. Shoring;
- c. Bailing;
- d. Permanent seeding;
- e. Installation and removal of temporary work pads;
- f. Temporary accesses;
- g. Temporary drainage pipes and structures;
- h. Diversion channels;
- i. Settling impoundment; and
- j. Filtration.

Permanent erosion, sediment and pollution control measures will be measured and paid for under other Contract items, when shown on the bid schedule.

Work at the Contractor's Expense. Temporary erosion, sediment, and pollution control measures that are required due to carelessness, negligence, or failure to install temporary or permanent controls as scheduled or ordered by the Project Engineer, or for the Contractor's convenience, are at the Contractor's expense.

Payment will be made under:

Pay Item	Pay Unit
641(1)Erosion, Sediment, and Pollution Control Administration	Lump Sum
641(2)Temporary Erosion, Sediment, and Pollution Control	Contingent Sum
641(6)SWPPP Price Adjustment	Contingent Sum

(10/20/11)PARKS-Special Provision

SECTION 642

CONSTRUCTION SURVEYING AND MONUMENTS

642-3.02 CROSS-SECTION SURVEYS Add the following:

Original ground, post-grubbing, post-excavation, and aggregate cross sections shall be taken at identical stations so that no interpolation of data is needed to calculate end areas.

Where an exact placement is not shown on the plans, the Department will be responsible for field locating the structures, signs, and mounds. The Contractor shall provide the Engineer with sufficient horizontal and vertical control to enable the Engineer to field locate these facilities. The Contractor shall be responsible for all surveying required to construct the field located item.

(05/02/11)PARKS-Special Provision

642-3.04 OFFICE ENGINEERING. Delete third sentence and replace with:

Perform the work by, or under the responsible charge of, a person registered in the State of Alaska as a Professional Land Surveyor or a Professional Engineer.

(05/01/07)E53-Standard Modification

642-4.01 METHOD OF MEASUREMENT. Add the following: Clearing required for stake visibility shall not be measured. Maintenance of stakes will not be measured.

(01/01/06)PARKS-Special Provision

642-5.01 BASIS OF PAYMENT. Add the following:

Clearing required for stake visibility is subsidiary to Item 642(1) and no separate payment shall be made. (01/01/06)PARKS-Special Provision

Replace Section 643 with the following:

SECTION 643

TRAFFIC MAINTENANCE

643-1.01 DESCRIPTION. Protect and control traffic during the contract. Furnish, erect, maintain, replace, clean, move and remove the traffic control devices required to ensure the safety of the park users and general public. Perform all administrative responsibilities necessary to implement the work. Site will remain open to the public for the duration of construction. Heavy personal use fishery is anticipated between June 15 and August 7. The contractor shall not restrict traffic during this period.

643-1.02 DEFINITIONS.

Alaska Traffic Manual (ATM). The Manual on Uniform Traffic Control Devices (MUTCD) along with Alaska Supplement.

Traffic. The movement of the park users and general public through and around the project site. Traffic may consist of vehicles, pedestrians, and bicyclists.

Traffic Control Plan (TCP). A drawing or drawings indicating the method or scheme for safely guiding and protecting traffic and workers in a traffic control zone. The TCP depicts the traffic control devices and their placement and times of use.

Traffic Control Zone. A portion of the project that affects traffic and requires traffic control to safely guide and protect traffic and workers.

643-1.03 TRAFFIC CONTROL PLAN. Create and implement an approved TCP before beginning work within the project limits.

The TCP includes, but is not limited to, signs, barricades, traffic cones, plastic safety fence, and all other items required to direct traffic through or around the traffic control zone according to these Specifications and the ATM. Address in the TCPs placement of traffic control devices, including location, spacing, size, mounting height and type. Include code designation, size, and legend per the ATM and Alaska Sign Design Specifications (ASDS).

Submit new or modified TCPs to the Engineer for approval. Allow 1 week for the Engineer to review any TCP or each subsequent correction. You may change an approved TCP during construction provided you allow 48 hours for review and the Engineer approves the changes.

643-2.01 MATERIALS. Provide traffic control devices meeting the following requirements:

SPECIAL PROVISIONS
Kasilof River SUA
North Site Improvements
Project Number 76058-1

1. Signs. Use signs, including sign supports, that conform to Section 615, the ATM, and ASDS.
2. Barricades and Vertical Panels. Use barricades and vertical panel supports that conform to the ATM. Use Type III Barricades at least 8 feet long. Use reflective sheeting that meet AASHTO M 268 Type II or III.
3. Warning Lights. Use Type A (low intensity flashing), Type B (high intensity flashing) or Type C (steady beam) warning lights that conform to the ATM.
4. Drums. Use plastic drums that conform to the requirements of the ATM. Use reflective sheeting that meets AASHTO M 268 Type II or III.
5. Traffic Cones and Tubular Markers. Use reflectorized traffic cones and tubular markers that conform to the requirements of the ATM. Use traffic cones and tubular markers at least 28 inches high. Use reflective sheeting that meets AASHTO M 268 Type II or III.
6. Plastic Safety Fence. Use 4 foot high construction orange fence manufactured by one of the following companies, or an approved equal:
 - a. "Safety Fence" by Jackson Safety, Inc., Manufacturing and Distribution Center, 5801 Safety Drive NE, Belmont, Michigan, 49306. Phone (800) 428-8185.
 - b. "Flexible Safety Fencing" by Carsonite Composites, LLC, 19845 U.S. Highway 76, Newberry, South Carolina, 29108. Phone (800) 648-7916.
 - c. "Reflective Fencing" by Plastic Safety Systems, Inc., 2444 Baldwin Road, Cleveland, Ohio 44104. Phone (800) 662-6338.

643-3.01 GENERAL CONSTRUCTION REQUIREMENTS. Keep the work, and portions of the project affected by the work, in good condition to accommodate traffic safely. Provide and maintain traffic control devices and services inside and outside the project limits, day and night, to guide traffic safely.

The campground may be closed to traffic. Campground closure is intended to complete the work in this contract. All closures must be included in the Traffic Control Plan (TCP) and coordinated through the Project Engineer. Please give the Project Engineer 2 weeks notice prior to any closures.

Immediately notify the Engineer of any traffic related accident that occurs within the project limits as soon as you, an employee, or a subcontractor becomes aware of the accident

643-3.02 TRAFFIC CONTROL DEVICES. Before starting construction, erect permanent and temporary traffic control devices required by the approved TCPs. Use traffic control devices only when they are needed.

Use only one type of traffic control device in a continuous line of delineating devices.

Keep signs, drums, barricades, and other devices clean at all times. Immediately replace any devices provided under this Section that are lost, stolen, destroyed, inoperable or deemed unacceptable while used on the project.

Use only traffic control devices that meet the requirements of the "Acceptable" category in the American Traffic Safety Services Association (ATSSA) "Quality Guidelines for Temporary Traffic Control Devices".

643-3.03 AUTHORITY OF THE ENGINEER. When existing conditions adversely affect the public's safety or convenience, the Contractor will receive an oral notice. A written notice will follow the oral notice according to Subsection 105-1.01, Authority of the Engineer. The notice will state the defects, the corrective actions required, and the time required to complete such actions. If you fail to take corrective actions within the specified time, the Engineer will immediately close down the offending operations until you correct the defects. The Engineer may require outside forces to correct unsafe conditions. The cost of work by outside forces will be deducted from any monies due under the terms of this Contract.

643-4.01 METHOD OF MEASUREMENT. Item 643(2) Traffic Maintenance is a lump sum item and will not be measured directly for payment. The approved schedule of values and Engineer's approval shall constitute method of measurement.

643-5.01 BASIS OF PAYMENT. Item 643(2) Traffic Maintenance will be paid for at the contract lump sum price. Payment shall be full compensation for all the labor, equipment, material, and incidentals necessary to complete the work under this Section.

Payment will be made under:

Pay Item	Pay Unit
643(2) Traffic Maintenance	Lump Sum

(06/18/13)PARKS-Special Provision

SECTION 646

CPM SCHEDULING

646-2.01 SUBMITTAL OF SCHEDULE. Replace this Subsection with the following: Submit a detailed initial CPM Schedule at the preconstruction conference for the Engineer's acceptance as set forth below.

The construction schedule for the entire Project shall not exceed the specified contract time. Allow the Engineer fourteen (14) days to review the initial CPM Schedule. Revise promptly. The finalized CPM Schedule must be completed and accepted before beginning work on the Project.

646-3.01 REQUIREMENTS AND USE OF SCHEDULE.

Delete item 2. 60-Day Preliminary Schedule.

Replace the first sentence of item 3. Schedule Updates. with the following: Hold job site progress meetings with the Engineer for the purpose of updating the CPM Schedule. Meet with the Engineer monthly or as deemed necessary by the Engineer.

(12/13/02)CR261-Special Provision

Add the following Section:

SECTION 647

EQUIPMENT RENTAL

647-1.01 DESCRIPTION. This item consists of furnishing construction equipment, operated, fueled and maintained, on a rental basis for use in construction of extra or unanticipated work at the direction of the Engineer. Construction equipment is defined as that equipment actually used for performing the items of work specified and shall not include support equipment such as hand tools, power tools, electric power generators, welders, small air compressors and other shop equipment needed for maintenance of the construction equipment.

The Engineer will provide direction to the Contractor's supervisory personnel only, not to the operators or laborers. In no case shall direction by the Engineer be construed as making the Department liable for the Contractor's responsibility to prosecute the work in the safest and most expeditious manner.

647-2.01 EQUIPMENT FURNISHED. In the performance of this work, furnish, operate, maintain, service, and repair equipment of the numbers, kinds, sizes, and capacities set forth on the Bid Schedule or as directed by the Engineer. The kinds, sizes, capacities, and other requirements set forth shall be understood to be minimum requirements. The number of pieces of equipment to be furnished and used shall be, as the Engineer considers necessary for economical and expeditious performance of the work. The equipment shall be used only at such times and places as the Engineer may direct.

Equipment shall be in first class working condition and capable of full output and production. The minimum ratings of various types of equipment shall be as manufactured and based on manufacturer's specifications. Alterations will not be considered acceptable in achieving the minimum rating. Equipment shall be replaced when, in the opinion of the Engineer, their condition is below that normal for efficient output and production.

Equipment shall be fully operated, which shall be understood to include the operators, oilers, tenders, fuel, oil, air hose, lubrication, repairs, maintenance, insurance, and incidental items and expenses.

647-2.02 EQUIPMENT OPERATORS AND SUPERVISION PERSONNEL. Equipment operators shall be competent and experienced and shall be capable of operating the equipment to its capacity. Personnel furnished by the Contractor shall be, and shall remain during the work hereunder, employees solely of the Contractor.

Furnish, without direct compensation, a job superintendent or Contractor's representative together with such other personnel as are needed for Union, State, or Federal requirements and in servicing, maintaining, repairing and caring for the

equipment, tools, supplies, and materials provided by the Contractor and involved in the performance of the work.

647-3.01 CONSTRUCTION REQUIREMENTS. The performance of the work shall be according to the instructions of the Engineer, and with recognized standards and efficient methods.

Furnish equipment, tools, labor, and materials in the kinds, number, and at times directed by the Engineer and shall begin, continue, and stop the several operations involved in the work only as directed by the Engineer.

Normally, the work is to be done when weather conditions are reasonably favorable, six days per week, Mondays through Saturdays, holidays excepted.

The Engineer will begin recording time for payment each shift when the equipment begins work on the project. The serial number and brief description of each item of equipment listing in the bid schedule and the number of hours, or fractions thereof to the nearest one quarter hour, during which equipment is actively engaged in construction of the project shall be recorded by the Engineer. Each day's activity will be recorded on a separate sheet or sheets, which shall be verified and signed by the Contractor's representative at the end of each shift, and a copy will be provided to the Contractor's representative.

647-4.01 METHOD OF MEASUREMENT. The number of hours of equipment operation to be paid for shall be the actual number of hours each fully operated specified unit of equipment is actually engaged in the performance of work in the designated areas according to the direction of the Engineer. The pay time will not include idle periods, time used in oiling, servicing, or repairing of equipment, or in making changeovers of parts to the equipment. Travel time to or from the work site project will not be authorized for payment.

647-5.01 BASIS OF PAYMENT. Payment for Item 647(6) Hydraulic Excavator, 1 CY, 100 Hp, Minimum will be paid at the contract price for the number of hours required to complete the work according to the Engineer's direction. This shall be full compensation for furnishing, operating, maintaining, servicing and repairing the equipment, and for incidental costs related to the equipment. Furnishing and operating of equipment of heavier type, larger capacity, or higher wattage than specified will not entitle the Contractor to extra compensation.

Payment will be made under:

Pay Item	Pay Unit
647(6) Hydraulic Excavator, 1 CY, 100 Hp, Minimum	Hour

(08/24/05)R15-Special Provision

SPECIAL PROVISIONS
Kasilof River SUA
North Site Improvements
Project Number 76058-1

Add the following Section:

SECTION 650

PARK FACILITIES

650-1.01 DESCRIPTION. This work shall consist of furnishing, constructing and placing park facilities in conformance with the plans and Special Provisions.

650-1.02 APPLICABLE ACCESSIBILITY STANDARD. Americans with Disabilities Act (ADA) Accessibility Guidelines for Buildings and Facilities.

650-1.03 SUBMITTALS AND SUBSTITUTIONS. Conform to Subsection 106-1.01.

MATERIALS

650-2.01 GENERAL. All materials shall be new and conform to the details shown on the plans or as specified.

650-2.02 BACKFILL. Selected Material, Type A conforming to Subsection 703-2.07.

650-2.03 CONCRETE. Class A Concrete conforming to Section 501.

650-2.04 STRUCTURAL STEEL. Structural steel shall conform to the requirements of ASTM Specification A36 (Standard Specification for Carbon Structural Steel).

650-2.05 GALVANIZING. Conform to AASHTO M111/ASTM A123 (Standard Specification for Zinc [Hot-Dip Galvanized] Coatings on Iron and Steel Products), or AASHTO M232/ASTM A153 (Standard Specification for Zinc Coating[Hot-Dip] on Iron and Steel Hardware). Repair damaged galvanizing by using low melting point zinc repair rods in conformance with ASTM A780 (Standard Practice for Repair of Damaged and Uncoated Areas of Hot-Dip Galvanized Coatings).

650-2.06 LUMBER. Conform to Section 713. Wood species shall be Douglas Fir or Hem-fir unless otherwise specified.

1. Dimensional. Dimensional lumber and timbers are shown on the plans in nominal dimensions, i.e.; 2x4, indicating surfaced four sides (S4S) or planed material. Use classification for light framing shall be Construction Grade. Use classification for structural joists and planks shall be No. 2 Grade or Better. Manufacturing classification shall be Dressed (Surfaced) Lumber. Size classification shall be Nominal Size Designations of Boards, Dimension, and Timbers.
2. Rough Cut. Unless otherwise indicated, rough cut lumber and timbers are shown on the plans in actual dimensions, i.e.; 2"x4", indicating rough cut material. Use

SPECIAL PROVISIONS

Kasilof River SUA

North Site Improvements

Project Number 76058-1

classification shall be Structural Lumber, No. 2 Grade or Better. Manufacturing classification shall be Rough Lumber. Size classification shall be Rough Dry Sizes.

650-2.07 TREATED LUMBER. Wood species conforms to Subsection 650-2.06.

Treatment shall be as follows:

1. Above Ground Applications. Preservative pressure treatment shall conform to Section 714. Pressure treat with preservative Ammonical Copper Quat - Type A,B,C, or D(ACQ-A,B,C, or D) or Copper Azole – Type A (CBA-A). Minimum retention shall be 0.40 pounds per cubic foot or to refusal. Treated materials shall be uniformly brown in color and nonincised. This type of treated lumber is commonly used for residential decks for above ground applications. Incising may be used on 4x and thicker material to obtain minimum retention.
2. Ground Contact Applications. Preservative pressure treatment shall conform to Section 714. Pressure treat with preservative Ammonical Copper Quat - Type A,B,C, or D(ACQ-A,B,C, or D) or Copper Azole – Type A (CBA-A). Minimum retention shall be 0.60 pounds per cubic foot. Exposed treated materials shall be pigmented uniformly brown in color by manufacturer.

650-2.08 RECYCLED PLASTIC LUMBER. Recycled plastic lumber shall be Trex Enhanced saddle Composite Deck Board 1x6 or approved equal. Color shall be as determined by the Engineer.

650-2.09 METAL ROOFING. Exposed fastener metal roof system with panel base metal steel conforming to ASTM A446, Grade 80, (80,000 psi minimum tensile strength) with a protective coating of zinc-aluminum alloy conforming to ASTM A924/ASTM A792, 45 percent zinc and 55 percent aluminum by weight applied to a thickness of 1.9 mils. Alternate coatings proposed for substitution will not be accepted. Exterior paint finish to be a 0.8 mil Acrylic Emulsion finish coat over a 0.2 mil baked-on acrylic primer. Exterior color to match Denali Green by IMSA Building Products Inc., or approved equal. Interior paint finish to be a 0.25 mil off-white backer over a 0.15 mil baked-on acrylic primer.

1. Roof Panels. Minimum 29 gauge, 36 inch net width panel with 9 inch on center roll-formed profile pattern consisting of three evenly spaced ribs, one tall rib followed by two shorter ribs.
2. Gable Trim and Universal Ridge. Shall be approximately 6 inches wide.
3. Closure Strips. Polyethylene foam type to fit panel profile or 1 inch by 1 inch universal closures.
4. Sidelap Mastics. Closed cell neoprene butyl.

5. Fasteners. Metal to wood fasteners as recommended by the manufacturer. Fastener length should assure penetration of at least one inch into the wood. Fastener heads shall be pre-painted the same color as roof panels.

650-2.10 FASTENERS. Commercial quality and type of nails and screws as required to securely hold all members in place in accordance with National Design Specifications (NDS). Nails shall be hot dipped galvanized. All other fasteners shall be corrosion resistant. Fasteners in pressure treated wood shall be hot dipped galvanized. Nails and wood screws below grade in pressure treated wood shall be stainless steel.

650-2.11 STANDARD PARK PADLOCK. Master Lock No. 1 with 5/16 inch shackle diameter, 15/16 inch vertical clearance, 3/4 inch horizontal clearance, 1-3/4 inch case width, and keyed alike to a key number provided by the Engineer specific to the Park area. Provide two keys with each padlock.

650-2.12 PAINT. Unless otherwise specified, use the following paint types and colors, or approved equals:

1. Solid Oil Stain. Exterior oil/alkyd flat finish stain, color "Russet". DF7XX as manufactured by Fuller O'Brien / Devoe Products, Sun-Proof Solid Alkyd/Oil Stain (77-1354) as manufactured by Pittsburgh Paint Company, Behr Plus 10 Solid Stain, Rural Manor II Solid Color Stain (714401x) as manufactured by Rodda Paint Co., or approved equivalent. Submit color samples of proposed substitutions for approval.
2. Semi-Transparent Oil Stain. Exterior alkyd based stain, color Sherwin Williams "SW 3507 Riverwood", Behr Superdeck "#1907 Canyon Brown", or PPG Architectural Finishes Olympic "Russet".
3. Clear Oil Stain. Non-pigmented penetrating exterior alkyd base stain formulated for water repellency.
4. Metal Primer Paint. As recommended by enamel paint manufacturer.
5. Enamel Paint. Exterior alkyd base gloss enamel. Color to match solid oil stain color.
6. Concrete Sealer. Clear acrylic copolymer conforming to AASHTO M148/ASTM C309 (Standard Specification for Liquid Membrane-Forming Compounds for Curing Concrete, for Type 1 Compounds).
7. Above Ground Wood Preservative. Brown preservative with active ingredient of minimum 9.08 percent copper naphthenate (equivalent to minimum 1 percent metallic copper). Color to be approved by Engineer.
8. Below Ground Wood Preservative. Preservative with active ingredient of minimum 16 percent copper naphthenate (equivalent to minimum 2 percent metallic copper).

9. End Cut Preservative for Treated Wood. Brown preservative with active ingredient of minimum 10 percent copper naphthenate (equivalent to minimum 1 percent metallic copper). Color to match preservative pressure treatment color.

Paint that has been frozen or is out of date shall be replaced at no additional cost to the Department.

650-2.13 SIGNS. Fabricate sign panels to the dimensions shown on Plans. Metal sign panels shall be 0.125 inch thick alloy 6061-T6, 5052-H36, or 5052-H38 aluminum. Wood sign panels shall be medium density overlay (MDO) plywood. Signs shall have Type II (medium intensity) reflective sheeting background with color as specified. White high intensity sheeting for symbols, letters, and borders shall match 3M Scotchlite Reflective Sheeting #3290. Brown medium intensity sheeting for background shall match 3M Scotchlite Reflective Sheeting #3279.

650-2.14 ELP WALKWAY All lumber shall be surfaced four sides and preservative pressure treated. Wood sills shall be pressure treated with water borne salts preservative with minimum retention of 0.60 pounds per cubic foot.

650-2.15 REMOVABLE BARRIER POST. Conform to Standard Drawing P-5, Barrier Rail, Barrier Post, and Removable Barrier Post. Posts shall be treated rough cut wood. Steel for post sleeve shall conform to subsection 650-2.04. Provide a padlock for each post.

650-2.16 BARRIER ROCK/SEAT ROCK. Barrier rocks shall be 3 to 5 feet in diameter when measured in every direction. Seat rocks are barrier rocks that have one relatively flat surface and can be use for a seat when installed in the ground. Seat rocks shall be selected by the Engineer from the Contractor's rock source.

650-2.17 ORIENTATION KIOSK. Conform to Standard Drawing S-10D, Orientation Kiosk. Interpretive panel frame and bulletin board frame shall be surfaced four sides clear cedar. Metal Roof shall conform to subsection 650-2.09.

Column bases shall be corrosion resistant and embedded in wet concrete for subsequent connection of wood post to concrete footing. Size column base to dimension of post. Posts shall have commercially fabricated column bases inset a maximum of 1/2 inch. If commercial bases cannot meet the 1/2 inch requirement, custom fabricate full dimension column bases. Stirrup shall be provided with holes for two galvanized bolts with washers. Similar to Simpson CB88.

Post Size	Base Plate Gage & Dimension	Stirrup Material	Post Bolts	Allowable Uplift Load
8 X 8	7 ga & 7-1/2" X 7-1/2"	3 ga x 3" strap	2 each 3/4"	6,650 pounds

Column caps to connect front posts to front horizontal beam shall be corrosion resistant. Size column cap to dimension of the timbers. If commercial column caps cannot meet

the timber dimensions, custom fabricate full dimension column caps. Install with manufacturer recommended fasteners. Similar to Simpson BC8.

Beam Size / Post Size	Beam Flange Gage & Dimension	Post Flange Gage & Dimension	Allowable Uplift Load	Allowable Lateral Load
8 X 8 / 8 X 8	18 ga & 7-1/2" X 7-1/2"	18 ga & 7-1/2" X 7-1/2"	1,800 pounds	2,000 pounds

Face mount hangers to connect the side horizontal beam to the front posts shall be corrosion resistant. Size hangers to dimension of the timbers. If commercial hangers cannot meet the timber dimensions, custom fabricate full dimension hangers. Hangers shall have concealed flanges. Install with manufacturer recommended fasteners to achieve the allowable uplift load specified below. Similar to Simpson HUC88.

Beam Size / Post Size	Beam Flange Gage & Dimension	Post Flange Gage & Height	Allowable Uplift Load
8 X 8 / 8 X 8	14 ga & 7-1/2" X 2-1/2"	14 ga & 6-5/8"	1,285 pounds

Corner bracket to connect the side horizontal beams to the rear posts and rear horizontal beam shall be custom fabricated as shown on the Standard drawing.

Hurricane tie to secure roof trusses to horizontal front and rear beams shall be 18 gauge steel and corrosion resistant. Install with manufacturer recommended fasteners to achieve 320 pounds minimum uplift load and 105 pounds minimum lateral load. Similar to Simpson H3.

CONSTRUCTION REQUIREMENTS

650-3.01 GENERAL. The location shown on the drawings for park facilities placement are approximate. The Engineer will field locate park facilities at the time of construction.

650-3.02 EXCAVATION AND BACKFILL. Conform to the requirements of Section 204 and the details on the plans.

650-3.03 CONCRETE. Conform to the requirements of Section 501 and the details on the plans.

650-3.04 STRUCTURAL STEEL. Welding to conform to American Welding Society D1.1.

650-3.05 WOOD. Competent carpenters shall be employed and all framing shall be true and exact. Unless otherwise specified, nails and spikes shall be hand driven with just sufficient force to set the heads flush with the surface of wood. Power nail guns may be used if the pressure may be adjusted to drive the nail flush with the face of the

lumber. All non-removable shipping, storage, weathering and erection marks on fabricated lumber shall be hidden from view in the completed work. Use of damaged lumber shall not be allowed. Store on-site lumber above the ground and protected from damage and weathering.

Holes for round drift-bolts and dowels shall be bored with a bit 1/16 inch smaller in diameter than that of the bolt or dowel used. Holes for machine and carriage bolts shall be bored with a bit of the same diameter as that of the bolt. Holes for lag screws shall be bored with a bit not larger than the body of the screw at the root of the thread.

Unless otherwise specified, USS flat washers shall be used in contact with all bolt heads and nuts that would otherwise be in contact with wood.

650-3.06 METAL ROOFING. Store sheets and other roofing components above the ground and keep dry. Metal roofing shall not come into contact with lead, aluminum, copper, alkalines, fertilizers, or acids. Panels shall be clean and unmarked during and after erection.

Place roofing felt over 2x6 T&G. Lap felt 4 inches minimum at sides and top and 10 inches at ridge.

Position first roof panel at gable end away from prevailing wind and check for alignment with building structure. Panels shall overhang sheathing at eave, as shown on the drawing, as a drip edge. Sidelap mastic shall be installed continuously along edge of panels. Do not place fasteners through the sidelap mastic. Install wood-metal screws at 24 inches on center at major ribs and stitch screws at 12 inches on center at sidelaps.

Align roof panels correctly prior to ridge cap installation. Install closure strips under ridge cap and fasten through cap, closure strips, and roofing at each major rib.

Install closure strip under panel prior to flashing installation. Fasten at 12 inches on center with stitch screws.

Apply gable trim to both roof ends. Fasten at top and sides at 24 inches on center.

650-3.07 PAINT. Deliver in sealed containers with labels legible and intact. Remove dirt, grease, oil and other construction debris prior to painting. Ensure that surfaces to be painted are even, smooth, sound, clean, dry, and free from defects affecting proper application. Metal surfaces to receive paint shall be corrosion free. Apply per manufacturer's recommendations. Apply paint material evenly without runs, sags, or other defects. Work each coat into the material being coated at an average rate of coverage recommended by the manufacturer. Cover surfaces completely to provide uniform color and appearance. Remove all paint, stain, or other finish material where it has spilled or spattered.

1. General. Unless otherwise specified, schedule finishes as follows:

SPECIAL PROVISIONS
Kasilof River SUA
North Site Improvements
Project Number 76058-1

- a. Non-Treated Wood, Surfaced. Finish surfaces not scheduled to receive stain or clear oil stain with wood preservative.
 - b. Non-Treated Wood, Rough Cut. Saturate below and above ground surfaces not scheduled to receive stain with wood preservative.
 - c. Treated Wood, Hidden. Dado cuts, cut ends, drilled holes and field cuts in wood materials shall be brush coated to saturation with end cut preservative.
 - d. Treated Wood, Exposed. Saturate cut surfaces with scheduled finish. Finish surfaces not scheduled to receive stain with wood preservative.
 - e. Concrete and Masonry. Seal exposed surfaces.
 - f. Metal. Prime and paint exposed metal surfaces as required. Finish is not required for f
2. ELP Walkway
- a. Wood, Visible surfaces and Between Decking). Semi-Transparent Oil Stain
 - b. Non-Galvanized Metal. Primer and Enamel Paint
3. Removable Barrier Post.
- a. Wood. Clear Oil Stain
 - b. Metal. Primer and Enamel Paint
4. Orientation Kiosk.
- a. Interp/Bulletin Board Frame and Exposed T&G Wood. Clear Oil Stain
 - b. Other Wood. Semi-Transparent Oil Stain
 - c. Metal. Primer and Enamel Paint
 - d. Bulletin Board Sound Board. Off White Flat Latex Paint

650-3.08 ELP WALKWAY. Construct in accordance with the plans.

650-3.09 REMOVABLE BARRIER POST. Construct in accordance with Standard Drawing P-5, Barrier Rail, Barrier Post, and Removable Barrier Post. Install signs as shown on the plans. Attach signs with four #12 x 1-3/4 inch round head stainless steel one-way tapping screws, one in each corner.

650-3.10 BARRIER ROCK/SEAT ROCK. Place barrier rocks 4 feet apart, edge to edge, with approximately 20 percent of the height of each rock set below ground level. When finish surface is pavement or concrete, place barrier rocks prior to paving or pouring operations. Cutting pavement to place barrier rocks and then patching is not acceptable.

Place seat rocks with 18 to 24 inch seat height and a minimum of 20 percent of the height of rock set below ground level.

650-3.11 ORIENTATION KIOSK. Construct in accordance with Standard Drawing S-10D, Orientation Kiosk.

650-4.01 METHOD OF MEASUREMENT. Park facilities with the unit measure each will be measured by the actual number of facilities completed and accepted.

Excavation and embankment for park facilities outside the limits shown on the plans will be measured for payment only if directed by the Engineer. Excavation and backfill required for items paid for under this Section will not be measured for payment.

ELP walkway will not be measured separately for payment. Acceptance by the engineer shall constitute measurement.

Seat rocks at Orientation Kiosk will be subsidiary to that item and will not be measured separately for payment.

650-5.01 BASIS OF PAYMENT. The accepted quantity of park facilities will be paid for at the contract unit price per unit of measurement for the type specified completed in place, and listed below excluding all clearing, grubbing, topsoil and crushed aggregate base course, which shall be paid for separately at contract unit prices.

Payment will be made under:

Pay Item	Pay Unit
650(12) ELP Walkway	Lump Sum
650(20) Removable Barrier Post	Each
650(21) Barrier Rock	Each
650(39B) Orientation Kiosk	Each

(05/02/11)PARKS-Special Provision

Add the following Section:

SECTION 669

AUTOMATED TRAFFIC RECORDERS

669-1.01 DESCRIPTION. This work shall consist of furnishing and installing traffic count stations for the automated collection of traffic data on an intermittent or permanent basis. The Automated Traffic Recorder (ATR) station is a vehicle detection system.

System is defined as follows:

1. An Intermittent ATR station shall consist of the following:
 - a. inductive loops detectors for detecting the presence of vehicles, and
 - b. underground conduit, junction boxes, and wiring as specified on the Plans.

669-1.02 REGULATIONS AND CODE. Materials and workmanship shall conform to the standards of the Underwriters Laboratories, Inc. and the National Electrical Safety Code and local safety code requirements, where applicable.

Electrical equipment shall conform to the standards of the National Electrical Manufacturers Association, where applicable.

669-2.01 MATERIALS. The materials provided for the work shall be new, unless otherwise stated and must meet the following requirements:

1. Wiring. Wiring shall be according to subsection 660-2.09(A), Wiring. Single wire conductors and cables shall have clear, distinctive and permanent markings on the outer surface throughout the entire length giving the manufacturer's name or trademark, the insulation type and letter designation, the conductor size, voltage rating and the number of conductors if a cable.
2. Conduit. Conduit shall be according to subsection 660-2.05, Conduit. Nylon pull cords shall be left in 2-inch conduit.
3. Junction Boxes. Junction boxes shall be according to subsection 660-2.06, Junction Boxes. Junction boxes used for ATR installations shall not contain conductors carrying a voltage over 50 volts. Junction box shall be sized to accommodate both loops and two traffic volume counters.

4. Inductive Loops. Inductive loops shall be according to subsection 660-2.08, Conductors. Conductors used for detector inductive loops shall be UL listed as Type RHW/USE/XLP 12AWG 600V rating. Multiple pair loop lead-in cable shall consist of 18AWG stranded tinned copper wire with each twisted pair containing a 20AWG tinned copper drain wire, and aluminum shield and overall PVC or PE jacket conforming to IMSA specification 50-2.
5. Asphalt Pavement. Materials used for asphalt pavement shall conform to Section 401, Asphalt Concrete Pavement for Asphalt Concrete, Type II.
6. Traffic Volume Counters. The Contractor shall supply and install traffic volume equipment with the capability of counting traffic in all lanes. The permanent traffic volume counter(s) shall be Traffic Tally 51 as produced by Diamond Traffic Products. <http://diamondtraffic.com/product/Traffic-Tally-51>

669-3.01 CONSTRUCTION REQUIREMENTS.

1. Wiring. Wiring shall be installed according to subsection 660-2.09(A), Wiring. Unused pairs shall be terminated within splices; at cabinets unused pairs shall be terminated at to a terminal block and labeled "SPARE".
2. Conduit. Conduit shall be installed according to subsection 660-2.05, Conduit or as indicated on the Plans.
3. Junction Boxes. Junction boxes shall be installed according to subsection 660-2.06, Junction Boxes or as indicated on the Plans. Junction box shall be installed in a location where water will not infiltrate the box and freeze. Top of box shall be approximately 2" above the existing grade and located in an inconspicuous location as approved by the project engineer.
4. Inductive Loops. Inductive loops installed through existing asphalt paving shall be installed using full-lane-width cuts a minimum of 8-feet in length, with the inductive loops centered in the 8-foot cut with a minimum distance of 1-foot to the edge of the cut. Edges of the cuts shall be tack-coated during patching to ensure full adhesion. Full-width patches shall be rolled sufficiently to ensure compaction equal or better than the existing asphalt, and to prevent edge ridges or settling of the patch from 'telegraphing' through the final lift asphalt. Compaction tests shall be required at the discretion of the Engineer.

Loops installed in new asphalt paving shall be installed immediately before final paving of the particular section of road. Installation of loops after final lift paving shall not be permitted.

There shall be no transverse seams, joints or roughness within 50 feet of any inductive loops. The finished surface of the asphalt shall be tested with a straightedge 10-foot long. The surface shall not vary more than 0.25 inches from the lower edge of the straightedge in an area within 50 feet of the sensors at the ATR

installations. At the discretion of the Engineer, a profilograph equipped with a chart recorder shall be run down each wheelpath of each lane for a distance of 50 feet before and after each ATR installation.

Inductive loops shall be formed of four turns of wire, and shall be 0.5 square with \pm 1-inch tolerance. Inductive loops in a lane shall be located 16 feet from leading edge to leading edge except for the loops used in the WIM system which shall be 26 feet from leading edge to leading edge, with \pm 1-inch tolerance. Inductive loops located in adjacent lanes shall be aligned within \pm 1-inch tolerance.

Lead-in conduit from edge of pavement to the inductive loops shall be straight and perpendicular to the center line of the road.

669-3.02 ACCEPTANCE TESTING. The Contractor shall perform acceptance testing on ATR installations.

1. General Tests. ATR installations shall be tested according to subsection 660-4.01, Installation Details.
2. AVC Acceptance Tests. In addition to the General Tests, perform Acceptance Tests on the automated vehicle classification installations. Perform acceptance tests to demonstrate that the AVC system performs at or above the required accuracy.
 - a. Accuracy Requirements - The accuracy of Automated Vehicle Classifiers is such that, if good lane discipline is maintained:
 - (1) not more than plus or minus ten percent of the total vehicles in FHWA class one through class three and
 - (2) not more than plus or minus five percent of the total vehicles in FHWA class four through class thirteen are classified in the wrong bin when compared with a concurrent manual classification count.

669-3.05 DELIVERABLES.

1. Equipment List(s) and Drawings. The Contractor shall submit for review and approval, within thirty days following award of the contract, nine collated copies of a portfolio of equipment and materials that is proposed to be install. The portfolio(s) shall consist of a table of contents including each item's intended use(s), and a description that includes product name, manufacturer, model or part number.

The Department will not be liable for materials purchased, labor performed, equipment used, or delay to the work before equipment and materials have been reviewed and approved.

2. As-Built Plans and Photographs. The Contractor shall prepare four complete sets of as-built plans which will be kept current with the construction. These as-built plans

shall detail construction changes made to the plans and also include the following information on the appropriate sheets:

- a. the location and depth of the inductive loops and conduit runs, and,
- b. the station and offset of the junction boxes.

Redlines of full size construction plans will be acceptable.

Three sets of as-built plans shall be presented to the Engineer, and one set shall be affixed in a waterproof, clear plastic holder to the inside of the cabinet door at the appropriate Automated Traffic Recorder Installation.

- 3. Test Results. Written or printed copies of the final results of the tests, signed by the Contractor, shall be provided to the Engineer before acceptance of the Automated Traffic Recorder Installation. Tests will be conducted according to subsection subsection 660-3.01, General. Written (computer printout) results and copies of the electronic data files collected during performance of the WIM System acceptance test shall submitted to the Engineer before acceptance of completion of the WIM system.

669-4.01 METHOD OF MEASUREMENT. The quantity to be paid for will be the actual number of completed and accepted Automated Traffic Recorder installations as shown on the Plans or as directed by the Engineer.

669-5.01 BASIS OF PAYMENT. The contract unit bid price for the Automated Traffic Recorder installations will be full compensation for furnishing equipment, labor, and materials necessary to complete the work as specified, with the following exceptions:

- 1. Backfill materials required will be paid for under respective pay items.
- 2. Asphalt required will be paid for under Item 401(1), Asphalt Concrete Pavement.

Excavation, pedestrian gates, load centers, and as-built plans and acceptance testing required for these installations will not be paid for separately, but will be subsidiary to the Automated Traffic Recorder Installations.

Payment will be made under:

Pay Item	Pay Unit
669(1) Automated Traffic Recorder	Lump Sum

Add the following Section:

SECTION 690

EROSION, SEDIMENT AND POLLUTION CONTROL - MEASURES

690-1.01 DESCRIPTION. Furnish, install, and maintain measures, countermeasures and associated materials as part of BMP(s) to prevent, control and contain erosion, erosion materials, sediments and pollution contaminates, on and off project site.

Measures:

- Permanent Measures – include, the materials, hardware, equipment, and labor required for installation and maintenance of erosion, sediment, and pollution control material(s).
- Temporary Measures - include, in addition to the requirements of Permanent Measures, removal and disposal of the erosion, sediment, and pollution control material(s).

Related Specifications:

Erosion, Sediment and Pollution Control	Section 641
Silt Fence	Section 633
Seeding	Section 618

690-2.01 MATERIALS.

Erosion Sediment and Pollution Control – Materials Section 744
Others as specified in related Sections.

CONSTRUCTION REQUIREMENTS

690-3.01 GENERAL. BMP(s) may include individual or a combination of measures and countermeasures, including but not limited to temporary seeding, mulch, matting, staples, stabilizing emulsions, blankets and mats, soil binders, non-erodible cover, dustless sweeping, dust palliatives. Refer to Subsection 690-1.01, Related Specifications, for measures not included here.

690-3.02 MATERIAL STORAGE AND PROTECTION. General: Store materials elevated off the ground and covered protecting them from construction and or damage from the environment and as follows:

Fiber Rolls. Additionally, protect fiber rolls from: precipitation, extended ultraviolet radiant including sunlight, chemicals that are strong acids or other, flames including welding sparks, excess temperatures, and any other environmental conditions that may damage the physical property value of the rolls.

SPECIAL PROVISIONS
Kasilof River SUA
North Site Improvements
Project Number 76058-1

690-3.03 FABRICATION.Sandbags: Sand bags shall measure 15 inches by 30 inches. Use prayer type seams with a minimum of two rows of stitching using a Federal Stitch Type 401 Chain Stitch. Place approximately 1.0 cubic foot of Select Material, Type B, in each sandbag sack. Close the open end of the sandbag, after filling, with 2 cinch ties or as recommended by the manufacturer of the sandbag material.

690-3.04 PLACEMENT AND INSTALLATION. Place and install where shown and detailed in the Plans and Specifications including Section 641, and as recommended by the manufacturer, directed by the Engineer and as follows:

Temporary Seeding. Annual Ryegrass per Subsection 724-2.02, Table 724-1. Apply at a rate of 1/2 lb/1000 sq. ft., minimum, on level ground to a maximum of 1 1/2 lb/1000 sq. ft., maximum, on sloping ground and highly erodible soils. Confirm application of temporary seeding with the Engineer.

Prepare the surface to be seeded to reduce erosion potential and to facilitate germination and growth of vegetation cover. Maintain seeded areas. Refer to Section 620 for further surface/topsoil preparation requirements.

Reseed where water quality standards are being exceeded as a result of insufficient vegetative cover. Review with Engineer prior to reseeding.

Refer to Section 618 for further information.

690-3.05 MAINTENANCE. Maintain the integrity of the erosion, sediment and pollution control measures for the duration of the project. Inspect as required by the APDES CGP and SWPPP and correct any deficiencies immediately. Remove and dispose of temporary measures including trapped sediment contaminants off project at approved locations. Materials manufactured as biodegradable may be left in place when approved by the Engineer.

690-4.01 METHOD OF MEASUREMENT. Section 109 and as follows:

Fiber Rolls: By length, measured along the centerline of the fiber roll, complete in place.

Manufactured Inlet Protection Systems: By each, complete in place.

Sandbag Inlet Sediment Trap: By each, complete in place.

Silt Fence: Section 633.

Seeding: Section 618.

Stabilization: Section 619.

690–5.01 BASIS OF PAYMENT. Section 641.

Except:

Item 690(1) Fiber Rolls, includes materials, hardware, equipment and labor required for installation and maintenance.

Payment will be made under:

Pay Item	Pay Unit
690(1) Fiber Roll	Linear Foot
690(2) Manufactured Inlet Protection Systems	Each
690(3) Sandbag Inlet Sediment Trap	Each

(08/12/10) CR690-Special Provision

SECTION 703

AGGREGATES

703-2.03 AGGREGATE FOR BASE.

Delete Table 703-2 and substitute the following:

TABLE 703-2
AGGREGATE FOR UNTREATED BASE
 (Percent Passing By Weight)

Sieve Designation	Grading C-1	Grading D-1	Grading E-1
1 ½ inch	100	-	-
1 inch	70-100	100	100
¾ inch	60-90	70-100	70-100
⅜ inch	45-75	50-79	50-85
No. 4	30-60	35-58	35-65
No. 8	22-52	20-47	23-50
No. 30	10-33	10-26	13-31
No. 50	6-23	6-19	10-26
No. 200	0-6	0-6	8-15

Replace Subsection 703-2.04 with the following:

703-2.04 AGGREGATE FOR HOT MIX ASPHALT PAVEMENT. Process and crush aggregate that is free from clay balls, organic matter, other deleterious material, and not coated with dirt or other finely divided mineral matter. Aggregate used must consist of sound, tough, durable rock of uniform quality.

Remove all natural fines passing a No. 4 sieve before crushing aggregates for Type IV, V and R mixtures.

Coarse Aggregate. Aggregate retained on the No. 4 Sieve.

Meet the following requirements:

Description	Specification	Type IIA	Type I, IIB, III	Type IV	Type V, R
LA Wear, % max	AASHTO T 96	45	45	45	45
Degradation Value, Min	ATM 313	30	30	30	30
Sodium sulfate Loss % max (5 cycles)	AASHTO T 104	9	9	9	9

SPECIAL PROVISIONS
 Kasilof River SUA
 North Site Improvements
 Project Number 76058-1

Fracture, min %	WAQTC FOP for AASHTO TP 61	90, 2 face	80, 1 face	90, 2 face	98, 2 face
Flat-Elongated Pieces, max %	ATM 306	8	8	8	8
1:5					
1:3		20	-	-	20
Absorption, max. %	AASHTO T 85	2.0	2.0	2.0	2.0

Fine Aggregate. Aggregate passing the No. 4 sieve.

Aggregate shall meet the quality requirements of AASHTO M 29, including S1.1, Sulfate Soundness.

Aggregate for Type IV, V, and R mixes:

- do not blend back natural sand
- shall be non-plastic as determined by WAQTC FOP for AASHTO T 90
- shall have a minimum uncompacted void content (Fine Aggregate Angularity) determined by AASHTO T 304, Method A, of 45%

**TABLE 703-3
BROAD BAND GRADATIONS FOR HOT MIX ASPHALT PAVEMENT AGGREGATE
(Percent Passing by Weight)**

Sieve	Gradation					
	Type I	Type II	Type III	Type IV	Type V	Type R
1 inch	100	-	-	-	-	-
3/4 inch	80-90	100	-	-	100	100
1/2 inch	60-84	75-90	100	100	65-90	70-100
3/8 inch	48-78	60-84	80-90	80-95	55-80	50-70
No. 4	28-63	33-70	44-81	55-70	40-60	30-42
No. 8	14-55	19-56	26-70	35-50	≤ 45	20-32
No. 16	9-44	10-44	16-59	20-40	≤ 35	15-25
No. 30	6-34	7-34	9-49	15-30	≤ 25	10-20
No. 50	5-24	5-24	6-36	10-24	≤ 20	7-15
No. 100	4-16	4-16	4-22	5-15	≤ 12	5-12
No. 200	3-8	3-8	3-8	4-8	3-8	4-10

Note:

1. No tolerance is allowed beyond the Broad Band Limits of the No. 200 Sieve.
2. For Type R, the mix design gradation JMD shall provide a minimum of 8% difference of percent passing the No. 4 and the No. 8 sieve.

(10/11/10)CR7031-Special Provision

703-2.07 SELECTED MATERIAL. Add the following:

4. Type D. Earth, sand, gravel, or rock materials obtained from the excavation, and shall contain no wood, concrete, or other debris.

(11/21/08)PARKS-Special Provision

SECTION 710

FENCE AND GUARDRAIL

710-2.03 CHAIN LINK FABRIC.

In the 1st sentence between the parenthesis, replace "Class D" with the following:

(Class C or D coating)

(11/04/10)CR7101-Special Provision

Delete Subsection 710-2.04 METAL BEAM RAIL and replace with the following:

710-2.04 METAL BEAM RAIL. Meet AASHTO M 180-00, Class A, Type II. Galvanize the rail per ASTM A653 after factory roll formed and punched.

(10/04/10)E83-Standard Modification

Delete Subsection 710-2.06 GUARDRAIL POSTS AND BLOCKS and replace with the following:

710-2.06 GUARDRAIL POSTS AND BLOCKS. Furnish posts and blocks, as specified, meeting the following requirements.

1. Wood Posts and Blocks. Use timber with a stress grade of 1200 psi or more. Testing must meet the standards of the West Coast Lumber Inspection Bureau. Use timber for posts and blocks that is either rough sawn (unplaned) or S4S with nominal dimensions indicated. Allowable size tolerance of rough sawn blocks in the direction of the bolt holes is $\pm 1/4$ inch. Only one combination of post and block finish may be used for any one continuous length of guardrail. Treat all timber to meet Section 714.
2. Steel Posts and Blocks. Meet the section and length specified or shown on the Plans. Use copper bearing steel when so specified. Use steel meeting the requirements of ASTM A 36 and galvanized per ASTM A 123.
3. Synthetic Blocks. Product made from alternate materials may be used if accepted by the FHWA for use on the National Highway System.

(10/04/10)E84-Standard Modification

Delete Subsection 710-2.11 GUARDRAIL TERMINALS and replace with the following:

710-2.11 GUARDRAIL TERMINALS. Meet coating requirements of AASHTO M 180, Class A, Type II. Galvanize after fabrication. Fabrication includes forming, cutting,

SPECIAL PROVISIONS

Kasilof River SUA

North Site Improvements

Project Number 76058-1

shearing, punching, drilling, bending, welding, and riveting. Provide one of the following terminal types, as shown on the plans, for single-rail W-beam guardrail. Provide terminals that pass NCHRP 350 or MASH Test Level 3 and meet the following requirements:

1. Controlled Release Terminal. Meet the requirements of Standard Drawing G-25.
2. Parallel Terminal.
 - a. Requirements:
 - (1) Crashworthiness: Provide terminals that pass NCHRP 350 or Mash Test Level 3.
 - (2) Length: 50 feet.
 - (3) End Offset: 0 to 2 feet (25:1 or flatter straight taper) offset end as shown on the plans.
 - (4) Posts: Use posts that are:
 - (a) Steel post with hinge or
 - (b) Yielding or breakaway steel post in steel tube
 - b. Acceptable models include the following or approved equivalent:
 - (1) Sequential Kinking Terminal (SKT) manufactured by Road Systems, Inc., 3616 Old Howard County Airport, Big Spring, Texas 79720, Telephone (432) 263-2435.
 - (2) Extruder Terminal (ET-Plus) manufactured by Trinity Highway Products, L.L.C., 950 West 400 South, Centerville, Utah 84014, Telephone (801) 292-4461.
 - c. Install AASHTO M 268, Type III, IV, or V retro-reflective sheeting (2.0 square feet, minimum) on the end section of parallel terminals consisting of yellow and black bars sloping 45 degrees downward toward the traffic side of the terminal.
3. Buried in Backslope Terminal. Meet the requirements of Standard Drawing G-15.

(10/04/10)E85-Standard Modification

SECTION 712

MISCELLANEOUS

712-2.06 FRAMES, GRATES, COVERS, AND LADDER RUNGS. Under Gray iron castings, replace text with: AASHTO M 306 and AASHTO M 105, Class 35B. (01/27/07)E46-Standard Modification

712-2.17 METHYL METHACRYLATE PAVEMENT MARKINGS. Replace No. 1. Quality Requirements: with the following:

1. Quality Requirements: Use a marking material formulated for the application type specified. Use a marking material manufactured from new materials and free from dirt and other foreign material. Use a methyl methacrylate based resin system for part "A". Use benzoyl peroxide system for part "B".

Extruded or stenciled application: Material formulated for extruded or direct stenciled application with factory intermix beads, and anti skid aggregate and the application of additional surface applied beads.

Submit a manufacturer certification for both the methyl methacrylate material, glass beads and anti-skid aggregate to ensure that the materials furnished conform to these Specifications.

2. Performance Properties: Add the following:

- I. Color: Yellow, PR-1 Chart, 33538 Federal Yellow. White, minimum daylight reflectance of 84.

712-2.18 GLASS BEADS FOR METHYL METHACRYLATE PAVEMENT MARKINGS. Replace the bead table with the following:

Use the type and quantity of beads specified in writing by the marking material manufacturer required to satisfy the specified performance requirements. The written certification will note the bead coating is compatible with the marking material binder.

1. Bead Manufacturer and Type.

- a. Swarco, Megalux-Beads or
- b. Approved equal beads

Approved Equal Beads. Equal beads will demonstrate:

- (1) Bead coatings compatible with marking materials. Marking Material Manufacturer will certify compatibility.

(2) Lasting retroreflectivity. For the two year specified Warranty Period and retroreflectivity levels, Subsection 670-3.07. The Engineer will determine the test location.

(01/01/09) CR246-Special Provision

SECTION 724

SEED

724-2-02. MATERIALS. Replace Table 724-1 with the following:

**TABLE 724-1
SEED REQUIREMENTS**

Species	Sproutable Seed*, %, Min.
Arctared Red Fescue	78
Egan American Sloughgrass	67
Norcoast Bering Hairgrass	71
Nortran Tufted Hairgrass	71
Wainwright Slender Wheatgrass	88
Alyeska Polargrass	71
Bluejoint	71
Tilesy Sagebrush	71
Tundra Glaucous Bluegrass	76
Gruening Alpine Bluegrass	72
Nugget Kentucky Bluegrass	76
Beach Wildrye	70
Annual Ryegrass	76
Perennial Ryegrass	76

* Sproutable Seed is the mathematical product of Germination and Purity.

(01/27/07)R52-Special Provision

SECTION 726

TOPSOIL

726-2.01 TOPSOIL. Replace Item No. 1 with the following:

Reasonably free from roots, clods, hard clay, tall grass, brush, sticks, stuble or other litter, and be free-draining and non-toxic. Must be free of noxious weeds or invasive material.

Replace Item No. 3 with the following:

3. Grading Requirements:

TABLE 726-1

TOPSOIL REQUIREMENTS

REQUIREMENT	CLASS A	CLASS B
Sieve Designation	Percent Passing by Weight	
3 in	-	100
1/2 in	100	-
No. 4	95-100	75-100
No.16	64-90	50-95
No. 200	30-60	20-80
Organic Content*	10% - 40%	5% - 40%
Limestone	1.5 Ton/Acre	-

*Determined by loss on ignition of oven dried sample in accordance with ALASKA FOP for AASHTO T 267

(01/01/03)PARKS-Special Provision

SECTION 730
SIGN MATERIALS

730-2.04 SIGN POSTS. Add the following item:

7. Structural Tubing and W-Shape Beams.
 - a. Structural tubing shall conform to either ASTM A500, grade B, or ASTM A501. The tubing shall be square and of the dimensions called for in the Plans with 0.2 inch thick walls. 0.4 inch diameter holes shall be drilled as required to permit mounting of the sign.
 - b. W-shape beams shall conform to ASTM A36.
 - a. Structural tubing and W shape beams shall be hot dip galvanized according to 1.b. of this subsection. Damaged and abraded tubes and beams shall be repaired according to 1.c. of this subsection.

(06/22/04)R81-Special Provision

Add the following Section:

SECTION 744

EROSION, SEDIMENT, AND POLLUTION CONTROL - MATERIAL

744-2.01 MATERIAL.

Fiber Roll: (commonly called straw wattle)

- a. Comprised of UV-degradable plastic netting or 100 percent biodegradable material.
- b. Filled with straw, flax, rice, coconut fiber material or composted material.
- c. Staking shall be made of 100 percent biodegradable materials.

Provide the Engineer certification stating the name of the manufacturer, product name, style number, chemical composition of the fiber, netting and certification of the weed-free status from the manufacturer. Furnish a sample to the Engineer seven days before the scheduled installation.

Manufactured Inlet Protection System:

- a. Manufacturers:
 - Ultra Tech International – Ultra-DrainGuard
 - Bowhead Environmental and Safety - StreamGuard Exert II Sediment Insert
 - Enpac - Catch Basin Insert, Oil and Sediment or
- b. Approved equal.

Sand Bag Inlet Sediment Trap:

- a. Sandbag sack fabric shall be a nonwoven, needle punched design meeting the following requirements:

Grab Tensile Strength	ASTM D 4632	200 pounds (min.)
Grab Elongation	ASTM D 4632	15 – 70%
Mullen Burst Strength	ASTM D 3786	400 psi. (min.)
Trapezoidal Tear Strength	ASTM D 4533	95 lbs. (min.)
Apparent Opening Size	ASTM D 4751	No. 30 U.S. STD sieve (max)
Permittivity	ASTM D 4491	0.01 sec-1 (min.)
Ultraviolet Light Stability, Retained Strength	ASTM D 4355	90%
Puncture Strength	ASTM D 4833	120 lbs. (min.)

These requirements are for Minimum Average Roll Values (MARV) verified in accordance with ASTM D 4759.

- b. Seam Thread:
 - Similar durability to the sandbag sack fabric.
- c. Sandbag Fill Material:
 - Select Material Type B 703-2.07.
- d. Cinch Ties: Plastic ties or equivalent tie recommended by the sandbag manufacturer.(02/23/09) CR744-Special Provision

SPECIAL PROVISIONS

Kasilof River SUA

North Site Improvements

Project Number 76058-1

APPENDIX A

PERMITS

PERMIT DESCRIPTION	ISSUE DATE	EXPIRE DATE
State of Alaska Department of Natural Resources Division of Mining, Land, and Water Land Use Permit	PENDING	
Kenai Peninsula Borough Floodplain Permit	PENDING	
State of Alaska Department of Natural Resources Division of Parks and Outdoor Recreation Office of History and Archaeology State Historic Preservation Officer No Historic Properties Adversely Affected Concurrence	PENDING	N/A

APPENDIX B

SURVEY REQUIREMENTS

1. Alaska Construction Surveying Requirements (US Customary Units)



**Alaska
Department of
Transportation
and
Public Facilities**

**Alaska
Construction
Surveying
Requirements (US
Customary Units)**

Alaska Construction Surveying Requirements (US Customary Units)

Table of Contents

Description	Page
1. Survey accuracy requirements	1
2. Survey frequency requirements	2
3. Typical section drawing	3
4. Survey point materials requirements	4
5. Typical alignment notes	5
6. Typical clearing notes	6
7. Typical level notes	7
8. Typical slope stake notes	8
9. Typical culvert notes	9
10. Typical culvert camber diagram	10
11. Typical blue or red tops and grade stake notes	11

1. Survey accuracy requirements

Third order survey

- ✓ Use a 1/5000 horizontal closure.
- ✓ Use an angle closure of $30\sqrt{N}$ seconds, where N equals the number of angles in the traverse.
- ✓ An Alaska-registered professional land surveyor must perform or supervise replacement of survey monuments (property, USGS, USC&GS, BLM, etc.) or establishment of monuments (including centerline).
- ✓ All monument work must comply with AS 34.65.040 and meet standards in the latest version of the Alaska Society of Professional Land Surveyors' *Standards of Practice Manual*.
- ✓ The allowable vertical error for misclosure is $e = 0.05\sqrt{M}$ e = maximum misclosure in feet, M = length of the level circuit in miles.

Table 1—Survey accuracy requirements (in feet)

	Stationing	HI	Closure	Horizontal Angle	Distance To center line	Grade
Additional cross sections	1.0	0.01	0.04	**	0.1	0.1
Benches		0.01	0.02			
Blue tops***	1.0	0.01	0.04		0.1	0.02
Bridges	*	0.01	0.02			0.01
Centerline	*			*		
Clearing & Grubbing	1.0				1.0	
Culverts	1.0	0.01	0.04	**	0.1	0.1
Curb & gutter	1.0	0.01	0.02		0.1	0.02
Grade stakes	1.0				0.1	0.1
Guardrail	1.0				0.1	
Manholes, catch basins & inlets	1.0	0.01	0.02		0.1	0.02
Monuments	*			*		
Red tops***	1.0	0.01	0.02		0.1	0.05
Riprap	1.0	0.1	0.04		1.0	0.1
Signs	1.0				0.1	
Slope stakes & RP's	1.0	0.01	0.04	**	0.1	0.1
Under drains & sewer	1.0	0.01	0.02		0.1	0.02

* Third order survey

**Right angle prism or transit angles from center line

*** Use blue tops for top of base course and red tops for the bottom of base course.

1. Survey frequency requirements

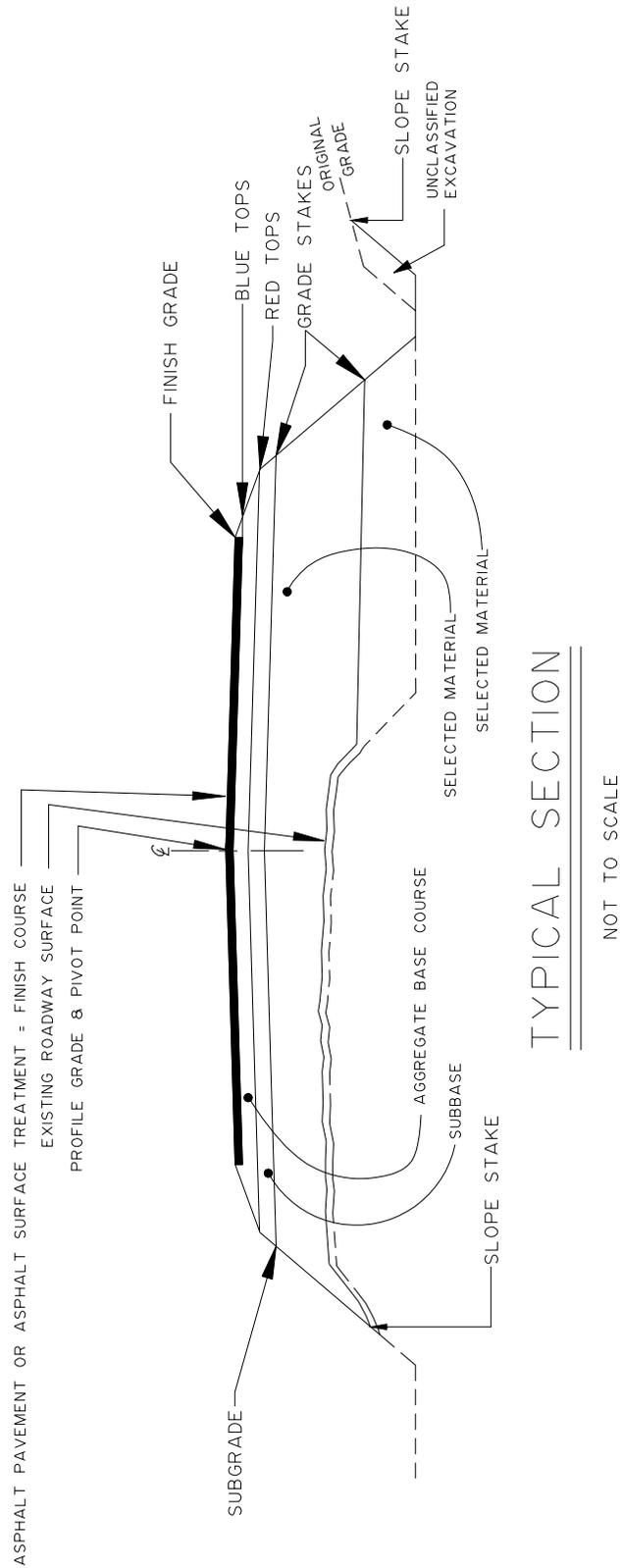
Table 2—Survey frequency requirements (in feet)

	Tangents	Curves	Interchange ramps	Stake each per plan	See special instructions on sample notes
Additional cross sections	*	*	*		
Bench marks					X
Blue tops	100	100**	25		X
Blue tops within 100 feet both sides of railroad track crossings and bridge approaches	25	25	25		X
Bridges				X	X
Center line	100	100**	25		
Clearing	100	100**	25		X
Culverts				X	X
Curb and gutter	25	25	25		
Grade stakes	100	100**	50		
Guardrail	25	25	25		
Manholes, catch basins & inlets				X	
Monuments				X	
Red tops	100	100**	25		X
Riprap	50	50	50		
Signs				X	
Slope stake / cross sections	100	100**	25		X
Under drains and sewers	50	25	25		

* Establish additional cross sections and slope stakes at all breaks in topography and where structures begin and end.

**Curves shall be staked on 50-foot stations if the curve is greater than six degrees.

2. Typical Section Drawing



3. Survey point materials requirements

- ✓ These are minimum requirements; larger sizes may be necessary.
- ✓ Use only stakes with planed sides.

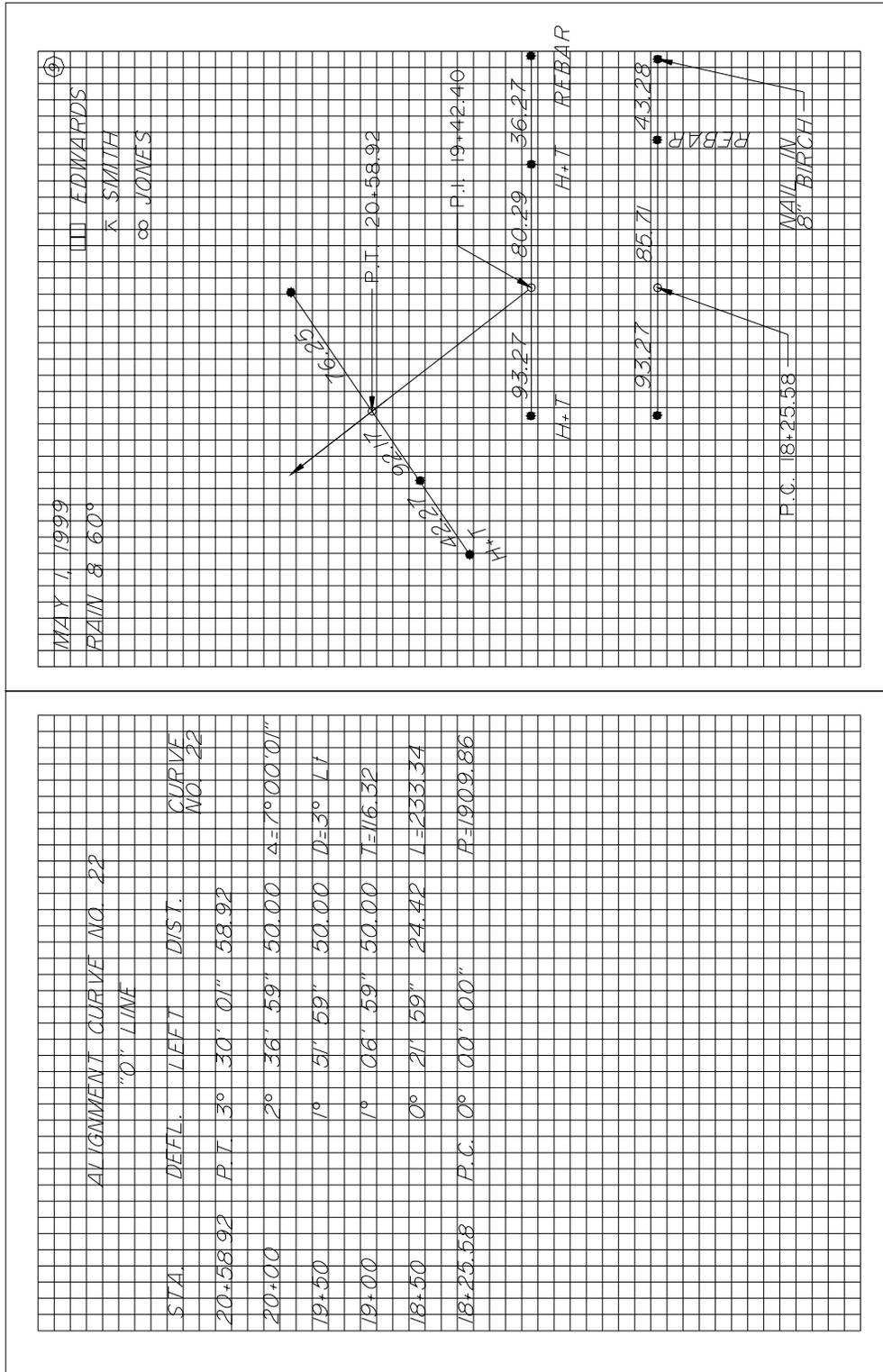
Table 3—Survey point materials requirements

	24" lath or whiskers	2" x 2" x 8" hub	2" x 2" x 12" hub	1" x 2" x 18" stake	1" x 2" x 24" stake	48" lath	Hub and tack	40d nail	60d nail	1/2" x 24" rebar
Benchmarks									X	
Blue tops	X	X								
Centerline P.C., P.T., P.O.T.			X	X			X *			X *
Centerline reference points			X	X			X *			X *
Centerline station				X				X		
Clearing						X				
Culvert stake			X		X	X				
Culvert stake references			X		X	X				
Curb and gutter			X		X		X			
Guardrail								X		
Major structures			X	X *	X *	X	X *			X *
Red tops	X	X								
Signs						X				
Slope stake					X	X				
Slope stake references			X		X	X				

* Optional depending on conditions, and to be determined by the Project Engineer.

4. Typical alignment notes

- ✓ The Chief of Parties must prepare the alignment book before actual staking.
- ✓ Don't use swing ties for reference points.
- ✓ Use three point right angle ties, two to the right and one left, or vice versa.
- ✓ Reference P.C., P.I., P.T., and P.O.T.



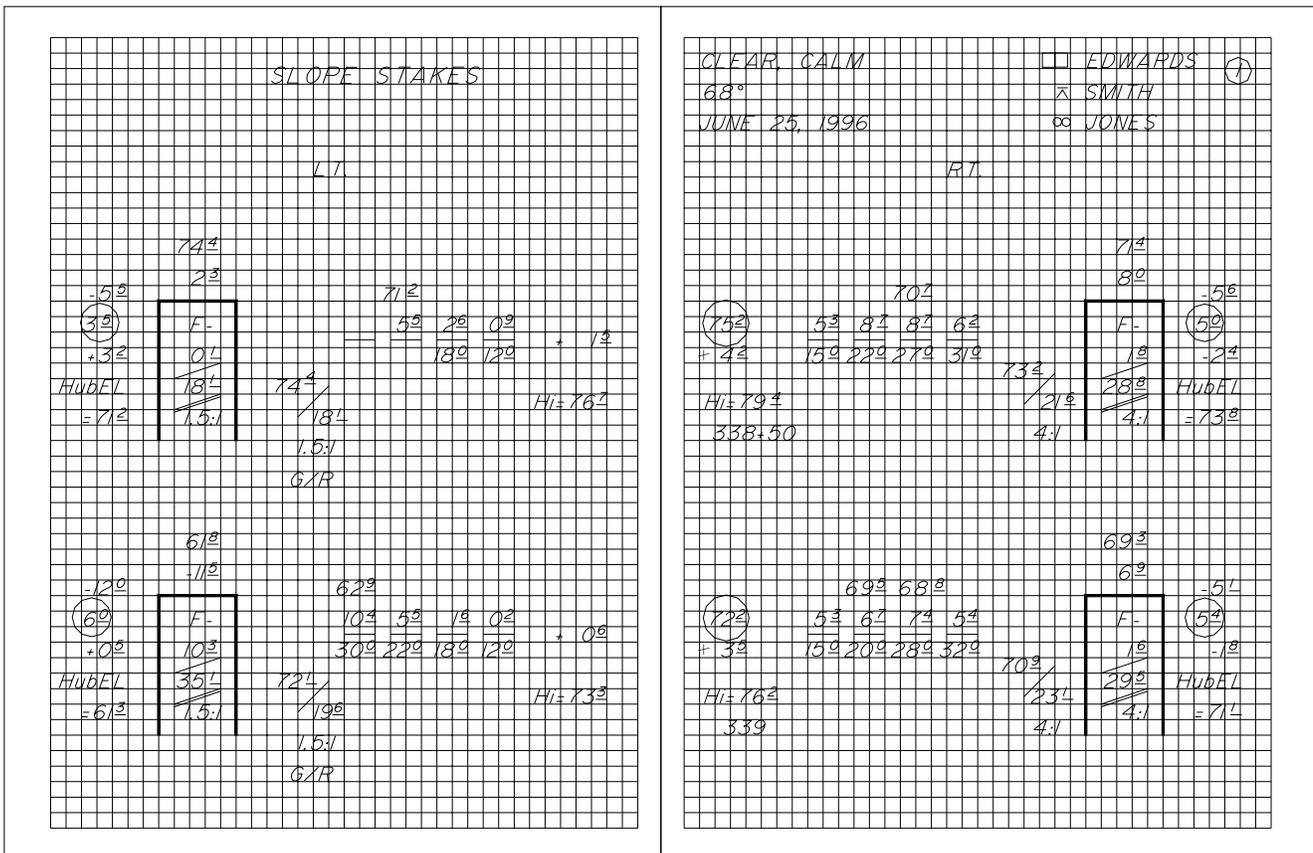
6. Typical level notes

- ✓ Balance back sights and foresights.
- ✓ Establish all benchmarks and take the centerline profile before doing any staking involving elevations.
- ✓ Don't set benchmarks in utility poles.
- ✓ Don't use side shots on benchmarks.
- ✓ Use the turn through method when establishing benchmarks.
- ✓ Re-check benchmarks after each major freeze/thaw cycle and/or any environmental event that may change the benchmark elevation.
- ✓ Do not use double rodding.
- ✓ Run separate level loops between all benchmarks.
- ✓ Set benchmarks in trees of at least six-inch diameter, unless approved by the Project Engineer.
- ✓ Correct errors in benchmark elevations so they will not affect the elevations of succeeding benchmarks.
- ✓ Consult with the Project Engineer before placing benchmarks in areas of permafrost or other unstable ground.
- ✓ Establish benchmarks at intervals and locations consistent with good engineering practice, and generally not more than 1000 feet.
- ✓ Completely describe benchmarks when establishing or re-establishing their elevation. Give centerline stationing, offset, benchmark projection, and observable benchmark characteristics. When checking into or out of benchmarks, note the book and page number that contains the most recent elevation establishment for that benchmark.
- ✓ Write the station on the top twelve inches facing centerline, with numerals a minimum of one inch in height.

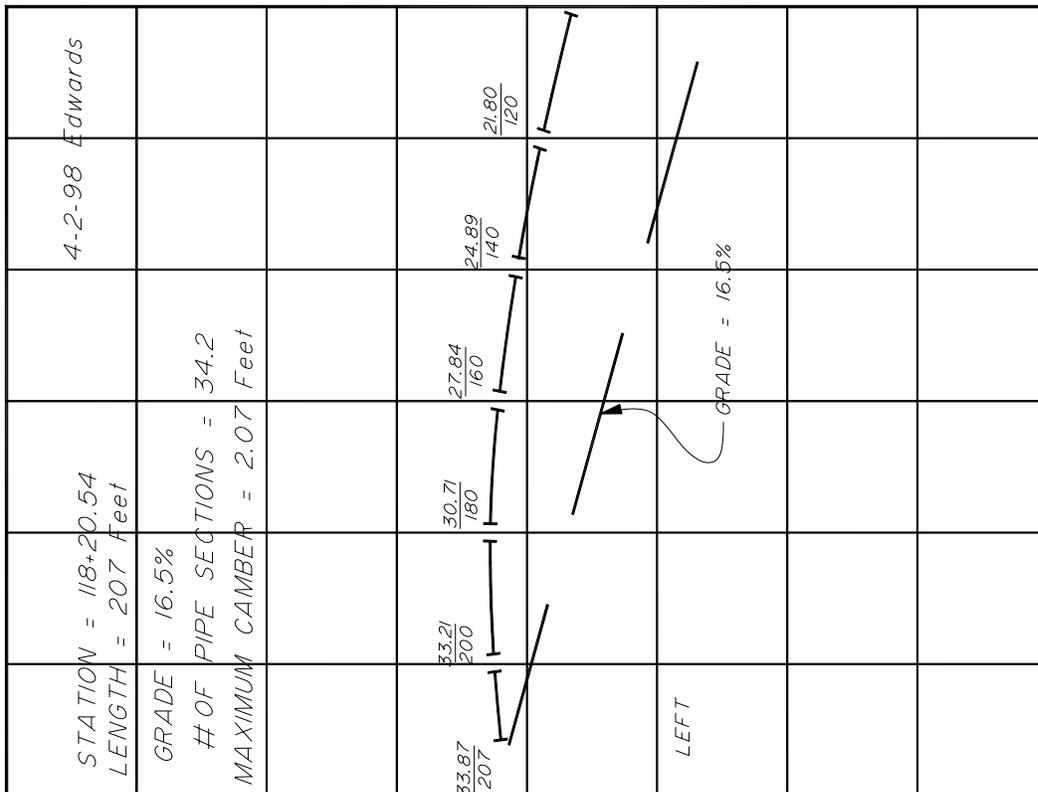
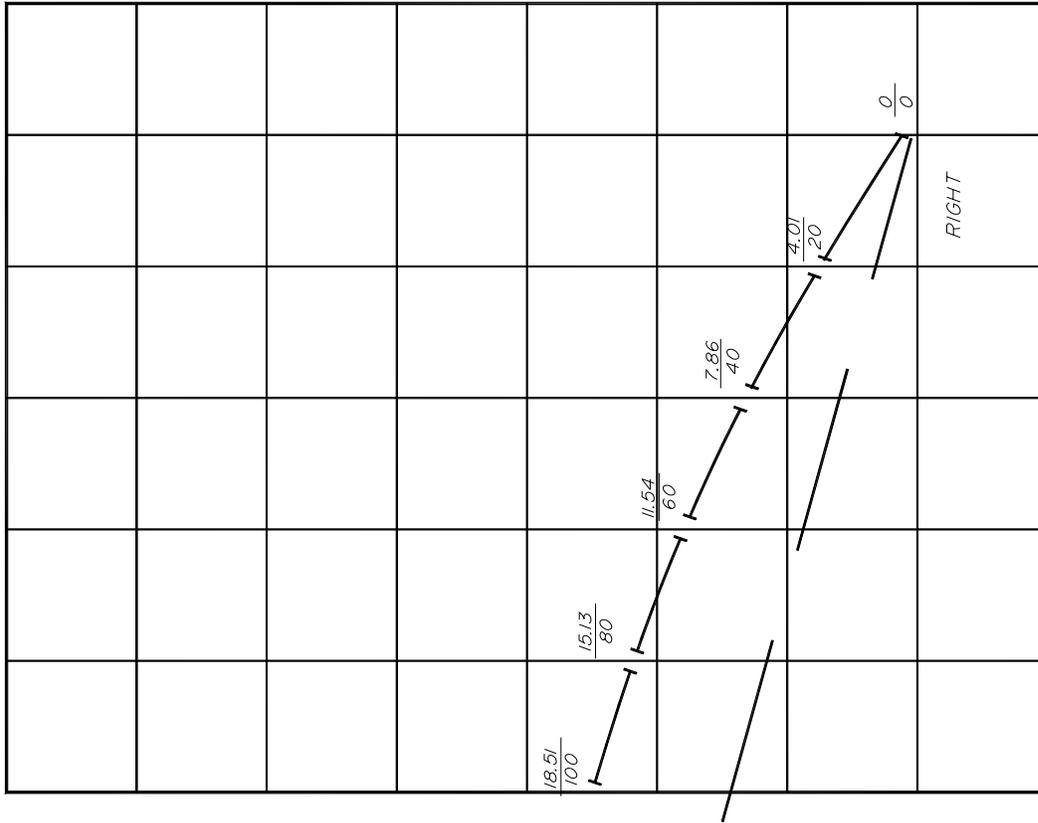
STA.	BS+	HI	FS-	ELEV.	45'± CLEAR WARM CALM			⊗ □	EDWARDS
					WILD 413579	3-23-90		⊕	SMITH
TBM #101 6+72				161.309	Nail in base of 12" Spruce				
	3.877	165.186			85' 10" LT.				6+72
6+00			1.95	163.24					
6+25			2.32	162.87					
6+50			2.96	162.23					
T.P.			3.246	161.940					
	1.103	163.043							
6+75			2.31	160.73					
7+00			2.56	160.48					
T.P.			2.823	160.220					
	2.332	162.552							
					Nail in base of 18" stump				
TBM #102			1.143	161.409	60' 4" RT	7+21			Elev. 161.413

7. Typical slope stake notes

- ✓ Enter the station, elevations, shoulder distance or ditch distances, and slope in the slope stake book before staking begins.
- ✓ In areas where slides or overbreak are anticipated, extend the sections beyond the construction limits.
- ✓ Slope-stake each section that is cross-sectioned.
- ✓ Final re-cross sections are required where there are overbreaks, undercuts, etc. Re-cross section book and page numbers shall be noted on the original cross-section and slope staking page for the relevant stations.
- ✓ Include at least the following information on the stake: (1) where to begin the cut or fill (2) the slope ratio (3) the depth of cut or height of fill and (4) the station.
- ✓ Use a hand level only for one turn up or down from the instrument.
- ✓ Clearly note hand level turns.
- ✓ Use a reference point that is 10-20 feet beyond the slope stake.
- ✓ The reference point must show the cut or fill to the slope stake and must include the slope stake information.
- ✓ Slope stake all abrupt changes in typical sections.
- ✓ Position all laths to face centerline.



9. Typical culvert camber diagram



4-2-98 Edwards

STATION = 118+20.54
LENGTH = 207 Feet

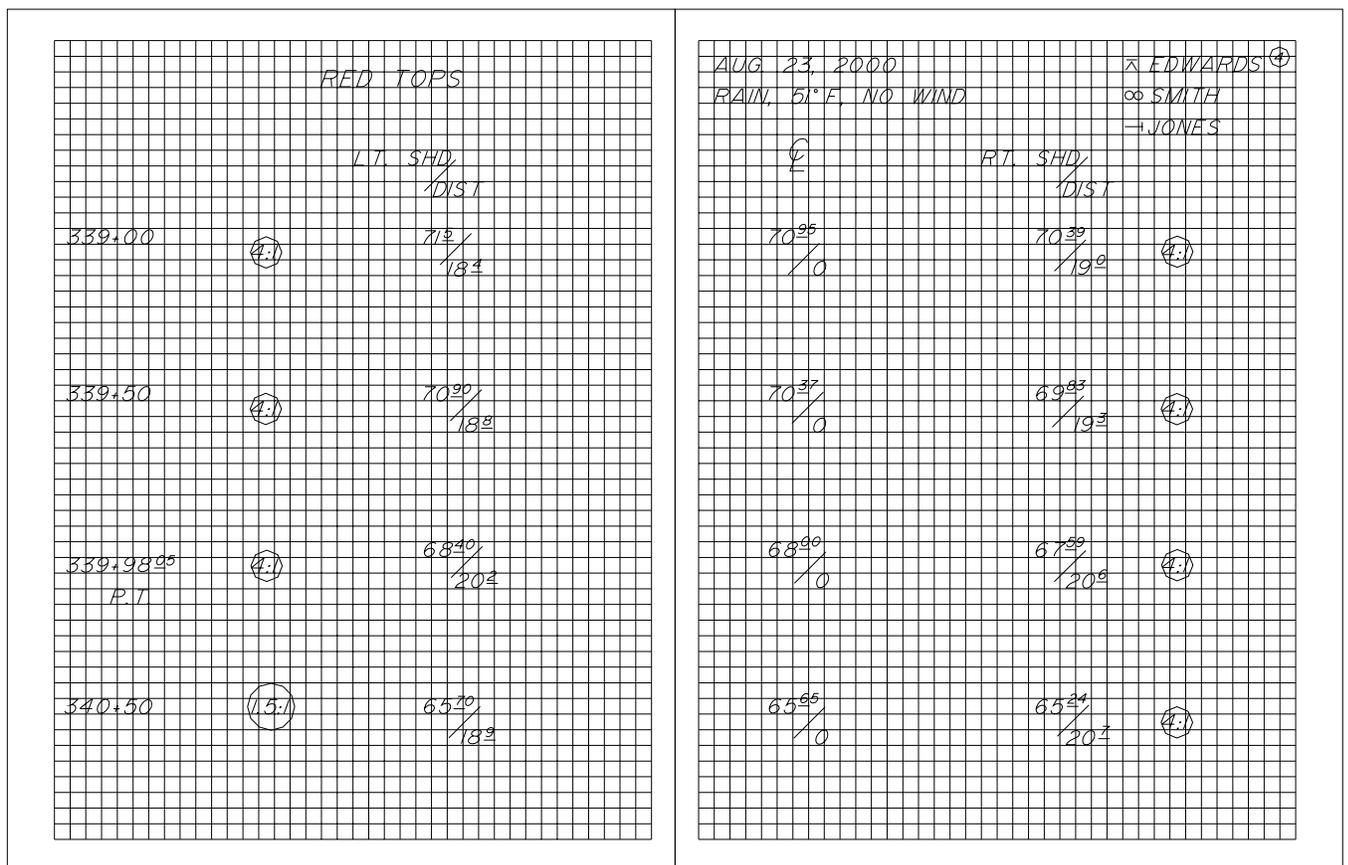
GRADE = 16.5%

OF PIPE SECTIONS = 34.2

MAXIMUM CAMBER = 2.07 Feet

10. Typical blue or red tops and grade stake notes

- ✓ Place blue and red tops at each break in typical section and on centerline.
- ✓ Use blue tops for top of base course.
- ✓ Use red tops for the bottom of the base course.
- ✓ Evenly space red/blue tops at and between crown section break points with a maximum spacing of 25 feet between red/blue tops.
- ✓ Establish horizontal control from centerline references and vertical control from benchmarks.
- ✓ Place blue tops at the same interval as slope stakes.
- ✓ Stake all curve transitions.

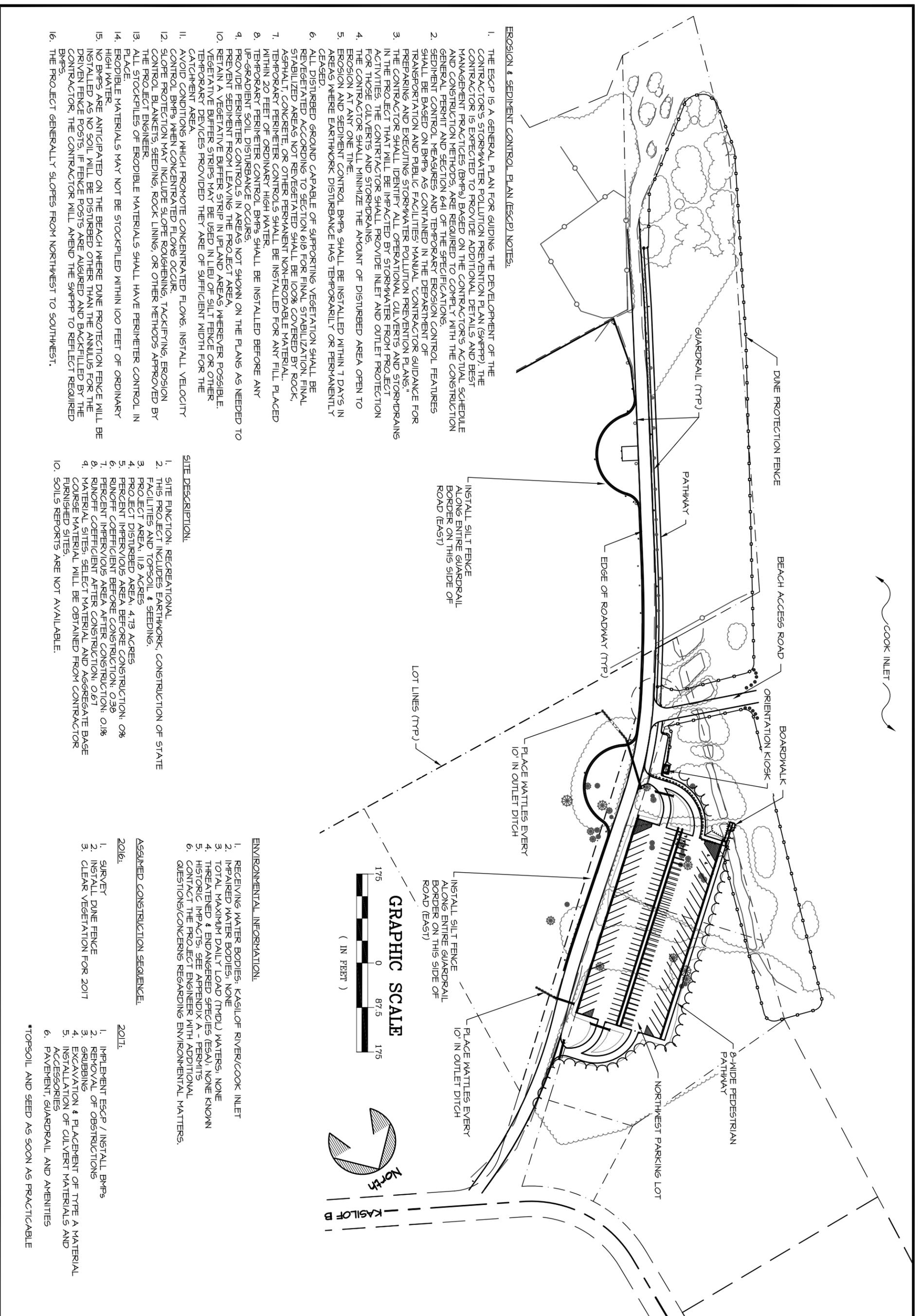


APPENDIX C

STORM WATER POLLUTION PROVENTION PLAN (SWPPP)

The Alaska Department of Natural Resources (ADNR) Division of Parks and Outdoor Recreation (DPOR) Design and Construction Section (D&C) has created this Erosion and Sediment Control Plan (ESCP). This ESCP shall be amended by the Contractor to incorporate the projects material source sites, HMCP, SPCC, and any other modification the contractor determines is necessary.

The Contractor shall use the attached ESCP to meet Alaska Department of Environmental Conservation requirements for construction.



EROSION & SEDIMENT CONTROL PLAN (ESCP) NOTES:

1. THE ESCP IS A GENERAL PLAN FOR GUIDING THE DEVELOPMENT OF THE CONTRACTOR'S STORMWATER POLLUTION PREVENTION PLAN (SWPPP). THE CONTRACTOR IS EXPECTED TO PROVIDE ADDITIONAL DETAILS AND BEST MANAGEMENT PRACTICES (BMPs) BASED ON THE CONTRACTOR'S ACTUAL SCHEDULE AND CONSTRUCTION METHODS, ARE REQUIRED TO COMPLY WITH THE CONSTRUCTION GENERAL PERMIT AND SECTION 641 OF THE SPECIFICATIONS.
2. SEDIMENT CONTROL MEASURES AND TEMPORARY EROSION CONTROL FEATURES SHALL BE BASED ON BMPs AS CONTAINED IN THE DEPARTMENT OF TRANSPORTATION AND PUBLIC FACILITIES' MANUAL "CONTRACTOR GUIDANCE FOR PREPARING AND EXECUTING STORMWATER POLLUTION PREVENTION PLANS."
3. THE CONTRACTOR SHALL IDENTIFY ALL OPERATIONAL CULVERTS AND STORMDRAINS IN THE PROJECT THAT WILL BE IMPACTED BY STORMWATER FROM PROJECT ACTIVITIES. THE CONTRACTOR SHALL PROVIDE INLET AND OUTLET PROTECTION FOR THOSE CULVERTS AND STORMDRAINS.
4. THE CONTRACTOR SHALL MINIMIZE THE AMOUNT OF DISTURBED AREA OPEN TO EROSION AT ANY ONE TIME.
5. EROSION AND SEDIMENT CONTROL BMPs SHALL BE INSTALLED WITHIN 7 DAYS IN AREAS WHERE EARTHWORK DISTURBANCE HAS TEMPORARILY OR PERMANENTLY CEASED.
6. ALL DISTURBED GROUND CAPABLE OF SUPPORTING VEGETATION SHALL BE REVEGETATED ACCORDING TO SECTION 618 FOR FINAL STABILIZATION. FINAL STABILIZED AREAS NOT REVEGETATED SHALL BE 100% COVERED BY ROCK, ASPHALT, CONCRETE OR OTHER PERMANENT NON-ERODIBLE MATERIAL.
7. TEMPORARY PERIMETER CONTROLS SHALL BE INSTALLED FOR ANY FILL PLACED WITHIN 20 FEET OF ORDINARY HIGH WATER.
8. TEMPORARY PERIMETER CONTROL BMPs SHALL BE INSTALLED BEFORE ANY UP-GRADIENT SOIL DISTURBANCE OCCURS.
9. PROVIDE PERIMETER CONTROLS IN AREAS NOT SHOWN ON THE PLANS AS NEEDED TO PREVENT SEDIMENT FROM LEAVING THE PROJECT AREA.
10. RETAIN A VEGETATIVE BUFFER STRIP IN UPLAND AREAS WHEREVER POSSIBLE. VEGETATIVE BUFFER STRIPS MAY BE USED IN LIEU OF SILT FENCE OR OTHER TEMPORARY DEVICES PROVIDED THEY ARE OF SUFFICIENT WIDTH FOR THE CATCHMENT AREA.
11. AVOID CONDITIONS WHICH PROMOTE CONCENTRATED FLOWS. INSTALL VELOCITY CONTROL BMPs WHEN CONCENTRATED FLOWS OCCUR.
12. SLOPE PROTECTION MAY INCLUDE SLOPE ROUGHENING, TACKIFYING, EROSION CONTROL BLANKETS, SEEDING, ROCK LINING, OR OTHER METHODS APPROVED BY THE PROJECT ENGINEER.
13. ALL STOCKPILES OF ERODIBLE MATERIALS SHALL HAVE PERIMETER CONTROL IN PLACE.
14. ERODIBLE MATERIALS MAY NOT BE STOCKPILED WITHIN 100 FEET OF ORDINARY HIGH WATER.
15. NO BMPs ARE ANTICIPATED ON THE BEACH WHERE DUNE PROTECTION FENCE WILL BE INSTALLED AS NO SOIL WILL BE DISTURBED OTHER THAN THE ANNULUS FOR THE DRIVEN FENCE POSTS. IF FENCE POSTS ARE AVOIDED AND BACKFILLED BY THE CONTRACTOR, THE CONTRACTOR WILL AVEND THE SWPPP TO REFLECT REQUIRED BMPs.
16. THE PROJECT GENERALLY SLOPES FROM NORTHWEST TO SOUTHWEST.

SITE DESCRIPTION:

1. SITE FUNCTION: RECREATIONAL
2. THIS PROJECT INCLUDES EARTHWORK, CONSTRUCTION OF STATE FACILITIES AND TOPSOIL & SEEDING.
3. PROJECT AREA: 11.8 ACRES
4. PROJECT DISTURBED AREA: 4.73 ACRES
5. PERCENT IMPERVIOUS AREA BEFORE CONSTRUCTION: 0%
6. RUNOFF COEFFICIENT BEFORE CONSTRUCTION: 0.38
7. PERCENT IMPERVIOUS AREA AFTER CONSTRUCTION: 0.1%
8. RUNOFF COEFFICIENT AFTER CONSTRUCTION: 0.67
9. MATERIAL SITES, SELECT MATERIAL AND AGGREGATE BASE COURSE MATERIAL WILL BE OBTAINED FROM CONTRACTOR FINISHED SITES.
10. SOILS REPORTS ARE NOT AVAILABLE.

ENVIRONMENTAL INFORMATION:

1. RECEIVING WATER BODIES: KASILOF RIVER/COOK INLET
2. IMPAIRED WATER BODIES: NONE
3. TOTAL MAXIMUM DAILY LOAD (TMDL) WATERS: NONE
4. THREATENED & ENDANGERED SPECIES (ESA): NONE KNOWN
5. HISTORIC IMPACTS: SEE APPENDIX A - PERMITS
6. CONTACT THE PROJECT ENGINEER WITH ADDITIONAL QUESTIONS/CONCERNS REGARDING ENVIRONMENTAL MATTERS.

ASSUMED CONSTRUCTION SEQUENCE:

- 2016:
1. SURVEY
 2. INSTALL DUNE FENCE
 3. CLEAR VEGETATION FOR 2017

2017:

1. IMPLEMENT ESCP / INSTALL BMPs
2. REMOVAL OF OBSTRUCTIONS
3. GRUBBING
4. EXCAVATION & PLACEMENT OF TYPE A MATERIAL ACCESSORIES
5. PAVEMENT, GUARDRAIL AND AMENITIES

*TOPSOIL AND SEED AS SOON AS PRACTICABLE



PREPARED: LMR

DRAWN: LGN

REVIEWED: LMR

DATE: 09/16/2016

SHEET

APPENDIX D

SPECIAL REPORTS

Soil or Special Reports are not available for this project. Contractors are highly encouraged to conduct an examination of the work site as per Subsection 102-1.04 Examination of Plans, Specifications, Special Provisions, and Work Site.

**APPENDIX E
MASTER MATERIAL CERTIFICATION
LIST (MCL)**

MATERIALS CERTIFICATION LIST

Specifications	Construction			Design			Statewide	Manufacturer/ Remarks
	Approved Products List	Project Engineer	Q/Materials Engineer	Design Engineer	Bridge Engineer	Traffic Engineer	State Materials Engineer	

Project Name Kasilof River SUA, North Site Improvements
Project Number 76058-1
Project Engineer Signature

401 ASPHALT CONCRETE PAVEMENT

401-2.01								
----------	--	--	--	--	--	--	--	--

501 STRUCTURAL CONCRETE

501-3.01								
----------	--	--	--	--	--	--	--	--

503 REINFORCING STEEL

503-2.01								
----------	--	--	--	--	--	--	--	--

505 PILING

505-2.01								
----------	--	--	--	--	--	--	--	--

603(1) CULVERTS

603-2.01								
----------	--	--	--	--	--	--	--	--

603(3) END SECTIONS

603-2.01								
----------	--	--	--	--	--	--	--	--

604 CURB DRAIN

603-2.01								
603-2.01								
603-2.01								

606 GUARDRAIL

606-2.01								
606-2.01								
606-2.01								

Specifications	Construction			Design			Statewide State Materials Engineer	Manufacturer/ Remarks
	Approved Products List	Project Engineer	QA/Materials Engineer	Design Engineer	Design Bridge Engineer	Traffic Engineer		

607 FENCES

607-2.01								
Posts								
Chain								
Fence Material								

609 CURB AND GUTTER

609-2.01								
Curing Compound								
Expansion Joint								

615 STANDARD SIGNS

615-2.02								
Sheet Aluminum								
Reflective Sheeting								
Sign Posts								
Perforated Steel Posts								
Zinc Coating								

618 SEEDING

618-2.01								
Seed Mix								
Fertilizer								
Mulch								

620 TOPSOIL

620-2.01								
Topsoil Mix								

643 TRAFFIC CONTROL DEVICES

643-2.01								
Traffic Control Devices								
Permanent Construction Signs								

Specifications	Construction		Design			Statewide State Materials Engineer	Manufacturer/Remarks
	Approved Products List	Project Engineer	QAMaterials Engineer	Design Engineer	Design Bridge Engineer		

650 PARK FACILITIES - GENERAL

Concrete							
Structural Steel							
Galvanizing							
Lumber							
Treated Lumber							
Flashing & Sheet Metal							
Fasteners							
Standard Park Padlock							
Signs							
Paint							

- Solid Oil Stain
- Semi-Transparent Oil Stain
- Clear Oil Stain
- Metal Primer Paint
- Enamel Paint
- Concrete Sealer
- End Cut Preservative
- Above/Below Ground Preservative

650(20) REMOVABLE BARRIER POST

Removable Barrier Post							
------------------------	--	--	--	--	--	--	--

650(21) BARRIER ROCK

Barrier Rock							
--------------	--	--	--	--	--	--	--

650 (30D) ORIENTATION KIOSK

Orientation Kiosk							
-------------------	--	--	--	--	--	--	--

669 AUTOMATED TRAFFIC RECORDERS

Wiring							
Conduit							
Junction Boxes							
Inductive Loops							
Traffic Volume Counters							

670 (1) PAINTED TRAFFIC MARKINGS

Pavement Markings							
-------------------	--	--	--	--	--	--	--