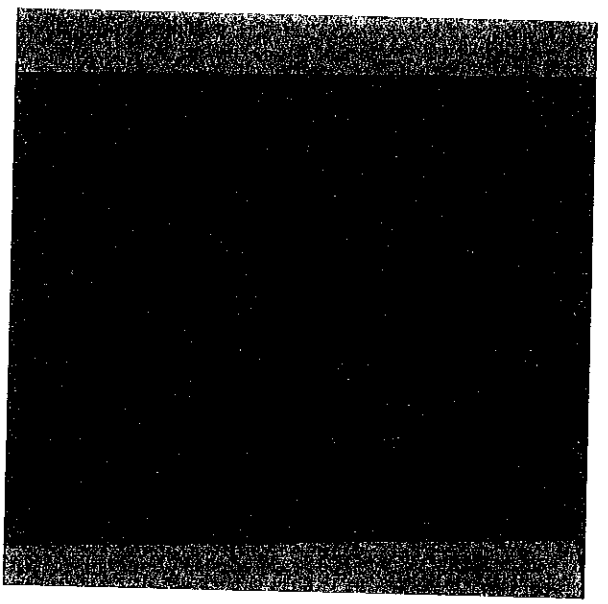
PART 4

STANDARD MODIFICATIONS AND SPECIAL PROVISIONS

To the **STATE OF ALASKA**

STANDARD SPECIFICATIONS FOR HIGHWAY CONSTRUCTION

2004
EDITION



PROJECT NAME: ***PORT MACKENZIE ACCESS ROAD***
PROJECT NO.: ***SDP-0001(370)/58168***

SECTION 101

DEFINITIONS AND TERMS

Standard Modifications

101-1.03 DEFINITIONS.

PLANS. Delete Text of PLANS and replace with:

The Department's Contract drawings, profiles, typical cross sections, standard drawings, and supplemental drawings or reproductions showing the location, character, dimensions, and details of the work.

E32-012707

Add the following definition:

QUALIFIED PRODUCTS LIST. A list of companies and products that the Department has found conforms to the SSHC.

E36-012707

Replace the definitions of SUBGRADE with the following:

SUBGRADE. The soil or embankment upon which the pavement structure is constructed.

E22-010106

SECTION 102

BIDDING REQUIREMENTS AND CONDITIONS

Standard Modification

102-1.04 EXAMINATION OF PLANS, SPECIFICATIONS, SPECIAL PROVISIONS, AND WORK SITE.

Replace the second paragraph with the following:

The records of geotechnical investigations including boring logs, test results, geology data reports, soil reports, material site reports, and geotechnical reports included in a bid package or made accessible to bidders or Contractors, are for information purposes only. These records are not part of the Contract. These records indicate subsurface conditions only at specific locations and times, and only to the depths penetrated. They do not necessarily reflect variations in soil, rock, or groundwater conditions that may exist between or outside such locations. Actual conditions may differ from what is shown in the records. Material Sources referenced in these records may not contain materials of sufficient quantity or quality to meet project requirements. The accessibility of these records does not constitute approval, nor guarantee suitability of soils or sources, or the rights to use sources for this project, except as specifically provided in subsections 106-1.02.4.b Mandatory Sources and 106-1.02.4.c Designated Sources. The records shall not substitute for independent investigation, interpretation, or judgment of the bidder or Contractor. The Department is not responsible for any interpretation or conclusion drawn from its records by the bidder or Contractor.

Bidders and Contractors shall examine subsection 106-1.02 Material Sources for further information about material source development.

E23-010106

102-1.05 PREPARATION OF BID. Modify the second sentence in the third paragraph, after:

"If a bidder is a corporation, the bid must be signed by a corporate officer," add: or agent.

E18-063004

SECTION 103

AWARD AND EXECUTION OF CONTRACT

Standard Modifications

Delete Subsection 103-1.05 and replace with the following:

103-1.05 PERFORMANCE AND PAYMENT BONDS. The successful bidder shall furnish all required Performance and Payment Bonds on forms provided by the Department for the sums specified in the Contract. If no sum is specified, the successful bidder shall comply with AS 36.25.010. The Surety on each bond may be any corporation or partnership authorized to do business in the state as an insurer under AS 21.09 or two individual sureties approved by the Contracting Officer.

If individual sureties are used, two individual sureties must each provide the Department with security assets located in Alaska equal to the penal amount of each bond. Any costs incurred by the Contractor and the individual Surety are subsidiary and shall be borne by the Contractor or the individual Surety. In no event will the Department be liable for these Costs.

Individual sureties shall provide security by one, or a combination, of the following methods:

1. Escrow Account, with a federally insured financial institution, in the name of the Department. Acceptable securities include, but are not limited to, cash, treasury notes, bearer instruments having a specific value, or money market certificates.

2. Irrevocable letters of credit, with a financial institution approved by the Contracting Officer.

3. Cashier's or certified check, made payable to the State of Alaska issued by financial institutions approved by the Contracting Officer.

These bonds and security assets, as applicable, shall remain in effect for 12 months after the date of final payment or, if longer, until all obligations and liens under this Contract are satisfied, including, but not limited to, obligations under Subsection 107-1.19.

The Department may, in its discretion, notify the bonding company or Surety of any potential default or liability.

The Contractor shall substitute, within five working days, another bond or surety acceptable to the Department if an individual Surety or the Surety on any bond furnished in connection with the Contract:
1. Becomes insolvent or is declared bankrupt;
2. Loses its right to do business in any state affecting the work;
3. Ceases to meet Contract requirements;
4. Fails to furnish reports of financial condition upon request; or
5. Otherwise becomes unacceptable to the Department.

When approved by the Contracting Officer, the Contractor may replace:
1. An individual surety with a corporate surety; or
2. Posted collateral with substitute collateral.

Failure to maintain the specified bonds or to provide substitute bonds when required under this section may be grounds for withholding contract payments until substitute bonding is obtained, and may, in the Department's discretion, be grounds for declaring the Contractor in default.

E65-022209

Special Provisions

103-1.06 INSURANCE REQUIREMENTS. Delete first sentence of first paragraph and replace with the following:

The Contractor shall provide evidence of insurance with an insurance carrier or carriers satisfactory to the Department covering injury to persons and property suffered by the State of Alaska, Matanuska-Susitna Borough, or by another third party as a result of operations under this contract by the Contractor or by any subcontractor.

Delete paragraphs four thru five and replace with the following:

The State of Alaska and the Matanuska-Susitna Borough shall be named as additional insureds on policies required by paragraphs 2 thru 4 above. All the above insurance coverages shall be considered to be primary and non-contributory to any other insurance carried by the State of Alaska or Matanuska-Susitna Borough, whether through self-insurance or otherwise.

In any contract or agreement with subcontractors performing work, the Contractor shall require that all indemnities and waivers of subrogation it obtains, and any stipulation to be named as an additional insured it obtains, shall also be extended to waive rights of subrogation against the State of Alaska and to add the State of Alaska and Matanuska-Susitna Borough as additional named indemnitees and as additional insureds.

PND#103-102010

ADDENDUM NO. 1
ATTACHMENT NO. 3

SECTION 104

SCOPE OF WORK

Standard Modifications

104-1.01 INTENT OF CONTRACT. Add to the end of this subsection:

The Contractor is responsible for the means, methods, techniques, sequence, or procedures of construction, safety, quality control, and to perform or furnish the work in accordance with the Contract documents.

E58-072808

Special Provisions

104-1.01 INTENT OF CONTRACT
Add the following: This project consists of the reconstruction of 1.3 miles of gravel access road (Pioneer Road). The project will improve the vertical and horizontal alignments of Don Young Road as well as relocate the scenic overlook driveway. The project also includes drainage improvements such as rock-lined ditches and flumes as well as back slope reconstruction and benching to control erosion.

It is anticipated that the excavation will predominantly be silty sand, sandy silt, gravelly silt, and silt. Excavation used as fill will require special attention to moisture and density control, and may not be compactable in inclement weather. The contractor shall consider this in the preparation of their bids. Furthermore, the contractor should be aware that the silty gravel is highly susceptible to erosion. Measures above and beyond the norm may be required to stabilize disturbed areas and control sedimentation during construction activities. **The contractor is required to phase the work and permanently stabilize the elements of the work as they go. This requirement is general to the entire project and specific to certain areas. Refer to Section 203-3.01.**

PND#104-070110

SECTION 105

CONTROL OF WORK

Standard Modifications

105-1.02 PLANS AND WORKING DRAWINGS. In the third paragraph delete:

"(24"x36")" and replace with: (22"x34")

105-1.03 CONFORMITY WITH PLANS AND SPECIFICATIONS. In the first sentence of the first paragraph after:

"Work performed and materials furnished shall conform to the Plans and Specifications" add: and approved Working Drawings,

In the first sentence of the second paragraph after: "All work or material not conforming to the Plans and Specifications" add: and approved Working Drawings,

E33-012707

Special Provisions

105-1.06 COOPERATION WITH UTILITIES. Add the following:

It is not anticipated that utilities will be affected during construction. However; existing underground utilities are present near the northern extent of the project. The Contractor shall have these utilities located in order to avoid unnecessary disturbance.

PND#105-070110

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

ALASKA DIGLINE, INC.

Locate Call Centers:	
Anchorage	278-3121
Statewide	(800) 478-3121

all Centers will notify the following:
Alaska Communication System (ACS)
AT & T Alascom, Inc.
City of Wasilla
Chugach Electric Association (CEA)
Enstar Natural Gas
General Communications, Inc. (GCI)
Matanuska Electric Association (MEA)
Matanuska Telephone Association (MTA)

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

Right of Way and/or Construction Surveying is required before utility relocation.

Payment will be made as follows:

1. Subsidiary to Item 642(1) Construction Surveying, if the Contractor is required to provide the surveying as part of the contract and/or

2. Under Item 642(3) Three Person Survey Party, if the construction or Right of Way staking required by the utility is either in advance of the 2 week work plan, or not required by the Contract.

The utility shall give the Contractor, through the Engineer, 15 calendar days advance written notice for required staking.

105-1.07 COOPERATION BETWEEN CONTRACTORS. Add the following:

The following projects may be under construction concurrently with this project.

Project Name:	Owner:	Contractor:
Port MacKenzie Barge Dock Expansion Completion	Mat-Su Borough	Unknown
Port MacKenzie Rail Extension	**Mat-Su Borough**	**Unknown**

Coordinate traffic control, construction, and material hauling operations with the prime contractor of the above projects to minimize impact on the traveling public, and to minimize conflicts with the work being performed under the other Contracts.

Standard Modification

105-1.13 MAINTENANCE DURING CONSTRUCTION. Add the following at the end of this subsection:

Costs of maintenance work during construction and before the project is accepted as substantially complete shall be subsidiary to the prices bid on the various Contract items, and the Contractor will not be paid an additional amount for such work.

If in the Engineer's opinion, the Contractor at any time fails to provide adequate maintenance, the Engineer will notify the Contractor of such noncompliance. The notification will specify the areas or structures for which there is inadequate maintenance, the corrective maintenance required, and the time allowed to complete corrective maintenance. If the Contractor fails to take corrective action within the specified time, the Engineer may:

1. Suspend the work until corrective maintenance is completed;
2. Assess a traffic price adjustment against the Contract Amount when an adjustment rate is specified in the Contract; and
3. Employ others for corrective maintenance and deduct the cost from the Contract amount.

E33-012707

105-1.15 PROJECT COMPLETION. In the second paragraph, second sentence, delete:

"Subsection 621-3.04" and replace with: Subsection 618-3.06 and 621-3.04.

In the third paragraph, first sentence, delete:

"Subsection 621-3.04" and replace with: Subsection 618-3.06 and 621-3.04.

E59-072808

105-1.16 FINAL ACCEPTANCE AND RECORD RETENTION. Modify the first paragraph, Item 4. after:

"DOLWD" add: and State Department of Revenue.

E19-063004

Special Provisions

105-1.17 CLAIMS FOR ADJUSTMENT AND DISPUTES. Add the following:

Appeals to the superior court under AS 36.30.685 must be filed in the Third Judicial District.

CR93-032101

Standard Modification

Add the following Subsection 105-1.18:

105-1.18 RESERVED FOR WARRANTIES.

E33-012707

SECTION 106

CONTROL OF MATERIAL

Standard Modifications

106-1.01 SOURCE OF SUPPLY AND QUALITY REQUIREMENTS. In fifth paragraph, in two places remove the text. "Approved Products List" and replace with: *Qualified Products List*

E36-012707

Special Provision

Add the following:

Buy America Provision. Comply with the requirements of 23 CFR 635.410, Buy America Requirements, and submit a completed Material Origin Certificate, Form 25D-60, before award of the Contract.

Steel and iron products, which are incorporated into the work, shall be manufactured in the United States except that minor amounts of steel and iron products of foreign manufacture may be used, provided the aggregate cost of such does not exceed one tenth of one percent (0.001) of the total contract amount, or $2500, whichever is greater. For the purposes of this paragraph, the cost is the value of the products as they are delivered to the Project including freight.

"Manufactured in the United States" means that all manufacturing processes starting with the initial mixing and melting through the final shaping, welding, and coating process must be undertaken in the United States. The definition of "manufacturing process" is smelting or any subsequent process that alters the material's physical form, shape or chemical composition. These processes include rolling, extruding, machining, bending, grinding, drilling, etc. The application of coatings, such as epoxy coating, galvanizing, painting or any other coating that protects or enhances the value of steel or iron materials shall also be considered a manufacturing process subject to the "Buy America Requirements."

Buy America does not apply to raw materials (iron ore), scrap pig iron, and processed, pelletized and reduced iron ore. It also does not apply to temporary steel items (e.g., temporary sheet piling, temporary bridges, steel scaffolding, and falsework). Further, it does not apply to materials that remain in place at the Contractor's convenience (e.g., sheet pilings, and forms).

The North American Free Trade Agreement (NAFTA) does not apply to the Buy America requirement. There is a specific exemption within NAFTA (article 1001) for grant programs such as the Federal-aid highway program.

When steel and iron products manufactured in the United States are shipped to a foreign country where non-steel or iron products are installed on or in them (e.g., electronic components in a steel cabinet), the steel and iron is considered to meet the requirements of this subsection.

Take whatever steps are necessary to ensure that manufacturing processes for each covered product comply with this provision. Non-conforming products shall be replaced at no expense to the State. Failure to comply may also subject the Contractor to default and/or debarment. False statements may result in criminal penalties prescribed under Title 18 US Code Section 1001 and 1020.

CR13-020705

Standard Modification

106-1.02 MATERIAL SOURCES.

1. a. General. Within Item a. delete text and replace with:

Utilize Useable Excavation according to subsection 104-1.04 before using material sources listed in subsection 106-1.02.4. When there is insufficient, Useable Excavation furnish additional required materials from sources of the Contractor's choice, except that the Contractor shall use a mandatory source when identified in the Contract.

4. Type of Sources. Replace the first paragraph with the following:

The Contractor shall utilize Useable Excavation according to subsection 104-1.04 before using material sources listed in this subsection. When there is insufficient Useable Excavation, the Contractor shall furnish additional required materials from sources of the Contractor's choice, except that the Contractor shall use a mandatory source when identified in the Contract.

When there is insufficient Useable Excavation, the Contractor shall supply additional required material from the following sources:

d. Available Sources. Replace the second paragraph with the following:

When the Department furnishes copies of existing boring logs, test results, or other data in its possession concerning Available Sources, the Contractor is responsible for determining the accuracy and completeness of this data, for assumptions the Contractor makes based on this data, and for exploring Available Sources to the Contractor's satisfaction.

e. Excluded Material Sources. Replace the paragraph with the following:

Some material sources may not be considered acceptable regardless of location or ownership. The bid documents may identify some material sources excluded from use. The Department reserves the right to exclude a material source or any portion of a material source, at any time after Contract Award that is determined by material testing to be unsuitable for use on the Project.

E24-010106

Special Provisions

106-1.02 MATERIAL SOURCES.

4. Type of Sources.

d. Available Sources. Add the following:

An Available Source for Topsoil is the previously mounded, and now overgrown, organic muck located to the west of the existing access road between stations 50+00 and 65+00. Material from the mounds may be extracted to the level of the surrounding grade so as to avoid creating depressions. The Contractor will be responsible for permanently stabilizing the area after extracting the material.

PND#106-070110

Standard Modification

Add new Subsection 106-1.08:

106-1.08 SUBMITTAL PROCEDURE. The Contractor shall complete a Submittal Register, and shall submit to the Engineer on forms provided by the Department. The intent of the Submittal Register is to provide a blueprint for the smooth flow of specified Project document. The Contractor shall fill it out

sequentially by bid Item and allow at least three spaces between bid items. The Submittal Register shall list working drawings, schedules of work, and other items required to be submitted to the Department by the Contractor including but not limited to Progress Schedule, anticipated dates of material procurement, Construction Phasing Plan, Utility Progress Schedule, Blasting Plan, Mining Plan, annual EEO reports, DBE payment documentation, and subcontracts.

The Contractor shall submit materials (product) information to the Engineer for review, as required by the Materials Certification List and the Contract.

The number of copies required for submittals may be included in the specifications for individual bid items. If the number of copies of a submittal is not otherwise specified, three copies shall be required. On each sheet submitted to the Department, including working drawings, catalog cuts, manufacturer's certifications, etc., space shall be provided for Contractor and Department review stamps.

Each copy of each submittal shall include a Submittal Summary sheet. The Contractor may use forms provided by the Department of a similar form of the Contractor's choice as approved by the Department. The Contractor shall sign submittals and submit them to the Engineer. The Department will review submittals within 30 days after they are received. The Department will return submittals to the Contractor as either: approved, conditionally approved with the conditions listed, or rejected with the reasons listed. The Contractor may resubmit a rejected submittal to the Engineer with more information or corrections. The Department will review resubmittals within 30 days after they are received.

The Contractor shall not order material or use working drawings that have not been approved by the Department. The Contractor shall be responsible for timely submittals. Failure by the Department to review submittals within the time given may be the basis for a request for extension of Contract time but not for additional compensation.

Payment for a specific Contract Item will not be made until the Department has received the Submittal Register for all items and approved all required submittals for that specific Contract Item.

When material invoices, freight bills, and mill certificates are submitted, they shall provide sufficient information for the Engineer to identify the date, company and location of invoice (bill, certificate); Project name and number where material will be incorporated, manufacturer, product number, quantity and cost.

Add the following Subsection 106-1.09:

106-1.09 RESERVED.

E34-012707

SECTION 107

LEGAL RELATIONS AND RESPONSIBILITY TO PUBLIC

Special Provisions

107-1.02 PERMITS, LICENSES, AND TAXES. Add the following:

Obtain a written statement from the State Historic Preservation Officer stating that material disposal, extraction, stockpiling, or staging, on or off project site, is not expected to impact cultural resources. The State Historic Preservation Officer is with the Department of Natural Resources in Anchorage, and may be contacted at (907) 269-8715. If cultural resources are discovered during construction activities, stop work at that site and notify the Engineer.

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

Provide the Engineer a copy of permits or clearances received before using sites outside the project limits. Additionally, provide the Engineer a written statement that permits or clearances have been obtained. Also, provide a written statement to the Engineer listing agencies or offices contacted that responded that no additional action is required.

CR7-052902

Add the following:

The Department has received the following permits on the Contractor's behalf:

1. Alaska Department of Environmental Conservation Non-Objection Letter

2. Copies of the permits are contained in Appendix B.

Provide information to comply with the Alaska Department of Environmental Conservation Alaska Pollutant Discharge Elimination System (APDES) General Permit for Alaska to discharge storm water from the construction site. Refer to Section 641, Erosion, Sediment, and Pollution Control for requirements for this permit. The Contractor, Mat-Su Borough, and Department will apply as co-permittees for the APDES General Construction Permit after the SWPPP is approved by the Department.

PND#106-070110

Standard Modifications

107-1.05 FEDERAL AID PROVISIONS. Add the following after paragraph two:

Form 25D-55H Required Contract Provisions for Federal-Aid (FHWA) Construction Contracts. The FHWA no longer requires the Contractor to fill out FHWA Form 47, Statement of Materials and Labor Used By Contractors on Highway Construction Involving Federal Funds. Section VI Records of Materials, Supplies and Labor of Form 25D-55H is no longer applicable to highway construction contracts.

Title VI Requirements. During the performance of this Contract, the Contractor, for itself, its assignees and successors in interest (hereinafter referred to as the "Contractor") agrees as follows:

(1) **Compliance with Regulations:** The Contractor shall comply with the Regulation relative to nondiscrimination in Federally-assisted programs of the Department of Transportation (hereinafter, "DOT") title 49, Code of Federal Regulations, Part 21, and the Federal Highway Administration

(hereinafter "FHWA") Title 23, Code of Federal Regulations, Part 200 as they may be amended from time to time, (hereinafter referred to as the Regulations), which are herein incorporated by reference and made a part of this Contract.

(2) **Nondiscrimination:** The Contractor, with regard to the work performed by it during the contract, shall not discriminate on the grounds of race, color, or national origin, sex, age, and disability/handicap in the selection and retention of subcontractors, including procurements of materials and leases of equipment. The Contractor shall not participate either directly or indirectly in the discrimination prohibited by 49 CFR, Section 21.5 of the regulations, including employment practices when the Contract covers a program set forth in Appendix B of the Regulations.

(3) **Solicitation for Subcontractors, Including Procurements of Materials and Equipment:** In all solicitations either by competitive bidding or negotiation made by the Contractor for work to be performed under a subcontract, including procurements of materials or leases of equipment, each potential subcontractor or supplier shall be notified by the Contractor of the Contractor's obligations under this Contract and the Regulations relative to nondiscrimination on the grounds of race, color, or national origin, sex, age, and disability/handicap.

(4) **Information and Reports:** The Contractor shall provide all information and reports required by the Regulations or directives issued pursuant thereto, and shall permit access to its books, records, accounts, other sources of information, and its facilities as may be determined by the DOT&PF or the FHWA to be pertinent to ascertain compliance with such Regulations, orders and instructions. Where any information required of a Contractor is in the exclusive possession of another who fails or refuses to furnish this information the Contractor shall so certify to the DOT&PF, or the FHWA as appropriate, and shall set forth what efforts it has made to obtain the information.

(5) **Sanctions for Noncompliance:** In the event of the Contractor's noncompliance with the nondiscrimination provisions of this Contract, the DOT&PF shall impose such contract sanctions as it or the FHWA may determine to be appropriate, including, but not limited to:

(a) withholding of payments to the Contractor under the Contract until the Contractor complies, and/or
(b) cancellation, termination, or suspension of the Contract, in whole or in part.

(6) **Incorporation of Provisions:** The Contractor shall include the provisions of paragraphs (1) through (6) in every subcontract, including procurements of materials and leases of equipment, unless exempt by the Regulations, or directives issued pursuant thereto.

The Contractor shall take such action with respect to any subcontract or procurement as the DOT&PF or the FHWA may direct as a means of enforcing such provisions including sanctions for non-compliance: Provided, however, that in the event a Contractor becomes involved in, or is threatened with, litigation with a subcontractor or supplier as a result of such direction, the Contractor may request the DOT&PF to enter into such litigation to protect the interests of the DOT&PF, and, in addition, the Contractor may request the United states to enter into such litigation to protect the interests of the United States.

E67-101509

Special Provisions

107-1.06 SANITARY, HEALTH, AND SAFETY PROVISIONS Delete the last paragraph and replace with the following:

The Contractor shall defend, indemnify and hold harmless the State of Alaska and Matanuska-Susitna Borough from all claims, causes of action and judgments arising from or relating to the Contractor's failure to comply with any applicable federal, state or local safety requirement, regulation or practice, whether or not listed above.

PND#107-102010

107-1.07 ARCHAEOLOGICAL OR HISTORICAL DISCOVERIES. Change the first sentence to the following:

When operations encounters historic or prehistoric artifacts, burials, remains of dwelling sites, paleontological remains, (shell heaps, land or sea mammal bones or tusks, or other items of historical significance), cease operations immediately and notify the Engineer.

107-1.11 PROTECTION AND RESTORATION OF PROPERTY AND LANDSCAPE. Add the following:

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

CR7-020810

Standard Modification

Add the following paragraphs:

7. Restoring Areas. Areas used by the Contractor, including haul routes, shall be restored to their original condition after the Contractor's operations are completed. The original condition of an area shall be determined as follows:

   Before beginning operations, the Engineer and the Contractor shall inspect each area and haul route that will be used by the Contractor and take photographs to document their condition. After construction operations are completed, the condition of each area and haul route will be compared to the earlier photographs. Before demobilization, the Contractor shall repair damages attributed to its operations. The Contractor agrees that costs associated with repairs shall be subsidiary to other items of work and will not be paid for directly.

8. Material Disposal Sites. Offsite disposal areas may be at locations of the Contractor's choice, provided the Contractor obtains from the owner of such land written permission for such dumping and a waiver of all claims against the State for any damage to such land which may result there from, together with permits required by law for such dumping. A copy of permission, waiver of claims, and permits shall be filed with the Engineer before beginning work on private property. The Contractor's selected disposal sites shall also be inspected and approved by the Engineer before use of the sites.

E35-012707

Special Provisions

Add the following:

Bald Eagles are protected under the Bald Eagle Protection Act (16 U.S.C. 668-668c) which prohibits "takes" of bald eagles, their eggs, nests, or any part of the bird. The Act defines "taking" as "to pursue, shoot, shoot at, poison, wound, kill, capture, trap, collect, molest, or disturb."

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

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

If nest trees are discovered within the vicinity of the project site, the U.S. Fish and Wildlife Service must be notified immediately by calling (907) 786-3503 or (907) 271-2772, before starting construction activities, for further site evaluation. This is an advisory. Do what is required to keep from disturbing a nesting eagle.

CR1071-081210

107-1.13 RESPONSIBILITY FOR DAMAGE CLAIMS. Delete paragraph one and replace with the following:

The Contractor shall indemnify, hold harmless, and defend the State of Alaska and the Matanuska-Susitna Borough and their agents and employees from any and all claims or actions for injuries or damages whatsoever sustained by any person or property that arise from or relate to, directly or indirectly, the Contractor's performance of the Contract; however, this provision has no effect if, but only if, the proximate cause of the injury or damage is the Department's or Borough's negligence.

PND#107-102010

Add the following subsection:

107-1.21 FEDERAL AFFIRMATIVE ACTION. The Federal Equal Employment Opportunity Disadvantaged Business Enterprise and On-the-Job Training affirmative action program requirements that are applicable to this Contract are contained in the project Special Provisions and Contract Forms, and may include:

Disadvantaged Business Enterprise (DBE) Program	Section 120
Training Program	Section 645
Federal EEO Bid Conditions	Form 25A 301
EEO-1 Certification	Form 25A 304
ADOT&PF Training Program Request	Form 25A 310
Training Utilization Report	Form 25A 311
Contact Report	Form 25A 321A
DBE Subcontractable Items	Form 25A 324
DBE Utilization Report	Form 25A 325C
Summary of Good Faith Effort Documentation	Form 25A 332A
Required Contract Provisions, Federal-Aid Contracts	Form 25D 55

In addition to the sanctions provided in the above references, non-compliance with these requirements is grounds for withholding of progress payments.

S80-012202

SECTION 108

PROSECUTION AND PROGRESS

Special Provision

108-1.01 SUBLETTING OF CONTRACT. Delete paragraph four and replace with the following:

Submit the Contractor Self Certification for Subcontractors and Lower Tier Subcontractors, Form 25D-042, before the Contractor or a subcontractor sublets any portion of the Contract. The certification will be accepted by the Department in lieu of written approval of subcontracts. The Department maintains the authority to review subcontracts, require prior written approval of subcontracts, and to deny permission to sublet work. The Department may penalize the Contractor for false statements or omissions made in connection with Form 25D-042.

1. The Contractor shall ensure the following for each subcontract (agreement):

   a. The Department is furnished with one completed Contractor Self certification, Form 25D-042, and two copies of the subcontract signed by both parties and including item descriptions and prices of subcontracted work before the subcontracted work begins;

   b. The subcontractors have submitted a Bidder Registration; Form 25D-6;

   c. The required prompt payment provisions of AS 36.90.210, as well as other items listed in Form 25D-042, are included in the subcontracts;

   d. The subcontractors pay current prevailing rate of wages according to subsection 107-1.04 and file certified payrolls with the Engineer and DOLWD for work performed on the project; and

   e. Upon receipt of a request for more information regarding subcontracts, the requested information is provided to the Department within 5 calendar days.

CR57-010208

108-1.03 PROSECUTION AND PROGRESS. Delete the last sentence of the first paragraph and substitute the following:

Submit the following at the Preconstruction Conference:

Delete the last sentence of the first paragraph in No. 1. A progress schedule, and substitute the following:

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

CR261-121302

SECTION 109

MEASUREMENT AND PAYMENT

Special Provisions

109-1.02 MEASUREMENT OF QUANTITIES. Under subtitle Electronic Computerized Weighing System Item (1) add the following to the end of the first sentence:

", CD, or a USB device."

109-1.05 COMPENSATION FOR EXTRA WORK ON TIME AND MATERIALS BASIS. Under Item 3. Equipment, Item a. add the following to the second paragraph:

The rental rate area adjustment factors for this project shall be as specified on the adjustment maps for the Alaska – South Region.

CR14-043105

109-1.06 PROGRESS PAYMENTS.

Add the following: Payments for materials measured by surveyed cross sections will be limited to 75% of the estimated amount until adequate surveyed documentation including survey data, calculations, and plotted cross-sections are received by the Engineer.

PND#109-070110

109-1.08 FINAL PAYMENT. Add the following sentence to the first paragraph:

The Department will not process the final estimate until the Contractor completes Items 1 through 4 in the first paragraph of Subsection 105-1.16.

E11-063004

Special Provisions

Add the following Section:

SECTION 120

DISADVANTAGED BUSINESS ENTERPRISE (DBE) PROGRAM

120-1.01 DESCRIPTION. The work consists of providing Disadvantaged Business Enterprises (DBEs), as defined in Title 49, CFR (Code of Federal Regulations), Part 26, with the opportunity to participate on an equitable basis with other contractors in the performance of contracts financed in whole, or in part, with federal funds. The Contractor or subcontractor shall not discriminate on the basis of race, color, national origin, or sex in the performance of this contract. Carry out applicable requirements of 49 CFR Part 26 in the award and administration of USDOT assisted contracts.

120-1.02 INTERPRETATION. It is the intent of this section to implement the requirements of 49 CFR, Part 26, and the Department's federally approved DBE Program.

120-1.03 ESSENTIAL CONTRACT PROVISION. Failure to comply with the provisions of this section will be considered a material breach of contract, which may result in the termination of this contract or such other remedy as the Department deems appropriate. The Department also considers failure to comply with this section to be so serious as to justify debarment action as provided in AS 36.30.640(4).

120-1.04 DEFINITIONS AND TERMS. The following definitions will apply.

1. Broker. A DBE certified by the Department that arranges for the delivery or provision of creditable materials, supplies, equipment, transportation/hauling, insurance, bonding, etc., within its certified category, that is necessary for the completion of the project. A broker of materials certified in a supply category must be responsible for scheduling the delivery of materials and fully responsible for ensuring that the materials meet specifications before credit will be given.

2. Commercially Useful Function (CUF). The execution of the work of the Contract by a DBE carrying out its responsibilities by actually performing, managing, and supervising the work involved using its own employees and equipment. The DBE shall be responsible, with respect to materials and supplies used on the Contract, for negotiating price, determining quality and quantity, ordering the material, and installing (where applicable) and paying for the material itself. To determine whether a DBE is performing a commercially useful function, an evaluation of the amount of work subcontracted, industry practices, whether the amount the firm is to be paid under the Contract is commensurate with the work it is actually performing and the DBE credit claimed for its performance of the work. Other relevant factors will be considered. The determination of CUF is made by the Engineer after evaluating the way in which the work was performed during the execution of the Contract.

3. Disadvantaged Business Enterprise (DBE). An enterprise which is a for-profit small business concern

   a. that is at least 51 percent owned by one or more individuals who are both socially and economically disadvantaged or, in the case of a corporation, in which 51 percent of the stock is owned by one or more such individuals;

   b. whose management and daily business operations are controlled by one or more of the socially and economically disadvantaged individuals who own it; and

   c. has been certified by the Department in accordance with 49 CFR, Part 26.

4. DBE Key Employee. Permanent employees identified by the DBE owner in its certification file in the Department Civil Rights Office.

5. DBE Utilization Goal. The percent of work to be performed by certified DBEs that is established by the Department and specified in the Contract.

6. Good Faith Efforts. Efforts by the bidder or Contractor to achieve a DBE goal or other requirement of 49 CFR Part 26, by their scope, intensity, and appropriateness to the objective, that can reasonably be expected to fulfill the program requirement.

7. Manufacturer. A DBE certified by the Department in a supply category that changes the shape, form, or composition of original material in some way and then provides that altered material to the project and to the general public or the construction industry at large on a regular basis.

8. Notification. For purposes of soliciting DBE participation on a project and to count toward a Contractor's Good Faith Efforts, notification shall be by letter or fax transmission, with a return receipt requested or successful transmission report. Telephonic contact with a DBE may be allowed, however it shall be based on the ability of Civil Rights staff to independently verify this contact.

9. Regular Dealer. A DBE certified by the Department in a supply category that

   a. maintains an in-house inventory on a regular basis of the particular product provided to this project; and

   b. keeps an inventory in an amount appropriate for the type of work using that product; and

   c. offers that inventory for sale to the general public or construction industry at large (private and public sectors), not just supplied as needed on a project by project basis during the construction season, except where the product requires special or heavy equipment for delivery and the DBE possesses and operates this equipment on a regular basis throughout the construction season in order to deliver the product to the general public or construction industry at large. If the distribution equipment is rented or leased, it must be on a repetitive, seasonal basis; and may additionally

   d. fabricate (assembles large components) for use on a construction project, consistent with standard industry practice, for delivery to the project.

120-2.01 UTILIZATION GOAL. The DBE Utilization Goal for this contract is shown on Form 25A 324 (DBE Subcontractable Items) as a percentage of the total basic bid amount. A DBE may be considered creditable towards meeting the DBE Utilization Goal at time of Contract award, if the DBE is certified by the Department in a category covering the CUF to be performed at the time of listing on Form 25A 325C (DBE Utilization Report).

A bidder shall demonstrate the ability to meet the DBE Utilization Goal or perform and document all of the required Good Faith Efforts under Subsection 120-3.02 in order to be eligible for award of this Contract.

If the quantity of work of a bid item involving a DBE firm is reduced by the Department, the DBE Utilization Goal on Form 25A 325C will be reduced proportionately.

120-3.01 DETERMINATION OF COMPLIANCE.

1. Phase I - Bid. Each bidder must register with the Civil Rights Office annually in accordance with §§26.11 & 26.53(b)(2)(iv) of 49 CFR, Part 26. No contract may be awarded to a bidder that is not registered.

2. Phase II - Award. The apparent low bidder will provide the following within 15 days of receipt of notice of intent to award:

   a. **Written DBE Commitment.** Written commitments from DBEs to be used on the project. The written commitment shall contain the following information:
   (1) A description of the work that each DBE will perform;
   (2) The dollar amount of participation by the DBE firm;
   (3) Written documentation of the bidder/offeror's commitment to use a DBE subcontractor whose participation it submits to meet a contract goal; and
   (4) Written confirmation from the DBE that it is participating in the contract as provided in the prime Contractor's commitment.

   b. **DBE Utilization Report.** Form 25A 325C listing the certified DBEs to be used to meet the DBE Utilization Goal.

   c. **Good Faith Effort Documentation.** Summary of Good Faith Effort Documentation (Form 25A 332A and attachments) and DBE Contact Reports (Form 25A 321A) if the Contractor submits less DBE utilization on Form 25A 325C than is required to meet the DBE Utilization Goal. If accepted by the Department, this lower DBE utilization becomes the new DBE Utilization Goal. If the bidder cannot demonstrate the ability to meet the DBE Utilization Goal, and cannot document the minimum required Good Faith Efforts (as outlined in Subsection 120-3.02 below), the Contracting Officer will determine the bidder to be not responsible.

3. Phase III - Construction.

   a. **Designation of DBE/EEO Officer.** At the preconstruction conference, submit, in writing, the designation of a DBE/EEO officer.

   b. **DBE Creditable Work.** The CUF work items and creditable dollar amounts shown for a DBE on the DBE Utilization Report (Form 25A 325C) shall be included in any subcontract, purchase order or service agreement with that DBE.

   c. **DBE Replacement.** If a DBE replacement is approved by the Engineer, replace the DBE with another DBE for the same work in order to fulfill its commitment under the DBE Utilization Goal. In the event the Contractor cannot obtain replacement DBE participation, the Engineer may adjust the DBE Utilization Goal if, in the opinion of the Engineer and the Civil Rights Office, both of the following criteria have been met:
   (1) The Contractor has not committed any discriminatory practice in its exercise of good business judgment to replace a DBE.
   (2) If the Contractor is unable to find replacement DBE participation and has adequately performed and documented the Good Faith Effort expended in accordance with Subsection 120-3.02.

   d. **DBE Utilization Goal.** The DBE Utilization Goal will be adjusted to reflect only that amount of the DBE's work that cannot be replaced.

120-3.02 GOOD FAITH EFFORT.

1. **Good Faith Effort Criteria.** The Contracting Officer will use the following criteria to judge if the bidder, who has not met the DBE Utilization Goal, has demonstrated sufficient Good Faith Effort to be eligible for award of the contract.

Failure by the bidder to perform and document the following actions constitutes insufficient Good Faith Effort.

a. Consideration of all subcontractable items. The bidder shall, at a minimum, seek DBE participation for each of the subcontractable items upon which the DBE goal was established as identified by the Department (on Form 25A 324) prior to bid opening. It is the bidder's responsibility to make the work listed on the subcontractable items list available to DBE firms, to facilitate DBE participation.

b. If the bidder cannot achieve the DBE Utilization Goal using the list of available DBE firms based on the subcontractable items list, then the bidder may consider other items that could be subcontracted to DBEs.

c. Notification to all active DBEs listed for a given region in the Department's most current DBE Directory at least 7 calendar days prior to bid opening. The bidder must give the DBEs no less than 5 days to respond. The bidder may reject DBE quotes received after the deadline. Such a deadline for bid submission by DBEs will be consistently applied. DBEs certified to perform work items identified on Form 25A 324 must be contacted to solicit their interest in participating in the execution of work with the Contractor. Each contact with a DBE firm will be logged on a Contact Report (Form 25A 321A).

d. Non-competitive DBE quotes may be rejected by the bidder. Allegations of non-competitive DBE quotes must be documented and verifiable. A DBE quote that is more than 10 percent higher than the accepted non-DBE quote will be deemed non-competitive, provided the DBE and non-DBE subcontractor quotes are for the exact same work or service. Bidders must have a non-DBE subcontractor quote for comparison purposes. Such evidence shall be provided in support of the bidder's allegation. Where the bidder rejects a DBE quote as being non-competitive under this condition, the work must be performed by the non-DBE subcontractor and payments received by the non-DBE subcontractor during the execution of the Contract shall be consistent with the non-DBE's accepted quote. This does not preclude increases as a result of Change documents issued by the Department.

e. Provision of assistance to DBEs who need help in obtaining information about bonding or insurance required by the bidder.

f. Provision of assistance to DBEs who need help in obtaining information about securing equipment, supplies, materials, or related assistance or services.

g. Providing prospective DBEs with adequate information about the requirements of the Contract regarding the specific item of work or service sought from the DBE.

h. Follow-up of initial notifications by contacting DBEs to determine whether or not they will be bidding. Failure to submit a bid by the project bid opening or deadline by the bidder is de facto evidence of the DBE's lack of interest in bidding. Documentation of follow-up contacts shall be logged on the Contact Report (Form 25A 321A).

i. Items c through h will be utilized to evaluate any request from the Contractor for a reduction in the DBE Utilization Goal due to the default or decertification of a DBE and the Contractor's subsequent inability to obtain additional DBE participation.

2. **Administrative Reconsideration.** Under the provisions of 49 CFR. Part 26.53(d), if it is determined that the apparent successful bidder has failed to meet the requirements of this subsection, the bidder must indicate whether they would like an opportunity for administrative reconsideration. The bidder must exercise such an opportunity within 3 calendar days of notification it has failed to meet the requirements of this subsection. As part of this reconsideration, the bidder must provide written documentation or argument concerning the issue of whether it met the goal or made adequate good faith efforts to do so.

a. The decision on reconsideration will be made by the DBE Liaison Officer.

b. The bidder will have the opportunity to meet in person with the DBE Liaison Officer to discuss the issue of whether it met the goal or made adequate good faith efforts to do so. If a meeting is desired, the bidder must be ready, willing and able to meet with the DBE Liaison Officer within 4 days of notification that it has failed to meet the requirements of this subsection.

c. The DBE Liaison Officer will render a written decision on reconsideration and provide notification to the bidder. The written decision will explain the basis for finding that the bidder did or did not meet the goal or make adequate good faith efforts to do so.

d. The result of the reconsideration process is not administratively appeal able to US DOT.

120-3.03 COMMERCIALLY USEFUL FUNCTION (CUF).

1. **Creditable Work.** Measurement of attainment of the DBE Utilization Goal will be based upon the actual amount of money received by the DBEs for creditable CUF work on this project as determined by the Engineer in accordance with this Section. CUF is limited to that of a:

   a. regular dealer;

   b. manufacturer;

   c. broker;

   d. subcontractor;

   e. joint-venture; or

   f. prime contractor.

2. **Determination of Commercially Useful Function.** In order for the CUF work of the DBE to be credited toward the goal, the Contractor will ensure the following requirements are met:

   a. The CUF performed by a DBE certified in a supply category will be evaluated by the Engineer to determine whether the DBE performed as either a broker, regular dealer, or manufacturer of the product provided to this project.

   b. A DBE trucking firm certified and performing work in a transportation/hauling category is restricted to credit for work performed with its own trucks and personnel certified with the CRO prior to submitting a bid to a contractor for DBE trucking. The DBE trucking firm must demonstrate that it owns all trucks (proof of title and/or registration) to be credited for work and that all operators are employed by the DBE trucking firm. A DBE trucking firm that does not certify its trucks and personnel that it employs on a job will be considered a broker of trucking services and limited to credit for a broker. (This does not affect the CUF of that same firm, when performance includes the hauling of materials for that work.)

   c. The DBE is certified in the appropriate category at the time of:
      1) the Engineer's approval of the DBE subcontract, consistent with the written DBE commitment; and
      2) the issuance of a purchase order or service agreement by the Contractor to a DBE performing as either a manufacturer, regular dealer, or broker (with a copy to the Engineer).

   d. The Contractor will receive credit for the CUF performed by DBEs as provided in this Section. Contractors are encouraged to contact the Engineer in advance of the execution of the DBE's work or provision of goods or services regarding CUF and potential DBE credit.

e. The DBE may perform work in categories for which it is not certified, but only work performed in the DBE's certified category meeting the CUF criteria may be credited toward the DBE Utilization Goal.

f. The work of the DBE firm must meet the following criteria when determining when CUF is being performed by the DBE:

(1) The work performed will be necessary and useful work required for the execution of the Contract.

(2) The scope of work will be distinct and identifiable with specific contract items of work, bonding, or insurance requirements.

(3) The work will be performed, controlled, managed, and supervised by employees normally employed by and under the control of the certified DBE. The work will be performed with the DBE's own equipment. Either the DBE owner or DBE key employee will be at the work site and responsible for the work.

(4) The manner in which the work is sublet or performed will conform to standard, statewide industry practice within Alaska, as determined by the Department. The work or provision of goods or services will have a market outside of the DBE program (must also be performed by non-DBE firms within the Alaskan construction industry). Otherwise, the work or service will be deemed an unnecessary step in the contracting or purchasing process and no DBE credit will be allowed.

There will be no DBE credit for lower-tier non-DBE subcontract work.

(5) The cost of the goods and services will be reasonable and competitive with the cost of the goods and services outside the DBE program within Alaska. Materials or supplies needed as a regular course of the Contractor's operations such as fuel, maintenance, office facilities, portable bathrooms, etc. are not creditable.

The cost of materials actually incorporated into the project by a DBE subcontractor is creditable toward the DBE goal only if the DBE is responsible for ordering and scheduling the delivery of creditable materials and fully responsible for ensuring that the materials meet specifications.

(6) Subcontract work, with the exception of truck hauling, will be sublet by the same unit of measure as is contained in the Bid Schedule unless prior written approval of the Engineer is obtained.

(7) The DBE will control all business administration, accounting, billing, and payment transactions. The prime contractor will not perform the business, accounting, billing, and similar functions of the DBE. The Engineer may, in accordance with AS 36.30.420(b), inspect the offices of the DBE and audit the records of the DBE to assure compliance.

g. On a monthly basis, report on Form 25A 336 (Monthly Summary of DBE Participation) to the Department Civil Rights Office the payments made (canceled checks or bank statements that identify payor, payee, and amount of transfer) for the qualifying work, goods and services provided by DBEs.

3. **Decertification of a DBE.** Should a DBE performing a CUF become decertified during the term of the subcontract, purchase order, or service agreement for reasons beyond the control of and without the fault or negligence of the Contractor, the work remaining under the subcontract, purchase order, or service agreement may be credited toward the DBE Utilization Goal.

Should the DBE be decertified between the time of Contract award and the time of the Engineer's subcontract approval or issuance of a purchase order or service agreement, the work of the decertified firm will not be credited toward the DBE Utilization Goal. The Contractor must still meet the DBE Utilization Goal by either:

a. withdrawing the subcontract, purchase order or service agreement from the decertified DBE and expending Good Faith Effort (Subsection 120-3.02, items c through h) to replace it with one from a currently certified DBE for that same work or service through subcontractor substitution (Subsection 103-1.01); or

b. continuing with the subcontract, purchase order or service agreement with the decertified firm and expending Good Faith Effort to find other work not already subcontracted out to DBEs in an amount to meet the DBE Utilization Goal through either:
   (1) increasing the participation of other DBEs on the project;
   (2) documenting Good Faith Efforts (Subsection 120-3.02, items c through h); or
   (3) by a combination of the above.

4. **DBE Rebuttal of a Finding of No CUF.** Consistent with the provisions of 49 CFR, Part 26.55(c)(4)&(5), before the Engineer makes a final finding that no CUF has been performed by a DBE firm the Engineer will coordinate notification of the presumptive finding through the Civil Rights Office to the Contractor, who will notify the DBE firm.

   The Engineer, in cooperation with the Civil Rights Office, may determine that the firm is performing a CUF if the rebuttal information convincingly demonstrates the type of work involved and normal industry practices establishes a CUF was performed by the DBE. Under no circumstances shall the Contractor take any action against the DBE firm until the Engineer has made a final determination. The Engineer's decisions on CUF matters are not administratively appeal able to US DOT.

120-3.04 DEFAULT OF DBE. In the event that a DBE firm under contract or to whom a purchase order or similar agreement has been issued defaults on their work for whatever reason, immediately notify the Engineer of the default and the circumstances surrounding the default.

Take immediate steps, without any order or direction from the Engineer, to retain the services of other DBEs to perform the defaulted work. In the event that the Contractor cannot obtain replacement DBE participation, the Engineer may adjust the DBE Utilization Goal if, in the opinion of the Engineer, the following criteria have been met:

1. The Contractor was not at fault or negligent in the default and that the circumstances surrounding the default were beyond the control of the Contractor; and
2. The Contractor is unable to find replacement DBE participation at the same level of DBE commitment and has adequately performed and documented the Good Faith Effort expended in accordance with items c through h of subsection 120-3.02 for the defaulted work; or
3. It is too late in the project to provide any real subcontracting opportunities remaining for DBEs.

The DBE Utilization Goal will be adjusted to reflect only that amount of the defaulted DBE's work that cannot be replaced.

120-4.01 METHOD OF MEASUREMENT. The Contractor will be entitled to count toward the DBE Utilization Goal those monies actually paid to certified DBEs for CUF work performed by the DBE as determined by the Engineer. The Contractor will receive credit for the utilization of the DBEs, as follows:

1. Credit for the CUF of a DBE prime contractor is 100 percent of the monies actually paid to the DBE under the contract for creditable work and materials in accordance with 49 CFR 26.55.

2. Credit for the CUF of a subcontractor is 100 percent of the monies actually paid to the DBE under the subcontract for creditable work and materials. This shall include DBE trucking firms certified as a subcontractor and not a broker. Trucks leased from another DBE firm shall also qualify for credit and conforms to the provisions of 49 CFR 26.55(d).

3. Credit for the CUF of a manufacturer is 100 percent of the monies paid to the DBE for the creditable materials manufactured.

4. Credit for the CUF of a regular dealer of a creditable material, product, or supply is 60 percent of its value. The value will be the actual cost paid to the DBE but will not exceed the bid price for the item.

5. Credit for the CUF of a broker performed by a DBE certified in a supply category for providing a creditable material, product or supply is limited to a reasonable brokerage fee. The brokerage fee will not exceed 5 percent of the cost of the procurement contract for the creditable item.

6. Credit for the CUF of a broker performed by a DBE certified in the transportation/hauling category for arranging for the delivery of a creditable material, product, or supply is limited to a reasonable brokerage fee. The brokerage fee will not exceed 5 percent of the cost of the hauling subcontract.

7. Credit for the CUF of a broker performed by a DBE certified in a bonding or insurance category for arranging for the provision of insurance or bonding is limited to a reasonable brokerage fee. The brokerage fee will not exceed 5 percent of the premium cost.

8. Credit for the CUF of a joint venture (JV) (either as the prime contractor or as a subcontractor) may not exceed the percent of the DBE's participation in the joint venture agreement, as certified for this project by the Department. The DBE joint venture partner will be responsible for performing all of the work as delineated in the certified JV agreement.

120-5.01 BASIS OF PAYMENT. Work under this item is subsidiary to other contract items and no payment will be made for meeting or exceeding the DBE Utilization Goal.

If the Contractor fails to utilize the DBEs listed on Form 25A 325C as scheduled or fails to submit required documentation to verify proof of payment or documentation requested by the Department to help in the determination of CUF, the Department will consider this to be unsatisfactory work. If the Contractor fails to utilize Good Faith Efforts to replace a DBE, regardless of fault (except for subsection 120-3.04 item 3), the Department will also consider this unsatisfactory work. Unsatisfactory work may result in disqualification of the Contractor from future bidding under subsection 102-1.13 and withholding of progress payments consistent with subsection 109-1.06.

S33-111700

SECTION 201

CLEARING AND GRUBBING

Special Provisions

201-3.01 GENERAL. Add the following:

Clearing and Grubbing shall not occur within the migratory bird window of May 1 to July 15.

CR2011-010510

Add the following:

Contractor shall clearly delineate and flag the proposed clearing limits. The Engineer shall review and approve the flagged limits prior to clearing.

PND#201-070110

ADDENDUM NO. 1
ATTACHMENT NO. 5

SECTION 203

EXCAVATION AND EMBANKMENT

Special Provisions

203-3.01 GENERAL
Add the following to paragraph 6:

Disposal of muck excavation from station 46+00 to the end of the project will be allowed as side cast between the same stations within the following criteria:

1. To minimize the side cast quantity, Material which meets the topsoil specification will be used to the extent possible to provide topsoil for the project where shown on the plans.
2. **Muck may be side cast only on the east side of the proposed road between 46+00 and 65+00. From station 65+00 muck may be side cast on both sides of the road.**
3. Materials will be graded in such a way that it does not interfere with existing or proposed drainages. Side cast material shall not exceed 15 feet in height.
4. Material may be used for slope flattening along fill sections and outside of the structural roadway prism where approved by the Engineer.
5. Material that is disposed of shall be immediately and permanently stabilized against erosion. Seeding for this purpose has been included in quantity estimates and will be paid under item 618(2). Do not dress side cast material with topsoil prior to seeding. However, shape and trackwalk the side cast material prior to seeding.
6. Provide for the Engineer's approval a proposed configuration of disposal and/or stockpile areas showing stabilization efforts, any erosion and pollution measures, local drainage, and final shaping of the muck. This plan shall be incorporated into the Phasing Plan, as described below, and in the SWPPP.

Add the following after paragraph 8:
Deleted Text

The area identified as "Waste Disposal Area #1" is available for disposal of excess excavation at the Contractor's discretion. This area does not have sufficient space to hold excess excavation volumes generated on this project. The Contractor is expected to procure other offsite areas of sufficient size to hold the remainder of excess excavation, or, if Waste Disposal Area #1 is not used, to hold all the excess excavation. Material disposed of in Waste Disposal Area #1 shall be placed, at a minimum, under the following restraints:

The Contractor shall provide in his Phasing Plan a detailed disposal plan showing the proposed sequence of development of the area, incorporating provisions of Section 641, showing where the excess excavation will be disposed, and the interim and final configurations of the waste material. No disposal work shall proceed until this plan is accepted by the Engineer. The area shall be cleared prior to its use. Grubbing is optional, to be done only where needed to provide better accessibility or disposal. Grubbed material may be disposed of within the waste disposal area. Timber may not be disposed of on-site unless chipped. Maximum height of the disposed material shall be 20 feet. Slopes shall be no steeper than 2:1, and no steeper than will remain stable. Waste surfaces shall be graded to contours that allow both interim and permanent drainage, with no pooling on the surfaces. All surfaces shall be permanently stabilized by establishment of grass turf. Four inches of topsoil will be required where the disposed material does not meet the topsoil specification. Portions of the waste disposal area are believed to have soft surface materials that may require reinforcement for vehicle access and placement of disposed materials. The Contractor shall evaluate the site and be responsible for development of the necessary access. Stabilized construction entrance(s) shall be provided at egress points. Access roads shall be obliterated at the completion of the project in accordance with the requirements of this Section. If the Contractor elects to use Waste Disposal Area #1 they must include its construction and associated BMPs in the Contractor's SWPPP in accordance with Section 641. All clearing, grubbing, access road construction and obliteration, survey, grading, topsoil, erosion control measures, permanent stabilization, and all other work associated with use of this area for disposal shall be subsidiary to Item 203(3) Unclassified Excavation.

For Contractor supplied disposal areas all requirements found elsewhere in the se speci cluding but not limited to Section 641. All work associated with use of Contractor provided disposal areas shall be subsidiary to Item 203(3) Unclassified Excavation.

Add the following:
Excavated and embanked gravel slopes not temporarily or permanently stabilized within 5 days shall be trackwalked with a dozer to minimize erosion risk. All requirements in the NPDES Construction General Permit must be adhered to as well.

Add the following:
For excavation of the benched slope between approximate stations 24+00 to 45+50 left, the contractor is required to stage the excavation in such a manner as to control erosive effects of both groundwater and precipitation. To achieve this, at a minimum, the Contractor is required to permanently stabilize each vertical level prior to excavation of the next lower level. Permanent stabilization shall be as shown on the plans including all associated topsoil, seeding, erosion control blankets, spring drains, and rock lining. Additionally, at all times during the excavation groundwater or precipitation must not be allowed to accumulate on the benches and must be directed away from the work area. Sediment shall be collected at temporary discharge points prior to leaving the area of excavation and the release to accumulated water shall be staged in a such a manner to limit erosive effect downstream,

The Contractor may propose alternate phasing within the phasing plan subject to concurrence by the Engineer and the SWPPP Manager.

Add the following:
Meet with the Engineer 14 days in advance of construction and present a specific, graphic and detailed phasing plan for the entire project. Specific attention will be paid to the excavation and stabilization of the large cuts between the BOP and approximately Station 50+00, but the plan will not be limited to this area. Explain this plan in detail and demonstrate how it will ensure stability of the areas during construction, and revise based on discussions at that meeting. No work will commence until the engineer has accepted this plan. Revise this plan to meet unexpected conditions. At a weekly scheduling meeting be prepared to update progress and changes in this plan. Work the plan in conjunction with the SWPPP and the schedule. This phasing plan will address sequence of cuts and fills, interim management of water, disposal of waste, management of precipitation events, interim BMPs and controls, installation of all structures and fills, management of traffic lanes, management of truck traffic, and other factors affecting the stability of the work in progress. The plan will be graphic and show "snapshots" of each phase of the major work. Lack of sufficient detail in the initial or updated Plans will be cause for rejection of the plan, and will delay the work.

203-3.04 COMPACTION WITH MOISTURE AND DENSITY CONTROL
Add the following:

Excavation generated within the project limits has a high percentage of silts that require special attention to moisture content, density, and working conditions to ensure proper compaction. Compaction of these materials may not meet specifications if placed in rainy conditions. The contractor shall provide allowance for this in their scheduling and planning.

203-4.01 METHOD OF MEASUREMENT
Add the following:

9. 203(3) shall be measured from original ground surface based on survey made prior to grubbing and include muck and all other required excavation.

203-5.01 BASIS OF PAYMENT
Add the following to paragraph 2:
10. excavation required for ditching
11. all required work, fees, and any other cost associated with the disposal of excavation
*****Deleted Text*****
PND#-070110

SECTION 204

STRUCTURE EXCAVATION FOR CONDUITS AND MINOR STRUCTURES

Special Provisions

204-3.01 CONSTRUCTION REQUIREMENTS. Add the following after the third paragraph:

Excavation, bedding, backfill, and compaction for culverts outside the roadbed may be visually inspected and approved by the Engineer.

CR204-020608

Standard Modifications

204-3.01 CONSTRUCTION REQUIREMENTS. In the first sentence of paragraph four, delete:

"bedding and"

E37-012707

SECTION 306

ASPHALT TREATED BASE COURSE

Special Provisions

306-2.01 MATERIALS. Delete Aggregate and Asphalt and replace with the following.

1. Aggregate. Conform to subsection 703-2.04.

2. Asphalt. The total asphalt cement content may be a combination of PG 52-28 and the asphalt binder in the existing asphalt or only PG 52-28. Documentation and conformance is only required for PG 52-28. The Engineer may conditionally accept asphalt cement at the source. Provide a manufacture's certificate of compliance according to subsection 106-1.05, and test results of applicable quality requirements of Section 702 before shipping the material.

Add the following:

3. Anti-Strip. As required by the approved Job Mix Design

4. Recycled Asphalt Pavement (RAP). Process existing pavement removed under subsection 202-3.05 so material passes the 1 ½" sieve. Stockpile the material separately from the crushed aggregates for pavement. Perform one gradation and one asphalt content test for every 1000 tons (megagrams) of RAP or a minimum of 10 sets of tests whichever is greater.

CONSTRUCTION REQUIREMENTS

306-3.01 COMPOSITION OF MIXES. Replace this subsection with the following: If recycled materials are used, submit process control data of the RAP and of the asphalt concrete aggregates supporting proposed job mix design gradations.

At least 15 calendar days before the production, submit the following to the Engineer:

1. A letter stating the location, size, and type of mixing plant,
2. The proposed gradation for the Job Mix Design, gradations for individual stockpiles with supporting process control information, and the blend ratio of each aggregate stockpile and RAP. The proposed virgin aggregate gradation must meet the requirements of Table 703-3, Type II.
3. Submit gradation and asphalt content process control data of RAP for the Job Mix Design.
4. Provide representative samples of each of the aggregates in the blend. Sample sizes: 100 lbs of each intermediate and/or coarse aggregate, 200 lbs of fine aggregate, 22 lbs of blend sand, and 200 lbs of RAP.
5. A minimum of 3 gallons samples of asphalt cement proposed for use in the mixture, including the name of the product, the manufacturer, test results as required in Section 702, manufacturer's certificate of compliance according to Section 106, and a temperature viscosity curve for the asphalt cement.
6. A ½ pint sample of the anti-strip additive proposed, including the name of product, manufacturer, and manufacturer's data sheet, and current Materials Safety Data Sheet (MSDS).

From this information, the Engineer will establish the Job Mix Design using ATM 417, which will become a part of the Contract. The Job Mix Design shall meet the requirements of Type II, Class B in Table 401-1, Asphalt Concrete Mix Design Requirements, except Voids in Mineral Aggregate (VMA) and Dust / Asphalt ratio specifications do not apply. RAP may be used in the mixture. The design minimum asphalt content (RAP residual plus PG 52-28) is 5 percent by weight of total mix and with 1/4 percent anti-strip by weight of PG 52-28.

Submit changes in the Job Mix design warranted by changes in the source of asphalt cement, the source of RAP, the source of aggregates, aggregate quality, aggregate gradations, or blend ratios, in the same manner as the original submittal. A new Job Mix Design will only apply to asphalt concrete mixture produced after submitting the new aggregate gradation.

Approved Job Mix Designs will have the full tolerances shown in Table 401-2 applied and will not be limited to the broad band listed in Table 703-3.

306-3.02 WEATHER LIMITATIONS. Delete the requirements of this subsection and substitute the following: Apply the requirements of subsection 401-3.01.

306-3.03 STOCKPILING. Delete this subsection in its entirety.

306-3.04 EQUIPMENT. Add the following: Apply the requirements of subsection 401-3.02 to equipment.

Add the following to item 1:

If recycled materials are used, the asphalt plant shall combine RAP with asphalt concrete aggregates to produce a hot recycled asphalt treated base mixture.

Delete subsection 306-3.06 and substitute the requirements of Subsection 401-3.09.

Delete subsections 306-3.08 and 306-3.09 and substitute the requirements of Subsections 401-3.12 and 401-3.13.

Apply the requirements of subsections 401-3.07, 401-3.10, and 401-3.11.

Add the following subsection:

306-3.12 PATCHING DEFECTIVE AREAS. Remove ATB that becomes contaminated with foreign material, is segregated, or is determined to be defective. Do not skin patch. Remove defective materials for the full thickness of the course. Coat edges with a tack coat conforming to Section 402 and allow to cure. Place and compact fresh ATB to grade and smoothness requirements.

306-4.01 METHOD OF MEASUREMENT.

Change the third paragraph to read:

Anti-strip additive. Will not be measured for payment, the cost of the anti-strip additive will be subsidiary to Item 306(1).

Add the following subsection:

306-4.02 ACCEPTANCE SAMPLING AND TESTING. The Engineer will sample and test ATB at 1000 ton intervals for acceptance. The Engineer will make the results of the acceptance testing available to the Contractor within seven working days from the date of sampling. Sample the blended virgin aggregate at the cold feed. At the pre-paving meeting the Contractor may select the sample location of mix to determine the asphalt content.

Within 24 hours of final rolling, cut one 6 inch diameter core, full depth, from the finished mat to determine density. Neatly cut the sample using a core drill at the randomly selected location marked by the Engineer. Use a core extractor to prevent damage to the core. Do not cut a sample over a bridge deck.

Apply tolerances shown in Table 401-2 to test results to determine compliance with mix design.

The Engineer will test for density, gradation, and asphalt content as specified in subsection 401-4.02.

CR306-040009

306-5.01 BASIS OF PAYMENT. Add the following: Anti-strip shall not be paid separately but shall be subsidiary to Item 306(1) ATB.
*****Deleted Text*****
All asphalt cement shall be subsidiary to 306(1) ATB.

Patching defective areas shall be subsidiary to Item 306(1).

PND#306-112210

Special Provisions

Replace Section 401 with the following:

SECTION 401

HOT MIX ASPHALT AND SURFACE TREATMENTS

401-1.01 DESCRIPTION. Construct one or more layers of plant-mixed Hot Mix Asphalt (HMA) pavement on an approved surface, to the lines, grades, and depths shown in the Plans.

1. In this Section, HMA refers to Type I, II, III and IV.
   a. Temporary Asphalt Pavement: HMA, Type II, Class B, minimum.
   b. Preleveling/Leveling Course: HMA, Type IV, Class B.
   c. Use of Reclaimed Asphalt Pavement (RAP) is not permitted in HMA, except RAP may be used in HMA, Type II, Class B.
   d. Warm Mix Asphalt (WMA) is not permitted in HMA.

MATERIALS

401-2.01 COMPOSITION OF MIXTURE - JOB MIX DESIGN (JMD). Design the JMD according to the Alaska Test Manual (ATM) 417 using the design requirements of Table 401-1.

TABLE 401-1

HMA DESIGN REQUIREMENTS

DESIGN PARAMETERS	CLASS "A"	CLASS "B"
HMA (Including Asphalt Cement)		
Stability, Pounds	1800 Min.	1200 min.
Flow, 0.01 Inch	8 – 14	8 - 16
Voids in Total Mix, %	3 - 5	3 – 5
Compaction, Number of Blows Each Side of Test Specimen	75	50
Asphalt Cement		
Percent Voids Filled with Asphalt Cement (VFA)	65 - 75	65 - 78
Asphalt Cement Content, Min. % @ 4% VTM	5.0	5.0
Dust-Asphalt Ratio*	0.6 - 1.4	0.6 - 1.4
Voids in the Mineral Aggregate (VMA), %, Min.		
Type I	12.0	11.0
Type II	13.0	12.0
Type III, IV	14.0	13.0

*Dust-asphalt ratio is the percent of material passing the No. 200 sieve divided by the percent of effective asphalt cement.

The JMD will specify the Target Values (TV) for gradation, the TV for asphalt cement content, the Maximum Specific Gravity (MSG) of the HMA, the additives, and the allowable mixing temperature range.

Target values for gradation in the JMD must be within the broad band limits shown in Table 703-3, for the Type of HMA specified. For acceptance testing, HMA mixture will have the full tolerances in Table 401-2 applied. The tolerance limits will apply even if they fall outside the broad band limits shown in Table 703-3, except the tolerance limit of the No. 200 sieve is restricted by the broad band limits. Tolerance limits will not be applied to the largest sieve specified.

Do not mix HMA produced from different plants for testing or production paving. HMA from different plants will be rejected.

Submit the following to the Engineer at least 15 days before the production of HMA:

1. A letter stating the location, size, and type of mixing plant, the proposed gradation for the JMD, gradations for individual stockpiles with supporting process quality control information, and the blend ratio of each aggregate stockpile. The proposed gradation must meet the requirements of Table 703-3 for each Type of HMA specified in the Contract.

2. Representative samples of each aggregate (coarse, intermediate, fine, and blend material and mineral filler, if any) in the proportions required for the proposed mix design. Furnish a total of 500 pounds of material.

3. Five separate 1-gallon samples of the asphalt cement proposed for use in the HMA. Include name of product, manufacturer, test results of the applicable quality requirements of Subsection 702-2.01, manufacturer's certificate of compliance according to Subsection 106-1.05, a temperature viscosity curve for the asphalt cement or manufacturer's recommended mixing and compaction temperatures, and current Material Safety Data Sheet.

4. One sample, of at least 1/2 pint, of the anti-strip additive proposed, including name of product, manufacturer, and manufacturer's data sheet, and current Material Safety Data Sheet.

The Engineer will evaluate the material and the proposed gradation using ATM 417 and the requirements of Table 401-1 for the appropriate Type and Class of HMA specified. The mix, the materials and proposed gradation meeting the specification requirements will become part of the Contract when approved, in writing, by the Engineer.

The Engineer has the option to require further verification of the JMD. Evaluation of the JMD may be included in the Process Quality Controls, Supplemental Process Quality Controls, Subsection 401-2.05, Test Strip construction.

FAILURE TO MEET SPECIFICATION REQUIREMENTS

Submit a new JMD with changes noted and new samples in the same manner as the original JMD when:

- The results do not achieve the requirements specified in Table 401-1
- The asphalt cement source is changed
- The source of aggregate, aggregate quality, gradation, or blend ratio is changed
- The results of a Test Strip do not meet the requirements of the specification – the Engineer may require a new JMD.

Do not produce HMA for production paving and payment before the Engineer provides written approval of the JMD, the original or a new replacement JMD. If a Test Strip(s) is required, do not produce HMA for production paving and payment before the Engineer provides written approval of the Test Strip construction, construction process, the materials, and the JMD, Subsection 401-2.05.

Payment for HMA will not be made until the new JMD and the Test Strip, when required, is approved. Approved changes apply only to HMA produced after the submittal of changes.

The Engineer will asses a fee for each mix design subsequent to the approved Job Mix Design. The fee will be included under Item 401(6) Asphalt Price Adjustment – Quality.

401-2.02 AGGREGATES. Conform to Subsection 703-2.04.

Use a minimum of three stockpiles for crushed HMA aggregate (coarse, intermediate, and fine). Place blend material or mineral filler, if any, in a separate pile.

401-2.03 ASPHALT CEMENT. Conform to 702-2.01. If not specified, use PG 52-28.

Provide test reports for each batch of asphalt cement showing conformance to the specifications in Section 702 before delivery to the project. Require that the storage tanks used for each batch be noted on the test report, the anti-strip additives required by the mix design be added during load out for delivery to the project, and a printed weight ticket for anti-strip is included with the asphalt cement weight ticket. The location where anti-strip is added may be changed with the written approval of the Engineer.

Furnish the following documents at delivery:
1. Manufacturer's certificate of compliance (Subsection 106-1.05).
2. Conformance test reports for the batch (provide prior to delivery as noted above).
3. Batch number and storage tanks used.
4. Date and time of load out for delivery.
5. Type, grade, temperature, and quantity of asphalt cement loaded.
6. Type and percent of anti-strip added.

401-2.04 ANTI-STRIP ADDITIVES. Use anti-strip agents in the proportions determined by ATM 414 and included in the approved JMD. At least 70% of the aggregate must remain coated when tested according to ATM 414. A minimum of 0.25% by weight of asphalt cement is required.

401-2.05 PROCESS QUALITY CONTROL. Sample and test materials for quality control of the HMA according to Subsection 106-1.03. Submit to the Engineer, with the JMD, a documentation plan that will provide a complete, accurate, and clear record of the sampling and testing results. When directed by the Engineer, make adjustments to the plan and resubmit.

Submit a paving and plant control plan at the pre-paving meeting to be held a minimum of 5 working days before initiating paving operations. Address the sequence of operations and joint construction. Outline steps to provide product consistency, to minimize segregation, to prevent premature cooling of the HMA and to provide the mat and longitudinal density required by these specifications. Include a proposed quality control testing frequency for gradation, asphalt cement content, and compaction.

Failure to perform quality control forfeits the Contractor's right to a retest under Subsection 401-4.02.

Provide copies of the documented sampling and testing results no more than 24 hours from the time taken.

SUPPLEMENTAL PROCESS QUALITY CONTROL

The Engineer has the option to require supplemental process quality controls including additional sampling and testing. Include the supplemental process quality controls in the documentation plan.

When directed by the Engineer: provide "Density Profiles" and or "Test Strips."

1. Density Profiles. Provide density profile testing, with a nuclear density gauge, of the mat and longitudinal joints. Include the frequency of the test groups, configuration of the test groups for mat density and joint density individually or combined. Indicate the number of tests in a test group intended to confirm the density of the mat and joints.

   Locations that may require testing include: all lanes on bridge decks, adjacent to longitudinal joints, areas where segregation is visible, thermal segregation potential exists, where mat density is lower than the minimum (considered segregated), and the paver starts/stops. The Engineer will identify these and other areas that require density testing.

2. Test Strips. Construct test strips (ATM 412) using the approved job mix HMA a minimum of 5 working days prior to planned production paving, except use the proposed JMD when the test strip is being constructed to help evaluate the JMD as part of the mix performance analysis. Submit a proposed test strip location to the Engineer for coordination, and approval; include in the process control documentation plan. The Engineers approval and written authorization of the location, date, and time, is required before construction of a test strip.

   Establish roller patterns and the number of passes required to assure that proper placement and compaction is achieved. The test strip shall include no less than 300 tons and no more than 1000 tons, except as may be authorized, in writing, by the Engineer. The full complement of the paving train will be on site to receive instructions from the Engineer as needed to complete the mix performance analysis. Make the equipment available for inspection as required by Subsection 401-3.02. Provide an onsite process control representative with authority to modify mix components as instructed by the Engineer.

   Payment for Test Strips: Subsection 401-5.01 Basis of Payment and as noted here.
   a. Approved. Test strip construction and material, approved by the Engineer in writing, as meeting the specification requirements will be paid for at the Contract unit prices. Price adjustments will not be included for quality, unit price, or other.
   b. Failed. The Engineer may direct the Contractor to remove and dispose of test strips not meeting specification requirements. Contractor, construct a new test strip or return the surface materials and grade to their original condition as directed by the Engineer. The materials, construction of, removal and disposal of a failed test strip will be at the Contractor's expense.

   Only after the Engineer approves the test strip may HMA be produced for production paving and payment.

CONSTRUCTION REQUIREMENTS

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

401-3.02 EQUIPMENT, GENERAL. Use equipment in good working order and free of HMA buildup. Make equipment available for inspection and demonstration of operation a minimum of 24 hours before placement of production HMA, except when a test strip is required, 24 hours before placement of the test strip HMA.

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

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

Provide a tap on the asphalt cement supply line just before it enters the plant (after the 3-way valve) for sampling asphalt cement.

Provide aggregate and asphalt cement sampling equipment meeting OSHA safety requirements.

401-3.04 HAULING EQUIPMENT. Costs associated with Subsection 401-3.04 are subsidiary to Section 401 Pay Items.

Vehicles/Equipment. Haul HMA in trucks with tight, clean, smooth metal beds, thinly coated with a minimum amount of paraffin oil, lime water solution, or an approved manufactured asphalt release agent. Do not use petroleum fuel as an asphalt release agent.

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

Roadway Maintenance. Daily inspect, remove/clean, and dispose of project materials deposited on existing and new pavement surfaces(s) inside and outside the project area including haul routes.

The inspection plan and method of removal/cleaning and disposal shall be submitted in writing to the Engineer and approved by the Engineer 5 days before initiating paving operations. Include alternatives, options to immediately correct deficiencies in the inspection plan and methods of removal/cleaning and disposal that may be discovered as the work is being performed.

The Engineer may require the Contractor to include a vehicle/equipment cleaning station(s), to be added at the project site and or at the plant, in the basic plan or as one of the corrective alternatives/options. At a minimum, the cleaning station will include the materials and means to:

(1) Spray truck tires with an environmental degradable release agent if mix adheres to tires before dumping in front of the paver.
(2) Clean off loose mix from gates, chains, and tires that might fall on the pavement of the haul route.
(3) Contain, collect and disposal of (1) and (2).

The Contractor is responsible for the inspection plan, the means, and methods used for removal/cleaning and disposal of fugitive materials/debris. The Contractor is responsible for the damage as a result of not removing these materials (to the roadway material and the users and others) and the damage to the roadway materials from the removal method(s). Approval does not change the Contractor's responsibility, nor add responsibility to the Department for this work.

Repair damage to the existing roadway materials (asphalt type) as a result of the fugitive materials or their removal as specified in Subsection 401-3.16 Patching Defective Areas.

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

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

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

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

The use of a "Layton Box" or equivalent towed paver is allowed on bike paths, sidewalks, and driveways.

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

Use pneumatic rollers to compact the prelevel/leveling course.

All rollers shall have an attached infrared thermometer that measures and displays the surface temperature to the operator.

Use fully skirted pneumatic-tire rollers having a minimum operating weight of 3000 pounds per tire.

401-3.07 PREPARATION OF EXISTING SURFACE. Prepare existing surfaces conforming to the Plans and Specifications. Before applying tack coat to an existing paved surface, clean loose material from cracks for the depth of the cracks. Fill the cleaned cracks, wider than 1 inch, with an approved HMA tamped in place. Wash and or sweep the paved surface clean and free of loose materials.

Preparation of a milled surface:

- Prelevel remaining ruts, pavement delaminations, or depressions having a depth greater than 1/2 inch with HMA, Type IV. Compact the prelevel/leveling course using pneumatic-tire rollers. The Engineer's approval of the material and material installation is required. The Engineer will inspect the material and material installation. Correct material and material installations identified by the Engineer as required by the Engineer for approval. Density testing is not required for the leveling course (prelevel) material, material installation.

- Where the planing equipment breaks through existing pavement, remove 2 inches of existing base material depth and replace with HMA, Type II, Class B. Cold mix HMA prohibited.

  During the planing operation, notify the Engineer of pavement areas that may be thin or unstable.

Do not apply the tack coat material until the Engineer approves the existing surface including, not limited to; the existing paved surface, the milled surface, and a prior layer of HMA pavement.

Before placing the hot asphalt mix, apply tack coat material (Section 702) as specified here and in Section 402. Uniformly coat contact surfaces of curbing, gutters, sawcut pavement, cold joints, manholes, and other structures with tack coat material. Allow tack coat to break before placement of HMA on these surfaces.

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

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

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

Adjust the burner on the dryer to avoid damage to the aggregate and to prevent the presence of unburned fuel on the aggregate. HMA containing soot or fuel is unacceptable (Subsection 105-1.11).

401-3.10 MIXING. Combine the aggregate, asphalt cement, and additives in the mixer in the amounts required by the JMD. Mix to obtain 98% coated particles when tested according to AASHTO T195.

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

401-3.11 TEMPORARY STORAGE. Silo type storage bins may be used, provided the characteristics of the HMA remain unaltered. Changes in the JMD, visible or otherwise, are cause for rejection. Changes may include: visible segregation, heat loss, and the physical characteristics of the asphalt cement, lumpiness, or stiffness of the HMA or similar.

401-3.12 PLACING AND SPREADING. Use asphalt pavers to distribute HMA, including leveling (preleveling) course and temporary HMA. Place the HMA upon the approved surface, spread, strike off, and adjust surface irregularities. The maximum compacted lift thickness allowed is 3 inches.

During placement, the Engineer, using an infrared camera, may evaluate the HMA surface immediately behind the paver for temperature uniformity. Areas with temperature differences more than 25° F lower than the surrounding HMA may produce areas of low density. Contractor shall immediately adjust laydown procedure to maintain a temperature differential of 25° F or less. Thermal images and thermal profile data will become part of the project record and shared with the Contractor.

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

When the section of roadway being paved is open to traffic, pave adjacent traffic lanes to the same elevation within 24 hours. Place approved material against the outside pavement edge when the drop off exceeds 2 inches.

When multiple lifts are specified in the Contract, do not place the final lift until lower lifts throughout that section, as defined by the Paving Plan, are placed and accepted.

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

Do not place the final lift until curb and gutter, all types, are installed complete, except as approved by the Engineer.

Place HMA over bridge deck membranes according to Section 508 and the manufacturer's specifications.

401-3.13 COMPACTION. Thoroughly and uniformly, compact the HMA by rolling. In areas not accessible to large rollers, compact with mechanical tampers or trench rollers. Do not leave rollers or other equipment standing on HMA that has not sufficiently cooled to prevent indentation.

A mat area with density lower than 92% MSG is considered segregated and not in conformance with the requirements of the Contract. The work shall be deemed unacceptable by the Engineer according to Subsection 105-1.11 unless, the Engineer determines that reasonably acceptable work has been produced as permitted in Subsection 105-1.03.

The density TV is 95% of the MSG, as determined by WAQTC FOP for AASHTO T 209. The MSG of the JMD will be used for the first lot of each Type of HMA. The MSG for additional lots will be determined from the first sublot of each lot.

Acceptance testing for density will be performed according to WAQTC FOP for AASHTO T 166/T 275 using a 6 inch diameter core. (Acceptance testing for density of leveling course or temporary pavement is not required).

When directed by the Engineer, provide density profiles of the mat and longitudinal joints with a nuclear density gauge. Deliver the results of density tests to the Engineer at the time of the testing, in writing in the format detailed in the Quality Control Plan Subsection 401-2.05.

401-3.14 JOINTS. Minimize the number of joints. Do not construct longitudinal joints in the driving lanes unless approved by the Engineer in writing at the Pre-paving meeting. Place and compact the HMA to provide a continuous bond, texture, and smoothness between adjacent sections of the HMA.

Remove to full depth improperly formed joints resulting in surface irregularities. Before removing pavement, cut a neat, straight line along the pavement to be removed and the pavement to remain. Use a power saw or other method approved by the Engineer. Replace the removed asphalt with new HMA and thoroughly compact.

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

Offset the longitudinal joints in one layer from the joint in the layer immediately below by at least 6 inches. Align the joints of the top layer at the centerline or lane lines. Where preformed marking tape striping is required, offset the longitudinal joint in the top layer not more than 6 inches from the edge of the stripe.

On the final lift, before paving against the longitudinal joint (completing the joint) uniformly coat the surface below the final lift with tack coat material conforming to Section 702. Coat the vertical edge of pavement (including milled edges) with Crafco Pavement Joint Adhesive No. 34524, Deery Cold Joint Adhesive, or approved equal. Apply a 1/8 inch thick band of joint adhesive over the cold mat according to manufacturer's recommendations.

The Engineer shall evaluate the difference in elevation of the final surface of adjacent mats each side of the longitudinal joint, at the joint, with a straight edge and by requiring the Contractor to flood the joint surface with water. The Engineer will determine where and how often to evaluate the joint. All differences in the surface elevations greater than 1/8 inch or that pond water shall be repaired at no cost to the Department. Heat the HMA pavement to be repaired with an infrared heater (310° F max) and roll flat or add HMA until the joint differential is within tolerance.

For the top layer of HMA, the minimum specification limit for longitudinal joint density is 91% of the MSG of the panel completing the joint. Cut one 6 inch diameter core centered on the longitudinal joint at each location the panel completing the joint is cored for acceptance density testing. Density will be determined according to WAQTC FOP for AASHTO T 166/T 275.

For areas that fail to achieve the prescribed joint density seal the surface of the longitudinal joints with Asphalt Systems GSB-78 or approved equal, while the HMA is clean, free of moisture, and before traffic marking. Longitudinal joint sealing shall be according to the manufacturer's recommendations and a maximum application rate of 0.15 gallons per square yard. Apply the sealant at least 12 inches wide centered on the longitudinal joint.

Hot lapped joints formed by paving in echelon must be completed while the mat temperature is over 150°F. These joints do not need to be tacked and will not be measured or evaluated for joint density.

Longitudinal joints will be evaluated for acceptance according to Subsection 401-4.03.

401-3.15 SURFACE TOLERANCE. The Engineer will test the finished surface after final rolling at selected locations using a 10 foot straightedge. Correct variations from the testing edge, between any two contacts of more than 1/4 inch.

Costs associated with meeting surface tolerances are subsidiary to the HMA pay item.

401-3.16 PATCHING DEFECTIVE AREAS. Remove HMA that is contaminated with foreign material, is segregated (determined visually or by testing), flushing, or bleeding asphalt after compaction is completed or is in any way determined to be defective. Do not skin patch. Remove defective HMA for the full thickness of the course. Cut the pavement so that edges are vertical, the sides are parallel to the direction of traffic. Coat edges with a tack coat meeting Section 402 and allow to cure. Place and compact fresh HMA according to Subsection 401-3.13 to grade, and smoothness requirements.

Costs associated with patching defective areas are subsidiary to the HMA Pay Item.

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

1. Hot Mix Asphalt.
   a) By weighing. No deduction will be made for the weight of asphalt cement or anti stripping additive or cutting back joints.
   b) By the final HMA surface.

2. Asphalt Cement. By the ton, as follows.

   Method 1:

   Percent of asphalt cement for each sublot multiplied by the total weight represented by that sublot. ATM 405 or WAQTC FOP for AASHTO T 308 will determine the percent of asphalt cement. The same tests used for the acceptance testing of the sublot will be used for computation of the asphalt cement quantity. If no acceptance testing is required, the percent of asphalt cement is the target value for asphalt cement in the JMD.

   Method 2:

   Supplier's invoices minus waste, diversion and remnant. This procedure may be used on projects where deliveries are made in tankers and the asphalt plant is producing HMA for one project only.

   The Engineer may direct, at any time that tankers be weighed in the Engineer's presence before and after unloading. If the weight determined at the project varies more than 1% from the invoice amount, payment will be based on the weight determined at the project.

   Any remnant or diversion will be calculated based on tank stickings or weighing the remaining asphalt cement. The Engineer will determine the method. The weight of asphalt cement in waste HMA will be calculated using the target value for asphalt cement as specified in the JMD.

   Method 1 will be used for determining asphalt cement quantity unless otherwise directed in writing. The procedure initially used will be the one used for the duration of the project. No payment will be made for any asphalt cement more than 0.4% above the optimum asphalt cement content specified in the JMD.

3. Job Mix Design. When specified, Contractor furnished JMD(s) will be measured as one according to the HMA Class and Type.

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

5. Preleveling/Leveling Course. By weight or Lane-Station (12 foot width). No deduction will be made for the weight of asphalt cement or anti stripping additive.

6. Asphalt Price Adjustment – Quality. Calculated by quality level analysis under Subsection 401-4.03. Also included in the measurement are the fees and deductions specified in Subsection 401-2.01 and Subsection 401-4.02.

   Asphalt Price Adjustment – Quality, does not apply to, and measurements will not be made for: 1) Leveling Course/Prelevel (rut repair) HMA, 2) Temporary HMA, 3) Approach HMA.

7. Longitudinal Joint and Joint Adhesive. By the linear foot of longitudinal joint.

401-4.02 ACCEPTANCE SAMPLING AND TESTING. The total price adjustment is the sum of the individual lot price adjustments as determined in Subsection 401-4.03 Evaluation of Materials for Acceptance, and is included in Item 401(6) Asphalt Price Adjustment-Quality. Penalties assessed are also included in Item 401(6).

A mat area of finished surfacing that is visibly segregated, has a lower density than specified (Subsection 401-3.13), fails to meet surface tolerance requirements, or is flushing asphalt cement is considered unacceptable according to Subsection 105-1.11.

HOT MIX ASPHALT

The quantity of each class and Type of HMA produced and placed will be divided into lots and the lots evaluated individually for acceptance.

A lot will normally be 5,000 tons. The lot will be divided into sublots of 500 tons; each randomly sampled and tested for asphalt cement content, density, and gradation according to this subsection. If the project has more than 1 lot, and less than 8 additional sublots have been sampled at the time a lot is terminated, either due to completion of paving operations or the end of the construction season (winter shutdown), the material in the shortened lot will be included as part of the prior lot. The price adjustment computed, according to Subsection 401-4.03, for the prior lot will include the samples from the shortened lot.

If 8 or 9 samples have been obtained at the time a lot is terminated, they will be considered as a lot and the price adjustment will be based on the actual number of test results (excluding outliers) in the shortened lot.

If the contract quantity is between 1,500 tons and 5,000 tons, the Contract quantity will be considered one lot. The lot will be divided into sublots of 500 tons and randomly sampled for asphalt cement content, density, and gradation according to this subsection except that a determination for outliers will not be performed. HMA quantities of less than 300 tons remaining after dividing the Contract quantity into sublots will be included in the last sublot. HMA quantities of 300 tons or greater will be treated as an individual sublot. The lot will be evaluated for price adjustment according to Subsection 401-4.03 except as noted.

For Contract quantity of less than 1,500 tons (also for approaches and temporary pavement), HMA will be accepted for payment based on the Engineer's approval of a JMD and the placement and compaction of the HMA to the specified depth and finished surface requirements and tolerances. The Engineer reserves the right to perform any testing required in order to determine acceptance. Remove and replace any HMA that does not conform to the approved JMD.

Samples collected at the plant from dry batched aggregates, the conveyor system, or the asphalt cement supply line shall be taken by the Contractor in the presence of the Engineer. The Engineer will take immediate possession of the samples.

The Engineer will determine where samples are taken.

1. Asphalt Cement Content. Hot mix samples taken for the determination of asphalt cement content will be taken randomly from behind the screed before initial compaction, or from the windrow according to WAQTC FOP for AASHTO T 168 and ATM 403, as directed by the Engineer. HMA samples taken for the determination of both asphalt cement content and gradation will be taken randomly from behind the screed before initial compaction or from the windrow according to WAQTC FOP for AASHTO T 168 and ATM 403.

   Two separate samples will be taken, one for acceptance testing and one held in reserve for retesting if applicable. At the discretion of the Engineer, asphalt cement content will be determined according to ATM 405 or WAQTC FOP for AASHTO T 308.

2. Aggregate Gradation.

   a. Drum Mix Plants. Samples taken for the determination of aggregate gradation from drum mix plants will be from the combined aggregate cold feed conveyor via a diverter device or from the stopped conveyor belt according to WAQTC FOP for AASHTO T2 or from the same location as samples for the determination of asphalt cement content. Locate diverter devices for obtaining aggregate samples from drum mix plants on the conveyor system delivering combined aggregates into the drum. Divert aggregate from the full width of the conveyor system and maintain the diverter device to provide a representative sample of aggregate incorporated into the HMA. Two separate samples will be taken, one for acceptance testing and one held in reserve for retesting if applicable. The aggregate gradation for samples from the conveyor system will be determined according to WAQTC FOP for AASHTO T 27/T 11. For HMA samples, the gradation will be determined according to WAQTC FOP for AASHTO T 30 from the aggregate remaining after the ignition oven (WAQTC FOP for AASHTO T 308) has burned off the asphalt cement.

   b. Batch Plants. Samples taken for the determination of aggregate gradation from batch plants will be from the same location as samples for the determination of asphalt cement content, or from dry batched aggregates according to WAQTC FOP for AASHTO T 2. Two separate samples will be taken, one for acceptance testing and one held in reserve for retesting if applicable. Dry batched aggregate gradations will be determined according to WAQTC FOP for AASHTO T 27/T 11. For HMA samples, the aggregate gradation will be determined according to WAQTC FOP for AASHTO T 30 from the aggregate remaining after the ignition oven (WAQTC FOP for AASHTO T 308) has burned off the asphalt cement.

3. Density.

   a. Acceptance Testing.

      The Engineer will determine and mark the location(s) where the Contractor will take each core sample. Core samples will not be taken at bridge decks or the milled edge of existing pavement.

      1) Mat Cores: The location(s) for taking core samples will be determined using a set of random numbers and the Engineer's judgment.

      2) Longitudinal Joint Cores: The Engineer will mark the location(s) to take the core sample, centered on the visible surface joint, and adjacent to the mat core sample taken in the panel completing the joint. Take joint core samples in the presence of the Engineer.

      Cut full depth core samples, centered on the marks and as noted above, from the finished HMA within 24 hours after final rolling. Neatly core drill one six inch diameter sample at each marked location. Use a core extractor to remove the core - do not damage the core. Backfill and compact voids left by coring with new HMA within 24 hours.

      The Engineer will immediately take possession of the samples. Density of the samples will be determined, by the Engineer, according to WAQTC FOP for AASHTO T 166/T 275.

      A penalty will be assessed for each failure to take core samples or backfill core sample voids within the specified period, or take core samples at the location marked by the Engineer.

4. Retesting. A retest of any sample outside the limits specified in Table 401-2 may be requested provided the quality control requirements of 401-2.05 are met. Deliver this request in writing to the Engineer within 7 days of receipt of the final test of the lot. The Engineer will mark the sample location for the density retest within a 2 foot radius of the original core. The original test results will be discarded and the retest result will be used in the price adjustment calculation regardless of whether the retest result gives a higher or lower pay factor. Only one retest per sample is allowed. Except for the first lot, gradation and asphalt cement content are determined from the same sample, retesting for gradation or asphalt cement from the first sublot of a lot will include retesting for the MSG; when separate samples are used, retesting for asphalt cement content will include retesting for MSG.

ASPHALT CEMENT

The lot size for asphalt cement will normally be 200 tons. If a project has more than one lot and the remaining asphalt cement quantity is less than 150 tons, it will be added to the previous lot and that total quantity will be evaluated for price adjustment as one lot. If the remaining asphalt cement quantity is 150 tons or greater, it will be sampled, tested and evaluated as a separate lot.

If the contract quantity of asphalt cement is between 85 – 200 tons, the contract quantity will be considered as one lot and sampled, tested, and evaluated according to this subsection. Quantities of asphalt cement less than 85 tons will be accepted based on manufacturer's certified test reports and certification of compliance.

Asphalt cement will be sampled according to WAQTC FOP for AASHTO T 40, tested for conformance to the specifications in Section 702, and evaluated for price adjustment in accordance with 401-4.03. Asphalt cement pay reduction factors for each sample will be determined from Table 401-4. Three separate samples from each lot will be taken, one for acceptance testing, one for Contractor retesting, and one held in reserve for referee testing if applicable.

401-4.03 EVALUATION OF MATERIALS FOR ACCEPTANCE.

Price adjustments in this subsection are addressed under Item 401(6) Asphalt Price Adjustment-Quality.

HOT MIX ASPHALT

The total Hot Mix Asphalt price adjustment is the sum of all price adjustments for each lot.

The following method of price adjustment will be applied to each Type of HMA when the contract quantity equals or exceeds 1,500 tons, except as specified in Subsection 401-4.02.

Acceptance test results for a lot will be analyzed collectively and statistically by the Quality Level Analysis method as specified in Subsection 106-1.03 to determine the total estimated percent of the lot that is within specification limits.

The price adjustment is based on the lower of two pay factors. The first factor is a composite pay factor for HMA that includes gradation and asphalt cement content. The second factor is for density.

A lot containing HMA with less than a 1.00 pay factor will be accepted at an adjusted price, provided the pay factor is at least 0.75 and there are no isolated defects identified by the Engineer. A lot containing HMA that fails to obtain at least a 0.75 pay factor will be considered unacceptable and rejected under Subsection 105-1.11.

The Engineer will reject HMA that appears to be defective based on visual inspection. A minimum of two samples will be collected from the rejected HMA and tested if requested. If test results are within specification limits, payment will be made for the HMA. If any of the test results fail to meet specifications, no payment will be made and the cost of the testing will be subtracted as a price adjustment. Costs associated with removal and disposal of the rejected HMA are subsidiary to the Hot Mix Asphalt Pay Item.

Outlier Test. Before computing the price adjustment, the validity of the test results will be determined by SP-7, the Standard Practice for Determination of Outlier Test Results. Outlier test results will not be included in the price adjustment calculations.

When gradation and asphalt cement content are determined from the same sample, if any size on the gradations test or the asphalt cement content is an outlier, then the gradation test results and the asphalt cement content results for that sublot will not be included in the price adjustment. The density test result for that sublot will be included in the price adjustment provided it is not an outlier.

When gradation and asphalt cement content are determined from separate samples, if any sieve size on the gradation test is an outlier, then the gradation test results for that sample will not be included in the price adjustment. The asphalt cement content and density test results for that sublot will be included in the price adjustment provided neither is an outlier. If the asphalt cement content test result is an outlier, it will not be included in the price adjustment but the gradation and density test results for the sublot will be included provided neither is an outlier. If the density test result is an outlier, it will not be included in the price adjustment but the gradation and asphalt cement content test results will be included provided neither is an outlier.

Quality Level Analysis. Pay factors are computed as follows:

1. Outliers (determined by SP-7), and any test results on material not incorporated into the work, are eliminated from the quality level analysis.

   The arithmetic mean ($\bar{x}$) of the remaining test results is determined:

   $$\bar{x} = \frac{\sum x}{n}$$

   Where: $\sum$ = summation of
   x = individual test value to x_n
   n = total number of test values

   ($\bar{x}$) is rounded to the nearest tenth for density and sieve sizes except the No. 200 sieve.
   ($\bar{x}$) is rounded to the nearest hundredth for asphalt cement content and the No. 200 sieve.

2. The sample standard deviation (s) after the outliers have been excluded, is computed:

   $$s = \sqrt{\frac{n\sum(x^2) - (\sum x)^2}{n(n-1)}}$$

   Where: $\sum(x^2)$ = sum of the squares of individual test values.
   $(\sum x)^2$ = square of the sum of the individual test values.

   The sample standard deviation (s) is rounded to the nearest hundredth for density and all sieve sizes except the No. 200 sieve. The sample standard deviation (s) is rounded to the nearest 0.001 for asphalt cement content and the No. 200 sieve.

   If the computed sample standard deviation (s) is <0.001, then use s = 0.20 for density and all sieves except the No. 200. Use s = 0.020 for asphalt cement content and the No. 200 sieve.

3. The USL and LSL are computed. For aggregate gradation and asphalt cement content, the Specification Limits (USL and LSL) are equal to the Target Value (TV) plus and minus the allowable tolerances in Table 401-2. The TV is the specified value in the approved JMD. Specification tolerance limits for the largest sieve specified will be plus 0 and minus 1 when performing Percent Within Limits (PWL) calculations. The TV for density is 95% of the MSG, the LSL is 92% of MSG, and the USL is 98%.

TABLE 401-2

LOWER SPECIFICATION LIMIT (LSL) & UPPER SPECIFICATION LIMIT (USL)

Measured Characteristics	LSL	USL
3/4 inch sieve	TV -6.0	TV + 6.0
1/2 inch sieve	TV -6.0	TV + 6.0
3/8 inch sieve	TV -6.0	TV + 6.0
No. 4 sieve	TV -6.0	TV + 6.0
No. 8 sieve	TV -6.0	TV + 6.0
No. 16 sieve	TV -5.0	TV + 5.0
No. 30 sieve	TV -4.0	TV + 4.0
No. 50 sieve	TV -4.0	TV + 4.0
No. 100 sieve	TV -3.0	TV + 3.0
No. 200 sieve*	TV -2.0	TV + 2.0
Asphalt %	TV -0.4	TV + 0.4
Mat Density %	92	98

*Tolerances for the No. 200 sieve may not exceed the broad band limits in Table 703-3.

4. The Upper Quality Index (Q_U) is computed:

$$Q_U = \frac{USL - \bar{x}}{s}$$

Where: USL = Upper Specification Limit
Q_U is rounded to the nearest hundredth.

5. The Lower Quality Index (Q_L) is computed:

$$Q_L = \frac{\bar{x} - LSL}{s}$$

Where: LSL = Lower Specification Limit
Q_L is rounded to the nearest hundredth.

6. P_U (percent within the upper specification limit which corresponds to a given Q_U) is determined. See Subsection 106-1.03.

7. P_L (percent within the lower specification limit which corresponds to a given Q_L) is determined. See Subsection 106-1.03.

8. The Quality Level (the total percent within specification limits) is determined for aggregate gradation, asphalt cement content, and density.

Quality Level = $(P_L + P_U) - 100$

9. Using the Quality Levels from Step 8, the lot Pay Factor (PF) is determined for Density (DPF) and gradation and asphalt cement content pay factors from Table 106-2. The maximum pay factor for the largest sieve size specification for gradation is 1.00.

10. The Composite Pay Factor (CPF) for the lot is determined using the following formula:

$$CPF = \frac{[f_{3/4\ inch}\ (PF_{3/4\ inch}) + f_{1/2\ inch}\ (PF_{1/2\ inch}) + \ldots f_{ac}\ (PF_{ac})]}{\Sigma f}$$

The CPF is rounded to the nearest hundredth.

Table 401-3 gives the weight factor (f), for each sieve size and asphalt cement content.

TABLE 401-3
WEIGHT FACTORS

Sieve Size	Type I Factor "f"	Type II Factor "f"	Type III Factor "f"
1 inch sieve	4	-	-
3/4 inch sieve	4	4	-
1/2 inch sieve	4	5	4
3/8 inch sieve	4	5	5
No. 4 sieve	4	4	5
No. 8 sieve	4	4	5
No. 16 sieve	4	4	5
No. 30 sieve	4	5	6
No. 50 sieve	4	5	6
No. 100 sieve	4	4	4
No. 200 sieve	20	20	20
Asphalt Cement Content, %	40	40	40

The price adjustment will be based on either the CPF or DPF, whichever is the lowest value. The price adjustment for each individual lot will be calculated as follows:

Price Adjustment = $[(CPF \text{ or } DPF)^{*} - 1.00] \times (\text{tons in lot}) \times (PAB)$

*CPF or DPF, whichever is lower.

PAB = Price Adjustment Base = $105 per ton

ASPHALT CEMENT

The total asphalt cement price adjustment is the sum of all price adjustments for each lot.

Asphalt cement will be randomly sampled and tested in accordance with Subsection 401-4.02. Asphalt cement pay reduction factors for each sample will be determined from Table 401-4.

Table 401-4
ASPHALT CEMENT PAY REDUCTION FACTORS
(Use the single, highest pay reduction factor)

Test	Spec	Pay Reduction Factor (PRF)								
		0.00	0.04	0.05	0.06	0.07	0.08	0.10	0.25	Reject or Engr Eval
Tests On Original Binder										
Viscosity	< 3 Pa-s	≤ 3		> 3						
Dynamic Shear	> 1.00 kPa	> 1.00		0.88-0.99				0.71-0.89	0.50-0.70	< 0.50
Toughness	> 110 in-lbs	> 93.5	90.0-93.4	85.0-89.9	80.0-84.9	75.0-79.9	70.0-74.9			< 70.0
Tenacity	> 75 in-lbs	> 63.8	61.0-63.7	58.0-60.9	55.0-57.9	52.0-54.9	48.0-51.9			< 48.0
Tests On RTFO										
Mass Loss	< 1.00 %	< 1.00		1.001-1.092				1.093-1.184	1.185-1.276	> 1.276
Dynamic Shear	> 2.20 kPa	> 2.20		1.816-2.199				1.432-1.815	1.048-1.431	< 1.048
Test On PAV										
Dynamic Shear	< 5000 kPa	< 5000		5001-5289				5290-5578	5579-5867	> 5867
Creep Stiffness, S	< 300 MPa	< 300		301-338				339-388	389-450	> 450
Creep Stiffness, m-value	> 0.300	> 0.300		0.287-0.299				0.274-0.286	0.261-0.273	< 0.261

Asphalt Cement Price Adjustment = $5 \times PAB \times Qty \times PRF$ (for each sample)
PAB = Price Adjustment Base
Qty = Quantity of asphalt cement represented by asphalt cement sample
PRF = Pay Reduction Factor from Table 401-4

Asphalt Cement Appeal Procedure. Once notified of a failing test result of an asphalt cement sample, the Contractor has 21 days to issue a written appeal. The appeal must be accompanied by all of the Contactor's quality control test results and a test result of Contactor's sample of this lot tested by an AASHTO accredited asphalt laboratory (accredited in the test procedure in question). The Engineer will review these test results using ASTM D3244 to determine a test value upon which to base a price reduction.

If the Contractor challenges this value, then the referee sample held by the Engineer will be sent to a mutually agreed upon independent AASHTO accredited laboratory for testing. This test result will be incorporated into the ASTM D3244 procedure to determine a test value upon which to base a price reduction. If this final value incurs a price adjustment, the Contractor shall pay the cost of testing the referee sample.

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PAVEMENT SMOOTHNESS

The top layer of HMA will be measured according to 401-3.15 and evaluated for a smoothness price adjustment. The Engineer will calculate the smoothness price adjustment as follows:

Smoothness Price Adjustment = $PAB \times PQ \times SF$
PAB = Price Adjustment Base
PQ = Final quantity of HMA, tons
PrI = Final measured hot mix smoothness, inches/mile
SF = Smoothness Factor

If the PQ is less than 1,500 tons, the $SF = 0$
If the PQ is 1,500 to 5,000 tons, the $SF = 0.1333 - (0.01666 \times PrI)$
If the PQ is greater than 5,000 tons, the $SF = 0.0666 - (0.0083 \times PrI)$

LONGITUDINAL JOINT DENSITY

Longitudinal joint density price adjustments apply when HMA quantities equal or greater than 1,500 tons. A longitudinal joint density price adjustment for the top layer will be based on the average of all the joint densities on a project and determined as follows:

1. If project average joint density is less than 91% MSG, apply the following disincentive:
   a. Longitudinal joint density price adjustment equal to $3.00 per lineal foot is deducted.

   Sections of longitudinal joint represented by cores with less than 91% density shall be surface sealed according to Subsection 401-3.14.

2. If project average joint density is greater than 92% MSG, apply the following incentive:
   a. Longitudinal joint density price adjustment equal to $1.50 per linear foot is added.

401-4.04 ASPHALT MATERIAL PRICE ADJUSTMENT – UNIT PRICE.

This subsection provides a price adjustment for asphalt material by:
(a) additional compensation to the Contractor or
(b) a deduction from the Contract amount.

1. This provision shall apply to asphalt material meeting the criteria of Section 702, and is included in items listed in the bid schedule of Sections 306, 307, 308, 318 and 401 through 409, except Section 402. Also included is the asphalt material in the Prelevel/Leveling Course (rut repair) HMA and Temporary HMA as part of 401, Approach HMA as included in 401 or 639 and Pathway HMA as part of 608.

2. This provision shall only apply to cost changes in asphalt material that occur between the date of bid opening and the date the asphalt material is incorporated into the project.

3. The asphalt material price adjustment will only apply when:
   a. More than 500 tons of asphalt material in the bid schedule of Sections described in Item 1; and
   b. More than a 7.5% increase or decrease in the Alaska Asphalt Material Price Index, from the date of bid opening to the date the asphalt material is incorporated into the project.

4. The Alaska Asphalt Material Price Index (AAMPI) is posted on the Department's Materials website along with the formula used to calculate the Index. The AAMPI as used in the determination of the "Asphalt Material Price Adjustment – Unit Price" is calculated for the first and third Friday of each month. The index applies from the beginning of the period start day 00:00 hrs, and ends 00:00 hrs the start of the next period. Other calculation and or period start/end days, including the post day (except as fall on the 1st and 3rd Friday) are not permitted.

5. Price adjustment will be cumulative and calculated with each progress payment. Use the price index in effect on the last day of the pay period, to calculate the price adjustment for asphalt material incorporated into the project during that pay period. The Department will increase or decrease payment under this Contract by the amount determined with the following asphalt material price adjustment formula:

   For an increase exceeding 7.5%, additional compensation = $[(IPP-IB)-(0.075 \times IB)] \times Q$
   For a decrease exceeding 7.5%, deduction from contract = $[(IB-IPP)-(0.075 \times IB)] \times Q$

   Where: Q = Quantity of Asphalt Material incorporated into project during the pay period, in tons
   IB = Index at Bid: the bimonthly Alaska Asphalt Material Price Index in effect on date of bid, in dollars per ton
   IPP = Index at Pay Period: the bimonthly Alaska Asphalt Material Price Index in effect on the last day of the pay period, in dollars per ton

   Method of measurement for determining Q (quantity) is the weight of asphalt material meeting the criteria of this subsection and is incorporated into the project. The quantity does not include aggregate, mineral filler, blotter material, thinning agents added after material qualification, or water for emulsified asphalt.

401-5.01 BASIS OF PAYMENT.

Except where specified as individual Pay Items:
Asphalt cement, anti-stripping additives, tack coat, crack sealing, surface sealing of longitudinal joints, surface tolerance corrections, patching defective areas, repair work and materials when planing equipment breaks through existing pavement - Subsection 401-3.07 Preparation of Existing Surface, and the work and materials associated with Subsection 401-3.04 Hauling Equipment are subsidiary to the associated Hot Mix Asphalt Pay Items.

Item 401(1F) Hot Mix Asphalt, Preleveling/Leveling Course, Type IV: Asphalt Cement, anti-stripping additives are subsidiary.

Item 401(3) Hot Mix Asphalt, Temporary, Type II, Class B: Asphalt cement, anti-stripping additives, removal and disposal are subsidiary.

Item 401(6) Asphalt Price Adjustment – Quality: is the sum of the price adjustments for each material lot (excluding the Preleveling/Leveling Course (rut repair) HMA, Temporary HMA and Approach HMA) and for deductions and fees assessed.

Deductions and fees assessed:

- Each mix design subsequent to the approved Job Mix Design (Subsection 401-2.01) for each Type and Class of Hot Mix Asphalt specified will result in a fee of $2500.00 each.
- Failure to cut core samples within the specified period will result in a deduction of $100.00 per sample per day (Subsection 401-4.02).
- Failure to backfill voids left by sampling within the specified period will result in a deduction of $100 per hole per day (Subsection 401-4.02).

Payment will be made under:

Pay Item No.	Pay Item	Pay Unit
401(1A)	Hot Mix Asphalt, Type II; Class A	Ton
401(1F)	Hot Mix Asphalt, Preleveling/Leveling Course, Type IV; Class B	Lane-Station
401(2)	Asphalt Cement, Grade PG 52-28	Ton
401(3)	Hot Mix Asphalt, Temporary, Type II; Class B	Ton
401(4)	Hot Mix Asphalt, Type __; Class __	Square Yard
401(6)	Asphalt Price Adjustment - Quality	Contingent Sum
401(8)	Hot Mix Asphalt, Approach, Type __; Class __	Ton
401(9)	Longitudinal Joint Adhesive	Linear Foot
401(10)	Asphalt Material Price Adjustment – Unit Price	Contingent Sum

CR401-081210

SECTION 603

CULVERTS AND STORM DRAINS

Special Provisions

603-1.01 DESCRIPTION. Add the following:

This work shall also consist of installing culvert marker posts.

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

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

Add the following:

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

Add the following subsection:

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

603-4.01 METHOD OF MEASUREMENT. Add the following:

Culvert marker posts will not be measured for payment.

603-5.01 BASIS OF PAYMENT. Add the following:

Culvert marker posts will not be paid for directly, but will be subsidiary to pipe items.

CR42-082703

SECTION 605

UNDERDRAINS

605-2.01 MATERIALS
Add the following:

Geotextile for Subsurface Drainage	Subsection 729-2.02

605-5.01 PIPE INSTALLATION
Delete the second sentence of the first paragraph and replace with the following: Place and compact a 6-inch minimum bedding layer of porous backfill material in the bottom of the trench for its full width and length.

Delete the first sentence of the last paragraph and replace with the following: After pipe installation has been inspected and approved, place porous backfill material to the height shown in the plans.

605-5.01 BASIS OF PAYMENT
Delete paragraph 3 and substitute the following: Excavation required for underdrains is subsidiary.

Add the following: Geotextile for Subsurface Drainage is subsidiary.

Add the following: Selected Material, Type A required for backfill is subsidiary.

Add the following: Cleanouts and marker posts are subsidiary.

PND#605-070110

SECTION 606

GUARDRAIL

Special Provisions

606-2.01 MATERIALS. Delete "Flexible Markers" in its entirety and substitute the following:

Flexible Markers. Use flexible markers with an overall length of 72 inches. The marker shaft shall have a coil spring at the bottom and a flag at the top. The shaft and spring shall be one piece and made from galvanized spring steel. The flexible marker shall have an orange HDPE flag which provides approximately 20 square inches of surface area. Use stainless or galvanized steel attaching hardware. The following is an example of an acceptable flexible marker.

Model: FF2
Manufacturer: ..... Nordic Fiberglass, Inc.
P.O. Box 27
Highway 75 South
Warren, MN 56762
Phone: ..... (218) 745 – 5095
Fax: ..... (218) 745 – 4990
E-mail: ..... www.nordicfiberglass.com

If using another brand, submit specifications to the Engineer for approval before ordering the markers.

CR45-040606

606-3.01 GENERAL. Replace the second sentence of the first paragraph with the following:

Conform to these Specifications and the Standard Drawings with the following exception. Modify Standard Drawing G-20.10 to only allow an offset of 1.5 feet for the ET-PLUS.

CR266-051204

606-3.02 POSTS. Delete the first two numbered items in this subsection and substitute the following:

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

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

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

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

CR45-040606

Add the following subsections:

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

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

CR45-040606

606-5.01 BASIS OF PAYMENT. No. 2.b, replace (ET-2000) with (ET-PLUS)

Payment will be made under:

Pay Item 606(11), replace (ET-2000) with (ET-PLUS)

CR266-112709

ADDENDUM NO. 1
ATTACHMENT NO. 8

SECTION 611

RIPRAP

Special Provision

611-2.01 MATERIALS. Replace the last sentence of the first paragraph with the following:

Do not use boulders or cobbles.

PND#611-112210

611-2.01 MATERIALS. Add the following after the first sentence:

Apparent specific gravity will be determined by WAQTC FOP for AASHTO T85.

CR277-110705

SECTION 615

STANDARD SIGNS

Special Provisions

615-2.01 MATERIALS. Delete first paragraph of Item 2. Including subitems a., b., c., and replace with:

2. Sign Fabrication. Use Type IV reflective sheeting (for lettering symbols, borders, and background) on sheet aluminum panels for all signs except the following:

   a. Orange Background Signs. Use Type IX fluorescent orange reflective sheeting placed on sheet aluminum panels, except:
      (1) For temporary installations, the reflective sheeting may be placed on aluminum, plastic, or plywood sheet panels.
      (2) For flexible signs, (Roll-Up Signs) use fluorescent reflective sheeting Type VI or better (based on durability and reflectivity, as determined by the Engineer). Roll-Up Sign – 3M Series RS 24, Reflexite Marathon Orange, or approved equal.

   b. Railroad Crossbucks and Vertical Crossbuck Supports. Use white Type VIII or Type IX reflective sheeting for background of sign and stripes.

   c. Non-illuminated Overhead Signs with White Legends on Green Backgrounds. Use Type IX reflective sheeting for legends and background. Create the legend in one of the following ways:
      (1) Cut border and legend from white Type IX reflective sheeting and adhere to a green Type IX background, or
      (2) Cut stencil of border and legend out of green transparent acrylic film and use transparent adhesive to overlay the film on a white Type IX reflective background.

   d. Fluorescent Yellow Green School Area Signs. Use Type VIII or Type IX reflective sheeting for background.

   Reflective Sheeting Warranty. Supply manufacturer's warranty for reflective sheeting including retention of fluorescent yellow green (measured according to ASTM E 2301) for ten years according to the following criteria:

   - Minimum Fluorescent Luminance Factor: $Y_F = 20\%$
   - Minimum Total Luminance Factor: $Y_T = 35\%$

   The warranty shall stipulate: If the sheeting fails to meet the minimum fluorescence values within the first 7 years from the date of fabrication, the manufacturer shall, at the manufacturer's expense, restore the sign surface to its original effectiveness. If the reflective sheeting fails to meet the minimum fluorescence values within the 8^{th} through the 10^{th} year from the date of fabrication, the manufacturer shall, at the manufacturer's expense, provide enough new replacement sign sheeting to the Department to restore the sign surface to its original effectiveness.

CR615-061708

SECTION 616

THAW PIPE AND THAW WIRES

Standard Modifications

616-2.01 THAW PIPE. Second sentence delete:

"and Fittings"

Add the following sentence:

Fittings ASTM A234 galvanized according to AASHTO M 111.

E14-063004

SECTION 618

SEEDING

Special Provisions

618-1.01 DESCRIPTION. Add the following:

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

618-2.01 MATERIALS. Add the following to the list of material specifications:

Mulch	Subsection 727-2.01

618-3.01 SOIL PREPARATION. Add the following:

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

CR52-012707

Standard Modification

CONSTRUCTION REQUIREMENTS

618-3.01 SOIL PREPARATION. Delete the fourth paragraph and replace with the following:

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

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

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

618-3.02 SEEDING SEASONS. Add the following:

Seed disturbed areas that require seeding within 14 days of the permanent cessation of ground disturbing activities in that area.

Seed between May 15 and August 15, or obtain written approval from the Engineer to seed at a different date.

618-3.03 APPLICATION. Delete the first three sentences and replace with:

Apply seed mix, fertilizer, and mulch (if required) at the rate specified in the Special Provisions. If no seed mix, seed mix application rate, or fertilizer rate are specified in the special provisions, use the recommendations of the Alaska Department of Natural Resources (ADNR) and the Revegetation Manual for Alaska.

Do not seed areas of bedrock, plant beds, and areas indicated on the plans as "no seeding."

Water and fertilizer required for application are subsidiary to the Seeding bid item.

E42-012707

ADDENDUM NO. 1
ATTACHMENT NO. 9

Special Provisions

618-3.03 APPLICATION. Add the following:

Apply seed, mulch, and fertilizer as follows. Apply seed and mulch in one application if using the hydraulic method. Apply fertilizer with the hydraulic method.

Component	Ingredients	Application Rate (per MSF)
Seed	Slender Wheatgrass (Wainwright) Red Fescue (Arctared) Annual Ryegrass (Lolium)	0.50 lbs. 0.40 lbs. 0.10 lbs. Total = 1.00 lbs
Soil Stabilizer		
Slope ≤ 3:1	Mulch	46 lbs.
Slope >3:1	Mulch with tackifier	45-58 lbs.
Fertilizer	20-20-10	12.0 lbs.

Do not remove the required tags from the seed bags.

Upon the Engineer's approval, Nortran Tufted Hairgrass may be used as a substitute for Slender Wheatgrass (Wainwright) if Slender Wheatgrass (Wainwright) is commercially unavailable. If this substitution is made, apply at the same application rate.

R52-012707

Deleted Text

Special Provisions

Delete subsection 618-3.04 in its entirety, and add the following new subsection:

618-3.04 MAINTENANCE AND WATERING. Protect seeded areas against traffic by approved warning signs or barricades. Repair surfaces gullied or otherwise damaged following seeding. Maintain seeded areas in a satisfactory condition until final acceptance of work.

Water and maintain seeded areas. Water applied by this subsection is subsidiary to seeding.

Reseed areas not showing evidence of satisfactory growth within 3 weeks of seeding. Bare patches of soil more than 10 square feet in area must be reseeded. Erosion gullies over 4 inches deep must be filled and reseeded. Fill the entire erosion gully to surrounding grade, even the portions less than 4 inches deep.

Contact ADNR for advice or corrective measures, when seeded areas are not showing evidence of satisfactory growth. The Contractor is responsible for retracking, reseeding, refertilizing and remulching areas that do not show satisfactory growth, and those actions are subsidiary.

PND#618-070110

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

Reseed areas that are not acceptable to the Engineer.

618-3.06 PERIOD OF ESTABLISHMENT. Establishment periods extend for one complete growing

season following acceptable seeding. Employ all possible means to preserve/maintain the new vegetative matt in a healthy and vigorous condition to ensure successful establishment. Reseed areas that do not meet the specifications. Watering and reseeding after the final inspection are subsidiary.

The Engineer may, but is not required to, determine the Project is complete except for the period of establishment, and issue a letter of final acceptance. After final acceptance, work or materials due under this subsection during any remaining period of establishment are considered warranty obligations that continue to be due following final acceptance in accordance with subsection 105-1.16.

618-4.01 METHOD OF MEASUREMENT. After Seeding by the Pound, delete text and replace with:

By the weight of dry seed acceptably seeded and maintained.

E42-012707

Special Provisions

618-4.01 METHOD OF MEASUREMENT.

After Water for Seeding, delete text and replace with: Water applied for seeding will not be measured.

PND#618-070110

618-5.01 BASIS OF PAYMENT. Delete paragraphs beginning: "Seeding by the Acre" and "Seeding by the Pound" and replace with:

Seeding by the Acre. Payment is for established vegetative matt. Soil preparation, fertilizer, and water required for hydraulic method are subsidiary.

Seeding by the Pound. Payment is for established vegetative matt. Soil preparation, fertilizer, and water required for hydraulic method are subsidiary.

Add new pay description:

Water for Seeding. Water applied for growth of vegetative matt, including maintenance and water for hydraulic seeding, fertilizing, or mulching are subsidiary. Water after project completion is subsidiary.

E42-012707

Special Provisions

618-5.01 BASIS OF PAYMENT. Delete paragraphs beginning: "Seeding by the Acre" and "Seeding by the Pound" and replace with:

Seeding by the Acre. Payment is for established vegetative matt. Soil preparation, fertilizer, and water required for hydraulic method are subsidiary.

Seeding by the Pound. Payment is for established vegetative matt. Soil preparation, fertilizer, and water required for hydraulic method are subsidiary.

Add new pay description:
Water for Seeding. Water applied for growth of vegetative matt, water for hydraulic seeding, fertilizing, or mulching, and water after project completion is subsidiary to seeding.

PND#618-070110

ADDENDUM NO. 1
ATTACHMENT NO. 10

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SECTION 619

SOIL STABILIZATION

Special Provisions

619-2.01 MATERIALS. Replace matting requirement with the following:

Matting: Subsection 727-2.02 Item 4.

CR619-070609

619-2.01 MATERIALS. Add the following:

Permanent Erosion Control Blanket:	Subsection 727-2.02
Long Term Erosion Control Blanket:	Subsection 727-2.02

619-3.02 Application. Add the following:

Staple erosion control blankets at joints, edges, and field as recommended by the manufacturer.

619-3.02 Maintenance. Replace the second paragraph with the following:

Maintain the mulch, matting, and/or erosion control blankets until all work on the project is complete and accepted.

640-5.01 BASIS OF PAYMENT. Add the following Pay Item:

Payment will be made under:

Pay Item No.	Pay Item	Pay Unit
619(2P)	Permanent Erosion Control Blanket	Square Yard
619(2LT)	Long-Term Erosion Control Blanket	Square Yard

PND#619-070110

SECTION 640

MOBILIZATION AND DEMOBILIZATION

Standard Modification

640-1.01 DESCRIPTION. Add the following:

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

   Ensure subcontractors comply with the Federal and State DOLWD requirements.

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

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

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

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

Add the following:

4. Progress payments for Worker Meals and Lodging, or Per Diem 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 Pay Item:

Payment will be made under:

Pay Item No.	Pay Item	Pay Unit
640(4)	Worker Meals and Lodging, or Per Diem	Lump Sum

E89-052810

Special Provisions

Delete Section 641 and replace with the following:

SECTION 641

EROSION, SEDIMENT, AND POLLUTION CONTROL

641-1.01 DESCRIPTION. As approved by the Engineer, provide project administration and construction activities to control erosion, sedimentation, and pollution from the Project, according to this section and applicable local, state, and federal requirements, including the Construction General Permit.

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

Alaska Certified Erosion and Sediment Control Lead (AK-CESCL). Certification documenting the person has completed training, testing, and other requirements recognized by the Department to satisfy the APDES Construction General Permit requirement for "qualified personnel." AK-CESCL certificates issued in conformance with, and under the authority of the AK-CESCL Memorandum of Understanding are recognized by the Department as meeting this standard. An AK-CESCL certification must be recertified every three years. CPESC, Certified Professional in Erosion and Sediment Control: CISEC, Certified Inspector in Sediment and Erosion Control; and CESCL, Washington Department of Ecology Certified Erosion and Sediment Control Lead are the only other certifications allowed as substitute for the AK-CESCL certification.

Alaska Department of Environmental Conservation (ADEC). The state department that has been authorized to administer the Clean Water Act's National Pollutant Discharge Elimination System in a phased process.

Alaska Pollutant Discharge Elimination System (APDES). The Alaska Pollutant Discharge Elimination System, administered by ADEC.

Area of Land Disturbance. The area of land (soil) that will be disturbed by Construction Activity. Area of Land disturbance does not include pavement removal or pavement milling if the activity does not remove the aggregate underlying the pavement.

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

Certified Erosion and Sediment Control Lead (CESCL). Issued by the Washington Department of Ecology.

Certified Inspector of Sediment and Erosion Control (CISEC).

Certified Professional in Erosion and Sediment Control (CPESC). A recognized specialist in soil erosion and sediment control. A CPESC has educational training, demonstrated expertise, experience in controlling erosion and sedimentation, and meets certification standards.

Clean Water Act (CWA). United States Federal Water Pollution Control Act (33 U.S.C. 1251 et seq.)

Construction Activity. Physical activity by the Contractor or any Subcontractor or Utility Company that may result in land disturbance. Construction Activity includes, but is not limited to, clearing, grubbing, excavating, constructing embankment, grading, stockpiling erodible material, processing material, and installation or maintenance of BMP's.

Construction General Permit (CGP). The Alaska Pollutant Discharge Elimination System General Permit for Discharges from Large and Small Construction Activities.

Department Furnished Disposal Site. Areas designated in the Contract for disposal of unsuitable materials.

Department Furnished Haul Route. Areas designated in the Contract for construction, reconstruction, or rehabilitation of the roadway, or areas designated, in the Contract, for temporary use as transport route for material or equipment related to the Project.

Department Furnished Materials Site. A material site identified in the Contract as a "Mandatory Source," or excavated portions within the Project limits where useable material is excavated for use as fill, embankment, or cover in other areas of the Project. A material site identified in the Contract as "Designated Source" is considered a Department Furnished Materials Site if the Contract defines the Department as co-operator for the site. Material sites identified in the Contract as "Available Sources" are not considered Department Furnished for the purpose of defining who has operational control.

Department Furnished Staging and Equipment Areas. Areas designated in the Contract for storage or staging of material or equipment related to the Project

Electronic Notice of Intent (eNOI). The Electronic Notice of Intent submitted to ADEC, to begin Construction Activity under the CGP.

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

Environmental Protection Agency (EPA). The United States Environmental Protection Agency.

Erosion and Sediment Control Plan (ESCP). A project-specific document prepared by the Department to identify specific information about the Project. The ESCP may include measures to minimize erosion and contain sediment within the Project site. The ESCP provides information for the Contractor's use in developing the Project SWPPP.

Final Stabilization. Soil disturbing activities at the site have been completed and one of the following methods, as identified in the contract, has been completed:

- establish a uniform and evenly distributed perennial vegetative cover with a density of 70 percent of the native background vegetative cover, or
- construct non-erodible permanent stabilization measures (such as riprap, gabions, geotextiles, pavement, or crushed aggregate base course) where vegetative cover is not required.

Haul Route. Existing or newly constructed road where construction materials are transported and where deposition of sediments or erodible materials may result from the material hauling activity or from the Contractors activity to construct or maintain the road.

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 not limited to, petroleum products related to construction activities and equipment. The HMCP is included as an appendix to the SWPPP.

Joint Inspection. SWPPP inspection performed together as a collaborative effort of the Contractor and the Department. Contractor's staff performing the inspection must be the Superintendent, SWPPP Manager, or SWPPP Manager's Representative. The Department's staff performing the inspection will be the Engineer or Engineer's qualified representative.

Multi-Sector General Permit (MSGP). The Alaska Pollutant Discharge Elimination System General Permit for Storm Water Discharges associated with Industrial Activity.

Operator. The party associated with a regulated activity that has responsibility to obtain storm water permit coverage. Operator is defined separately in the storm water general permits (construction and industrial general permits).

Pollutant. Any substance or item meeting the definition of pollutant contained in 40 CFR 122.2

Project Area. The physical limits of the construction site, Department furnished project staging and equipment areas, Department furnished haul routes where deposition of sediments or erodible materials may result from material hauling activities and Department furnished material and disposal sites directly related to the Contract. The project area also includes all areas of utility relocation and installation, including adjacent utility easements and tie-ins that may extend beyond the defined project limits. Contractor or Commercial Operator furnished material sites, material processing sites, disposal sites, haul routes, staging and equipment storage areas are not included in the Project Area.

Regional Storm Water Specialist. Department employee or representative who provides compliance assistance related to the CGP within a specified region.

Spill Prevention, Control, and Countermeasure Plan (SPCC). The Contractor's detailed plan for petroleum spill prevention and control measures that meets 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, and for the Contractor's compliance with 40 CFR 112, and other applicable federal, state, and local laws and regulations related to hazardous materials.

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

Storm Water Inspector. Department employee or representative who conducts CGP inspections.

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

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

Subcontractor SWPPP Coordinator. The Subcontractor's representative with authority to direct the Subcontractor's work; and who is responsible for coordination with the SWPPP Manager and for the Subcontractor's compliance with the SWPPP.

Superintendent. The Contractor's authorized representative in responsible charge of the work, who is duly authorized by the Contractor, in accordance with CGP, Appendix F. The Superintendent has responsibility and authority for the overall operation of the Project and for Contractor furnished sites and facilities directly related to the Project.

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

SWPPP Manager. The Contractor's qualified representative responsible for CGP compliance, implementing the SWPPP, conducting inspections, updating the SWPPP, supervising Section 641 work, monitoring construction activities, and with authority to suspend work and implement corrective actions.

SWPPP Manager's Representative. The Contractor's qualified representative who may be assigned certain SWPPP Manager's tasks and authorities.

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

SWPPP Template. EPA's template for the Contractor's use in developing the SWPPP. The template is available online at EPA's website. Select "SWPPP Template – Authorized States."

Temporary Stabilization. The protection of exposed soils (disturbed land) from wind and water erosion during the construction process, until final stabilization is established.

Utility Company. A Utility Company or their contractor performing work concurrently with the construction of this project as outlined in Section 105-1.06.

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

Utility SWPPP Coordinator. The Utility's representative with authority to direct the Utility's work; and who is responsible for coordination with the SWPPP Manager and for the Utility's compliance with the SWPPP.

641-1.03 PLAN AND PERMIT SUBMITTALS. Contractor submission and department review deadlines in this section supersede subsection 1.06-1.08 and 108-1.03.

Partial and incomplete submittals will not be accepted for review. Any submittal that is re-submitted or revised after submission, but before the review is completed, will restart the submittal review timeline.

1. SWPPP. Submit three signed copies of the SWPPP to the Engineer for approval. Deliver these documents to the Engineer at least 21 calendar days before you plan to begin Construction Activity. Organize and bind the SWPPP and related documents for submittal according to the requirements of 641-2.01, paragraph 2.

   The Department will review the SWPPP submittals within 14 calendar days after they are received. Submittals will be returned to the Contractor, and marked as either requiring modification or as approved by the Department.

2. HMCP. Submit three copies of the HMCP as an appendix to the SWPPP, and in accordance with the requirements for submitting the SWPPP.

3. SPCC. When SPCC is required under subsection 641-2.03, submit three signed copies of the SPCC to the Engineer. Deliver these documents to the Engineer at least 21 calendar days before you plan to begin construction activity.

   The Department will keep the SPCC as a record document, and reserves the right to review it and require modifications.

4. eNOI. To obtain APDES construction authorization for the Project under the CGP. APDES authorization and compliance for Contractor furnished and commercial operator furnished areas are the sole responsibility of the Operators.

   The Contractor and the Engineer must sign and certify the approved SWPPP in accordance with CGP, Appendix F, before the Contractor submits their eNOI for the Project to ADEC. The certification statement cannot be amended or edited.

   Submit an eNOI for the Project to ADEC with the required fee. Submit three copies of the eNOI to the Engineer when the eNOI is submitted to ADEC. The Department will submit the Department's eNOI to the ADEC and provide a copy to the Contractor for inclusion in the SWPPP. Allow adequate time for state processing of the eNOI, and for the ADEC to list the eNOIs as active status, before beginning Construction Activity.

5. eNOT. Within 30 days after the Engineer has determined you may end SWPPP activities for the Project, submit your eNOT for the Project to ADEC, and send a copy of the eNOT to the Engineer. Within 30 days of the Engineer's determination, the Department will submit the Department's eNOT to the ADEC, and will terminate the Department's CGP coverage for the Project and send a copy to the contractor.

6. ADEC SWPPP Review. When CGP, Part 10, F requires ADEC SWPPP review; transmit a copy of the Department approved SWPPP with the required fee to ADEC using delivery receipt confirmation. Transmit a copy of the delivery receipt confirmation to the Engineer within seven (7) calendar days of receiving the confirmation. Transmit a copy of the ADEC SWPPP review letter to the Engineer within seven (7) calendar days of receipt from ADEC. Amend the SWPPP as necessary to address ADEC comments and transmit a copy of the SWPPP Amendments to the Engineer within seven (7) calendar days of receipt of ADEC review comments. Include a copy of the ADEC SWPPP review letter in the SWPPP.

7. Local Government SWPPP Review. When CGP, Part 10 F requires local government review, transmit a copy of the Department-approved SWPPP with the required fee using delivery receipt confirmation. Transmit a copy of the delivery receipt confirmation to the Engineer within seven (7) calendar days of receiving the confirmation. Transmit a copy of any comments by the local government to the Engineer within seven (7) days of receipt. Amend the SWPPP as necessary to address local government comments and transmit SWPPP Amendments to the Engineer within seven (7) days of receipt of the comments.

641-1.04 PERSONNEL QUALIFICATIONS. Include qualifications of the Superintendent, SWPPP Preparer, SWPPP Manager, and SWPPP Manager's Representatives in the SWPPP.

The SWPPP Preparer must meet at least one of the following qualifications:

- current certification as a CPESC
- current certification as AK-CESCL, and at least three years experience in erosion and sediment control (provide documentation including project names, project timelines, and work responsibilities demonstrating the experience requirement).
- Professional Engineer registered in the State of Alaska and current certification as AK-CESCL

Include the SWPPP Preparer's qualification in the SWPPP.

The Superintendent and any designated Relief Superintendent must meet all the following qualifications:

- current certification as AK-CESCL
- duly authorized representative, as defined in the CGP, Appendix F

The SWPPP Manager and SWPPP Manager's Representative must hold current AK-CESCL certification.

641-1.05 SIGNATURE/CERTIFICATION REQUIREMENTS AND DELEGATIONS.

1. eNOI and eNOT. The eNOI and eNOT must be signed and certified by a responsible corporate officer, in accordance with CGP Appendix F. Signature and certification authority, for the eNOI and eNOT, cannot be delegated.

2. Delegation of Signature Authority for Other SWPPP Documents and Reports. Delegate signature and certification authority to the Superintendent, in accordance with CGP Appendix F, for the SWPPP. SWPPP inspections, and other reports required by the CGP. Use form 25D-108. The form and certification must be used verbatim and must not be altered other than to insert names, dates, and signatures as included on the form. Include a copy of the written delegation form 25D-108, and the Department's delegation form 25D-107 in the SWPPP. Delegation is not required if the Superintendent is a responsible corporate officer for the Contractor, as defined in CGP Appendix F.

641-1.06 OPERATORS.

1. The Department, **Matanuska-Susitna Borough**, and the Contractor are **all** Operators for the Project and for Department furnished:

- material sites
- disposal sites
- haul routes where deposition of erodible materials may result from material hauling activity
- staging areas
- equipment storage areas
- utility relocation and installation activities associated with the project

2. The Department is not an operator for Contractor furnished:

- material sites
- material processing sites
- disposal sites
- haul routes where deposition of erodible materials may result from material hauling activity
- staging areas
- equipment storage areas

The Contractor is an operator for the above listed Contractor furnished areas. Compliance with APDES and other applicable federal, state, and local requirements, and securing all necessary clearances, rights, and permits for these Contractor furnished areas are the sole responsibility of the Contractor. Document the name of each operator, and the locations of these areas in the Project SWPPP. The control measures for these sites may be included in the Project SWPPP if they are eligible for CGP coverage. If this is the case, then the Contractor's and the Department's eNOI acreage will be different. If the area must be covered by the industrial storm water permit, note that there is a 30-day waiting period for the eNOI to become active.

3. The Department is not an operator for commercial and utility operator furnished:

- material sites
- material processing sites
- disposal sites
- haul routes
- staging areas
- equipment storage areas

The commercial operator is an operator for the above-listed commercially operator-furnished sites. Compliance with APDES and other applicable federal, state, and local requirements, and securing all necessary clearances, rights, and permits for these commercial operator furnished areas are the sole responsibility of the commercial operator. Document the name of each operator, and the locations of these areas in the Project SWPPP.

4. A Utility company is not an Operator when utility relocation is performed concurrently with the Project. The Department maintains operational control over the plans and specifications, and the Contractor has day-to-day control over the various utility construction activities that occur in support of the Project. A Utility company is considered a subcontractor for concurrent relocation.

The Department and a Utility company are both Operators for the Project when utility relocation is performed in advance of Project construction. After the Highway Contractor has an active NOI for the Project, the Utility company no longer has Operator status and files a NOT for the SWPPP covering only the utility work. Remaining relocation is identified in and performed under the Project SWPPP.

641-2.01 STORM WATER POLLUTION PREVENTION PLAN (SWPPP) REQUIREMENTS. Use a SWPPP preparer to develop the SWPPP and associated documents, in accordance with the requirements of the CGP. The SWPPP Preparer must put their name, title and company name and qualifications in the SWPPP.

Use the Department's ESCP as a starting point for developing the SWPPP. The approved SWPPP replaces the ESCP. Develop the SWPPP in accordance with EPA's SWPPP template for Authorized States, with the following exceptions:

- In Section 3 (Good Housekeeping), add a subsection to describe dedicated asphalt plants and/or dedicated concrete plants, give their locations, and identify the controls that will be used to minimize pollutants from them. If there are no dedicated asphalt or concrete plants, then state that in the SWPPP.
- Appendix H is not required
- Add appendices for:
    - Endangered Species Act and historic preservation documents
    - Other Permits (404, Section 10, etc.)
    - Hazardous Material Control Plan
    - Subcontractor and Utility Certifications
    - BMP descriptions[†]
    - Rainfall logs
    - NOT form
    - Personnel qualification & training certifications for:
        - Superintendent
        - SWPPP Preparer
        - SWPPP Manager
        - SWPPP Manager's Representative
        - Department's SWPPP Inspector
- Add forms completed by the Department:

  SWPPP Delegation of Signature Authority (25D-107)
  DOT&PF SWPPP Certification (25D-109)

- Use Department forms for:
    - Construction Site Inspection Report (25D-100 parts 1&2)
    - SWPPP Subcontractor Certification (25D-105)
    - SWPPP Pre-Construction Site Visit (25D-106)
    - SWPPP Delegation of Signature Authority for CGP Documents (25D-108 Contractor, 25D-107 DOT&PF)
    - SWPPP Grading and Stabilization Activities Log (25D-110)
    - Contractor's SWPPP Certification (25D-111)
    - SWPPP Corrective Action Log (25D-112)
    - SWPPP Delayed Action Item Report (25D-113)
    - SWPPP Amendment Log (25D-114)
    - SWPPP Daily Record of Rainfall (25D-115)
    - SWPPP Training Log (25D-125)
    - Utility Certification Form

[†] BMP descriptions and/or schematics in the SWPPP or SWPPP amendment must provide a citation for the BMP Manual or publication that was used as a source. The description must include either or both schematics and text descriptions, the full title of the reference, author, publisher, and date of publication. If a BMP was created for a project specific situation and no published source was used, then the SWPPP or SWPPP amendment must state that no manual or publication was used as a source; and a description, design schematic and placement of the BMP must be described.

Compile the SWPPP in three ring binders with tabbed and labeled dividers for each section and appendix included in EPA's template for Authorized States. Incorporate and cite applicable requirements of the project permits and environmental commitments into the SWPPP. Incorporate SWPPP activities into the Project CPM Schedule.

Use the Department's documentation of consultation with the State Historic Preservation Officer and federal agencies for consideration of historic properties and endangered species. Make additional consultations as necessary for Contractor or commercial operators' specific activities which fall outside the Project limits, or which may result in changes to the Project footprint or timeline. You may cover these activities within the project SWPPP provided they are eligible for coverage under the CGP, and provided the SWPPP clearly and specifically identifies the Operators, their activities, and the portions of the SWPPP and project areas for which they are responsible.

The SWPPP Preparer must visit the project site before construction activity begins. Document the site visit on Form 25D-106, SWPPP Pre-Construction Site Visit. The SWPPP Preparer must visit the site accompanied by the Contractor, if the SWPPP Preparer is not a Contractor employee. Give the Department at least seven days notice of the site visit, so that the Department may participate. The pre-construction inspection must:

- Identify or verify the SWPPP's stated opportunities to phase construction activities.
- Identify or verify the SWPPP's description of appropriate BMPs and their sequencing.
- Identify or verify the SWPPP's list of sediment controls that must be installed prior to beginning Construction Activities.
- Be documented in the SWPPP on Form 25D-106, SWPPP Pre-Construction Site Visit, including the names of attendees and the date.

The findings of the visit must be incorporated in the development of the SWPPP, or by amendment if the SWPPP was submitted prior to the visit.

The SWPPP must identify specific areas where potential erosion, sedimentation, or pollution may occur. The potential for wind erosion must be addressed. The potential for erosion at drainage structures must be addressed. Describe site specific BMPs, source controls, sediment controls, discharge points, and a plan including schedule and implementation procedures for temporary and final stabilization. Describe all temporary and permanent stabilization measures. Include typical installation drawings for all BMPs that will be incorporated in the Project. Include the Contractor's schedule and the schedule for stabilization and installation of other BMPs.

The SWPPP must provide erosion and sediment control measures for all land disturbances resulting from the Contractor, Utility Companies and all Subcontractors activities during the course of the contract. The SWPPP must consider the activities of utility companies performing work on the Project. The SWPPP must describe the roles and responsibilities of the Contractor, Utility Companies, subcontractors, and the Department with regard to implementation of the SWPPP. The SWPPP must identify all operators for the Project and identify the areas over which each operator has operational control.

Specify the line of authority and designate a Superintendent, SWPPP Manager, and each SWPPP Manager's Representative. Provide 24 hour contact information for the Superintendent, SWPPP Manager, and for each SWPPP Manager's Representative. The Superintendent, SWPPP Manager, and each SWPPP Manager's Representative must have 24 hour contact information for all Subcontractor SWPPP Coordinators.

Identify the SWPPP inspection schedule in the SWPPP.

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 documents necessary to satisfy the requirements of the CGP and this specification.

641-2.02 HAZARDOUS MATERIAL CONTROL PLAN (HMCP) REQUIREMENTS. Prepare the HMCP for prevention of pollution from storage, use, containment, cleanup, and disposal of all hazardous material, including petroleum products related to construction activities and equipment (See 40 CFR 117 and 302 for listing of hazardous materials).

Compile Material Safety Data Sheets in one location and reference that location in the HMCP.
List and give the location and estimated quantities of hazardous materials to be used or stored on the Project. Store hazardous materials in covered storage areas. Include secondary containment for all hazardous material storage areas.

List the types and approximate quantities of response equipment and cleanup materials available on the Project. Include a list and location map of cleanup materials, at each different work site and readily available off site (materials sources, material processing sites, disposal sites, staging areas, etc).

Designate a Spill Response Field Representative and identify the line of authority. Designate a Subcontractor Spill Response Coordinator for each subcontractor. Provide 24 hour contact information for the Contractor's Spill Response Field Representative. The Contractor's Spill Response Field Representative must have 24 hour contact information for each Subcontractor Spill Response Coordinator.

Identify the locations where storage, fueling and maintenance activities will take place, describe the maintenance activities, and list controls to prevent the accidental spillage of oil, petroleum products, and other hazardous materials.

Detail procedures for containment and cleanup of hazardous substances. Detail a plan for the prevention, containment, cleanup, and disposal of soil and water contaminated by spills. Detail a plan for dealing with contaminated soil and water encountered during construction.

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

Store spill response materials, appropriate to the hazards associated with that site, in sufficient quantity at each identified location.

Include the HMCP as an appendix to the SWPPP.

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

- oil or petroleum products from a spill may reach navigable waters, and
- 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 in the SWPPP.

641-2.04 RESPONSIBILITY AND AUTHORITY OF THE SUPERINTENDENT, SWPPP MANAGER, AND SWPPP MANAGER'S REPRESENTATIVE. The Superintendent is responsible for the overall operation of the Project and all Contractor furnished sites and facilities directly related to the Project. The Superintendent shall sign and certify the SWPPP, SWPPP inspections, and other reports required by the CGP, except the NOI and NOT. The Superintendent may not delegate the task or responsibility of signing and certifying the SWPPP, SWPPP inspections, and other reports required by the CGP. If the superintendent is unavailable, a relief superintendent may sign and certify reports required by the CGP. If a relief Superintendent is used, document the personnel change, including a photo copy of their AK-CESCL certification, and include their beginning and ending dates in the SWPPP.

The Superintendent may assign certain duties to the SWPPP Manager. Those duties may include:

1. Ensuring Contractor's compliance with the SWPPP and CGP,
2. Ensuring construction activity does not result in discharge of pollutants that exceed applicable water quality standards,
3. Performing SWPPP inspections,
4. Updating the SWPPP with amendments and forms, and
5. Directing and overseeing installation, maintenance, and removal of BMPs

The SWPPP Manager may assign their duties to a SWPPP Manager's Representative.
The Superintendent, SWPPP Manager, and the SWPPP Manager's Representative shall be knowledgeable in the requirements of this section, the SWPPP, CGP, BMPs, HMCP, SPCC, environmental permits, and environmental commitments.

The Superintendent, SWPPP Manager, and the SWPPP Manager's Representative shall have the Contractor's complete authority to suspend construction activities that do not conform to the SWPPP or CGP.

641-2.05 MATERIALS. Comply with the material requirements described in the Plans and Specifications.

Use materials suitable to withstand hydraulic, wind, and soil forces, and to control erosion and trap sediments in accordance with the requirements of the CGP.

Straw that is certified as free of noxious weed by the United States Department of Agriculture, Natural Resources Conservation Service, Local Soil and Water Conservative District, Alaska Weed Free Forage Certification Program must be used when available. Hay may not be substituted for straw.

Silt fences .....Subsection 729-2.04, Sediment Control.

Temporary Seed .....Section 724

Erosion, Sediment, and Pollution Control - Material.....Section 744

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

Ensure all subcontractors and utility companies understand and comply with the SWPPP and the CGP. Provide SWPPP information to utility companies. Notify the Engineer immediately if the actions of any utility company or subcontractor do not comply with the SWPPP and the CGP. Provide training to subcontractors & utility companies on control measures at the site and applicable storm water pollution prevention procedures and document the dates and attendees to these trainings in Appendix J of the SWPPP.

1. Starting Construction:

Do not begin Construction Activity until:

- the SWPPP has been approved by the Engineer
- authorized by the Engineer
- the Project eNOI for the Department and for the Contractor are both listed as Active Status on the ADEC website
- the SWPPP preparer has visited the Project and the SWPPP has been developed (or amended) with findings from the visit. Also document in the SWPPP the date of the visit and the persons conducting the visit.

Post notices on the outside wall of the Contractor's project office, and at publicly accessible locations near the beginning and end of the Project. Protect postings from the weather and locate so the public can read them without obstructing construction activities (for example, at an existing pullout). Include the following information in each of the posted notices:

- Copy of all eNOIs related to this project
- Name and phone number of SWPPP Manager
- Location of the SWPPP available for public viewing.

Install an outdoor rain gauge in an approved and readily accessible location on the Project.

2. During Construction:

Comply with requirements of the HMCP and SPCC, and all state and federal regulations that pertain to the handling, storage, cleanup, and disposal of petroleum products or other hazardous substances. Contain, clean up, and dispose of discharges of petroleum products and other hazardous materials. Place absorbent pads or other suitable containment under fill ports while fueling and under equipment during maintenance or repairs. Install secondary containment under all stationary equipment that contains petroleum products.

Comply with the requirements of 18 AAC 75 and AS 46, Oil and Hazardous Substances Pollution Control. Report petroleum product spills as required by federal, state, and local law, and as described in the HMCP and SPCC.

Comply with the requirements of the SWPPP. Implement temporary and permanent erosion and sediment control measures identified in the SWPPP and as directed by the Engineer. Keep the SWPPP current. If storm water discharges threaten water quality, take immediate action. Comply with the requirements of 18 AAC 70 State of Alaska Water Quality Standards, AS 16.05.841 and 16.05.871 Protection of Fish and Game, 11 AAC 112 Alaska Coastal Management Program, Section 404 of the CWA, and all other applicable federal, state, and local statutes and regulations.

Coordinate with subcontractors and utility companies doing work in the project area so BMPs and temporary and permanent stabilization are installed, maintained, and protected from damage.

If you suspect or have determined that there has been an incident of CGP non-compliance that may endanger health or the environment, then immediately report it to the Engineer. The Engineer will determine whether the incident is required to be reported to the EPA and ADEC as described in the CGP. If the incident is reported to the EPA and ADEC, the Department will submit oral and written reports on behalf of the Department and the Contractor. Be prompt with your notice to the Engineer because the oral report to EPA and ADEC is required within 24 hours of the time you become aware of the incident. The Superintendent must co-sign with the Department, the written report to EPA and ADEC.

3. Corrective Action and Maintenance of BMPs:

Maintain temporary and permanent erosion and sediment control measures in effective operating condition. Remove sediment and debris from sediment traps, silt fences, and sediment ponds before sediment or debris accumulates to 50% of the BMP's design capacity.

Implement corrective action:

- if an incident of non-compliance with the SWPPP or CGP is identified
- if an inspection identifies the SWPPP or any part of the SWPPP is ineffective in preventing the discharge of pollutants that exceed applicable water quality standards
- if the Engineer determines the SWPPP or any part of the SWPPP is ineffective in preventing the discharge of pollutants that exceed applicable water quality standards
- if any BMP is damaged, undercut, or unable to effectively perform the intended function
- if any BMP is at or exceeding 50% of its design storage capacity
- whenever there is a change in conditions, design, construction, operation, or maintenance that could affect the discharge of pollutants in storm water leaving the Project

Complete corrective action:

- as soon as possible
- before the next storm event whenever practicable
- no later than the end of the day, six calendar days following the day of inspection identifying the need for corrective action

If implementation before the next storm event is impracticable, the situation must be documented in the SWPPP using the "Delayed Action Item Report" and alternative BMPs must be implemented as soon as possible.

4. Stabilization.

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

- as soon as practicable
- as soon as necessary to avoid discharge of pollutants, that exceed applicable water quality standards
- prior to freezing conditions that may limit or eliminate options for temporary stabilization
- prior to seasonal thaw Seasonal thaw is the annual (first) recurrence of snow and ice melting after a prolonged period of freezing conditions.
- as identified in the SWPPP schedule and/or phasing
- in accordance with stabilization schedule requirements of applicable project permits
- no later than 14 days after each cessation of land-disturbing activities

Land may be disturbed multiple times during a project. Coordinate work to minimize area of land disturbance as much as practicable. Do not disturb more area than you can stabilize in the time limits specified, and with the resources available.

Temporary stabilization measures may include individual or a combination of measures including but not limited to vegetative cover, mulch, stabilizing emulsions, blankets, mats, soil binders, non-erodible cover, dust palliatives, or other approved methods.

Prepare the surface to be seeded to reduce erosion potential and to facilitate germination and growth of vegetative cover. Maintain seeded areas. Reseed areas where growth of temporary vegetative cover is inadequate to stabilize disturbed ground.

Apply permanent seed in accordance with Section 618, at locations where permanent seed is indicated on the plans and land-disturbing activity is permanently ceased.

Before deactivating a stream bypass or stream diversion used for construction of a bridge, culvert, or drainage structure, install stabilization up to ordinary high water:

- at the inlet and outlet of the culvert, drainage structure, or bridge
- in the area upstream and downstream of the culvert, drainage structure, or bridge, that is disturbed during installation or construction of the culvert, drainage structure, or bridge
- under the bridge

Immediately after placing a culvert or drainage structure, install temporary or permanent stabilization when a stream bypass is not used for construction:

- at the culvert or drainage structure inlet and outlet
- in the area upstream and downstream of the culvert or drainage structure, that is disturbed in the process of installing the culvert, culvert end walls, culvert end sections, or drainage structure

5. Ending SWPPP Activities and SWPPP Maintenance.

The Engineer will determine SWPPP activities have ended when all of the following requirements are met:

- Land disturbing activities have ceased
- The Project site (including Department furnished material sources, disposal sites, staging areas, equipment areas, etc.) has achieved final stabilization
- Temporary BMPs have been removed

Submit eNOT in accordance with Subsection 641-1.03.5.

If the contractor's eNOI acreage includes areas where the Department is not an operator and co-permittee, then the contractor may not be able to file an eNOT at the same time as the Department. In this case, the Contractor must state in the SWPPP which project areas have reached final stabilization.

The Department will provide a copy of its eNOT to the contractor for inclusion in the SWPPP.

6. Record Transmittal and Retention.

Contractor must provide the Department a copy of all Records as defined herein.

Transmit one electronic copy of the initially approved SWPPP and the final SWPPP, including all amendments and appendixes, to the Engineer when the project eNOTs are filed.

Retain copies of the SWPPP, including documents listed under 641-3.02 SWPPP DOCUMENTS, for at least three years after the date of eNOT. If EPA or ADEC inspects the project, issues a Notice of Violation (NOV), or begins investigation for a potential NOV before the three year retention period expires, retain the SWPPP and all records related to the SWPPP and CGP until EPA and/or ADEC has determined all issues related to the investigation are settled.

Retain copies of the SWPPP, and records required by the EPA Consent Decree, including documents listed under 641-3.02 SWPPP DOCUMENTS, for at least one year after the termination of the Consent Decree.

641-3.02 SWPPP DOCUMENTS. The SWPPP and related documents maintained by the Contractor are the record documents for demonstrating compliance with the CGP. 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 approved SWPPP, HMCP, and SPCC at the on-site project office. If there isn't an on-site project office, keep the information in an office that is within 30 miles, by road from the Project.

Maintain all SWPPP documents in binders in one common location. Include the following items in the SWPPP binders:

- eNOI (all applicable)
- Acknowledgement letters from EPA or ADEC to each operator filing an eNOI
- SWPPP Subcontractor Certification (25D-105)
- SWPPP Pre-Construction Site Visit (25D-106)
- SWPPP Delegation of Signature Authority for CGP Documents (25D-108 Contractor, 25D-107 DOT&PF)
- Copies of current AK-CESCL card for Superintendent, SWPPP Manager, SWPPP Manager's Representative, and Department's SWPPP Inspector(s)
- Approved SWPPP
- SWPPP Grading and Stabilization Activities Log (25D-110)
- SWPPP Certification (25D-111 Contractor, 25D-109 Department)
- HMCP (with lines of authority and contract information)
- SPCC when required
- SWPPP Preparer's qualifications
- SWPPP Amendments
- SWPPP Amendment Log (25D-114)
- SWPPP Inspection Reports (25D-100 parts 1&2)
- SWPPP Corrective Action Log (25D-112)
- SWPPP Grading and Stabilization Activities Logs (25D-110)
- SWPPP Delayed Action Item Report (25D-113)
- SWPPP Daily Record of Rainfall (25D-115)
- SWPPP Training Log (25D-125)
- Lines of Authority and Contact Information for Superintendent, SWPPP Manager, SWPPP Manager's Representative, and Subcontractor SWPPP Coordinators
- ADEC SWPPP Review Letter (when required and once received)
- eNOT (all applicable)
- Any other records related to the SWPPP, SWPPP compliance, or CGP reporting requirements

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. Prepare SWPPP Corrective Action Log, SWPPP Amendment Log, SWPPP Grading and Stabilization Logs, and SWPPP Daily Record of Rainfall forms. Joint SWPPP inspections must be performed by the Superintendent, SWPPP Manager, or the SWPPP Manager's Representative; and by the Engineer or Engineer's qualified representative.

1. Before Construction.

   Before beginning Construction Activity, conduct a Joint Inspection of the Project with the SWPPP Preparer. Document the Joint Inspection on form 25D-106. Incorporate the results of the visit into the SWPPP and document, including the date of the visit and personnel attending the visit.

2. During Construction.

Conduct Joint Inspections: (see Definitions 641-1.02)

- At least once every seven days during construction.

Include the inspection schedule in the SWPPP.

If the Engineer approves the Contractor conducting an inspection that is not joint, then the Contractor must provide the Engineer with a copy of the inspection report within three days of the inspection and must document the transmittal as well. In this case, the Contractor must explain why conducting a Joint Inspection was not practical and include the explanation in the SWPPP.

3. Before Seasonal Suspension of Work.

Conduct Joint Inspection before seasonal suspension of work to review condition and applicability of BMPs and SWPPP. Confirm SWPPP, temporary stabilization, and BMPs are installed and functioning in accordance with the requirements of Subsection 641-3.01.

4. During Seasonal Suspension of Work.

Conduct Joint, or as otherwise approved by the Engineer, Inspections in accordance with the inspection schedule indicated in the approved SWPPP. Inspection frequency during seasonal suspension of work may be reduced to at least one inspection every month if approved by the Engineer and the revised inspection frequency is documented as an amendment to the SWPPP, and either of the following requirements is met:

- the entire site is temporarily stabilized, or
- runoff is unlikely due to winter conditions (e.g. the site is covered with snow, ice or the ground is frozen)

The Engineer may waive winter monthly inspection requirements until one month before thawing conditions are expected to result in a discharge, if all of the following requirements are met:

- below-freezing conditions are anticipated to continue for more than one month
- land disturbance activities have been suspended, and
- beginning and ending dates of the waiver period are documented as an amendment to the SWPPP.

The Engineer may waive requirements for updating the Grading and Stabilization Activities Log and Daily Record of Rainfall form during seasonal suspension of work. Resume collecting and recording weather data on the Daily Record of Rainfall form one month before thawing conditions are expected to result in a discharge. Resume recording land disturbance and stabilization activities on the Grading Activities Log when Construction Activity resumes.

5. During Winter Work.

Conduct Joint Inspections in accordance with the inspection schedule indicated in the approved SWPPP.

Inspection frequency during winter work may be reduced to at least one inspection every month if all of the following requirements are met:

- runoff is unlikely due to winter conditions (e.g. the site is covered with snow, ice or the ground is frozen)
- approval from the Engineer
- the revised inspection frequency is documented as an amendment to the SWPPP

6. Project Completion.

Conduct Joint Inspection to ensure final stabilization is complete throughout the Project and all temporary BMPs are removed.

7. Items and Areas to Inspect.

Inspect all items and areas covered under both the Department's and the Contractor's Project eNOIs; and items and areas included in the SWPPP.

Areas referenced in the Project SWPPP that are Contractor furnished, commercially, or utility furnished, and the Department is not an operator, do not require Joint Inspection in accordance with this contract. For Contractor, commercial, or utility operator furnished areas, the Contractor or commercial operator is solely responsible for inspecting and assuring compliance with all APDES requirements, and any other federal, state, local, or tribal permitting requirements.

8. Inspection Reports.

Use only DOT&PF SWPPP Construction Site Inspection Report, Form 25D-100 to record SWPPP inspections. Changes or revisions to Form 25D-100 are not permitted. Complete all fields included on the inspection form.

The Superintendent must sign and certify the inspection report on the day of the inspection, and must provide the report to the Engineer the same day. The Engineer will sign and certify the inspection report and will return the original to the Contractor within three working days.

Unless otherwise approved by the Engineer, insert the date six calendar days after the date of the inspection as the date each corrective action will be completed.

9. SWPPP Amendments and SWPPP Amendment Log.

The Superintendent, SWPPP Manager, or SWPPP Manger's Representative are responsible for amending the SWPPP. They shall initial amendments to the SWPPP; and update and initial DOT& PF Form 25D-114, SWPPP Amendment Log. Amend the SWPPP:

- whenever there is a change in design, construction operation, or maintenance at the construction site that has or could have significant effect on the discharge of pollutants that has not been previously addressed in the SWPPP
- if a Joint Inspection identifies the SWPPP or any portion of the SWPPP is ineffective in preventing the discharge of pollutants from the Project, that exceed applicable water quality standards
- if the Engineer or Contractor determines the SWPPP or any portion of the SWPPP is ineffective in preventing the discharge of pollutants from the Project, that exceed applicable water quality standards
- whenever an inspection identifies a problem that requires additional or modified BMPs

Amend the SWPPP narrative as soon as practicable after any change or modification, but in no case, later than seven (7) calendar days following an inspection.

Include the following information when documenting modifications to the SWPPP:

- date the action was completed
- Name and AK-CESCL number of the person documenting the action
- description of the action

Update the SWPPP drawings including date, location, action taken, and initials of the person recording the action for:

- installation of BMP
- modification of BMP (including any changes to BMP typical installation details)
- removal of BMP

Keep the SWPPP Amendment Log current and submit a copy to the Engineer, including copies of any documents amending the SWPPP, prior to performing each scheduled SWPPP inspection.

Include the current SWPPP Amendment Log as an appendix to the SWPPP.

10. Corrective Action.

Action required to restore effective function of BMPs is corrective action and must be documented.

Use DOT&PF SWPPP Corrective Action Log, Form 25D-112, to document corrective actions to the SWPPP and to BMPs. The Superintendent, SWPPP Manager, or SWPPP Manger's Representative shall initial all entries on Form 25D-112.

After each inspection report has been signed and certified, update the corrective action log to include all corrective actions noted on the inspection report.

After the corrective action has been accomplished, note the action taken, and date and initial the entry.

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 as an appendix to the SWPPP.

11. Grading and Stabilization.

Use DOT&PF SWPPP Grading and Stabilization Activities Log, Form 25D-110, to record land disturbance and stabilization activities. The Superintendent, SWPPP Manager, or SWPPP Manger's Representative shall initial all entries or all dates on Form 25D-110.

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 as an appendix to the SWPPP.

12. Daily Weather Records.

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

Include the daily record of rainfall form as an appendix to the SWPPP.

641-3.04 EROSION, SEDIMENT, AND POLLUTION CONTROL PRICE ADJUSTMENT. The total value of this contract will be adjusted as specified herein. A price adjustment, under Item 641(5), will be assessed as follows.

1. Fines and Penalties: A Price adjustment equal to any penalties and fines levied against the Department by local, state, or federal agencies for pollutant violations, including violations of the CWA and the CGP, except when due to Department negligence. An amount equal to the anticipated penalties and fines for the violation or violations, excluding any due to negligence by the Department, will be withheld temporarily until the actual cost of the penalties and fines is known. Anticipated penalties and fines will be determined by the Engineer. The Contractor is also responsible for the payment of penalties and fines levied against the Contractor.

2. Failure to stabilize Area of Land Disturbance.

   - Failure to stabilize a project prior to Seasonal Thaw - $5,000/project/year.

3. Failure to perform Inspections:

   By each 24 hour period per occurrence, a price adjustment of $750 will be assessed where the Contractor:

   - delayed a SWPPP inspection
   - did not sign a SWPPP inspection
   - did not certify a SWPPP inspection
   - did not complete a SWPPP inspection in accordance with the schedule identified in the approved SWPPP

   By each project, a price adjustment of $2000 will be assessed where the Contractor does not complete a pre-construction inspection.

4. Failure to perform Corrective Action. By each 24 hour period following 24 hours after written notice by the Engineer, per occurrence, a price adjustment of $750 will be assessed where the Contractor:

   - fails to complete SWPPP administrative requirements as identified in the Contract or the CGP,
   - fails to initiate work required by the SWPPP, not to exceed $250,000 per year, or
   - fails to initiate corrective action to respond to a deficiency noted during an inspection or by the Engineer.

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

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

Items 641(2) and (4) will be measured as specified in the Contract or Directive authorizing the work.

641-5.01 BASIS OF PAYMENT. The Bid Schedule will include either items 641(1) and (2), or items 641(1), (3), and (4). The Bid Schedule may or may not, include Items 641(5) and 641(6). When 641(6) does not appear in the Bid Schedule, the SWPPP Manager is subsidiary to other items of work.

Item 641(1) Erosion, Sediment, and Pollution Control Administration. At the contract lump sum price for administration of all work under this Section. Includes, but is not limited to, SWPPP and HMCP and SPCC preparation, agency fees for SWPPP reviews, SWPPP amendments, inspections, monitoring, reporting, and all record keeping related to the SWPPP and required by the CGP.

Item 641(2) Temporary Erosion, Sediment, and Pollution Control. At the contingent sum prices specified in the Contract or the Directive authorizing the work to install, maintain, remove, and dispose of temporary erosion, sedimentation, and pollution control measures required to complete the project using the approved SWPPP, SPCC, and HMCP.

Item 641(3) Temporary Erosion, Sediment, and Pollution Control. At the contract lump sum price to install, maintain, remove, and dispose of temporary erosion, sedimentation, and pollution control BMPs identified in the ESCP, and for BMPs and other measures included in the HMCP and SPCC.

Item 641(4) Temporary Erosion Sediment and Pollution Control Additives. At the contingent sum prices specified in the Directive for extra, additional, or unanticipated work to install, maintain, remove, and dispose of temporary erosion, sedimentation, and pollution control measures. All work paid under this Item will be shown as amendments to the original approved SWPPP or HMCP

Item 641(5) Erosion, Sediment, and Pollution Control Price Adjustment. As specified in Section 641-3.04.

Item 641(6) SWPPP Manager. At the contract lump sum price for a SWPPP Manager and SWPPP Manager's Representative that conforms to this specification.

Temporary erosion, sediment and pollution control measures that are required at Department furnished, Contractor furnished, or commercial operator furnished material sources, disposal sites, haul routes, fuel and material storage areas, and at equipment or material staging areas, will not be paid for separately but are subsidiary to other items of work. Work required by the HMCP and SPCC including hazardous material storage, containment, removal, cleanup and disposal, are subsidiary to other items of work.

Work that is paid for directly or indirectly under other pay items will not be measured and paid for under this Section 641. This work includes but is not limited to dewatering, shoring, bailing, permanent seeding, installation and removal of temporary work pads, temporary accesses, temporary drainage pipes and structures, diversion channels, settling impoundment, filtration, etc.

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

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

If, after 24 hours following written notice by the Engineer, the Contractor fails to pursue work required by the SWPPP, respond to inspection recommendations or deficiencies in the SWPPP, or implement erosion and sedimentation controls identified by the Engineer, or fails to perform any of the contract obligations, the Engineer may employ others to correct the condition and deduct the cost from the Contract amount.

The Engineer may suspend earthwork operations and withhold any monies due the Contractor for failure to:

- perform SWPPP Administration
- perform timely SWPPP inspections
- update the SWPPP
- transmit SWPPP, SWPPP Inspection Reports, and associated Section 641 submittals to the Engineer
- maintain effective BMPs that minimize erosion, control sediment, or prevent discharge of pollutants that exceed applicable water quality standards
- perform duties in accordance with the requirements of this Section 641
- meet requirements of the CGP, SWPPP, or other permits, laws, and regulations related to erosion, sediment, or pollution control

The Contractor shall be due no additional monies or Contract time extension as result of delays resulting from suspension of earthwork for failure to perform required erosion, sedimentation, or pollution duties as outlined in this Section 641.

Payment will be made under:

Pay Item No.	Pay Item	Pay Unit
641(1)	Erosion, Sediment, and Pollution Control Administration	Lump Sum
641(2)	Temporary Erosion, Sediment, and Pollution Control	Contingent Sum
641(3)	Temporary Erosion, Sediment, and Pollution Control	Lump Sum
641(4)	Temporary Erosion, Sediment, and Pollution Control Additives	Contingent Sum
641(5)	Erosion, Sediment, and Pollution Control Price Adjustment	Contingent Sum
641(6)	SWPPP Manager	Lump Sum

CR641-081810

643-1.03 TRAFFIC CONTROL PLAN. Replace the last paragraph with the following:

A waiver may be requested, in writing, of regulation 17 AAC 25 regarding oversize and overweight vehicle movements inside the project limits. If the waiver is approved, movements of oversize and overweight vehicles in or near traffic inside the project limits will be done according to the provisions of an approved Traffic Control Plan. Maintain a minimum 12 foot lateral separation between the nonstreet legal vehicles and the motoring public. The Traffic Control Plan shall specify the traffic control devices required for these operations.

Add the following:

Road Closures and Major Traffic Sequencing (events). Submit a written request to the Engineer for review and approval of each proposed event and event date. Allow 7 days for the Engineer to review any proposed event or subsequent changes/corrections. The proposed event date will be no less than 14 days from the date of written approval.

CR6431-081210

643-1.04 WORKSITE SUPERVISOR. Add the following to No. 2, Duties:

l. Supervise lighting of Night Work.

ES14-031506

Standard Modifications

Add No. 3. Authority:

3. Authority. The Worksite Traffic Supervisor shall have the Contractor's authority to stop work and implement immediate corrective action to unsafe traffic control, in locations where unsafe traffic control is present.

643-2.01 MATERIALS. No. 10, Temporary Crash Cushions, delete the second sentence:

"Do not use permanent crash cushions as temporary crash cushions."

E62-072808

Special Provisions

No. 12, replace with:

12. Portable Changeable Message Board Sign. Use new truck or trailer mounted portable changeable message board signs with self contained power supply for the sign and with:
    a. Message sign panel large enough to display 3 lines of 18 inch high characters.
    b. Eight character display per message module.
    c. Fully programmable message module.
    d. Remote control cellular, wireless radio frequency (RF), landline.
    e. Waterproof, lockable cover for the controller keyboard.
    f. Capacity for electric/hydraulic sign raising or lowering.
    g. Radar over speed detection.
    h. Variable flash and sequence rates.
    i. Light emitting diode (LED) display, using Institute of Transportation Engineers (ITE) amber/yellow
    j. The capacity for a minimum of 150 pre-programmed messages.
    k. Battery-Pack Operation Duration: minimum of 55 hours under full load.
    l. Power chords shall comply with the National Electrical Code (NEC) Article 600.10 Portable and Mobile Signs, paragraph 600.10(c) (2) ground fault circuit interrupter (GFCI). The chord will have integral GFCI protection located either in the attachment plug or 12 inches or less from the plug.

CR6431-081210

Standard Modifications

No. 16, Flagger Paddles, replace the last sentence with:

Use reflective sheeting that meets AASHTO M268, Type VIII, or IX. Use background colors of fluorescent orange on one side and red on the other side.

E56-050107

Special Provisions

Add the following:

17. Flexible Markers. Refer to Subsection 606-2.01 Materials.

CR6431-081210

Standard Modifications

643-3.01 GENERAL CONSTRUCTION REQUIREMENTS. Add the following:

Immediately notify the Engineer of traffic related accident(s) that occur(s) inside the project limits as soon as becoming aware of the accident.

E56-050107

Special Provisions

Within the project limits, the contractor may close the road to general public access with the exceptions stated in section 643-3.08. The Contractor shall not be required to provide pedestrian access at any time.

PND#643-070110

Standard Modifications

643-3.04 TRAFFIC CONTROL DEVICES. In the sixth paragraph replace: "ATTSA" with:

"ATSSA"

E56-050107

Special Provisions

Replace the first sentence of the eighth paragraph with:

Items paid under this Section remain the Contractor's property unless stated otherwise.

Add the following to No. 1, Embankments:

Close trenches and excavations at the end of each continuous work shift, except as indicated by the Engineer.

Add the following to No. 3, Fixed Objects:

Remove obstructions greater than 4 inches above the nominal foreslope grade at the end of each continuous work shift.

Delete No. 4.b, and replace with:

Flagger Certification by ATSSA.

Delete No. 6, and replace with:

6. Street Sweeping and Power Brooming. Keep free of loose material paved portions of the roadway and haul routes open to the public, including sections of roadway off the project where the Contractor's operations have deposited loose material. Use equipment for brooming and sweeping as recommended by the manufacturer and the following:

   Dirt, dust and construction materials, mobilized as a result of power brooming and or sweeping, shall not be pushed, ejected, thrown or drift beyond the lesser of, 2 feet from the equipment perimeter or the edge of the paved surface.

   All equipment shall operate to typical industry standards. Maintain equipment to operate as designed by the manufacturer. Equipment will employ safety equipment, warning lights, and other as required by the Specifications and these Special Provisions.

   Sweeper and Broom Options: Table 643-4, Traffic Control Rate Schedule, Street Sweeping.

   a. Regenerative Sweeper: Sweeper that blows a stream of air at the paved surface causing fine particles to rise and be caught through a vacuum system.

   b. Vacuum Sweeper: Sweeper that creates a vacuum at the paved surface sucking dirt, dust, and debris into the collection system.

   c. Mechanical Broom Sweeper: Sweeper designed to pick up and collect larger size road debris, stones and litter, etc. In addition to the requirements noted in these specifications, use of a mechanical broom sweeper requires the Engineer to approve the sweeper for the intended use.

   d. Power Broom: Power brooming that wets, pushes and or ejects loose material directly into an attached collection/pickup container may be used when approved by the Engineer. The added moisture will be contained to the paved roadway surface.

      Dry Power Brooming is not permitted. Power brooming without direct/immediate means of collection/pickup is not permitted.

Add the following:

9. ET-PLUS. The price listed in the Traffic Control Rate Schedule, Table 643-4, will be full compensation for the purchase, installation, maintenance during construction, removal, and salvaging the ET-PLUS unit(s). Deliver the salvaged unit(s) to the nearest ADOT & PF Maintenance & Operations yard or as directed by the Engineer.

643-3.05 AUTHORITY OF THE ENGINEER. Replace the first sentence with:

When existing conditions adversely affect the public's safety or convenience, the Contractor will receive an oral notice. A written notice will follow the oral notice according to Subsection 105-1.01, Authority of the Engineer.

Add the following after the second sentence:

In no case shall this time exceed 24 hours.

643-3.06 TRAFFIC PRICE ADJUSTMENT. Add the following:

Failure to maintain an acceptable infrastructure or traffic control plan will result in a price adjustment equal to 100 percent of the applicable rate shown in Table 643-1, Adjustment Rates, for the time the roadway or pedestrian facility is in an unacceptable condition.

Replace Table 643-1 with the following:

TABLE 643-1
ADJUSTMENT RATES

Published ADT	Dollars/Minute of Delay/Lane
0 – 5,000	$ 30
5,000 +	$ 40

CR6431-081210

643-3.08 CONSTRUCTION SEQUENCING. Replace the last sentence with:

Unless otherwise determined by the Engineer and on an approved Traffic Control Plan (TCP), do not restrict traffic during the times listed below.

1. During unloading and hauling of cargo from the deep draft dock. The contractor shall be provided a minimum 45 days notice of anticipated vessel berthing dates. Contractor shall anticipate that the unloading operation will occur 24 hours a day while the vessel is at port. The driving surface shall be capable of reliably withstanding repetitive heavy truck traffic.

2. During working hours for operations at the dock, workers driving small cars and trucks must be able to access the dock with less than 10 minutes delay. These hours cannot be defined at this time. The contractor shall coordinate with the Port Director to determine the expected working hours for the various operations at the dock.

PND#643-070110

643-3.09 INTERIM PAVEMENT MARKING. In the second paragraph, delete the words:

"or cover them with black removable preformed marking tape."

Replace the first sentence in the last paragraph with:

Do not place final pavement markings until traffic has traveled over the seal coat or surface treatment for at least 15 days and no more than 21 days, as directed by the Engineer.

CR6431-081210

Add the following new subsection:

643-3.10 LIGHTING OF NIGHT WORK. Illuminate the night work areas specified in Table 643-3, Night Work Illumination Level, and Area of Coverage, to the light levels specified.

Table 643-3 does not provide a comprehensive list of operations that require lighting. Provide lighting for other operations when necessary.

TABLE 643-3
NIGHT WORK ILLUMINATION LEVEL AND AREA OF COVERAGE

Type of Work/Equipment	Lighting Configuration
Paving, Milling, Striping, Pavement Marking Removal, Rumble Strip Installation	At least two machine mounted balloon lights with a cumulative wattage of at least 4000 watts. Provide additional lights or wattage if necessary to provide complete coverage.
Rolling, Pavement Sweeping	At least four sealed beam halogen lamps in the front and four in the back. Each should be at least 55 watts.

Flagging	Two balloon lights of at least 2000 watts each located within 30 feet of the normal flagger location. Locate one on the right side of the road beyond the flagger and the other on the left side of the road in front of the flagger.
Truck Crossings (meaning where haul vehicles cross or enter a road): 1) Roads with ADTs over 10,000 2) That are controlled by portable signals or flaggers	Two Balloon lights of at least 2000 watts each located on the main road, one on the far right side of the intersection, the other on the near left. Locate lights within 30 feet of the edges of the side street. If there is a flagger at the crossing, locate the lights to also meet the requirements for flagging.

Use balloon lighting as the main light sources. Do not use floodlights without prior approval by the Engineer. When approved, install floodlighting in a manner that minimizes glare for motorists, workers, and residents living along the roadway. Locate, aim louver, and/or shield light sources to achieve this goal.

The Engineer shall be the sole judge of when glare is unacceptable, either for traffic or for adjoining residences. When notified of unacceptable glare, modify the lighting system to eliminate it.

If the Contractor fails to provide the lighting equipment specified in Table 643-3 or provides lighting that creates unacceptable glare at any time, the Contractor shall cease the operations that require illumination until the condition is corrected.

Lighting equipment shall be in good operating condition and in compliance with applicable OSHA, NEC, and NEMA codes.

Provide suitable brackets and hardware to mount lighting fixtures and generators on machines and equipment. Design mountings so lights can be aimed and positioned as necessary to reduce glare. Locate mounting brackets and fixtures so they do not interfere with the equipment operator or overhead structures. Connect fixtures securely in a manner that minimizes vibrations.

Ensure ground, trailer, and equipment mounted light towers are sturdy and freestanding without the aid of guy wires. Towers shall be capable of being moved to keep pace with the construction operation. Position ground and trailer mounted towers and trailers to minimize the risk of being impacted by traffic on the roadway or by construction traffic or equipment.

Raise trailer or equipment mounted lights to maximum height, except do not exceed the clearance required for overhead objects such as trees, aerial utilities, or bridges. Aim and adjust lights to provide the required light levels. Provide uniform illumination on the hopper, auger, and screed areas of pavers. Illuminate the operator's controls on machines uniformly.

Furnish each side of nonstreet legal equipment with a minimum of 75 square inches high intensity retroreflective sheeting in each corner, so at least 150 square inches of sheeting is visible from each direction. Provide red sheeting on the rear of the equipment and yellow sheeting elsewhere.

Existing street and highway lighting and conventional vehicle headlights do not eliminate the need for the Contractor to provide lighting meeting the requirements of Table 643-3.

Provide sufficient fuel, spare lamps, spare generators, and qualified personnel to ensure that required lights operate continuously during nighttime operations. Ensure generators have fuel tanks of sufficient capacity to permit operation of the lighting system for a minimum of 12 hours. In the event of failure of the lighting system, discontinue the operation until the required level and quality of illumination is restored.

Maintain a supply of at least 20 emergency flares for use in the event of emergency or unanticipated situations. Comply with local noise ordinances.

Provide NCHRP 350-compliant breakaway bases for post mounted electroliers located within the clear zone.

ES14-031506

Standard Modifications

Add the following new subsection:

643-3.11 HIGH VISIBILITY CLOTHING. Ensure workers inside project limits wear an outer visible surface or layer that complies with the following requirements:

1. Standards. Use high visibility garments conforming to the requirements of ANSI/ISEA 107-2004, Class 2 for tops or Class E for bottoms, and Level 2 retroreflective material.

2. Labeling. Use garments labeled in conformance with Section 11.2 of ANSI/ISEA 107-2004.

3. Tops. Wear high visibility vests, jackets, or coverall tops at all times.

4. Bottoms. Wear high visibility pants or coverall bottoms during nighttime work (sunset to sunrise). Worksite traffic supervisors, employees assigned to traffic control duties, and flaggers wear high visibility pants or coverall bottoms at all times.

5. Outer Raingear. Wear raingear tops and bottoms conforming to requirements in this Subsection, 643-3.11.

6. Exceptions. When workers are inside an enclosed compartment of a vehicle, they are not required to wear high visibility clothing.

7. Condition. Furnish and maintain vests, jackets, coveralls, rain gear, hard hats, and other apparel in a neat, clean, and presentable condition. Maintain retroreflective material to Level 2 standards.

E56-050107

Special Provisions

643-4.01 METHOD OF MEASUREMENT. Replace the second sentence of No. 2. with:

Special Construction signs are measured by the total area of legend bearing sign panel, as determined under Subsection 615-4.01 and compensation for a 24 hour period shall be made under Construction Signs in the Traffic Control Rate Schedule, Table 643-4.

Add the following:

No measurement required to provide a 24-hour toll free (1-800 ###-####) "Hotline Road Report" telephone with a prerecorded message, and weekly notices with daily updates. Work will be subsidiary to Pay Item 643(1) or 643(2), Traffic Maintenance.

643-5.01 BASIS OF PAYMENT. Add the following to No. 7:

The Engineer will pay for Item 643(15) Flagging on a contingent sum basis at the rate of $46.00/hour. The Engineer does not require a change order/directive for the flagging Pay Item. Flagging associated with Change Order work will be paid at the prices according to Subsection 109-1.05 Compensation for Extra Work.

Add the following to No. 11:

The Engineer does not require a change order/directive for Pay Item 643(25), Traffic Control.

CR6431-081210

Add No. 16:

16. Work Zone Illumination. Payment for work zone illumination is subsidiary to other items.

ES14-031506

Standard Modifications

Add No. 17:

17. High Visibility Garments. Payment for high visibility garments for workers is subsidiary to other items.

E56-050107

Special Provisions

TABLE 643-4
TRAFFIC CONTROL RATE SCHEDULE

Traffic Control Device	Pay Unit	Unit Rate
Construction Signs	Each/Day	$ 5.00
Special Construction Signs	Square Foot	$ 24.00
Type II Barricade	Each/Day	$ 3.00
Type III Barricade	Each/Day	$ 10.00
Traffic Cone or Tubular Marker	Each/Day	$ 1.00
Drums	Each/Day	$ 3.00
Sequential Arrow Panel	Each/Day	$ 55.00
Portable Concrete Barrier	Each	$ 60.00
Temporary Crash Cushion / ET-PLUS	Each	$ 5000.00
Pilot Car	Hour	$ 65.00
Watering	M-Gallon	$ 20.00
Street Sweeping: Regenerative Sweeper, Vacuum Sweeper, Mechanical Broom Sweeper, Power Broom	Hour	$ 150.00
Plastic Safety Fence	Foot	$ 0.75
Portable Changeable Message Board Sign	Calendar Day	$150.00
Temporary Sidewalk Surfacing	Square Foot	$ 1.15
Flexible Markers	Each	$ 50.00
Removal of Pavement Markings	Foot	$1.25
Temporary Guardrail	Foot	$ 21.00

Replace Pay Item 643(15) with:

Pay Item No.	Pay Item	Pay Unit
643(15)	Flagging	Contingent Sum

CR6431-081210

SECTION 644

SERVICES TO BE FURNISHED BY THE CONTRACTOR

Special Provisions

644-2.01 FIELD OFFICE. Delete this subsection in its entirety and substitute the following:

Furnish and maintain a suitable office for the Engineer, available for occupancy from 2 weeks before beginning work, through 30 days after issuance of the notice of project completion as defined in subsection 105-1.15. The following office requirements shall be met:

1. A minimum of 1000 square feet of floor area. The office area shall be divided so that it contains an office room separated by a closable door. The office room shall have a minimum of 160 square feet of floor area.
2. A thermostatically controlled interior heating system with necessary fuel.
3. Adequate electrical lighting and 120 volt, 60 hertz power, with a minimum of 6 electrical outlets.
4. A minimum of 100 square feet of window area and adequate ventilation.
5. Adequate parking for a minimum of 16 vehicles, with one handicap parking space meeting the requirements of Americans with Disabilities Act Accessibility Guidelines (ADAAG).
6. Attached indoor plumbing with sanitary lavatory facilities and potable drinking water provided.
7. Provide engineering communication services to the field office, Subsection 644-2.08.
8. If a part of the Contractor's building, it shall be completely partitioned off from the balance of the structure and provided with a separate outside door equipped with a lock.
9. Located within 3 miles of the project.
10. Weekly janitorial service consisting of emptying trash receptacles, vacuuming office area, and cleaning restrooms and counter areas.
11. Provide one mobilization and one demobilization of the Engineer's office equipment and furniture.

CR644FOCOM-071009

Special Provisions

644-2.01 FIELD OFFICE Add the following:

Offices located at the Port Mackenzie Ferry terminals considered to meet requirements 1 through 6 set forth in subsection 644-2.01 are available through the Mat-Su Borough. Field office requirements 7 through11 shall be provided separately in order to meet the requirements of this section. Contractor shall contact the Borough to determine cost associated with use of the facility.

PND#644-070110

Standard Modifications

644-2.02 FIELD LABORATORY. Add the following to the end of the second sentence of the first paragraph:

through one week after Project Completion.

E44-012707

644-2.02 FIELD LABORATORY. Replace 2.g. with the following:

g. 500 gallon capacity tank with a pressure pump or a commercial pressurized system.

Replace 6.a. with the following:

a. Supply 240 volt, 60 hertz power, a 100 pound propane bottle, and a 500 gallon capacity water tank with a pressure pump or a commercial pressurized system for a State provided portable asphalt lab at a location designated by the Engineer.

Add the following:

7. Provide one mobilization and one demobilization of the Engineer's laboratory equipment from Anchorage.

644-CR644LAB-071009

Standard Modifications

Add the following new subsection:

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 before beginning 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 in freezing weather. 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" minimum 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 120 volt, 60 cycle power, an interior light, and a wall receptacle for the heater. 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.

Add the following new subsection:

644-2.07 STORAGE CONTAINER. Furnish, transport, and maintain a weather tight, 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 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 before 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 prior to commencing construction work.

1. Provide electrical service and other facilities as follows:
   a. Electrical current, 120V (ac), 60 cycle on a 24 hour a day basis.
   b. Wiring system to support a 20 amp user load demand.
   c. 2 GFI protected outlets conveniently spaced on the interior walls.
   d. Four 100 watt incandescent or eight 40 watt fluorescent lights located for maximum illumination.
   e. 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.

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 completing the work.

E44-012707

644-2.08 ENGINEERING COMMUNICATION. Engineering Communications, minimum service includes:

a. Three phone/facsimile lines (different phone numbers for each line)
b. High speed internet service with modem (DSL or Cable)

CR644FOCOM-071009

Standard Modification

644-3.01 METHOD OF MEASUREMENT. Add the following Pay Items:

Nuclear Testing Equipment Storage Shed. By the number of storage sheds specified, to including components, installation and accepted as completed units and ready for equipment storage.

Storage Container. By the number of storage containers specified, to including components, installed and accepted as completed units and ready for materials and equipment storage.

E44-012707

644-4.01 BASIS OF PAYMENT. Add the following:

Electricity, propane, and water supplied for the State provided portable asphalt lab will not be paid for separately, but will be subsidiary to Pay Item 644(2) Field Laboratory.

644-CR644LAB-071009

Add the following:

Engineering Communications. Usage services including long distance calls made by State personnel and the Internet service provider will be provided by the Contractor under pay item 644(1) Field Office.

PND#644-070110

Standard Modifications

644-4.01 BASIS OF PAYMENT. Add the following Pay Items:

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.

Nuclear Testing Equipment Storage Shed. At the Contract unit price to include labor, materials, tools, equipment, and supplies required to furnish and install the shed before beginning construction, to maintain it for the duration of the project and to remove the shed and electrical service after project completion. Electrical service and utility costs are subsidiary to this item.

Storage Container. At the Contract unit price to including 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 beginning 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.

Add to Pay Items:

Pay Item No.	Pay Item	Pay Unit
644(15)	Nuclear Testing Equipment Storage Shed	Each
644(16)	Storage Container	Each

E44-012707

ADDENDUM NO. 1
ATTACHMENT NO. 12

SECTION 646

CPM SCHEDULING

Special Provisions

646-2.01 SUBMITTAL OF SCHEDULE. Replace this Subsection with the following:

Submit a detailed initial CPM Schedule at the preconstruction conference for the Engineer's acceptance as set forth below.

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

*****Deleted Text*****

CR261-121302

646-3.01 REQUIREMENTS AND USE OF SCHEDULE.

Delete item 2. 60-Day Preliminary Schedule.

Delete the first sentence of item 3. Schedule Updates. and substitute the following: Hold job site progress meetings with the Engineer for the purpose of updating the CPM Schedule. Meet with the Engineer weekly, or as deemed necessary by the Engineer, at a location determined by the Engineer.

PND#646-070110

Special Provision

Add the following Section:

SECTION 647

EQUIPMENT RENTAL

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

The work is to be accomplished under the direction of the Engineer, and the Contractor's operations shall at all times be in accordance with the Engineer's instructions. These instructions by the Engineer shall be to the Contractor's supervisory personnel only, not to the operators or laborers. In no case shall these instructions by the Engineer be construed as making the Department liable for the Contractor's responsibility to prosecute the work in the safest and most expeditious manner.

647-2.01 EQUIPMENT FURNISHED. In the performance of this work, the Contractor shall furnish, operate, maintain, service, and repair equipment of the numbers, kinds, sizes, and capacities set forth on the Bid Schedule or as directed by the Engineer. The operation of equipment shall be by skilled, experienced operators familiar with the equipment.

The kinds, sizes, capacities, and other requirements set forth shall be understood to be minimum requirements. The number of pieces of equipment to be furnished and used shall be, as the Engineer considers necessary for economical and expeditious performance of the work. The equipment shall be used only at such times and places as the Engineer may direct.

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

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

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

The Contractor shall furnish, without direct compensation, a job superintendent or Contractor's representative together with such other personnel as are needed for Union, State, or Federal requirements and in servicing, maintaining, repairing and caring for the equipment, tools, supplies, and materials provided by the Contractor and involved in the performance of the work. Also, the Contractor shall furnish, without direct compensation, such transportation as may be appropriate for the personnel.

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

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

Normally, the work is to be done when weather conditions are reasonably favorable, 6 days per week, Mondays through Saturdays, except holidays.

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

647-4.01 METHOD OF MEASUREMENT. The number of hours of equipment operation to be paid for shall be the actual number of hours each fully operated specified unit of equipment, or each fully operated specified combination of units of equipment, is actually engaged in the performance of the specified work on the designated areas in accordance with the instruction of the Engineer. The pay time will not include idle periods, and no payment will be made for time used in oiling, servicing, or repairing of equipment, or in making changeovers of parts to the equipment. Travel time to or from the project, will not be authorized for payment. Hours paid shall be supported by certified payroll.

647-5.01 BASIS OF PAYMENT.

Payment for Item 647(1) Wide Pad Dozer, 65 hp Min will be paid on a contingent sum basis on a per hour basis of $150.00/hour.

This shall be full compensation for furnishing, operating, maintaining, servicing, and repairing the equipment, and for incidental costs related to the equipment. Furnishing and operating of equipment of heavier type, larger capacity, or higher wattage than specified will not entitle the Contractor to any extra compensation.

Payment will be made under:

Pay Item No.	Pay Item	Pay Unit
647(1)	Wide Pad Dozer, 65 hp Min	Contingent Sum
647(2)	Wide Pad Dozer, 65 hp Min	Hour
647(5)	Backhoe, 4WD, 1 cy Bucket, 75 hp Min, 15 ft Depth	Contingent Sum
647(6)	Backhoe, 4WD, 1 cy Bucket, 75 hp Min, 15 ft Depth	Hour

CR15-082405

SECTION 670

TRAFFIC MARKINGS

Special Provisions

670-1.01 DESCRIPTION. Add the following:

Furnish, locate and install Pavement Markings as shown on the Plans and as directed.

670-3.04 PAVEMENT MARKING REMOVAL. Add the following:

Coordinate removal work with construction activity. Remove pavement markings the same day permanent markings are applied, unless otherwise directed. Use vacuum shrouded equipment or other equally effective containment procedures.

Replace the following Subsection:

670-3.06 TOLERANCE FOR LANE STRIPING.

1. Length of Stripe. ± 2 inches.
2. Width of Stripe. ± 1/8 inch.
3. Lane Width. ± 4 inches from the width shown on the Plans.
4. Stripes on Tangent. Do not vary more than 1 inch laterally within a distance of 100 feet when using the edge of the stripe as a reference.
5. Stripes on Curves. Uniform in alignment with no apparent deviations from the true curvature.
6. All Stripes. Keep the center of the stripe within planned alignment.
7. Double Stripes. ± 1/4 inch.
8. Thickness of Surface Applied. Minimum specified to a maximum of + 30 mils.
9. Depth of Inlay Slot. Minimum specified to a maximum of + 40 mils.
10. Thickness of Inlaid Marking Material. Fill inlay area completely from the bottom of the inlay to the surface of the pavement.

If it is determined that the material is being placed too thin, the beads are not properly placed, the anti-skid aggregate is not visible, or otherwise not to specification, make immediate adjustments to correct the problem.

Pavement markings applied by any method will be unacceptable if:

1. Marking is not straight or wide enough.
2. Thickness of line is not uniform.
3. Thickness of line is less than specified.
4. Material is uncured.
5. Material blackens or is inconsistent in color.
6. Inlay slot is not the specified depth.
7. Inlay slot is not filled to the specified depth.
8. Edge of the markings is not clear cut and free of overspray.
9. Reflective elements are not properly embedded.
10. Retroreflectivity of the markings is less than specified.
11. Anti-skid aggregate is not visible in the marking material during application and the dried surface.
12. Markings exhibit poor adhesion.

13. Color is not as specified.

Perform repairs using equipment similar to the equipment initially used to place the materials. Do not perform repairs in a "patch work" manner. If more than one repair is required in a single 500 foot section, grind and repair the entire section.

PND#670-07011

Special Provisions

Add the following Section:

SECTION 690

EROSION, SEDIMENT AND POLLUTION CONTROL - MEASURES

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

Measures:

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

Related Specifications:

Erosion, Sediment and Pollution Control	Section 641
Silt Fence	Section 633
Seeding	Section 618
Soil Stabilization	Section 619

690-2.01 MATERIALS.

Erosion Sediment and Pollution Control – Materials	Section 744

Others as specified in related Sections.

CONSTRUCTION REQUIREMENTS

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

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

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

690-3.03 FABRICATION.

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

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

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

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

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

Refer to Section 618 for further information.

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

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

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

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

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

Silt Fence: Section 633.

Seeding: Section 618.

Stabilization: Section 619.

CR690-081210

SECTION 703

AGGREGATES

Special Provisions

703-2.03 AGGREGATE FOR BASE.

Delete Table 703-2 and substitute the following:

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

Sieve Designation	Grading C-1	Grading D-1	Grading E-1
1 ½ inch	100	-	-
1 inch	70-100	100	100
3/4 inch	60-90	70-100	70-100
3/8 inch	45-75	50-79	50-85
No. 4	30-60	35-58	35-65
No. 8	22-52	20-47	23-50
No. 30	10-33	10-26	13-31
No. 50	6-23	6-19	10-26
No. 200	0-6	0-6	8-15

Replace Subsection 703-2.04 with the following:

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

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

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

Meet the following requirements:

Description	Specification	Type IIA	Type I, IIB, III	Type IV	Type V, R
LA Wear, % max	AASHTO T 96	45	45	45	45
Degradation Value, Min	ATM 313	30	30	30	30
Sodium sulfate Loss % max (5 cycles)	AASHTO T 104	9	9	9	9
Fracture, min %	WAQTC FOP for AASHTO TP 61	90, 2 face	80, 1 face	90, 2 face	98, 2 face
Thin-Elongated Pieces, max %	ATM 306				
1:5		8	8	8	8
1:3		20	-	-	20
Absorption, max. %	AASHTO T 85	2.0	2.0	2.0	2.0

Fine Aggregate. Aggregate passing the No. 4 sieve.

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

Aggregate for Type IV, V, and R mixes:

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

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

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

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

CR7031-081210

SECTION 706

CONCRETE AND PLASTIC PIPE

Standard Modifications

706-2.06 PLASTIC PIPE. Delete the first sentence and replace with the following:

Semi-rigid, smooth-wall pipe meeting the following:

E63-072808

SECTION 710

FENCE AND GUARDRAIL

Standard Modifications

Delete Subsection 710-2.04 and replace with the following:

710-2.04 METAL BEAM RAIL. Meet AASHTO M 180, Class A, Type II. Galvanize after fabrication. Fabrication includes forming, cutting, shearing, punching, drilling, bending, welding, and riveting.

710-2.11 GUARDRAIL TERMINALS. Add the following as the first paragraph:

Meet coating requirements of AASHTO M 180, class A, Type II. Galvanize after fabrication. Fabrication includes forming, cutting, shearing, punching, drilling, bending, welding, and riveting.

E64-072808

710-2.11 GUARDRAIL TERMINALS. Replace No. 2 Extruder Terminal. with the following:

2. Extruder Terminal. ET-PLUS manufactured by Trinity Industries, Inc., 950 West 400 South, Centerville, UT 84014, Ph: 800-772-7976, Fax: 801 292-2145. Conform to the Trinity Industries, Inc. drawings approved by the Department (Formerly Syro, Inc. drawings). Use slotted rail for both 25-foot sections for the cable anchor assembly attachment. See Subsection 606-3.05 for installation. Include an object marker, Part No. 3177B, with each ET-PLUS installation.

CR710-060209

SECTION 724

SEED

Special Provision

724-2.02 MATERIALS.

Delete Table 724-1 and replace with the following:

TABLE 724-1
SEED REQUIREMENTS

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

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

CR52-012707

Delete this Section, except for Table 726-1 and substitute the following:

Special Provisions

SECTION 726

TOPSOIL

726-2.01 TOPSOIL. Furnish topsoil that is representative of the existing, natural organic blanket of the project area. Perform a quality test, as defined by ATM 203, on the soil to determine the organic content of the soil. Supply the results to the Engineer.

Soil with an organic content of 5 percent or more may be reused and spread on the finished slopes where topsoil is noted on the plans. Remove roots, stumps, unnatural material, and rocks greater than 3 inch in diameter from the organic material before it is graded onto the finished slope.

Soil with an organic content of less than 5 percent cannot be used as topsoil for the project. In this case, furnish topsoil consisting of a natural friable surface soil without admixtures of undesirable subsoil, refuse, or foreign materials having an organic content of 5 percent or more, as determined by ATM 203. The material shall be reasonably free from roots, clods, hard clay, rocks greater than 3 inches in diameter, noxious weeds, tall grass, brush, sticks, stubble or other litter, and shall be free draining and nontoxic. Notify the Engineer of the location topsoil is to be furnished at least 30 calendar days before delivery of topsoil to the project from that location. The Engineer will inspect the topsoil and its sources before approval will be granted for its use.

CR208-112707

Special Provisions

726-2.01 TOPSOIL. Add the following: If Additive Alternate #1 is awarded, topsoil may be taken from the proposed muck excavation. If Additive Alternate #1 is not awarded, topsoil may be taken from the available source described in Section 106-1.02.4.d.

PND726-070110

SECTION 727

SOIL STABILIZATION

Special Provisions

727-2.02 MATTING. Add the following items:

Long Term Erosion Control Blanket. The blanket shall be of consistent thickness with the coconut evenly distributed over the entire area of the blanket. The blanket shall be covered on the top and bottom with heavyweight polypropylene netting having ultraviolet additives to delay breakdown and approximate 0.625 x 0.625 inch or smaller mesh size. The blanket shall be sewn together on 1.50 inch centers with UV stable polypropylene thread. The blanket shall have a minimal functional longevity of 36 months.

Permanent Erosion Control Blanket. The blanket shall be a machine-produced mat of 100% UV stable polypropylene fiber. The matting shall be of consistent thickness with the synthetic fibers evenly distributed over the entire area of the mat. The matting shall be covered on the top side with black heavyweight UV stabilized polypropylene netting having ultraviolet additives to delay breakdown and an approximate 0.50 x 0.50 inch mesh. The bottom net shall also be UV stabilized polypropylene with an approximate 0.625 x 0.625 inch mesh size. The blanket shall be sewn together on approximately 1.50 inch centers with degradable thread.

PND#727-070110

SECTION 730

SIGN MATERIALS

Special Provisions

730-2.04 SIGN POSTS. Add the following item:

7. Structural Tubing and W-Shape Beams.
   a. Structural tubing shall conform to ASTM A500, Grade B, or ASTM A501. The tubing shall be square and of the dimensions called for in the Plans with 0.2 inch thick walls. 0.4 inch diameter holes shall be drilled as required to permit mounting of the sign.
   b. W-shape beams shall conform to ASTM A36.
   c. Structural tubing and W-shape beams shall be hot dip galvanized according to 1.b. of this subsection. Damaged and abraded tubes and beams shall be repaired according to 1.c. of this subsection.

CR81-062204

Special Provisions

Add the following Section:

SECTION 744

EROSION, SEDIMENT, AND POLLUTION CONTROL - MATERIAL

744-2.01 MATERIAL.

Fiber Roll: (commonly called straw wattle)

a. Comprised of UV-degradable plastic netting or 100 percent biodegradable material.
b. Filled with straw, flax, rice, coconut fiber material or composted material.
c. Staking shall be made of 100 percent biodegradable materials.

Provide the Engineer certification stating the name of the manufacturer, product name, style number, chemical composition of the fiber, netting and certification of the weed-free status from the manufacturer. Furnish a sample to the Engineer seven days before the scheduled installation.

Manufactured Inlet Protection System:

a. Manufacturers:
   Ultra Tech International – Ultra-DrainGuard
   Bowhead Environmental and Safety - StreamGuard Exert II Sediment Insert
   Enpac - Catch Basin Insert, Oil and Sediment or
b. Approved equal.

Sand Bag Inlet Sediment Trap:

a. Sandbag sack fabric shall be a nonwoven, needle punched design meeting the following requirements:

Grab Tensile Strength	ASTM D 4632	200 pounds (min.)
Grab Elongation	ASTM D 4632	15 – 70%
Mullen Burst Strength	ASTM D 3786	400 psi. (min.)
Trapezoidal Tear Strength	ASTM D 4533	95 lbs. (min.)
Apparent Opening Size	ASTM D 4751	No. 30 U.S. STD sieve (max)
Permittivity	ASTM D 4491	0.01 sec-1 (min.)
Ultraviolet Light Stability, Retained Strength	ASTM D 4355	90%
Puncture Strength	ASTM D 4833	120 lbs. (min.)

These requirements are for Minimum Average Roll Values (MARV) verified in accordance with ASTM D 4759.

b. Seam Thread:
Similar durability to the sandbag sack fabric.
c. Sandbag Fill Material:
Select Material Type B 703-2.07.
d. Cinch Ties: Plastic ties or equivalent tie recommended by the sandbag manufacturer.

CR744-022309

INDEX

Standard Modification

INDEX Remove the text. "*Approved Products List" and replace with: Qualified Products List*

E36-012707

APPENDIX A

CONSTRUCTION SURVEY REQUIREMENTS