STANDARD MODIFICATIONS
AND

SPECIAL PROVISIONS

to the

STATE OF ALASKA

DEPARTMENT OF TRANSPORTATION AND PUBLIC FACILITIES

2004 STANDARD SPECIFICATIONS for HIGHWAY CONSTRUCTION

TCSP: KENAI RIVER

TRAIL IMPROVEMENTS

PROJECT NUMBER TCSP-0001(286) / 56008

SECTION 101

DEFINITIONS AND TERMS

DEPARTMENT. Replace with the following: The DOT&PF is the Contracting Agency. The DNR will be administering this contract for DOT&PF.

PROJECT. Replace with the following: The specific site together with all facilities and construction to be performed thereon under the contract.

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

Add the following:

NON-FROST SUSCEPTIBLE. Material that contains 6 percent or less passing the No. 200 screen as determined by sieve analysis performed with WAQTC FOP for AASHTO T 27/T 11 on minus 3 inch material. (11/29/01)R1USC-Special Provision

Add the following:

CONSTRUCTION LIMITS. The area inside the project limits physically impacted by the construction of contract items. These limits may be more restrictive than the project limits. (01/20/05)PARKS-Special Provision

Add the following:

FROZEN GROUND CONDITION. This condition shall be satisfied when the ground surface is frozen to a sufficient depth to support construction equipment and activities without creating damage to the soils or plants.

SECTION 102

BIDDING REQUIREMENTS AND CONDITIONS

102-1.04 EXAMINATION OF PLANS, SPECIFICATIONS, SPECIAL PROVISIONS, AND WORK SITE. Add the following after the second paragraph: An Environmental Assessment and Remediation Services report as prepared by Shannon & Wilson, Inc., for ADOT&PF for the project site can be found in Appendix D. (01/01/05)PARKS-Special Provision

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. (06/30/04)E18-Standard Modification

SECTION 104

SCOPE OF WORK

104-1.06 VALUE ENGINEERING PROPOSALS BY CONTRACTOR. Replace this Subsection in its entirety with the following: No value engineering proposals will be considered for this project. (11/29/95)R2M-Special Provision

SECTION 105

CONTROL OF WORK

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

105-1.05 COOPERATION BY CONTRACTOR. Add the following: Since this contract is for work within a park, the aesthetic value of the finished product is of particular interest to the Department. Special care must be taken by the Contractor to provide an acceptable finished product and to avoid damaging areas outside the actual construction limits. This will require hand work to assure final acceptance. (03/03/03)PARKS-Special Provision

105-1.06 COOPERATION WITH UTILITIES. Add the following: Request locates from all 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 Statewide.....800-478-3121 who will notify the following:
ACS
Alaska Fiberstar
Alaska Native Hospital
AT&T Alascom, Inc.
DOT Street Lights, State of Alaska
Enstar Natural Gas
Eyecom TV/Interior Telephone
GCI Communications
Homer Electric Assoc.
Kenai-Kachemak Pipeline LLC
Marathon Oil
MFS Technologies, inc.
Mukluk Telephone Assoc.
Phillips Petroleum
PTI
Tesoro Alaska Pipeline
Unocal

Call the following utilities and agencies directly:

ADOT/PF Street Lights and Storm Drains 262-2199
City of Soldotna 262-9107
Kenai Peninsula Borough 262-4441
DOT/PF Maintenance and Operations (Administration) 269-0760
DOT/PF Maintenance and Operations (Anchorage District) 269-5700
DOT/PF Maintenance and Operations (Mat-Su District) 745-2159
DOT/PF Maintenance and Operations (Peninsula District) 262-2199
DOT/PF Maintenance and Operations (Southwest District) 269-0747

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 an/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 two (2) week work plan, or not required by the contract.

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

(09/01/04)R3-Special Provision

105-1.07 COOPERATION BETWEEN CONTRACTORS. Add the following: The following project will be under construction concurrently with this project:

Project Name: Sterling Hwy: Soldotna Urban / Kenai River Bridge 0671
Owner: Alaska Dept. of Transportation & Public Facilities
Contractor: Wilder Construction

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

(02/01/00)R175M98-Special Provision

105-1.12 LOAD RESTRICTIONS. Add the following: No payment will be made for any material measured by weight, delivered on public roads, and incorporated into the project if the hauling vehicle exceeds its maximum allowable vehicle weight. (01/01/01)PARKS-Special Provision

105-1.15 PROJECT COMPLETION. Replace the last paragraph with the following: When all physical work and cleanup provided for under the contract is found to be complete, except for work specified under Subsection 618-3.04, Plant Establishment and Maintenance; and Subsection 621-3.04, Period of Establishment; Subsection 641-2.01, Storm Water Pollution Prevention Plan (SWPPP) Requirements; and Subsection 641-3.01, Construction Requirements, a letter of project completion will be issued by the Engineer. Project completion will relieve you from further maintenance responsibilities, except under Subsections 618-3.04, and 621-3.04, 641-2.01 and 641-3.01, and will stop the count of contract time but will not relieve you of any obligations under the Contract. (05/28/03)R237USC02-Special Provision

105-1.16 FINAL ACCEPTANCE AND RECORD RETENTION. Modify the first paragraph, Item 4., after: "DOLWD" add: and State Department of Revenue. (06/30/04)E19-Standard Modification

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

Add the following Subsection:

105-1.18 CONSTRUCTION LIMITS. It is the intent of this contract to construct these park facilities without entering land outside the construction or project limits. Equipment, materials, and manpower shall not be allowed outside these limits without prior approval of Engineer. Excavation of any kind shall only be stored within the limits while awaiting final placement or disposal. The Contractor shall not use construction equipment or workers that, in the opinion of the Engineer, cannot consistently operate within these limits. Construction limits where identified, take precedence over project limits in the disturbance area allowed.

Access to the Kenai River and lower boardwalk area is limited and a plan for mobilizing equipment to the river, submitted by the Contractor, must be approved by the Engineer. Excavation for access, if required, will only be allowed through the underdrain corridor.

Access to the Binkley Circle wetlands for all construction activities is limited to frozen ground conditions, as determined by the engineer. The engineer will delineate wetland limits.

(01/01/01)PARKS-Special Provision

SECTION 106

CONTROL OF MATERIAL

106-1.01 SOURCE OF SUPPLY AND QUALITY REQUIREMENTS. Replace the first paragraph with the following: The materials used on the work shall meet all quality requirements of the contract. Approval, subject to field inspection, shall be given by the Engineer based on inspection reports indicating full compliance with the specifications. Cost of testing for specification compliance shall be the Contractor's responsibility. (01/01/01)PARKS-Special Provision

Add the following:

Buy America Provision. The Contractor shall comply with the requirements of 23 CFR 635.410, Buy America Requirements, and shall submit a completed Material Origin Certificate, Form 25D-60, prior to award of the contract.

All 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), pig iron, scrap 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 which 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.

The Contractor shall take whatever steps are necessary to ensure that all 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.

(08/31/99)S13-Special Provision

Add the following:

Whenever materials or equipment are specified or described in the contract documents by using the name of a proprietary item or the name of a particular supplier the naming of the item is intended to establish the type, function and quality required. Materials or equipment of other suppliers may be accepted by the Department if sufficient information is submitted by the Contractor which clearly demonstrates to the Department that the material or equipment proposed is equivalent or equal in all aspects to that named. Requests for review of substitute items of material and equipment will not be accepted by the Department from anyone other than the Contractor.

If the Contractor wishes to furnish or use a substitute item of material or equipment, the Contractor shall make written application to the Department for approval thereof, certifying that the proposed substitute will perform adequately the functions and achieve the results called for by the general design, be similar and of equal substance to that specified and be suited to the same use as that specified. The application will state that the evaluation and approval of the proposed substitute will not delay the Contractor's achievement of final completion on time, whether or not acceptance of the substitute for use in the work will require a change in any of the contract documents to adapt the design to the proposed substitute. Any payment of license fee or royalty in connection with the substitute shall be borne by the Contractor.

Submittals are required for all materials. Submittal approval by the Department is required prior to incorporation of materials into work. Complete submittal information is required to be on the job site at all times during construction. Contractor shall make materials available for inspection in a convenient manner, at the time of arrival, for conformance with the submittal information and contract documents. Materials found to differ from contract specifications shall be replaced at no additional expense to Department.

When materials or work are specified to be per manufacturer's recommendations, submit written manufacturer's recommendations for the materials or work prior to commencing work or incorporating materials into work.

(01/01/01)PARKS-Special Provision

Replace the first paragraph under item 2. Inspection and Acceptance., with the following: The Department has the exclusive right and responsibility for determining the acceptability of the construction and materials incorporated therein. Acceptance testing by the Department is not to be considered as a replacement for process control testing by the Contractor. When the Contractor is not providing adequate process control testing in his own behalf, the Engineer may refuse to carry out re-sampling and testing of materials which have been shown to be unacceptable by standard acceptance testing procedures. The Engineer may also refuse to resample and test unacceptable materials until and unless corrective action has been taken by the Contractor.

Approval of the Contractor's process control plan or of materials tested prior to incorporation into the work shall in no way obligate the Department to accept unacceptable materials. All materials used are subject to inspection, testing or rejection at any time prior to final acceptance of the completed work.

(01/01/01)PARKS-Special Provision

SECTION 107

LEGAL RELATIONS AND RESPONSIBILITY TO PUBLIC

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 any off project site, is not expected to impact any 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 you discover cultural resources during construction activities, stop work at that site and notify the Engineer.

Provide a wetland specialist able to conduct wetlands determinations and delineations in accordance with the Corps of Engineers 1987 Wetland Delineation Manual. The wetland specialist shall conduct the determination and delineations of any site outside the project limits or not previously permitted, impacted by your operations. These delineations will be subject to Corps of Engineers approval.

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

Add the following: The Department has received the following permits and communications on your behalf:

1. Department of the Army, Corps of Engineers Permit No. POA-2003-814-D, dated 06/30/2004 to place construct 800 linear feet of root wad revetment and install 9 sets of seasonally removable stairs. Department of the Army, Corps of Engineers e-mail dated 2/14/2005 from Lisa Gibson stating approved reduction in scope.

2. Department of Natural Resources, Office of Habitat Management and Permitting, Fish Habitat Permit 04-V-0039, dated 11/09/2004, and Amendment #1 dated 2/8/2005.

3. Kenai River Center, Kenai Peninsula Borough Planning Commission Resolution 2004-45 Permit No. KRC #5061, dated 10/21/2004, and 5532 dated 2/8/2005.

4. Federal Aviation Administration Determination of No Hazard to Air Navigation Study No. 2004-AAL-88-OE, dated 04/12/2004.

(01/07/05)PARKS-Special Provision

Provide all necessary 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.

(05/29/02)R7M98-Special Provision

Add the following:

Provide a copy of the Department of Labor permit or receipt of payment prior to the start of any physical work.

(01/01/05)PARKS-Special Provision

107-1.11 PROTECTION AND RESTORATION OF PROPERTY AND LANDSCAPE. Add the following: Construction equipment will not be allowed on land outside the project limits of the proposed trails and structures without the approval of the Engineer and any structures or camps required by the Contractor shall be established outside the project area.

Any maintenance or upkeep of the haul roads, including water for dust control, shall be at the Contractor's expense. Upon completion of hauling over a roadway it shall be left in as good or better condition than prior to commencing of hauling operations. This determination shall be made by the Engineer.

(01/01/01)PARKS-Special Provision

Add the following: If you require water for any construction purpose from a non-municipal 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) 269-8620. (05/29/02)R7M98-Special Provision

Add the following: Material harvesting for vegetative mat and root wad revetment shall not take place within 25 feet of any anadromous body of water or within 50 feet of the Kenai River. (01/04/05)PARKS-Special Provision

Replace the second paragraph with the following: In case of suspension of work from any cause, including winter shutdown, the Contractor shall take such precautions as may be necessary to prevent damage to the work or facilities affected by the work. This will include protecting work and structures, providing for drainage, and erecting any necessary temporary structures, signs, or other facilities, and maintaining all living material such as plantings, seedings, and sodding. (08/16/99)PARKS-Special Provision

107-1.13 RESPONSIBILITY FOR DAMAGE CLAIMS. Replace this Subsection with the following: The Contractor shall indemnify, hold harmless and defend the State of Alaska and its agents and employees from any and all claims or actions for injuries or damages whatsoever sustained by any person or property that arise from or relate to, directly or indirectly, the Contractor's performance of the Contract, however, this provision has no effect if, but only if, the sole proximate cause of the injury or damage is the Department's negligence. This Contract does not create a third party benefit in the public or any member of the public, nor does it authorize any person or entity not a party to this Contract to maintain a suit based on this Contract or any term or provision of the Contract, whether for personal injuries, property damage or any other claim or cause of action. (05/06/03)R271USC02-Special Provision

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.

(01/22/02)S80-Special Provision

SECTION 108

PROSECUTION AND PROGRESS

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

Notice to Proceed will not be issued prior to **June 1, 2005.**

(06/30/98)PARKS-Special Provision

108-1.03 PROSECUTION AND PROGRESS. Replace Item 5. of the first paragraph with the following:

5. The submittals identified under Subsection 641-1.03, Submittals.

(01/31/02)R160M98-Special Provision

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

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

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

(12/13/02)R261M98-Special Provision

108-1.04 LIMITATION OF OPERATIONS. Add the following.

The contractor shall complete all work, excluding the maintenance and closure requirements of Sections 618, 621, 641, and 643, by **June 30, 2006**. The contractor is responsible for the restrictions listed in the permits in Appendix A and the following:

1. Pile driving is limited to the hours between 7am and 7pm, unless otherwise approved by the engineer.
2. All wetland work, from approximately Station 11+00 to 16+00, is limited to frozen ground conditions, as determined by the engineer.
3. All excavation work at or near the Ordinary High Water line is inherently risky. The Contractor is responsible for scheduling his work at or below the ordinary high water line in low water conditions when the excavation area is completely dewatered. In accordance with the ADF&G Permit, no equipment will be allowed in the flowing waters of the Kenai River.
4. Contractor is limited to opening a maximum of 40 linear feet of riverbank at any point in time. The riverbank shall be backfilled and compacted at the close of each work day. The Contractor is responsible for calling the National Weather Service daily, or more if conditions warrant, for river hydrologic projections and to check the Snow River ice dam conditions. Riverbank excavations shall be backfilled and compacted in the event of anticipated rising waters that would inundate the excavation area.
5. It is anticipated that portions of the construction work will be required between November 1, 2005, and April 30, 2006 to complete this project on schedule (see Section 505).

SECTION 109

MEASUREMENT AND PAYMENT

109-1.02 MEASUREMENT OF QUANTITIES. Add the following:

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

(08/20/93)PARKS-Special Provision

109-1.06 PROGRESS PAYMENTS. Add the following: Failure to comply with the requirements of the National Pollutant Discharge Elimination System (NPDES) General Permit for Alaska, as indicated under Section 641, Erosion, Sediment, and Pollution Control, will result in withholding an amount equal to 5 percent of the total amount earned from all subsequent progress payments. This amount will be released by the Engineer upon satisfactory completion of the requirements of the permit. (02/04/02)R137A-Special Provision

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. The Contractor shall 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 ADOT&PF 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 can not 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, the Contractor shall 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, the Contractor shall replace the DBE with another DBE for the same work in order to fulfill its commitment under the DBE Utilization Goal. 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 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 can not 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 all of 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 can not 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 five 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 10.0% 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. Such an opportunity must be exercised by the bidder 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 appealable 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 that all of 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) All 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, the Contractor shall 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 appealable 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, the Contractor shall immediately notify the Engineer of the default and the circumstances surrounding the default.

The Contractor shall 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 can not 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% 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% 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% 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% 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% 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% 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% 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-Special Provision

SECTION 201

CLEARING AND GRUBBING

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

Vertical clearing shall be performed in a manner that minimizes damage to remaining branches. Clearing shall be accomplished with laborers and chainsaws.

201-3.06 DISPOSAL. Replace paragraphs two and three with the following: Combustible material from any operations shall be disposed of by transporting to locations outside the park controlled lands. No burning will be permitted in other areas sufficiently close to the park to cause, as determined by the Engineer, a fire danger to the park resources.

No burning will be permitted on private lands without the written approval of the property owner. The approval of the Engineer shall be required on a day to day basis when burning is within a two mile radius of the park lands. Constant care by competent watchmen with immediate access to adequate fire fighting equipment shall be required during burning operations. Full compliance with applicable laws and ordinances will be the Contractor's responsibility.

(01/01/01)PARKS-Special Provision

201-4.01 METHOD OF MEASUREMENT. Replace Item 1. Acre, with the following:

1. Acre. The area acceptably cleared and/or grubbed, measured horizontally. Only areas shown on the Plans or staked for clearing and/or grubbing will be measured.

   Existing roadways, lakes, ponds, stream beds, or other areas not covered by trees or brush will not be included for measurement. Other areas that do not require clearing and/or grubbing will be staked.

(01/27/03)R270USC02-Special Provision

Add the following: Removal of branches for vertical clearance in accordance with Subsection 201-2.01 will not be measured directly for payment but will be considered subsidiary to work in this Section. (01/01/01)PARKS-Special Provision

SECTION 202

REMOVAL OF STRUCTURES AND OBSTRUCTIONS

202-1.01 DESCRIPTION. Replace the first sentence with the following: This work shall consist of, but not be limited to, the removal of approximately 45 feet of culvert half section, approximately 40 feet of chain link fence, 40 piles, approximately 85 square feet of boardwalk, approximately 5 feet of barrier rail, 1 set of river access stairs, and 2 park benches and any other obstructions which are not designated or permitted to remain, except for the obstructions to be removed and disposed of under other items in the contract.

This work also consists of removing existing boardwalk, wooden stairway, and associated decks, and piling on the Soldotna Creek side as shown in the Plans. The pilings can be disposed of but the decks and stairway will be reinstalled over the new piling system shown. A new section of boardwalk will be assembled to connect new typical boardwalk to the existing structure.

Materials which are designated to be salvaged and remain the property of the Department are the re-usable section of chain link fence, park benches, and river access stairs. By arrangement with the Engineer, deliver salvaged materials to the City of Soldotna Maintenance Facility located at Milepost 2.5 Funny River Road, Soldotna, Alaska 99669.

(01/01/01)PARKS-Special Provision

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

202-5.01 BASIS OF PAYMENT. Add the following: Payment for Item 202(1) Removal of Structures and Obstructions shall include the relocation and reinstallation of 2 park benches, set of stairs, and deck as shown on the Plans. All hardware, steel tubing, and fasteners needed to connect the stairs, decks, and boardwalk shall not be paid for directly but shall subsidiary to items in the Section.

(04/09/04)PARKS-Special Provision

SECTION 203

EXCAVATION AND EMBANKMENT

203-1.01 DESCRIPTION. Add the following: Pathway Linear Grading shall consist of the construction and final shaping of designated gravel pathways for drainage by grading with a small dozer, motor grader, or other suitable means approved by the Engineer. Pathway Linear Grading in Soldotna Creek Park will be required at the Engineer's discretion (02/26/03)R20USC02-Special Provision

Add the following Subsection:

203-3.06 PATHWAY LINEAR GRADING. Grade the trail corridor to construct a smooth uniform profile and cross section after the clearing operation. Exercise extreme caution to ensure that plan trail widths are not exceeded. The Engineer may reject any equipment or operator shown incapable of working within these limits. (09/07/94)PARKS-Special Provision

203-4.01 METHOD OF MEASUREMENT. Add the following: Pathway Linear Grading will be measured by the square foot of completed and accepted pathway surface.

Aggregate Base Course, Grading D-1 shall be considered subsidiary to Item 203(42) Pathway Linear Grading.

(09/07/95)PARKS-Special Provision

203-5.01 BASIS OF PAYMENT. Add the following: Payment for Pathway Linear Grading will be full compensation for furnishing equipment, labor, material, tools and incidentals to provide the preparation, excavation and shaping necessary to complete the work.

Payment will be made under:

Pay Item	Pay Unit
203(42) Pathway Linear Grading	Square Foot

(09/07/95)PARKS-Special Provision

SECTION 204

STRUCTURE EXCAVATION FOR CONDUITS AND MINOR STRUCTURES

205-5.01 BASIS OF PAYMENT. Add the following: Any backfill material or bedding material required for structures other than conduits will be considered as subsidiary to those items.

SECTION 205

EXCAVATION, BACKFILL AND FOUNDATION FILL FOR STRUCTURES

205-3.03 BACKFILL. Add the following: All backfill placed within 1 foot of a structural unit shall be graded to pass the 3 inch sieve.

205-5.01 BASIS OF PAYMENT. Add the following: Grading and placement of material used within 1 foot of structural units will be subsidiary to those structural units.

(07/24/95)R154USC-Special Provision

SECTION 301

AGGREGATE BASE COURSE

301-2.01 MATERIALS. Add the following: If no gradation type is specified in the bid schedule the base course material gradation shall conform to the requirements for Grading D-1. (11/05/02)R116USC02-Special Provision

301-3.01 PLACING. Add the following: Base course material used for the sidewalk and pathway foundation shall be placed with a "Layton box" or similar equipment capable of providing a specified depth with a uniform surface. (09/01/89)R26-Special Provision

301-4.01 METHOD OF MEASUREMENT. Replace this Subsection with the following: Aggregate Base Course will not be measured directly for payment instead shall be considered subsidiary to Item 203(42) Pathway Linear Grading. (01/10/04)PARKS-Special Provision

301-5.01 BASIS OF PAYMENT. Replace this Subsection with the following: Aggregate Base Course will not be paid for separately but shall be considered subsidiary to Item 203(42) Pathway Linear Grading. (01/10/04)PARKS-Special Provision

SECTION 501

STRUCTURAL CONCRETE

501-1.02 CLASSIFICATION. Add the following: Concrete shall conform to the following for the various items:

1. 5-Sack Concrete. Use for sign bases, footings, ballast and anchors. Commercially produced concrete from a central mixing plant or mixed on site from factory packaged concrete mixture with minimum cement content of 5.0 sacks per cubic yard concrete. Field testing will be required at the discretion of the Engineer, if the Engineer feels the concrete is not being mixed or placed properly. Acceptance will be based on certification by manufacturer that concrete mix meets mix design requirements.

2. 6-Sack Concrete. Use for slabs, pads, sidewalks, curbs, gutters and parking bumpers. Commercially produced concrete from a central mixing plant with minimum cement content of 6.0 sacks per cubic yard concrete, plant mix design air entrainment of 4-7 percent, and a slump range of 2 inches-4 inches. Field testing except slump will be required at the discretion of the Engineer, if the Engineer feels the concrete is not being mixed or placed properly. Acceptance will be based on Engineer verification of slump and certification by manufacturer that concrete mix and air entrainment meet mix design requirements.

Subsections 501-3.01 and 501-3.02 do not pertain to 5-Sack Concrete and 6-Sack Concrete. The supplier's plant mix design will be used for the specified cement content and air entrainment for concrete commercially produced at a central mixing plant. Cement content is based on a 94 pound sack. Submit batch and delivery tickets to document cement content and air entrainment.

(01/01/01)PARKS-Special Provision

501-2.01 MATERIALS. Add the following: No testing will be required for the components of 5-Sack Concrete and 6-Sack Concrete although testing will be at the discretion of the Engineer if the Engineer feels that unacceptable materials have been used. Acceptance of materials for 5-Sack Concrete and 6-Sack Concrete commercially produced at a central mixing plant will be based on certification by the central mixing plant that all materials meet the requirements of Subsection 501-2.01. Acceptance of materials for 5-Sack Concrete mixed on site from factory packaged concrete mixture will be based on the Engineer's verification that a factory packaged concrete mixture was used.

(01/27/97)PARKS-Special Provision

Add the following Subsection:

501-3.14 TRUCK CLEANUP. Concrete delivery truck cleanup will not be allowed within the project limits.

501-4.01 METHOD OF MEASUREMENT. Replace this Subsection with the following: Concrete will not be measured directly for payment but instead shall be considered subsidiary to Item 650(20) Removable Barrier Post.

SECTION 505

PILING

505-1.01 DESCRIPTION. Add the following: Pile driving activities from station 11+00 to 16+00 shall be performed only during Frozen Ground Conditions. All pile driving activities shall be limited to the hours from 7am to 7pm, unless otherwise approved by the engineer.

505-2.01 MATERIALS. Structural steel pipe shall meet ASTM A53 Grade B, standard weight, for the 6 inch diameter steel pile.

Add the following Subsection:

505-3.14 WELDING. All welding and inspection shall conform to the requirements of the latest edition of the American Welding Society (AWS) Structural Welding Code, D1.1.

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

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

2. Welders, Certification and Testing. All welders and welding operators shall be certified in conformance with the AWS Structural Welding Code, D1.1. Welders or welding operators lacking current AWS Structural Welding Code D1.1 certification will not be permitted to perform welding on this project.

3. Inspection of Shop Work and Records. Welds, including joint preparation, fit-up and alignment, will be completely (100 percent of the weld) inspected visually and radiographed in conformance with AWS Structural Welding Code, D1.1. Ten percent of the length, as determined by the Engineer, of each weld will be radiographic tested. If a rejectable defect is found, then 100 percent of the length of the weld in that piece will be radiographically tested.

   The Engineer will examine and approve satisfactory welds, disapprove or reject unsatisfactory welds, approve satisfactory methods proposed by the Contractor for repairing disapproved welds, and inspect the preparation and rewelding of

disapproved welds. Copies of all the welding fabrication documentation, including the weld testing results, will be forwarded to the Engineer.

4. Obligation of Contractor. It shall be the Contractor's responsibility to comply with all requests of the Engineer to correct improper workmanship and to remove and replace, or correct as instructed, all welds found defective or deficient by visual inspection or by nondestructive testing.

5. Visual Inspection. All welds shall be completely visually inspected. A weld shall be acceptable by visual inspection if it shows that:

   a. the weld has no cracks,
   b. thorough fusion exists between adjacent layers of weld metal and between weld metal and base metal,
   c. all craters are filled to the full cross section, and,
   d. the completed weld conforms to all of the provisions of the AWS Structural Welding Code, D1.1.

6. Nondestructive Testing. The method of nondestructive testing will be radiographic testing in conformance with AWS Structural Welding Code, D1.1. Field welds are not subject to nondestructive testing.

7. Destructive Testing. The location, method and extent of mandatory destructive testing to be performed (if any) will be indicated on the contract drawings. All other welds will normally be inspected by visual methods and nondestructive testing; however, the Engineer may require destructive testing of any weld that in his opinion does not meet the criteria for radiographic acceptance.

   The cost associated with destructive testing of questionable welds will be borne by the Department for welds meeting radiographic acceptance criteria and by the Contractor for welds not meeting radiographic acceptance criteria. The cost of destructive testing of welds designated for destructive testing on the contract drawings will be borne by the Contractor.

   The Contractor is responsible for removing any weld specimen for destructive testing and repairing the weld afterwards.

8. Preparation of the Weld. The edges of the parts to be joined by welding shall be prepared by accurately cutting, grinding or machining to shape as indicated on the contract drawings and will be visually inspected prior to welding by the Engineer.

9. Backing. Backing rings or strips shall be utilized on all field butt welded joints welded from one side unless otherwise shown on the contract drawings or approved by the Engineer. Open root joints are permissible where the joint is inaccessible from both sides.

10. Cleaning. Each completed bead shall be thoroughly cleaned of all slag, or other foreign matter, before proceeding with the next bead. Hand clipping, power driven wire brushed, needle scalers, or grinders shall be used.

Full compensation for welding, weld inspection, weld testing, including all necessary tools, equipment, scaffolding and other support facilities required to perform welding, welding inspection, including the cost of radiographic testing will be subsidiary to the price bid for the piling items of the contract and no separate payment will be made.

(01/31/96)R146-Special Provision

Replace Section 511 with the following section:

SECTION 511

MODULAR BLOCK RETAINING WALLS

511-1.01 DESCRIPTION. The Modular Block Retaining Walls shall be constructed at the locations shown on the Plans as provided in these specifications. The following is the list of acceptable modular block systems for this project:

Keystone Retaining Wall Systems
Keystone Retaining Wall Systems Inc.
444 West 78th Street
Minneapolis, Minnesota 55435
1-800-747-8971

"Pyramid"
The Reinforced Earth Company
20381 Lake Forest Drive, Suite B-2
Lake Forest, CA 92630
(949) 587-3060

Mesa Retaining Wall Systems
Tensar Earth Technologies, Inc.
5883 Glenridge Drive, Suite 200
Atlanta GA 30328
1-800-836-7271

Use only one system for the entire project.

511-1.02 REFERENCE STANDARDS.

Engineering Design

- Design Manual for Segmental Retaining Walls, 2nd edition, National Concrete Masonry Association. (NCMA)
- NCMA TEK 2-4 - Specifications for Segmental Retaining Wall Units.
- NCMA SRWU-1 - Determination of Connection Strength between Geosynthetics and Segmental Concrete Units.
- NCMA SRWU-2 - Determination of Shear Strength between Segmental Concrete Units.

Where specifications and reference documents conflict, the Engineer shall make the final determination of applicable document.

511-1.03 SUBMITTALS. Submit the following information for approval a minimum of 30 days before starting construction of the segmental retaining wall.

General

Demonstrate that the modular block units, adhesive(s), geogrid, unit drainage fill, and infill soil are compatible with each other and together these materials will meet the requirements of the Plans, Specifications, and the structure design.

Provide the Engineer with 2 copies of the design manual and 4 copies of the installation manual as published by the geogrid and modular block manufacturers.

Design Requirements

- The engineering designs, techniques, and material evaluations shall be according to the Manufacturer's Design Manual, and/or the NCMA Design manual.
- The design batter cannot exceed 1 degree.
- The minimum embedment shall be 1 full block layer.
- The maximum backslope is 2H:1V for infill soil and retained soil. The design may recognize the load characteristics of the actual slope -- a "broken back slope" (slope that levels off within the distance of 2*H behind the wall) may be used in calculations at the specific locations where the slope condition is known to apply.
- No additional surcharge loading beyond the weight of the backslopes is required.

Meet or exceed the Safety Factor values established in the NCMA design manual.

Preapproved Engineering Design –

Submit the design presented in the Plans without separate stamped engineering drawings subject to the conditions listed below:

Conform to subsection 511-2.01.

Also, meet the following requirements:

Modular Blocks

If necessary, supplement the manufacturer's guide(s) to demonstrate that the product supplied will meet the requirements for curve radii, batter, and pilaster construction.

Submit Modular Block samples for approval of colors, textures and shapes.

Submit manufacturer's certifications for modular block units including: dimension tolerances, unit weight, compressive strength, freeze/thaw protection, interunit mechanical interlock shear strength, and the connection strength between the modular blocks and the geogrid.

Submit documentation for approval for the adhesive(s) to be used. A different adhesive may be used for the caps than the adhesive used to construct the

pilaster. The submittal shall demonstrate that the adhesives meet the Modular Block Manufacturer's specifications, recommendations, and that the adhesives are suitable for the application shown on the drawings. Weather restrictions shall be included. The submittal shall also demonstrate that the uncured adhesive will not have an adverse effect where it is exposed to the geogrid.

To be approved the submittal shall document that, once properly applied and cured, the adhesives will be suitable for local temperature extremes, applications below grade, and occasional exposure to ground water.

Structural Geogrid

Submit manufacturer's certifications for geogrid including:

- Documentation of manufacturing quality control.
- Testing and documentation required to establish the Soil Interaction Coefficient, (C_I), and the Coefficient of Direct Sliding (C_{DS}).
- Test data meeting subsection 729-2.05. The submittal shall include specific evaluation documenting the relationship between the actual infill soil the Contractor will supply for this project and the geogrid to be used.

Submit testing certifications for the values of long term allowable tensile strength (T_a) Coefficient of Interaction (C_I), and Coefficient of Direct Sliding (C_{DS}) based on the infill soil and geogrid materials used and construction methods employed.

- The minimum T_a required to adopt the design shown in the Plans is 1250 plf, as T_a is defined in subsection 511-2.01 Materials.
- The Coefficient of Direct Sliding (C_{DS}) shall be a minimum of 0.95.
- The Coefficient of Interaction (C_I) value shall be a minimum of 0.85.

Retaining Wall Design Submittal - Except as provided in the Subsection entitled Pre-Approved Engineering Design, provide 4 sets of stamped construction drawings and detailed design calculations, completed and sealed by an Engineer who is registered as a Civil Engineer in the State of Alaska. A detailed explanation of the design properties for the geogrids shall be submitted with the design. Allow the Engineer 3 weeks to review the working drawings and calculations.

Perform the following tasks:

- Review the site soil and geometric conditions to ensure the designed wall is compatible with the site before construction.
- Inspect the site conditions, materials incorporated into the retaining wall, and the construction practices used during the construction.

- Provide a letter after completion, certifying the design meets the requirements of this specification, the design was compatible with the site and the wall was constructed according to the design.

511-1.04 DELIVERY, STORAGE, AND HANDLING. Units shall be handled, stored, and shipped in such a manner to protect them from chipping, discoloration, cracks, and fractures. Check materials upon delivery to assure that specified type and grade of materials have been received and proper color and texture of the modular block units have been received. Prevent excessive mud, wet concrete, epoxies, and like materials that may affix themselves from coming in contact with materials. Store and handle materials according to manufacturer's recommendations.

Rejection: Units shall be rejected because of failure to meet the requirements specified above. In addition, the following defects shall be sufficient cause for rejection:

- Defects caused by faulty casting.
- Defects indicating honeycombed or open texture concrete.
- Cracked or severely chipped units.
- Unreasonable color variation, staining, or calcification on front face of unit.

Protect materials from damage. Carefully inspect reinforcing and attachment devices to ensure they are true to size and free from defects that may impair strength and durability.

Do not incorporate damaged or defective materials into the retaining wall.

511-2.01 MATERIALS.

Modular Block Retaining Wall Units

Modular block units shall be capable of being constructed at the curve radii shown on the drawings using standard details published by the manufacturer.

The color and texture of the blocks shall be as chosen by the Engineer following the Contractor's submittal and mock up construction

Surfaces of modular blocks shall be split face, sculptured rock face, or approved faux stone.

- Modular block units, including infill soil, shall weigh a minimum of 114 pounds per square foot of wall face.
- The interunit shear strength of mechanical interlock between units shall be a minimum of 600 pounds per linear foot (plf).
- The connection strength between the modular block units and the geogrid shall be a minimum of 600 plf.

The minimum allowable modular block unit length is 16 inches. The maximum allowable modular block unit length is 24 inches. The minimum allowable block height is 6 inches. The maximum allowable block height is 12 inches. The design wall batter cannot exceed 1 degree.

The dimensions of the modular block units shall have a maximum tolerance of 1/8 ± inch (not including rough split face) for each dimension. Units shall be free from cracks or other defects that would interfere with the proper placing of the unit or significantly impair the strength or permanence of the construction. Exposed surfaces of units shall be free of chips, cracks or other imperfections when viewed from a distance of 10 feet under diffused lighting.

Modular block units shall lock together vertically. In addition to core fill and friction, there shall be a mechanical interlock between units. Shear connectors shall consist of a nondegrading polymer or galvanized steel and shall be made for the express use with the modular block units supplied. Shear connectors shall be suitable for cold weather applications. Shear connectors shall be capable of holding the geogrid in the proper design position during grid pretensioning and backfilling.

Modular Block Adhesives

Adhesives shall comply with the Modular Block manufacturer's specifications and recommendations. The adhesive for bonding the caps may be a different product than the adhesive used to construct the pilasters.

Select adhesives with suitable weather restrictions such that the local weather will not adversely affect proper application and curing of the adhesives. Once properly applied and cured the adhesives shall be suitable for local temperature extremes, applications below grade, and occasional exposure to ground water.

Precast Concrete Elements

The standard length for precast concrete wall caps shall be the standard modular block length. The thickness of precast concrete wall caps shall be a nominal 4 inches.

Precast concrete elements shall comply with the requirements for Class W concrete as specified in Section 501 Structural Concrete. Reinforcing for Precast Wall Caps shall be as specified in Section 501 Structural Concrete as described in these special provisions. Reinforcing for Precast Pilaster Caps shall be as specified in Section 503 Reinforcing Steel.

Geosynthetic Reinforcement

Where "Geogrid" appears in the Plans or Specifications, these "Geosynthetic Reinforcement" specifications shall apply.

Geosynthetic Reinforcements shall consist of high tenacity geogrids or geotextiles manufactured for soil reinforcement applications. The location of the reinforcing geosynthetic shall be as shown on the Plans. The design properties of the reinforcement shall be determined according to the procedures outlined in this specification and the NCMA Design Manual for Segmental Retaining Walls.

Included with the raw test data shall be a report that will show that the proposed geosynthetic reinforcements meet the design requirements. At a minimum, the following is required:

a) Documentation of Manufacturing Quality Control. The geogrid manufacturer shall have a manufacturing quality control program that includes QC testing by an independent laboratory. The QC testing shall include:

Tensile Strength Testing
Melt Flow Index (HDPE)
Molecular Weight (Polyester)

b) Testing and documentation required to establish the Soil Interaction Coefficient, ($\mathbf{C_I}$), and the Coefficient of Direct Sliding (C_{DS}). C_I values shall be determined according to GRI:GG5 at a maximum 0.75 inch displacement.

Soils

Infill Soil

Infill soil shall comply with the requirements of subsection 703-2.07 of the Standard Specifications.

A smaller maximum aggregate size may be required in order to match the RF_{ID}, as defined above. Match the selection of geogrid and maximum aggregate size as necessary to maintain the required values for allowable tensile strength (T_a), Soil Interaction Coefficient (C_I), and the Coefficient of Direct Sliding (C_{DS}). Submit testing documentation for T_a, C_I, and C_{DS} to the Engineer.

Foundation Material

Foundation material shall consist of undisturbed native material. Where the native material is disturbed, it shall be removed and replaced with Borrow, Type A installed according to Section 205, Excavation, Backfill and Foundation Fill for Structures.

Unit Drainage Fill – Section 205 Excavation, Backfill and Foundation Fill for Structures

Leveling Pad – If the Contractor elects to use crushed stone, the Leveling Pad Material shall conform to the requirements of Aggregate Base Course, Type D-1. If the Contractor elects to use unreinforced concrete, the Leveling Pad Material shall conform to the requirements for Class W concrete as specified in Section 501 Structural Concrete.

Leveling Pad

At the Contractor's option, the leveling pad material may be crushed stone compacted as required by Section 301 Aggregate Base and Surface Course, or unreinforced concrete meeting the requirements for Class W concrete as specified in Section 501 Structural Concrete.

Unit Drainage Fill Material

Unit drainage fill shall comply with the requirements of Table 703-7 of the Standard Specifications.

Concrete

- Wall and Pilaster Caps – Section 501 Structural Concrete
- Leveling Pad – Section 501 Structural Concrete (if concrete leveling pads are used)

Drainage Pipe

Drainage pipe shall conform to the requirements of Section 605 Underdrains.

511-3.01 CONSTRUCTION.

Foundation Preparation

The foundation for the modular block retaining wall structure shall be graded level for the width shown on the Plans or Shop Drawings. Foundation soils found to be unsuitable shall be removed and replaced with backfill according to Section 205, Excavation, Backfill and Foundation Fill for Structures.

Leveling Pad

The minimum thickness of the leveling pad shall be 6 inches.

Appearance of Constructed Walls

Install modular block units according to the modular block manufacturers recommendations and specifications. Place modular block units so that their final position is battered in the near vertical (one degree or less) position.

The wall shall present the appearance of a running bond pattern. The blocks shall be arranged so that exposed surfaces whether on the front, sides, or back, match the standard block face in shape, texture, and color.

Wall caps shall be provided in conformance to the details shown on the drawings. Precast concrete wall caps and pilaster caps are intended to provide a color contrast, reveal, and finished appearance at the top of walls.

Construct pilasters and caps as shown on the drawings. Secure cap units to the top of the wall with the approved adhesive as specified by the modular block manufacturer according to the drawings and the manufacturer's recommendations.

The following tolerances are the maximum allowable deviation from the planned construction:

- Vertical Control: Deviation shall be limited to 1/4 ± inch over a 10 foot distance. Total deviation shall not exceed 3 inches total
- Horizontal Control: Deviation shall be limited to 1/4 ± inch over a 10 foot distance. Total deviation shall not exceed 3 inches total
- Rotation: final wall batter may vary between 0.5 and 2.0 degrees.
- Bulging: Deviation shall be limited to 1 inch over a 10 foot distance (not counting variations in split face surfaces).

Installing Drainage System

The drainage pipe, if required, shall be placed behind the leveling pad, or lower course of facing units as shown on the Plans or as directed by the Engineer. The pipe shall be laid at a minimum gradient of 2 percent unless otherwise approved by the Engineer. Route pipes to inlets as recommended by the manufacturer.

One cubic foot, minimum, of drainage fill shall be used for each square foot of wall face. Place unit drainage fill in lifts a maximum of 8 inches thick. Fill within the cores of, between, and behind each unit. Compact to the manufacturer's specifications.

Infill Soil and Geogrid

Place infill soil in the locations shown on the plans as described below. Complete backfill operations according to the modular block manufacturers recommendations and specifications.

Place infill soil to avoid damage or disturbances of the wall materials or misalignment of the facing panels. Remove and replace wall materials that become damaged during backfill placement and correct any misalignment or distortion of the masonry block units at the Contractor's expense.

Compact infill soil to 95 percent of the maximum density as determined by Alaska Test Method T-12 or AASHTO T 180. The maximum lift thickness after compaction shall not exceed 8 inches. Decrease the lift thickness if necessary to obtain the specified density. Field density will be determined using Alaska Test Method T-3 or T-11 by the Engineer.

The Engineer shall take a minimum of one density test after every three levels of blocks are placed. Soil tests shall be taken no closer than 3 feet from the back surface of the masonry modular block units.

At the end of each day's operation, the Contractor shall slope the last level of backfill away from the wall to rapidly direct water runoff away from the wall face. In addition, the Contractor shall not allow surface runoff from adjacent areas to enter the wall construction site.

Do not operate ride on mechanical compaction equipment closer than 3 feet from the back of the modular block units during the placement of Unit Drainage Fill, Infill Soil, or Retained Soil. Compact within 3 feet of the back face of the wall facing using a lightweight mechanical tamper, roller or vibratory system.

Do not operate tracked construction equipment directly on top of the geogrid until a minimum thickness of 6 inches of fill has been placed. Rubber tired equipment may drive on top of the geogrid at slow speeds but do not stop suddenly or make sharp turns.

At the specified elevations, place geogrid, as described below. Place the infill soil and compact level with the top of the wall modules at the specified geogrid elevations before placing the geogrid. Ensure that the geogrid lays flat and taut during placement of the infill soil. Place fill on top of the geogrid near the wall fascia and spreading toward the back of the infill soil zone.

Place precut sections of geogrid horizontally at each specified elevations. Assure that the longitudinal axis is perpendicular to the wall face (i.e. machine direction). Connect the geogrid to the wall facing units as specified by the manufacturer.

Pull the geogrid taut away from the wall modules during placement of infill soil. Alternatively, suitable anchoring pins or staples can be used to ensure that there are no wrinkles or slackness before placement of the infill soil. The geogrid shall lay perfectly flat when pulled back perpendicular to the back of the wall fascia.

Take care to ensure that the wall modules are swept clean and that the geogrid is in complete contact with the top and bottom faces of the adjacent wall modules. Carefully place the next course of wall modules on top of the lower modules to ensure that no pieces of concrete are chipped off and become lodged between unit layers.

Geogrid Reinforcement at Obstructions

Construct the reinforcement according to the details shown in the Plans and the recommendations of the geogrid manufacturer.

Finishing Wall

Finish grading above the wall to direct surface run off water away from the segmental retaining wall. Place topsoil as required restricting the rate of water infiltration into the retaining wall structure.

511-4.01 METHOD OF MEASUREMENT. Modular Block Retaining Wall will be measured by the square foot of wall face, excluding the portion of the wall below finish grade.

511-5.01 BASIS OF PAYMENT. Modular Block Retaining Wall shall include all excavation, backfill, materials and labor to construct the block wall as shown in the plans.

(01/12/05)PARKS-Special Provision

SECTION 605

UNDERDRAINS

605-1.01 DESCRIPTION. Add the following: This work includes installing a 6" diameter perforated pipe underdrain as shown in the plans.

605-2.01 MATERIALS. Add the following: Geotextile shall conform to Section 729-2.02 1. Subsurface Drainage.

605-5.01 BASIS OF PAYMENT. Add the following: Geotextile is subsidiary.

SECTION 607

FENCES

607-1.01 DESCRIPTION. Add the following: This work also includes installing new terminal posts as shown on the Plans.

607-2.01 MATERIALS. Under Chain Link Fabric, replace with the following:

Match existing chain link fabric in material, size, color, and appearance.

(01/20/05)PARKS-Special Provision

Replace this Section with the following:

SECTION 618

SEEDING

618-1.01 DESCRIPTION. This work consists of establishing a perennial stand of grass or other specified living vegetative cover in the areas indicated on the Plans and to acceptably maintain the cover through the end of the 2006 growing season.

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

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

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

CONSTRUCTION REQUIREMENTS

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

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

Apply seed as detailed in Subsection 618-3.03 immediately after the shaping of the slopes. Cover all slopes to be seeded with topsoil in accordance with Section 620. Prepare slopes for seed by "walking" a dozer transversely up and down the slopes, or by grading with a scarifying slope board, as determined by the Engineer. The resultant indentations shall be perpendicular to the fall of the slope. Install matting and complete slope preparation as soon as topsoil is placed on the slopes. Rounding the top and bottom of the slopes is acceptable to facilitate tracking and to create a pleasing appearance, but do not disrupt drainage flow lines.

Flat surfaces shall also be topsoiled and prepared by "walking" with a dozer.

618-3.02 SEEDING SEASONS. Seed and fertilize during the local growing season. Do not seed during windy conditions or when climatic conditions or ground conditions would

hinder placement or proper growth. The seeding season is from May 15 through September 1.

618-3.03 APPLICATION. Apply seed, mulch, and fertilizer as follows per 1000 ft^2. Apply seed and mulch in one application using the hydraulic method. Apply all fertilizer with the hydraulic method.

Item	Ingredients	Application Rate (per 1000 S.F.)
Seed Mix	Slender Wheatgrass (Wainwright) Red Fescue (Arctared) Annual Ryegrass (Lolium)	0.50 lbs 0.40 lbs 0.10 lbs Total = 1.00 lbs
Mulch	Slopes ≤ 3:1 Slopes > 3:1	46.0 lbs 45.0 – 58.0 lbs
Fertilizer	20-20-10	12.0 lbs

The Contractor shall not remove the required tags from the seed bags.

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

Use the following method to apply seed, mulch, and fertilizer:

Hydraulic Method.

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

b. Use hydraulic seeding equipment that will maintain a continuous agitation and apply a homogeneous mixture through a spray nozzle. The pump must produce enough pressure to maintain a continuous, non-fluctuating spray that will reach the extremities of the seeding area with the pump unit located on the roadbed. Provide enough hose to reach areas not practical to seed from the nozzle unit situated on the roadbed.

c. If mulch material is required, it may be added to the water slurry in the hydraulic seeder after adding the proportionate amounts of seed and fertilizer. Add seed to the slurry mixture no more than 30 minutes before application.

d. Mix the slurry and apply it evenly.

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

Water and maintain seeded areas through the end of the 2006 growing season. Use equipment that can water all seeded areas without damaging the seed bed.

Reseed any areas not showing evidence of satisfactory growth within 3 weeks of seeding.

A reapplication of fertilizer shall be applied with water at the end of the 2006 growing season. Re-fertilization shall be applied at a rate of one-half the initial application.

618-4.01 METHOD OF MEASUREMENT.

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

The amounts of fertilizer, seed, mulch and water for application used in this work, including any required reseeding and re-fertilization are subsidiary to other 618 items.

Water used in maintenance of seeded areas will not be measured directly for payment but will be considered subsidiary to Item 618(2) Seeding.

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

The work described under subsection 618-3.01 Soil Preparation is subsidiary to Item 618(2) Seeding.

Water required for the hydraulic method of application is subsidiary to seeding.

Payment will be made under:

Pay Item	Pay Unit
618(2) Seeding	Pound

(03/05/02)R52USC-Special Provision

SECTION 619

MATTING

619-2.01 MATERIALS. Add the following: Matting shall be jute mesh fabric.

SECTION 620

TOPSOIL

620-2.01 MATERIALS. Add the following: Topsoil shall be Class A unless otherwise specified.

620-4.01 METHOD OF MEASUREMENT. Add the following: Limestone, if required, will not be measured for payment, but will be subsidiary to Item 620(1) Topsoil.

(11/06/02)R53USC02-Special Provision

Replace this Section with the following:

SECTION 621

PLANTING TREES AND SHRUBS

621-1.01 DESCRIPTION. This work shall consist of furnishing all plants, labor, materials, equipment, and performing all work necessary and incidental to the riverbank restoration of the Kenai River as shown in the Plans, in accordance with the Specifications and conforming to the lines, grades, and dimensions shown.

The Contractor shall be responsible for erosion control in accordance with Section 641.

621-1.02 DEFINITIONS.

1. Branches or Live Cut Plant Material. Material that has been cut from native growing material. This live, rootable plant material will be used in living soil bioengineering structures, i.e., live stake, live fascine, live siltation construction, brush mattress and vegetated geogrid.

2. Growing Tips. The top ends of the live cut branches that are intended to produce leaf development.

3. Harvesting Site. The source areas of the live native cut plant material branches.

4. Vegetative Mat. A 3 foot by 3 foot minimum live transplant consisting of at least one willow plant and various other native plant material.

5. River. Refers to the Kenai River.

6. Rootwad Revetment. A system of embedded root wads along the bank to provide immediate bank stabilization and protection.

7. Dormant Cutting. Primary plant material used in various Revegetation techniques. Dormant cuttings are harvested from living woody plants in a dormant state. They are collected from plants that can root easily without special treatment.

MATERIALS

621-2.01 WILLOW SPECIES. Acceptable willow species are as follows:

Feltleaf Willow (Salix alaxensis)
Pacific Willow (Salix lasiandra)
Barclay Willow (Salix barclayi)

621-2.02 VEGETATIVE MAT. Vegetative mat shall consist of at least one living plant of the approved species of willow and the surrounding sod or vegetative mat, harvested locally. Transplanting shall be under the supervision of an approved plant material professional provided by the Contractor. It is the Contractor's responsibility to locate, secure harvest permits, and harvest mat material. Submit harvest site locations prior to the harvest for site inspection and approval.

Vegetative mat shall be no less than 9 square feet with at least 3 feet in any direction and include an intact root system with natural soil at least 8 inches thick.

Vegetative mat shall be taken from approved, existing, natural, native growing sites. Plant material harvested within 100 feet of any stream, river, or lake shall not be allowed without written approval of Alaska Department of Natural Resources Office of Habitat, Management, and Permitting (OHMP). Harvesting sites shall be approved by the Engineer at least 1 week prior to harvesting operations. These sites may be located on government and private lands. Be cautioned that obtaining government harvest permits can be time consuming. The Contractor shall obtain permission to cut and remove the plant stock. Source location shall be within 100 miles of the Project. Written permission shall be obtained from all landowners 1 week prior to commencement of harvesting operations. The permission letter shall be signed by the landowner, allowing the vegetation to be removed and stipulating an approved access and the condition in which the site shall be left. All conditions for use and cleanup shall be included.

A copy of this letter shall be signed and given to the Engineer 1 week prior to the start of harvesting activities. The Engineer shall not be party to this agreement between the Landowner and the Contractor.

621-2.03 ROOT WAD. A Root Wad shall be a spruce tree with a root fan diameter of 5 to 6 feet. Minimum of 10 feet of tree trunk shall remain attached to the individual root wads.

621-2.04 TOPSOIL. Shall be in accordance with Section 620.

621-2.05 GRAVEL SOIL MIX. Shall be a mixture capable of supporting plant growth. In addition, fertilizer and lime shall be mixed into the mix. It shall be free of any admixture of subsoil, foreign matter, objects larger than 1 inch in any dimension, toxic substances, or any material or substances which could be harmful to plant growth. Gravel alone shall not be considered as suitable material for use as fill around live cut plant materials. Muddy (saturated) soils, which otherwise meet these requirements, shall not be considered suitable mix until they have dried to a workable moisture content. Heavy clays shall be mixed with sandy and/or organic soils to increase

porosity. Acceptability of onsite materials used to prepare the mix shall be determined on site by the Engineer.

621-2.06 BRUSH LAYERING. Brush layering will be composed of dormant cuttings conforming to the willow species described under this Section. Brush branches shall be 1/2 to 1-1/2 inches in diameter with a minimum length of 4 feet. All material shall be cut and trimmed prior to being tamped into the prepared and approved site. Brush material shall be soft and flexible. Old material will not be acceptable.

621-2.07 PEDESTRIAN SAFETY FENCE. Orange colored, 4 feet high vinyl fence with open grid pattern. Install with posts as recommended by the manufacturer.

621-2.08 BIODEGRADABLE FABRIC WRAP. Biodegradable fabric wrap similar to Charankattu Coir Manufacturing Company CCM700, or North American Green C125BN, or Bon Terra ENC2, or equivalent as approved by engineer.

621-2.09 COBBLE. Cobble shall conform to Section 703 Table 703-7 Requirements for Porous Backfill.

621-2.10 SHRUB. Shrub shall be alnus spp., 24" height.

CONSTRUCTION REQUIREMENTS

621-3.01 GENERAL. Revegetation methods and techniques shall be in accordance with Alaska Fish & Game publication "Streambank Revegetation and Protection a Guide for Alaska" Technical Report No. 98-3, March 1998.

Submit a plant material plan 1 week prior to harvest detailing location of harvest sites and dates, plant material consultant name and qualifications, and harvesting methods. Contractor shall schedule his delivery to the site so that the materials can be installed the day they arrive. During transportation, the vegetative mat shall be placed on the transport vehicle in such a way as to prevent damage and facilitate handling. Vegetative mat shall be covered with a tarp or burlap material during transportation.

621-3.02 HARVESTING AND PLANTING SEASON. Harvesting of willow shall take place during its dormant stages. Harvesting of vegetative mat shall take place between May 15 and June 30 and shall be re-planted within 1 day of harvesting.

621-3.03 VEGETATIVE MAT. This work shall consist of preparing area with topsoil and transplanting vegetative mat. The mat shall be placed so to provide a smooth finished surface. Plant mat to an elevation that approximates the elevation of the surrounding vegetation as directed by the Engineer.

Vegetative mat may be watered to provide easier handling from the existing source. Vegetative mat shall be kept moist from the time it is dug until it is planted. Care shall

be exercised to retain as much soil as possible in the natural state around the roots during digging, hauling, and placing. Transplanting each mat shall be completed in one day. Vegetative mat shall be watered within one hour of planting. Subsequent watering shall be required until final acceptance of the Project.

621-3.04 BRUSH LAYERING. Install in accordance with Alaska Fish & Games publication "Streambank Revegetation and Protection a Guide for Alaska" Technical Report No. 98-3, March 1998, the Plans, and these Specifications.

Excavate 2 to 3 feet, slightly at a downward angle into the slope. Place gravel soil mix.. Plant dormant cuttings into excavation with cut ends into the ground, not burying more than 3/4 of the branch length. Place 2 to 4 inches of topsoil on the braches and tamp into place. Plant cuttings with minimum density of 8 branches per lineal foot of shoreline revegetated.

621-3.05 ROOT WAD REVETMENT. Install in accordance with the Plans. Excavate trenches deep enough to set the tree trunk at approximately ordinary high water (OHW) level. Excavate the riverbed to embed part of the root fan. Root fans shall be overlapped 1 to 2 feet, enough to provide a continuous line along the bank. Root wads adjacent to river access stairs shall be turned in toward the bank to form a pocket for the river access stairs. Rootwad revetment placed within 10 feet of pile location must be installed prior to pile driving activities. Any driven piles disturbed by rootwad revetment installation may require replacement at no extra cost to the Department.

621-3.07 BANK DISTURBANCE. All bank areas that have been disturbed by construction activities shall be left smoothly graded.

621-3.08 MAINTENANCE OF THE RIVERBANK RESTORATION SYSTEMS. Maintenance shall begin immediately after each system has been installed. It shall continue through completion of the project and for one complete growing season.

1. Repair gully erosion or washouts, and keep installation free of insects and diseases.

2. Install approved pedestrian safety fence on all sides of completed riverbank restoration area and slope remediation work. Protect installation at all times against trespassing and damage of any kind for the maintenance period. If any areas become damaged or injured, they shall be repaired or replaced by the Contractor as directed by the Engineer at no additional cost to the Department. No work shall be done within, adjacent to, or over any installed area without proper safeguards and protection of the installations. Existing trees and vegetation shall also be protected during construction activities.

3. The Contractor shall be responsible for keeping all installations and work incidental thereto in good condition, and performing all other necessary operations to care for

promotion of root growth and plant life so that all work is in satisfactory and acceptable condition.

4. All installation and plant material required by this contract shall be in a satisfactory and acceptable condition when the Contractor applies for payment.

5. The project site, harvesting site, and surrounding areas shall be continuously kept clean when construction installation and maintenance operations are in progress. The entire work area shall be cleaned at the end of each day's work.

621-4.01 METHOD OF MEASUREMENT. Item 621(5) Vegetative Mat will be measured per square yard of slope area covered and accepted.

Item 621(6) Root Wad Revetment shall be measured by the linear foot along the protected river bank.

Item 621(7) Brush Layering shall be measured by the linear foot along its centerline, parallel to the Kenai River. Gravel soil mix in biodegradable fabric wrap shall be subsidiary to Brush Layering.

Excavation, backfill, topsoil, and fertilizer required for all Section 621 items will not be measured for payment but will be considered subsidiary to that item.

621-5.01 BASIS OF PAYMENT. The quantities determined as provided above, will be paid for at the contract price per unit of measurement, for each of the particular pay items listed below that appear in the bid schedule, which prices and payment will be full compensation for furnishing and installing, maintenance care, and placing all other materials, including all labor, equipment, tools, incidentals necessary to complete the work described in the Section.

Pedestrian Safety Fence shall be subsidiary to Item 643(2) Traffic Maintenance.

Payment will be made under:

Pay Item	Pay Unit
621(5) Vegetative Mat	Square Yard
621(6) Root Wad Revetment	Linear Foot
621(7) Brush Layering	Linear Foot
621(9) Willow Stake	Each

(04/09/04)PARKS-Special Provision

SECTION 640

MOBILIZATION AND DEMOBILIZATION

640-1.01 DESCRIPTION. Add the following:

6. Comply with Department of Labor Meals and Lodging/Per Diem requirements.

640-5.01 BASIS OF PAYMENT.

Payment will be made under:

Pay Item	Pay Unit
640(1) Mobilization and Demobilization	Lump Sum
640(2) Meals and Lodging / Per Diem	Lump Sum

(10/21/04)R275USC04-Special Provision

Replace this Section with 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.

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. BMPs include temporary or permanent structural and non-structural devices and practices. The Department describes common BMPs in its Alaska Storm Water Pollution Prevention Plan Guide, June 1, 2004.

2. ESCP (Erosion and Sediment Control Plan). The general plan for control of project-related erosion and sedimentation. 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. The ESCP has been included in Appendix C.

3. Final Stabilization. A point in time when all 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, all 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 percent 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. NOI. Notice of Intent to commence ground-disturbing activities under the NPDES General Permit. Use EPA Form 3510-9 (Revised 6/03).

6. NOT. Notice of Termination of coverage under the NPDES General Permit. Use EPA Form 3510-13 (Revised 6/03).

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 prior to ground-disturbing activities for the project.

8. SPCC Plan (Spill Prevention, Control, and Countermeasure) Plan. 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 under the NPDES General Permit. The SWPPP is developed by the Contractor and describes site-specific controls and management of issues identified for the project. The approved SWPPP must contain a copy of the Contractor's signed NOI.

641-1.03 SUBMITTALS. For all projects that disturb one (1) acre or more of ground submit three copies each of your SWPPP and HMCP to the Engineer for approval. Submit one (1) copy of your SPCC Plan (if required under Subsection 641-2.03) to the Engineer. Sign all submittals. Deliver these documents to the Engineer no less than five (5) calendar days prior to the preconstruction conference.

The Department will review the SWPPP and HMCP submittals within fourteen (14) calendar days. Submittals will be returned to you as either requiring modification unless approved by the Department. Besides a copy of the Contractor's NOI, the approved SWPPP must contain a certification and be signed by an authorized representative according to the Standard Permit Conditions of the NPDES General Permit Part 8, Appendix G. You must receive written notification from the Department that your SWPPP has been approved before you submit your original NOI to EPA. NOIs can be submitted by Certified mail or through EPA's electronic NOI system (eNOI).

For regular U.S. Mail delivery:

EPA Storm Water Notice Processing Center
Mail Code 4203M
U.S. EPA
1200 Pennsylvania Avenue, NW
Washington, D.C. 20460

For Overnight/Express mail delivery:

EPA Storm Water Notice Processing Center
Room 7420
U.S. EPA
1201 Constitutional Avenue, NW
Washington, D.C. 20004

For electronic mail, the Contractor must register online with EPA at: http://cfpub.epa.gov/npdes/stormwater/enoi.cfm. This website has instructions and guidance on how to set up and use the eNOI system.

Whether submitting the NOI electronically or by mail, you may not begin ground-disturbing activities until the Engineer has issued you a written statement that the EPA has listed your NOI and the Department's NOI as active.

The Department will submit the approved SWPPP to ADEC that will include both the Contractor and Department NOIs.

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.

Once the Department has determined the site has achieved final stabilization, the Engineer will provide written notification to you that your NOT may be submitted to EPA with a copy to the Engineer. The Department will transmit the Department's NOT to the EPA.

641-2.01 STORM WATER POLLUTION PREVENTION PLAN (SWPPP) REQUIREMENTS. For projects that disturb one (1) acre or more of ground, you must prepare a Storm Water Pollution Prevention Plan. Use the Department's ESCP to develop a SWPPP based on your scheduling, equipment, and use of alternative BMPs. Follow the format presented in the Alaska Storm Water Pollution Prevention Plan Guide, June 1, 2004. The plan must consider first preventing erosion, then minimizing erosion, and finally trapping sediment before it enters waterways.

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

Specify the line of authority and designate your field representative for implementing SWPPP compliance. Designate one representative for each subcontractor who performs earth-disturbing activities or who install and maintain erosion and sediment control measures.

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 all hazardous materials, including office materials, to be used and/or stored on site, and their estimated quantities. Detail your 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 all controls to prevent the accidental spillage of oil, petroleum products, and other hazardous materials.

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

Specify the line of authority and designate your 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 that is certified by a licensed Professional Engineer, when required by 40 CFR 112, including:

1. When oil spills may reach navigable waters; and
2. Your total above ground oil storage capacity is greater than 1,320 gallons.

Comply with 40 CFR 112 and address the following issues in your 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.

641-3.01 CONSTRUCTION REQUIREMENTS. Do not begin ground-disturbing work until the Engineer provides you written notice that both your and the Department's NOIs have been listed as active and that ground-disturbing work can begin.

Post at the construction site:

1. NPDES Permit number, if available, and a copy of the NOI,
2. Name and phone number of your local contact person, and
3. Location of a SWPPP available for viewing by the public.

Comply with all requirements of the approved HMCP, the submitted SPCC Plan, and all state and federal regulations that pertain to the handling, storage, cleanup, and disposal of petroleum products or other hazardous substances. Contain, clean up, and dispose of all discharges of petroleum products and/or other materials hazardous to the land, air, water, and organic life forms. Perform all 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 your SPCC Plan.

Comply with all requirements of the NPDES General Permit, implement all temporary and permanent erosion and sediment control measures identified in the SWPPP, and

ensure the SWPPP remains current. Maintain all temporary and permanent erosion and sediment control measures in effective operating condition.

Perform inspections and prepare inspection reports in compliance with the project SWPPP and the NPDES General Permit.

1. Joint Inspections. Prior to start of construction, conduct a joint on-site inspection with the Engineer 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 (7) days and within 24 hours of the end of a storm exceeding 1/2 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.

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

   c. 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 (3) working days of each inspection, a report on state Form 25D-100, with 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 non-compliance.

Where a report does not identify any incidents of non-compliance, certify that the facility is in compliance with the SWPPP and NPDES General Permit. You and the Engineer will sign the report according to the Standard Permit Conditions of the NPDES General Permit, Part 8, Appendix G. Include all reports as an appendix to the SWPPP.

Retain copies of the SWPPP and all 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.

Submit amendments to the SWPPP to correct problems identified as a result of any:
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 (7) 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 implementation within seven days.

Stabilize all areas disturbed after the seeding deadline within seven (7) days of the temporary or permanent cessation of ground-disturbing activities.

Submit a signed NOT to EPA and a copy to the Engineer:

1. When the Engineer has acknowledged to you in written form that the project site (including all material sources, disposal sites, etc.) has been finally stabilized and all storm water discharges from construction activities authorized by this permit have ceased, or

2. When the construction activity operator (as defined in the NPDES General Permit) has changed and the Engineer provides written notification that your responsibilities with respect to compliance with the NPDES GP on the project have ceased.

If you fail 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 your earthwork operations and withhold monies due on current estimates for such earthwork items until all aspects of the work are coordinated in a satisfactory manner.

If you fail to:

1. Pursue 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 Engineer may, after giving you written notice, proceed to perform such work and deduct the cost thereof, including project engineering costs, from your progress payments.

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

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

641-5.01 BASIS OF PAYMENT. The Bid Schedule will include either Items 641(1) and (2) or Items 641(1), (3), and (4).

1. Item 641(1) Erosion and Pollution Control Administration. At the contract lump sum price for administration of all 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(3) Temporary Erosion and Pollution Control. At the lump sum price shown on the bid schedule to install and maintain all temporary erosion, sedimentation, and pollution control measures under the original approved SWPPP and HMCP.

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

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

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

Payment will be made under:

Pay Item	Pay Unit
641(1) Erosion and Pollution Control Administration	Lump Sum
641(2) Temporary Erosion and Pollution Control	Contingent Sum

(02/19/04)E09-Standard Modification

SECTION 643

TRAFFIC MAINTENANCE

643-1.01 DESCRIPTION. This item shall include all labor, equipment and materials to close the project limits to public and pedestrian access for the duration of construction. All areas of revegetation, slope remediation, and seeding shall be protected from pedestrian access through the end of the 2006 growing season. This item shall also include closing the boardwalk system to all pedestrian traffic for this entire period.

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 non-street legal vehicles and the motoring public. The Traffic Control plan shall specify the traffic control devices required for these operations. (08/02/04)R222USC04-Special Provision

643-2.01 MATERIALS. Add the following:

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

(08/02/04)R222USC04-Special Provision

Plastic safety fence shall become the property of the City of Soldotna at the end of the maintenance period.

643-3.01 GENERAL CONSTRUCTION REQUIREMENTS. Add the following: Immediately notify the Engineer of any traffic related accident that occurs within the project limits as soon as you, an employee, or a subcontractor becomes aware of the accident. (02/05/04)E10-Standard Modification

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.

(08/02/04)R222USC04-Special Provision

643-3.04 TRAFFIC CONTROL DEVICES.

In the sixth paragraph, replace the words "ATTSA" with "ATSSA". (06/30/04)E16-Standard Modification

Add the following to item 1. Embankments.: Close trenches and excavations at the end of each continuous work shift. (08/02/04)R222USC04-Special Provision

Replace item 4.b. with the following: Flagger Certification by ATSSA. (08/02/04)R222USC04-Special Provision

Replace item 6 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.

(08/02/04)R222USC04-Special Provision

Change items 7 and 8 to 8 and 9 respectively. (08/02/04)R222USC04-Special Provision

643-3.05 AUTHORITY OF THE ENGINEER. Add the following after the second sentence: In no case shall this time exceed 24 hours. (08/02/04)R222USC04-Special Provision

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

(08/02/04)R222USC04-Special Provision

643-4.01 METHOD OF MEASUREMENT. Replace Item 13. with the following: Plastic safety fence shall be subsidiary to this Item.

SECTION 644

SERVICES TO BE FURNISHED BY THE CONTRACTOR

644-2.05 VEHICLES. Replace the second and third paragraphs with the following: Furnish 1 full-size four-wheel drive pickup(s) or sport utility vehicle(s) for exclusive use of the Department throughout the project. Provide vehicles less than three (3) model years old, in good condition and with less than 36,000 miles on the odometer.

Furnish fuels, maintenance, and insurance. If you are working after October 1, provide studded snow tires for the vehicles you provide for the Department's use. You are responsible for normal wear and tear, and any other incidental damage including broken windshields, occurring during the Department's operation and use. The Department is responsible for damage to any vehicle caused by its own negligent during operation.

(02/03/03)R245USC-Special Provision

Add the following: Vehicles will not have logos, advertising or markings on the exterior.
(01/01/01)PARKS-Special Provision

644-3.01 METHOD OF MEASUREMENT. Replace the third paragraph with the following:

Vehicle. Per each vehicle provided. If a replacement vehicle is necessary, no additional measurement will be made.

(02/03/03)R245USC-Special Provision

Replace Item 644(7) with the following:

Payment will be made under:

Pay Item	Pay Unit
644(8) Vehicle	Each

(02/03/03)R245USC-Special Provision

SECTION 646

CPM SCHEDULING

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

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

646-3.01 REQUIREMENTS AND USE OF SCHEDULE.

Delete item 2. 60-Day Preliminary Schedule.

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

(12/13/02)R261M98-Special Provision

Add the following Section:

SECTION 647

EQUIPMENT RENTAL

647-1.01 DESCRIPTION. This item consists of furnishing construction equipment, operated, fueled and maintained, on a rental basis for use in construction of the drainage swale and any 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, 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 all 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 each 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.

All 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.

All equipment shall be fully operated, which shall be understood to include the operators, oilers, tenders, fuel, oil, air hose, lubrication, repairs, maintenance, insurance, and all 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. All personnel furnished by the Contractor shall be, and shall remain during the work hereunder, employees solely of the Contractor.

Furnish, without direct compensation, a job superintendent or Contractor's representative together with such other personnel as are needed for Union, State, or Federal requirements and in servicing, maintaining, repairing and caring for the equipment, tools, supplies, and materials provided by the Contractor and involved in the performance of the work. Also, 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 in accordance with the instructions of the Engineer, and with recognized standards and efficient methods.

Furnish equipment, tools, labor, and materials in the kinds, number, and at times directed by the Engineer and shall commence, 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, six (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(7) Wide Pad Dozer, 65 HP Minimum, will be paid for 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 all 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	Pay Unit
647(7) Wide Pad Dozer, 65 HP Minimum	Hour

(11/12/98)R15USC-Special Provision

Add the following Section:

SECTION 650

PARK FACILITIES

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

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

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

MATERIALS

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

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

650-2.03 CONCRETE. 5-Sack and 6-Sack Concrete conforming to Section 501.

650-2.04 STRUCTURAL STEEL. Structural steel shall conform to the requirements of ASTM Specification A 36 (Standard Specification for Carbon Structural Steel).

650-2.05 GALVANIZING. Conform to AASHTO M111/ASTM A123 (Standard Specification for Zinc [Hot-Dip Galvanized] Coatings on Iron and Steel Products), or AASHTO M232/ASTM A153 (Standard Specification for Zinc Coating[Hot-Dip] on Iron and Steel Hardware). Repair damaged galvanizing by using low melting point zinc repair rods in conformance with ASTM A780-00 (Standard Practice for Repair of Damaged and Uncoated Areas of Hot-Dip Galvanized Coatings).

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

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

2. Rough Cut. Unless otherwise indicated, rough cut lumber and timbers are shown on the plans in actual dimensions, i.e.; 2"x4", indicating rough cut material. Use classification shall be Structural Lumber, No. 2 Grade or Better. Manufacturing classification shall be Rough Lumber. Size classification shall be Rough Dry Sizes.

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

Treatment shall be as follows:

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

2. Ground Contact Applications. Preservative pressure treatment shall conform to Section 714. Pressure treat with preservative Ammonical Copper Quat - Type A,B,C, or D(ACQ-A,B,C, or D) or Copper Azole – Type A (CBA-A). Minimum retention shall be 0.60 pounds per cubic foot. Exposed treated materials shall be pigmented uniformly brown in color by manufacturer.

650-2.08 FASTENERS. Commercial quality and type of nails and screws as required to securely hold all members in place in accordance with National Design Specifications. Nails shall be hot dipped galvanized. All other fasteners shall be corrosion resistant. Fasteners in pressure treated wood shall be hot dipped galvanized. Nails and wood screws below grade in pressure treated wood shall be stainless steel.

650-2.09 STANDARD PARK PADLOCK. Master Lock No. 1 with 5/16 inch shackle diameter, 15/16 inch vertical clearance, 3/4 inch horizontal clearance, 1-3/4 inch case width, and keyed alike to a key number provided by the Engineer specific to the Park area. Provide two keys with each padlock.

650-2.10 PAINT. Unless otherwise specified, use the following paint types and colors, or approved equals:

1. Solid Oil Stain. Exterior oil/alkyd flat finish stain, color "Russet". DF7XX as manufactured by Fuller O'Brien/ Devoe Products, Russet as manufactured by Pittsburgh Paint Company, Behr Plus 10 Solid Stain #354 Russet, or Olympic Russet as manufactured by PPG Architectural Finishes, Inc. Submit color samples of proposed substitutions for approval.

2. Semi-Transparent Oil Stain. Exterior alkyd based stain, color to match solid oil stain "Russet". Stains for pressure treated wood shall be recommended by manufacturer for use on pressure treated wood.

3. Clear Oil Stain. Non-pigmented penetrating exterior alkyd base stain formulated for water repellency.

4. Metal Primer Paint. As recommended by enamel paint manufacturer.

5. Enamel Paint. Exterior alkyd base gloss enamel. Color to match solid oil stain color.

6. Concrete Sealer. Clear acrylic copolymer conforming to AASHTO M148/ASTM C 309 (Standard Specification for Liquid Membrane-Forming Compounds for Curing Concrete, for Type 1 Compounds).

7. Above Ground Wood Preservative. Brown preservative with active ingredient of minimum 9.08 percent copper naphthenate (equivalent to minimum 1 percent metallic copper). Color to be approved by Engineer.

8. Below Ground Wood Preservative. Preservative with active ingredient of minimum 16 percent copper naphthenate (equivalent to minimum 2 percent metallic copper).

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

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

650-2.11 SIGNS. Fabricate sign panels to the dimensions shown on plans. Metal sign panels shall be 0.080 inch thick alloy 6061-T6, 5052-H36, or 5052-H38 aluminum. Wood sign panels shall be medium density overlay plywood. Signs shall have Type II (medium intensity) reflective sheeting background with color as specified. White high intensity sheeting for symbols, letters, and borders shall match 3M Scotchlite Reflective Sheeting #3290. Brown medium intensity sheeting for background shall match 3M Scotchlite Reflective Sheeting #3279.

650-2.12 PARK BENCH.

1. Surface Mount Model. Eight foot long surface mount flat bench Model PWB/G-8PN by Pilot Rock Park Equipment (1-800-762-5002), or approved equal.

   Bench shall have two each, one piece, all welded metal frames consisting of seat bracket of 3/8 inch thick by 4 inch flat steel bar, steel post leg, and surface mount

foot of 3/8 inch thick by 4 inch flat steel bar. Steel posts shall be 2-1/2 inch square tube or 3 inch diameter pipe. Frames shall be galvanized or black powder coated after fabrication.

Four each 3x4 or 3 inch by 4 inch seat slats mount with 3/8 inch carriage bolts to the seat brackets. Slats shall be 100% recycled plastic.

650-2.13 STEEL / FIBERGLASS BOARDWALK AND STAIRWAY TREAD. All material shall be new and conform to the following:

Structural Steel and Steel Members. Shall conform to the requirements of Subsection 650-2.04. Member sizes and dimensions shall be as shown in the Plans.

Fiberglass Grating. Shall be fiberglass vinyl ester resin. Load bar depth shall be 1-1/2 inches and spaced 1 inch on-center. Grating open area shall be 40% minimum. Color shall be dark gray. Product similar to Fibergrate Fiberglass Grating, Model I-4015 Safe-T-Span Pultruded Grating. Fibergrate Composite Structures Inc.; 4285 Kellway Circle, Suite 224; Addison, TX 75001; Phone 800-527-4043 or www.fibergrate.com.

Fiberglass grating hold-down clips shall be M-clip, saddle type, similar to Fibergrate MI-40 or approved equal.

Edge sealing kit shall be as specified by manufacturer.

Lumber. All lumber shall be surfaced four sides in conformance with Subsection 650-2.06 and preservative pressure treated in conformance with Subsection 650-2.07.

Fasteners. Fastener types and dimensions shall be as shown in the Plans and in conformance with Subsection 650-2.09.

650-2.14 ALUMINUM STAIRWAY TREAD. Structural aluminum shall conform to the requirements of ANSI 6061-T6, 3003-H14, or 3003-H112.

Aluminum treads for stairway construction shall be serrated rectangular bar grating with a corrugated angle nosing. Bearing bars shall be 1-3/4" x 3/16" with a 1-3/16" center to center spacing.

650-2.15 BARRIER RAIL. Conform to Plans. HSS 3x3x1/8 steel posts and other steel members shall conform to the requirements of Subsection 650-2.04. 2x4 railing and 2x6 top railing shall conform to the requirements of Subsection 650-2.06.

650-2.16 REMOVABLE BARRIER POST. Conform to Standard Drawing P-5, Barrier Rail, Barrier Post, and Removable Barrier Post. Wood member shall be rough cut treated wood, uniformly brown in color. Provide one standard park padlock for each post.

650-2.17 TRAIL SIGN, TYPE A. Post shall be rough cut wood and pressure treated in conformance with Subsection 650-2.07.

CONSTRUCTION REQUIREMENTS

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

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

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

650-3.04 STRUCTURAL STEEL. Welding to be performed by competent certified welders and shall conform to American Welding Society D1.1.

650-3.05 WOOD. Competent carpenters shall be employed and all framing shall be true and exact. Unless otherwise specified, nails and spikes shall be hand driven with just sufficient force to set the heads flush with the surface of wood. Power nail guns are prohibited. All non-removable shipping, storage, weathering and erection marks on fabricated lumber shall be hidden from view in the completed work. Use of damaged lumber shall not be allowed. Store on-site lumber above the ground and protected from damage and weathering.

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

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

650-3.06 PAINT. Deliver in sealed containers with labels legible and intact. Remove dirt, grease, oil and other construction debris prior to painting. Ensure that surfaces to be painted are even, smooth, sound, clean, dry, and free from defects affecting proper application. Metal surfaces to receive paint shall be corrosion free. Apply per manufacturer's recommendations. Apply paint material evenly without runs, sags, or other defects. Work each coat into the material being coated at an average rate of coverage recommended by the manufacturer. Cover surfaces completely to provide uniform color and appearance. Remove all paint, stain, or other finish material where it has spilled or spattered.

1. General. Unless otherwise specified, schedule finishes as follows:
   a. Non-Treated Wood, Surfaced. Finish surfaces not scheduled to receive stain or clear oil stain with wood preservative.
   b. Non-Treated Wood, Rough Cut. Saturate below and above ground surfaces not scheduled to receive stain with wood preservative.
   c. Treated Wood, Hidden. Dado cuts, cut ends, drilled holes and field cuts in wood materials shall be brush coated to saturation with end cut preservative.
   d. Treated Wood, Exposed. Saturate cut surfaces with scheduled finish. Finish surfaces not scheduled to receive stain with wood preservative.
   e. Concrete and Masonry. Seal exposed surfaces.
   f. Metal. Prime and paint exposed metal surfaces that are not fabricated of corrosion resistant material or galvanized.

2. Boardwalk and Stairway Tread - Steel.
   a. Fiberglass Grating. Factory Finish, Color Dark Gray
   b. Wood, Visible Surfaces. Semi-Transparent Oil Stain
   c. Above Ground Non-Galvanized Metal. Primer and Enamel Paint

3. Stairway Tread - Aluminum.
   a. Structural Aluminum. No Finish Required
   b. Stair Tread. No Finish Required
   c. Handrail and Posts. No Finish Required

4. Barrier Rail.
   a. Wood. Semi-Transparent Oil Stain
   b. Metal. Primer and Enamel Paint

5. Removable Barrier Post.
   a. Wood. Semi-Transparent Oil Stain
   b. Metal. Primer and Enamel Paint

6. Trail Sign, Type A.
   a. Wood. Semi-Transparent Oil Stain

650-3.07 BOARDWALK AND STAIRWAY TREAD. Submit shop drawings for approval prior to construction of landings and stairs. Construct in accordance with the Plans and Specifications. A 25 foot wide construction corridor for the length of the boardwalk shall be established outside of the slope remediation area. No equipment, access, or material storage is allowed outside the construction corridor. Any disturbed area outside the construction corridor shall be revegetated and restored to its original appearance at no additional cost to the Department. Ground cover disturbed by boardwalk construction within the construction corridor shall be revegetated to its original condition, or to the satisfaction of the Engineer.

Structural Steel. Steel beams shall be set parallel to adjacent steel beams where the Plans call for straight alignments. Steel beams shall be angled symmetrically between adjacent steel beams where the Plans call for turns on the boardwalk alignment.

Steel members serving as railing support posts shall be set plumb vertically. Top of steel posts shall be constructed to the line and grades shown on the Plans.

Welding type and size shall be as shown in the Plans and in accordance with the standard practices of the American Welding Society D1.1.

Fiberglass Grating. Follow manufacturer's recommendations for installation and safety procedures. Install fiberglass grating panels in full lengths and widths whenever possible. Panel ends shall rest supported securely on top of steel beams. Fasten fiberglass grating panels onto steel beams using saddle type hold-down clips, as recommended by the manufacturer. A minimum of 4 clips per panel, spaced a maximum of 48 inches shall be used. Any cuts made shall be sealed by manufacturer recommended or approved methods.

Lumber. Store all lumber minimum 6 inches above ground on framework or blocking and protected with waterproof covering allowing for adequate air circulation and ventilation. Do not store materials in wet or damp conditions.

Horizontal railing shall be constructed to the line and grades shown on the Plans. Fasten onto steel posts as shown in the Plans. Install top rail plate with the wood's natural curvature facing downward.

650-3.08 ALUMINUM STAIRWAY TREAD. Submit shop drawings for approval prior to construction of landings and stairs. Construct in accordance with the Plans and Specifications. Aluminum welding shall conform to the requirements of the American Welding Society D1.2.

650-3.09 BARRIER RAIL. Construct in accordance with the Plans.

650-3.10 REMOVABLE BARRIER POST. Construct in accordance with Standard Drawing P-5, Barrier Rail, Barrier Post, and Removable Barrier Post. Install signs as shown on the plans. Attach signs with four #12 x 1-3/4 inch round head stainless steel one-way tapping screws, one in each corner. Posts shall be centered in the pathway/alignment.

650-3.11 TRAIL SIGN, TYPE A. Construct in accordance with the Plans. Exact locations will be field determined by the Engineer.

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

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

Barrier Rail will be measured by the linear foot along the centerline of the top rail.

Boardwalk will be measured by the linear foot along the centerline of boardwalk constructed, completed, and accepted.

Steel Stairway is a lump sum item and will not be measured separately for payment. The Engineer's acceptance constitutes method of measurement. All labor, material, and equipment required to construct the steel stairway and the three landings attached to the stairway will be subsidiary to Item 650(12A) Steel Stairway and will not be measured separately for payment.

Aluminum Stairway Tread will be measured for each stair risers constructed, completed, and accepted. All labor, material, and equipment required to construct the stairway and attached landing will be subsidiary to Item 650(12B) Aluminum Stairway Tread and will not be measured separately for payment.

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

ADA Accessible models of a park facility item will be compensated at the same unit price as the standard model.

Payment will be made under:

Pay Item	Pay Unit
650(3) Park Bench	Each
650(12) Boardwalk	Linear Foot
650(12A) Steel Stairway	Lump Sum
650(12B) Aluminum Stairway Tread	Each
650(16) Barrier Rail	Linear Foot
650(20) Removable Barrier Post	Each
650(41A) Trail Sign, Type A	Each

(04/09/04)PARKS-Special Provision

SECTION 704

MASONRY UNIT

704-2.03 CONCRETE MASONRY BLOCK. Replace this Subsection with the following:
Modular Concrete materials shall conform to the following requirements:

- ASTM C 140 - Sampling and Testing Concrete Masonry Units
- ASTM C 1262 - Evaluating the Freeze - Thaw Durability of Manufactured Concrete Masonry Units and Related Concrete Units. The concrete in modular block units shall have adequate freeze/thaw protection and meet the requirements of ASTM C 1262. The maximum absorption rate shall be 6 percent.
- ASTM C 1372 - Standard Specification for Segmental Retaining Wall Units. Modular block units shall have a minimum 28 day compressive strength of 4000 psi

(01/12/05)PARKS-Special Provision

SECTION 724

SEED

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

TABLE 724-1

SEED REQUIREMENTS

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

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

(11/06/02)R52USC-Special Provision

SECTION 726

TOPSOIL

726-2.01 TOPSOIL. Replace item 2 with the following:

2. Contain between 10% and 40% organic matter as determined by loss-on-ignition of oven dried samples according to ATM 203.

Replace the table for grading requirements in item 3 with the following:

TOPSOIL REQUIREMENTS

REQUIREMENT	CLASS A	CLASS B
Sieve Designation	Percent Passing by Weight	
3 in	-	100
1/2 in	100	-
No. 4	95-100	75-100
No.16	64-90	50-95
No. 200	30-60	20-80

* Determined by loss on ignition of oven dried sample in accordance with ALASKA FOP for AASHTO T 267

(06/09/03)R139USC-Special Provision

SECTION 727

SOIL STABILIZATION MATERIAL

727-2.01 MULCH. Replace numbered Item 1 with the following:

1. Virgin/Recycled Wood Fiber, Recycled Paper ("wood cellulose") Mulch, or a Blend of Virgin/Recycled Wood Fiber with Recycled Paper Mulch. Blended mulch may contain up to 50% recycled paper. The mulch shall meet the following requirements:

   a. Contains no growth or germination inhibiting factors.

   b. Will remain in uniform suspension in water under agitation and will blend with grass seed, fertilizer and other additives to form a homogeneous slurry.

   c. Mulch can be applied uniformly on the soil surface.

   d. Will not create a hard crust upon drying and have moisture absorption and retention properties and the ability to hold grass seed in contact with the soil.

   e. Dyed a suitable color to facilitate inspection of its placement.

   Ship the mulch material in packages of uniform weight (plus or minus 5%) and bear the name of the manufacturer and the air-dry weight content.

   Use a commercial tackifier on all areas steeper than 3:1. Use the amount recommended by the manufacturer.

(08/19/99)R206M98-Special Provision

SECTION 729

GEOSYNTHETICS

729-2.05 GEOGRID. Add the following:

Geogrid for Modular Block Walls

Shall meet the following requirements:

Detailed test data including tensile strength (ASTM D 4595 or ASTM D 6637), creep potential (ASTM D 5262), site damage and durability (GRI GG-4) and pullout resistance (ASTM D 6706) and connection strength (ADTM D 6638). Complete testing and documentation required to establish the design value of the long-term allow tensile load (T_a). T_a is defined as follows:

$T_a = T_{ult} / (RF_{CR}*RF_D*RF_{ID}*FS_{unc})$
Ta shall be evaluated based on a 75 year design life.

T_{ult}, Short Term Ultimate Tensile Strength
T_{ult} is based on the minimum average roll values (MARV)

RF_{CR}, Reduction Factor for Long Term Tension Creep
RF_{CR} shall be determined from 10,000 hour creep testing performed according to ASTM D5262. RF_{CR} = 1.60 minimum.

RF_D, Reduction Factor for Durability
RF_D shall be determined from polymer specific durability testing covering the range of expected soil environments. RF_D = 1.10 minimum.

RF_{ID}, Reduction Factor for Installation Damage
RF_{ID} shall be determined from product specific construction damage testing performed in accordance with GRI-GG4. Test results shall be provided for each product to be used with project specific or more severe soil type. RF_{ID} = 1.10 minimum.

FS_{unc}, Factor of Safety for Uncertainties
FS_{unc} shall be 1.5.

In no case shall the product $RF_{CR}*RF_D*RF_{ID}$ be less than 2.0.

The maximum design tensile load of the geogrid shall not exceed the laboratory tested ultimate strength of the geogrid/facing unit connection as limited by the "Hinge Height" divided by a factor of safety of 1.5. The connection strength testing and computation

procedures shall be according to NCMA SRWU-1 Test Method for Determining Connection Strength of SRW.

Geogrid Reinforcement at Obstructions for Modular Block Walls

Structural steel elements and galvanizing shall be as specified in Section 716 Structural Steel.

- ASTM D 4595 - Test Method for Tensile Properties of Geotextiles by the Wide-Width Strip Method.
- ASTM D 5262 - Test Method for Evaluating the Unconfined Creep Behavior of Geosynthetics.
- ASTM D 6637 - Test Method for Determining Tensile Properties of Geogrids by the Single or Multi-Rib Tensile Method.
- ASTM D 6638 - Test Method for Determining Connection Strength Between Geogrid and Segmental Concrete Units.
- ASTM D 6706 - Test Method for Measuring Geosynthetic Pullout Resistance in Soil.
- Geosynthetic Research Institute (GRI)
    - GG1 Standard Test Method for Geogrid Rib Tensile Strength
    - GG2 Standard Test Method for Geogrid Junction Strength
    - GG3 Standard Test Method for Tension Creep Testing of Geogrids
    - GG4 Standard Practice for Determination of the Long Term Design Strength of Geogrids
    - GG5 Standard Practice for Evaluating Geogrid Pullout Behavior

(01/12/05)PARKS-Special Provision