

Bid Forms, Contract, Bond, Standard Modifications, and Special Provisions for:

Dalton Highway MP 18-37 Reconstruction

Project No. 0652017/Z607350000

Preliminary PS&E: May 19, 2022

To be used in conjunction with State of Alaska Standard Specifications for Highway Construction dated 2020, and the Plans for the above referenced project. 1. Invitation

	INVITATION TO BID	25D-7	(7/18)
2.	Bid Notices		
	REQUIRED DOCUMENTS FEDERAL EEO BID CONDITIONS	25D-4H_NR 25A-301	(9/18) (12/14)
3.	Forms		
	SUBCONTRACTOR LIST BIDDER REGISTRATION CONTRACTOR'S QUESTIONNAIRE BID FORMS a. BID COVER SHEET b. BID SCHEDULE c. BID ATTACHMENTS (AS APPLICABLE) d. ADDENDA ACKNOWLEDGEMENT	25D-5 25D-6 25D-8 1-	(5/17) (1/16) (8/01)
	e. BIDDER'S ACKNOWLEDGEMENT AND CERTIFICATION CONSTRUCTION CONTRACT PAYMENT BOND PERFORMANCE BOND BID BOND BID MODIFICATION MATERIAL ORIGIN CERTIFICATE EEO-1 CERTIFICATION DOT&PF TRAINING PROGRAM REQUEST TRAINING UTILIZATION REPORT CONTACT REPORT DBE UTILIZATION REPORT PRIME CONTRACTOR'S WRITTEN DBE COMMITMENT SUMMARY OF GOOD FAITH EFFORT DOCUMENTATION	25D-10H 25D-12 25D-13 25D-14 25D-16 25D-60 25A-304 25A-310 25A-311 25A-321A 25A-325C_RN 25A-326 25A-332A_NR	(1/15) (8/01) (8/01) (7/18) (5/17) (10/19) (5/13) (1/16) (10/16) (7/15) (8/01) (3/16)
4.	Contract Provisions and Specifications		
	STANDARD MODIFICATIONS SPECIAL PROVISIONS APPENDIX A - PERMITS APPENDIX B - MATERIAL CERTIFICATION LIST APPENDIX C – EROSION AND SEDIMENT CONTROL PLAN (ESCF REQUIRED CONTRACT PROVISIONS FOR	1-8 1-71 ?)	(0)4(0)
	FEDERAL-AID (FHWA) CONSTRUCTION CONTRACTS	25D-55 H	(2/16)
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5. Federal Wage Rates

Federal wage rates can be obtained at <u>http://www.wdol.gov/dba.aspx#0</u> for the State of Alaska. Use the federal wage rates that are in effect 10 days before Bid Opening. The Department will include a paper copy of the federal wage rates in the signed Contract.

6. State Wage Rates

State wage rates can be obtained at <u>http://www.labor.state.ak.us/lss/pamp600.htm</u>. 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.

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STATE OF ALASKA DEPARTMENT OF TRANSPORTATION AND PUBLIC FACILITIES

INVITATION TO BID

for Construction Contract

Date

Dalton Highway MP 18-37 Reconstruction, 0652017/Z607350000

Project Name and Number

The Department invites bidders to su	bmit bids for furnishing all labor, equipment, and materials and performing all work for the
project described below. The Department	nent will only consider bids received before 2:00 PM local time (per the Department's time
source) on the day of	2022 . On that date, the Department will assemble, open, and then publicly announce
the timely-received bids at Engineeri	ng Services Building, Room 4, 2301 Peger Road, Fairbanks, Alaska at 2:00 PM, or as soon
thereafter as practicable.	

Location of Project:	, Alaska
Contracting Officer:	Joseph H
Issuing Office	Northern

 Joseph P. Kemp, P.E., Acting Regional Director

 Northern Region DOT&PF

 State Funded □
 Federal Aid ⊠

Description of Work:

Reconstruct the Dalton Highway from Milepost 18 to 37. The project work includes bridge work, roadside hardware and drainage improvements. Bridge work includes Hess Creek Bridge #1213 replacement.

Project DBE Utilization Goal: 🛛 Race-Neutral, Goal is N/A 🗆 Race-Conscious, Goal is XX.X%

The Engineer's Estimate is between \$50,000,000 and \$60,000,000

All work shall be completed in N/A Calendar Days, or by October 31, 2024.

The Department will identify interim completion dates, if any, in the Special Provisions.

The apparent successful bidder must furnish a payment bond in the amount of 100% of the contract and a performance bond in the amount of 100% of the contract as security conditioned for the full, complete and faithful performance of the contract. The apparent successful bidder must 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 their bid.

Submission of Bidding Documents

Bidders may submit bidding documents electronically via the Department's approved online bidding service, through the mail or hand delivered. For mailed or hand delivered bids and for electronically submitted bids with a paper bid guaranty, documents shall be submitted in a sealed envelope marked as follows:

Bidding Documents for Project:	ATTN: Chief of Contracts
0652017/Z607350000	State of Alaska
Dalton Highway MP 18-37 Reconstruction	Department of Transportation & Public Facilities
2301 Peger Road	
	Fairbanks, Alaska 99709

It is incumbent upon the bidder to ensure its bid, any amendments, and/or withdrawal arrive, in its entirety, at the location and before the deadline stated above. A bidder sending a bid amendment or withdrawal via email or fax must transmit its documentation to the Department at this email address: nrdotpfcontracts@alaska.gov or fax number: (907) 451-5390.

To be responsive, a bid must include a bid guaranty equal to 5% of the amount bid. (When calculating the bid amount for purposes of determining the 5% value of the bid guaranty, a bidder shall include its base bid amount, plus the amount bid for alternate and supplemental bid items, if any.)

The Department hereby notifies all bidders that it will affirmatively ensure that in any contract entered into pursuant to this Invitation, Disadvantaged Business Enterprises 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



State of Alaska, Standard Specifications for Highway Construction, Dated 2020 are modified as follows:

STANDARD MODIFICATIONS

STANDARD MODIFICATIONS Project No. 0652017/Z607350000 Dalton Highway MP 18-37 Reconstruction

SECTION 102 BIDDING REQUIREMENTS AND CONDITIONS

04/30/22 (HSM20-42)

102-1.05 PREPARATION OF BID. *In the third paragraph, replace the fourth sentence with the following:* If the bidder is a joint venture, the bid must be signed by an officer or agent with authority to bind the joint venture.

SECTION 104 SCOPE OF WORK

11/30/2020 (HSM20-2)

104-1.06 VALUE ENGINEERING CHANGE PROPOSALS BY CONTRACTOR. <u>Delete item 3.e of this</u> <u>subsection and substitute the following:</u> The Contractor may submit VECPs for an approved subcontractor. If the Contractor elects to submit a VECP for an approved subcontractor and it is subsequently accepted by the Department, the Department will reimburse the Contractor per 104-1.06.5.

SECTION 106 CONTROL OF MATERIAL

12/31/21 (HSM20-20)

106-1.01 SOURCE OF SUPPLY AND QUALITY REQUIREMENTS. Add the following:

PROHIBITION ON CERTAIN TELECOMMUNICATION AND VIDEO SURVEILLANCE SERVICES OR EQUIPMENT. On projects using federal funds, the Contractor shall comply with the requirements of 2 CFR 200.216, Prohibition on certain telecommunication and video surveillance services or equipment, including any future amends thereto that are applicable to the project.

By submitting a bid or by execution of the contract, the Contractor certifies that it has not entered into a contract nor extended or renewed a contract to procure or obtain equipment, services, or systems that uses covered telecommunications equipment or services as a substantial or essential component of any system, or as critical technology as part of any system produced by:

Huawei Technologies Company or ZTE Corporation (or any subsidiary or affiliate of such entities).

- Hytera Communications Corporation, Hangzhou Hikvision Digital Technology Company, or Dahua Technology Company (or any subsidiary or affiliate of such entities).
- Any entity that the Secretary of Defense, in consultation with the Director of the National Intelligence or the Director of the Federal Bureau of Investigation, reasonably believes to be an entity owned or controlled by, or otherwise connected to, the government of a covered foreign country.

The Contractor further certifies that it has complied with the requirements of 2 CFR 200.216 and that it will continue to do so throughout the term of the Contract.

SECTION 108 PROSECTUTION AND PROGRESS

01/01/22 (HSM20-41)

108-1.01 SUBCONTRACTING OF CONTRACT. <u>In item 1.g delete</u> "AS 45.45.101(a)" <u>and substitute the</u> <u>following:</u> AS 45.45.010(a).

In item 2.f delete "AS 45.45.101(a)" and substitute the following: AS 45.45.010(a).

STANDARD MODIFICATIONS Project No. 0652017/Z607350000 Dalton Highway MP 18-37 Reconstruction

06/30/20 (HSM20-1)

108-1.07 FAILURE TO COMPLETE ON TIME. <u>Delete Table 108-1 of this subsection in its entirety and</u> substitute the following:

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

Original Con	Daily Charge		
From More Than	To and Including	Daily Charge	
\$ 0 500,000		\$1,000	
500,000	1,000,000	1,500	
1,000,000	5,000,000	1,800	
5,000,000	10,000,000	2,500	
10,000,000	25,000,000	3,800	
25,000,000		4,800	

SECTION 109 MEASUREMENT AND PAYMENT

11/30/2020 (HSM20-3)

109-1.08 FINAL PAYMENT. Add the following after the fifth paragraph of this subsection: On federally funded projects, if DOLWD Wage and Hour Administration notifies the Department of a pending prevailing wage investigation, and that the investigation is preventing the closing out of the project, the Contractor may place the notified amount in escrow under Wage and Hour for the exclusive purpose of satisfying unpaid prevailing wages. Upon receipt of notice from Wage and Hour that the contractor has satisfactorily transferred the necessary funds into escrow, the Department will proceed to issue final payment.

SECTION 120 DISADVANTAGED BUSINESS ENTERPRISE PROGRAM

12/31/21 (HSM20-21)

120-1.01 DESCRIPTION. In the first sentence of the second paragraph, delete "8.83 percent" and substitute the following: 8.28 percent.

120-3.01 DETERMINATION OF COMPLIANCE. <u>Delete the statement in 2.a. Written DBE Commitment</u> and substitute the following: Complete Form 25A-326 for each DBE to be used on the project.

SECTION 202 REMOVAL OF STRUCTURES AND OBSTRUCTIONS

11/30/2020 (HSM20-4)

In the fourth paragraph, delete the words "Items 020.0014.____" *and substitute the following:* Items 202.0014.____"

STANDARD MODIFICATIONS Project No. 0652017/Z607350000 Dalton Highway MP 18-37 Reconstruction

SECTION 203 EXCAVATION AND EMBANKMENT

11/30/2020 (HSM20-5)

203-3.04 COMPACTION WITH MOISTURE AND DENSITY CONTROL. *In the second paragraph of this subsection, delete the words* "and ATM 214".

SECTION 205 EXCAVATION AND FILL FOR MAJOR STRUCTURES

11/30/2020 (HSM20-5) 205-3.05 COMPACTION. <u>In the second paragraph of numbered paragraph 1. Compaction With Moisture</u> and Density Control, delete the words "and ATM 214".

SECTION 301 AGGREGATE BASE AND SURFACE COURSE

301-3.03 SHAPING AND COMPACTION. *In the second paragraph of this subsection, delete the words* "and ATM 214".

SECTION 501 CONCRETE FOR STRUCTURES

12/31/21 (HSM20-23) 501-2.02 COMPOSITION OF MIXTURE - JOB MIX DESIGN. <u>Delete Table 501-4 and substitute the</u> following:

TABLE 501-4 AIR CONTENT REQUIREMENTS

Class of Concrete	Air Content
А	6.0% ±0.5%
A-A	6.0% ±0.5%
Р	3.50% minimum ¹ and
I	Super Air Meter (SAM) number ≤0.20 ¹
DS	Not required

¹Not required for web and bottom flange of precast, prestressed decked bulb-tee girders.

SECTION 550 COMMERCIAL CONCRETE

12/31/21 (HSM20-25)

550-2.02 COMPOSITION OF MIXTURE – JOB MIX DESIGN.

1. <u>Submittals</u>. <u>Add the following to the first paragraph</u>: Submit the JMD on Form 25D-203.

SECTION 606 GUARDRAIL

12/31/21 (HSM20-26) 606-2.01 MATERIALS. <u>Delete the first paragraph in its entirety and substitute the following:</u> Use materials that conform to the following:

Concrete Flexible Delineator Posts Guardrail Connection Plate Thrie-Beam Terminal Connector Guardrail Hardware Guardrail Posts and Blockouts High Strength Bolts Metal Beam Rail Terminals Wire Cable

Section 550, Class B Subsection 730-2.05 Subsection 710-2.12 Subsection 710-2.12 Subsection 710-2.07 Subsection 710-2.06 Subsection 716-2.03 Subsection 710-2.04 Subsection 710-2.11 Subsection 709-2.02

606-3.09 INSTALL NEW GUARDRAIL. <u>Delete this subsection and substitute the following:</u> Install guardrail as shown on the Plans.

12/31/21 (HSM20-28)

12/31/21 (HSM20-27)

606-4.01 METHOD OF MEASUREMENT. Delete item 3 and substitute the following:

3. Transition Rail. Per each accepted connection.

SECTION 614 CONCRETE BARRIER

11/30/2020 (HSM20-12)

614-2.01 MATERIALS. Use materials that conform to the following: <u>Delete the first item in the Materials</u> reference list of this subsection and substitute the following:

Concrete, cast-in-place Concrete, precast MASH F-shape

615-2.01 MATERIALS.

Section 550, Class B Section 550, Class B-B

SECTION 615 STANDARD SIGNS

12/31/21 (HSM20-29)

1. <u>Shop Drawings</u>. <u>Delete the first sentence and substitute the following</u>: Submit shop drawings for all signs that must meet the ASDS letter width and spacing charts for variable width legends (such as D-series and I-3 signs), and which require custom shop drawings specific to the project.

SECTION 643 TRAFFIC MAINTENANCE

12/31/21 (HSM20-30)

643-2.02 CRASHWORTHINESS. Delete Table 643-2 and substitute the following:

TABLE 643-2 WORK ZONE TRAFFIC CONTROL DEVICE AND BARRIER CRASH TESTING COMPLIANCE

Category	Devices	Devices Manufactured Before Dec. 31, 2019 ¹	Devices Manufactured After Dec. 31, 2019 ¹	Method of Documentation
1	Low-mass single-piece devices w/o attachments: traffic cones, tubular markers, single piece drums, delineators	NCHRP 350, MASH 2009, or MASH 2016	MASH 2016	Manufacturer's Certification for devices exceeding height and weight limits
2	Category 1 devices with attachments, barricades, portable sign supports, drums w/lights, other devices weighing less than 100 pounds but not included in category 1	NCHRP 350, MASH 2009, or MASH 2016	MASH 2016	FHWA eligibility letter, at Test Level 3 ²
3	Fixed sign supports, truck mounted attenuators, temporary crash cushions, bridge railing, bridge and guardrail transitions, and guardrail and barrier end treatments.	NCHRP 350, MASH 2009, or MASH 2016	MASH 2016	FHWA eligibility letter, at Test Level 3 ²
\mathbf{D}	Portable concrete and steel barriers	NCHRP 350, MASH 2009, or MASH 2016	MASH 2016	FHWA eligibility letter, at Test Level 3, unless otherwise required in the contract.

¹ The Engineer will determine whether a device is in serviceable condition. Serviceable means the device will function equivalent to a new device of the same manufacture.

When no test level is specified in an FHWA Eligibility letter; it is implied that the tests were run for Test Level 3.

02/01/2022 (HSM20-39) 643-3.06 TRAFFIC PRICE ADJUSTMENT. <u>Delete Table 643-3 Adjustment Rates in its entirety and</u> <u>substitute the following:</u>

TABLE 643-3 ADJUSTMENT RATES

Published ADT	Dollars/Minute of Unauthorized Lane Reduction or Closure
Less than 1,000	\$6
1,000-4,999	\$25
5,000-9,999	\$75
10,000-29,999	\$105
30,000+	\$150

SECTION 703 AGGREGATES

05/01/22 (HSM20-40)

703-2.03 AGGREGATE FOR BASE AND SURFACE COURSE. In Table 703-1 replace the line for Degradation Value with the following:

TABLE 703-1AGGREGATE QUALITY PROPERTIES FOR BASE AND SURFACE COURSE

PROPERTY	BASE COURSE	SURFACE COURSE	TEST METHOD
Micro-Deval	15%. max.	15%. max.	AASHTO T 327

703-2.04 AGGREGATE FOR HOT MIX ASPHALT. <u>In Table 703-3 replace the line for Degradation Value</u> with the following:

TABLE 703-3	
COARSE AGGREGATE QUALITY FOR HMA	

Description	Specification	Type II, Class A	Type I, Type II Class B, Type III	Type IV	Type V	Type SP
Micro-Deval, max.	AASHTO T 327	18%	18%	18%	18%	18%

703-2.05 AGGREGATE FOR COVER COAT AND SURFACE TREATMENT. <u>In Table 703-5 replace the</u> <u>line for Degradation Value with the following:</u>

TABLE 703-5 QUALITY PROPERTIES FOR COVER COAT AND SURFACE TREATMENT

Micro-Deval

AASHTO T 327

15%, max.

703-2.09 SUBBASE. In Table 703-8 replace the line for Degradation Value with the following:

TABLE 703-8 QUALITY PROPERTIES FOR SUBBASE

SECTION 714 PRESERVATIVES FOR TIMBER

12/31/21 (HSM20-36)

714-2.01 PRESERVATIVES.

3. <u>Timber Piling</u>. <u>Delete the second sentence and substitute the following</u>: Use Category 4C for soil and freshwater contact.

STANDARD MODIFICATIONS Project No. 0652017/Z607350000 Dalton Highway MP 18-37 Reconstruction

SECTION 722 BRIDGE RAILING

12/31/21 (HSM20-37)

11/30/20 (HSM20-18)

722-2.01 BRIDGE RAILING. Delete this subsection and substitute the following:

Steel Tube Rail Elements Steel Thrie-Beam Rail Elements Posts Machine Bolts, Cap Screws, Nuts and Washers High Strength Bolts, Nuts and Washers

Anchor Bolts and Rods

Welded studs

Bent anchor rods

Shims, Plates, Plate Washers, Angles, Sleeves, and Scuppers

Beveled Washers and Tapered Plate Washers

Galvanize steel portions of railing after fabrication.

ASTM A500, Grade B or Grade C AASHTO M 180, Class B, Type II ASTM A709, Grade 50 ASTM A307 Subsection 716-2.03 ASTM F3125, Grade A325 or ASTM A449, Type 1 AASHTO M 169, Grade 1015 or 1020 ASTM A709, Grade 36 or Grade 50 ASTM A709, Grade 50

ASTM F436

AASHTO M 111 or M 232 and Subsection 716-2.07

SECTION 727 SOIL STABILIZATION MATERIAL

727-2.02 MATTING.

4. <u>Knitted Straw Mat</u>. <u>Delete this numbered item and substitute the following</u>: Commercially manufactured erosion control blanket. Use photodegradable netting and biodegradable thread. Use straw and straw products from oats, wheat, rye, barley, or other approved grain crops that are certified weed free of prohibited and restricted noxious weed seed and quarantined pests, according to Alaska Administrative Code, Title 11, Chapter 34 (11 AAC 34), and free of mold, or other objectionable material. When straw or straw products certified according to 11 AAC 34 are not available, use non-certified products manufactured within Alaska before certified products manufactured in another state, country, or territory. Non-certified straw or straw products manufactured in another state, country, or territory shall not be used. Grass, legumes, or any other herbaceous plants produced as hay, shall not be substituted for straw or straw products. May contain coconut or fiber to reinforce the straw. Follow the manufacturer's published recommendations.

SPECIAL PROVISIONS

SECTION 104 SCOPE OF WORK

11/30/12 (H5) Add the following subsection:

104-1.07 FROZEN GROUND. Frozen areas, ice lenses, and saturated soils may be encountered on this project and related material sources. Specific locations and specific content of frozen areas, ice lenses, and saturated soils are not defined. Any such area that may be encountered by the Contractor in the performance of the contract work will not be considered unforeseeable within the terms of the contract such as to entitle the Contractor to any adjustment in contract price or contract time. Reference is made to Subsection 203-3.03 of these Specifications.

SECTION 106 CONTROL OF MATERIAL

04/30/17 (N2) 106-1.02 MATERIALS SOURCES.

- 1. General. Add the following subparagraph:
 - j. If pre-existing, naturally occurring, hazardous material is encountered in any Material Source under Department ownership, management, or permit; the Department will pay in accordance with Subsection 109-1.05 for the proper handling and disposal of the hazardous material. Avoid excavation activity in the vicinity of the hazardous material. The Department will not be liable for any delays or impacts to the production of any materials items due to encountering the hazardous material. Contractor shall adhere to Subsection 107-1.11(6). Nothing in this subsection relieves the Contractor of any statutory liability.

4. Types of Sources.

d. <u>Available Sources</u>. <u>Add the following</u>: The available sources listed below are under permit to the Department by the controlling agency and are available for use by the Contractor under this contract. Additional sources of material may be needed to complete the required work laid out in this contract. The Contractor will be responsible to secure all necessary permits, rights, plan approvals and pay all associated costs to utilize any additional material sources.

Available Material Sources

Pit ID #	Mile Post	Owner
65-3-013-2	19	DNR
65-3-017-2	26	DNR
65-3-015-2	28	DNR
65-3-016-2	36	DNR

 <u>Rights, Permits and Plan Approvals for Material Sources.</u> <u>Delete in its entirety and substitute</u> <u>the following:</u> Before disturbing the site of a material source, the Contractor shall acquire and pay for all necessary right, permits and plan approvals indicated in this Subsection and in Subsection 107-1.02 For each material site the Contractor proposes to use the Contractor shall:

- a. Acquire Mining and Reclamation Plan (MRP) approval from the Department of Natural Resources. Submit the approved MRP to the Department of the Army Corps of Engineers and Alaska Department of Fish & Game and obtain their verification that permit requirements are being met. Each MRP shall include but is not limited to:
 - (1) Scaled plan drawing(s) and site cross section drawings showing:
 - i. Applicable material source boundaries and buffers
 - ii. Proposed excavation/extraction areas and depths to be developed
 - iii. Proposed working limits and their associated area(s) in acres
 - iv.Locations of existing and proposed vegetation limits
 - v. Locations of access roads, ponds, stripping, sorting, berms, waste piles, overburden disposal site(s), crushing and plant sites, stockpile sites, drainage features, erosion and pollution control features, buildings and facilities.
 - (2) Narrative indicating:
 - i. Site development and methods of operation
 - ii. Length and times of operation
 - iii.Calculated acreage (rounded to the nearest hundredth decimal place) of vegetation that will be disturbed
 - iv.Air and water pollution control measures
 - v. Reclamation measures
 - (3) Reclamation plan showing the condition the Contractor will leave the site after materials extraction is complete.
- b. Submit a SWPPP as required by Section 641.

After completing work in material source, the Contractor shall finish and grade work areas to a neat, acceptable condition in accordance with the approved MRP. Reclamation of a Contractor-furnished source will be accordance with the Contractor's MRP.

SECTION 201 CLEARING AND GRUBBING

201-1.01. DESCRIPTION. <u>Add the following:</u> Salvage and stockpile native organic soil and vegetative mat from areas that will be disturbed for other work. Maintain vegetative mat in a live condition according to Section 623.

03/02/20 (N79)

201-3.01 GENERAL. <u>Add the following</u>: Do not perform mechanized vegetation clearing between May 1 and July 15.

Clearing and grubbing is not permitted within the migratory bird window of May 1 to July 15; except as permitted by Federal, State and local laws when approved by the Engineer.

201-5.01 BASIS OF PAYMENT. <u>Add the following:</u> Salvaging, stockpiling and transporting native organic soil and vegetative mat is subsidiary to Item 647(102).

SECTION 203 EXCAVATION AND EMBANKMENT

01/20/15 (N8)

203-3.01 GENERAL. <u>Add the following to the eighth paragraph</u>: Disposal in wetlands is prohibited, except as described in Subsection 107-1.11.

<u>Add the following after the eighth paragraph</u>: The Contractor shall certify in writing to the Engineer that all permits and clearances relating to all waste disposal sites selected by the Contractor have been obtained prior to any clearing or ground disturbance in the disposal site.

01/20/15 (N11)

203-3.03 EMBANKMENT CONSTRUCTION. <u>Delete the fourteenth paragraph and substitute the following</u>: When embankments are to be constructed across wet or swampy ground, which will not support the weight of heavy hauling and spreading equipment, the Contractor shall choose such methods of embankment construction and use such hauling and spreading equipment as will least disturb the soft foundation. When soft foundations are encountered, and when approved by the Engineer, the lower part of the fill may be constructed by dumping and spreading successive vehicle loads in a uniformly distributed layer of a thickness not greater than that necessary to support the vehicle while placing subsequent layers, after which the remainder of the embankment shall be constructed in layers and compacted as specified.

It is not the policy of the State to allow an increase in the planned depth of embankment material over soft, wet, or swampy ground for the sole purpose of providing support for heavy hauling and spreading equipment, unless the Contractor proves to the satisfaction of the Engineer that the planned depth is inadequate to support light hauling vehicles. If use of smaller hauling vehicles or different methods of embankment construction than originally contemplated are necessary to comply with the foregoing, such shall not be the basis for a claim for extra compensation. The contract unit price for the various pay items involved shall be full compensation for all labor, materials, and equipment necessary to perform the work outlined herein.

01/20/15 (N12)

203-4.01 METHOD OF MEASUREMENT. <u>Add the following</u>: Borrow will not be weighed or used while free moisture is observed draining from the haul vehicle at the scale location.

02/01/20 (N13)

203-5.01 BASIS OF PAYMENT. <u>Add the following:</u> Ten percent (10%) of the value earned in the progress period shall be withheld on progress payments for all Section 203 items of work. Five percent (5%) will be released by work area, as defined in the SWPPP, when final stabilization is initiated. The last five percent (5%) will be released by work area, as defined in the SWPPP, when final stabilization as defined by the *Construction General Permit* has been obtained and accepted by the Engineer. Withholding will be made under Item 641.0006. Withholding.

SECTION 304 SUBBASE

02/01/20 (N15)

304-5.01 BASIS OF PAYMENT. <u>Add the following:</u> Ten percent (10%) of the value earned in the progress period shall be withheld on progress payments for all Section 304 items of work. Five percent (5%) will be released by work area, as defined in the SWPPP, when final stabilization is initiated. The last five percent (5%) will be released by work area, as defined in the SWPPP, when final stabilization as defined by the *Construction General Permit* has been obtained and accepted by the Engineer. Withholding will be made under Item 641.0006. Withholding.

SECTION 501 CONCRETE FOR STRUCTURES

TABLE 501-1.1 MINIMUM CEMENTITIOUS MATERIAL CONTENT

09/10/21 (N89) 501-2.02 COMPOSITION OF MIXTURE – JOB MIX DESIGN.

1. <u>Water-Cement Ratio and Cementitious Materials:</u> Add the following after Table 501-1:

Minimum Cementitious Material Class of Concrete Content Α 564 lbs/yd3 A-A 658 lbs/yd³ Replace Table 501-4 Air Content Requirements with the following: **TABLE 501-4** AIR CONTENT REQUIREMENTS Class of Concrete Air Content 6.0% ±0.5% A 6.0% ±0.5% A-A 3.50% minimum¹ and Super Air Meter (SAM) number ≤0.20¹ DS Not required Not required for web and bottom flange of precast, prestressed decked bulb-tee girders. SECTION 502 PRESTRESSING CONCRETE 502-3.03 CAMBER. Replace the second paragraph with the following: Form girders so the roadway

502-3.03 CAMBER. <u>Replace the second paragraph with the following:</u> Form girders so the roadway surface conforms to the indicated grade line with an allowance for 1/2 inch of positive camber at midspan. Form girders to adjust for the predicted long-term camber from loss of prestress and from dead load deflection. When estimating this adjustment, assume that future paving will not be applied.

SECTION 503 REINFORCING STEEL

503-3.02 PROTECTION OF MATERIALS. <u>Replace the second sentence of the first paragraph with the following</u>: Before placing reinforcing steel in the work, ensure that the reinforcing steel is free of salt, rust, and foreign substances that may affect the performance of the reinforcing steel.

503-3.05 SPLICING.

2. Electric Resistance Butt Welded Joints. Replace subparagraph c. with the following:

c. <u>Testing/Inspection</u>.

SPECIAL PROVISIONS Project No. 0652017/Z607350000 Dalton Highway MP 18-37 Reconstruction Perform job control tests using a testing laboratory with experience with ASTM A370 and California Test Method 670. A job control test consists of the fabrication, under the same conditions used to produce the splice, and the physical testing of 4 sample splices for each lot of splices. An authorized Department representative will designate when samples for job control tests are to be fabricated and will determine the limits of the lot represented by each job control test.

A lot of shop produced resistance welded butt joints is defined as no more than 150 splices of the same type of welds used for each combination of bar size and bar deformation pattern that is used in the work.

The Engineer or the Engineer's authorized representative shall witness the job control tests performed by the testing laboratory. Give the Engineer at least 7 working days' notice before beginning control tests.

Identify sample splices with tamper proof and weatherproof markings prior to shipment to the testing laboratory.

The sample shall consist of a resistance welded butt splice bar and a control bar that are identified and marked as a set. The same reinforcing bar (hoop) may be used to provide the test weld and control bar.

Test each sample to failure in accordance with ASTM A706, ASTM A370 and California Test Method 670. Determine the ultimate tensile strength for all control bars by testing the bars to failure.

The production lot will be rejected if:

- (1) a sample fails within one bar diameter of the splice at less than 95 percent of the ultimate tensile strength of the associated control bar
- (2) necking of the bar prior to rupture, as defined in California Test Method 670, is not observed
- (3) a sample does not meet the mechanical requirements of ASTM A706 Grade 60

4. Mechanical Butt Splices. Replace subparagraphs c. and d. the following:

<u>Qualifications and Submittals</u>. A splice will be considered qualified if the splice can develop a minimum tensile strength of 80000 psi, based on the nominal bar area, and the bars within the splice do not exceed a total slip shown in Table 503-3, when tested according to the relevant material ASTM, ASTM A370 and California Test Method 670.

Reinforcing Bar No.	Total Slip (inch)
4	0.020
5	0.020
6	0.020
7	0.028
8	0.028
9	0.028
10	0.036
11	0.036
14	0.048
18	0.060

TABLE 503-3 ALLOWABLE TOTAL SLIP LENGTH

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Submit the following information:

- (1) the manufacturer's name;
- (2) the name of the product or assembly;
- (3) the lot, heat, or batch number that identifies the splice;
- (4) the bar grade and size number to be spliced by the material;
- (5) a complete description of the splice and installation procedure;
- (6) Tensile Test results including:
 - (a) bar nominal area;
 - (b) ultimate load at failure;
 - (c) ultimate tensile strength;
 - (d) necking results (either visually or through strain values)
 - (e) failure mechanism and location;
- (7) Slip Test results including:
 - (a) initial length measurements;
 - (b) final length measurements; and,
 - (c) calculated slip.
- d. <u>Testing/Inspection</u>. Perform job control tests consisting of the fabrication, under conditions used to produce the splice. For each lot of splices perform 6 slip tests and 6 tensile tests using different sample splices for each test. The Engineer will designate when samples for job control tests are to be fabricated and will determine the limits of the lot represented by each job control test.

A lot of mechanical butt joints is defined as no more than 150 splices of the same type of mechanical butt splice used for each combination of bar size and bar deformation pattern that is used in the work.

Make splice samples using the same splice materials, position, equipment, and following the same procedures as used to make splices in the work. Make splice samples at least 5 feet long with the splice at mid-length. Shorter sample splice bars may be used if approved by the Engineer.

Perform job control tests in the presence of the Engineer. Splices tested in the absence of the Engineer may be rejected. Notify the Engineer, in writing, at least 7 working days prior to performing testing.

Identify sample splices with weatherproof markings prior to shipment to the testing laboratory. Test each sample according to the relevant material ASTM, ASTM A370 and California Test Method 670. Test each sample until partial or total fracture of the parent bar material, mechanical splice material, or bar-to-splice connection.

The production lot will be rejected if:

(1) the minimum individual tensile strength of the sampled splices is less than 80000 psi based on the nominal bar area

(2) the maximum individual slip length of the sampled splices is greater than the limits in Table 503-3

Replace Item 5. Mechanical Lap Splices with the following:

5. Mechanical Lap Splices. Do not use mechanical lap splices.

SECTION 504 STEEL STRUCTURES

504-3.01 FABRICATION.

2. <u>General</u>. <u>Replace the tenth paragraph and subparagraphs after</u> "Cold bend load-carrying rolled-steel plates as follows" <u>with the following</u>: Cold bend at room temperature cross-frame or diaphragm connection plates up to 0.75 inches thick with minimum bending radii of 2.25 times the plate thickness in inches. Cold bend all other steel plates and bars with minimum bend radii of 5 times the plate thickness in inches measured to the concave face of the plate.

Before bending, round the edges of the plate to a radius of 1/16 inch throughout the portion of the plate to be bent.

SECTION 505 PILING

505-1.02 DEFINITIONS. Add the following:

PILOT BORE HOLE. A vertical boring drilled along the pile alignment to a prescribed depth and size, prior to driving the pile, intended to loosen or weaken hard soil conditions, and reduce risk of pile damage during driving. A pilot bore hole does not necessarily have to be void of the cuttings.

505-2.01 MATERIALS. Add the following:

Soldier Pile Wall Attachments, Fasteners and Welds Section 504

505-3.01 PILE DRIVING EQUIPMENT. Add the following:

4. <u>Pilot Bore Equipment</u>. Pilot bore holes may be drilled using auger, rotary-wash with casing, downhole hammers, cable-tools, or other appropriate equipment. Include pilot bore equipment in the pile driving plan for approval. Use only equipment included in the approved pile driving plan. The Engineer may inspect the pilot bore equipment for conformance with the approved pile driving plan after it has been mobilized to the site and prior to beginning pile operations. Remove and replace pilot bore equipment and with no adjustment to contract time.

505-3.03 DRIVING PILES. Add the following:

6. <u>Pilot Bore.</u> Drill a pilot bore, prior to driving, at each pile location to one foot above the Minimum Penetration shown on the Plans.

Add the following subsection:

505-3.07 SOLDIER PILE WALL. Furnish, fabricate and install soldier pile wall components, welds and fasteners in accordance with Section 504. Galvanize piles and attachments in accordance with Subsection 716-2.07.

505-5.01 BASIS OF PAYMENT. Add the following:

Furnish Piles.

Material not appearing in the Bid Schedule and attached to piles is subsidiary.

Drive Piles.

4. All equipment, material, labor and work required for pilot bore holes for the piles.

Replace the Pay Item table with the following:

Payment will be made under:

	PAY ITEM	
Item Number	Item Description	Unit
505.0005.0001	Furnish Structural Steel H-Piles, HP14X117	LF
505.0006.0001	Drive Structural Steel H-Piles, HP14X117	EACH

SECTION 520 TEMPORARY CROSSINGS

520-2.04 DESIGN REQUIREMENTS. Replace subparagraph 3.b. with the following:

Complete seismic design in accordance with the AASHTO Guide Specifications for LRFD Seismic Bridge Design. Design the structure using not less than 40% of the site adjusted seismic response spectra indicated on the Plans.

08/01/17 (N73)

Replace subparagraph 3.i. with the following:

i. Construct roadway surface of concrete or HMA. Construct skid-resistant bridge deck surface of concrete, steel, or HMA. The bridge deck surface shall not be wooden. Provide a bridge deck surface with a friction value of not less than 0.35 as determined by ASTM E1911.

520-3.03 WINTER MAINTENANCE. <u>Delete this subsection in its entirety and substitute the following:</u> During seasonal suspension of work the Department may accept maintenance responsibility for snow and ice removal according to Subsections 105-1.13 and 643-3.07. The Contractor is responsible for repairs and maintenance for damage resulting from the Department's action to remove snow and ice, or as required for any other reason, during seasonal suspension of work. Payment will be made for repairs resulting from Department caused damage by unit pay item or in accordance with Subsection 109-1.05, Compensation for Extra Work.</u>

SECTION 550 COMMERCIAL CONCRETE

09/10/21 (N90) 550-2.02 COMPOSITION OF MIXTURE – JOB MIX DESIGN. <u>Delete Table 550-1 and substitute the</u> following:

TABLE 550-1 COMMERCIAL CONCRETE DESIGN REQUIREMENTS

Class	B-B	В	W
Cementitious Material Content, minimum	658 lbs/yd ³	564 lbs/yd ³	n/a
Water-Cement Ratio, lbs/lbs, maximum	0.40	0.45	0.50
Total Air Content, %	5.5 – 6.5	5.5 – 6.5	4.0 – 6.5
Coarse Aggregate Gradation, AASHTO M 43	No. 57 or 67	No. 57 or 67	No. 7, 8, 57, or 67
Compressive Strength, psi, minimum	5,000	4,000	3,000

Alternative sizes of coarse aggregate, as shown in AASHTO M 43, may be used when approved in writing.

550-5.01 BASIS OF PAYMENT. <u>Delete the first sentence and substitute the following:</u> If Items 550.0001.____, 550.0002.____, 550.0003.____, 550.0004.____, 550.0005.____, or 550.0006.____ do not appear in the Bid Schedule concrete is subsidiary to other items.

Add the following pay items:

PAY ITEM		
Item Number	Item Description	Unit
550.0005	Class B-B Concrete	LS
550.0006	Class B-B Concrete	CY

SECTION 603 CULVERTS AND STORMDRAINS

01/20/15 (N21)

603-3.03 JOINING PIPE. Delete numbered subparagraphs 2.a.2) & 3) and substitute the following:

(2) Bands shall have a minimum width of 22 inches.

Delete numbered subparagraphs 2.b.2), 3) and 4) and substitute the following:

- (2) Bands shall have a minimum width of 22 inches and shall have two circumferential rows of projections for each pipe end being joined.
- (3) Furnish and install these bands with a gasket that resists infiltration and leakage.

SECTION 606 GUARDRAIL

11/01/16 (N67)

606-5.01 BASIS OF PAYMENT. <u>Add the following:</u> All traffic control devices necessary for removal, installation, reconstruction, or maintenance of 606 Pay Items shall be subsidiary to the respective 606 Pay Items.

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SECTION 610 DITCH LINING

04/30/17 (N70)

610-2.01 MATERIALS. <u>Delete the first sentence and substitute the following:</u> Use stones that are sound and durable, are no larger than 8 inches in greatest dimension, and not more than 50 percent by weight passing a 3-inch sieve.

SECTION 611 RIPRAP

01/20/15 (N23)

611-2.01 MATERIALS. <u>Add the following after the first sentence:</u> WAQTC FOP for AASHTO T 85 will determine apparent specific gravity.

01/20/15 (N24)

611-3.01 CONSTRUCTION REQUIREMENTS. <u>Add the following after the first sentence of the second</u> <u>paragraph:</u> The Contractor shall not deposit excavated materials in adjacent stream channels or other bodies of water or in areas subject to flooding during high flows.

Delete Section 613 in its entirety and substitute the following:

02/01/20 (N25)

SECTION 613 MONUMENTS AND MARKERS

613-1.01 DESCRIPTION. This work consists of furnishing and installing culvert marker posts in conformance with the Plans and Specifications or as directed.

613-2.01 MATERIALS. Steel mounting supports shall conform to the requirements of ASTM A 36. Steel mounting supports and fasteners for culvert marker posts shall be galvanized in accordance with AASHTO M 232.

Culvert marker posts shall be Carsonite CIB-380 flexible markers, or approved equal.

613-3.01 CONSTRUCTION REQUIREMENTS. Culvert marker posts shall be installed as detailed on the Plans.

613-4.01 METHOD OF MEASUREMENT. The quantities paid for shall be the actual number of culvert marker posts furnished, installed, and accepted.

If Item 613.0002.____ does not appear on the bid schedule all costs associated with providing and installing culvert marker posts shall be considered subsidiary to culvert installation and will not be measured or paid for separately.

613-5.01 BASIS OF PAYMENT. Culvert marker posts shall be paid for at the contract price, per unit of measurement, for the pay item shown in the bid schedule.

Payment will be made under:

PAY ITEM		
Item Number	Item Description	Unit
613.0002	Culvert Marker Post	EACH

SECTION 615 STANDARD SIGNS

02/01/20 (N26) 615-2.01 MATERIALS.

4. <u>Delineators</u>. <u>Add the following</u>: Delineators shall be of flexible design. The following flexible delineators are approved for use:

Carsonite:	Road Marker
Carsonite:	Curve Flex
Safe-Hit Corp:	Flexible Guide Post

The Contractor may submit an alternate for consideration by the Engineer.

615-3.01 CONSTRUCTION REQUIREMENTS. <u>Add the following to numbered paragraph 4:</u> The delineators shall be located uniformly 4 feet to 8 feet from the outside shoulder edge unless noted otherwise on the Plans. The reflector shall be 3" x 12" yellow or white reflective sheeting (one or two sides) meeting the requirements of Subsection 730-2.03, the Plans, and Standard Plan T-05. The reflector shall be mounted so that the top of the reflector is 4 feet above the surface of the shoulder.

01/20/15 (N27)

Delete numbered subparagraph 8 in its entirety and substitute the following:

- 8. All materials and finished signs are subject to inspection and acceptance in place.
 - a. Surfaces exposed to weathering must be free of defects in the coating.
 - b. Finished signs must be clean and have no chatter marks, burrs, sharp edges, loose rivets, delaminated reflective sheeting, oxidation, corrosion, other blemishes, aluminum marks, or unapproved coatings. Do not make repairs to the face sheet.
 - Replace any finished sign not meeting a. and b. with a replacement sign at no cost to the Department.

11/01/16 (N68)

615-5.01 BASIS OF PAYMENT. <u>Delete the first sentence and substitute the following:</u> Sign posts, bases, mounting hardware and all traffic control devices necessary for removal, installation, reconstruction, or maintenance of 615 Pay Items are subsidiary.

<u>Delete Section 618 in its entirety and substitute the following:</u> 02/01/20 (N30)

SECTION 618 SEEDING

618-1.01 DESCRIPTION. It is the intent of this work that a uniform living vegetative cover be established according to the Plans and Specifications. This work consists of soil preparation, seeding, fertilizing, mulching, and establishing, and maintaining vegetated areas.

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

Section 724
Section 725
Subsection 727-2.01
Subsection 712-2.01

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CONSTRUCTION REQUIREMENTS

618-3.01 SOIL PREPARATION. Clear all areas to be seeded of stones 4" and larger in diameter and of all weeds, plant growth, sticks, stumps and other debris or irregularities which may interfere with the seeding, establishment, and maintenance of the vegetated areas.

Prior to the application of seed, prepare slopes using one or more of the following methods, or as approved by the Engineer:

- 1. Manual Raking Requires manual labor with landscaping rakes to produce a uniform pattern of grooves perpendicular to the fall of the slope.
- 2. Mechanical Raking Requires the use of a scarifying slope board to produce grooves with an approximate width and depth of 1", and no more than 6" apart. The resultant indentations shall leave a uniform pattern of grooves perpendicular to the fall of the slope.
- 3. Mechanical Track Walking Requires operating tracked equipment in such a manner as to leave a uniform pattern of grooves perpendicular to the fall of the slope.

618-3.02 SEEDING SEASON. Perform seeding after the ground is free of snow and no sooner than May 15 and no later than September 1. Perform seeding when wind conditions, climatic conditions, and soil conditions will not hinder seeding and establishment.

618-3.03 APPLICATION METHOD. Use the Hydraulic Method. You must obtain the Engineer's permission to use the Mechanical Method.

Hydraulic Method:

- 1. Seeding by the hydraulic method consists of furnishing and placing a slurry of dye, seed, fertilizer, trace mulch, water, and a second application of mulch.
- 2. Do not place seed in the slurry prior to 30 minutes before application.
- 3. Add the proportionate amount of seed to the water slurry in the hydraulic seeder after the proportionate amounts of trace mulch and fertilizer have been added.
- 4. Apply the slurry mixture in a manner that results in an even distribution of all materials. Apply seed, fertilizer, and trace mulch together in one application.
- 5. Hydraulic seeding equipment must maintain continuous slurry agitation so that a homogeneous, uniform mixture is applied through a spray nozzle, for the complete tank load. The pump must be capable of producing sufficient pressure to maintain a continuous, nonfluctuating spray capable of reaching the extremities of the seeding area with the pump & nozzle unit located on the roadbed. Provide sufficient hose to reach areas not practical to seed from the pump & nozzle unit situated on the road bed.
- 6. A second application of mulch shall be applied within 24-hours after seeding. Mulch shall be furnished and evenly applied at the rates required for temporary stabilization per the manufacturer's recommendations and according to Subsection 727-2.01. Mulch sprayed on signs or sign structures shall be removed the same day.

Mechanical Method:

- 1. Use mechanical spreaders, seed drills or other approved mechanical seeding equipment when seed and fertilizer are to be applied in dry form.
- 2. Water seeding area both prior to and after the application of fertilizer.
- 3. Spread fertilizer separately from seed.
- 4. An application of mulch shall be applied within 24-hours after seeding. Mulch shall be furnished and evenly applied at the rates required for temporary stabilization per the manufacturer's recommendations and according to Subsection 727-2.01. Mulch sprayed on signs or sign structures shall be removed the same day.

618-3.04 APPLICATION RATE. Apply seed, fertilizer, and trace mulch at the rates specified in the table below:

MATERIALS	TYPE	APPLICATION RATE PER 1,000 SQUARE FEET
Seed*	Arctared Red Fescue Egan American Sloughgrass Annual Ryegrass	1.3 lb 0.2 lb 0.1 lb
	Total	1.6 lb
Fertilizer	20-20-10	10 lb
Trace mulch**	See Subsection 727-2.01	20 lb
Mulch	See Subsection 727-2.01	Dormant Seeding: 70 lb.

* Do not remove the required tags from the seed containers.

** Trace mulch application rate may be adjusted according to the manufacturer's recommendations when approved by the Engineer. Trace mulch is not required for mechanical seeding.

618-3.05 MAINTENANCE. Protect seeded areas against erosion and sedimentation. Protect seeded areas against traffic by approved warning signs or barricades. Water seeded areas, in a non-erosive manner, as required to establish a uniform living perennial vegetative cover. Be responsible for identifying, retracking, reseeding, refertilizing and remulching gullied or otherwise damaged areas. The second application of mulch shall be maintained so it properly performs its temporary stabilization function until final stabilization is achieved. Rescarify, reseed, refertilize and remulch unproductive areas as directed by the Engineer.

618-3.06 PERIOD OF ESTABLISHMENT. The establishment period extends until a uniform (e.g. evenly distributed, without large bare areas) perennial living vegetative cover with a density of 70 percent of the native background vegetative cover is established.

618-3.07 ACCEPTANCE. The Engineer will accept seeding when a uniform (e.g. evenly distributed, without large bare areas) perennial living vegetative cover with a density of 70 percent of the native background vegetative cover is established.

618-4.01 METHOD OF MEASUREMENT. Section 109 and as follows:

Watering seeded areas per Subsection 618-3.05 will not be measured directly for payment and is subsidiary, except when Pay Item 618.0003.____ is listed on the Bid Schedule.

Identifying, retracking, reseeding, refertilizing and remulching gullied or otherwise damaged areas will not be measured directly for payment and is subsidiary.

<u>Seeding by the Acre</u>. By the area of ground surface acceptably seeded and maintained. Soil preparation, seed, fertilizer, all mulch, dye, and water required for seed and fertilizer application will not be measured directly for payment and is subsidiary.

<u>Seeding by the Pound</u>. By the dry weight of seed acceptably seeded and maintained. Soil preparation, fertilizer, all mulch, dye, and water required for seed and fertilizer application will not be measured directly for payment and is subsidiary.

<u>Water for Seeding</u>. By the M Gal. (1,000 gallons) acceptably placed. Use a conversion factor of 8.34 pounds per gallon, if measured by weight.

618-5.01 BASIS OF PAYMENT. The accepted quantity will be paid for at the contract price, per unit of measurement, for the pay items listed below that appear on the bid schedule.

Payment will be made under:

PAY ITEM		
Item Number	Item Description	Unit
618.0001	Seeding	ACRE
618.0002	Seeding	LB
618.0003	Water for Seeding	MGAL

SECTION 621 PLANTING TREES AND SHRUBS

621-1.01 DESCRIPTION. <u>Add the following:</u> This work also includes providing and storing dormant Willow cuttings to be used in the protection and revegetation of channel banks.

621-2.01 PLANT STOCK.

- <u>Collected Stock</u>. <u>Add the following</u>: Collect dormant cuttings under the supervision of a plant material consultant provided by the Contractor and approved by the Engineer. The Contractor is responsible for locating, harvesting, and providing a controlled cold storage facility for dormant cuttings. Contractor shall submit, at least one week before the harvest, the harvest site locations for site inspection and approval.
 - a. <u>Dormant Willow Cuttings</u>. Harvest dormant cuttings from living woody plants when the plants are not actively growing. Collect the cuttings from the species specified unless the Engineer approves alternates. Do not mix invasive vines or plant materials with the cuttings. Leave such material at the harvest site.

Provide live dormant cuttings ½ inch to 2 inches in diameter, 3 feet to 4 feet long. Handle live dormant cuttings with care to avoid bark stripping and trunk wood splitting. Make cuts 8 inches to 12 inches from the ground. Make cuts flat or at a blunt angle with pruning shears. Cut the basal ends, not the growing tips to obtain the required length.

Collect cuttings, to be used for spring and early summer plantings, during winter/early spring before leaves appear but no later than March 31. For fall dormant plantings, collect cuttings in the late summer/early fall, after plants have gone dormant, after leaves change color, and have dropped. Flower buds ("pussy willows") are not acceptable. These buds typically occur at the tips of branches produced during the last growing season.

- <u>Binding</u>. Group cuttings and bind together securely with twine at the harvesting site for ease of handling and for protection during transport. Keep side branches intact. Place growing tips in the same direction. Do not damage the cuttings.
- 2. <u>Identification</u>. Label live dormant cuttings. Securely attach labels to the bundles and/or groups of cuttings, indicating plant species and the date collected.
- <u>Transportation to Cold Storage.</u> Place cuttings in the transport vehicle using hoisting belts, in an orderly manner, and cover to prevent damage or bruising and to prevent drying out. Schedule cutting and delivery to the cold storage facility so that the materials can be processed the day they arrive.

- 4. <u>Inspection</u>. Upon arrival at the cold storage facility, the Engineer will inspect labeled dormant cuttings for proper length, diameter, binding, labeling, and the presence of unapproved plants.
- 5. <u>Cold Storage</u>. Store live dormant cuttings in a secure refrigerated area. If collection of dormant cuttings occurs while daytime temperatures remain below freezing, freeze not colder than 0°F until planting. If daytime temperatures are above freezing during collection, refrigerate cuttings at temperatures between 31°F and 40°F, with 60 to 70 percent humidity, until planting.

Place cuttings in ventilated plastic bags or a plastic cover. Monitor temperature and humidity to prevent cuttings from drying out, sprouting, or mildew. Discard cuttings that have mold, are dried out, or have sprouted. Shade and protect outside storage locations from wind. Protect cuttings from drying.

6. <u>Transportation to Work Site</u>. Before use, soak cuttings in cool water for at least 24-hours before, but for no more than 48-hours. Take cuttings directly from the cold storage site to the planting site. Deliver only plant material, to be installed that day, to the work site. Do not return unplanted cuttings to cold storage. Shade and protect cuttings from damage, bruising, wind, and drying during transport and while on site.

621-2.02 FERTILIZER. <u>Add the following:</u> Keep fertilizer out of stream channels. Fertilizer shall not be applied to vegetative mat, Willow cuttings, or live Willow stakes.

621-3.03 PLANTING. Delete item 1. Plant Season, and substitute the following:

- 1. Plant Season.
 - <u>Dormant Willow Cuttings and Live Willow Stakes</u>: Install dormant Willow cuttings and live Willow stakes according to Subsection 647-3.03.

5. Placing Plants. Add the following:

d. Plant Willow cuttings and live Willow staking according to Subsection 647-3.03.

6. <u>Backfilling</u>. Add the following: Backfill Willow cuttings with topsoil according to Subsection 647-3.03.

621-3.04 PERIOD OF ESTABLISHMENT. Add the following:

Willow Cuttings and Live Willow Stakes. According to Subsection 647-3.04.

621-3.06 PLANT REPLACEMENTS. Add the following:

Willow Cuttings and Live Willow Stakes. According to Subsection 647-3.05.

621-3.07 MAINTENANCE. Add the following:

Willow Cuttings and Live Willow Stakes. According to Subsection 647-3.06.

621-4.01 METHOD OF MEASUREMENT. Add the following:

Willow Cuttings and Live Willow Stakes. According to Subsection 647-4.01.

621-5.01 BASIS OF PAYMENT. <u>Replace the last sentence with the following:</u> Water for maintenance is subsidiary to Item 647(102).

Add the following:

<u>Willow Cuttings and Live Willow Stakes</u>. Salvaging/harvesting, storage and transporting dormant Willow cuttings and live Willow stakes is subsidiary to Item 647(102).

SECTION 623 BLOCK SODDING

623-2.01 MATERIALS. Add the following:

<u>Vegetative Mat</u>. Vegetative mats obtained as specified in Section 201. Stockpile vegetative mat in the confines of the area to be cleared.

If the material must be stored on site prior to installation, the storage area shall be shaded and mats kept moist throughout the root zone. Maintain in live condition.

623-3.01 CONSTRUCTION REQUIREMENTS. Add the following:

Vegetative Mat. Construction, survivability and maintenance according to Section 647.

Replace Item 5 with the following:

5. Water sod within one hour of placing. Continue watering sod blocks until project completion.

623-4.01 METHOD OF MEASUREMENT. Add the following:

Vegetative Mat. According to Subsection 647-4.01.

623-5.01 BASIS OF PAYMENT. <u>Replace the first sentence with the following:</u> Watering is subsidiary to Item 647(102).

Add the following: Salvaging, stockpiling, transporting, storing, and maintaining vegetative mat is subsidiary to Item 647(102).

SECTION 640 MOBILIZATION AND DEMOBILIZATION

02/01/20 (N32) Add the following subsection:

640-2.02 CONTRACTOR CAMP. Furnish and maintain a full service camp facility, providing food and housing to all Contractor and subcontractor employees who are not domiciled residents of the locality of the project. Comply with the Alaska Department of Labor and Workforce Development (DOLWD) memo WHPL #197 and Laborer's and Mechanic's Minimum Rates of Pay (current issue). On Federal-aid project, PL 109-59, 119 STAT. 1233, Sec. 1409(c) also applies.

The camp shall be operational one week prior to any project work other than mobilizing and camp set-up, through one week after completion of project work.

The camp can be closed if no project work is scheduled for a period of two weeks or longer. If the camp is closed under this provision, it must be reopened one week prior to resumption of project work. Preventative measures shall be taken prior to shutdown.

- <u>Description</u>. 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.
 - a. Furnished bunkhouses
 - b. Food service facility
 - c. Electrical power and distribution system
 - d. Water well or DEC approved holding tank and potable water supply system
 - e. Sewage disposal system
 - f. Trash disposal
 - g. Central shower/laundry/lavatory facility
 - h. Access road(s)
- 2. <u>Site</u>. The Contractor shall obtain all permits, and pay all fees. An existing private facility may be used, provided that it meets all of the requirements in Item 1 above.

Perform all necessary clearing, grubbing, site preparation, and construction.

Remove all facilities, regrade and revegetate the site prior to the project final inspection.

- 3. <u>Plan</u>. Do not begin site development until ADEC approvals and permits are in place and a plan for development, occupation, and cleanup is approved by the Engineer. The plan must include the following information:
 - a. Location and size of the proposed site (map)
 - b. Bunkhouse services and maintenance
 - c. Food Service Facility
 - d. Sewage disposal system approved by ADEC
 - e. Estimates of number of people to use the site and dates of occupancy
 - f. Power supply system conforming to the National Electrical Code
 - g. Potable water supply system approved by ADEC
 - h. Road and trail site layout
 - i. Clearing limits and slash disposal locations
 - j. Sanitary landfill site approved by ADEC
 - Equipment and fuel storage areas

Incorporate any approved modifications into a revised plan, and obtain the Engineer's approval.

Occupancy. Provide camp facilities at no cost to Contractor and subcontractor employees.

Do not consider the cost of the camp facility or transportation in setting wages for the employee or in meeting wage requirements under AS 23.10.065 or AS 36.05.

640-4.01 METHOD OF MEASUREMENT. Delete numbered paragraph 4 and substitute the following:

4. Progress payments for Contractor Camp will be computed as equivalent to the percentage, rounded to the nearest whole percent, of the original contract amount earned.

640-5.01 BASIS OF PAYMENT. Add the following:

<u>Contractor Camp</u>. The lump sum price will be full compensation for all labor, equipment, food, and materials required to furnish, install, maintain, and remove the camp facility in accordance with these specifications.

Add the following pay item:

PAY ITEM		
Item Number	Item Description	Unit
640.2004.0000	Contractor Camp	LS

Delete Section 641 in its entirety and substitute the following:

SECTION 641 EROSION, SEDIMENT, AND POLLUTION CONTROL

2/14/22 (N91)

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 Alaska Pollution Discharge Elimination System (APDES) Construction General Permit (CGP). The state APDES program is administered by the Department of Environmental Conservation (DEC). Section 301(a) of the Clean Water Act (CWA) and 18 AAC 83.015 provide that the discharge of pollutants to water of the U.S. is unlawful except as allowed by the CGP.

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

ACTIVE TREATMENT SYSTEM (ATS) OPERATOR. See CGP Appendix C.

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 Department and others). The Department recognizes AK-CESCLs as "qualified personnel" required by the CGP. An AK-CESCL must be recertified every three years. (See Qualified Person).

ALASKA DEPARTMENT OF ENVIRONMENTAL CONSERVATION (DEC). The state agency authorized by EPA to administer the Clean Water Act's National Pollutant Discharge Elimination System.

ALASKA GENERAL PERMIT FOR EXCAVATION, DEWATERING (Excavation Dewatering Permit). The permit authorizing excavation dewatering discharges from Construction Activities.

ALASKA MULTI-SECTOR GENERAL PERMIT (MSGP). The permit authorizing stormwater discharges associated with Industrial Activity.

ALASKA POLLUTANT DISCHARGE ELIMINATION SYSTEM (APDES). A system administered by DEC that issues and tracks permits for stormwater discharges.

BEST MANAGEMENT PRACTICES (BMPS). See CGP Appendix C.

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

CONSTRUCTION ACTIVITY. Ground disturbing activity by the contractor, subcontractor or utility company; that may result in erosion, sedimentation, or a discharge of pollutants into stormwater. See CGP Appendix C.

CONSTRUCTION GENERAL PERMIT (CGP). The permit authorizing stormwater discharges from Construction Activities, issued and enforced by Alaska DEC. It authorizes stormwater discharges providing permit conditions and water quality standards are met.

U.S. ARMY CORPS OF ENGINEERS PERMIT (COE PERMIT). A COE permit for construction in waters of the U.S. May be issued under Section 10 of the Rivers and Harbors Act of 1899, or Section 404 of the Clean Water Act.

ELECTRONIC NOTICE OF INTENT (ENOI). See CGP Appendix C.

ELECTRONIC NOTICE OF TERMINATION (ENOT). See CGP Appendix C.

ENVIRONMENTAL PROTECTION AGENCY (EPA). The federal agency charged to protect human health and the environment.

ERODIBLE STOCKPILE. Any material storage area or stockpile consisting of mineral aggregate, organic material, or a combination thereof, with greater than 5 percent passing the #200 sieve, and any material storage where wind or water transports sediments or other pollutants from the stockpile. Erodible Stockpile also includes any material storage area or stockpile, where the Engineer determines there is potential for wind or water transport, of sediments or other pollutants away from the stockpile.

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. See CGP, Appendix C, "Stabilization."

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.

MUNICIPAL SEPARATE STORM SEWER SYSTEM (MS4) PERMIT. A DEC stormwater discharge permit issued to certain local governments and other public bodies, for operation of stormwater conveyances and drainage systems. See CGP Appendix C.

OPERATOR(S). The party(s) responsible to obtain CGP permit coverage. CGP, Appendix C.

1. Contractor – the Contractor is an Operator inside and outside the Project Zone.

Department – the Department is an Operator inside the Project Zone.

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, sediment, sewage, garbage, sewage sludge, chemical wastes, biological materials, wrecked or discarded equipment, rock, sand, cellar dirt, and industrial or municipal waste.

PROJECT ZONE. The physical area provided by the Department for Construction. The Project Zone includes the area of highway or facility under construction, project staging and equipment areas, and material and disposal sites; when those areas, routes and sites, are provided by the Contract.

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 Zone.

QUALIFIED PERSON. See CGP Appendix C and Subsection 641-1.04.

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 EVENT. See CGP Appendix C.

STORM WATER POLLUTION PREVENTION PLAN TWO (SWPPP2). The Contractor's plan for compliance with both the CGP and MSGP construction activities outside the Project Zone.

SUPERINTENDENT. The Contractor's duly authorized representative with authority and responsibility for the overall operation of the Project, and Contractor furnished sites and facilities.

SWPPP AMENDMENT. A modification to the SWPPP. CGP Part 5.0.

SWPPP MANAGER. The Contractor's Qualified Person with authority and responsibility. CGP Appendix C.

SWPPP PREPARER. The Contractor's Qualified Person with authority and responsibility. CGP Appendix C.

SWPPPTRACK. Software subscription service version SWPPPTrack LTIS AK developed and provided by Storm Water Simplified Ltd, for use on construction projects that require coverage under the APDES CGP.

TEMPORARY STABILIZATION. See CGP Appendix C. See "Stabilization."

641-1.02.01 REFERENCE. A complete list of websites and documents referenced herein can be found at the DOT&PF Statewide Design and Engineering Services Stormwater webpage.

DEC Permit information can be found at the DEC Division of Water webpage. SWPPP preparation documents can be found at the DOT&PF Design and Engineering Services Stormwater webpage. Construction forms are found at the DOT&PF Design and Engineering Services Construction Forms webpage.

641-1.03 PLAN AND PERMIT SUBMITTALS.

For plans listed in Subsection 108-1.03.5 (SWPPP, HMCP, and SPCC), use the Contractor submission and Department review deadlines identified in this Subsection.

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.

 <u>Storm Water Pollution Prevention Plan.</u> Submit an electronic copy of the SWPPP to the Engineer for approval. Deliver these documents to the Engineer at least 21 days before beginning Construction Activity. Organize 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 of the revised SWPPP to the Engineer for approval.

After the SWPPP is approved and certified by the Department using Form 25D-109, the Contractor must certify the approved SWPPP using Form 25D-111. See Subsection 641-1.03.4 for further SWPPP submittal requirements.

- 2. <u>Hazardous Material Control Plan.</u> The HMCP Template can be found at the DOT&PF Construction Forms webpage. The HMCP submittal and review timeline, and signature requirements are the same as the SWPPP.
- 3. <u>Spill Prevention, Control and Countermeasure Plan.</u> When a SPCC Plan is required under Subsection 641-2.03, submit an electronic copy of the SPCC Plan to the Engineer. Deliver these documents to the Engineer at least 21 days before beginning Construction Activity. The Department reserves the right to review the SPCC Plan and require modifications.
- 4. <u>CGP Coverage.</u> The Contractor is responsible for permitting of Contractor and subcontractor Construction Activities related to the Project. Do not use the SWPPP for Construction Activities outside the Project Zone where the Department is not an operator. For Construction Activities outside the Project Zone, the Contractor must use a SWPPP2. Department approval is not needed for a SWPPP2.

After the Department certifies the SWPPP and prior to beginning Construction Activity, submit an eNOI with the required fee to DEC for coverage under the CGP. Submit a copy of the signed eNOI and DEC's written acknowledgement (by letter or other document), to the Engineer as soon as practicable and no later than three days after filing eNOI or receiving a written response.

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

The Department will submit an eNOI to DEC for Construction Activities inside the Project Zone. The Engineer will provide the Contractor with a copy of the Department's eNOI and DEC's written acknowledgment (by letter or other document), for inclusion in the SWPPP.

Before Construction Activities occur, transmit to the Engineer an electronic copy of the approved and certified SWPPP, with signed Delegations of Signature Authorities on Forms 25D-107 and 25D-108, SWPPP Certifications on Forms 25D-111 and 25D-109, both permittee's signed eNOIs and DEC's written acknowledgement.

- 5. <u>DEC SWPPP Review.</u> When CGP Part 2.1.3 or 2.1.4, requires DEC SWPPP review:
 - a. Transmit a copy of the Department-approved SWPPP to DEC using delivery receipt confirmation;
 - b. Transmit a copy of the delivery receipt confirmation to the Engineer within seven (7) days of receiving the confirmation; and
 - c. Retain a copy of delivery receipt confirmation in the SWPPP.
- 6. <u>Local Government SWPPP Review.</u> 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. Use delivery receipt confirmation;
 - b. Transmit a copy of the delivery receipt confirmation to the Engineer within seven days of receiving the confirmation;
 - c. Transmit a copy of any comments by the local government to the Engineer within seven days of receipt;
 - d. Amend the SWPPP as necessary to address local government comments and transmit SWPPP Amendments to the Engineer within seven days of receipt of the comments;
 - e. Include a copy of local government SWPPP review letter in the SWPPP; and

- f. File a notification with local government that the project is ending.
- 7. <u>Modifying Contractor's eNOI.</u> When required by the CGP Part 2.7, modify your eNOI to update or correct information within 30 calendar days of the change. Reasons for modification are found in the CGP Part 2.7.1. The Contractor must submit an eNOT instead of an eNOI modification when the operator has changed. The new operator must file an eNOI to obtain permit coverage.

641-1.04 PERSONNEL QUALIFICATIONS. Provide documentation in the SWPPP that the individuals serving in these positions meet the personnel qualifications. The Department accepts the following certificates as equivalent to AK-CESCL: CPESC, Certified Professional in Erosion and Sediment Control or CISEC, Certified Inspector in Sediment and Erosion Control, which are found in the CGP Appendix C and repeated below.

Personnel Title	Required Qualifications
SWPPP Preparer	Current certification as a Certified Professional in Erosion and Sediment Control (CPESC); OR
	Current certification as AK-CESCL, and at least two years' experience in erosion and sediment control, as a SWPPP Manager or SWPPP writer, or equivalent. OR
	Professional Engineer registered in the State of Alaska with current certification as AK-CESCL.
Superintendent	Current AK-CESCL or substitute training from CGP Appendix C Qualified Person Table 4
SWPPP Manager	Current AK-CESCL or substitute training from CGP Appendix C Qualified Person Table 4
Active Treatment System Operator	Current AK-CESCL or substitute training from CGP Appendix C Qualified Person Table 4. ATS operator should possess a recognized certification, or professional standing, or who by extensive knowledge, training, and experience has successfully demonstrated the ability to meet the ATS requirement.

Table 641-1	.04 Personnel	Qualifications

641-1.05 SIGNATURE/CERTIFICATION REQUIREMENTS AND DELEGATIONS.

- 1. <u>eNOI and eNOT.</u> The eNOI, eNOT, and eNOI Modifications must be signed and certified by a responsible corporate officer according to CGP Appendix A, Part 1.12. Signature and certification authority for the eNOI and eNOT cannot be delegated.
- 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 Superintendent position is responsible for signing and certifying the SWPPP, inspection reports, and other reports required by the CGP, except the eNOI, eNOI Modifications, and eNOT.

The Engineer will provide the Department's delegation on Form 25D-107, which the Contractor must include in the SWPPP.

3. <u>Subcontractor Certification</u>. Subcontractors must certify on Form 25D-105, that they have read and will abide by the CGP and the conditions of the project SWPPP.

4. <u>Signatures and Initials.</u> Where documents are completed in SWPPPTrack, utilize SWPPPTrack to sign and initial documents. When documents are not completed in SWPPPTrack (e.g. Form 25D-111 SWPPP Certification for Contractor), upload scanned copies after signing and initialing the documents into SWPPPTrack.

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 Zone.
- 2. The Contractor is responsible for permitting and permit compliance for all construction support activity in the Project Zone and outside the Project Zone. The Contractor has sole responsibility for compliance with DEC, COE and other applicable federal, state, and local requirements, and for securing all necessary clearances, rights, and permits. The Contractor shall be responsible for protection, care, and upkeep of all work, and all associated off-site zones. Subsection 107-1.02 describes the requirement to obtain permits, and to provide permit documents to the Engineer.
- 3. The Contractor is responsible for obtaining an Excavation Dewatering Permit (AKG002000) if construction activities are within 1,500 feet of a DEC-identified contaminated site or groundwater plume.
- 4. An entity that owns or operates, a commercial plant (as defined in Subsection 108-1.01.4) or material source or disposal site outside the Project Zone, 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 Engineer.
- 5. 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 outside the Project Zone;
 - b. For Construction Activity and Support Activities outside the Project Zone; and
 - c. For commercial plants, commercial material sources, and commercial disposal sites.

641-1.07 UTILITY. (Reserved for Regions)

641-1.08 USE OF SWPPPTRACK. The Contractor is responsible for purchasing and contracting with Storm Water Simplified Ltd. for the use of the SWPPPTrack software application and services until final stabilization is achieved and the eNOT has been completed. Contact SWPPPTrack Alaska Support at (888) 401-1993 or <u>AKSupport@SWPPPTrack.com</u> for project fees, setup coordination, device requirements, and training.

Perform and document all inspections required by the CGP and the SWPPP with SWPPPTrack and populate all inspection fields accurately to represent current project conditions. Complete the following forms using SWPPPTrack:

- 1. SWPPP Construction Site Inspection Report (25D-100)
- 2. SWPPP Grading & Stabilization Activities Log (25D-110)
- 3. SWPPP Corrective Action Log (25D-112)
- 4. SWPPP Amendment Log (25D-114)
- 5. SWPPP Daily Record of Rainfall (25D-115)
- 6. SWPPP Training Log (25D-125)
- 7. SWPPP Project Staff Tracking (25D-127)

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

1. <u>SWPPP Preparer and Pre-Construction Site Visit.</u>

Use a SWPPP Preparer to develop the SWPPP in accordance with the CGP, DEC and Department SWPPP templates. See Subsection 641-1.02.01 for guidance and templates. 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 advance notice of the site visit, so that the Department may participate.

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, Environmental commitments, and other Contract documents as a starting point for developing the SWPPP.

Develop the SWPPP with sections and appendices, according to the DEC CGP SWPPP template and DOT&PF SWPPP template. Include information required by the Contract and described in the CGP Part 5.0. Use SWPPP forms found at the DOT&PF Construction Forms website.

Compile the SWPPP in three ring binders with tabbed and labeled dividers for each appendix. One electronic copy of the SWPPP must be submitted as a single PDF file.

3. SWPPP Considerations and Contents.

- The SWPPP must provide erosion and sediment control measures for all Construction Activity within the Project Zone. Construction Activity outside the Project Zone must have permit coverage and document permit compliance according to a SWPPP2.
- b. The SWPPP must consider the activities of the Contractor and all subcontractors and utility companies performing work in the Project Zone. 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:
 - (1) Over which each operator has operational control, and;
 - (2) Where the Department and Contractor are co-operators.
- c. For work outside the Project Zone the SWPPP must identify the entity that has stormwater permit coverage, the operator, and the areas that are:
 - (1) Dedicated to the project and where the Department is not an operator; and
 - (2) Not dedicated to the project, but used for the project.
- d. The SWPPP must meet all CGP requirements. Utilize the DEC CGP SWPPP Template in conjunction with the DOT&PF SWPPP Template to develop the SWPPP.
- e. Comply with the CGP Part 1.4.3 Authorized Non-Storm Water Discharges.

- f. If the project discharges to a Tier III, Outstanding Natural Resource Water, comply with CGP Part 2.1.6. Submittal deadlines apply prior to filing an eNOI and beginning construction activities. As noted, none have been designated in the state of Alaska as of the issuance of the 2021 CGP.
- g. There are special requirements in the CGP Part 3.2, for stormwater discharges into an impaired water body, and they may include monitoring of stormwater discharges. The Contractor is responsible for monitoring and reporting outside the Project Zone.
- h. Describe the sequence and timing of activities that disturb soils and BMP implementation and removal. Phase earth disturbing activities to minimize unstabilized areas, and to achieve temporary or final stabilization. Whenever practicable incorporate final stabilization work into excavation, embankment and grading activities. Include drawings showing each phase of the project with the BMPs implemented in the phase.
- i. Delineate the site according to CGP Part 4.2.1.
- j. Minimize the amount of soil exposed and preserve natural topsoil on site, unless infeasible according to the CGP Part 4.2.2.
- k. Describe methods and time limits, to initiate temporary or final soil stabilization. Comply with stabilization requirements in the CGP Part 4.5.
- I. If construction will cease during winter months, describe all requirements for winter shutdown according to the CGP Part 4.12.
- m. Plans for ATS must meet with the requirements in the CGP Part 2.1.5 and 4.6.
- n. Design all temporary BMPs to accommodate a two year 24-hour storm event. All installed control measures must be described and documented in the SWPPP, according to the CGP Part 5.3.6. All installed BMPs must include a citation from a published BMP Manual, publication, or manufacturers specification used as a source, or include a statement "No BMP Manual was used for this design." If using out of state BMPs follow the instructions in the SWPPP Guide, found at the DOT&PF Stormwater webpage.
 - Provide a legible site map or set of maps in the SWPPP, showing the entire site and identifying boundaries of the property where construction and earth-disturbing activities will occur. Include all the elements described in the CGP Part 5.3.5, and DEC CGP SWPPP Template Section 5.0.
- p. Identify the inspection frequency in the SWPPP according to the CGP Part 6.1.
- q. Linear Project Inspections, described in CGP Part 6.5, are not applicable to this contract.
- r. The SWPPP must cite and incorporate applicable requirements of the project permits, environmental commitments, COE permit, and commitments related to historic preservation. Make additional consultations or obtain permits as necessary for Contractor specific activities that were not included in the Department's permitting and consultation.
- s. 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 stormwater 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.

Identify the SWPPP Manager as the Storm Water Lead and Stormwater Inspector positions in the SWPPP. Document the SWPPP Manager's responsibilities in Section 2.0 Stormwater Contacts, of the SWPPP template and:

- a. Identify that the SWPPP Manager does not have authority to sign inspection reports (unless the SWPPP Manager is also the designated project Superintendent).
- b. Identify that the SWPPP Manager cannot prepare the SWPPP unless the SWPPP Manager meets the Contract requirements for the SWPPP Preparer.

Include in the SWPPP proof of AK-CESCL or equivalent certifications for the Superintendent and SWPPP Manager, and for any acting Superintendent and acting SWPPP Managers. If the Superintendent or SWPPP Manager is replaced permanently or temporarily, by an acting Superintendent or acting SWPPP Manager; record in the SWPPP (use Form 25D-127) the names of the replacement personnel and date of replacement. For temporary personnel, record their beginning and ending dates.

Provide 24-hour contact information for the Superintendent and SWPPP Manager. The Superintendent and SWPPP Manager must have 24-hour contact information for all Subcontractor SWPPP Coordinators and Utility SWPPP Coordinators.

Include in the SWPPP proof of AK-CESCL or equivalent certifications of ATS operators. Record names of ATS operators and their beginning and ending dates, on Form 25D-127.

The Department will provide proof of AK-CESCL, or equivalent certifications for the Department's Project Engineer, Stormwater Inspectors, and Monitoring Person (if applicable), and names and dates they are acting in that position. Include the Department's staff certifications in Appendix E. Include Department's staff names, dates acting, and assignments in Section 2.0 of the SWPPP and Form 25D-127.

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

Prepare the HMCP using the Department template for the 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.

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:

- 1. Oil or petroleum products from a spill may reach navigable waters (as defined in 40 CFR 112); and
- 2. 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 SWPPP MANAGER.

The Superintendent shall certify the SWPPP, inspection reports, and other reports required by the CGP, except the eNOI and eNOT. The Superintendent may not delegate the task or responsibility of signing and certifying these documents.

The Superintendent may assign certain duties to the SWPPP Manager.

- 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.

When Bid Item 641.0007._____ is part of the Contract, the SWPPP Manager must be a different person than the Superintendent and must be available at all times to administer SWPPP requirements, and be physically present within the Project Zone or the project office, when construction activities are occurring.

The Superintendent and SWPPP Manager shall be knowledgeable in the requirements of Section 641, the SWPPP, CGP, BMPs, HMCP, SPCC Plan, environmental permits, environmental commitments.

The Superintendent and SWPPP Manager 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 seed mixture specified in the contract or as directed by the Engineer.

Use soil stabilization material as specified in Section 727.

Use silt fences as specified in Section 729.

Use straw and straw products certified weed free of prohibited and restricted noxious weed seed and quarantined pests, according to Alaska Administrative Code, Title 11, Chapter 34 (11 AAC 34). When straw or straw products certified according to 11 AAC 34 are not available, use non-certified products manufactured within Alaska before certified products manufactured in another state, country, or territory. Non-certified straw or straw products manufactured in another state, country, or territory shall not be used. Grass, legumes, or any other herbaceous plants produced as hay, shall not be substituted for straw or straw products.

641-3.01 CONSTRUCTION REQUIREMENTS.

Comply with the SWPPP and the requirements of the CGP Part 5.0.

1. Before Construction

The following actions must be completed before Construction Activity begins:

- a. The SWPPP Preparer must visit the project, the visit must be documented in the SWPPP using Form 25D-106, and the SWPPP must be developed or amended with findings from the visit.
- b. The SWPPP must be approved by the Engineer on Form 25D-109.
- c. The Contractor must be authorized to begin work by the Engineer.
- d. The Project must have an eNOI for the Department and for the Contractor.
- e. The Department approved SWPPP must be submitted to DEC and Local Government per CGP Part 2.1.2, Part 2.1.4, and Part 2.4.1.
- f. The Contractor has transmitted to the Engineer an electronic copy of the approved SWPPP.
- g. The Delegation of Authority forms 25D-108 and 25D-107 for both the Contractor and Engineer are signed.
- h. Main entrance signage must meet requirements of CGP Part 5.10.2.

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 safely 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.

- Track precipitation according to CGP Part 7.3.9. Submit the method to track precipitation to the Engineer for approval.
- j. Complete all setup and training required to implement SWPPPTrack.
- k. Complete the upload of the BMP inventory into SWPPPTrack.
- 2. During Construction.
 - a. Delineate the site according to the CGP Part 4.2.1.
 - b. Install required BMPs according to the SWPPP prior to the initiation of ground disturbance.
 - c. Document subcontractors. Provide a copy of the SWPPP and the CGP to all subcontractors and utility companies before they begin soil disturbing activities, and verify they understand and comply the with SWPPP and CGP and:
 - (1) Document all subcontractors and utility companies that may work on the site, according to the CGP Part 5.3.1, and SWPPP Section 1.2.
 - (2) Require subcontractors and utility companies to sign the SWPPP Subcontractor Certification (Form 25D-105). Include in the signed Form in the SWPPP Appendix E.

- (3) Inform subcontractors and utility companies in a timely manner of SWPPP amendments that affect them. Coordinate with subcontractors and utility companies to protect BMPs, including temporary and final stabilization from damage.
- (4) Notify the Engineer immediately if the actions of any utility company or subcontractor do not comply with the SWPPP and the CGP.
- d. Provide ongoing training to all employees, subcontractors and utility companies, in according to the CGP Part 4.14. Training must:
 - (1) Be given no less than once a month during construction activity;
 - (2) Be documented in the SWPPP Training Log using Form 25D-125. Include the training record in the SWPPP Appendix I.
- e. Protection and Restoration. Comply with Subsection 107-1.11.
- f. Good housekeeping measures to comply with the SWPPP and CGP 4.8.
- g. Control measures. Comply with the SWPPP and CGP Part 5.3.6 including:
 - (1) Maintain BMPs.
 - (2) Comply with requirements of the HMCP and SPCC Plan, if applicable and all local, state and federal regulations that pertain to the handling, storage, containment, cleanup, and disposal of petroleum products or other hazardous materials.
 - (3) Keep the SWPPP and HMCP current (refer to Subsection 641-2.01.3, SWPPP Considerations and Contents).
- 3. Winter Construction

If winter construction activity occurs, the project must have appropriate BMPs in place CGP Part 4.12.2. Inspections can be reduced to once per month if the project meets the requirements in the CGP Part 6.2.4.

Storm Water Discharge Pollutant Reporting Requirements.

If an incident of non-compliance occurs that may endanger health or the environment a report must be made, CGP, Appendix A, Part 3.4.

A permit non-compliance is considered any type of pollutant, such as turbidity or petroleum that enters storm water runoff and flows into a receiving water body, MS4, or wetland that is connected to waters of the U.S.

- a. Immediately report the incident to the Engineer verbally;
- b. Report to DEC verbally within 24 hours after the permittee becomes aware of the incident, and;
- c. Report to DEC in writing within five days after the permittee becomes aware of the circumstances. To report in writing, complete the written noncompliance report on Form 25D-143, and file the written report with DEC. Coordinate the report with the Engineer. Include in the report:
 - (1) A description of the noncompliance and its causes;
 - (2) The exact dates and times of noncompliance;
 - (3) If not yet corrected the anticipated time the project will be brought back into compliance, and;

- (4) The corrective action taken or planned to reduce, eliminate and prevent reoccurrence.
- d. Notify the Engineer immediately if there is incident of noncompliance with COE Permits. The Engineer will notify the COE.
- 5. Hazardous Materials Reporting Requirements.

Any release of a hazardous substance must be reported immediately to the Engineer as soon as the person has knowledge of the discharge.

Report spills of petroleum products or other hazardous materials to the Engineer and other agencies as required by law, and according to CGP Part 9.3.

- a. To water; any amount released must be reported immediately to the Engineer, DEC, and the Coast Guard.
- b. To land:
 - (1) Any release of a petroleum product in excess of 55 gallons must be reported as soon as the person has knowledge of the discharge CGP Part 9.3.2.
 - (2) Any release of a petroleum product in excess of 10 gallons but less than 55 gallons must be reported to the Engineer and must be reported to DEC within 48 hours after the person has knowledge of the discharge CGP Part 9.3.2.
 - (3) Any release of a petroleum product in excess of 1 gallon to 10 gallons must be recorded and logged and provided to DEC on a monthly basis.
- c. Use the HMCP and SPCC Plan (if available) for contact information to report spills to regulatory agencies.
- d. Implement measures to prevent the reoccurrence of and to respond to such releases.
- Prior to disposal of contaminated material, submit a Contaminated Media Transport and Treatment Disposal Approval Form to DEC Spill Prevention and Response. Dispose as approved by DEC.
- Corrective Action and Maintenance of BMPs.

Implement maintenance as required by the CGP Part 4.13 and Part 8.0, SWPPP, and manufacturer's specifications, whichever is more restrictive.

- a. Implement corrective action to comply with the CGP Part 8.0 and the SWPPP.
- b. Corrective action deadlines and documentation:
 - (1) Corrective actions must be completed according to CGP Part 8.2.
 - (2) Document corrective actions in the Corrective Action Log (25D-112) according to the SWPPP, CGP Part 8.3 and Part 5.9.2.

If a different BMP is installed to correct the condition leading to the corrective action a SWPPP Amendment must be completed.

(3) If a corrective action is not completed according to the CGP 8.2, document the conditions in the Corrective Action Log, notify the Engineer, and implement the corrective action as soon as possible. The Engineer may assign a new complete-by date using a Delayed Action Item Report, Form 25D-113 (DAIR Form), if the Contractor is unable to complete the corrective action within the required timeframe. The DAIR Form can only be authorized and completed by the Engineer.

7. Stabilization.

- a. All Soil Stabilization requirements must be met in accordance with CGP Part 4.5 and the SWPPP.
- b. 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.
- c. Apply temporary seed and stabilization measures after preparing the surface to reduce erosion potential and to facilitate germination and growth of vegetative cover according to Section 618.
- d. Apply permanent seed and stabilization measures after land-disturbing activity has permanently ceased. Comply with the CGP, SWPPP, and the contract Sections 618, 724, and 727.
- e. Incorporate final or temporary stabilization immediately after installing culverts or drainage structures to satisfy CGP Part 4.5, the SWPPP and the Engineer. Stabilize under any bridges, and in areas upstream and downstream of culverts, drainages and areas disturbed by related construction activities after installation, or before deactivating stream bypass or diversion.
- f. Stabilization before Fall Freeze up and Spring Thaw.

Stabilize Construction Activities within the Project Zone with appropriate BMPs prior to the anticipated date of fall freeze up, in accordance with the SWPPP and CGP, Part 4.12.

Exceptions to stabilization prior to anticipated date of fall freeze up include:

- (1) Where temporary stabilization activities are precluded by snow cover or frozen ground conditions prior to the anticipated date of fall freeze up, stabilization measures must be initiated as soon as practicable following the actual spring thaw.
- (2) When winter construction activity is authorized by the Engineer and conducted according to the contract.

Ending CGP Coverage.

- a. The Engineer will determine the date that all the following conditions for ending CGP coverage have been met within the Project Zone:
 - (1) Land disturbing activities have ceased;
 - (2) Final Stabilization has been achieved on all portions of the Project Zone, according to the CGP 4.5.2 (including at Department furnished material sources, disposal sites, staging areas, equipment areas, etc.), and;
 - (3) Temporary BMPs have been removed.
- b. After the Engineer has determined the conditions have been met for submitting an NOT in accordance to CGP Part 10.2, the Department will:
 - (1) Send written notice to the Contractor with the date that the conditions were met;
 - (2) Submit an eNOT to DEC within 30 days, and;

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- (3) Provide a copy of the eNOT and DEC's acknowledgement letter to the Contractor.
- c. If the Contractor's CGP eNOI acreage includes Support Activities and any other areas where the Department is not an Operator, the Contractor may not be able to file an eNOT at the same time as the Department.
- d. The Contractor must submit a copy of each signed eNOT and DEC's acknowledgement letter to the Department within three days of filing the eNOT or receiving a written response. Insert the eNOT and DEC acknowledgement letter in SWPPP Appendix Q.
- e. The Contractor is responsible for coordinating local government inspections of work and ending permit coverage with local government. See Subsection 641-1.03.6 for more information.
- 9. Ending BMP Maintenance in the Project Zone.

The Contractor is responsible for continuing inspections, BMP maintenance and SWPPP updates until permit coverage is ended.

10. Transmit final SWPPP.

Transmit one electronic copy of the final SWPPP, including all SWPPP documents, to the Engineer, when the Contractor's eNOT is filed, or within 30 days of the Department's eNOT being filed, whichever is sooner. Collate all documents into a single electronic file before transmittal.

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 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 if applicable 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 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. Update on-site postings if records are relocated during winter shutdown. 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 according to the CGP Part 9.4.

The SWPPP and related documents must be made available for review and copy, to the Department and other regulatory agencies that request them. See CGP Parts 5.10, 6.6 and 9.5.

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 using Department forms found at the DOT&PF Construction Forms website.

1. Inspection during Construction.

Conduct Inspections according to the schedule and requirements of the SWPPP and CGP Part 6.0. When the project is on a 14 calendar day inspection frequency, conduct Post-Storm Event Inspections within 24 hours of the end of a storm event, as required, in addition to the 14 day predetermined inspection cycle.

Inspections required by the CGP and SWPPP must be performed by the Contractor's SWPPP Manager and the Department's Stormwater Inspector jointly, unless approved by the Engineer, when:

- a. One of the inspectors is not on site, access is only by air, and weather delayed or canceled flights;
- b. One of the inspectors is sick;
- c. The project is on a reduced frequency inspection schedule with no staff on site, the only access to the site is by air, and it is economical to send only one inspector, or;
- d. When the Engineer determines a safety concern that makes joint inspection impracticable.

When this is the case, the Operator who conducts the inspection must provide a copy of the Inspection Report to the other Operator within three days of the inspection date and document the date of the report transmittal in SWPPP Appendix K.

2. Inspection Reports.

Use only the Department 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 in the Inspection Report; do not leave any fields blank.

Refer to the DOT&PF Construction Forms webpage for instruction to complete Form 25D-100.

The Superintendent or SWPPP Manager must review and correct all errors within three days of the date of inspection.

Inspection Reports must be signed by the person described in the CGP Appendix A, Part 1.12 or by a duly authorized representative of that person. Only the Superintendent can certify the Inspection Form.

Insert a Complete-by-Date for each corrective action listed that complies CGP Part 8.2.

Provide a copy of the completed, unsigned Inspection Report to the Engineer by the end of the next business day following the inspection.

The Engineer may coordinate with the Superintendent to review and correct any errors or omissions before the Superintendent signs the 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. The signed and certified Inspection Report must be provided to the Engineer on the same day the Superintendent signed the form.

The Engineer will sign and certify the Inspection Report and will return the original to the Contractor within three working days if compliant with the CGP and SWPPP.

If the Inspection Report is not compliant with the CGP or SWPPP the Engineer may make corrections after the Superintendent has signed and certified the Inspection Report. The Engineer will initial and date each correction. If the Engineer 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 Engineer on the day it is recertified.

When a correction is required to an Inspection Report that was already certified by both the Superintendent and Engineer, follow directions given below:

If subsequent corrections are required for a certified Inspection Report 25D-100, document the corrections in an addendum memo that addresses only the omitted or erroneous portions of the original Inspection Report. The Superintendent and the Engineer must both sign and certify the updated Inspection Report and addendum memo. File the corresponding Inspection Report and memo

in the SWPPP Appendix K and update the amendment log. The issuance of an addendum memo does not relieve the Contractor of liquidated damages that may have been incurred as a result of the error on the original certified inspection report.

3. Items and Areas to Inspect.

Conduct inspections of all areas required by the CGP Part 6.4 and SWPPP.

4. <u>Reduced Inspection Frequencies.</u>

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

If the Engineer approves and the entire site is stabilized, the frequency of inspections may be reduced in accordance to the CGP Part 6.2.1. At actively staffed sites, inspect within two business days of the end of a storm event that results in a discharge from the site.

5. Winter Shutdown Inspection.

Conduct winter shutdown inspection 14 calendar days after the anticipated fall freeze up date and conditions under the CGP Parts 4.12, 6.2.3, and the SWPPP are met. The Engineer may approve suspension of inspections and waive requirements for updating the Grading and Stabilization Activities Log and Daily Record of Rainfall Form during Winter Shutdown.

Inspections must resume on a regular frequency or reduced inspection frequency identified in the SWPPP, at least 21 days before anticipated spring thaw CGP Part 6.2.3. Resume updating the Daily Record of Rainfall Form at the start of the 21-day spring thaw inspection.

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 if approved by the Project Engineer.

SWPPP Amendments and SWPPP Amendment Log.

The SWPPP Amendment Log Form 25D-114 must be filled out by an individual who holds a current AK-CESCL, or equivalent certification. The Superintendent or the SWPPP Manager must sign and date amendments to the SWPPP and updates to the SWPPP Amendment Log.

SWPPP Amendments must be approved by the Engineer.

Amendments must occur:

- 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 or a BMP not shown in the original SWPPP is added;
- d. If the inspection frequency is modified (note beginning and ending dates);

- e. When there is a change in personnel who are named in the SWPPP, according to Subsection 641-2.01;
- f. When an inspection is not conducted jointly;
- g. When a NOI modification is filed;
- h. When a Noncompliance Report is filed with DEC.

Place all correspondence with DEC, EPA or MS4s in Appendix Q.

Amend the SWPPP 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. All SWPPP Amendments must have an amendment number, be dated, and signed.

Keep the SWPPP Amendment Log current. Prior to a scheduled inspection or submittal of an inspection, submit to the 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 in Appendix M.

8. Site Maps.

Maintain site maps in accordance with CGP Part 5.3.5 and the SWPPP template 5.0. It is acceptable to have separate site maps for BMPs and grading and stabilization activities.

9. Corrective Action Log.

The Superintendent and SWPPP Manager are the only persons authorized to make entries on the SWPPP Corrective Action Log, Form 25D-112.

The Corrective Action Log must document corrective actions required by the conditions listed in the CGP Part 8.0. Document the need for corrective action within 24 hours of either:

- a. Identification during an inspection, or;
- b. Discovery by the Department's or Contractor's staff, a subcontractor, or a regulatory agency inspector;
- c. If a corrective action is discovered outside of an inspection, update the log with the date of discovery, the proposed corrective action, and the date the corrective action was completed.

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

Keep the Corrective Action Log in Appendix J of the SWPPP.

10. Grading and Stabilization Activities Log.

The Superintendent and SWPPP Manager are the only persons 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 Engineer prior to performing each scheduled SWPPP Inspection. Keep the Grading and Stabilization Activities Log organized and completed to demonstrate compliance with the CGP Part 4.5.

Keep the Grading and Stabilization Activities Log in Appendix G of the SWPPP.

11. Daily Record of Rainfall.

Use SWPPP Daily Record of Rainfall, Form 25D-115 to comply with CGP Part 7.3.9. Submit a copy to the Engineer with each completed Inspection Report. Keep the Daily Record of Rainfall current in Appendix N of the SWPPP.

For projects on a 14-day inspection frequency or reduced inspection frequency, SWPPPTrack will generate a precipitation alert for storm events that produce more than 0.5 inch of rainfall in 24 hours. If a storm event does not produce a discharge from the project zone, submit an explanation in response to the SWPPPTrack precipitation alert.

12. Staff Tracking Log.

Use the SWPPP Project Staff Tracking Form 25D-127, to identify project staff that are required to be AK-CESCL certified or hold an equivalent qualification CGP Appendix C. Complete this form to document the following positions; Superintendent, SWPPP Manager, Engineer, DOT&PF Stormwater Inspector, and when positions have changed in personnel, either permanent or temporary. Update the SWPPP Project Staff Tracking Form within 24-hours of any changes in personnel, qualifications, or other staffing items related to administration of the CGP or Section 641.

641-3.04 FAILURE TO PERFORM WORK.

The Engineer has authority to suspend work and withhold monies according to Subsections 105-1.01 and 108-1.06 for the reasons listed under Subsection 108-1.06 and for an incident of noncompliance with the CGP or SWPPP that may endanger health or the environment or for failure to perform work related to Section 641.

- 1. An incident of noncompliance includes, but is 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 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 Section 641;
 - h. Meet requirements of the CGP, SWPPP, or other permits, laws, and regulations related to erosion, sediment, or pollution control, or;
 - i. Any other requirements established or included in the contract.
- 2. No additional Contract time or additional compensation will be allowed due to delays caused by the Engineer's suspension of work.

641-3.05 ACCESS TO WORK.

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 Part 6.6.

641-4.01 METHOD OF MEASUREMENT. See Section 109 and as follows:

Items 641.0001.____, 641.0003.____ and 641.0007.____, are lump sum.

Items 641.0002.____, 641.0004.____ and 641.0005.____, measured on a contingent sum basis as specified by the Directive authorizing the work.

Item 641.0006.____ measured on a contingent sum basis with withholding determined by the Department.

TABLE 641-1 BMP VALUES – RESERVED

Liquidated Damages assessed according to Table 641-2 are not an adjustment to the Contract amount. These damages charges are related to Contract performance but are billed by the Department to the Contractor, independent of the Contract amount. An amount equal to the Liquidated Damages may be withheld for unsatisfactory performance, from payment due under the Contract, until the Contractor remits payment for billed Liquidated Damages.

TABLE 641-2 - VERSION C EROSION, SEDIMENT AND POLLUTION CONTROL – LIQUIDATED DAMAGES

	Code	Specification Section Number and Description	Deductible Amount in Dollars	Cumulative Deductible Amounts in Dollars
	Α	641-1.05 Failure to have a qualified (AK-CESCL or equivalent) SWPPP Manager	Calculated in Code B or F	
	В	 Failure to meet SWPPP requirements of: (1) 641-2.01.1 Name of SWPPP Preparer (2) Not Applicable (3) 641-3.03.8 Sign and Date SWPPP amendments by qualified person (4) 641-3.02 Records maintained at project and made available for review 	\$750 per omission	
-	С	Not Applicable		
	D	641-3.03.5 Failure to stabilize a Project prior to fall freeze up.	\$5,000 per Project per year	
	E	641-2.01.1 Failure to conduct pre-construction inspections before Construction Activities on all projects greater than 1 acre.	\$2,000 per Project	
	F*	 641-3.03. Failure to conduct and record CGP Inspections 641-3.03.1 Personnel conducting Inspections and Frequency 641-3.03.2 Inspection Reports, use Form 25D-100, completed with all required information 	*\$750 per Inspection	Additional \$750 for every additional 7 day period without completing the required inspection.
	G	641-3.01.4 Corrective action, failure to timely accomplish BMP maintenance and/or repairs. In effect until BMP maintenance and/or repairs is completed.	\$500 per Project per day	
X	Н	641-3.01.3 Failure to provide to the Engineer and DEC a timely oral noncompliance report of violations or for a deficient oral noncompliance report	\$750 for the first day the report is late or deficient	Additional \$750 for every 14 day period with- out the required information
		641-3.01.3 Failure to provide to the Engineer and DEC a timely written noncompliance report, use Form 25D-143, of violations or for a deficient written noncompliance report	\$750 for the first day the report is late or deficient	Additional \$750 for every 14 day period without the required information
	J	641-3.04 Failure to comply with the requirements of the CGP, approved SWPPP, and Section 641, except as listed above	\$750 per occurrence for the first day of noncomplianc e	Additional \$750 for every day the deficiency remains uncorrected

Code F* Liquidated Damages according to Code F will not be billed for typographic errors and minor data entry errors, except the liquidated damages will be assessed for these errors when:

- a. the Contractor has previously been notified and subsequent inspection reports repeat the same or similar error,
- b. multiple inspection reports are submitted after the submission due date and the same or similar errors are repeated on multiple overdue reports,
- c. an error in recording the inspector's AK-CESCL certification date results in an inspector performing the inspection during a period when their certification was lapsed or was otherwise invalid.

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641-5.01 BASIS OF PAYMENT.

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

Item 641.0001. <u>Erosion, Sediment and Pollution Control Administration.</u> 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, SWPPP amendments, pre-construction inspections, inspections, monitoring, reporting, and recordkeeping or copying records related to the SWPPP and required by the CGP, and record retention.

Item 641.0002. <u>Temporary Erosion, Sediment and Pollution Control.</u> 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 641.0003. <u>Temporary Erosion, Sediment and Pollution Control.</u> 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 641.0004. <u>Temporary Erosion Sediment and Pollution Control Additives.</u> 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 not covered by Item 641.0003. 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 641.0005. <u>Temporary Erosion Sediment and Pollution Control by Directive.</u> 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 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 641.00006. <u>Withholding</u>. The Engineer may withhold an amount equal to Liquidated Damages, assessed according to Section 641, from payment due the Contractor. Liquidated Damages for violations of the Contract, CWA, CGP, are determined by the Engineer according to Table 641-2. The Engineer may withhold payment due the Contractors until the Contractor pays the Liquidated Damages to the Department.

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

Item 641.0007. <u>SWPPP Manager.</u> At the Contract lump sum price for a SWPPP Manager that conforms to this specification. When Item 641.0007. _____ appears in the Bid Schedule, the SWPPP Manager must be a different person than the superintendent, and must be physically present during construction activity with duties and authority as described in Subsection 641-2.04. When Item 641.0007. _____ does not appear in the Bid Schedule, the SWPPP Manager is subsidiary to Item 641.0001. _____.

<u>Subsidiary Items.</u> Temporary erosion, sediment and pollution control measures that are required outside the Project Zone are subsidiary. Work required by the HMCP and SPCC Plan including hazardous material storage, containment, removal, cleanup and disposal, are subsidiary to Item 641.0001.____Erosion, Sediment and Pollution Control Administration.

<u>Work under other pay items.</u> 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:

- 1. Dewatering;
- 2. Shoring;
- 3. Bailing;
- 4. Permanent seeding;
- 5. Installation and removal of temporary work pads;
- 6. Temporary accesses;
- 7. Temporary drainage pipes and structures;
- 8. Diversion channels;
- 9. Settling impoundment, and;
- 10. Filtration.

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

<u>Work at the Contractor's Expense.</u> 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 Engineer, or for the Contractor's convenience, are at the Contractor's expense.

Payment will be made under:

PAY ITEM			
Item Number	Item Description	Unit	
641.0001	Erosion, Sediment and Pollution Control Administration	LS	
641.0002	Temporary Erosion, Sediment and Pollution Control	CS	
641.0003	Temporary Erosion, Sediment and Pollution Control	LS	
641.0004	Temporary Erosion, Sediment and Pollution Control Additives	CS	
641.0005	Temporary Erosion, Sediment and Pollution Control by Directive	CS	
641.0006	Withholding	CS	
641.0007	SWPPP Manager	LS	

SECTION 642 CONSTRUCTION SURVEYING AND MONUMENTS

01/20/15 (N34)

642-3.01 GENERAL. <u>Delete the fifth paragraph and substitute the following:</u> Follow the Department's <u>Construction Surveying Requirements</u>, or if GPS survey is approved by the Engineer, use the <u>Alaska</u> <u>Survey Manual GPS Surveys 2010 (rev. 8/15/10)</u>.

<u>Add the following to the last sentence in the second to the last paragraph:</u> or the Alaska Survey Manual GPS Surveys 2010 (rev. 8/15/10).

01/20/15 (N35)

<u>Add the following:</u> Stake all environmental permit boundaries, including but not limited to Corps of Engineers permit boundaries and temporary work zone boundaries, with green colored stakes. Stake according to the permit and frequently enough that you can construct the project without risk of violating the permit conditions, but in no case set stakes further apart than 200 feet or as deemed necessary by the Engineer.

SPECIAL PROVISIONS Project No. 0652017/Z607350000 Dalton Highway MP 18-37 Reconstruction **642-3.02 CROSS-SECTION SURVEYS.** <u>Add the following to the first paragraph:</u> or the Alaska Survey Manual GPS Surveys 2010 (rev. 8/15/10).

<u>Delete numbered paragraph 4 of the second paragraph in its entirety and substitute the following:</u> Department's Construction Surveying Requirements or the Alaska Survey Manual GPS Surveys 2010 (rev. 8/15/10).

642-4.01 METHOD OF MEASUREMENT. <u>Add the following:</u> All work and materials required to stake environmental permit boundaries will not be measured for payment, rather is subsidiary to other items of work.

SECTION 643 TRAFFIC MAINTENANCE

Add the following subsection:

643-3.12 PUBLIC INFORMATION.

- 1. <u>Public Open House</u>. Attend and participate in a Public Open House scheduled by the Engineer. The Public Open House will be scheduled at the earliest possible date prior to commencement of work.
- 2. <u>Weekly Submittals.</u> Submit to the Engineer, for review and use, information related to the progress of the work to include a general scope of work and impacts to the traveling public. Submit the progress information in writing on a weekly basis by 12 noon Wednesday of each week for the following two weeks' work. This information will be used by the Engineer for weekly ad preparation.

Include the following information:

- a. Applicable approved Traffic Control Plans that will be in effect and/or detailed traffic information such as delays, and lane or intersection closures and corresponding detours with effective dates of closures and detours.
- b. Information pertaining to any upcoming utility shutdowns, and impacts to motorists, bicyclists and pedestrians, or residents/businesses.
- . The Contractor's 24-hour message number, contact name, and office telephone number.
- <u>Weekly Meetings.</u> Representatives from the Contractor and all Subcontractors shall attend weekly meetings every Wednesday morning with the Engineer. The Contractor and Subcontractors shall present and explain the information contained in the Weekly Progress Report.
- 4. <u>Support for Business and Resident Flier Information and Distribution</u>. Submit to the Engineer for review and approval, information to be included in hand-delivered fliers to all businesses and residents within project limits. Within 48 hours upon receipt of the Department produced fliers, hand deliver the fliers during the hours of 8 a.m.-5 p.m. to adjacent businesses and residences. Flier information shall contain the same information as listed in 643-3.12 (2) as well as the following:
 - a. A description of impacts that residents, business owners, employees or customers may experience during the project
 - b. The Contractor's anticipated construction schedule, describing the sequence and location of activities within the corridor

Distribute fliers at the following times:

- 1. Two weeks before construction begins.
- 2. 1 week prior to major impacts/start of new phase or work segment.
- 3. 1 week prior to removal/changes to mailbox work.
- 5. <u>Utility Outage Notifications.</u> Provide written notice to property owners and tenants a minimum of 48 hours prior to any utility outage.
 - a. <u>Agency Notification</u>. Notify the following agencies at least 24 hours prior to starting any work which will potentially impede all modes of traffic. Information on project area duration and detour routes shall be provided.
 - b. State Troopers
 - c. US Postal Service
 - d. Trucking Companies
- 6. In instances of emergencies, utility shutdowns, changes in traffic patterns or other unanticipated impacts to motorists, bicyclists and pedestrians, or businesses within the project corridor, coordinate with the Engineer and the ADOT&PF Public Information Officer immediately.

04/01/22 (N40) 643-5.01 BASIS OF PAYMENT.

11. Traffic Control. Add the following schedule:

TRAFFIC CONTROL RATE SCHEDULE

TRAFFIC CONTROL DEVICE	PAY UNIT	UNIT RATE		
Construction Signs	Each/Day	\$6.50		
Special Construction Signs	Square Foot	\$31.00		
Type II Barricade	Each/Day	\$3.30		
Type III Barricade	Each/Day	\$11.00		
Traffic Cone or Tubular Marker	Each/Day	\$1.10		
Drums	Each/Day	\$3.30		
Temporary Guardrail	Linear Foot	\$25.00		
Portable Concrete or Steel F Shape Barrier (12.5 foot standard length or\$8/foot)	Each	\$100.00		
Temporary Crash Cushion/ non-redirective Water filled barrier (all required per end)	Each	\$2,500.00		
Temporary Crash Cushion / non-redirective Water filled Barrels (all required per end)	Each	\$3,285.00		
Temporary Crash Cushion / non-redirective Sand filled Barrels (all required per end)	Each	\$4,325.00		
Temporary Crash Cushion / Redirective	Each	\$9,230.00		
Plastic Safety Fence	Foot	\$1.00		
Temporary Sidewalk Surfacing	Square Foot	\$2.00		
Flexible Markers (Flat Whip, Reflective)	Each	\$60.00		
Flagging	Hour	\$65.00		

TRAFFIC CONTROL DEVICE	PAY UNIT	UNIT RATE
Electronic Boards, Panels and Signals		
Sequential Arrow Panel	Each/Day	\$40.00
Portable Changeable Message Board Sign	Each/Day	\$130.00
Portable Traffic Signals (Two)	Each/Day	\$361.00
Cars and Trucks w/driver		
Pilot Car (4x2 ½ ton truck, or any car)	Hour	\$77.00
Watering Truck – up to 4900 gallon capacity	M-Gallon	\$28.00
Watering Truck – more than 4900 gallon	M-Gallon	\$21.00
Street Sweeping (Regenerative Sweeper, Vacuum Sweeper, Mechanical or Power Broom with vacuum)	Hour	\$214.00
40,000 GVW Truck with Crash Attenuator	Hour	\$162.00
Interim Pavement Markings		
Painted Markings	Linear Foot	\$0.30
Preformed Pavement Marking Tape (removable or non-removable)	Linear Foot	\$1.75
Temporary Raised Pavement Markers	Each	\$1.00
Word or Symbol Markings	Each	\$55.00
Temporary Cover Markings	Linear Foot	\$4.00
Removal of Pavement Markings	Linear Foot	\$1.25

18. <u>Public Information</u>. The contract price includes all resources required for attendance and participation at the Public Open House, Weekly Submittals, Support for Business Flier Information and Distribution, Utility Outage and Agency Notifications.

Add the following pay item:

PAY ITEM				
Item Number	Item Description	Unit		
643(101)	Public Information Program	LS		

<u>Delete Section 644 in its entirety and substitute the following:</u> 04/08/21 (N41)

SECTION 644 SERVICES TO BE FURNISHED BY THE CONTRACTOR

644-1.01 DESCRIPTION. Furnish and maintain facilities and services specified in the Contract for the Department's project administrative personnel to use during the project. Services include heat, electrical power (NEC compliant), water and any others required to operate the facilities. All furnished facilities remain the property of the contractor when the work is completed.

The Engineer may delete any 644 Items, by Directive within five working days after the Preconstruction Conference. If any 644 Items are deleted within the specified period, Subsection 109-1.09, Eliminated Items, shall not apply to the deleted 644 Items.

644-2.01 FIELD OFFICE. Furnish and maintain a suitable office for the Engineer to use during construction. Make the Field Office available for occupancy 2 weeks before commencing work on the project through one week after Project Completion. The Field Office shall be within one half of one mile from the project.

- 1. Submit office proposal to the Engineer prior to procurement or transporting office to the project. The Engineer will approve the office general condition, location, access, features, and physical layout prior to beginning any office setup work. If this office is part of your building, completely partition it from the rest of the structure and provide a separate outside door equipped with a lock.
- 2. Provide at least the following minimum requirements, or as approved by the Engineer:
 - a. Floor space of at least 1000 ft²
 - b. Window area of at least 60 ft²
 - c. Lockable outside door(s)
 - d. 8 each plastic folding tables, 8 ft. long
 - e. Shelf space of at least 24 linear feet
 - f. Adequate heating and cooling devices, and fuel or power to run the devices, to maintain an office temperature between 65° and 75°F.
 - g. Adequate ventilation
 - h. Continuous supply of drinking water from an approved source or commercial supplier
 - i. A minimum of 4 sanitary facilities exclusively for Department use that include adequate sink with water supply, hand soap, hand sanitizer, toilet paper, and paper towels
 - j. Janitorial services at least weekly
 - Wet/dry vacuum with a minimum capacity of 5 gallons and a minimum of 4 horsepower. Provide filters and dust bags as needed.
 - I. Provide electrical service as indicated in 644-2.09, #1 Field Office
 - m. Internet Service and Phone:

Furnish and install a high speed internet service and three telephones, with all necessary ancillary equipment.



The internet system shall have a send and receive capability supporting 1.0 Mbps download speed or higher and 0.5 Mbps upload speed at all times. The internet system shall have unlimited data. Include a wireless router and an appropriately sized battery backup for the internet system. The system shall be for the exclusive use of the Engineer.

The telephone system shall consist of commercially available telephones with the necessary equipment for each line. Provide one telephone that includes a built in digital answering machine.

Internet and telephone service shall be supplied and operational no more than two weeks after the field office has been set up on site. Service plans shall be provided and remain in effect for the duration of the use of the field office.

n. One multifunction Laser Color Printer/Scanner/Copier meeting the following requirements:

New or like-new condition Printing/copying at least 32 ppm Scan speed of 40 ppm at 400 DPI in color, at a minimum Print/Scan/Copy 8.5" x 11" and 11" x 17" in color, at a minimum Supports network scanning (FTP and SMB Support) Supports network printing (PCL and Postscript) Network card included Automatic Document Feeder

Furnish toner and perform repairs and maintenance as necessary.

The Printer/Scanner/Copier remains property of the Contractor upon completion of the contract.

- o. Make the field office accessible according to the requirements of *Americans with Disabilities Act Accessibility Guidelines* (ADAAG). Provide at least one designated handicap parking space.
- p. One AED (Automated External Defibrillator), with carrying case and properly marked wall cabinet. Provide training on how to use the AED.
- q. One combination Smoke and Carbon Monoxide Detector per structure, minimum. Provide combination Smoke and Carbon Monoxide Detectors in any location requested by the Engineer.
- r. One 25 Person Trauma First Aid Kit. List of required contents available at <u>http://dot.alaska.gov/nreg/files/25-Person-Trauma-Kit-Contents.pdf</u>
- s. ____ mobile hotspots with unlimited data plans and car charger.
- 3. Provide electrical power to the Department's portable concrete compressive strength lab if there are any bridge items in the bid schedule as identified in 644-2.09, #9.
- 4. Provide electrical power to the Department's portable nuclear storage trailer as identified in 644-2.09, #8.
- 5. Provide the following to the Department's portable asphalt lab if there are any asphaltic materials in the bid schedule and item 644.0002.____ Field Laboratory does not appear in the bid schedule.
 - a. electrical service as identified in 644-2.09, #4 Asphalt Laboratory.
 - b. internet service as specified for the Field Laboratory.

All long distance calls made by State personnel will be paid by the State. Installation and maintenance fees, local calls, connection fees and internet service provider fees, and all other fees shall be paid by the Contractor. Paper used by the copier/scanner/printer will be provided by the State.

644-2.02 FIELD LABORATORY. Furnish and maintain a field laboratory for the Engineer to use exclusively throughout the contract. Provide a completely functional installation 2 weeks before commencing construction work through one week after Project Completion.

1. Grade and compact a site for the lab acceptable to the Engineer. Locate and level the structure on this site. If subsequent ground movement causes an unlevel or unstable condition, re-level or re-locate the facility as directed.

- 2. Provide a weatherproof structure suitable to field test construction materials, with the following minimum functional requirements:
 - a. Floor space of 300 ft²
 - b. Two 10-ft² windows that open and lock
 - c. Lockable door(s)
 - d. Work bench(es), 2-1/2 x 16 feet total, 3 feet high
 - e. Shelf space, 1 x 16 feet
 - f. One 18-inch deep sink with attached industrial faucet with hand sprayer attachment and approved drain
 - g. A gravity-fed 250-gallon tank or pressurized constant water supply of acceptable quality
 - h. Electrical service as indicated in 644-2.09, #2 Field Laboratory
 - i. A sanitary facility exclusively for Department use that includes adequate sink with water supply, hand soap, hand sanitizer, toilet paper, and paper towels
 - j. Heating and cooling equipment suitable to maintain a uniform room temperature of 65° to 75°F
 - k. Storage cabinet, 3 ft x 3 ft x 3 ft, lockable, securely fixed to an inside wall with a hinged door opening outward
 - I. Office desk and 2 chairs

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- m. One combination Smoke and Carbon Monoxide Detector per structure, minimum. Provide Combination Smoke and Carbon Monoxide Detectors at any location requested by the Engineer.
- n. One 25 person Trauma First Aid Kit. List of required contents available at <u>http://dot.alaska.gov/nreg/files/25-Person-Trauma-Kit-Contents.pdf</u>
- o. Internet Service and Phone:

Furnish and install a high speed internet service and a telephone, with all necessary ancillary equipment.

The internet system shall have a send and receive capability supporting 1.0 Mbps download speed or higher and 0.5 Mbps upload speed at all times. The internet system shall have unlimited data. Include a wireless router and an appropriately sized battery backup for the internet system. The system shall be for the exclusive use of the Engineer.

The telephone system shall consist of commercially available telephones with the necessary equipment for each line. Provide one telephone that includes a built in digital answering machine.

Internet and telephone service shall be supplied and operational no more than two weeks after the field laboratory has been set up on site. Service plans shall be provided and remain in effect for the duration of the use of the field laboratory.

- 3. If the lab is a mobile unit mounted on axles and wheels, block the structure under the frame so that the wheels do not touch the ground and the blocking rests firmly on the prepared site.
- 4. Provide a separate weatherproof shed within 20 feet of the main lab structure (Shaking Shed). Grade and compact a site for the Shaking Shed acceptable to the Engineer. Locate and level the structure on this site. If subsequent ground movement causes an unlevel or unstable condition, re-level or re-locate the facility as directed.
 - a. The Shaking Shed shall have the following minimum functional requirements:
 - (1) Floor 8 ft x 12 ft, ceiling height 8 ft
 - (2) Door 4 ft wide and window 5 ft² that opens, both lockable
 - (3) electrical service as identified in 644-2.09, #3 Field Laboratory Out Building
 - (4) Work table 3 ft x 1-1/2 ft x 3 ft high, capable of supporting 250 pounds and affixed to an inside wall as directed
 - (5) Concrete-slab floor, 8 ft x 8 ft x 4 inches thick, cast-in-place or pre-cast. Install anchor bolts in the floor to accommodate the mounting pattern of the Gilson sieving machine at a location as directed.

Found the slab directly on the prepared site such that it is continuously supported.

- 5. Provide a weatherproof pole shed adjacent to the Shaking Shack. Grade and compact a site for the Splitting shed acceptable to the Engineer. Locate and level the structure on this site. If subsequent ground movement causes an unlevel or unstable condition, re-level or re-locate the facility as directed.
 - a. The Splitting shed shall meet the following minimum requirements
 - (1) 12' x 24' Pole shed structure with 8' minimum ceiling height.
 - (2) Pole spacing 4' to 6'
 - (3) Water proof roof
 - (4) 2x4 construction, or manufactured structure approved by the Engineer.
 - (5) 6 each 4' T8 LED lighting fixtures with bulbs spaced evenly across the roof structure
 - (6) Manufactured, industrial strength, welded-metal shelving with total 52 square feet of shelving(7) 2 walls
 - (8) Smooth rigid floor as approved by the Engineer

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- 6. For all types of installations, if the entryway is located higher than a single 7-inch rise, provide the following:
 - a. Stairway, 3 feet wide x 11-inch tread x 7-inch rise
 - b. Landing, 4 ft x 4 ft centered on the entryway
 - c. Handrail(s) firmly affixed to the stairway
- 7. Provide the following lab equipment and services:
 - a. Propane necessary for the lab operation, including two 100-lb tanks, regulators, hoses, fittings, and incidentals for a functional system
 - b. Specialized sampling equipment such as belt templates or belt sampling devices as required
 - c. Fuel and power necessary to continuously operate the facilities
- 8. Provide the following to the Department's portable asphalt lab if there are any asphaltic materials in the bid schedule.
 - a. electrical service as identified in 644-2.09, #4 Asphalt Laboratory.
 - b. internet service as specified for the Field Laboratory.

644-2.03 CURING SHED. Furnish and maintain a suitable weather tight shed for curing concrete test cylinders, with a suitable tank(s) for curing concrete test cylinders.

Provide a tank(s) large enough to contain at least 6 each 4" x 8" test cylinders from each pour that you propose to make during any 28-day period. Use a tank(s) at least 18 inches high, insulated, and constructed of heavy duty plastic or non-corrosive metal. Construct a lid to provide access to the tank(s).

Provide suitable heating to maintain the temperature in the tank between 70° and 77°F at all times when curing the test cylinders. In addition, provide suitable thermometers in the shed and tank(s) to check the temperature.

Provide a supply of calcium hydroxide (high-calcium hydrated lime) sufficient to maintain a fully saturated water bath in the tank(s). Provide a source of potable water.

Provide one combination smoke alarm and carbon monoxide detector.

Provide electrical service as identified in 644-2.09, #5 Curing Shed

644-2.05 VEHICLES. Furnish and maintain vehicles in good condition that are less than six years old and with less than 100,000 miles on the odometer for the exclusive use of the Department throughout the project. Provide full-size four-wheel drive pickups or sport utility vehicles. The Special Provisions will state the required number and type of vehicles. Provide vehicles from two weeks before commencing work to one week after Project Completion. Maintain the vehicles in satisfactory running condition throughout the duration of the contract. Provide insurance, fuel, fluids, lubricants, tire repair/replacement, and windshield repair/replacements as needed. If a vehicle is down for more than 24 hours, provide a replacement Vehicle of the same type at no additional cost.

The State of Alaska is responsible for damage to any vehicle caused by its own negligent operation.

The Engineer will approve the vehicles prior to transporting them to the project site. In addition to use on the project, all of the vehicles will be allowed to make round trips to the Department's regional headquarters. Remove all vehicles from the project at the end of the Contract.

Number of Vehicles	
3	

<u>Type</u> 3/4 ton pickup 8-person SUV

Equip each vehicle as follows:

- 1. Four wheel drive
- 2. Automatic transmission
- 3. Power steering
- 4. Air conditioning
- 5. Fire extinguisher & basic first aid kit
- 6. Jack and lug wrench
- 7. Narrow All season Load range E tires in good condition
- 8. Two full size load range E spare tires in good condition mounted on rims
- 9. 360-degree Permanent Beacon
- 10. 2 sets of keys
- 11. CB Radio with 48" Antenna for all projects more than 50 miles from Fairbanks.
- 12. 3 each AKDOT&PF magnetic stickers. Plans available at <u>http://dot.alaska.gov/documents/DOT-</u> <u>SOA-Construction-Magnets-Specs.pdf</u>

Materials Truck

Number of Vehicles

1

Meet the above requirements for a vehicle and the following:

- 1. 3/4 Ton Crew Cab Pickup
- 2. Minimum 500 lb hydraulic tailgate lift attached to the bed of the truck

644-2.06 NUCLEAR TESTING EQUIPMENT STORAGE SHED. Design, furnish and maintain a weatherproof, heated, and ventilated nuclear densometer/testing equipment storage shed for the Engineer to use exclusively throughout the contract. Install the building at least 15-feet from an occupied area at a location approved by the Engineer. Install the shed at least one week before the commencement of construction activities and maintain it until one week after Project Completion. Provide sufficient floor area for the nuclear testing equipment and a portable electric heater to maintain a minimum room temperature of 50°F. Design the building with enough floor area to provide sufficient clearance between the equipment, heater, and combustibles. Provide a commercial grade metal-clad exterior entrance door of 3'-0" min width by 6'-8" height with dead-bolt lockset. Hang the door so that hinge pins are not accessible from the exterior. Provide the Engineer with 2 keys to control access. Provide a 5/16" x 10 foot long welded steel security chain securely attached inside the structure with tamperproof hardware for the Engineer to secure the testing equipment. Provide electrical service as identified in 644-2.09, #7 Nuclear Testing Equipment Storage Shed. Secure the structure to the ground with tamperproof anchors to resist wind loads and prevent unauthorized movement of the building. The Nuclear Testing Equipment Storage Shed remains the property of the Contractor. Remove the shed from the site following project completion. The Nuclear Testing Equipment Storage Shed must be windowless.

644-2.07 STORAGE CONTAINER. Furnish, transport and maintain a weathertight, lockable, steel enclosed 20 foot long x 8 foot wide x 8 foot high wooden floored container for the storage of the Department's materials, supplies and testing equipment (but not nuclear equipment). Provide twenty equally spaced fastening points on the interior walls that are capable of securing the Department's contents. Door opening dimensions of the storage container shall be greater than 60 square feet. Supply necessary equipment to lift and move container with minimal disturbance to the Department's contents. The container shall not be moved by skidding or hook lift. The Contractor shall be listed as the shipper on all documents listing and acknowledging receipt of the Department's goods for shipment.

Deliver an empty and clean container to the Regional Materials Laboratory, or location acceptable to the Engineer, three weeks prior to transporting to the project site. Allow 7 days for the Department to load the container. Transport the loaded container to the project site. Set up container at a location approved by the Engineer at least one week before the commencement of construction activities and maintain it until one week after Project Completion.

- 1. Provide electrical service and other facilities as follows:
 - a. Provide a stairway with railing, built to meet the International Building Code, if there is more than 12-inch difference in floor entry and existing ground elevation.
 - b. Provide electrical service as identified in 644-2.09, #6 Storage Container.

Return the container to the Regional Materials Laboratory, or location acceptable to the Engineer, upon project completion. Allow 7 days for the Department to unload the container. The storage container remains your property after you complete the work.

644-2.08 FIELD COMMUNICATIONS. Provide internet and phone communication systems as directed by the Engineer.

644-2.09 ELECTRICAL POWER. Furnish and maintain a constant source of power to the facilities specified in the contract for the Department's use during the project. Provide a completely functional installation 2 weeks before commencing construction work through 2 weeks after Project Completion.

- 1. FIELD OFFICE. Provide electrical services as follows:
 - a. Heating/Cooling adequate to maintain temperatures between 65° to 75°F
 - b. Electrical current: 120/240 VAC, 60 cycle on 24 hour basis
 - c. Wiring system to support a 40 amp user load demand with two 20-amp circuits
 - d. Eight conveniently spaced outlets on the interior wall, consistent with local codes
 - e. Eight 8ft LED minimum 5000 lumen lamps or sixteen 4ft LED minimum 2000 lumen lamps, between 2800K and 5000K color temperature
- 2. FIELD LABORATORY. Provide electrical services as follows:
 - a. Heating/Cooling adequate to maintain temperatures between 65° to 75°F
 - b. Electrical current: 120/240 VAC, 60 cycle on 24 hour basis
 - c. Wiring system to support a 40 amp user load demand with two 20-amp circuits, GFI Protected
 - d. Six conveniently spaced outlets on the interior wall, consistent with local codes
 - e. Eight 8ft LED minimum 5000 lumen lamps or sixteen 4ft LED minimum 2000 lumen lamps, between 2800K and 5000K color temperature
 - f. Exhaust fan: minimum 300 CFM
- 3. SHAKING SHED. Provide electrical services as follows:
 - a. Heating/Cooling adequate to maintain temperatures between 65° to 75°F
 - b. Electrical current: 120/240 VAC, 60 cycle on 24 hour basis
 - c. Wiring system to support a 20-amp user load demand, GFI Protected
 - d. Three conveniently spaced outlets on the interior wall, consistent with local codes
 - e. Two 8ft LED minimum 5000 lumen lamps or four 4ft LED minimum 2000 lumen lamps, between 2800K and 5000K color temperature
 - f. Exhaust fan: minimum 300 CFM
- 4. ASPHALT LABORATORY. Provide electrical services as follows:
 - a. Electrical current: 120/240 VAC, 60 cycle on 24 hour basis
 - b. 100-amp service

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- 5. CURING SHED. Provide electrical services as follows:
 - a. Heating/Cooling adequate to maintain temperatures between 70° to 77°F
 - b. Two 100-watt incandescent or four 4ft LED minimum 2000 lumen lamps, between 2800K and 5000K color temperature
- 6. STORAGE CONTAINER. Provide electrical services as follows:
 - a. Electrical current: 120/240 VAC, 60 cycle on 24 hour basis
 - b. Wiring system to support a 20-amp user load demand, GFI Protected
 - c. Two conveniently spaced outlets on the interior wall, consistent with local codes
 - d. Four 100-watt incandescent or eight 4ft LED minimum 2000 lumen lamps, between 2800K and 5000K color temperature
- 7. NUCLEAR TESTING EQUIPMENT STORAGE SHED. Provide electrical services as follows:
 - a. Heating/Cooling adequate to maintain minimum temperatures of 50°F
 - b. Electrical current: 120/240 VAC, 60 cycle on 24 hour basis
 - c. Two 100-watt incandescent or four 4ft LED minimum 2000 lumen lamps, between 2800K and 5000K color temperature
 - d. Wiring system to support a 20-amp user load demand
- 8. NUCLEAR TESTING EQUIPMENT STORAGE SHED (STATE PROVIDED). Provide electrical services as follows:
 - a. Electrical current, 120/240 VAC, 60-cycle on 24-hour basis
 - b. Wiring system to support a 20-amp user load demand
- 9. PORTABLE CONCRETE COMPRESSIVE LABORATORY. Provide electrical services as follows:
 - a. Electrical current: 120/240 VAC, 60 cycle on 24 hour basis
 - Wiring system to support a 20-amp user load demand

If 644.0015____, Nuclear Testing Equipment Storage Shed is deleted the electrical power requirement are still required per 644-2.09, #8.

If the contract contains bridge items that require concrete or grout provide electrical power to the Department's Portable Concrete Compressive Laboratory per 644-2.09, #9.

644-3.01 METHOD OF MEASUREMENT. Section 109 and as follows:

<u>Storage Container.</u> By the number of storage containers specified, to include all components, installed and accepted as completed units and ready for materials and equipment storage.

644-4.01 BASIS OF PAYMENT.

<u>Vehicles</u>. Includes all resources, including fuel, oil, maintenance, and insurance to furnish the specified number of fully operational vehicles for the duration specified in the contract.

Lump Sum Items. Payment for lump sum items will be made as follows:

1. A percentage of the lump sum amount, to be determined by the Engineer, will be paid as full compensation for furnishing the facility at the site.

2. The balance of the lump sum amount will be prorated over the anticipated active construction period with a portion included as part of each interim payment, for maintenance, repairs, providing all utilities, and for removing it from the site. If anticipated construction period changes, the final increment will be held until final payment.

<u>Storage Container</u>. At the contract unit price to include all labor, materials, tools, equipment and supplies required to deliver the storage shed to the regional office for loading, to deliver it to the project office, to install it before commencement of construction, to maintain it for the duration of the project, to remove the shed and electrical service after project completion, to deliver it to the regional office for unloading, and to remove the storage shed. Electrical service and utility costs are subsidiary to this item.

<u>Field Communications</u>. Installation and maintenance of equipment and monthly invoice costs will be paid for by Contingent sum under Item 644.2002.0000, Field Communications. Provide invoices from vendor for installation, maintenance, and monthly subscription costs. When this bid item appears in the Bid Schedule, internet and phone service are not subsidiary to 644.0001._____ Field Office.

Payment will be made under:

PAYITEM			
Item Number	Item Description	Unit	
644.0001	Field Office	LS	
644.0002	Field Laboratory	LS	
644.0003	Curing Shed	LS	
644.0006	Vehicle	LS	
644.0015	Nuclear Testing Equipment Storage Shed	EACH	
644.0016	Storage Container	EACH	
644.2002.0000	Field Communications	CS	
644.2010.0000	Nuclear Testing Equipment Storage Shed	LS	

Add the following section:

SECTION 645 TRAINING PROGRAM

11/30/20 (HSP20-2)

645-1.01 DESCRIPTION. This Statewide Special Provision for on-the-job training (OJT) implements 23 CFR 230, Subpart A, Appendix B.

As part of the Equal Employment Opportunity Affirmative Action Program, the Contractor shall provide on-the-job training aimed at developing full journey status in the type of trade or job classification involved. The number of individuals to be trained and the number of hours of training to be provided under this contract will be as shown on the bid schedule.

645-2.01 OBJECTIVE. Training and upgrading of minorities and women toward journey status is the primary objective of this program. The Contractor shall enroll minorities and/or women, where possible, and document good faith efforts prior to the hire of non-minority males in order to demonstrate compliance with this Training Special Provision. Specific good faith efforts required under this Section for the recruitment and employment of minorities and women are found in the Federal EEO Bid Conditions, Form 25A-301.

645-3.01 GENERAL. The Contractor shall determine the distribution of the required number of apprentices/trainees and the required number of hours of training among the various work classifications

based upon the type of work to be performed, the size of the workforce in each trade or job classification, and the shortage of minority and female journey workers within a reasonable area of recruitment.

Training will be provided in the skilled construction crafts unless the Contractor can establish prior to contract award that training in the skilled classifications is not possible on a project; if so, the Department may then approve training either in lower level management positions such as office engineers, estimators, and timekeepers, where the training is oriented toward construction applications, or in the unskilled classifications, provided that significant and meaningful training can be provided. Some offsite training is permissible as long as the training is an integral part of an approved training program and does not comprise a significant part of the overall training.

Credit for offsite training hours indicated above may only be made to the Contractor where the apprentices/trainees are concurrently employed on the project and the Contractor does one or more of the following: contributes to the cost of the training, provides the instruction to the apprentice/trainee, or pays the apprentice's/trainee's wages during the offsite training period.

Where feasible, 25 percent of apprentices or trainees in each occupation shall be in their first year of apprenticeship or training.

Prior to award of the contract, the Contractor shall submit Form 25A-311, Training Utilization Report, indicating the training program to be used, the number of apprentices/trainees to be trained in each selected classification, the number of hours of training to be provided, and the anticipated starting time for training in each of the classifications.

Training must begin within 2 weeks of the anticipated start date(s); unless otherwise authorized by a Directive. Such authorization will be made only after submission of documentation by the Contractor, and approval by the Engineer, of efforts made in good faith which substantiate the necessity for a change.

Contractors may use a training program approved by the U.S. Department of Labor, Office of Apprenticeship (USDOL/OA); or one developed by the Contractor using Form 25A-310 and approved prior to contract award by the OJT Coordinator in the DOT&PF Civil Rights Office.

The minimum length and type of training for each classification will be established in the training program selected by the Contractor. Training program approval by the Department for use under this section is on a project by project basis.

It is expected that each apprentice/trainee will begin training on the project as soon as feasible after start of work utilizing the skill involved and remain on the project as long as training opportunities exist or until training has been completed. It is not required that apprentices/trainees be continuously employed for the duration of the contract.

If, in the judgment of the Contractor, an apprentice/trainee becomes proficient enough to qualify as a journey worker before the end of the prescribed training period and the Contractor employs that individual as a journey worker in that classification for as long as work in that area remains, the individual's training program will be considered completed and the balance of training hours required for that apprentice/trainee shall be waived.

The Contractor shall furnish each ADOT&PF training program trainee a copy of the program (Form 25A-310) to be followed during training on the project, and with a written certification showing the type and length of training completed on the project. Existing USDOL/OA apprentices should already have a copy of their program. No employee shall be employed for credit as an apprentice/trainee in a classification in which that employee has previously worked at journey status or has previously completed a training course leading to journey status.

The Contractor shall periodically review the training and promotion potential of minority and women employees and shall encourage eligible employees to apply for such training and promotion.

The Contractor shall provide for the maintenance of records and the furnishing of periodic reports documenting the progress of each apprentice/trainee. The Contractor must submit Form 25A-313 by the 15th of each month and provide each ADOT&PF trainee written evaluation reports for each unit of training provided as established on Form 25A-310.

645-3.02 WAGES. Trainees in ADOT&PF approved training programs will be paid prevailing Davis-Bacon fringe benefits plus at least 60 (but less than 100) percent of the appropriate minimum journey rate specified in the contract for the first half of the training period, at least 75 (but less than 100) percent for the third quarter of the training period, and at least 90 (but less than 100) percent for the last quarter of the training period. Trainee wages shall be identified on Form 25A-310. Apprentices in USDOL/OA training programs shall be paid in accordance with their approved program. Beginning wages of each trainee/apprentice enrolled in a Section 645 Training Program on the project shall be identified on Form 25A-312.

645-3.03 SUBCONTRACTS. In the event the Contractor subcontracts a portion of the work, he shall determine how many, if any, of the apprentices/trainees are to be trained by the subcontractor. Any such subcontracts shall include this Section 645, Form 25A-311 and Form 25A-310, where appropriate. However, the responsibility for meeting these training requirements remains with the Contractor; compliance or non-compliance with these provisions rests with the Contractor and sanctions and/or damages, if any, shall be applied to the Contractor in accordance with Subsection 645-5.01, Basis of Payment.

645-4.01 METHOD OF MEASUREMENT. The Contractor will be credited for each approved apprentice/trainee employed on the project and reimbursed on the basis of hours worked, as listed in the certified payrolls. There shall be no credit for training provided under this section prior to the Contractor's submittal and approval by the Engineer of Form 25A-312 for each apprentice/trainee trained under this Section. Upon completion of each individual training program, no further measurement for payment shall be made.

645-5.01 BASIS OF PAYMENT. Payment will be made at the contract unit price for each hour of training credited. Where a trainee or apprentice, at the discretion of the Contractor, graduates early and is employed as a journey worker in accordance with the provisions of Subsection 645-3.01, the Contractor will receive payment only for those hours of training actually provided.

This payment will be made regardless of any other training program funds the Contractor may receive, unless such other funding sources specifically prohibit the Contractor from receiving other reimbursement.

Payment for training in excess of the number of hours specified on the approved Form 25A-311 may be made only when approved by the Engineer through Change Order.

Non-compliance with these specifications shall result in the withholding of progress payments until good faith efforts documentation has been submitted and acceptable remedial action has been taken.

Payment will be at the end of the project following the completion of all training programs approved for the project. No payment or partial payment will be made to the Contractor if he fails to do any of the following and where such failure indicates a lack of good faith in meeting these requirements:

- 1. provide the required hours of training (as shown in the Bid Schedule and approved Form 25A-311),
- 2. train the required number of trainees/apprentices in each training program (as shown in the Bid Schedule and approved Form 25A-311), or

3. hire the apprentice/trainee as a journey worker in that classification upon completion of the training program for as long as work in that area remains.

Failure to provide the required training damages the effectiveness and integrity of this affirmative action program and thwarts the Department's federal mandate to bring women and minorities into the construction industry. Although precise damages to the program are impractical to calculate, they are at a minimum, equivalent to the loss to the individuals who were the intended beneficiaries of the program. Therefore, where the Contractor has failed, by the end of the project, to provide the required number of hours of training and has failed to submit acceptable good faith efforts documentation which establishes why he was unable to do so, the Contractor will be assessed an amount equal to the following damages to be deducted from the final progress payment:

Number of hours of training not provided, times the journey worker hourly scale plus benefits. The journey worker scale is that for the classification identified in the approved programs.

Payment will be made under:

PAY ITEM				
Item Number	Item Description	Unit		
645.0001	Training Program, Trainees/Apprentices	LH		

Add the following section:

SECTION 647 CHANNEL REALIGNMENT

647-1.01 DESCRIPTION. Construct a channel bed (stream bed, river bed, creek bed, and or similar), and channel bank (protection and revegetation), at the locations on the Plans or as staked.

Provide a plan and schedule for the channel bed and channel bank construction meeting the requirements of the Contract documents (Section 107 Legal Relations and Responsibility to Public, Section 643 Traffic Maintenance, and similar).

647-1.02 REFERENCES.

 Stream Bank Revegetation and Protection, A Guide for Alaska; revised 2005; published by Alaska Department of Fish and Game; printed copy available from the Department, and an electronic copy is available on the internet.

647-2.01 MATERIALS.

Vegetative Mat	Section 201 & 623
Top Soil	Section 201, 620 & 726
Riprap	Section 611
Seeding	Section 618 & 724
Willow Cuttings/Bundles	Section 621 & 727
Selected Material	Section 703
Coir Fabric	Section 727
Coir Logs	Section 727

Channel Bed Fill: Salvaged existing stream bed material and/or a blend of 50% riprap, Class 1, and 50% Selected Material, Type C, by volume. Unclassified channel excavation may be substituted for the Selected Material, Type C.

Channel Bank Fill: A blend of 50% riprap, Class 1, and 50% Selected Material, Type C, by volume. Unclassified channel excavation may be substituted for the Selected Material, Type C.

Native Organic Soil: Salvaged topsoil, overburden material, or useable excavation high in organics and fines. Native organic soil used for Channel Realignment shall be salvaged from areas that will be disturbed for other work.

647-3.01 CONSTRUCTION REQUIREMENTS. Provide equipment of a size and type to efficiently complete the work with the least impact on the channel. Submit to the Engineer a list of equipment to be used during construction for review and approval.

647-3.02 EXCAVATION. Excavate to the dimensions shown on the Plans. Control excavated material to minimize disturbance to the channel and banks.

647-3.03 CHANNEL REALIGNMENT. Place channel bed fill material by methods that do not cause segregation or damage. Place the fill in lifts of maximum depth of 12 inches. Fill voids by machine or hand tamping after placing each lift. Compact bed materials, each lift, by mechanical means as approved by the Engineer. Make channel bed surface roughness similar to the natural channel bed.

Fill all voids left during placement of fill material and bank reconstruction with Selected Material, Type C. Use water pressure, metal tamping rods, and similar hand operated equipment to force material into all surfaces. After water is restored to the channel, if voids are present, add additional Selected Material, Type C as directed by the Engineer.

Place the channel bank fill and bank reconstruction materials as shown on the Plans. Place the bank fill material combined with the coir log, lifts, dormant Willow cuttings and vegetative mat such that the top of the bank, the vegetated mat, is fairly flat and at the same elevation as the existing bank. Tie in the ends of the constructed banks to the existing banks as shown on the Plans to create a smooth transition from the constructed bank to the existing bank.

- 1. Install Erosion Control measures before beginning work.
- 2. Salvage/harvest and stockpile vegetative mat.
- 3. Salvage/harvest and store dormant Willow cuttings.
- 4. Excavate the channel bank.
- 5. Place channel bank fill.
- 6. Place coir log:
 - a. Excavate a trench for the log such that 2/3 of the log diameter is buried.
 - b. Place the log; be sure the log has full contact with the soil, and securely stake in place with wooden stakes on both sides at 1-foot on center.
 - c. Tie the ends of adjacent logs together with biodegradable twine.
 - d. Compact the soil around the log.

- 7. Angle the bench, created at the top of the coir log and channel bank fill, slightly down and toward the existing bank, approximately 6:1.
- 8. Place dormant Willow cuttings. Plant dormant Willow cuttings before July 1st.
 - a. Place Willow cuttings on the coir log and fill material with the cut ends placed to the back of the bench area and the tips or shoots pointing out into the creek channel. Expose no more than 1/4 of the total branch length beyond the coir log and the subsequent layer of vegetative mat.
 - b. Place Willows cuttings in a crisscross pattern. Place 15 Willow cuttings per foot of prepared area.
- 9. Construct lift:
 - a. Lay the coir fabric flat on top of the willows, with the larger mesh fabric laid down first and then the smaller mesh fabric on top of it. The fabric should extend to the back of the bench. Place stockpiled useable excavation, as approved by the Engineer, onto the fabric to a thickness of 12 inches. Wrap the fabric up and over the top of the useable excavation. Pull fabric taut and push to the back of the bench area. Secure fabric in place with stakes as shown on the Drawings. Fabric should hold the useable excavation in place.
- 10. Place dormant Willow cuttings. Plant dormant Willow cuttings before July 1.
 - a. Once the lift is complete, place dormant willow cuttings on top of the lift. Make sure that cut ends of willow branches are placed to the back of the bench area. Plant tips or shoots should be pointing out into the creek channel as shown on the Drawings. Expose no more than one-quarter of the total branch length.
 - b. Place Willows cuttings in a crisscross pattern. Place 15 Willow cuttings per foot of prepared area.
- 11. Place topsoil, mixed with the Willows and on top of the Willows, to a depth of 4-inches. Fill all voids between Willow cuttings.
- 12. Place vegetative mat on the topsoil. Plant vegetative mats between May 15 and August 1.
 - a. Wet the bank.
 - b. If the vegetative mat has lost topsoil, such that the in-place thickness of the mat will not be 12inches thick, place additional topsoil over the Willows, filling voids, and increasing the mat thickness to 12-inches plus the initial 4-inches of topsoil.
 - c. Stake all areas to be planted with vegetative mats as shown on the Plans prior to installation. Notify the Engineer of the delineated areas three working days prior to installation. Install only after receiving the Engineers approval.
 - d. Place vegetative mats tightly together, without gaps, with full contact of the root mass to the soil surface below, tamp into place and anchor with wooden stakes 18-inches long and spaced 1 per square yard.
 - e. Place vegetative mat to extend 6 feet from edge of bank.
- 13. Place live Willow stakes: Plant live willow stakes before July 1.
 - a. Prepare several live stakes from one dormant cutting. Cut stakes 10-inches to 24-inches long and roughly 1/2-inch to 2-inches in diameter. Discard flower buds. Each stake requires at least one or two leaf buds near the top of the live stake.

- b. Create a hole, in the vegetative mat, for the live stake with rebar or similar.
- c. Plant stakes as vertical as possible, 1-foot to 3-feet apart with 3/4 of the stake below ground and no more than one or two leaf buds exposed above ground.
- d. Tightly pack the soil around the stake so the stakes stand vertical and no air pockets remain.
- e. Place 4 live Willow stakes per square yard of vegetative mat.

647-3.04 CHANNEL REALIGNMENT PERIOD OF ESTABLISHMENT. The establishment period shall extend for one complete growing season after the required planting is completed. A growing season is from May 1, to September 30.

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 according to Subsection 105-1.16.

647-3.05 PLANT REPLACEMENTS. Engineer and Contractor's representative, in the spring of the year following the planting year and before June 30, shall inventory Willow cuttings, live Willow stakes, and vegetative mat planted on the project to determine the number/area of dead plants/organic materials.

- 1. <u>Willow Cuttings</u>. At least 4 cuttings per foot, on average over a 4-foot section, for each individual layer, shall be healthy and in a flourishing condition. For areas not meeting this requirement, replant the areas using live staking techniques; space the replacement live stakes at 6-inches along the layer or as directed by the Engineer. Do not remove the dead cuttings.
- 2. <u>Live Willow Staking</u>. If the number of dead or unhealthy live plants is lower than 25% of the quantities originally planted, then no plant replacements are required.

If the number of dead or unhealthy live plants is higher than 25% of the quantities originally planted, replace a sufficient number of plants to increase the number of healthy plants to 75% of the quantities originally planted.

Provide healthy replacement Willow cuttings of the same size as the original plantings.

Reset Willow stakes to an upright position.

<u>Vegetative Mat</u>. If the planted vegetative mat survival (mat being vigorous and healthy) area is greater than 75% of the original planting area, no replacement mat is required.

If the mat survival area is less than 75%, replace the vegetative mat to increase the area to 75% of the originally planted area.

Coordinate the replacement of the vegetative mat with the live Willow staking to minimize damage to healthy organic materials. The Engineer will select which of the dead or unhealthy Willow cuttings, Willow stakes, and vegetative mat area to replace.

Perform replacement planting between July 1 and July 15 according to the original planting procedures and as described in this subsection.

If after the maintenance period a survival rate, as described in 1, 2, and 3 above, of planted organic material has not been attained, replant the materials to attain the levels of survival as described in 1, 2, and 3 above, for each live organic material planted.

Contractor is responsible for replacing plants vandalized, stolen, or damaged during the maintenance period. Replace plants as soon as weather conditions permit. Provide replacement plant quality equal to, or better than, initially specified.

647-3.06 MAINTENANCE. Install and maintain plastic safety fence meeting the requirements in Section 643. Install plastic safety fence per the manufacturer's recommendations upon completion of channel bank protection, revegetation and restoration. Remove plastic safety fence at the end of the maintenance period for the Willow cuttings, live Willow stakes, and vegetative mat.

Deep water vegetative mat, Willow cuttings, and live Willow staking immediately after planting. Deep watering shall provide water penetration throughout the entire layer, to the top of the channel bank fill, with minimum runoff. Rain will not be considered a substitute for deep watering unless permitted by the Engineer.

Deep water the vegetative mat, Willow cuttings, and live Willow stakes as follows:

- Deep water at least twice a week during the first 45 days after planting.
- 45 days after planting, deep water during the remainder of the first growing season ending September 30 of the same year as the planting, through the maintenance period ending September 30 of the second growing season, as follows:
 - a. Once a week in May, June and July.
 - b. Once between August 10 and August 20.
 - c. Once during the last week in September.
- 3. The Engineer may direct the Contractor to deep water past September 30 or provide supplemental waterings any time during the life of the project when weather conditions are excessively warm or dry.

Daily water vegetative mat, Willow cuttings, and live Willow staking as directed by the Engineer. Keep the mats moist until final acceptance of the project or as accepted by the Engineer.

Watering equipment shall be equipped with, or followed by a vehicle equipped with a Type B advance warning arrow panel using caution mode according to Part VI of the Alaska Traffic Manual.

The maintenance period extends from the time of planting to September 30 of the next growing season.

647-4.01 METHOD OF MEASUREMENT. Section 109.

Channel Realignment. By lump sum.

647-5.01 BASIS OF PAYMENT.

Item 647(102). The contract price includes all materials, equipment, and work to place channel bed fill and channel bank fill as shown on the Plans, including but not limited to, riprap, selected material, excavation, placement/backfilling, benching, compacting, filling voids and similar. All materials, equipment, and work to salvage/harvest, store, transport, place and maintain organic materials in the state specified (coir fabric, Willow cuttings, stakes, native organic soil, watering, and similar) are subsidiary. Use of a Type B advance warning arrow panel for watering under this section, and plastic safety fence, supply, installation, and maintenance are subsidiary.

Partial payments of up to 80% of full amount may be authorized for Item 647(102), at time of acceptance. The balance will be paid with one final payment at the completion of the maintenance period, if at that time a minimum of plants are living, vigorous and healthy:

a. Willow Cuttings. 4 plants per foot

Replanting to reach the survival level specified; hauling, stockpiling, and disposal of unsuitable and surplus material; and water diversion and dewatering is subsidiary.

Seeding is paid under Section 618.

Revegetation of channel banks impacted by temporary detour road is subsidiary.

Payment will be made under:

	PAY ITEM	
Item Number	Item Description	Unit
647(102)	Channel Realignment	LS

Add the following section:

SECTION 651 WORK BY OTHERS

651-1.01 DESCRIPTION. Coordinate construction schedule and phasing according to Section 105.

651-3.01 DESCRIPTION OF WORK AND SCHEDULE. Adjust schedule and phasing as necessary to allow utility owners, their contractors, and other third-party entities to complete their work on or before the completion date given in the utility relocation agreement.

Notify the utility owners a minimum of one week before beginning work requiring utility coordination.

Utility adjustments by others are shown on the Plans and are scheduled to be performed under relocation agreements, as follows:

Utility Type	Utility Company	Agreement Number	Agreement Completion Date
Communications	ALASCOM (AT&T)	2-60735-22-14	TBD
Communications	GCI	2-60735-22-19	TBD

Utility relocation agreement plans are available for inspection by making arrangements with the contact for pre-bid information, as listed on the Invitation for Bids.

651-3.02 COOPERATION WITH UTILITY OWNERS. Limited utility locations are shown on the plans due to available survey data. Before conducting any ground-disturbing activities, the Contractor shall verify utility locations by contacting the DIGLINE at 1-800-478-3121 or the utility company(s). Not all utilities subscribe to the DIGLINE. The Contractor is responsible for locating and protecting utilities in the project work areas.

651-3.03 ADDITIONAL UTILITY REQUIREMENTS. The Contractor shall provide AT&T and GCI with a copy of the build schedule at the time of the Preconstruction Conference.

Representatives from ALASCOM (AT&T) shall be onsite for monitoring and inspection during excavation within 5 feet of the utility lines and access points.
Representatives from General Communication, Corp. (GCI) shall be onsite for monitoring and inspection during excavation within 3 feet of the utility lines and access points.

Add the following section:

SECTION 652 INTERIM COMPLETION DATES

11/30/20 (HSP20-3) **652-1.01 DESCRIPTION.** Ensure work is completed on or before interim completion dates identified in the Contract.

652-3.01 INTERIM COMPLETION. Compete all work described below on or before the interim completion date included in Table 652-1.

INTERIM WORK ELEMENT – Winter Roadway Work

All earthwork required to construct Typical Section 4 – Cut in Ice-Rich Permafrost, shown on plan sheet B3, must be completed during winter months to prevent thawing of ice-rich foundation soils.

For each calendar day past the date identified in Table 652-1 that the work described above is not complete, the Engineer will deduct the corresponding full daily charge from progress payments.

If no money is due the Contractor, the Department may recover these sums from the Contractor, the Surety, or from both. The daily charges are not penalties but are predetermined liquidated damages to recover anticipated user costs, Department costs, or both.

TABLE 652-1 Interim Completion Dates and Liquidated Damages

	Interim	
Interim Work Element	Completion Date	Daily Charge
Winter Roadway Work	Oct. 31 – May 1	\$1,000

652-4.01 METHOD OF MEASUREMENT. By each calendar day after the Interim Completion Date, for each Interim Work Element.

652-5.01 BASIS OF PAYMENT. The total value of this contract will be adjusted at the rates shown in Table 652-1, for each Interim Work Element.

	PAY ITEM	
Item Number	Item Description	Unit
652.0001	Interim Work Price Adjustment	CS

SECTION 690 WATERWAY

690-1.01 DESCRIPTION. The Work under this Section consists of constructing new stream channel segments for all channel realignment locations to realign the stream through the new culverts.

690-2.01 MATERIALS.

Riprap Topsoil Selected Material, Type C Section 611 Section 620 & 726 Section 703

Waterway Bed Fill Material: See Plans and Subsection 703-2.17

Topsoil: Salvaged topsoil, overburden material, or excavation material high in organics and fines. Limit height of topsoil stockpile to prevent anaerobic conditions as directed by the Engineer. Topsoil used for Waterway Restoration – Stream Realignment shall be salvaged from new stream channel excavations or areas that will be disturbed for other work.

CONSTRUCTION REQUIREMENTS

690-3.01 CHANNEL REALIGNMENT. The Contractor shall stake the stream realignment and new stream channels as shown on the plans. The Contractor shall also run levels through all stream channel points shown on the plans. All stream channel points shall be marked with stakes indicating the stream point number and the existing ground elevation at the point. The stream alignment and level notes shall be given to the Engineer. The Engineer will review the staked alignment and will adjust the channel alignment and grades if necessary. The Engineer will be allowed two weeks to review the submitted data. The Contractor shall not perform any other work on the stream channel re-alignments or new stream channels without written authorization from the Engineer.

Water shall not be diverted into the new stream channels without written authorization from the Engineer.

New stream channel segments shall be connected to the existing stream in the following manner:

- 1. Excavate new channel leaving a plug of material at the upstream and downstream ends. Control excavated material to minimize disturbance to the natural existing channel upstream and downstream of the work limits.
- 2. Place Waterway Bed Fill Material.
- 3. Install all channel treatments.
- 4. Remove upstream plug and allow the new channel to flood.
- 5. After the turbidity of the water has been reduced to an acceptable level, as determined by the Engineer, remove the downstream plug.
- At the upstream and downstream tie-in points, adjust the grading and channel dimensions to create a smooth transition from the constructed channel bed and banks to the natural existing channel bed and banks.
- 7. Place topsoil and seed disturbed ground as needed or as directed by Engineer.

Excavation material from new stream channels, if usable, shall be incorporated into the new roadway fill as embankment. Waste material shall be hauled to an approved waste disposal site. Side casting of excavated materials will not be allowed.

Fill abandoned channels with Selected Material, Type C.

Reseed reconstructed stream banks with native seed and annual rye to minimize erosion, as recommended in DNR's A Revegetation Manual for Alaska (DNR 2008), and seed topsoil that is to be stored beyond one growing season with such a seed mix.

690-3.02 TOPSOIL AND SEEDING APPLICATION. Place topsoil and seeding as shown in the Plans in the following manner:

- 1. Excavate to a depth of approximately 4 inches below the top of bank elevation, allowing for 4 inches of topsoil.
- 2. Please 4 inches minimum of topsoil. Spread evenly and rake smooth.
- 3. Place seeding.

690-3.03 MAINTENANCE AND WATERING. Maintain seeding per Subsection 618-3.04

690-3.04 ACCEPTANCE. Acceptance of seeding per Subsection 618-3.05.

690-3.05 PERIOD OF ESTABLISHMENT. Per Subsection 618-3.06.

690-4.01 METHOD OF MEASUREMENT. Section 109.

690.2001. Waterway Bed Fill: measured on the slope of the ground.

690.2004.____ Waterway Restoration – Stream Realignment: by linear foot of constructed channel as shown on the Plans.

690-5.01 BASIS OF PAYMENT. Excavation, backfill, grading, and cleanup are subsidiary. Stockpiling, hauling, and disposal of all unsuitable and surplus material is subsidiary.

In areas of Waterway Restoration – Stream Realignment, Waterway Bed Fill Material is subsidiary.

Seeding and topsoil, including procurement and application, is paid for under Sections 618 and 620 respectively. Watering and maintenance are subsidiary.

All work associated with culverts from end to end of the culvert is paid under Section 603.

All work and materials associated with diverting stream water and dewatering of the work area for stream realignments will be subsidiary to Pay Item 690.2004. Waterway Restoration – Stream Realignment.

Payment will be made under:

	PAY ITEM	
Item Number	Item Description	Unit
690.2001	Waterway Bed Fill	LF
690.2004	Waterway Restoration – Stream Realignment	LF

SECTION 703 AGGREGATES

12/08/15 (N63) **703-2.09 SUBBASE.** Add the following:

<u>Subbase, Grading F</u>. Aggregate containing no muck, frozen material, roots, sod or other deleterious matter and with a plasticity index not greater than 6 as tested by ATM 204 and ATM 205. Table 703-8 and

the first paragraph of Subsection 703-2.09 do not apply to Grading F. Meet the following gradation as tested by ATM 304:

<u>Sieve</u>	Percent Passing by Weight
2 in	100%
No. 4	15-65%
No. 200	0-6%

Add the following subsection:

703-2.17 WATERWAY BED FILL. Create waterway bed fill by blending Riprap (i.e. Waterway Bed Fill, Class II includes Riprap, Class II) and finer material. Finer material shall fill the voids of Riprap. Finer material furnished by the Contractor shall be graded within the limitations delineated below:

	AGGREGATE	TABLE 703-15 GRADATION FOR FINER MATERIAL
	SIEVE	PERCENT PASSING BY WEIGHT
	3-inch	100
_	3/4-inch	50-100
	No. 4	35-60
	No. 10	25-50
	No. 40	15-30
	No. 200	10-25

SECTION 707 METAL PIPE

04/30/17 (N48)

707-2.01 CORRUGATED STEEL PIPE, PIPE ARCHES, AND UNDERDRAINS. <u>Add the following</u>: All seams on pipes manufactured with helical corrugations shall have a continuous weld extending from end to end of each length of pipe in conformance with AASHTO M 36. Seams shall be welded in such a manner that they develop 90% of the average ultimate strength of the base metal. A test shall be performed by an independent lab in accordance with AASHTO T 241 Section 4 during the year in which the pipe is fabricated. The Supplier shall maintain quality control test results and provide them upon request. A copy of the test results containing the information specified in Section 4.6 of AASHTO T 241 shall be furnished to the Engineer.

A Supplier of welded helically corrugated pipe which qualifies for inclusion in the current publication of the Department's QUALIFIED PRODUCTS LIST is not required to perform the test.

SECTION 710 FENCE AND GUARDRAIL

11/01/21 (N83) 710-2.04 METAL BEAM RAIL. <u>Delete this subsection and substitute the following:</u>

- 1. W-Beam and Thrie-Beam Guardrail. Meet AASHTO M 180, Class A, Type II.
- 2. Box-Beam Guardrail. Meet ASTM A500 Grade B.

SPECIAL PROVISIONS Project No. 0652017/Z607350000 Dalton Highway MP 18-37 Reconstruction 3. Symmetric and Asymmetric W-Thrie Beam Transition Section. Meet AASHTO M 180, Class B, Type II.

Galvanize the rail per AASHTO M 111 after fabrication.

710-2.06 GUARDRAIL POSTS AND BLOCKOUTS. Add the following:

- 4. Transition Posts. Meet the section and length specified on the Plans. Meet ASTM A992 or ASTM A709, Grade 50.
- 5. Transition Blockouts. Meet the shape and dimensions shown on the Plans. Meet ASTM A500, Grade B or Grade C.

710-2.11 GUARDRAIL TERMINALS. <u>Delete this subsection and substitute the following:</u> W-beam shall meet requirements of AASHTO M 180, Class A, Type II. Box beam shall meet requirements of ASTM A500 Grade B or ASTM A501. Galvanize after fabrication.

Components made from rolled pressed and forged shapes, castings, plates, bars, and strips shall meet the coating requirements of AASHTO M 111. Galvanize after fabrication.

All hardware or fasteners supplied shall meet the coating requirements of AASHTO M 232.

Guardrail terminals shall be AASHTO MASH Test Level 3.

- 1. <u>W-Beam</u>. Provide one of the following terminal types, as shown on the Plans, for single-rail W-beam guardrail. Design requirements: 31 in top of rail height, 8 in blockouts, W6x8.5 steel posts, 12 ft 6 in w-beam panels, and mid-span splice connection to run of rail.
 - a. Parallel Terminals. Provide the RoadSystems, Inc. MASH MSKT W-Beam terminal with the following characteristics:
 - (1) Length: 50 ft nominal effective length
 - (2) End Offset: 0 ft to 2 ft (25:1 or flatter straight taper) offset as shown on the Plans.
 - . <u>Box Beam</u>. Provide terminals, as shown on the plans for box beam guardrail. Design requirements: 28 in top of rail height, designed for use with 6 in by 6 in by 3/16 in box beam.
 - a. Parallel Terminals. Provide terminals meeting the following:
 - (1) Length: 33 ft nominal effective length, or a minimum 18 ft of box beam rail and standard 3 in weak posts beyond the 1/8 in end tube rail, or as recommended by the manufacturer's installation manual.
 - (2) End Offset: 25:1 or flatter straight taper. Offset end as shown on the Plans.

Add the following subsection:

710-2.12 TRANSITION CONNECTION.

- 1. Thrie Beam Terminal Connector. Meet AASHTO M 180, Class B, Type II.
- 2. Guardrail Connection Plate. Meet ASTM A709, Grade 50

SPECIAL PROVISIONS Project No. 0652017/Z607350000 Dalton Highway MP 18-37 Reconstruction

SECTION 722 BRIDGE RAILING

722-2.01 BRIDGE RAILING. Replace with the following:

Steel Tube Bridge Rail Elements	AASHTO A500, Grade B or C
Thrie-Beam Bridge Rail Elements	AASHTO M 180, Class B, Type II
Posts	ASTM A709, Grade 50
Machine Bolts, Cap Screws, Nuts and Washers	ASTM A307
High Strength Bolts	Subsection 716-2.03
Anchor Bolts and Rods	ASTM F3125, Grade A325 or ASTM A449, Type 1
Welded Studs	AASHTO M 169, Grade 1015 or 1020
Bent Anchor Rods	ASTM A709, Grade 36 or Grade 50
Shims, Plates, Plate Washers, Angles, Sleeves, and Scuppers	ASTM A709, Grade 50
Guardrail Connection Plate	ASTM A709, Grade 50
Beveled Washers and Tapered Plate Washers	ASTM F436
Galvanize steel portions of railing	
after fabrication.	AASHTO M 111 or M 232 and Subsection 716-2.07
Delete Section 724 in its entirety and substitute the for	lowing:

12/10/20 (N51)

SECTION 724 SEED

724-2.01 DESCRIPTION. This specification provides the requirements for grass seed, used to provide a living vegetative cover.

724-2.02 MATERIALS. Furnish seed true of genus and species. Meet applicable requirements of the State of Alaska *Seed Regulations*, Alaska Administrative Code, Title 11, Chapter 34 (11 AAC 34), and the Federal Seed Act, 7 CFR Part 201. Seed shall meet or exceed the percentages of purity and germination as specified in Table 724-1.

The Contractor may propose an alternate seed mix to the Engineer. Alternate seed mix proposals must include confirmation that the Alaska Plant Materials Center finds the proposed seed mix suitable for use on the project, and that the vendor can provide the proposed seed mix in quantities adequate for the project. The Engineer will determine the acceptability of the proposed alternate for use on the project.

Grass seed shall be furnished in standard containers on which shall be shown the following information:

- (1) common accepted name of the specie (kind) and cultivar (variety) of the seed;
- (2) country or state where the seed was grown;

- (3) total percentage by weight of pure seed;
- (4) total percentage by weight of all weed seed;
- (5) total percentage by weight of inert matter;
- (6) total percentage by weight of other crop seed;
- (7) name and approximate number per pound of each kind of restricted noxious weed seed;
- (8) percentage of germination of the seed, together with the month and year the seed was tested;
- (9) percentage of hard seed, if any is present;
- (10) name and address of the person labeling the seed or selling, offering, or exposing the seed for sale within the state; and
- (11) lot number or other lot identification.

If furnished as a premixed seed, the containers shall state that the seed is a mixture; the name of the species and cultivars of seed; and total percentage by weight of each species of seed present in order of predominance; and the information listed above: (4), (5), (7), (8), (10) and (11).

Furnish seed certified to be free of prohibited noxious weeds or quarantined pests, and certified to contain no more than the maximum allowable tolerances for restricted noxious weeds, according to 11 AAC 34. Prohibited and restricted noxious weeds are listed in 11 AAC 34.020, and can be viewed at the following URL: http://plants.alaska.gov/invasives/noxious-weeds.htm

Seed found to contain prohibited noxious weeds or quarantined pests will be rejected, according to 11 AAC 34.020(a) and 11 AAC 34.105 through 34.180, respectively.

Seed found to contain restricted noxious weed seed in excess of the maximum allowable tolerance per pound will be rejected, according to 11 AAC 34.020(b).

The Contractor shall furnish to the Engineer duplicate copies of a statement signed by the vendor certifying that each lot of seed has been tested by a recognized seed testing laboratory. Seed that has not been tested within nine (9) months shall be rejected. The Contractor shall not remove tags from the seed containers. Seed containers that do not have tags shall be rejected. Discrepancies in the lot numbers listed on the statement to the lot numbers indicated on the tags of the seed containers shall be grounds for rejection. Seed which has become wet, moldy, or otherwise damaged in transit or storage will not be accepted. The Contractor shall immediately remove rejected seed from the project premises.

	OLEDINO NE		<u> </u>	
SPECIES (KIND)	CULTIVAR (VARIETY)	PERCENT PURITY	PERCENT GERMINATION	PURE LIVE SEED (PERCENT PURITY X PERCENT GERMINATION)
American Sloughgrass	Egan	90	80	72
Annual Ryegrass		85	80	68
Alpine Bluegrass	Gruening	90	90	81
Beach Wildrye	Benson, Reeve	95	40	38
Bering Hairgrass	Norcoast	95	75	71
Bluejoint	Sourdough	95	75	71
Brome	Manchar, Polar	90	80	72
Glaucous Bluegrass	Tundra	95	80	76
Kentucky Bluegrass	Merion, Nugget, Park	95	80	76
Perennial Ryegrass		85	80	68
Polargrass	Alyeska, Kenai	95	75	71
Red Fescue	Arctared, Boreal, Pennlawn	98	80	78
Timothy	Climax, Engmo	95	90	85
Tufted Hairgrass	Nortran	95	75	71
Wheatgrass	Wainwright	95	85	81

TABLE 724-1 SEEDING REQUIREMENTS

SECTION 725 FERTILIZER

01/20/15 (N52)

725-2.02 MATERIALS. <u>Add the following:</u> Fertilizer which has become wet, moldy or otherwise damaged in transit or storage will not be accepted. The Contractor shall immediately remove rejected fertilizer from the project premises.

SECTION 727 SOIL STABILIZATION MATERIAL

8/02/2018 (N54)

727-2.01 MULCH. <u>Delete this subsection in its entirety and substitute the following:</u> All mulch, excluding trace mulch, shall provide 100% ground coverage. Apply mulch at the manufacturer's recommended application rate and increase as needed to achieve 100% ground coverage. All mulch, including trace mulch, shall meet one of the following:

<u>Wood Cellulose Fiber or Natural Wood Fiber</u>. Fiber shall be produced from natural or recycled (pulp) fiber, such as wood chips or similar wood materials, or from newsprint, corrugated cardboard, or a combination of these processed materials. Fiber shall not contain any rock, metal, or plastic. Fiber shall be treated with a green dye nontoxic to plant and animal life to facilitate inspection of the placement of the material. Fiber shall be manufactured in such a manner that after addition and agitation in slurry tanks with water, the fibers in the material will become uniformly suspended to form a

homogenous slurry. When hydraulically sprayed on the ground, the material shall allow the absorption and percolation of moisture. The organic matter content shall be at least 90 percent on an oven-dry basis. The moisture content shall be no more than 15 percent as determined by oven dried weight. Each package of the cellulose fiber shall be marked by the manufacturer to show the dried weight. Product must be nontoxic to plant and animal life.

Wood Cellulose Fiber or Natural Wood Fiber may be used to stabilize slopes flatter than 4H:1V. On slopes 4H:1V or steeper Wood Cellulose Fiber or Natural Wood Fiber may be used if an approved tackifier is used, in addition to Wood Cellulose Fiber or Natural Wood Fiber, according to the Manufacturer's recommendations. Wood Cellulose Fiber or Natural Wood Fiber may not be used after August 1.

- 2. <u>Wood Strand</u>. Wood Strand shall be a blend of loose, long, thin wood pieces derived from native conifer or deciduous trees with high length to width ratio. A minimum of 95-percent of the wood strands shall have lengths between 2 and 10 inches, with a width and thickness between 1/16 and 3/8 inches. Wood Strand shall not contain resin, tannin, or other compounds in quantities that are detrimental to plant life. Sawdust or wood shavings shall not be used as Wood Strand. Wood Strand may be used on slopes flatter than 4H:1V. Wood Strand may not be used after August 1.
- 3. <u>Straw</u>. All straw material shall be in an air dried condition, free of noxious weeds, seeds, and other materials detrimental to plant life. Hay is not acceptable. Straw shall be suitable for spreading with mulch blower equipment. Straw may be used on slopes flatter than 4H:1V. Straw may not be used after August 1.
- 4. <u>Bonded Fiber Matrix (BFM)</u>. The BFM shall be a hydraulically-applied blanket/mulch/covering composed of long strand, thermally processed wood fibers and crosslinked, hydro-colloid tackifier. The BFM may require a 24-48 hour curing period to achieve maximum performance. Once cured, the BFM shall form an intimate bond with the soil surface to create a continuous, absorbent, flexible erosion resistant blanket that allows for rapid germination and accelerated plant growth. BFM may be used to stabilize slopes between 2H:1V and 4H:1V. BFM may be used after August 1.
- 5. <u>Fiber Reinforced Matrix (FRM)</u>. The FRM shall be a hydraulically-applied, flexible erosion control blanket/mulch/covering composed of long strand, thermally processed wood fibers, crimped, interlocking fibers and performance enhancing additives. The FRM shall require no curing period and upon application shall form an intimate bond with the soil surface to create a continuous, porous, absorbent and erosion resistant blanket that allows for rapid germination and accelerated plant growth. FRM may be used to stabilize slopes 2H:1V and steeper. FRM may be used after August 1.

A list of pre-approved products can be found in Table 1.

Product Name	Product Type	Manufacturer
Astro-Mulch	Wood Cellulose Fiber	Thermo-Kool Inc. Wasilla, AK
Fibermulch	Wood Cellulose Fiber	Thermo-Guard Insulation Spokane, WA
NaturesOwn High Density Paper Hydroseeding Mulch	Wood Cellulose Fiber	Hamilton Manufacturing, Inc. Twin Falls, ID
Hydro-Spray	Wood Cellulose Fiber	National Fiber Belchertown, MA
EcoFibre	Natural Wood Fiber	Profile Products LLC Buffalo Grove, IL

Table 1. Pre-Approved Mulch Products List

Product Name	Product Type	Manufacturer
EcoFibre plus Tack	Natural Wood Fiber	Profile Products LLC Buffalo Grove, IL
Terra Novo Wood Fiber Plu Tackifier	IS Natural Wood Fiber	Terra-Novo Inc. Bakersfield, CA
Conwed Fiber 1000	Natural Wood Fiber	Profile Products LLC Buffalo Grove, IL
Rainier Fiber plus Tack	Natural Wood Fiber	Fiber Marketing International Spokane, WA
Terra Wood with Tack	Natural Wood Fiber	Profile Products LLC Buffalo Grove, IL
Excel Fibermulch II	Natural Wood Fiber	American Excelsior Co. Rice Lake, WI
Mat-Fiber Plus	Natural Wood Fiber	Mat, Inc. Floodwood, MN
Mat-Fiber	Natural Wood Fiber	Mat, Inc. Floodwood, MN
EcoAegis	Bonded Fiber Matrix (BFM)	Profile Products LLC, Buffalo Grove, IL
ProMatrix Engineered Fib Matrix	er Bonded Fiber Matrix (BFM)	Profile Products LLC, Buffalo Grove, IL
Verdyol Virgin BFM	Bonded Fiber Matrix (BFM)	Erosion Control Blankets Manitoba, Canada
Rainier Fiber Bonded Fib Matrix	er Bonded Fiber Matrix (BFM)	Fiber Marketing International Spokane, WA
Profile Hydro-Blanket BFM	Bonded Fiber Matrix (BFM)	Profile Products LLC Buffalo Grove, IL
Soil Guard	Bonded Fiber Matrix (BFM)	Mat, Inc. Floodwood, MN
Flexterra FGM	Fiber Reinforced Matrix (FRM)	Profile Products LLC Buffalo Grove, IL
Flex Guard	Fiber Reinforced Matrix (FRM)	Mat, Inc. Floodwood, MN
Hydra CX	Fiber Reinforced Matrix (FRM)	Tensar North American Green Poseyville, IN

Add the following subsections:

727-2.04 WILLOW CUTTINGS. Dormant "Feltleaf" variety Willow cuttings ½ inches to 2 inches in diameter and 3 feet to 4 feet long. Collect dormant cuttings during winter/early spring before leaves appear, no later than March 31. Store cuttings in bundles of approximately 50 to 100 each. Maintain cuttings in dormant state at temperatures between 31°F and 40°F until planted, and free of disease, injurious insects, mechanical wounds, broken branches, decay or other defects.

727-2.05 COIR FABRIC (BRUSH LAYERING). Coir (coconut) fabric wrap composed of 2 layers of fabric.

1. The inner layer fabric shall consist of a 100% biodegradable double net erosion control blanket with a functional longevity up to 24 months. The blanket shall be of consistent thickness with the coconut evenly distributed over the entire area of the mat. The blanket shall be covered on top and bottom sides with 100% biodegradable woven natural organic fiber netting. The woven coir fiber netting shall form an approximate 0.5 inch by 1 inch mesh.

2. The outer layer fabric shall consist of a 100% biodegradable double net erosion control blanket with a functional longevity of greater than 36 months. The blanket shall be of consistent thickness with the coconut evenly distributed over the entire area of the mat. The woven coir fiber netting shall have mesh openings not to exceed 0.75 inches by 0.75 inches.

727-2.06 COIR LOG (BRUSH LAYERING). Fiber rolls consisting of a woven netting and organic filler material. Manufacture of photodegradable or biodegradable fabric netting without preservative treatment, evenly woven, free of crusted material, cuts, and tears. Manufacture stakes of photodegradable or biodegradable material (wood stakes, except as approved by the Engineer).

- 1. <u>Coir Log</u>.
 - a. Woven wrap bristle coir twine netting.
 - b. Filled with 100% coconut (coir) fiber uniformly compacted.
 - c. Segments maximum length 20 foot, diameter as suited to the application and a density of 7 lbs/pcf or greater.
 - d. Coir twine strength equal to 80 lb minimum weaved to a 2 inch x 2 inch opening pattern.
 - e. Ties made of hemp rope by 1/4 inch diameter.

SPECIAL PROVISIONS Project No. 0652017/Z607350000 Dalton Highway MP 18-37 Reconstruction

APPENDIX A

PERMITS

Anticipated permits:

- USACE, Section 404/10
- ADF&G Fish Habitat Permit
- ADEC 401
- ADEC APDES

APPENDIX B

MATERIALS CERTIFICATION LIST (MCL)

Project No. 0652017/Z607350000 Dalton Highway MP 18-37 Reconstruction HIGHWAY MATERIALS CERTIFICATION LIST, EXCEPT SECTION 660/661/740

(updated 7/1/2020)

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Dalton Highway MP 18-37 Reconstruction

Project Number

0652017/Z607350000

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	iroves the manuf:	Specification	2020 or Std. Mod./Special	Provisions, if	noted	TURES AND	202-2.01	202-2.01	202-2.01	202-2.01	: PIPE	707-2.01	707-2.04	RM DRAINS		705-2.05.1	705-2.05.2	thes	707-2.01.1	716-2.07	730-2.05	
Project Engineer Signature	Unshaded boxes indicate who app		Materials Item			202 REMOVAL OF STRUC	Timber, Pressure Treated	Steel Pipe, Galvanized	Steel Fasteners, Galvanized	Reflectors	602 STRUCTURAL PLATE	Corrugated Steel Pipe, Pipe Arches, and Underdrains	Structural Plate Culverts	603 CULVERTS AND STO	Flexible Watertight Gaskets	Ring Gaskets for Rigid Pipe & Precast Manhole Sections	Ring Gaskets for Flexible Metal Pipe	Corrugated Steel Pipe & Pipe Arc	Zinc-Coated CSP, _ inch	Galvanizing	Culvert Marker Posts (Flexible Delineator Posts)	

*Unshaded boxes under QPL do not indicate that the materials are currently on that list. They indicate materials with potential for being on the QPL once qualified. See Section 106-1.05 for submittal requirements.

Unshaded boxes indicate who app	roves the manufa	acturer's certifica	ate of compliance	or materials subn	nittals. If two box	es aren't shaded.	either approvine	a authority may h	period	
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606 GUARDRAIL										
CONCIENCE MIX DESIGN	20.2-100									
Metal Beam Rail	710-2.04								CR Special Provision	
<u>Guardrail Posts and Blocks</u>										
Steel Posts and Blockouts	710-2.06.2			5						
Synthetic Blockouts	710-2.06.3									
Guardrail Hardware	710-2.07									
Terminals										
Parallel Terminals	710-2.11.1					0				
Terminal Markers (Flexible)	730-2.05								CR Special Provision	
Guardrail Reflector Assembly Brackets	606-2.01								CR Special Provision	
Retroreflective Sheeting Type IX or XI	606-2.01						6		CR Special Provision	
613 MONUMENTS AND M	ARKERS									
Marker Posts	730-2.05/Plans								CR Special Provision	
614 CONCRETE BARRIEF										2
Concrete Mix Design	550-2.02									
Reinforcing Steel and Wire Rope	709-2.01 and 709-2.02									
Reflective Sheeting Material Type _	614-2.01									
Reflector Assemblies	614-2.01/Plans									

Unshaded boxes indicate who ap	proves the manufa	acturer's certifica	ate of compliance	or materials subm	nittals. If two box	tes aren't shaded,	l, either approving	j authority may be	e used.	
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Materials Item	2020 or Std.	Project	Regional	Design	State	Regional	*Qualified	State	Manufacturer/	l ocation
	Provisions, if	Engineer	Materials or	Engineer	Bridge	Traffic	Products	Materials or	Remarks	e.g.
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615 STANDARD SIGNS										
								And the second se		
Sheet Aluminum	730-2.01/Plans			C						
High Density Overlaid Plywood	730-2.02									
Sign Framing Members	Plans								CR Detail	
Retroreflective Sheeting	730-2.03			5						
Orange Background Signs	615-2.01.2								CR Special Provision	
Railroad Crossbucks & Vertical Crossbuck Support Panels	615-2.01.2								CR Special Provision	
Reflective Sheeting Warranty	615-2.01.5								CR Special Provision	
Sign Posts									-	
Metal Pipe Posts	730-2.04.1									
Perforated Steel Posts	730-2.04.2									
Finished Wooden Posts	730-2.04.3						-			
Pressure Treatment for Wooden Posts	730- 2.04.3.b/714									
Preservative for Field cuts and holes	730-2.04.3.b									
Wide Flange Posts	730-2.04.4						0			
Flanged Channel Posts	730-2.04.5									
Square Non-Perforated Steel Tubes	730-2.04.6									
Zinc Coating for Repairs	730-2.04.6.b									
Flexible Delineator Posts	730-2.05							0	CR Special Provision	
Acrylic Prismatic Reflectors	730-2.06									
Structural I ubing and W- Shape Beams.	730-2.04.7									

Unshaded boxes indicate who ap	proves the manufa	acturer's certifica	te of compliance	or materials subn	nittals. If two box	kes aren't shaded,	, either approving	g authority may be	e used.	
	Specification	Constr	uction		Design		Statewide	Materials		Certificate
Materials Item	2020 or Std.	Project	Regional	Design	State	Regional	*Qualified	State	Manufacturer/	l ocation
	Mod./Special Provisions, if	Engineer	Materials or	Engineer	Bridge	Traffic	Products	Materials or	Remarks	e.g.
	noted		QA Engineer	of Record	Engineer	Engineer	List (QPL)	QA Engineer		Binder #
Sign Bases										
	615-						Contraction of the second s			
Slip Base	2.01.3/Plans			C					CR Special Provision	
Breakaway Base	615- 2.01.3/Plans								CR Special Provision	
Frangible Couplings	615-2.01.3/ASP								CR Special Provision	
Concrete Mix Design	615-2.01.3/ 501. 2.02/550-2.02			2					CR Special Provision	
616 THAW PIPE AND TH/	WWIRES							,		
Thaw Pipe										
Pipe	616-2.01									
Fittings	616-2.01									
Pipe Hangers	616-2.01									
Braces for Stand Pipe	616-2.01									
Bolts and Nuts	616-2.01									
Galvanizing for Pipe and Braces for Stand Pipe	616-2.01									
Galvanizing Fittings and Bolts and Nuts	616-2.01									
618 SEEDING							0			
Seed	724							ſ		
Fertilizer	618-2.01/725								CR Special Provision	
Soil Stabilization Material	727								CR Special Provision	
619 SOIL STABILIZATION										
Mulch	727-2.01							0	CR Special Provision	
Matting	727-2.02							0	CR Special Provision	

Unshaded boxes indicate who app	proves the manufa	icturer's certifica	te of compliance of	or materials subm	hittals. If two boxe	es aren't shaded,	either approving	g authority may b	e used.	
	Specification	Constr	ruction		Design		Statewide	Materials		Certificate
Materials Item	2020 or Std.	Project	Regional	Design	State	Regional	*Qualified	State	Manufacturer/	Location
	Mod./special Provisions, if	Engineer	Materials or	Engineer	Bridge	Traffic	Products	Materials or	Remarks	e.g.
	noted		QA Engineer	of Record	Engineer	Engineer	List (QPL)	QA Engineer		Binder #
Sediment Retention Fiber Rolls (SRFRs)	727-2.03								CR Special Provision	
Compost	727-2.04			(CR Special Provision	
Tackifier	727-2.05								CR Special Provision	
Polyacrylamide (PAM)	727-2.06								CR Special Provision	
Geotextile-Encased Check Dams and Sediment Barriers	727-2.07			5					CR Special Provision	
Sandbags	727-2.08								CR Special Provision	
Manufactured Inlet Protection System	727-2.09								CR Special Provision	
Clear Plastic Covering	727-2.10								CR Special Provision	
Staples	727-2.11								CR Special Provision	
621 PLANTING TREES AN	ID SHRUBS									
Plant Stock										
Nursery Stock	621-2.01.1									
At least 2 full growing seasons in age	621-2.01.1.a									
At least 1 but less than 2 full growing seasons in age	621-2.01.1.b						1			
Collected Stock	621-2.01.2						0			
Balled and Burlapped Plants	621-2.01.3							C		
Fertilizer	621-2.02								CR Special Provision	
Limestone	712-2.03									
Mulch	621-2.04								CR Special Provision	
Stakes	621-2.06									

Unshaded boxes indicate who apl	proves the manufa	acturer's certifica	ate of compliance c	or materials subm	littals. If two box	es aren't shaded,	either approving	authority may b	e used.	
	Specification	Consti	ruction		Design		Statewide	Materials		Certificate
Materials Item	2020 or Std. Mod /Special	Project	Regional	Design	State	Regional	*Qualified	State	Manufacturer/	Location
	Provisions, if	Engineer	Materials or	Engineer	Bridge	Traffic	Products	Materials or	Remarks	e.g.
	noted		QA Engineer	of Record	Engineer	Engineer	List (QPL)	QA Engineer		Binder #
624 CALCIUM CHLORIDE	FOR DUST C	CONTROL								2
Calcium Chloride	624-2.01			5						
630 GEOTEXTILE FOR EI	MBANKMENT	. SEPARATIC	N AND STAB	ILIZATION						
Geotextiles and Sewing Thread										
Stabilization	729-2.01.3)						
Reinforcement, Type	729-2.01.5									
631 GEOTEXTILE FOR SI	JBSURFACE	DRAINAGE /	AND EROSION	A CONTROL						
Geotextiles and Sewing Thread										
Erosion Control	729-2.01.4									
641 EROSION, SEDIMEN	T AND POLLU	JTION CONT	ROL							
Materials	641-2.05						Ś		CR Special Provision - 641 Control and Stabilization Materials identified and documented in SVPPP and annriner	
642 CONSTRUCTION SUI	ZVEYING ANE	D MONUMEN	VTS							
Monument Cases	642-2.01								CR Special Provision	
Primary Monument	642-2.01								CR Special Provision	
Secondary Monument	642-2.01								CR Special Provision	
643 TRAFFIC MAINTENA	NCE									
Traffic Control Devices	643-3.04								CR Special Provision - 643 Materials approved on project with TCP conforming to Alaska Traffic Manual (ATM).	

Unshaded boxes indicate who ap	proves the manuf	acturer's certific	ate of compliance	or materials subr.	nittals. If two box	tes aren't shaded,	, either approvinc	g authority may b∈	e used.	
	Specification	Const	truction		Design		Statewide	Materials		Certificate
Materials Item	2020 or Std. Mod /Special	Project	Regional	Design	State	Regional	*Qualified	State	Manufacturer/	Location
	Provisions, if	Engineer	Materials or	Engineer	Bridge	Traffic	Products	Materials or	Remarks	e.g.
	noted		QA Engineer	of Record	Engineer	Engineer	List (QPL)	QA Engineer		Binder #
Additional Materials										
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currently on that list. They indicate materials with potential for being on the QPL once qualified. D D *Unshaded boxes under QPL do not indicate that t See Section 106-1.05 for submittal requirements.

Certificate Binder # Location e.g. Manufacturer/ Remarks (current 7/23/10) If two boxes not shaded, either approving authority may be used. Materials or QA Engineer State Statewide Materials HIGHWAY MASTER MATERIALS CERTIFICATION LIST, EXCEPT SECTION 660/661/740 Products Qualified List (QPL) Dalton Highway MP 18-37 Reconstruction / Hess Creek Bridge #1213 Regional Engineer Traffic Engineer Bridge Design State of Record Unshaded boxes indicate who approves the materials submittals Engineer Design QA Engineer Materials or Regional 0652017 / Z607350000 Construction Engineer Project 502 PRESTRESSED CONCRETE STRUCTURES Specification 701-2.03 706-2.08 501-2.02 705-2.07 716-2.06 705-2.02 711-2.01 711-2.01 711-2.01 711-2.01 711-2.01 711-2.01 501-2.02 2020 716 501 STRUCTURAL CONCRETE Expanded Polyethylene Material Liquid Membrane-Forming Compounds Liquid Membrane-Forming Compounds Project Engineer Signature Silicone Joint Sealant Concrete Mix Design Concrete Mix Design Sheet materials Sheet materials **Project Number** Curing Materials Curing Materials Utiliduct, HDPE Structural Steel Burlap Cloth Burlap Cloth Materials Item Project Name Utiliduct, Steel Joint Sealer Grout

* Unshaded boxes under QPL do not indicate that the materials are currently on that list. They indicate materials with potential for being on the QPL once qualified.

	Unshaded boxes	indicate who a	pproves the materi	als submittals.		If two boxes not s	shaded, either ap	proving authority	may be used.	
	Specification	Const	truction		Design		Statewide	Materials		Certificate
Materials Item		Project	Regional	Design	State	Regional	Qualified	State	Manufacturer/	Location
2	2020	Engineer	Materials or	Engineer	Bridge	Traffic	Products	Materials or	Remarks	e.g.
			QA Engineer	of Record	Engineer	Engineer	List (QPL)	QA Engineer		Binder #
Reinforcing Steel										
Deformed and Plain Billet-Steel Bars	709-2.01			(
Epoxy-Coated Reinforcing Bars	709-2.01									
Grout	701-2.03			K						
Prestressing Steel and Fittings										
Strand	721-2.02									
Wire	721-2.02									
Expanded Polyethylene Material	705-2.06									
503 REINFORCING STEEL										
Deformed and Plain Billet-Steel Bars	709-2.01									
Headed Reinforcing Steel Bars	709-2.01									
Rebar Splicing	503-3.05									
Epoxy-Coated Reinforcing Bars	709-2.01									
504 STEEL STRUCTURES										
Structural Steel					-					
Rolled Steel Plates, Shapes, Sheet Piling and Bars	716.2.02						0			
Structural Steel	716.2.02									
Welded and Seamless, High Strength, Low-Alloy Tubing	716.2.02									
Welding Electrodes	AWS Specifications									
Bolts										
High Lensile Strength Bolts, Nuts and Washers	716-2.03									
Machine Bolts	716-2.05									

* Unshaded boxes under QPL do not indicate that the materials are currently on that list. They indicate materials with potential for being on the QPL once qualified.

	Unshaded boxes	indicate who ap	proves the mater	als submittals.		If two boxes not s	haded, either ap	proving authority	may be used.	
	Specification	Constr	uction		Design		Statewide	Materials		Certificate
Materials Item		Project	Regional	Design	State	Regional	Qualified	State	Manufacturer/	Location
-	2020	Engineer	Materials or	Engineer	Bridge	Traffic	Products	Materials or	Remarks	e.g.
			QA Engineer	of Record	Engineer	Engineer	List (QPL)	QA Engineer		Binder #
Steel Pipe	716-2.06							×		
Galvanized Metal	716-2.07			5						
505 PILING										
Structural Steel Piles	715-2.02									
Structural Steel Soldier Pile Wall	716			2						
Pile Tip Reinforcing	715-2.02									
507 BRIDGE RAILING										-
Steel Railing										
Steel Tube Rail Elements	722-2.01					5				
Steel Thrie Beam Elements	722-2.01									
Posts	722-2.01									
Machine Bolts, Cap Screws, Nuts & Washers	722-2.01									
might Surerigut Bolts, Nuts & Washers	2.04									
Anchor Studs	722-2.01									
Shims, Plates and Sleeves	722-2.01									
Galvanizing	722-2.01									
Cable Safety Railing	507-2.01									
Grout	701-2.03									
516 EXPANSION JOINTS A	ND BEARING	S								
Epoxy Adhesiive for elastomeric bearing pads	720-2.02									
Elastomeric Pads	720-2.01				dense di mone		7			

* Unshaded boxes under QPL do not indicate that the materials are currently on that list. They indicate materials with potential for being on the QPL once qualified.

APPENDIX C

EROSION AND SEDIMENT CONTROL PLAN (ESCP)