STATE OF ALASKA
DEPARTMENT OF TRANSPORTATION AND PUBLIC FACILITIES
CENTRAL REGION

PROPOSAL, CONTRACT, BONDS, STANDARD MODIFICATIONS AND SPECIAL PROVISIONS FOR:

Keystone Drive Improvements

Project No. NCPD-001(347)/58014

As Advertised: August 6, 2008
DOCUMENT FEE: $100.00

To be used in conjunction with State of Alaska Standard Specifications for Highway Construction dated 2004, and the Plans for the above referenced project.

www.dot.alaska.gov - "Procurement"

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(Federal-Aid Highways)

5. Federal Wage Rates

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

6. State Wage Rates

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

SPECIAL NOTICE TO BIDDERS

The Department hereby notifies bidders that information to assist in preparing bids is available at 4111 Aviation Avenue for the following:

1. These items are available upon request in the Anchorage Department of Transportation and Public Facilities Building Plans Room:
   a. Quantity Computations
   b. Cross Sections
   c. Geotechnical Report, Keystone Drive Improvement Project, Project No. 58014/NCPD-001(347), June 2007.
   d. State of Alaska Department of Transportation and Public Facilities publication, Alaska Storm Water Pollution Prevention Plan Guide, January 14, 2005.
   e. Standard Specifications for Highway Construction, 2004. ($25.00)
   f. Alaska Test Methods Manual (Lab & Field), 2007 Edition. ($25.00)
   g. Utility Agreements and Utility Relocation Drawings on CD

2. The Department has an approved environmental document addressing concerns and environmental commitments and it is available for review in the office of the Environmental Coordinator, (907) 269-0534.

3. The Materials Certification List (MCL) has been included in Appendix D. This list is provided for the Contractor to determine which materials will require submittal to the Project Engineer for certification of compliance. The MCL also provides the Project Engineer with the appropriate approving authority.

4. The Department requires all workers within the project limits to wear an outer visible surface or layer of high visibility color and retro reflectivity. See subsection 643-3.11, High Visibility Clothing for requirements.

5. The Laborers' Mechanics' Minimum Rate of Pay contains information on remote sites and per diem. The Department of Labor has issued WHPL #197, which further clarifies this requirement. See pay items 640(4) and 640(4)-1.

6. Administrative Order 226, issued July 24, 2005, establishes a 15% goal for hiring apprentices in certain job categories; on highway, airport, harbor, dam, tunnel, utility, or dredging projects awarded by the Alaska Department of Transportation and Public Facilities. This administrative Order will apply to projects advertised after September 1, 2005, where the project construction cost exceeds 2.5 million dollars. For additional details, visit: http://labor.state.ak.us/lss/forms/ApprenhireReq.pdf

7. Utilities will be relocated by others concurrently with the construction of this project. The Contractor will be responsible for coordinating with the utility companies and will also be responsible for controlling sediment and erosion and stabilizing areas disturbed during the utility relocations.

8. Permits received on the Contractor's behalf are included in Appendix B. The permit received from the U.S. Army Corps of Engineers requires the Contractor to identify, mark in the field, have a jurisdictional determination completed, and a DA permit received, if required, for all material disposal sites required for the 2008 construction season prior to project start-up in 2008. In addition, all material disposal sites required for the 2009 construction season shall be identified, marked in the field, have a jurisdictional determination completed, and a DA permit received, if required, prior to project restart-up in 2009.

9. Based on guidance from the US Department of Transportation's General Counsel, effective January 10, 2006 the Alaska Department of Transportation and Public Facilities implemented a Race Neutral Disadvantaged Business Enterprise (DBE) program by setting 0% project goals on all highway, mass transit and airport projects. All forms and reports required under the existing DBE program will continue to be required under these 0% goal contracts.

   Specifically, contractors must continue to report creditable DBE participation/ payments on the Monthly Summary of Disadvantaged Business Enterprise Participation Form 25A-336. This will allow the Department to continue to accurately report DBE participation to the Federal Highway Administration, Federal Transit Administration and Federal Aviation Administration.

   Contractors must also continue to provide opportunities for DBE firms to participate on highway, mass transit and airport projects as appropriate. A 0% DBE participation goal does not relieve the Contractor of the requirements to provide equal opportunity in subcontracting, supplies or other services offered by DBE firms.

   Any questions about this notice may be directed to Jon Dunham, Manager of the Civil Rights Office, (907) 269-0850, jon.dunham@alaska.gov

10. The temporary construction easements of a few remaining parcels have not been acquired. A listing of these parcels is shown in Appendix E. No work will be done in areas requiring Temporary Construction Easements until acquisition has been verified by the Kenai Peninsula Borough.

State of Alaska Department of Transportation & Public Facilities Central Region	**BID SCHEDULE**	Keystone Drive Improvements Project No. NCPD-0001(347) / 58014

Before preparing this bid schedule, read carefully, Section 102 of the 2004 State of Alaska Standard Specifications for Highway Construction and the following: The Bidder shall insert, as called for, a unit price or a lump sum price in figures opposite each Pay Item for which an estimated quantity appears in the Bid Schedule. A unit price or lump sum price is not to be entered or tendered for any Pay Item not appearing in the Bid Schedule. The Estimated Quantity of work for payment on a lump sum basis will be "All Required" and as further specified in the Contract. Wherever a contingent sum is shown for any item in this Bid Schedule, such amount shall govern and be included in the Bid Total.

Conditioned or qualified bids will be considered Non-Responsive.

Contract award will be made on the basis of the Basic Bid.

The DBE Utilization Goal for this project is 0.0% of the total contract award amount.

NOTICE: In order to establish a clear and definitive basis of award, the State has established a budget amount from which the order of bidders will be determined. The amount will be announced just prior to opening bids. The low bid will be determined by considering the basic bid & additive alternate(s) in the order listed on the Bid Schedule up to a total not to exceed the budgeted amount. The State reserves the right to reject all bids. The State also reserves the right to award the contract above or below the budgeted amount to the low bidder based on any combination of alternate(s) or no alternate(s), providing that the low bidder remains unchanged. **The bidder shall insert a unit bid price for each pay item listed below. Type or print legibly**

Basic Bid

Item No.	Item Description	Unit	Quantity	Unit Bid Price	Amount Bid
201 (3B)	Clearing And Grubbing	Lump Sum	All Req'd.	Lump Sum	
202 (2)	Removal Of Pavement	Square Yard	820		
202 (4)	Removal Of Culvert Pipe	Linear Foot	951		
203 (3)	Unclassified Excavation	Cubic Yard	89,520		
203 (6A)	Borrow, Type "A"	Ton	105,440		
203 (6B)	Borrow, Type "B"	Ton	7,000		

Bid Submitted By:_____

State of Alaska Department of Transportation & Public Facilities Central Region	**BID SCHEDULE**	Keystone Drive Improvements Project No. NCPD-0001(347) / 58014

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

Basic Bid

Item No.	Item Description	Unit	Quantity	Unit Bid Price	Amount Bid
203 (19)	Common Excavation From Surcharge	Cubic Yard	7,840		
301 (1)	Aggregate Base Course, Grading "C-1"	Ton	15,900		
603 (1-15)	15 Inch CSP	Linear Foot	4,100		
603 (1-18)	18 Inch CSP	Linear Foot	111		
603 (1-36)	36 Inch CSP	Linear Foot	200		
603 (1-42)	42 Inch CSP	Linear Foot	60		
603 (1-48)	48 Inch CSP	Linear Foot	70		
603 (3-15)	End Section for 15 Inch CSP	Each	244		
603 (3-18)	End Section for 18 Inch CSP	Each	4		
603 (3-36)	End Section for 36 Inch CSP	Each	8		
603 (3-42)	End Section for 42 Inch CSP	Each	2		
603 (3-48)	End Section for 48 Inch CSP	Each	2		
603 (21-18)	18 Inch Corrugated Polyethylene Pipe	Linear Foot	2,447		
603 (22-18)	End Section for 18 Inch Corrugated Polyethylene Pipe	Each	3		
604 (1)	Storm Sewer Manhole	Each	9		
604 (5)	Inlet, Type "C"	Each	6		
604 (8)	Storm Drain Treatment Structure	Each	3		
605 (6)	8 Inch Perforated Corrugated PE Pipe for Underdrain	Linear Foot	2,100		

State of Alaska Department of Transportation & Public Facilities Central Region	**BID SCHEDULE**	Keystone Drive Improvements Project No. NCPD-0001(347) / 58014

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

Basic Bid

Item No.	Item Description	Unit	Quantity	Unit Bid Price	Amount Bid
610 (4)	Ditch Lining	Linear Foot	2,100		
611 (2)	Riprap, Class I	Ton	210		
615 (1)	Standard Sign	Square Foot	125		
615 (2)	Remove and Relocate Existing Sign	Each	6		
615 (6)	Salvage Sign	Each	8		
618 (2)	Seeding	Pound	525		
618 (3)	Water For Seeding	M Gal.	525		
619 (2)	Matting	Square Yard	6,010		
620 (1)	Topsoil	Square Yard	58,000		
630 (1)	Geotextile, Separation	Square Yard	46,200		
631 (1)	Geotextile, Drainage, Class 2	Square Yard	3,800		
633 (1)	Silt Fence	Linear Foot	5,600		
634 (1)	Geogrid	Square Yard	7,500		
639 (4)	Driveway	Each	122		
639 (6)	Approach	Each	8		
640 (1)	Mobilization And Demobilization	Lump Sum	All Req'd.	Lump Sum	
640 (4)	Worker Meals and Lodging, or Per Diem	Lump Sum	All Req'd.	Lump Sum	
641 (1)	Erosion And Pollution Control Administration	Lump Sum	All Req'd.	Lump Sum	

State of Alaska Department of Transportation & Public Facilities Central Region	**BID SCHEDULE**	Keystone Drive Improvements Project No. NCPD-0001(347) / 58014

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

Basic Bid

Item No.	Item Description	Unit	Quantity	Unit Bid Price	Amount Bid
641 (2)	Temporary Erosion And Pollution Control	Contingent Sum	All Req'd.	Contingent Sum	**150,000.00**
641 (5)	Erosion And Pollution Control Price Adjustment	Contingent Sum	All Req'd.	Contingent Sum	**0.00**
642 (1)	Construction Surveying	Lump Sum	All Req'd.	Lump Sum	
642 (3)	Three Person Survey Party	Hour	40		
643 (2)	Traffic Maintenance	Lump Sum	All Req'd.	Lump Sum	
643 (23)	Traffic Price Adjustment	Contingent Sum	All Req'd.	Contingent Sum	**0.00**
643 (25)	Traffic Control	Contingent Sum	All Req'd.	Contingent Sum	**125,000.00**
644 (1)	Field Office	Lump Sum	All Req'd.	Lump Sum	
645 (1)	Training Program, 1 Trainees/Apprentices	Labor Hour	888		
646 (1)	CPM Scheduling	Lump Sum	All Req'd.	Lump Sum	
647 (2)	Wide Pad Dozer, 65 HP Min.	Hour	125		
681 (1)	Fiber Roll	Linear Foot	820		
	Total Basic Bid				$

Additive Alternate

Item No.	Item Description	Unit	Quantity	Unit Bid Price	Amount Bid
401 (1B) AA	Hot Mix Asphalt, Type II, Class B	Ton	6,900		
401 (2) AA	Asphalt Cement, Grade 52-28	Ton	380		
401 (6) AA	Asphalt Price Adjustment - Quality	Contingent Sum	All Req'd.	Contingent Sum	**25,000.00**

PART 4

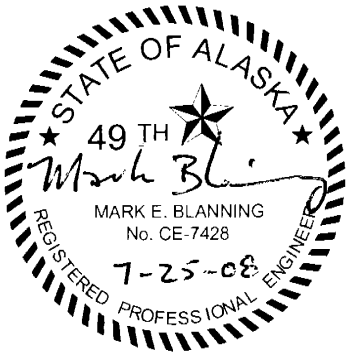
STANDARD MODIFICATIONS

AND SPECIAL PROVISIONS

to the STATE OF ALASKA

STANDARD SPECIFICATIONS
FOR
HIGHWAY CONSTRUCTION

2004



Keystone Drive Improvement Project
Project No. NCPD-0001(347)/58014

SECTION 101

DEFINITIONS AND TERMS

Standard Modification

101-1.03 DEFINITIONS.
Change the text of the following definitions:

PLANS. Replace with the following: 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(01/27/07)

SUBGRADE. Replace with the following: The soil or embankment upon which the pavement structure is constructed. E22(1/1/06)

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(1/1/06)

Standard Modification

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(6/30/04)

SECTION 103

AWARD AND EXECUTION OF CONTRACT

NOT USED

NOT USED

NOT USED

SECTION 105

CONTROL OF WORK

Standard Modification

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: "Work or material not conforming to the Plans and Specifications" add: and approved Working Drawings, E33(01/27/07)

Special Provisions

105-1.06 UTILITIES. Add the following: Request locates from the utilities having facilities in the area. Use the Alaska Digline, Inc. Locate Call Center for the following utilities:

ALASKA DIGLINE, INC. Locate Call Center Anchorage: 811 who will notify the following:
ACS Enstar Natural Gas GCI Communications Homer Electric Assoc.

There are various utility appurtenances located within the project limits. Utilities scheduled for relocation are addressed in the following utility specific sections.

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. (5/24/07)R3

Provide the Utility Companies fifteen (15) calendar days advance written notice of the time you have the relocations described below scheduled to begin. The Utility Companies will not be required to work in more than one location at a time and will be allowed to complete a specific section of work before beginning with another section.

Relocation or adjustment of underground utility appurtenances will not normally be performed when the ground is frozen. In addition, the utility companies may prohibit the Contractor, through the Engineer, from working near the utility's facilities when the ground is frozen.

When utility company facilities are not proposed for relocation, use locate information to determine the final location of construction elements such as excavation limits, pole locations and other underground activities to avoid conflict with existing utilities.

The Contractor's storm water pollution prevention plan shall be implemented and clearing and grubbing activities completed in areas planned for utility relocations prior to the utility companies starting their relocation work.

HOMER ELECTRIC ASSOCIATION (HEA): HEA owns and operates power lines for distribution within the project limits. Numerous locations along the project will require the relocation of both overhead and underground HEA facilities. These locations are identified in the HEA utility relocation drawings.

The contact for HEA is Kathy Whitmore, Distribution Engineering Services Supervisor, 235-3389.

ENSTAR NATURAL GAS COMPANY (ENSTAR): Enstar has a 3" plastic distribution line along the entire length of the project. Numerous locations along the project will require the relocation of this line as well as affected service lines. These locations are identified in the Enstar utility relocation drawings.

The contact for Enstar is Wade Ellis, P.E., 334-7744.

ALASKA COMMUNICATIONS SYSTEMS TELECOMMUNICATIONS (ACS): ACS owns and operates telecommunication facilities within the project limits. Numerous locations along the project will require the relocation of these facilities.

These locations are identified in the ACS utility relocation drawings.

The contact for ACS is Dave Hopkins, OSP Engineer II, 714-8700.

Standard Modification

105-1.16 FINAL ACCEPTANCE AND RECORD RETENTION. Modify the first paragraph, Item 4., after: "DOLWD" add: and State Department of Revenue. (6/30/04)E19

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. (03/21/01)R93

SECTION 106

CONTROL OF MATERIAL

Special Provision

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

Buy America Provision. Comply with the requirements of 23 CFR 635.410, Buy America Requirements, and shall 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 processes 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. (02/07/05)R13

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:

4. 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.

4. 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 sources 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(1/1/06)

Standard Modification

Add new subsection 106-1.08:

106-1.08 SUBMITTAL PROCEDURE. The Contractor shall complete a Submittal Register, and shall submit it 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 documents. 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, Traffic Control Plan, Storm Water Pollution Prevention Plan, Quality Control Program, 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 or 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.
E34(01/27/07)

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 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. 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.

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

1. U.S. Army Corps of Engineers Nationwide Permit #23, POA-2006-812, expires May 6, 2010
2. State of Alaska DEC Non-domestic Wastewater Plan Approval, No. 08-WW-100-057
3. State of Alaska DNR Fish Habitat Permit, Kenai River Tracking No. 7327
4. State of Alaska DNR ACMP Consistency, ID2008-0453AA

Copies of the permits are contained in Appendix B.

Provide information to comply with the US Environmental Protection Agency National Pollutant Discharge Elimination System (NPDES) 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.

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 LANDSCAPING. To item 5, Protected Areas, add the following: Properties meeting the description of this item and requiring protection are labeled on the plan sheets as "U.S. Fish and Wildlife Property" and are located as follows:

Parcel 1: Station 96+55 to Station 101+80, Right
Parcel 2: Station 101+80 to Station 105+75, Right
Parcel 3: Station 145+15 to Station 153+85, Left
Parcel 4: Station 147+00 to Station149+50, Right
Parcel 5: Station 174+30, Left to EOP and Station 178+20, Right to EOP

Add the following paragraphs:

Standard Modification

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, including permits from the USACE, DNR, and SHPO. A copy of such 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(01/27/07)

Special Provision

9. If water is required for construction purposes 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) 269-8624. The local DNR authority is Lee McKinley at the Kenai River Center, (907) 260-4882. (05/29/02)R7

10. A bald eagle nest is located behind a house at 33375 Keystone Drive (Station 135+00, Right) within 660 feet of the project. Operations shall not take place within 660 feet of the nest during the sensitive nesting time period of March 1 to May 31. If the nest is active after May 31, construction activities shall be avoided within the protection zone until August 31, or until eagles have fledged the nest. If work is necessary during this time period, the U.S. Fish and Wildlife Service will need to be contacted, and an on-site monitor may be required in accordance with USF&WS protocol. If the nest is not active by May 31, construction activities may proceed, provided that the nest is not jeopardized. 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 "takes" as "to pursue, shoot, shoot at, poison, wound, kill, capture, trap, collect, molest, or disturb". If an additional nest is discovered within 660 feet of the project area, stop work and contact the Project Engineer for the appropriate course of action.

Special Provisions

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
DBE Subcontractable Items	Form 25A-324
ADOT&PF Training Program Request	Form 25A-310
Training Utilization Report	Form 25A-311
Contact Report	Form 25A-321A
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. (1/22/02)S80

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. R57(01/02/08)

Special Provisions

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 item 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.
R261(12/13/02)

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.
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. (4/31/05)R14

Standard Modification

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(6/30/04)

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 25A324 (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 25A325C (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 25A325C 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 25A325C 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 25A332A and attachments) and DBE Contact Reports (Form 25A321A) if the Contractor submits less DBE utilization on Form 25A325C 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 25A325C) 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 judgement 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 25A324) 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 25A324 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 25A321A).

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 25A321A).

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 effect 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 25A336 (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 25A325C 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. (11/17/00)S33

SECTION 201

CLEARING AND GRUBBING

201-3.01 GENERAL. Add the following: Clearing shall not be performed between May 1 and July 15 to avoid impacts to migratory birds.

SECTION 203

EXCAVATION AND EMBANKMENT

203-3.01 GENERAL. Add the following: As shown on the plans, this project includes the construction of a surcharge. The surcharge shall be constructed prior to winter shutdown in 2008 and shall remain in place until load restrictions are lifted, the embankment material thaws, and work resumes in 2009. Upon direction of the Engineer the surcharge shall be removed and the material used to construct other portions of the road embankment as shown on the Plans. Surcharge material removed and used elsewhere on the project shall be classified as *Common Excavation from Surcharge* and measured by average end area in the surcharge.

203-4.01 METHOD OF MEASUREMENT. Add the following:
9. Item 203(19). The volume measured in the surcharge by average end area.

203-5.01 BASIS OF PAYMENT. Add the following pay item:

Payment will be made under:

Pay Item No.	Pay Item	Pay Unit
203(19)	Common Excavation from Surcharge	Cubic Yard

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. R204(2/6/08)

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 asphalt concrete pavement on an approved surface, to the lines, grades, and depths shown on the Plans.

MATERIALS

401-2.01 COMPOSITION OF MIXTURE - JOB MIX DESIGN. Meet the requirements of Table 401-1 for the Job Mix Design performed according to ATM 417.

TABLE 401-1
HOT MIX ASPHALT DESIGN REQUIREMENTS

DESIGN PARAMETERS	CLASS "A"	CLASS "B"
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
Percent Voids Filled with Asphalt (VFA)	65-75	65-78
Asphalt Content, min. %	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 (calculated by weight of mix).

The approved Job Mix Design will specify the target values for gradation, the target value for asphalt cement content, the Maximum Specific Gravity (MSG) of the hot mix asphalt, the additives, and the allowable mixing temperature range.

Target values for gradation in the Job Mix Design must be within the broad band limits shown in Table 703-3, for the type of hot mix asphalt specified. For acceptance testing, hot mix asphalt concrete mixture will have the full tolerances

in Table 401-2 applied. Except the tolerances for the No. 200 sieve, the tolerance limits will apply even if they fall outside the broad band limits shown in Table 703-3. The tolerance limits for the No. 200 sieve will be confined by the broad band shown in Table 703-3. Tolerance limits will not be applied to the largest sieve specified.

Do not produce hot mix asphalt for payment until the Engineer approves the Job Mix Design. Do not mix asphalt produced from different plants.

Use Hot Mix Asphalt Type II, Class B, minimum, for temporary pavement.

Submit the following to the Engineer at least 15 days before the production of hot mix asphalt:

1. A letter stating the location, size, and type of mixing plant, the proposed gradation for the Job Mix Design, 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 hot mix asphalt specified in the Contract.

2. Representative samples of each aggregate (coarse, intermediate, fine, and blend material and/or 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 hot mix asphalt. 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 then evaluate the material and the proposed gradation using ATM 417 and the requirements of Table 401-1 for the appropriate type and class of hot mix asphalt specified and establish the approved Job Mix Design that will become a part of the Contract.

No payment for hot mix asphalt for which a new Job Mix Design is required, will be made until the new Job Mix Design is approved. Approved changes apply only to hot mix asphalt produced after the submittal of the changes.

Changes. Failure to achieve results conforming to Table 401-1 or changes in the source of asphalt cement, source of aggregates, aggregate quality, aggregate gradation, or blend ratio, will require a new Job Mix Design. Submit changes and new samples in the same manner as the original submittal.

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

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

401-2.03 ASPHALT CEMENT. Provide the grade of asphalt cement specified in the Contract meeting the applicable requirements of Section 702. 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 (106-1.05).
2. Conformance test reports for the batch (Section 702).
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 Job Mix Design. At least 70% of the aggregate must remain coated when tested according to ATM 414.

401-2.05 PROCESS QUALITY CONTROL. Sample and test materials for quality control of the hot mix asphalt according to subsection 106-1.03. Provide copies of these test results to the Engineer within 24 hours.

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

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 assure product consistency, to minimize segregation, and to prevent premature cooling of the hot mix asphalt. Include a proposed quality control testing frequency for gradation, asphalt cement content, and compaction.

CONSTRUCTION REQUIREMENTS

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

Place the top layer of paving or surface course between May 1 and August 15. Place bottom and middle layers of asphalt, leveling courses, and treated bases according to the limitations of this subsection.
(07/03/03)S90

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

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

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

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 conditions meeting OSHA safety requirements.

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

Cover the hot mix asphalt in the hauling vehicle, when directed.

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. Equip the hopper with a distribution system to place the hot mix asphalt uniformly in front of the screed.

Use a screed assembly that produces a finished surface of the required smoothness, thickness and texture without tearing, shoving or displacing the hot mix asphalt. Heat and vibrate screed extensions. Place auger extensions within 20 inches of the screed extensions or according to written manufacturer's recommendations.

Equip the paver with a means of preventing the segregation of the coarse aggregate particles from the remainder of the bituminous plant mix when that mix is carried from the paver hopper back to the paver augers. The means and methods used shall be approved by the paver manufacturer and may consist of chain curtains, deflector plates, or other such devices and any combination of these.

The following specific requirements apply to the identified bituminous pavers:

(1) Blaw-Knox bituminous pavers shall be equipped with the Blaw-Knox Materials Management Kit (MMK).
(2) Cedarapids bituminous pavers must have been manufactured in 1989 or later.
(3) Caterpillar bituminous pavers shall be equipped with deflector plates.

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. Operate rollers according to manufacturer's instructions. Avoid crushing or fracturing of aggregate. Use rollers designed to compact hot mix asphalt and reverse without backlash.

Use fully skirted pneumatic-tire rollers with 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 the existing surface, clean out loose material from cracks in existing pavement wider

than 1 inch in width full depth then fill using asphalt concrete tamped in place. Clean, wash, and sweep existing paved surfaces of loose material.

Preparation of a milled surface,

1. Prelevel remaining ruts, pavement delaminations, or depressions having a depth greater than ½-inch with Asphalt Concrete, Type IV. No density testing is required for the leveling course material. The Engineer will inspect and accept this material.
2. If planing breaks through existing pavement remove 2 inches of existing base and fill with Asphalt Concrete, Type II. Notify the Engineer of pavement areas that might be considered thin or unstable during pavement removal.

Existing surface must be approved by the Engineer before applying tack coat. Clean existing pave surfaces of loose material.

Before placing the hot asphalt mix, uniformly coat contact surfaces of curbing, gutters, sawcut pavement, cold joints, manholes, and other structures with tack coat material meeting Section 402.

Allow prime coat to cure and emulsion tack coat to break before placement of hot mix asphalt 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 hot mix asphalt, 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 hot mix asphalt to a temperature compatible with the mix requirements specified.

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

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

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

Mix the hot mix asphalt within the temperature range determined by the Job Mix Design.

401-3.11 TEMPORARY STORAGE. Silo type storage bins may be used, provided that the characteristics of the hot mix asphalt are not altered. Signs of visible segregation, heat loss, changes from the Job Mix Design, change in the characteristics of asphalt cement, lumpiness, or stiffness of the hot mix asphalt are causes for rejection.

401-3.12 PLACING AND SPREADING. Place the hot mix asphalt upon the approved surface, spread, strike off, and adjust surface irregularities. Use asphalt pavers to distribute hot mix asphalt, including leveling courses. The maximum compacted lift thickness allowed is 3 inches.

During placement, the Engineer may evaluate the hot mix asphalt immediately behind the paver for temperature uniformity. Areas with temperature differences more than 25°F lower than the surrounding hot mix asphalt are likely to produce areas of low density. Any thermal images and/or thermal profile data will become part of the project record and shared with the Contractor. The Contractor shall immediately adjust laydown procedures to correct the problem.

Use hand tools to spread, rake, and lute the hot mix asphalt in areas where irregularities or unavoidable obstacles make the use of mechanical spreading and finishing equipment 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 all lower lifts throughout that section, as defined by the Paving Plan, are placed and accepted.

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

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

401-3.13 COMPACTION. Thoroughly and uniformly compact the hot mix asphalt by rolling. In areas not accessible to large rollers, compact with mechanical tampers or trench rollers.

The target value for density is 94% of the maximum specific gravity (MSG), as determined by WAQTC FOP for AASHTO T 209. For the first lot of each type of hot mix asphalt, the Job Mix Design will determine the MSG. For additional lots, the MSG will be determined by the sample from the first sublot of each lot.

Acceptance testing for density will be performed in 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.)

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

401-3.14 JOINTS. Minimize the number of joints. Place and compact the hot mix asphalt to ensure a continuous bond, texture, and smoothness between adjacent sections of the hot mix asphalt.

Remove to full depth improperly formed joints resulting in surface irregularities, replace with new hot mix asphalt, and thoroughly compact.

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

Form transverse joints by saw cutting back on the previous run to expose the full depth of layer with a power saw or other method approved by the Engineer or use a removable bulkhead. Skew transverse joints between 15-25 degrees.

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 12 inches from the edge of the stripe.

Uniformly coat joint surfaces below the final lift with tack coat conforming to Section 703 before placing any fresh HMA against the joint.

Before placing an adjacent panel of hot mix asphalt to form a joint in the top layer, apply Crafco Pavement Joint Adhesive No. 34524 Deery Cold Joint Adhesive or approved equal, to the edge of the existing panel. Edge surface preparation, application temperature, thickness, and method shall be according to manufacturer's recommendations.

For the top layer of hot mix asphalt, 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 hot mix asphalt is clean, free of moisture, and before traffic marking. Longitudinal joint sealing shall be according to the manufacturer's recommendations and an 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 be measured but not 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.

401-3.16 PATCHING DEFECTIVE AREAS. Remove hot mix asphalt that becomes contaminated with foreign material, is segregated, or is in any way determined to be defective. Do not skin patch. Remove defective hot mix asphalt for the full thickness of the course. Cut the pavement so that edges are vertical, the sides are parallel to the direction of traffic and the ends are skewed between 15-25 degrees. Coat edges with a tack coat meeting Section 402 and allow to cure. Place and compact fresh hot mix asphalt according to subsection 401-3.13 to grade and smoothness requirements.

Costs associated with patching defective areas are subsidiary to the Hot Mix Asphalt pay item.

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

Hot Mix Asphalt.

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

b) By the area of final hot mix asphalt surface.

Asphalt Price Adjustment. Calculated by quality level analysis under subsection 401-4.03.

Asphalt Cement. By the ton, as follows.

1. Percent of asphalt cement for each sublot multiplied by the total weight represented by that sublot. ATM 405 or WAQTC FOP for AASTHO 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 Job Mix Design.

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 hot mix asphalt for one project only.

   The Engineer may direct, at any time that tankers be weighed in the Engineers 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 hot mix asphalt will be calculated using the target value for asphalt cement as specified in the Job Mix Design.

Method 1 will be used for determining asphalt 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 content specified in the Job Mix Design.

Job Mix Design. When specified, Contractor furnished Job Mix Designs will be measured at one according to the hot mix asphalt class and type.

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

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

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

401-4.02 ACCEPTANCE SAMPLING AND TESTING. The quantity of each class and type of hot mix asphalt 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 4,999 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. Hot mix asphalt quantities of less than 300 tons remaining after dividing the Contract quantity into sublots will be included in the last sublot. Hot mix asphalt 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), hot mix asphalt will be accepted for payment based on the Engineer's approval of a Job Mix Design and the placement and compaction of the hot mix asphalt 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 hot mix asphalt 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.

1. Asphalt Cement. Hot mix samples taken for the determination of asphalt cement content will be taken randomly from behind the screed before initial compaction, at the end of the auger, or from the windrow according to WATC FOP for AASHTO T 168 and ATM 403, as directed by the Engineer. Hot mix asphalt 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 AAHSTO 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 hot mix asphalt. 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 hot mix asphalt 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 hot mix asphalt 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. Cut full depth core samples from the finished hot mix asphalt within 24 hours after final rolling. Neatly cut one 6 inch diameter core sample with a core drill at each location marked by the Engineer. Use a core extractor to prevent damage to the core. The Engineer will determine the density of the core samples according to WAQTC FOP for AASHTO T 166/T 275. Do not core hot mix asphalt on bridge decks. Backfill and compact voids left by coring with new hot mix asphalt within 24 hours.

Cores for longitudinal joint density shall be centered on the longitudinal joint at each location the panel completing the joint is cored for mat density acceptance testing.

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 initial test result. 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.

5. 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 – 199 tons, the contact 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.

   The total asphalt cement price adjustment is the sum of the individual lot price adjustments and will be subtracted under Item 401(6) Asphalt Price Adjustment - Quality.

401-4.03 EVALUATION OF MATERIALS FOR ACCEPTANCE. The following method of price adjustment will be applied to each type of Hot Mix Asphalt 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 hot mix asphalt that includes gradation and asphalt cement content. The second factor is for density.

A lot containing hot mix asphalt 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 hot mix asphalt 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 hot mix asphalt that appears to be defective based on visual inspection. A minimum of two samples will be collected from the rejected hot mix asphalt and tested if requested. If test results are within specification limits, payment will be made for the hot mix asphalt. If any of the test results fail to meet specifications, no payment will be made and the cost of the testing will be subtracted under Item 401(6) Asphalt Price Adjustment - Quality. Costs associated with removal and disposal of the rejected hot mix asphalt 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 also.

If the density test result is an outlier, the density test result will not be included in the price adjustment, however, the gradation and asphalt cement content results for that sublot will be included provided neither is 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:

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

   Where: Σ = 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:

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

   Where: $\Sigma (x^2)$ = sum of the squares of individual test values.
   $(\Sigma x)^2$ = 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 specification value specified in the approved Job Mix

Design. Specification tolerance limits for the largest sieve specified will be plus 0 and minus 1 when performing PWL calculations. The TV for density is 94% of the maximum specific gravity (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[1]	TV-2.0	TV+2.0
Asphalt %	TV-0.4	TV+0.4
Mat Density %	92	98

Note 1.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 is determined for Density (DPF) and gradation and asphalt cement content pay factors (PF) 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**	**Type II**	**Type III**
	Factor "f"	**Factor "f"**	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 or DPF)* -1.00] x (tons in lot) x (PAB)

* CPF or DPF, whichever is lower.

PAB = Price Adjustment Base = $82.00 per ton

The total asphalt concrete price adjustment is the sum of all price adjustments for each lot and will be adjusted under Item 401(6) Asphalt Price Adjustment - Quality.

EVALUATION OF ASPHALT CEMENT

Asphalt cement will be randomly sampled and tested every 200 tons and evaluated for price adjustment. If the last sample increment is 100 tons or less, that quantity of asphalt cement will be added to the quantity represented by the previous sample and the total quantity will be evaluated for price adjustment. If the last sample increment is greater than 100 tons, it will be sampled, tested and evaluated separately. Asphalt cement pay reduction factors for each sample will be determined from Table 401-4.

The total asphalt cement price adjustment is the sum of the individual sample price adjustments and will be subtracted under Item 401(6) Asphalt Price Adjustment - Quality.

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

	Spec	Pay Reduction Factor (PRF)								
		0	**0.04**	**0.05**	**0.06**	**0.07**	**0.08**	**0.1**	**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
Direct Tension	>1.0 %	>1.0		0.86-0.99				0.71-0.85	0.56-0.70	<0.56

Asphalt Cement Price Adjustment for each sample = 5 x PAB x Qty X PRF
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 and using ASTM D3244 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 under Item 408(3) Asphalt Price Adjustment, shall pay the cost of testing the referee sample.

The total Asphalt Price Adjustment is the sum of all the price adjustments for each lot and will be included in 401(6) Asphalt Price Adjustment.

EVALUATION OF LONGITUDINAL JOINT DENSITY. Longitudinal joint density price adjustments apply when hot mix asphalt quantities are equal to 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 under Item 401(6) Asphalt Price Adjustment.
    b. 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:

    Longitudinal joint density price adjustment equal to $1.50 per linear foot is added under Item 401(6) Asphalt Price Adjustment.

The longitudinal joint price adjustment will be included in Item 401(6) Asphalt Price Adjustment.

401-4.04 ASPHALT MATERIAL PRICE ADUSTMENT – 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, and 401 through 409.

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. There is more than 500 tons of asphalt material in the bid schedule of Sections described in Item 1; and
   b. There is 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. As used in this subsection, the Alaska asphalt material price index is calculated bimonthly on the first and third Friday of each month, and will remain in effect from the day of calculation until the next bimonthly calculation. The Alaska asphalt material price index is posted on the Department's Statewide Materials website, and calculated according to the formula posted there.

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 x IB)] x Q
   For a decrease exceeding 7.5%, deduction from contract = [(IB – IPP) – (0.075 x IB)] x 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

6. Method of measurement for determining Q (quantity) is the weight of asphalt material that meets 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.

Asphalt cement, anti-strip additives for Item 401(3) Temporary Hot Mix Asphalt, or for hot mix asphalt for leveling course is subsidiary to item 401(3).

Sealing the surface of longitudinal joints according to subsection 401-3.12 will be subsidiary to 401 items.

Asphalt cement, anti stripping additives, tack coat, and crack sealing (401-3.07) are subsidiary to the hot mix asphalt unless specified as pay items.

Price adjustments will not apply to:

1. Hot Mix Asphalt for leveling course
2. Temporary Hot Mix Asphalt
3. Hot Mix Asphalt for Approaches

Payment for furnishing and installing joint adhesive will be paid as 401(9) Longitudinal Joint Adhesive and Sealing.

Failure to cut core samples within the specified period will result in a deduction of $100.00 per sample per day. Failure to backfill voids left by sampling within the specified period will result in a deduction of $100.00 per hole per day. The accrued amount will be subtracted under Item 401(6) Asphalt Price Adjustment.

The Engineer will assess a fee of $2,500.00 under Item 401(6) Asphalt Price Adjustment, for each mix design subsequent to the approved Job Mix Design for each Type and Class of Hot Mix Asphalt specified.

Asphalt cement, anti-strip additives for Item 401(8) Hot Mix Asphalt for Approaches is subsidiary to item 401(8).

Payment will be made under:

Pay Item No.	Pay Item	Pay Unit
401(1)	Hot Mix Asphalt, Type II; Class B	Ton

401(2)	Asphalt Cement, Grade PG 52-28	Ton
401(3)	Temporary Hot Mix Asphalt	Ton
401(4)	Hot Mix Asphalt, Type __; Class __	Square Yard
401(6)	Asphalt Price Adjustment	Contingent Sum
401(8)	Hot Mix Asphalt for Approaches, Type ___; Class ___	Ton
401(9)	Longitudinal Joint Adhesive and Sealing	Linear Foot
401(10)	Asphalt Material Price Adjustment – Unit Price	Contingent Sum

R199 (01/02/08)

SECTION 603

CULVERTS AND STORM DRAINS

Special Provision

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

603-2.01 MATERIALS. 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: Install water proof gaskets at culvert connections on all 18" and larger culverts.

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. (08/27/03)R42

Special Provision

603-5.01 BASIS OF PAYMENT. In the first sentence after: "Coupling bands" add: water proof gaskets.

Add the following pay item:

Payment will be made under:

Pay Item No.	Pay Item	Pay Unit
603(22-18)	End Section for 18-Inch Corrugated Polyethylene Pipe	Each

SECTION 604

MANHOLES AND INLETS

604-1.01 DESCRIPTION. In the first sentence after: "Construct, reconstruct, relocate, or adjust manholes and inlets" add: and storm drain treatment structures.

604-3.01 CONSTRUCTION REQUIREMENTS. Add the following: Install precast storm drain treatment structures consisting of a vault, access manhole frames and covers, baffles, weirs, access rungs, and pipe tee sections as shown on the Plans. The manufacture and installation of storm drain treatment structures shall conform to the requirements of subsections 501-3.11 and 3.12.

604-5.01 BASIS OF PAYMENT. Add the following pay item:

Payment will be made under:

Pay Item No.	Pay Item	Pay Unit
604(8)	Storm Drain Treatment Structure	Each

SECTION 610

DITCH LINING

610-3.01 CONSTRUCTION REQUIREMENTS. Add the following: Placement may include channel lining out of ditches into drainage channels.

Special Provision

610-5.01 BASIS OF PAYMENT. Add the following pay item:

Payment will be made under:

Pay Item No.	Pay Item	Pay Unit
610(4)	Ditch Lining	Linear Foot

SECTION 611

RIPRAP

Special Provision

611-2.01 MATERIALS. Add the following after the first sentence: Apparent specific gravity will be determined by WAQTC FOP for AASHTO T85.

R277(11/07/05)

SECTION 615

STANDARD SIGNS

Standard Modification

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

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

   a. Orange Background Signs: Use either Type II or Type III orange reflective sheeting or use Type VII or Type IX fluorescent orange reflective sheeting. For temporary installations place reflective sheeting on sheet aluminum, plastic, or plywood panels.

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

   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.

Add the following paragraph:

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 that: 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 8th through the 10th 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. E26(1/1/06)

Standard Modification

615-2.01 MATERIALS. In Item 2.a. Orange Background Signs, add: Roll Up Signs: Use 3M series RS 24, Reflexite Marathon Orange, or approved equal (based on durability and reflectivity, as determined by the Engineer). Use flexible signs with fluorescent reflective sheeting that is Type VI or better. E41(01/27/07)

SECTION 618

SEEDING

Special Provision

618-1.01 DESCRIPTION. Add the following: Topsoil and seed new or disturbed slopes and other areas 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

Standard Modification

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 prior to 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.

E42(01/27/07)

Special Provision

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.

R52(01/27/07)

Standard Modification

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 by the hydraulic method.

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(01/27/07)

Special Provision

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	Bering Hairgrass (Norcoast) Red Fescue (Arctared) Annual Ryegrass (Lolium)	0.60 lbs. 0.30 lbs. 0.10 lbs. Total = 1.00 lbs
Soil Stabilizer Slope ≤ 3:1 Slope >3:1	 Mulch Mulch with tackifier	 46 lbs. 45-58 lbs.
Fertilizer	20-20-10	12.0 lbs.

Do not remove the required tags from the seed bags.

(01/27/07)R52

Standard Modification

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

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 a paid Contract item. If, in the opinion of the Engineer, too much water is being applied, reduce amount of water as directed.

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.

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

Reseed areas that are not acceptable to the Engineer.

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

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

618-4.01 METHOD OF MEASUREMENT.

After Seeding by the Pound, delete text and replace with: By the weight of dry seed acceptably placed and maintained.

618-5.01 BASIS OF PAYMENT. Delete "Mulching will be paid for under Section 619" and 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, mulch, 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 is subsidiary. Water after project completion is subsidiary.
E42(01/27/07)

SECTION 619

SOIL STABILIZATION

619-2.01 MATERIALS. Add the following: Matting shall conform to Subsection 727-2.02, Item 4, Knitted Straw Mat.

SECTION 634

GEOGRID SOIL REINFORCEMENT

Special Provision

634-2.01 MATERIALS. Add the following: Submit manufacturer's literature showing conformance with the material requirements.

634-5.01 BASIS OF PAYMENT. Delete the table and insert the following:

Pay Item No.	Pay Item	Pay Unit
634(1)	Geogrid	Square Yard

Delete this Section in its entirety and substitute the following:

SECTION 639

DRIVEWAYS

Special Provision

639-1.01 DESCRIPTION. Construct approaches, residential or commercial driveways at the locations shown in the Plans.

639-2.01 MATERIALS. Use materials that conform to the standards for the main roadway.

639-3.01 CONSTRUCTION. Construct driveways and approaches to the dimensions shown on the Plans.

639-4.01 METHOD OF MEASUREMENT. By the number of driveways and approaches constructed as shown on the Plans or as directed. Pavement removal and excavation required beyond the limits of the adjacent mainline will be subsidiary.

639-5.01 BASIS OF PAYMENT. At the contract unit price shown in the bid schedule. The contract unit price for driveways and approaches shall be full compensation for furnishing equipment and labor necessary to complete the work as specified.

Materials required to construct driveways and approaches will be paid for separately under the respective items listed in the bid schedule.

Native material meeting the minimum requirements of Selected Material, Type C will not be paid for directly, but will be considered subsidiary to 639 items. (05/09/02)R58

Payment will be made under:

Pay Item No.	Pay Item	Pay Unit
639(1)	Residence Driveway	Each
639(2)	Commercial Driveway	Each
639(3)	Public Approach	Each
639(4)	Driveway	Each
639(6)	Approach	Each

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).

   Ensure subcontractors comply with the 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

E27(1/01/06)

Delete Section 641 in its entirety and substitute the following:

SECTION 641

EROSION, SEDIMENT, AND POLLUTION CONTROL

641-1.01 DESCRIPTION. Plan, provide, inspect, and maintain control of erosion, sedimentation, water pollution, and hazardous materials contamination. Utilities will be relocated by others concurrently with construction of this project. The Contractor will also be responsible for controlling sediment and erosion and stabilizing areas disturbed during utility relocation.

641-1.02 DEFINITIONS.

1. BMP (Best Management Practices). A wide range of project management practices, schedules, activities, or prohibition of practices, that when used alone or in combination, prevent or reduce erosion, sedimentation, and/or pollution of adjacent water bodies and wetlands. BMP include temporary or permanent structural and nonstructural devices and practices. Common BMP can be found on the EPA website: *National Menu of Storm Water Best Management Practices.* [www.epa.gov/npdes/stormwater/menuofbmps]

2. ESCP (Erosion and Sediment Control Plan). The ESCP is a project specific document that illustrates measures to control erosion and sediment problems on a project. The ESCP normally consists of a general narrative and a map or site plan. It is developed by the Department and included in the project plans and specifications. It serves as a resource for bid estimation and a framework from which the Contractor develops the project SWPPP.

3. Final Stabilization. A point in time when ground disturbing activities are complete and permanent erosion and sediment controls are established and functional. The stabilized site is protected from erosive forces of raindrop impact and water flow. Typically, unpaved areas except graveled shoulders, crushed aggregate base course, or other areas not covered by permanent structures are protected by either a uniform blanket of perennial vegetation (at least 70% cover density) or equivalent permanent stabilization measures such as riprap, gabions or geotextiles.

4. HMCP (Hazardous Material Control Plan). The Contractor's detailed plan for prevention of pollution that stems from the use, containment, cleanup, and disposal of hazardous material, including petroleum products generated by construction activities and equipment.

5. eNOI. Electronic Notice of Intent to begin construction activities under the NPDES General Permit. Use EPA Form 3510-9 found at www.epa.gov/npdes/stormwater/enoi

6. eNOT. Electronic Notice of Termination of coverage under the NPDES General Permit. Use EPA Form 3510-13 found at www.epa.gov/npdes/stormwater/cgp.appendixf.pdf.

7. NPDES General Permit. The Storm Water General Permit for Large and Small Construction Activities, issued by the Environmental Protection Agency (EPA) under the National Pollutant Discharge Elimination System (NPDES). It requires an approved SWPPP and NOIs listed as active status by the EPA before ground disturbing activities for the project.

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

9. SWPPP (Storm Water Pollution Prevention Plan). The Contractor's plan for erosion and sediment control and storm water management. The SWPPP is developed by the Contractor and identifies specific areas where erosion may occur, describes site specific controls to prevent erosion and manage sediment and establishes a record of the installation and removal of these controls. The approved SWPPP replaces the ESCP.

641-1.03 REFERENCES.

The following websites have up to date information about erosion, sediment and pollution control.

Developing the SWPPP. EPA. January 2007. Includes a SWPPP template in WORD [www.epa.gov/npdes/swpppguide]

National Menu of Storm Water Best Management Practices. EPA. [www.epa.gov/npdes/stormwater/menuofbmps]

International Erosion Control Association website [www.ieca.org/Resources/Resources.asp]

Construction Industry Compliance Assistance Center website [www.CICAcenter.org/bmps.html]

641-1.04 SUBMITTALS. Submit two copies each of the SWPPP and HMCP to the Engineer for approval. Submit one copy of the SPCC Plan (if required under subsection 641-2.03) to the Engineer. Sign submittals. Deliver these documents to the Engineer.

The Department will review the SWPPP and HMCP submittals within 14 calendar days. Submittals will be returned to the Contractor as either requiring modification, or as approved by the Department. The approved SWPPP must contain certifications, and be signed according to the Standard Permit Conditions of the NPDES General Permit. Approval of the SWPPP must be received before submitting the eNOI to the EPA.

For projects that disturb five acres or more of ground, submit a copy of the approved and signed SWPPP, with the required permit fee to the Alaska Department of Environmental Conservation (ADEC) Storm Water Coordinator. Transmit proof of this submission to the Engineer.

For projects that disturb one acre or more, submit the signed eNOI to EPA. Submit copies of the signed eNOI receipt to the Engineer and to ADEC. Transmit proof of the ADEC submission to the Engineer. The Department will transmit the Department's NOI to the EPA. Allow adequate time for state and federal processing, before beginning ground disturbing activities.

The active status NOIs, approved SWPPP, approved HMCP, and submitted SPCC Plan (when required) become the basis of the work required for the project's erosion, sediment, and pollution control.

Submit the signed eNOT to EPA with a copy to the Engineer when notified by the Engineer that the Project is stabilized. The Department will transmit the Department's eNOT to the EPA.

641-2.01 STORM WATER POLLUTION PREVENTION PLAN (SWPPP) REQUIREMENTS. Prepare a Storm Water Pollution Prevention Plan. Use the Department's ESCP to develop a SWPPP based on scheduling, equipment, and use of alternative BMPs. The SWPPP Preparer must visit the project site before preparing the SWPPP. The plan must include both erosion control and sediment control measures. The plan must address first preventing erosion, then minimizing erosion, and finally trapping sediment before it leaves the project site.

The SWPPP must follow the format presented in Appendix A of *Developing Your Storm Water Pollution Prevention Plan (*EPA, January 2007) found at http://cfpub.epa.gov/npdes/stormwater/swppp.cfm.

The plan must address site specific controls and management plan for the construction site as well as for material sites, waste disposal sites, haul roads, and other affected areas, public or private. The plan must also incorporate the requirements of the project permits.

Specify the line of authority and designate a field representative for implementing SWPPP compliance.

641-2.02 HAZARDOUS MATERIAL CONTROL PLAN (HMCP) REQUIREMENTS. Prepare a HMCP for the handling, storage, cleanup, and disposal of petroleum products and other hazardous substances. (See 40 CFR 117 and 302 for listing of hazardous materials.)

List and give the location of hazardous materials, including office materials, to be used and stored on site, and estimated quantities. Detail a plan for storing these materials as well as disposing of waste petroleum products and other hazardous materials generated by the project.

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, including a list of the types and quantities of equipment and materials available on site to be used.

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

Specify the line of authority and designate a field representative for spill response and one representative for each subcontractor.

641-2.03 SPILL PREVENTION, CONTROL AND COUNTERMEASURE (SPCC) PLAN REQUIREMENTS. Prepare and implement a SPCC Plan when required by 40 CFR 112, including:

Control

Prepare and implement a SPCC Plan when required by 40 CFR 112, including:
1. When oil spills may reach navigable waters; and
2. Total above ground oil storage capacity is greater than 1,320 gallons.

Prevention and Countermeasures

Comply with 40 CFR 112 and address the following issues in the SPCC Plan:
1. Operating procedures that prevent oil spills;
2. Control measures installed to prevent a spill from reaching navigable waters; and
3. Countermeasures to contain, clean up, and mitigate the effects of an oil spill.

Self certify the SPCC Plan if the total above ground oil storage capacity is 10,000 gallons or less, and the requirements for self certification in 40 CFR 112 are met. Otherwise the SPCC Plan must be certified, stamped with the seal of, dated by, and signed by a Professional Engineer registered in the State of Alaska.

641-3.01 CONSTRUCTION REQUIREMENTS. On projects with 1 acre or more of ground disturbing activity, do not begin construction activities until the EPA has acknowledged receipt of the Contractor's NOI and Department's NOI, and has listed both as active status. The EPA will post the status of the NOIs on the EPA website. On projects with less than 1 acre of ground disturbing activity, where submittal of an eNOI to EPA is not required, do not begin construction activities until authorized by the Engineer.

Postings.

Post at the construction site:
1. NPDES Permit number, if available, and a copy of the NOI,
2. Name and phone number of the Contractor's local contact person, and
3. Location of a SWPPP available for viewing by the public.

The above notices must be posted at publicly accessible locations. At a minimum post notices at the BOP, EOP, near the intersection of the highway with a major side street, and the Project Office.

Comply with requirements of the approved HMCP, the submitted SPCC Plan, and 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 materials hazardous to the land, air, water, and organic life forms. Perform fueling operations in a safe and environmentally responsible manner. Comply with the requirements of 18 AAC 75 and AS 46, Oil and Hazardous Substances Pollution Control. Report oil spills as required by federal, state and local law, and as described in the SPCC Plan.

Comply with requirements of the NPDES General Permit, implement temporary and permanent erosion and sediment control measures identified in the SWPPP, and ensure that the SWPPP remains current. Maintain temporary and permanent erosion and sediment control measures in effective operating condition.

Coordinate BMPs with Utility Companies doing work in the project area.

Inspections

Perform inspections and prepare inspection reports to comply with the project SWPPP and the NPDES General Permit.

1. Joint Inspections. Before start of construction, conduct a joint on site inspection with the Engineer, the SWPPP Preparer, and the Contractor's field representative to discuss the implementation of the SWPPP.

   Conduct the following additional joint on site inspections with the Engineer:

   a. During construction, inspect the following at least once every seven days and within 24 hours of the end of a storm exceeding ½ inch in 24 hours (as recorded at or near the project site):
      (1) Disturbed areas that have not been finally stabilized
      (2) Areas used for storage of erodible materials that are exposed to precipitation
      (3) Sediment and erosion control measures
      (4) Locations where vehicles enter or exit the site
      (5) Offsite materials sources and waste sites
      (6) Staging and equipment storage areas.

   b. During construction, the SWPPP preparer shall review the Project Site, Materials Sites, Waste Sites, and the SWPPP for conformance with the NPDES General Permit at least once per month and after every major change in earth disturbing activities for compliance with the General Permit.

   c. Before winter shutdown, to ensure that the site has been adequately stabilized and devices are functional.

   d. At project completion, to ensure final stabilization of the project.

2. Winter Inspections. During winter shutdown, conduct inspections at least once every month and within 24 hours of a storm resulting in rainfall of 1/2 inch or greater. The Engineer may waive monthly inspection requirements until one month before thawing conditions are expected to result in a discharge, if all of the following requirements are met:
   a. Below freezing conditions are anticipated to continue for more than one month.
   b. Land disturbance activities have been suspended.
   c. The beginning and ending dates of the waiver period are documented in the SWPPP.

3. Inspection Reports. Prepare and submit, within three working days of each inspection, a report on the DOT&PF SWPPP Construction Site Inspection Report (Form 25D-100 - 4/08). At a minimum the report will contain the following information:
   a. A summary of the scope of the inspection
   b. Name(s) of personnel making the inspection

c. The date of the inspection
d. Observations relating to the implementation of the SWPPP
e. Any actions taken as the result of the inspection
f. Incidents of noncompliance

Where a report does not identify any incidents of noncompliance, certify that the facility is in compliance with the SWPPP and NPDES General Permit.

The Contractor and the Engineer will sign the report according to the Standard Permit Conditions of the NPDES General Permit. Include reports as an appendix to the SWPPP.

Record Retention

Keep the SWPPP up to date at all times. The SWPPP shall denote the location, date of installation, date maintenance was performed, and the date of removal for BMPs. It shall also contain copies of inspection reports and amendments.

Maintain the following records as part of the SWPPP:
1. Dates when major grading activities occur;
2. Dates when construction activities temporarily or permanently cease on a portion of the site; and
3. Dates when stabilization measures are initiated.
4. Daily precipitation as measured from an on site rain gauge.

Provide the Engineer with copies of SWPPP revisions, up dates, records, and inspection reports at least weekly.

Retain copies of the SWPPP and other records required by the NPDES General Permit for at least three years from the date of final stabilization.

If unanticipated or emergency conditions threaten water quality, take immediate suitable action to preclude erosion and pollution.

Amendments

Submit amendments to the SWPPP to correct problems identified as a result of:
1. Storm or other circumstance that threatens water quality, and
2. Inspection that identifies existing or potential problems.

Submit SWPPP amendments to the Engineer within seven days following the storm or inspection. Detail additional emergency measures required and taken, to include additional or modified measures. If modifications to existing measures are necessary, complete the implementation within seven days.

Stabilize areas disturbed after the seeding deadline within seven days of the temporary or permanent cessation of ground disturbing activities.

Notice of Termination

For projects that disturb one acre or more of land, submit the signed eNOT to EPA with a copy to the Engineer when the Engineer notifies that:

1. The Project site (including material sources, and disposal sites) has been finally stabilized and that storm water discharges from construction activities authorized by this permit have ceased, or

2. The construction activity operator (as defined in the NPDES General Permit) has changed.

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), (2), and (5) or items 641(1), (3), (4), and (5).

1. Item 641(1) Erosion and Pollution Control Administration. At the Contract lump sum price for administration of work under this Section. Includes, but is not limited to, plan preparation, plan amendments and updates, inspections, monitoring, reporting, and record keeping.

2. Item 641(2) Temporary Erosion and Pollution Control. At the prices specified in the Contract or as provided in the Directive authorizing the work to install and maintain temporary erosion, sedimentation, and pollution control measures.

3. Item 641(3) Temporary Erosion and Pollution Control. At the lump sum price shown on the bid schedule to install and maintain temporary erosion, sedimentation, and pollution control measures required to complete the project according to Plan and with the BMP, the ESCP, and the original approved SWPPP and HMCP.

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

5. Item 641(5) Erosion and Pollution Control Price Adjustment. The total value of this Contract will be adjusted as specified in the following Failure

section. In addition, a price adjustment equivalent to penalties levied against the Department by the EPA or other state and federal agencies for violations of the Clean Water Act and the NPDES General Permit will be made if the Department is issued a Notice of Violation (NOV) by these agencies. This price adjustment is the actual cost of fines levied against the Department. An amount equal to the maximum fine for the violation will be withheld temporarily until the actual cost of the fine is known. The difference, excluding price adjustments will be released by the Engineer upon satisfactory completion of the requirements of the NPDES General Permit. The Contractor is responsible for the payment of the Contractor's fines.

Temporary erosion and pollution control measures that are required at Contractor furnished sites are subsidiary.

Work that is paid for directly or indirectly under other pay items will not be measured and paid for under this Section, including but not limited to dewatering, shoring, bailing, installation and removal of temporary work pads, temporary accesses, temporary drainage pipes and structures, and diversion channels.

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

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

Failure

If the Contractor fails to coordinate temporary or permanent stabilization measures with the earthwork operations in a manner to effectively control erosion and prevent water pollution, the Engineer may suspend earthwork operations and withhold monies due on current estimates for such earthwork items until aspects of the work are coordinated in a satisfactory manner.

If there is failure to:

1. Pursue the work required by the approved SWPPP,
2. Respond to inspection recommendations and/or deficiencies in the SWPPP, or
3. Implement erosion and sedimentation controls identified by the Engineer,

the Contractor will be assessed a permanent price adjustment of $500 per day for each day of nonaction, under Item 641(5) Erosion and Pollution Control Price Adjustment. In addition, the Engineer may, after giving written notice, proceed to

perform the work and deduct the cost thereof, including project engineering costs, from progress payments under item 641(5).

Payment will be made under:

641(1)	Erosion and Pollution Control Administration	Lump Sum
641(2)	Temporary Erosion and Pollution Control	Contingent Sum
641(3)	Temporary Erosion and Pollution Control	Lump Sum
641(4)	Temporary Erosion and Pollution Control Amendments	Contingent Sum
641(5)	Erosion and Pollution Control Price Adjustment	Contingent Sum

(05/08/08)R272

SECTION 642

CONSTRUCTION SURVEYING AND MONUMENTS

642-3.04 OFFICE ENGINEERING. Delete third sentence and replace with:
Perform the work by, or under the responsible charge of, a person registered in the State of Alaska as a Professional Land Surveyor or a Professional Engineer.
E53(5/1/07)

SECTION 643

TRAFFIC MAINTENANCE

Special Provisions

643-1.01 DESCRIPTION. Add the following as a third paragraph:
Illuminate construction activities listed in Table 643-3 during hours of night work on roads open to the public within project limits.

643-1.02 DEFINITIONS. Add the following paragraphs after paragraph titled "Construction Phasing Plan":

Balloon Light: Light surrounding by a balloon-like enclosure kept inflated by pressurized air or helium, and producing uniform light through 360 horizontal degrees. The top half of the balloon enclosure shall be constructed of an opaque material.

Night Work: Work occurring between sunset and sunrise on all days except the "No Lighting Required" period shown in the table below:

Latitude	No Lighting Required		Nearby
(degrees)	Start	End	Cities
< 61	Lighting Required All Year		Everything S of Hope
61	June 11	July 1	Anchorage, Valdez, Girdwood
62	June 2	July 13	Wasilla, Palmer, Glennallen, Talkeetna
63	May 27	July 17	Cantwell, Paxson, McGrath
64	May 22	July 21	Delta Junction, Nome, Tok
65	May 18	July 25	Fairbanks
66	May 14	July 29	Circle City
67	May 10	August 2	Coldfoot, Kotzebue
68	May 7	August 6	Galbraith Lake
69	May 3	August 9	Happy Valley
70	April 30	August 12	Deadhorse
71	April 27	August 15	Barrow
72	April 24	August 19	

ES14(03/15/06)

643-1.03 TRAFFIC CONTROL PLAN. Replace the last paragraph with the following: A waiver may be requested of regulation 17 AAC 25 regarding oversize and overweight vehicle movements within this project in writing. If the waiver is approved, movements of oversize and overweight vehicles in or near traffic within the project limits will be done according to the provisions of an approved Traffic Control Plan. Maintain a minimum12 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. (05/25/07)R222

643-1.04 WORKSITE SUPERVISOR. Add the following to Item 2. Duties:

i. Supervise lighting of Night Work.
ES14(03/15/06)

Standard Modifications

643-2.01 MATERIALS. Under Item 16. Flagger Paddles, replace the last sentence with the following: Use reflective sheeting that meets AASHTO M 268 Type VIII or IX. Use background colors of fluorescent orange on one side and red on the other side. E56 (5/01/07)

Special Provisions

643-2.01 MATERIALS. Add the following:

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

Standard Modifications

643-3.01 GENERAL CONSTRUCTION REQUIREMENTS. Add the following: Immediately notify the Engineer of a traffic related accident that occurs within the project limits as soon as becoming aware of the accident. (05/01/07)E56

Special Provisions

643-3.01 GENERAL CONSTRUCTION REQUIREMENTS. Add the following: Whenever construction activity encroaches onto the safe route in a traffic control zone, station a flagger at the encroachment to assist pedestrians and bicyclists past the construction activity.

Maintain business accesses during flagging operations.

R222(05/25/07)

Standard Modification

643-3.04 TRAFFIC CONTROL DEVICES.

In the sixth paragraph and also in Item 4.b., delete: "ATTSA" and replace with "ATSSA". E56(5/01/07)

Special Provisions

643-3.04 TRAFFIC CONTROL DEVICES. Delete the first sentence of the eighth paragraph and substitute the following: Items paid under this Section remain the Contractor's property unless stated otherwise.

Add the following to item 1. Embankments.: Close trenches and excavations at the end of each continuous work shift.

Add the following to item 3. Fixed Objects.: Remove obstructions greater than 4 inches above the nominal foreslope grade at the end of each continuous work shift.

Delete item 4.b. and replace with the following: Flagger Certification by ATSSA

Delete item 6 and replace with the following:

6. Street Sweeping. 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 using a street sweeper that can collect materials rather than eject them to the shoulder of the road.

7. 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 using a power broom that can eject them to the shoulder of the road.

Change items 7 and 8 to 8 and 9 respectively.

Add the following:

10. ET-2000 LET. The price listed in the Traffic Control Rate Schedule will be full compensation for the purchase, installation, maintenance during construction, removal and salvaging the ET-2000 LET unit(s). Deliver the salvaged unit(s) to the nearest DOT &PF Maintenance and Operations' district office, or as directed by the Engineer.

643-3.05 AUTHORITY OF THE ENGINEER. Replace the first sentence with the following: 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, for the time the roadway or pedestrian facility is in an unacceptable condition.

Delete Table 643-1 and substitute the following:

TABLE 643-1
ADJUSTMENT RATES

Published ADT	Dollars/Minute of Delay/Lane
0-5,000	$30
5,001+	$40

643-3.08 CONSTRUCTION SEQUENCING. Delete the last sentence and substitute the following: Unless otherwise determined by the Engineer and on an approved Traffic Control Plan (TCP), do not restrict traffic during the times listed below.

1. Friday from 1200 hours to Sunday 2300 hours

2. Around any holiday:

   a. If a holiday falls on Sunday, Monday or Tuesday, the above stipulations apply from 1200 on the Friday before the holiday to 0300 on the day after the holiday.

   b. If a holiday falls on Wednesday, the above stipulations apply from 1200 on the Tuesday before the holiday to 0300 on the Thursday after the holiday.

   c. If a holiday falls on Thursday, Friday or Saturday, the above stipulations apply from 1200 on the day before the holiday to 0300 on the Monday after the holiday.

Lane restrictions, if allowed shall be conducted so that no more than a 10 minute accumulated stopped delay, 40 vehicles, or 1/4 mile (1,320 feet) of traffic is detained, whichever occurs first, before releasing the detained motorists. During paving operations a 20 minute stopped delay, 80 vehicles, or 1/2 mile (2,640 feet) of traffic detained, will be allowed for motorists except school buses. If a queue of traffic develops at a stop, the entire queue must be emptied to include the last car that entered the queue at the time the queue was released.

Obtain the local school bus schedule and coordinate work efforts to ensure the

school buses are not delayed through the construction zone. This plan shall be submitted, as a TCP, to the Engineer for approval before the implementation of the school bus coordination plan.

643-3.09 INTERIM PAVEMENT MARKINGS. 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 the following: 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. (05/25/07)R222

Add the following new subsection:

643-3.10 LIGHTING OF NIGHT WORK.
Illuminate the night work areas specified in Table 643-3 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 2 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 4 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):	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
1) with roads with ADTs over 10,000 or	

2) that are controlled by portable signals or flaggers	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 meet required lighting equipment 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 vibration.

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(03/15/06)

Standard Modification

Add the following new subsection:

643-3.11. HIGH VISIBILITY CLOTHING. Ensure workers within 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; except you may use previously purchased garments labeled in conformance with ANSI/ISEA 107-1999 until 1/1/08.

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 of 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. (5/07/07)E56

Special Provision

643-4.01 METHOD OF MEASUREMENT.

Replace the second sentence of Item 2 with the following: 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.

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 Item 643(1) or 643(2) Traffic Maintenance. (05/25/07)R222

Standard Modification

643-5.01 BASIS OF PAYMENT. Add the following: Payment for high visibility garments for workers is subsidiary to other items. (5/01/07)E56

643-5.01 BASIS OF PAYMENT. Add the following:

1. Work Zone Illumination. Payment for work zone illumination is subsidiary to other items. ES14(03/15/06)

Special Provision

643-5.01 BASIS OF PAYMENT. Add the following: The Engineer does not require a change order/directive for Item 643(25) Traffic Control.

TRAFFIC CONTROL RATE SCHEDULE

Traffic Control Device	Pay Unit	Unit Rate
Construction Signs	Each/Day	$5.00
Special Construction Sign	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-2000 LET	Each	$3,000.00
Pilot Car	Hour	$65.00
Watering	M-Gallon	$ 20.00
Street Sweeping	Hour	$150.00
Power Broom	Hour	$75.00
Plastic Safety Fence	Foot	$.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

The Engineer will pay for Item 643(15) Flagging on a contingent sum basis at the rate of $41/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. (05/25/07)R222

SECTION 644

SERVICES TO BE FURNISHED BY THE CONTRACTOR

Standard Modification

644-2.01 FIELD OFFICE. Add the following to the end of the first paragraph: Furnish two private telephone lines for the exclusive use of the Engineer. Furnish a telephone connected to the first line and the second line is to be available for a facsimile machine/dial-up Internet connection. Provide a separate Internet connection line with send and receive data capability supporting 56 kilobytes per second or higher data transfer rate.

Long distance calls made by State personnel and the Internet service provider will be paid by the State. Local calls and connection fees shall be paid by the Contractor.

E44(01/27/07)

Special Provision

644-2.05 VEHICLES. Add the following: If working after October 1, provide studded snow tires for vehicles provided for the Department's use.

Equip vehicles used by the Department with CB radios and yellow lightbars wired into the vehicle's electrical system with a dash mounted switch easily accessible to the vehicle operator. Provide Code 3; Model 6005H (formerly PE 6200 LE) lightbars, or approved equal. Approved equals shall have the following characteristics:

Four 55 watt rotators with amber filters
1200 flashes per minute
Two diamond mirrors
55 inches in length
Distance measuring instrument (DMI) on one vehicle (min.) – See subsection 642-2.01

644-3.01 METHOD OF MEASUREMENT. Delete the third paragraph and substitute the following:

Vehicle. For each vehicle provided. If a replacement vehicle is necessary, no additional measurement will be made. (02/03/03)R245

644-4.01 BASIS OF PAYMENT. Add the following:

Payment will be made under:

Pay Item No.	Pay Item	Pay Unit
644(8)	Vehicle	Each

Standard Modification

644-4.01 BASIS OF PAYMENT. Add the following 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.

E44(01/27/07)

Add the following Section:

SECTION 645

TRAINING PROGRAM

Special Provisions

645-1.01 DESCRIPTION. This Training Special Provision implements 23 CFR 230, Subpart A, Appendix B.

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

645-2.01 OBJECTIVE. Training and upgrading of minorities and women toward journey status is the primary objective of this program. Enroll minorities and/or women, where possible, and document good faith efforts prior to the hire of non-minority males in order to demonstrate compliance with this Training Special Provision. Specific good faith efforts required under this Section for the recruitment and employment of minorities and women are found in the Federal EEO Bid Conditions, Form 25A-301, items 7.b, 7.c, 7.d, 7.e, 7.i, 7.j and 7.l, located in the "yellow pages" of this document.

645-3.01 GENERAL. Determine the distribution of the required number of apprentices/trainees and the required number of hours of training among the various work classifications based upon the type of work to be performed, the size of the workforce in each trade or job classification, and the shortage of minority and female journey workers within a reasonable area of recruitment.

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

Credit for offsite training hours indicated above may only be made to the Contractor where the apprentices/trainees are concurrently employed on the project and one or more of the following occurs: contribute to the cost of the training, provide the instruction to the apprentice/trainee, or pay the

apprentice's/trainee's wages during the offsite training period.

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

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

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

Contractors may use a training program approved by the U.S. Department of Labor, Bureau of Apprenticeship & Training (USDOL/BAT), or one developed by the Contractor and approved prior to contract award by the Alaska Department of Transportation and Public facilities (ADOT&PF) Training Program Representative, using Form 25A-310.

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

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

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

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

has previously completed a training course leading to journey status.

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

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

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

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

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

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

This payment will be made regardless of other training program funds the

Contractor may receive, unless such other funding sources specifically prohibits the Contractor from receiving other reimbursement.

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

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

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

1. provide the required hours of training (as shown on the approved Form 25A-311),

2. train the required number of trainees/apprentices in each training program (as shown on the approved Form 25A-311), or

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

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

Number of hours of training not provided, times the journey worker hourly scale plus benefits. The journey worker scale is that for the classification identified in the approved programs. (10/29/91)S16

Payment will be made under:

Pay Item No.	Pay Item	Pay Unit
645(1)	Training Program, 2 Trainees/Apprentices	Labor Hour

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.

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 monthly or as deemed necessary by the Engineer.

R241

Add the following Section:

SECTION 647

EQUIPMENT RENTAL

Special Provisions

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, holidays excepted.

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

647-4.01 METHOD OF MEASUREMENT. The number of hours of equipment operation to be paid for shall be the actual number of hours each fully operated specified unit of equipment, 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.

647-5.01 BASIS OF PAYMENT. Payment for Item 647(2) Wide Pad Dozer, 65 hp Minimum will be paid on a per hour basis at the rate shown on the bid schedule. 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(2)	Wide Pad Dozer, 65 hp Minimum	Hour

(08/24/05)R15

SECTION 670

TRAFFIC MARKINGS

Special Provisions

670-1.01 DESCRIPTION. Delete this subsection in its entirety and substitute the following: This work consists of furnishing, preparing and placing pavement markings at the locations shown on the Plans or as directed. Meet these Specifications and the applicable portions of the Alaska Traffic Manual.

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.

670-5.01 BASIS OF PAYMENT. Add the following: There will be no separate or additional payment for the following:

- Over-runs of material caused by the variation of the gradation of the asphalt.
- Additional material required to achieve the thickness specified an open graded pavement.

Traffic control required for the installation of the permanent and temporary markings is subsidiary to 670 items.

Temporary traffic markings required for all phases of the construction of the roadway is subsidiary to 670 items.

(03/18/08)R246

Special Provisions
Add the following Section:

SECTION 681

EROSION, SEDIMENT AND POLLUTION CONTROL MEASURES

681-1.01 DESCRIPTION.

Furnish and maintain sediment control using fiber rolls as shown on the plans.

681-2.01 MATERIALS.

Use materials conforming to the following:

Fiber Rolls (straw wattle)	Section 744

CONSTRUCTION REQUIREMENTS

681-3.01 GENERAL.

Place where noted on the plans. Install as shown on the plans as required, in conformance with Section 641.

681-3.02 MAINTENANCE.

Maintain the integrity of the sediment control (fiber rolls) for the duration of the project as required to contain sediment contaminants. Inspect daily and correct any deficiencies immediately. Remove and dispose of sediment control and trapped sediment contaminants off the project at approved locations.

681-4.01 METHOD OF MEASUREMENT.

Section 109

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

681-5.01 BASIS OF PAYMENT.

Item 681(1) Fiber Roll includes materials, equipment, and labor required for installation, maintenance, removal, and disposal.

Payment will be made under:

Payment Item No.	Pay Item	Pay Unit
681(1)	Fiber Roll	Linear Foot

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
¾ 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

(01/02/08)R199

Replace subsection 703-2.04 with the following:

703-2.04 AGGREGATE FOR ASPHALT CONCRETE PAVEMENT.

Coarse Aggregate (retained on the No. 4 sieve). Crushed stone or crushed gravel consisting of sound, tough, durable rock of uniform quality. Remove natural fines passing a #4 sieve before crushing aggregates for Type V or VH asphalt concrete mixtures. Free from clay balls, organic matter, and other deleterious material. Not coated with dirt or other finely divided mineral matter. Meet the following requirements (note A or B indicate class of mix, see Table 401-1), the Engineer may modify the fracture requirements if the hard aggregate sources stated in 106-1.02 do not meet specifications:

		Type IIA, IV	Type I, IIB, III	Type V	Type VH
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 TP61	90, 2 fac	80, 1 face	98, 2 face	98, 2 face
Thin-Elongated Pieces, max % 1:5 1:3	ATM 306	 8 20	 8 -	 3 8	 3 8
Nordic Abrasion, max.%	ATM 312			12	8
Absorption, max. %	AASHTO T85	2.0	2.0	2.0	2.0

TABLE 703-3
BROAD BAND GRADATIONS FOR ASPHALT CONCRETE PAVEMENT AGGREGATE

Percent Passing by Weight

SIEVE	GRADATION				
	Type I	Type II	Type III	Type IV	Type V, VH
1 inch	100				
¾ inch	80-90	100			100
½ inch	60-84	75-90	100	100	65-80
3/8 inch	48-78	60-84	80-90	80-95	48-60
No. 4	28-63	33-70	44-81	55-70	30-45
No. 8	14-55	19-56	26-70	35-50	20-30
No. 16	9-44	10-44	16-59	20-40	≤ 22
No. 30	6-34	7-34	9-49	15-30	≤ 17
No. 50	5-24	5-24	6-36	10-24	≤ 14
No. 100	4-16	4-16	4-22	5-15	≤ 12
No. 200	3-8	3-8	3-8	3-8	3-8

(01/02/08)R199

Fine Aggregate (passing the #4 sieve). Meet the quality requirements of AASHTO M 29, including S1.1, Sulfate Soundness.

For Type IV, V and VH mixes, remove natural fines passing a #4 sieve before crushing aggregates for this asphalt concrete mixture. Consist entirely of aggregate produced from aggregate crushing process and be non-plastic as determined by WAQTC FOP for AASHTO T 90, and meets the following:

Property	Test Method	Requirement
Fine Aggregate Angularity (Uncompacted void content of fine aggregate)	AASHTO T 304	45% min.

R278(12/16/05)

703-2.07 SELECTED MATERIAL. Delete the gradation requirement for Selected Material, Type B and substitute the following:

Sieve	Percent Passing by Weight
No. 200	0-20% determined on the minus 3-inch portion of the sample

SECTION 712

MISCELLANEOUS

Standard Modification

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

SECTION 719

STEEL, GRAY-IRON AND MALLEABLE- IRON CASTINGS

Standard Modification

719-2.02 GENERAL REQUIREMENTS. In Gray-Iron Castings, delete text and replace with: AASHTO M 306 and AASHTO M 105, Class 35B.
E47(01/27/07)

SECTION 724

SEED

Special Provisions

724-2-02. MATERIALS. Delete Table 724-1 and substitute with the following:

TABLE 724-1
SEED REQUIREMENTS

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

* Sproutable Seed is the mathematical product of Germination and Purity.
(01/27/07)R52

Delete this Section, except for Table 726-1 and substitute the following:

SECTION 726

TOPSOIL

Special Provisions

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. (11/27/07)R208

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 either ASTM A500, grade B, or ASTM A501. The tubing shall be square and of the dimensions called for in the Plans with 0.2 inch thick walls. 0.4 inch diameter holes shall be drilled as required to permit mounting of the sign.

b. W-shape beams shall conform to ASTM A36.

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. (06/22/04)R81

Special Provisions
Add the following Section:

SECTION 744

EROSION, SEDIMENT, AND POLLUTION CONTROL MATERIAL

744-2.01 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.

Contractor shall provide the Engineer with a 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.

APPENDIX A

CONSTRUCTION SURVEYING REQUIREMENTS