PART 4

SPECIAL PROVISIONS

to the

STATE OF ALASKA

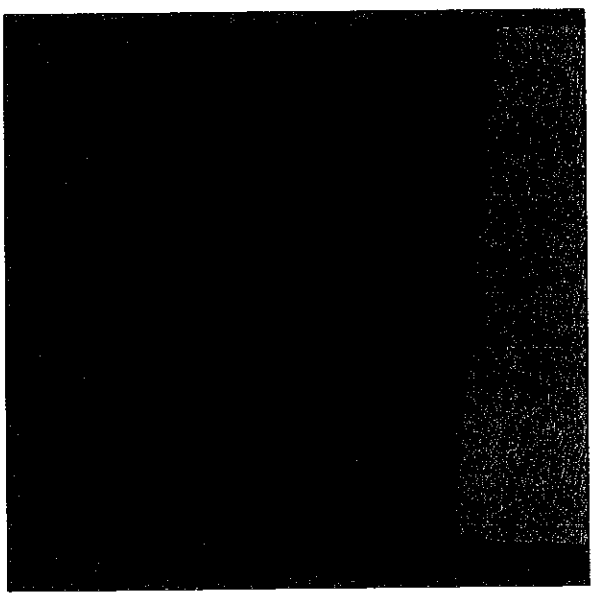
DEPARTMENT OF TRANSPORTATION AND PUBLIC FACILITIES

2002 STANDARD SPECIFICATIONS for HIGHWAY CONSTRUCTION

DENALI VIEW SOUTH

SCENIC OVERLOOK

PROJECT NUMBER TEA-0A4-3(18)/56213



SECTION 101

DEFINITIONS AND TERMS

101-1.03 DEFINITIONS.

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 within the limits of construction.

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

SECTION 102

BIDDING REQUIREMENTS AND CONDITIONS

102-1.04 EXAMINATION OF PLANS, SPECIFICATIONS, SPECIAL PROVISIONS AND SITE OF WORK. Add the following: Material Reports are not available for this project. Soils logs are included in Appendix C for this Project. (01/01/01)PARKS

102-1.10 ADDENDA REQUIREMENTS. Replace this Subsection with the following: Addenda will be issued to the individual or company to whom bidding documents were issued. Addenda may be issued by any reasonable method such as hand delivery, mail, telefacsimile, telegraph, courier, and in special circumstances by phone. Addenda will be issued to the address, telefacsimile number or phone number as stated on the planholder's list unless picked up in person or included with the bid documents. It is the bidder's responsibility to insure that he has received all addenda affecting the Invitation For Bids. No claim or protest will be allowed based on the bidder's allegation that he did not receive all of the addenda for an Invitation For Bids.

All addenda shall be acknowledged on the Proposal or by telegram or telefacsimile prior to the scheduled time of bid opening. If no addenda are received by the bidder, the word "None" should be entered on the Proposal Form.

(10/23/02)R171USC02

SECTION 103

AWARD AND EXECUTION OF CONTRACT

103-1.06 INSURANCE REQUIREMENTS. Replace this with the following: The Contractor shall provide evidence of insurance with an insurance carrier or carriers satisfactory to the Department covering injury to persons and property suffered by the State of Alaska or by a third party as a result of operations under this contract by the Contractor or by any subcontractor. The Contractor's insurance shall provide protection against injuries to all employees of the Contractor and the employees of any subcontractor engaged in work under this Contract. All insurance policies (a) shall comply with AS 21 and (b) shall be issued by insurers that (i) are licensed to transact the business of insurance in the State of Alaska under AS 21 and (ii) have a financial rating acceptable to the Department. The Contractor shall notify the Engineer, in writing, at least 30 days before cancellation of any coverage or reduction in any limits of liability.

Where specific limits and coverages are shown, it is understood that they shall be the minimum acceptable. The requirements of this subsection shall not limit the Contractor's indemnity responsibility under Subsection 107-1.13. Additional insurance requirements specific to this contract are contained in the Special Provisions, when applicable.

The Contractor shall maintain the following policies of insurance with the specified minimum coverages and limits in force at all times during the performance of the Contract:

1. Workers' Compensation: as required by AS 23.30.045, for all employees of the Contractor engaged in work under this Contract. The Contractor shall be responsible for Workers' Compensation Insurance for any subcontractor who performs work under this Contract. The coverage shall include:
   a. Waiver of subrogation against the state and Employer's Liability Protection at $500,000 each accident/$500,000 each disease;
   b. "Other States" endorsement if the Contractor directly utilizes labor outside of the State of Alaska;
   c. United States Longshore and Harbor Workers' Act Endorsement, whenever the work involves activity over or about navigable water; and
   d. Maritime Employer's Liability (Jones Act) Endorsement with a minimum limit of $1,000,000, whenever the work involves activity form or on a vessel on navigable water.

2. Commercial General Liability: on an occurrence policy form covering all operations with combined single limits not less than:
   a. $1,000,000 Each Occurrence;
   b. $1,000,000 Personal Injury;
   c. $2,000,000 General Aggregate; and
   d. $2,000,000 Products-Completed Operations Aggregate.

3. Automobile Liability: covering all vehicles used in Contract work, with combined single limits not less than $1,000,000 each occurrence.

4. Umbrella Coverage: for Contract amounts over $5,000,000 not less than $5,000,000 umbrella or excess liability. Umbrella or excess policy shall include products liability completed operations coverage and may be subject to $5,000,000 aggregate limits. Further, the umbrella or excess policy shall contain a clause stating that it takes effect (drops down) in the event the primary limits are impaired or exhausted.

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

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

The apparent low bidder shall furnish evidence of insurance to the Department before award of the Contract. The evidence shall be issued to the Department and shall be either a certificate of insurance or the policy declaration page with all required endorsements attached and must:
1. Denote the type, amount, and class of operations covered;
2. Show the effective (and retroactive) dates of the policy;
3. Show the expiration date of the policy;
4. Include all required endorsements; and
5. Be executed by the carrier's representative.

When a certificate of insurance is furnished, it shall contain the following statement:
"This is to certify that the policies described herein comply with all aspects of the insurance requirements of (Project Name and Number). The insurance carrier agrees that it shall notify the Engineer, in writing, at least 30 days before cancellation of any coverage or reduction in any limits of liability."

The Department's acceptance of deficient evidence of insurance does not constitute a waiver of Contract requirements.

Failure to maintain the specified insurance or to provide substitute insurance if an insurance carrier becomes insolvent, is placed in receivership, declares bankruptcy, or cancels a policy may be grounds for withholding Contract payments until substitute insurance is obtained, and may, in the Department's discretion, be grounds for declaring the Contractor in default. (05/06/03)R271USC02

SECTION 104

SCOPE OF WORK

104-1.04 RIGHTS IN AND USE OF MATERIALS FOUND ON THE WORK. Replace the second sentence in the first paragraph with the following: Selected material obtained from excavation will be paid for as excavation in accordance with Section 203 Excavation and Embankment. Material paid for as excavation will not be paid for again as selected material. (01/01/01)PARKS

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

105-1.05 COOPERATION BY CONTRACTOR. Add the following paragraph: Since this contract is for work within a State 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. (03/03/01)PARKS

105-1.06 COOPERATION WITH UTILITIES. Add the following: The Contractor shall request locates from all the utilities having facilities in the area. The Contractor shall use the locate Call Center for the following utilities:

Locate Call Center Anchorage Area 278-3121 Statewide 800-478-3121 who will notify the following:
Alaska Fiberstar Alaska Native Hospital AT&T Alascom, Inc. Chugach Electric Association Digline - Boise loan to AK ENSTAR Natural Gas, Inc. GCI Marathon Oil Corporation ACS of the Northland Phillips Petroleum Rogers Cable Systems of AK, Inc. Signature Flight Support SOA-DOT/PF Anchorage M&O TelAlaska, Inc. Tesoro Petroleum Co. Unocal Oil & Gas

The Contractor shall call the following utilities and agencies directly:

DOT/PF Maintenance and Operations 745-2159

There are various utility appurtenances located within the project limits. Utilities scheduled for relocation are addressed in the following utility specific sections. Cooperate with these utilities and coordinate schedule of work to allow them access to the project for their adjustments and/or relocation.

Work around those utilities not designated for relocation in the Plans and the following utility specific coordination. The Contractor shall bear the expense for any changes or additional relocation requested for Contractor convenience.

Work around all utility facilities, either existing or relocated, throughout the project unless advised by the utility that the facility is abandoned in place.

The Contractor shall bear the responsibility for any changes in contract scheduling that result in the conditions in this specification not being met. Additional coordination with the applicable utility will be required.

Schedule and coordinate the utility relocations with project construction as set forth in Section 108-1.03, Prosecution and Progress.

Right of Way and/or Construction surveying is required prior to 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 Contractor's 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.

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

Relocation or adjustment of underground utility appurtenances will not normally be performed when the ground is frozen. In addition, the utility companies may prohibit the

Contractor, through the Engineer, from working near the utility's facilities when the ground is frozen.

Specific coordination requirements for the specific utilities are included below:

There are no known utilities within the vicinity of this Project.

(05/31/01)R3M98

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

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

Add the following: Any appeal to the superior court under AS 36.30.685 must be filed in the third judicial district.
(3/21/01)R93

Add the following Subsection:

105-1.18 CONSTRUCTION LIMITATIONS. It is the intent of this contract to construct these park facilities without entering park land outside clearing limits. Equipment, materials, and manpower shall not be allowed outside clearing limits without prior approval of Engineer. Excavation of any kind shall only be stored within clearing 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 clearing limits. (01/01/01)PARKS

SECTION 106

CONTROL OF MATERIAL

106-1.01 SOURCE OF SUPPLY AND QUALITY REQUIREMENTS. 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, 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

106-1.02 LOCAL MATERIAL SOURCES. Add the following under Item 2. Inspection and Acceptance.: In compliance with 30CFR46.11, have the Operator of your sand and gravel surface mine (materials source) provide *Site-specific Hazard Awareness Training* for all the Engineer's personnel (non-miners) prior to their beginning any operations in your surface mine. Offer the training at each surface mine that you will be using to supply processed aggregates. A competent person must provide the training in accordance with the Operator's written training plan as approved by the *Mine Safety and Health Administration*, and covering the following items:

a. Site specific health and safety risks.
b. Recognition and avoidance of hazards.
c. Restricted areas.
d. Warning and evacuation signals.
e. Other special safety procedures.
f. Site tour.

Upon completion of this training, the Engineer's personnel will sign a Visitor's Log Book to indicate that training was provided.

(05/01/02)R262M98

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 resampling 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

Add the following to item 4. Other Sources under State Control The demonstrated benefit due the Department shall include but not be limited to monetary compensation. The State will be compensated at the rate of at least $0.50 per cubic yard for the quantity of material that is obtained from Other Sources under State Control and incorporated into the work. This compensation will be through royalties, reduction of contract amount by change order, or both. When there are no royalty charges or when royalty charges are less than $0.50 per cubic yard, the contract amount will be reduced by change order to bring the total compensation to the State to $0.50 per cubic yard. When royalty charges equal or exceed $0.50 per cubic yard, the total compensation to the State will be the royalty charges. Submit a letter of agreement for compliance with stipulations listed in the material source permit as procured by the Contractor for the specific site. Methods of operation and reclamation will be included in this document.

The Contractor shall also submit a letter further explaining the demonstrated benefit to the Department with the Contractor's use of the State controlled material source. Additional benefits could include traffic safety and time savings to the traveling public due to reduced haul distances. (6/17/97)PARKS

106-1.03 TESTING AND ACCEPTANCE. Add the following: When the specifications refer to the following test methods, use the corresponding 'New Test Method' shown below. ATM = Alaska Test Method. AASHTO = American Association of State Highway and Transportation Officials. FOP = Field Operating Procedure. WAQTC = Western Alliance for Quality in Transportation Construction.

Test Method	New Test Method
ATM T-1	Alaska FOP for AASHTO T 87/T 88
ATM T-3	Alaska FOP for AASHTO T 205
ATM T-4	WAQTC TM 1
ATM T-5	WAQTC FOP for AASHTO T 255/T 265
ATM T-6	Alaska FOP for AASHTO T 267
ATM T-7	WAQTC FOP for AASHTO T 27/T 11
ATM T-8	WAQTC FOP for AASHTO T 152
ATM T-11	WAQTC TM 7 and WAQTC FOP for AASHTO T 224
ATM T-18	WAQTC FOP for AASHTO T 166/T 275
ATM T-22	WAQTC TM 8
ATM T-23	WAQTC TM 4
ATM T-25	WAQTC TM 6
AASHTO T 2	WAQTC FOP for AASHTO T 2
AASHTO T 23	WAQTC FOP for AASHTO T 23
AASHTO T 27/T 11	WAQTC FOP for AASHTO T 27/T 11
AASHTO T 30	WAQTC FOP for AASHTO T 30
AASHTO T 40	WAQTC FOP for AASHTO T 40
AASHTO TP 53/T 308	WAQTC FOP for AASHTO TP 53

AASHTO T 85 ..... WAQTC FOP for AASHTO T 85
AASHTO T 87/T 88 ..... WAQTC FOP for AASHTO T 87/T 88
AASHTO T 89 ..... WAQTC FOP for AASHTO T 89
AASHTO T 90 ..... WAQTC FOP for AASHTO T 90
AASHTO T 99/T 180 ... WAQTC FOP for AASHTO T 99/T 180
AASHTO T 119 ..... WAQTC FOP for AASHTO T 119
AASHTO T 121 ..... WAQTC FOP for AASHTO T 121
AASHTO T 152 ..... WAQTC FOP for AASHTO T 152
AASHTO T 164 ..... WAQTC FOP for AASHTO T 164
AASHTO T 166/T 275 . WAQTC FOP for AASHTO T 166/T 275
AASHTO T 168 ..... WAQTC FOP for AASHTO T 168
AASHTO T 176 ..... WAQTC FOP for AASHTO T 176
AASHTO T 182 ..... Alaska FOP for AASHTO T 182
AASHTO T 205 ..... Alaska FOP for AASHTO T 205
AASHTO T 209 ..... WAQTC FOP for AASHTO T 209
AASHTO T 224 ..... WAQTC FOP for AASHTO T 224
AASHTO T 248 ..... WAQTC FOP for AASHTO T 248
AASHTO T 255/T 265 . WAQTC FOP for AASHTO T 255/ T 265
AASHTO T 267 ..... Alaska FOP for AASHTO T 267

(07/26/01)S 87

106-1.06 STORAGE OF MATERIALS. Add the following: Storage of any materials or equipment at the jobsite will be restricted to within the project limits and then only when approved by the Engineer. There shall be no disturbance allowed to land outside the project slope limits. (8/20/93)PARKS

106-1.07 DEPARTMENT-FURNISHED MATERIAL. Add the following: It will be the Contractor's responsibility for loading, under the direction of Parks personnel, hauling to the construction site and off-loading of all Department furnished materials. (8/20/93)PARKS

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 on your behalf:

1. Department of Environmental Conservation Conditional Approval to Construct a Class B Public Water System and Community Wastewater Disposal System (Vaulted Toilets) dated April 17, 2003, found in Appendix A.

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

107-1.07 ARCHAEOLOGICAL OR HISTORICAL DISCOVERIES. Replace the first sentence with following: When your operation encounters historic or prehistoric artifacts, burials, remains of dwelling sites, paleontological remains, such as shell heaps, land or sea mammal bones or tusks, or other items of historical significance, cease operations immediately and notify the Engineer.

107-1.11 PROTECTION AND RESTORATION OF PROPERTY AND LANDSCAPE. Add the following: If 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) 269-8624. (05/29/02)R7M98

Construction equipment will not be allowed on park land outside the clearing limits of the proposed roads, toilets, and structures without the approval of the Engineer and any structures or camps required by the Contractor shall be established outside the park 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.

Add the following:

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

Extremely noisy activities such as road construction or other activities that occur within the Secondary Zone shall be conducted outside the nesting period to avoid disturbance to eagles. If activities occur in proximity to a nest site, employ an individual qualified to observe and assess the impact of such activities on nesting eagles. For those unfamiliar with eagle behavior, such behavior includes alarm calls, flushing birds from the nest or perch, and aggressive behavior by the birds.

There are no known eagle nests within the project limits. If nest trees are discovered within the vicinity of the project site, the U.S. Fish and Wildlife Service must be notified immediately by calling (907) 786-3309, prior to any construction activities, for further site evaluation. This is an advisory. You need to do whatever it takes to keep from disturbing a nesting eagle.

(12/9/02)R51USC

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. (8/16/99)PARKS

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

107-1.16 CONTRACTOR'S RESPONSIBILITY FOR UTILITY PROPERTY AND SERVICE. Add the following after the last paragraph: When construction activities meet any of the following conditions, advise the appropriate owning Utility(s) in writing at least 24 hours in advance of work.

1. Operations anticipated being within 10 feet of an overhead electrical line.

2. Operations anticipated to be within 3 feet of an underground electrical line according to locates provided by the owning Utility.

3. Operations requiring use of equipment that is capable of coming within 10 feet of an overhead electrical line.

The notice shall indicate the location and duration of the work.

Provide an attendant whose sole responsibility is to perform as a safety observer while equipment is operating such that any part is capable of reaching within 15 feet of an overhead line.

Providing a safety observer for overhead electrical facilities, or a cable watch for buried electrical facilities, will be subsidiary to the item(s) of work being performed requiring these services. (10/23/02)R170USC02

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.

In addition to the reports required in the above references, the Contractor shall submit a copy of Form CC-257 to the Department by the 15th of each month of the current construction season, reflecting the composition of the previous month's workforce. This information must also be made available, upon request, to the US Department of Labor, OFCCP.

(08/13/98)S80

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. (6/30/98)PARKS

Notice to Proceed will not be issued prior to July 1, 2003.

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

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

108-1.06 DETERMINATION AND EXTENSION OF CONTRACT TIME. Replace the 3rd paragraph under item 2 "Suspension and Extension of Contract Time," with the following:

Contract time shall continue through the suspension of work in the following conditions:

- those instances where the Engineer orders suspension of the work for unsafe conditions,

- for failure by the Contractor to carry out contractual provisions, or
- for failure to carry out orders given by the Engineer within the limits of his contractual authority.

In the instance where the Engineer suspends a controlling item of work due to adverse weather conditions for one or more calendar days, the number of days included in the suspension period shall extend the completion date.

(10/23/02)R242USC02

108-1.06 DETERMINATION AND EXTENSION OF CONTRACT TIME.

1. Calendar Days. Replace the last sentence in the second paragraph with the following: Calendar days, however, shall not be counted during winter shutdown, the period of November 1 to April 30, unless the Contractor is working on the project. The Contractor must obtain written approval from the Engineer to continue working on the project during winter shutdown.

2. Completion Date. Add the following: The Contractor shall not work during winter shutdown, the period of November 1 to April 30, without written approval from the Engineer. If the Contractor works during winter shutdown, the contract time will be reduced one day for each day worked during the proposed winter shutdown.

(6/04/97)PARKS

SECTION 109

MEASUREMENT AND PAYMENT

109-1.02 MEASUREMENT OF QUANTITIES. After the tenth paragraph, add the following: At any time and at any frequency during the hauling operation, the Engineer or his representative may measure and recompute the volume of material being hauled by each or any vehicle being utilized for this purpose. When the nature of the material being hauled is such that it does not flow freely out of the hauling vehicle when dumped, the Contractor shall insure that whatever method is necessary to remove the material from the hauling vehicle shall be utilized. The Contractor shall be given only partial or no payment for hauling such loads until the vehicle is fully emptied at the point of delivery. It shall be the Contractor's responsibility to insure that the Engineer or his representative records each load delivered. No payment shall be made to the Contractor for loads delivered and unsubstantiated by the Engineer's record.

Add the following: 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 and operator begins work at the specified location as directed by the Engineer. The measurement will cease when the required work is accomplished, when the equipment fails, when directed to stop work by the Engineer, or when the operator stops work. Times will be reconciled with the Contractor on a daily basis.
(8/20/93)PARKS

109-1.03 SCOPE OF PAYMENT. Add the following: Pay for items by the hour shall be full payment for the work described in the contract including labor, equipment, and operating costs of the equipment.
(8/20/93)PARKS

109-1.05 COMPENSATION FOR EXTRA WORK. Replace the first sentence of the second paragraph of sub-item a. of item 3 with the following: The regular hourly rental rate is the adjusted monthly rate for the basic equipment plus the adjusted monthly rate for applicable attachments, both divided by 176, and multiplied by the area adjustment factor specified on the adjustment maps for the Alaska - South Region.
(10/23/02)R14USC02

109-1.06 PROGRESS PAYMENTS. Add the following: Failure to submit schedules in accordance with Subsection 108-1.03, Prosecution and Progress, will result in withholding an amount equal to 5 percent of the total amount earned from all subsequent progress payments. The Engineer, upon receipt of current schedules from the Contractor, will release this amount. (09/05/01)R137

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

109-1.07 PAYMENT FOR MATERIALS ON HAND. Add the following: The location of stockpiled materials for payment in acceptable storage facilities off the project will be in Alaska, at a location acceptable to the Engineer. (9/1/89)R16

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

SECTION 201

CLEARING AND GRUBBING

201-2.01 GENERAL. Add the following: Timber 5 inches in diameter or larger at breast height shall be cut into 8-foot lengths, de-limbed, and stacked at locations within the project limits for park use. These locations shall be at a site approved by the Engineer. The Department will notify the public of the availability of the timber once it has been stacked.

The Contractor shall perform all work necessary to preserve and/or restore land monuments and property corners from damage. Any land monument or property corner that is disturbed shall be restored in accordance with Sections 642 at the Contractor's expense. An undisturbed area 5 feet in diameter may be left around existing monuments. and property corners. Monuments will be identified by the Engineer.

201-2.02 CLEARING. Add the following: Remove branches to provide 12 feet vertical clearance above road surface, shoulder to shoulder. Remove branches to provide 8 feet vertical clearance above sidewalk, deck, trail and pathway surfaces. Maintain an aesthetically pleasing appearance along the cleared areas.

201-2.04 HAND CLEARING. Replace with the following: Hand clear area designated in the Plans. Cut and dispose of trees and shrubbery as directed by the Engineer. Cut trees and shrubbery flush with the ground or as directed by the Engineer.

Maintain minimal disturbance to grass and/or moss cover. Do not use equipment on wheels or tracks in areas designated as hand clearing.

201-2.06 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 2 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.

201-4.01 METHOD OF MEASUREMENT. Replace Item 1 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 so staked.

(01/27/03)R270USC02

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

201-5.01 BASIS OF PAYMENT. Add the following: All work required to cut, de-limb and stack timber for public removal and to preserve and restore land monuments and property corners will be subsidiary to Item 201(3A) Clearing and Grubbing.

(2/26/97)R107M

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 limited to, the removal and relocation of 1 interpretive kiosk (pictures provided in Appendix E), and 31 barrier rocks; the removal of approximately 200 linear feet of guardrail, 1 vaulted toilet structure, 3 highway sign posts w/ signs, 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.

Materials which are designated to be salvaged and remain the property of the Division of Parks and Outdoor Recreation are the barrier rocks, interpretive kiosk, park entrance sign, and hardware inside the vaulted toilet. By arrangement with the Engineer, deliver salvaged vaulted toilet with tank and other salvaged materials to State Parks Maintenance Facility located at MP 144 of the Parks Highway, except for the interpretive kiosk and barrier rocks. The interpretive kiosk shall be relocated as shown in the Plans. Barrier rocks that meet the requirements of Item 650(21), Barrier Rock shall be used for that item.

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.

Add the following Subsection:

202-3.06 REMOVAL OF TOILET. Work shall consist of pumping out toilet vault or pit and removing the building structure, toilet vault, concrete pad, and all debris associated with the toilet. The hole vacated by the vault or pit shall be treated with 100 pounds of lime and backfilled with compacted Selected Material, Type A. The top 6 inches of backfill shall be similar to surrounding materials. (01/01/01)PARKS

202-4.01 METHOD OF MEASUREMENT. Add the following: Backfill and lime for removal of toilet will be considered subsidiary to Item 202(1), Removal of Structures and Obstructions. (8/30/94)PARKS

202-5.01 BASIS OF PAYMENT. Add the following:

Backfill and lime for removal of toilet will not be paid for separately but shall be considered subsidiary to Item 202(1), Removal of Structures and Obstructions.

SECTION 203

EXCAVATION AND EMBANKMENT

203-3.01 GENERAL. On page 59, replace the first sentence of the tenth paragraph with the following: Borrow material shall not be used until after all usable excavation has been placed in the fill. Placing and compacting selected material acquired from usable excavation is included in the scope of work of the excavation item. The design estimates show that less than 5% of the unclassified excavation will be suitable for use as Selected Material, Type A. (9/2/96)PARKS

Add the following to the last paragraph: Prior to obliterating the existing roadway, remove the existing pavement and dispose in accordance with Subsection 202-3.05, Removal of Pavement, Sidewalks and Curbs. (11/05/02)R177USC02

203-3.03 EMBANKMENT CONSTRUCTION. On page 61, replace the first sentence of the tenth paragraph with the following: Place roadway embankment of earth materials in horizontal layers not exceeding 8 inches in thickness measured before compaction. Each layer of classified material shall have its joint offset from the joint below, longitudinally by 1 foot and transversely by 10 feet.

Add the following: Where the Plans call for placement of selected material and excavation is required, the existing material may be left in place at the Engineer's discretion if tests determine that it will meet the appropriate selected material requirements. Any reduction in excavation or Borrow quantities as a result of this condition shall not constitute a basis for adjustment in contract unit prices except as provided for in Section 104 Scope of Work.

The surface of Selected Material, Type D, shall be compacted by coverage of the Contractor's placement equipment to provide a smooth and firm slope. The surface of Selected Material, Type D shall be free of surface irregularities, rutting, slope breaks or unconsolidated material. (11/05/02)R23USC02

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

203-3.04 COMPACTION WITH MOISTURE AND DENSITY CONTROL. Replace this Subsection in its entirety with the following: Construct embankments with moisture and density control from specified materials placed and compacted at approximately their optimum moisture content. Dry or moisten material as required.

Compact embankment material to not less than 95% of the maximum dry density as determined by WAQTC FOP FOR AASHTO T 99/T 180/WAQTC TM 9, or ATM T-12. The Engineer will determine in-place field densities using WAQTC TM 7 and WAQTC FOP for AASHTO T 224.

The Engineer will determine the maximum dry density of free-draining, non-plastic, cohesionless materials with less than 10% by weight passing the No. 200 sieve using ATM T-12. (For some materials it may be necessary to perform both ATM T-12 and WAQTC FOP for AASHTO T 99/T 180/WAQTC TM 9, in which case the highest maximum dry density is used.) For materials with greater than 80% by weight passing the No. 4 sieve, WAQTC FOP for AASHTO T 99/T 180/WAQTC TM 9, Method A with the plus No. 4 material removed and treated as oversize will be used. WAQTC FOP for AASHTO T 99/T 180/WAQTC TM 9, Method D will be used for materials with greater than 60% by weight passing the 3/4 inch sieve with the plus 3/4 inch material removed and treated as oversize.

WAQTC FOP for AASHTO T 99/T 180/WAQTC TM 9 will be performed in accordance with Note 7 (the 12 hour stand time may be waived if the sample has not been dried to less than four percentage points below the optimum moisture content) and modified so that the moisture content of each trial is determined from the complete specimen and reported to the nearest 0.1%. Section 13 is modified to include: 13.1.6 Bulk Specific Gravity of the oversize material; 13.1.7 Apparent Specific Gravity of the tested material minus the oversize; and 13.1.8 Zero Air Voids Curve calculated and plotted in accordance with ASTM D 1557, Sections 11.2 and 11.5.

(11/05/02)R193USC02

If the Engineer rejects compaction of a lift, the Contractor may recompact the lift to substantial compaction as determined by the Engineer or have compaction testing performed by a certified, Engineer-approved laboratory. If the tests show the compaction is not adequate, the Contractor will pay the total cost of the testing and recompact the lift as required. If the compaction is adequate, the Department will pay the Contractor for the total invoice cost of the compaction testing by Change Order and the Contractor may proceed with the next lift. Work stoppage for compaction testing will not be grounds for extra compensation or claims by the Contractor. All testing is the responsibility of the Contractor and except as noted above, payment will not be made for the required testing but will be considered subsidiary to the item furnished. (5/15/95)PARKS

Add the following Subsection:

203-3.05 MOUND CONSTRUCTION. Mound size and shape will be field located by Engineer. Mound slopes shall be smooth and shapes irregular, with no slopes steeper than 2:1. (1/10/97)PARKS

203-4.01 METHOD OF MEASUREMENT. Add the following: Mound construction will not be measured directly for payment but will be considered subsidiary to other Section 203 items. (1/31/94)PARKS

203-5.01 BASIS OF PAYMENT. Add the following:

Pay Item	Pay Unit
203(5A) Borrow, Type A	Cubic Yard

The contract unit price for borrow is for furnishing the material if suitable selected material is not available in the unclassified excavation. The cost for placing and compacting the imported material is included in the contract unit price. The cost for placing and compacting selected material acquired from unclassified excavation shall be included in the contract unit price for the excavation items. Material paid for as excavation will not be paid for again as selected material.

SECTION 204

STRUCTURE EXCAVATION FOR CONDUITS AND MINOR STRUCTURES

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

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

(01/01/01)PARKS

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 Item 203(5A) Borrow, Type A.

(7/24/95)R154USC

SECTION 301

AGGREGATE BASE COURSE

301-2.01 MATERIALS. Add the following after the first sentence: 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

Add the following after the first sentence: At the Contractor's option, recycled asphalt material (RAM) may be substituted for aggregate base course, inch for inch, if the following conditions are met:

1. RAM shall be crushed or processed to 100 percent by weight passing the 1.5 inch sieve and 95-100 percent by weight passing the 1 inch sieve.

2. The gradation of the extracted aggregate shall meet the following:

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

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

(11/05/02)R176USC02

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. (9/1/89)R26

301-3.03 SHAPING AND COMPACTION. Delete ",Method D" in the third sentence of the first paragraph. (6/20/95)PARKS

Add the following: If recycled asphalt material is substituted for aggregate base course, the following conditions shall be met:

1. Density acceptance will be based upon a roller pattern. The roller pattern shall be determined by a test strip using a vibratory compactor with a minimum dynamic force of 40,000 pounds. The optimum density will be determined by the Engineer using a nuclear densometer gauge to monitor the test strip. Adequate water shall be added to aid compaction.

2. After the appropriate coverage with the vibratory compactor, a minimum of 6 passes with a pneumatic tire roller shall be completed. Tires shall be inflated to 80 psi (± 5 psi), and the roller shall have a minimum operating weight per tire of 3,000 pounds. (2/28/01)R176USC

Add the following to the first paragraph: If the Engineer rejects compaction of a lift, the Contractor may recompact the lift to substantial compaction as determined by the Engineer or have compaction testing performed by a certified, Engineer-approved laboratory. If the tests show the compaction is not adequate, the Contractor will pay the total cost of the testing and recompact the lift as required. If the compaction is adequate, the Department will pay the Contractor for the total invoice cost of the compaction testing by Change Order and the Contractor may proceed with the next lift. Work stoppage for compaction testing will not be grounds for extra compensation or claims by the Contractor. All testing is the responsibility of the Contractor except as noted above. Payment will not be made for the required testing but will be considered subsidiary to the item furnished. (5/15/95)PARKS

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

(2/28/01)R176USC

SECTION 401

ASPHALT CONCRETE PAVEMENT

401-2.01 COMPOSITION OF MIXTURE - JOB MIX DESIGN. Add the following to the first paragraph after ATM T-17: (Version 01/93)

Add the following to the fourth paragraph: Tolerances will not be applied to the largest sieve specified.

401-2.03 ASPHALT MATERIALS. Change the last sentence of the first paragraph to read: When not specified, the grade of the asphalt cement shall be PG 52-28.

Replace the second paragraph with the following: Each batch of asphalt cement shall be tested for conformance to specifications in Section 702 prior to shipping. Storage tanks used for the batch shall be noted on the test report. Anti-strip additives required by the mix design shall be added to the asphalt cement during load out for delivery to the project. A printed weight ticket of antistrip shall be included with the asphalt cement delivery ticket. The location where antistrip is added may be changed with the approval of the Engineer.

Shipping documents shall include the following:

1. Manufacturers certificate of compliance, Subsection 106-1.05
2. Conformance test results of the batch, Section 702.
3. Manufacturer shall also certify:

    a. Date and Time of loading
    b. Batch number and storage tank
    c. Type, grade, temperature, and quantity of materials loaded
    d. Type and percent of anti-strip added.

401-3.09 PREPARATION OF AGGREGATES. In the first paragraph, replace AASHTO T-110 with the following: WAQTC TM 6.

401-3.14 JOINTS. Replace the first paragraph with the following: Construct the minimum number of joints to ensure a continuous bond, texture, and smoothness between adjacent sections of the pavement. The minimum specification limit for longitudinal joint density will be 91% of the MSG of the panel completing the joint. Cut one 6 inch diameter core centered on the longitudinal joint at each location the mat is cored for acceptance density testing in the panel completing the joint. Density will be determined in accordance with WAQTC FOP for AASHTO T 166/T 275.

Delete the last paragraph.

401-3.16 PATCHING DEFECTIVE AREAS. Add the following: All costs associated with the patching of defective areas shall be borne by the Contractor.

401-4.01 METHOD OF MEASUREMENT. Under Asphalt Cement, 1., add to the end of the second sentence: "... ,or WAQTC FOP for AASHTO TP 53."

Add the following paragraph to this Subsection: Longitudinal joints. By the meter. The distance measured will be in both directions from a longitudinal joint core location to a point equal distant to the next longitudinal joint core.

401-4.02 ACCEPTANCE SAMPLING AND TESTING. Replace the first sentence of the fifth paragraph with the following: If the contract quantity is between 2,000 tons and 4,999 tons, the contract quantity will be considered 1 lot.

Replace the sixth paragraph with the following: If the contract quantity is less than 2,000 tons, asphalt concrete pavement will be accepted for payment based on the Engineer's approval of a Job Mix Design and the placement and compaction of the asphalt concrete pavement to the specified depth and finished surface requirements and tolerances.

Replace the seventh, eighth, ninth, and tenth paragraphs of the Subsection with the following:

Samples taken for the determination of asphalt cement content will be taken from the windrow, at the end of the auger, or from behind the screed prior to compaction. Asphalt cement content will be determined in accordance with WAQTC TM 4, or WAQTC FOP for AASHTO TP 53 with the exception that the moisture content will be determined in accordance with WAQTC TM 6.

Samples taken for the determination of aggregate gradation from drum mix plants will be from the combined aggregate cold feed conveyor via a sampling device, the stopped conveyor belt, or from asphalt concrete mixture samples taken from the same location as samples for the determination of asphalt cement content. The aggregate gradation for samples from the conveyor system will be determined in accordance with WAQTC FOP for AASHTO T 27/T 11. For asphalt concrete mixture samples, or cores, the gradation will be determined in accordance with WAQTC FOP for AASHTO T 30 from the aggregate remaining after the ignition oven (WAQTC FOP for AASHTO TP 53) has burned off the asphalt cement.

Maintain cold-feed conveyor sampling devices diverting aggregate from the full width of the conveyor system to provide a representative sample of the aggregate incorporated into the asphalt concrete mixture.

Samples taken for the determination of aggregate gradation from batch plants will be from the same location as samples for the determination of asphalt cement content, or from dry batched aggregates. The dry batched aggregate gradation will be determined in accordance with WAQTC FOP for AASHTO T 27/T 11. For asphalt concrete mixture samples, the gradation will be determined in accordance with WAQTC FOP for AASHTO T 30 from aggregate remaining after the ignition oven (WAQTC FOP for AASHTO TP 53) has burned off the asphalt cement.

Within 24 hours of final rolling, neatly cut core samples with a core drill at the randomly selected locations marked by the Engineer. Use a core extractor to prevent damage to the core while removing. Do not cut core samples from bridge decks. One 6 inch diameter core is required for acceptance density testing only. Acceptance density testing will be in accordance with WAQTC FOP for AASHTO T 166/T 275.

Failure to cut core samples for acceptance testing within the specified period will result in a deduction of $100.00 per sample per day. The accrued amount will be subtracted under Item 401(6), Asphalt Price Adjustment.

Backfill and compact all voids left by sampling with new asphalt concrete mixture within 24 hours of sampling. Failure to backfill voids left by sampling in the specified period will result in a deduction of $100.00 per hole per day. The accrued amount will be subtracted under Item 401(6), Asphalt Price Adjustment.

401-4.03 EVALUATION OF MATERIALS FOR ACCEPTANCE. Add the following: The longitudinal joint density price adjustment will apply when Asphalt Concrete Pavement quantities are equal to or greater than 1,000 tons.

Add the following under item 3.: The tolerances for the largest sieve specified will be plus 0 percent and minus 1 percent.

401-5.01 BASIS OF PAYMENT. Add the following to the first paragraph: No payment shall be made for asphalt cement, and asphalt concrete mix made with this cement, if tests of the asphalt cement sampled during production are out of specification.

Add the following: Longitudinal joint densities less than 91 percent of MSG, as defined is Subsection 401-3.14, will be measured in accordance with Subsection 401-4.01 and assessed a price adjustment of $1.00 per yard. The accrued amount will be subtracted under Item 401(6), Asphalt Price Adjustment.

(10/24/02)R199USC

Payment will be made under: Add the following:

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

SECTION 501

STRUCTURAL CONCRETE

501-1.01 DESCRIPTION. Add the following: This work shall also consist of construction of cast-in-place concrete stub walls as shown on the Plans.

Excavation and backfill required for the retaining walls shall be in accordance with Section 205. Excavation and backfill required for cast-in-place concrete stub walls shall be in accordance with Section 204.

501-1.02 CLASSIFICATION.

Add the following: Concrete for sign foundations, park facilities, wastewater disposal systems, water wells and vaulted toilets shall conform to the following:

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 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, stub walls, 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 2-4 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

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. (1/27/97)PARKS

501-3.01 PROPORTIONING. Under 1. Contractor Mix Design., replace the first sentence of the second paragraph with the following: Submit a mix design developed in accordance with ACI 211 and ACI 301, Section 4 to the Engineer for approval. (11/05/02)R37USC02

501-3.07 FORMS. Replace with the following: Use forms and falsework designed and constructed according to Section 512. Use wood form board on the frontside of the exposed faces of stub wall. Wood form board is composed of runs of vertical lumber. Each run contains one board. Approximate mixture of form board sizes shall be as follows:

Rough Board Size	Mixture By Length
1/2 inch X 4 inch	20%
1/2 inch X 6 inch	13%
3/4 inch X 4 inch	20%
3/4 inch X 6 inch	13%
1 inch X 4 inch	20%
1 inch X 6 inch	14%

Expansion joint material shall be placed beneath the wood form boards to allow for the expansion of the wood material. The wood forms shall remain in place and undisturbed for 72 hours after the concrete pour.

501-3.12 BACKFILLING AND OPENING TO TRAFFIC. Add the following: After stripping the forms, the back of stub walls to be backfilled shall be mopped with hot liquid asphalt, and after drying, geotextile drain shall be placed against the wall.

Place perforated pipe and geotextile behind wall to drain. Place daylight pipe at the end of each length of wall to filter water away from stub wall without causing erosion.

501-3.14 TRUCK CLEANUP. The Contractor will arrange with the Engineer for an area to be used for concrete delivery truck cleanup.

501-4.01 METHOD OF MEASUREMENT. Add the following: Stub Wall will be measured by the linear foot along the top of the stub wall, completed and accepted. Termination and transitional concrete posts, brackets and hardware for interpretive

display, rebar, PVC and perforated pipe, and other incidentals will not be measured separately, but instead shall be considered subsidiary to Item 501(15B), Stub Wall.

Excavation and Backfill will be measured and paid for in accordance with Section 203.

501-5.01 BASIS OF PAYMENT. Add the following: Payment for Item 501(15B), Stub Wall, will be full compensation for all labor, equipment and materials required for construction of the stub wall and concrete posts, complete and accepted in place. Temporary shoring, PVC and perforated pipe, interpretive display brackets, and reinforcing steel required for stub wall and concrete posts will not be paid for separately, but will be subsidiary to Item 501(15B), Stub Wall.

Payment will be made under:

Pay Item	Pay Unit
501(15B) Stub Wall	Linear Foot

(1/01/01)PARKS

SECTION 503

REINFORCING STEEL

503-1.01 DESCRIPTION. Add the following: This work will also include the epoxy coating of appropriate reinforcing steel bars. All reinforcing steel in the exposed vertical face of a stub wall facing the roadway, and as noted on the Plans shall be epoxy coated.

503-5.01 BASIS OF PAYMENT. Add the following: If epoxy coating the reinforcing steel is required, it will be a subsidiary obligation and no separate payment will be made.

(2/8/96)R38

Replace Section 506 with the following:

SECTION 506

TIMBER STRUCTURES

506-1.01 DESCRIPTION. The work under this Section includes providing all labor, materials, tools, and equipment necessary to construct minimum 30-inch high timber retaining wall.

MATERIALS

506-2.01 GENERAL. Materials shall be new and conform to the details shown on the Plans or as specified.

506-2.02 GALVANIZING. Galvanizing shall conform to AASHTO M 111 (ASTM A 123) or AASHTO M 232 (ASTM A 153).

506-2.03 BACKFILL. Fill material shall be Selected Material, Type A conforming to Subsection 703-2.07.

506-2.04 FASTENERS. Nails, bolts, nuts, washers, and spikes shall be hot-dipped galvanized, unless otherwise specified.

506-2.05 TREATED TIMBER. 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. 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.

506-2.06 TREATED PLYWOOD SPACER. 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.

506-2.07 END CUT PRESERVATIVE. Brown preservative with active ingredient of minimum 16 percent copper naphthenate (equivalent to minimum 2 percent metallic copper). Color to match preservative pressure treatment color.

506-2.08 GEOTEXTILE. Geotextile for timber retaining wall shall conform to the requirements of Section 729.

CONSTRUCTION REQUIREMENTS

506-3.01 GENERAL. Close-stack treated timber above the ground on blocks or lagging. Clear weeds and rubbish underneath and around all stacks.

Locate all non-removable erection marks on fabricated timber so they are hidden from view in the completed work.

Do not drag or drop timber members. Use web-belting slings and chokers to handle timber members. Protect corners with protection angles or blocking at pickup points. Use of damaged timber shall not be allowed. Treated timber shall be handled carefully without breaking the outer fibers, or bruising or penetrating the surface with tools.

506-3.02 SITE WORK. Excavation and backfill shall conform to the requirements of Section 204 and the details on the Plans.

506-3.03 ROUGH CARPENTRY. Competent carpenters shall be employed and all framing shall be true and exact.

Unless otherwise specified, nails shall be driven with just sufficient force to set the heads flush with the surface of the wood.

Holes for spikes shall be bored before driving with a bit 1/16-inch larger than the diameter of the spike in the top member of the two timbers to be spiked.

506-3.04 TIMBERS. Timbers shall be 5 feet minimum. Joints of successive course will be offset horizontally a minimum of 12 inches.

At horizontal angle points, joints of every other course will be aligned vertically and end section of timbers protruding more than 1/2 inch will be trimmed flush to adjacent timbers.

506-3.05 SPACER. Install spacer with on-site treated edge facing towards the trail. Use 16d nails for securing plywood spacers.

506-3.06 GEOTEXTILE. Geotextile shall be placed in a manner that a minimum of wrinkles occur in the material parallel to the face of the structure. Wrinkled material along the face of the plywood spacer will be stretched along the face in order to eliminate the wrinkles.

Fabric may be neatly folded to accommodate curvatures on the retaining wall alignment.

506-3.07 END CUT PRESERVATIVE. Saw cuts, minor field repairs and drilled holes shall be treated with the specified end cut preservative as per manufacturer's recommendations.

506-4.01 METHOD OF MEASUREMENT. Timber retaining wall shall be measured by the square foot of vertical wall face above the finish trail surface. No deductions will be made for spacers.

Geotextile will not be measured separately for payment, but shall be considered subsidiary to Item 506(5), Timber Retaining Wall.

Excavation and Selected Material, Type A used for backfill will be measured in accordance to their respective Sections and Specifications.

506-5.01 BASIS OF PAYMENT. The accepted quantity of timber retaining wall will be paid for at the contract unit price completed in conformance with the Plans and Specifications.

Payment will be made under:

Pay Item	Pay Unit
506(5) Timber Retaining Wall	Square Foot

SECTION 603

CULVERTS AND STORM DRAINS

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

603-2.01 MATERIALS. Add the following: Culvert marker posts shall meet the requirements of subsection 730-2.05 Flexible Delineator Posts. The color shall be blue with no other markings. The 2.5 inch by 6 foot post shall be rectangular in cross-section with reinforcing ribs capable of a minimum bending radius of 9 inches.

Add the following Subsection:

603-3.06 CULVERT MARKER POSTS. Culvert marker posts shall be installed on the approach side of storm drain outfalls 30 inches and smaller, field inlets not in paved parking lots, all end sections to cross culverts, or as directed by the Engineer. Forty-two (42) inches of post shall remain above the ground after driving.

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

603-5.01 BASIS OF PAYMENT. Add the following: Culvert marker posts will not be paid for directly, but will be subsidiary to pipe items.

(09/10/02)R42 USC

Payment will be under:

Add the following:

Pay Item	Pay Unit
603(17-24) 24-Inch Pipe	Linear Foot
603(20-24) End Section for 24-Inch Pipe	Each

SECTION 604

MANHOLES AND INLETS

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

604-2.01 MATERIALS. Add the following: Concrete shall be 6-Sack Concrete conforming to Section 501. Drain Rock shall conform to Section 703. Drain Rock shall be covered with approved pea gravel.

604-4.01 METHOD OF MEASUREMENT. Add the following: Curb Drain will be measured by the unit completed and accepted in final position.

604-5.01 BASIS OF PAYMENT. Add the following: Payment for Curb Drain will include cast-in-place concrete drain, cover, rock drain, pea gravel, and all incidental materials, labor and equipment, including excavation, required to complete this item.

Payment will be under:

Pay Item	Pay Unit
604(8) Curb Drain	Each

SECTION 608

SIDEWALKS

Add the following Subsection:

608-1.02 SUBMITTALS. Submit resumes, references, location of previous similar work and other documentation to demonstrate to the satisfaction of the Engineer that the workers constructing imprinted colored sidewalk have expertise and experience in this type of work. (7/10/96)PARKS

608-2.01 MATERIALS. Replace "Concrete, Class A" with "6-Sack Concrete" in the first paragraph: Concrete for sidewalks shall conform to the requirements of Section 501. (6/20/95)PARKS

Add the following Subsections:

608-2.02 IMPRINTED COLORED CONCRETE. Concrete, color hardener and release agent shall meet the requirements of the imprinting system manufacturer. Color hardener shall be heavy duty grade. Release agent shall be applied only to surfaces to be imprinted and textured.

1. Bomacron System. Hardener color shall be Bomanite B-1, Shale Gray. Release agent color shall be Bomanite A-3, Natural Gray. Pattern and texture shall be Ashlar Slate. Bomanite Corporation, P.O. Box 599, Madera, California 93639-0599. Telephone (209) 673-2411.

2. Cobblecrete System. Hardener color shall be Cobblecrete H-750, Pewter. Release agent color shall be Cobblecrete R-1711, Medium Gray. Pattern and texture shall be Ashlar Slate. Cobblecrete International, Inc., 485 West 2000 South, Orem, Utah 84058. Telephone 1-800-798-5791.

608-2.03 WELDED WIRE FABRIC. Welded steel wire fabric shall be 10 gage with 6 inch by 6 inch spacing.

608-2.04 TREATED LUMBER. Lumber shall conform to Section 713. Wood species shall be Douglas Fir, Western Hemlock or Hem-Fir unless otherwise specified. Use classification Structural No. 2 Grade or Better. Manufacturing classification shall be Dressed (Surfaced) Lumber. Size classification shall be Nominal Size Designation of Boards, Dimensions, and Timbers.

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.

Permanent form boards and expansion joints shall be treated lumber. Join forms with framing anchors or by toe-nailing. Joints shall be of sufficient strength to resist the pressure of the concrete without movement.

CONSTRUCTION REQUIREMENTS

608-3.01 CONCRETE SIDEWALKS. Add the following: Welded wire fabric shall be cut to fit inside forms with 2 inches of clearance to the forms all around. Where required, material shall be lapped 6 inches and tied at 1-foot intervals with tie wire. During the pour, wire fabric will be pulled off the ground into the concrete approximately one inch.

608-3.03 CURB RAMPS. Delete the second sentence of this Subsection.

608-4.01 METHOD OF MEASUREMENT. Replace the Curb Ramp item with the following:

Curb Ramp. By each installation, complete in place, including construction of the ramp runs, flares, composite detectable warning tiles and landings necessary to provide a single street-level access.

608-5.01 BASIS OF PAYMENT. Add the following: Backing curb will be subsidiary to Item 608(6), Curb Ramp.

The composite detectable warning tiles are subsidiary to item 608(6) Curb Ramp.

(06/11/02)R256USC

Add the following: Embankment and bed course materials will be furnished, placed and paid under Sections 203 and 301, respectively. (01/01/01)PARKS

SECTION 609

CURBING

609-2.01 MATERIALS. Replace paragraph 2 with the following: Concrete shall be 6-Sack Concrete conforming to Section 501 except that the slump shall be less than 2 inches for concrete placed by the extrusion or slip-form process. (6/20/95)PARKS

609-3.02 CAST-IN-PLACE CONCRETE CURBING. Add the following to the sixth paragraph: Concrete placed by the extrusion or slip-form process shall have a slump of less than 2 inches. (11/06/02)R202USC02

609-4.01 METHOD OF MEASUREMENT. Delete the second paragraph.

SECTION 615

STANDARD SIGNS

615-1.01 DESCRIPTION. Add the following: Sign type designations shall conform to the Alaska Traffic Manual.

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

Designation	Color	Description
CS-1	White on Brown	Reserved Parking .... Volunteer Park Host
CS-2L	White on Brown	Highway Directional Guide Sign (Left Direction)
CS-2R	White on Brown	Highway Directional Guide Sign (Right Direction)

CS-2L and CS-2R are general guide signs for recreational areas in accordance with Section 2H.09 of MUTCD. The design characteristics of this sign shall conform to MUTCD Chapter 2D. Guide Signs – Conventional Roads.

(8/3/96)PARKS

615-2.01 MATERIALS. Under item 1. delete the first sentence and substitute the following: Unless Shop Drawings have been provided in the Contract, submit shop drawings for all signs that require the use of the Alaska Sign Design Specifications (ASDS), the Department of Transportation and Public Facilities - Sign Face Fabrication Requirements, and the Alaska Traffic Manual, letter width and spacing charts for approval before fabrication. (11/06/02)R50USC02

Replace the second paragraph of 3. Sign Posts and Bases with the following: Sign installations shall have 2-1/2 inch by 2-1/2 inch perforated steel tube posts with sleeve type concrete foundations. Concrete for steel-reinforced slip base and breakaway foundations shall conform to Section 501, 6-Sack Concrete. Concrete for other sign foundations shall be 5-Sack Concrete. Permanent cylindrical forms of specified diameter shall be used for concrete bases.

Custom signs shall be fabricated to the dimensions shown. The signs listed above shall have Type II (medium intensity) reflective sheeting with color as specified. White sheeting for symbols, letters, and borders shall match the 3M Scotchlite Reflective Sheeting #3290. Brown sheeting for background shall match 3M Scotchlite Reflective Sheeting #3279.

Layout of custom signs are shown on the Plans. Layout details of custom signs shall conform to the Alaska Sign Design Specifications.

(01/01/01)PARKS

615-3.01 CONSTRUCTION REQUIREMENTS. Replace the sixth sentence of the first paragraph of item 7 with the following:

Deliver sign panels, posts and hardware to the State Parks Maintenance Facility located at MP 144 of the Parks Highway.

615-3.02 SIGN PLACEMENT AND INSTALLATION. Add the following: Do not remove existing signs without authorization from the Engineer.

(11/06/02)R50USC02

615-4.01 METHOD OF MEASUREMENT. Add the following to the second paragraph: Concrete, permanent forms, and rebar, used for sign bases is considered subsidiary to other work under this Section.

Add the following: The quantity of custom signs for permanent installation will be measured for payment in accordance with Subsection 615-4.01 in the same manner as standard regulatory, warning and guide signs. (8/20/93)PARKS

615-5.01 BASIS OF PAYMENT. Replace the first sentence with the following: Sign posts, bases, permanent forms, mounting hardware and concrete used for sign bases are subsidiary.

Add the following: No separate payment for keeping existing signs in service until they are no longer needed, or temporary relocation of existing signs will be made. This work is subsidiary to Item 615(1), Standard Sign.

No separate payment for removal of existing sign post foundations, or work required to abandon them in place will be made, but shall be subsidiary to Item 615(1), Standard Sign.

No separate payment for salvaging activities detailed in Subsection 615-3.01 will be made. This work will be subsidiary to Item 615(1), Standard Sign.

(11/06/02)R50USC02

SECTION 618

SEEDING

618-1.01 DESCRIPTION. Add the following: Topsoil and seed all new or disturbed slopes and any other areas directed by the Engineer. Track the soil and apply seed, mulch, fertilizer and water. Provide a living ground cover on all slopes as soon as possible.

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

Mulch Subsection 727-2.01

618-3.01 SOIL PREPARATION. Add the following: Apply seed as detailed in subsection 618-3.03 immediately after the shaping of the slopes. Cover all slopes to be seeded with topsoil 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. 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.

618-3.02 SEEDING SEASONS. Add the following: All seeding shall be performed between May 15 and August 15.

618-3.03 APPLICATION. Add the following: Apply seed, mulch and fertilizer as follows per acre. Apply seed and mulch in one application if using the hydraulic method. Apply all fertilizer with the hydraulic method.

Seed Mix	Component	Ingredients	Application Rate (per MSF)
Type A	Seed	Slender Wheatgrass (Wainwright) Red Fescue (Arctared) Annual Ryegrass (Lolium)	0.50 lbs. 0.40 lbs. 0.10 lbs. Total = 1.00 lbs.
	Soil Stabilizer Slope ≤ 3:1 Slope > 3:1 – 2:1	 Mulch Mulch with tackifier	 46 lbs. 45-58 lbs.
	Fertilizer	20-20-10	12.0 lbs.

Do not remove the required tags from the seed bags.

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

618-3.04 PLANT ESTABLISHMENT AND MAINTENANCE. Add the following: A reapplication of fertilizer shall be applied with water between June 1 and June 30 of the year following seeding at a rate of one-half the initial application.
(01/01/01)PARKS

618-4.01 METHOD OF MEASUREMENT. Add the following: The amounts of fertilizer, mulch, and water for application used in this work, including any required reseeding, are subsidiary to other 618 items.

618-5.01 BASIS OF PAYMENT. The work described under subsection 618-3.01 Soil Preparation is subsidiary to seeding.

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

(11/06/02)R52USC

SECTION 620

TOPSOIL

620-2.01 MATERIALS. Add the following: Provide topsoil of the class specified on the Plans. Use Topsoil Class B unless otherwise specified on the Plans.

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

SECTION 621

PLANTING TREES AND SHRUBS

621-1.01 DESCRIPTION. Add the following: Plant locations will be staked by the Department. This work shall also include furnishing and installing wood chip mulch, geotextile mulch and edging as detailed on the Plans.

621-2.01 PLANT STOCK. Add the following:

Tree Species	Root Condition	Minimum Size	Comments
White Spruce (Picea Glauca)	Ball & Burlap	3' - 4' High	Field Collected or Field Grown
Paper Birch (Betula Papyrifera)	Ball & Burlap	3" Caliper	Field Collected or Field Grown

Shrub Species	Root Condition	Minimum Size	Comments
Prickly Rose (Rosa Acicularis)	Container	9"-18" High	Field Collected or Field Grown
Potentilla (Potentilla Fruticosa)	Container	6"-12" High	Nursery Grown
Fern (Native to Area)	Container	6"-18" High	Field Collected or Field Grown

Field collected plants are local plants harvested in Alaska. Field grown plants are plants field grown in Alaska nurseries. Nursery grown plants are plants grown in any nursery.

621-2.02 FERTILIZER. Replace with the following: Fertilize all trees and shrubs with slow release tablet, stake, or packet form fertilizers having a minimum two year release period, as approved by the Engineer. Place tablet, stake, or packet form fertilizer near the root zone at the time of planting in accordance with manufacturer's recommendations.

621-2.05 BACKFILL MIX. Replace with the following: Backfill Mix shall be Class A Topsoil conforming to Section 726. Prepare backfill mix for planting by mixing in a water retention additive at the manufacturer's recommended application rate.

Add the following Subsections:

621-2.08 WOOD CHIP MULCH. Wood chip mulch shall consist of spruce, Douglas fir, pine, or hemlock wood or bark and shall not contain resin, tannin, or other compounds in quantities that are detrimental to plant life. Approximately 95 percent of the chips by volume shall be 1/4 to 1-1/2 inches in length.

621-3.03 PLANTING. Replace item 1 with the following:

1. Plant Season.

   a. Locally Grown: Plant between May 1 and September 15.

   b. Imported: When plants are shipped in from out-of-state, handling shall be in accordance with the nursery recommendations. Plants imported from out-of-state shall be planted between June 1 and August 15.

Delete the second, third, and fourth sentences of paragraph 3b.

Replace paragraph b. of item 5., Placing Plants, with the following:

   b. Handle balled and burlapped plants, and plants in wire baskets or containers by the earth ball, container, or basket and not be the plant itself. Clip wire baskets completely off the root ball. Strip and trim burlap from the top half of the root ball after the plant has been placed in the hole. Remove discarded wire baskets, burlap and containers from the site. The Engineer may reject plants whose rootballs break or collapse during planting.

Add the following to item 5., Placing Plants:

   d. Plant trees and shrubs as shown on the Plans.

621-3.04 PERIOD OF ESTABLISHMENT. Replace the first sentence with the following: The Period of Establishment for trees and shrubs shall extend to August 1, 2004.

621-3.06 PLANT REPLACEMENTS. Replace the first sentence with the following: Prior to completion of the Period of Establishment, all trees, shrubs, and vines not alive and healthy during the plant season, shall be immediately replaced by the Contractor with plants of the same species, size and quality at no expense to the Department.

621-4.01 METHOD OF MEASUREMENT. Replace with the following: The quantity to be paid for shall be the actual number of trees and shrubs furnished, planted and maintained through Period of Establishment, and as accepted by the Engineer.

Wood chip mulch will not be measured for payment.

621-5.01 BASIS OF PAYMENT. Add the following: Furnishing and installing wood chip mulch, edging, water retention additive, tree wrap, staking and guying will not be not be paid for separately, but will be subsidiary to Items 621(1) Tree, and 621(2) Shrub. (5/1/95)PARKS

SECTION 641

EROSION, SEDIMENT, AND POLLUTION CONTROL

Special Provisions

641-1.02 DEFINITIONS. Add the following to item 2. ESCP (Erosion and Sediment Control Plan). Refer to Appendix E for the Erosion and Sediment Control Plan (ESCP).

641-1.03 SUBMITTALS. Replace the first sentence of the second paragraph with the following: The Department will review the above submittals 14 calendar days before the Preconstruction Conference.

641-2.01 STORM WATER POLLUTION PREVENTION PLAN (SWPPP) REQUIREMENTS. Replace the first paragraph with the following: Follow the format presented in the *Alaska Storm Water Pollution Plan Guide*, for projects disturbing 1 acre or more. Each Plan must consider first preventing erosion, then minimizing erosion, and finally trapping sediment before it enters waterways. Each SWPPP shall meet the requirements of the following two paragraphs.

641-2.02 HAZARDOUS MATERIAL CONTROL PLAN (HMCP) REQUIREMENTS. Replace the first paragraph with the following: Prepare a HMCP for each of the SWPPP's as required in 641-2.01 for the handling, storage, cleanup and disposal of petroleum products and other hazardous substances (see 40 CFR 177 and 302 for a listing of hazardous materials). Each HMCP shall meet the requirements of the following five paragraphs. (06/03/03)R272USC02

SECTION 642

CONSTRUCTION SURVEYING AND MONUMENTS

642-1.01 DESCRIPTION. Add the following: Reestablish 2 concrete Right of Way Monuments, designated in the Plans, in conformance with Subsection 642-3.03 and perform a final traverse of the reestablished Right of Way Monuments in conformance with Subsection 642-3.05.

642-3.01 GENERAL. Add the following item after Item 10:

11. Measure and document the actual intersection sight distance triangles at all public intersections. List the actual sight distance available up to 600 feet. Note locations with greater than 600 feet of sight distance as "600+". Measure sight distance triangles are shown in Figure 1190-1 of the Highway Preconstruction Manual by setting up an instrument at the driver's eye location. Certify and record the results on standard "letter" size paper and provide it to the Engineer at least 2 weeks prior to submitting shop drawings for permanent signing. Provide an additional copy to the Regional Traffic Engineer. (05/16/03)R269USC

Add the following:

Top of Selected Material, Type A red tops and top of base course blue tops are required.

The Contractor shall be responsible for original ground (after-grubbing) and after-excavation cross sections of any pathway and rock or unclassified excavation. These cross sections will be taken at identical stations to eliminate all interpolation when calculating end areas and quantities.

The Contractor shall measure original ground and after excavation cross sections for aggregates measured by the cubic yard.

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

642-4.01 METHOD OF MEASUREMENT. Replace this Subsection with the following: Section 109 and as follows:

Item 642(3) Three Person Survey Party. By the hour for extra, additional, or unanticipated work made necessary by changes in the Project, as directed, and as supported by certified payroll.

If staking for extra, additional, or unanticipated work, as stated above, is performed by a two person survey party, measurement will be at 75% of the hours worked and paid under Item 642(3), Three Person Survey Party. If a single person is required for additional office computations or other work requiring only one person, payment will be made at 32% of the hours worked and paid under Item 642(3).

642-5.01 BASIS OF PAYMENT. Replace this Subsection with the following: Construction Surveying includes all field and office work required to accomplish all the work described under this Section, including all necessary personnel, equipment, transportation and supplies.

Traffic control devices necessary for the survey parties is considered subsidiary Item 642(1) Construction Surveying. The reestablishment of 2 concrete Right of Way Monument, and all incidentals, and final traverse are considered subsidiary to Item 642(1), Construction Surveying.

Payment for Traffic Control Plans will be paid under Section 643, Traffic Maintenance.

SECTION 643

TRAFFIC MAINTENANCE

643-1.01 DESCRIPTION. Add the following: The Contractor will also be responsible for advance warning signs informing the traveling public of any shoulder work, truck crossings, and site closures throughout the course of the construction. The Contractor shall employ closure signs and barricades to divert the public away from the construction site. The Contractor shall ensure that hauls road are not damaged from the construction operations. He is further reminded that damages to any haul road will be his responsibility too repair at no cost to the Department.

The existing pull-out/rest area may be used for material staging, storage, and equipment parking. Traffic control as approved in the TCP for this area must be installed prior to use.

643-1.03 TRAFFIC CONTROL PLAN. Replace the last paragraph with the following: You may request, in writing, a waiver of regulation 17 AAC 25 regarding oversize and overweight vehicle movements within this project. All movements of oversize and overweight vehicles in or near traffic within the project limits will be done in accordance with the provisions of an approved Traffic Control Plan. Maintain a minimum 12 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.

643-2.01 MATERIALS. Add the following:

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

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

643-3.02 ROADWAY CHARACTERISTICS DURING CONSTRUCTION. Add the following: You may maintain traffic on a continuous gravel surface for 1,000 feet.

643-3.04 TRAFFIC CONTROL DEVICES. Replace the first sentence of the eighth paragraph with the following: All items paid under this Section remain your property unless stated otherwise.

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

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

Replace item 6 with the following:

6. Street Sweeping. Keep free of loose material all paved portions of the roadway and haul routes open to the public, including sections of roadway off the project where your 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 all paved portions of the roadway and haul routes open to the public, including sections of roadway off the project where your operations have deposited loose material using a power broom that can eject them to the shoulder of the road.

Change items 7 and 8 to 8 and 9 respectively.

Add the following:

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

643-3.05 AUTHORITY OF THE ENGINEER. Add the following after the second sentence: In no case shall this time exceed 24 hours.

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.

3. During the Alaska State Fair (August 23 – August 24, 2002 and September 2 - September 3, 2002).

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 all 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.

643-3.09 INTERIM PAVEMENT MARKINGS. In the second paragraph, delete the words "or cover them with black removable preformed marking tape."

Replace the first sentence in the last paragraph with the following: Do not place final pavement markings until traffic has traveled over the seal coat or surface treatment for at least 15 days and no more than 21 days, as directed by the Engineer.

643-4.01 METHOD OF MEASUREMENT. Replace with the following: Item 643(2), Traffic Maintenance is a lump sum item and will not be measured directly for payment. Acceptance, implementation, and maintenance of the Traffic Control Plan constitutes measurement.

643-5.01 BASIS OF PAYMENT. Replace with the following: All labor, material, equipment, and incidentals required to compose, implement, and maintain the approved Traffic Control Plan shall be paid for at the contract lump sum price for Item 643(2), Traffic Maintenance.

(11/18/02)R222USC02

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 3 model years old, in good condition and with less than 36,000 miles on the odometer.

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

Furnish all fuels, maintenance and insurance. Provide studded snow tires for all furnished vehicles used between October 1 and May 1.

The Contractor is 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.

644-4.01 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.

644-5.01 BASIS OF PAYMENT. Replace Item 644(7) with the following:

Payment will be made under:

Pay Item	Pay Unit
644(7) Vehicle	Each

(11/26/02)R245USC

SECTION 646

CPM SCHEDULING

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

The construction schedule for the entire Project shall not exceed the specified contract time. Allow the Engineer 14 days to review the initial CPM Schedule. If revisions are required, make them promptly. The finalized CPM Schedule must be completed and accepted prior to commencement of any 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

Add the following Section:

SECTION 647

EQUIPMENT RENTAL

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

The work is to be accomplished under the direction of the Engineer, and the Contractor's operations shall at all times be in accordance with the Engineer's instructions. These instructions by the Engineer shall be to the Contractor's supervisory personnel only, not to the operators or laborers. In no case shall these instructions by the Engineer be construed as making the Department liable for the Contractor's responsibility to prosecute the work in the safest and most expeditious manner.

647-2.01 EQUIPMENT FURNISHED. In the performance of this work, 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(2), Wide Pad Dozer, 65 HP Minimum will be paid on a per hour basis at the rate shown on the bid schedule. This shall be full compensation for furnishing, operating, maintaining, servicing and repairing the equipment, and for 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(2) Wide Pad Dozer, 65 HP Minimum	Hour

(11/12/98)R15USC

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.

Materials furnished by the Department include the interpretive kiosk to be moved to the end of the scenic pathway. The interpretive kiosk is located at the DOT&PF pull-out/rest area at approximately MP 134 of the Parks Highway.

The Contractor shall notify the Engineer at least 72 hours prior to picking up materials.

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 FLASHING AND SHEET METAL. Exposed fastener metal roof system with panel base metal steel conforming to ASTM A-446, Grade 80, (80,000 psi minimum tensile strength) with a protective coating of zinc-aluminum alloy conforming to ASTM A-924/ASTM A-792, 45 percent zinc and 55 percent aluminum by weight applied to a thickness of 1.9 mils. Alternate coatings proposed for substitution will not be accepted. Exterior paint finish to be a 0.8 mil Acrylic Emulsion finish coat over a 0.2 mil baked-on acrylic primer. Exterior color to match Denali Green by IMSA Building Products Inc. Interior paint finish to be a 0.25 mil off-white backer over a 0.15 mil baked-on acrylic primer.

1. Roof Panels. Minimum 29 gauge, 36 inch net width panel with 9 inch on center roll-formed profile pattern consisting of three evenly spaced ribs, one tall rib followed by two shorter ribs.

2. Gable Trim and Universal Ridge. Shall be approximately 6 inches wide.

3. Closure Strips. Polyethylene foam type to fit panel profile or 1 inch by 1 inch universal closures.

4. Sidelap Mastics. Closed cell neoprene butyl.

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

650-2.09 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.

650-2.10 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.

650-2.11 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 16 percent copper naphthenate (equivalent to minimum 2 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.

650-2.12 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.

650-2.13 PICNIC TABLE. Conform to Standard Drawing C-1, Picnic Table. Steel picnic table frames shall have 2-3/8 inch O.D. galvanized pipe legs with minimum 0.130 inch wall thickness, and galvanized hardware as follows:

2 each	Welded Pipe End Frame
2 each	Pipe Brace (minimum 15/16" O.D.) with attachment bolts, washers, and nuts.
1 each	Table Top Center Channel or Angle (minimum 1/8")
26 each	3/8" x 2¼" Carriage Bolt with nut and washers.

Note: Hardware dimensions may vary according to model and manufacturer.
Listed below are possible sources of picnic tables. It is the responsibility of the Contractor to insure that the above fabrication requirements are meet.

Gerber Manufacturing, Inc.
2917 Latham Drive
Middleton, Wi 53713
(800) 393-9923

Natural Structures
P.O. Box 727
Sherwood, Oregon 97140
(503) 625-2566

Iron Mountain Forge
P.O. Box 897
One Iron Mountain Drive
Farmington, Mi 63640
(314) 756-4591

Pilot Rock
R.J. Thomas Manu. Co, Inc.
Box 772
Cherokee, Iowa 51012
1-800-762-5002 (712) 225-5452

Quality Industries, Inc.
Hillsdale Industrial Park
P.O. Box 765
Hillsdale, Michigan 49242

Game Time
626 128th Street SW, #104A
Everett, Washington 98204
1-800-235-2440

The tie down anchor system shall consist of 1/8 inch diameter high strength galvanized steel tie down cable with a 2 foot long treated wood anchor. Tie down cable shall be wrapped around anchor and connected back to cable with swaged sleeves. Provide one standard Park padlock for each table.

Seat and table top lumber shall be non-incised treated wood. Wood species Southern Yellow Pine is acceptable.

650-2.14 PARK BENCH.

1. Stationary Model. Six foot long stationary contour park bench with integral extended armrests, Homestead Series Model 28 with armrests by Victor Stanley, Inc. (1-800-368-2573), Model SWR/G-6TP with armrests by Pilot Rock Park Equipment (1-800-762-5002), TimberForm Greenway Model 2141 with treated wood slats by Columbia Cascade (1-800-547-1940 ext. 923), or approved equal.

   Bench shall have two each one piece, welded end frames consisting of angled back and seat bracket of 3/8 inch thick by 4 inch flat steel bar, armrest bracket of 3/8 inch thick by 3 inch flat steel bar, and steel post leg for permanent installation in concrete footing. Steel posts shall be 2-1/2 inch square tube or 3 inch diameter pipe. Bench shall also have one center brace frame consisting of angled back and seat bracket of 3/8 inch thick by 4 inch flat steel bar. Frames shall be galvanized or black powder coated after fabrication.

   Eight or nine each 3x4 or 3 inch by 4 inch slats mount with 3/8 inch carriage bolts to the angled back and seat brackets. Back, seat and armrest slats shall be preservative pressure treated pine or fir, surfaced four sides, drilled for bolts, shall have all exposed edges removed to a 3/8 inch radius, and shall have factory applied clear sealer.

2. Surface Mount Model. Six foot long surface mount contour park bench, Homestead Series Model 28 with armrests by Victor Stanley, Inc. (1-800-368-2573), Model PWRB/G-6TP with armrests by Pilot Rock Park Equipment (1-800-762-5002), TimberForm Greenway Model 2141-P with treated wood slats by Columbia Cascade (1-800-547-1940 ext. 923), or approved equal.

   Bench shall have two each one piece, welded end frames consisting of angled back and seat bracket of 3/8 inch thick by 4 inch flat steel bar, armrest bracket of 3/8 inch thick by 3 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.

Eight or nine each 3x4 or 3 inch by 4 inch slats mount with 3/8 inch carriage bolts to the angled back and seat brackets. Slats shall be preservative pressure treated pine or fir, surfaced four sides, drilled for bolts, shall have all exposed edges removed to a 3/8 inch radius, and shall have factory applied clear sealer.

650-2.15 ROUND FIREPIT. Conform to Standard Drawing C-4, Round Firepit.

650-2.16 BEARPROOF GARBAGE CAN. Shall be Hid-A-Bag® Mini 2 as manufactured by McClintock Metal Fabricators, Inc., or approved equal. Model shall have accessible, universal door option and no decorative siding.

Materials for bearproof garbage can must satisfy the requirements of Section 106.

McClintock Metal Fabricators, Inc., 455 Harter Ave., Woodland, CA 95776, Telephone (530) 666-6007, Facsimile (530) 666-7071.

650-2.17 SPOTTING SCOPE. Public use commercial grade telescope with weatherproof housing and base. Viewer head removable from column for storage by unlocking pedestal cap barrel lock. No coin chute shall be ordered or provided, special instructions must be given to manufacturer to set the scope to operate with coin chute removed. The telescope shall have the following characteristics of the Model Mark One Telescope as manufactured by See Coast Manufacturing Company, Inc. or approved equal:

Height:	57 Inches
Weight:	85 Pounds
Castings:	356 Aluminum Alloy
Column:	4-1/2 Inch Diameter Aluminum Stanchion
Color:	Gray
Base:	30 Inch Diameter
Telescope Width:	9 Inches
Telescope Length:	24 Inches
Housing Movement:	360° Rotation, 33° Up and 40°Down
Power/Field of View:	20x, 121' at 1,000 Yards
Coin Chute:	None
Timing Mechanism:	N/A

See Coast Manufacturing Company, Inc., Fairhope, Alabama 36533, Telephone (800) 343-8882, (205) 928-8882, Facsimile (205) 928-8909.

Three of the six spotting scopes shall be ADA accessible.

650-2.18 CONCRETE PARKING BUMPER. Conform to Standard Drawing P-6, Parking Bumper.

650-2.19 BARRIER ROCK. Barrier rocks shall be a minimum 3 feet diameter when measured in any direction.

650-2.20 BULLETIN BOARD. Conform to Standard Drawing S-1, Bulletin Board. Polycarbonate sheeting shall be clear, 3/16 inch in thickness. Cedar shingles shall be Grade 1, 16 inch length. Lumber shall be surfaced four sides.

650-2.21 ENTRANCE SIGN. Conform to Standard Drawing S-3, Entrance Sign. Sign frame shall be surfaced four sides clear cedar. Column bases shall be painted or corrosion resistant column bases for embedment in wet concrete to connect wood post to concrete footing. Size column base to dimension of post. Rough cut posts shall have commercially fabricated column bases inset a maximum of 1/2 inch. If commercial bases can't meet the 1/2 inch requirement, custom fabricate full dimension column bases. Stirrup shall be provided with holes for two galvanized bolts with washers. Similar to Simpson CB88R.

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

Sign Board Type II as shown on DPOR Standard Drawing S-3 shall be used. Entrance sign wording shall be as follows:

Unit Name: Denali State Park
Site Name: Denali View South
Site Classification: Viewpoint

650-2.22 INTERPRETIVE SIGN, TYPE C. Conform to Standard Drawing S-11C, Interpretive Sign, Type C. Aluminum for back plate to conform to ANSI 6061 T-6. Provide one pin-in-head torx machine bolt driver per sign. Column bases shall be painted or corrosion resistant column base for embedment in wet concrete to connect wood post to concrete footing. Size column base to dimension of post. Rough cut posts shall have commercially fabricated column bases inset a maximum of ½ inch. If commercial bases can't meet the ½ inch requirement, custom fabricate full dimension column bases. Stirrup shall be provided with holes for two galvanized bolts with washers. Similar to Simpson CB66R.

Post Size	Base Plate Gage & Dimension	Stirrup Material	Post Bolts	Allowable Uplift Load
6" X 6"	7 ga & 6" X 6"	7 ga x 3" strap	2 each 5/8"	4,200 pounds

CONSTRUCTION REQUIREMENTS

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

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

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

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

650-3.05 WOOD. Competent carpenters shall be employed and all framing shall be true and exact. Unless otherwise specified, nails and spikes shall be hand driven with just sufficient force to set the heads flush with the surface of wood. Power nail guns 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. Insure 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. Dados, 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. Picnic Table.
   a. Wood. Clear Oil Stain
   b. Metal. Galvanized, No Finish Required

3. Park Bench.
   a. Wood. Factory Applied Clear Sealer
   b. Metal. Powder Coated or Galvanized, No Additional Finish Required

4. Round Firepit.
   a. Metal. No Finish Required

5. Bearproof Garbage Can.
   a. Metal. Factory Applied Brown Enamel Finish

6. Spotting Scope.
   a. Factory Applied Gray Enamel Finish

7. Concrete Parking Bumper.
   a. Concrete. Sealer

8. Bulletin Board.
   a. Wood. Solid Oil Stain
   b. Metal. Primer and Enamel Paint
   c. Bulletin Board Sound Board. Off White Flat Latex Paint

9. Entrance Sign.
   a. Clear Cedar. Clear Oil Stain
   b. Other Wood. Semi-Transparent Oil Stain

c. Metal. Primer and Enamel Paint

10. Interpretive Sign, Type C.
    a. Plywood. Solid Oil Stain
    b. Other Wood. Semi-Transparent Oil Stain
    c. Back Plate. Aluminum, No Finish Required
    d. Other Metal. Primer and Enamel Paint

650-3.07 PICNIC TABLE. Construct in accordance with Standard Drawing C-1, Picnic Table. Bury anchor a minimum of 2-1/2 feet. Wrap anchor cable around table braces at center of table and connect back to cable with swaged sleeves.

650 3.08 PARK BENCH. Install stationary model bench with concrete foundation in accordance with Plans and manufacturer's recommendations.

Attach surface mount model bench to concrete and wood deck surfaces in accordance with manufacturer's recommendations. Install additional blocking under wood decking at bench attachment locations.

650-3.09 ROUND FIREPIT. Construct per the accessible dimensions shown on Standard Drawing C-4. Place 6 inch compacted depth of crushed aggregate base inside the firepits.

650-3.10 BEARPROOF GARBAGE CAN. Install with concrete foundation in accordance with Plans and manufacturer's recommendations.

650-3.11 SPOTTING SCOPE. Install with concrete foundation in accordance with Plans and manufacturer's recommendations.

650-3.12 CONCRETE PARKING BUMPER. Construct in accordance with Standard Drawing P-6, Parking Bumper.

650-3.13 BARRIER ROCK. Place barrier rocks 4 feet apart, edge to edge, with approximately 20 percent of the height of each rock set below ground level. When finish surface is pavement, place barrier rocks prior to paving operation. Cutting pavement to place barrier rocks and then patching is not acceptable.

650-3.14 BULLETIN BOARD. Construct in accordance with Standard Drawing S-1, Bulletin Board.

650-3.15 ENTRANCE SIGN. Construct in accordance with Standard Drawing S-3, Entrance Sign.

650-3.16 INTERPRETIVE SIGN, TYPE C. Construct in accordance with Standard Drawing S-11C, Interpretive Sign, Type C.

650-4.01 METHOD OF MEASUREMENT. Park facilities with the unit measure each will be measured by the actual number of facilities completed and accepted, including barrier rocks salvaged under Section 202 and incorporated into the Project.

Excavation and embankment for park 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.

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

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(1) Picnic Table	Each
650(3) Park Bench	Each
650(4) Round Firepit	Each
650(7) Bearproof Garbage Can	Each
650(11) Spotting Scope	Each
650(17) Concrete Parking Bumper	Each
650(21) Barrier Rock	Each
650(36) Bulletin Board	Each
650(38) Entrance Sign	Each
650(40C) Interpretive Sign, Type C	Each

(01/01/01)PARKS

Add the following Section:

SECTION 651

WASTEWATER SYSTEM

651-1.01 DESCRIPTION. Furnishing all materials, equipment, and labor necessary to construct a Wastewater System as shown on the Plans.

651-2.01 BACKFILL. Selected Material, Type A conforming to Section 703-2.07.

651-2.02 DRAIN HATCH. As specified on the Plans.

651-2.03 HIGH DENSITY POLYETHYLENE PIPE (HDPE). HDPE pipe shall be used to provide wastewater conduit from the washdown basin drain hatch to the steel distribution sump. HDPE pipe and fittings shall be ASTM 3408 SDR 11 HDPE pipe.

651-2.04 HOLDING TANK. Uniform Plumbing Code (1994) requirements. Fabricate with 3/16-inch steel in conformance with holding tank detail on the Plans. Coat tank inside and outside with an approved bituminous sealant. Alternative tank design may be used upon approval from the Project Engineer.

651-2.05 MANHOLE COVER. Fabricate using 3/16-inch steel and coat with same bituminous sealant used on holding tank. Cover must firmly attached to manhole flange and provide a watertight fit.

651-2.06 HOLDING TANK INSPECTION/CLEANOUT PIPE. Schedule 40 PVC pipe.

651-2.07 HOLDING TANK INSPECTION/CLEANOUT PIPE CAP. Lockable cap, Clay and Bailey Fillcap model #CB232-4 or equal.

651-2.08 LIQUID LEVEL APPARATUS. Manufactured by Anchorage Tank & Welding, Inc., or approved equal.

651-2.09 LIQUID LEVEL ALARM. Orenco Systems, Inc. Sentinel 1 Liquid Level Alarm or approved equal.

651-2.10 REINFORCING STEEL. Shall be grade 60.

651-2.11 CONCRETE. 5-Sack and 6-Sack Concrete conforming to Section 501.

651-2.12 PIPE FITTINGS. Manufactured by Fernco, Nibco, or other approved manufacturer. Use fittings suited for burial and fasten with T-316 stainless steel clamps.

651-3.01 SITE WORK. Excavation and backfill shall conform to Subsection 204-3.01 and the details on the Plans. Excavate to a depth of 12 inches below bottom of tank and backfill with material conforming to 651-2.01. For bedding and backfill to a depth of 12 inches below bottom of tank to 12 inches above top of tank, material shall also pass the 3-inch sieve. Use native material for the remainder of the backfill.

651-3.02 GENERAL. Wastewater system flowlines, excavation, bedding, and backfill shall be installed accurately to the planned line and grade and kept clean of all foreign matter. All piping and connections are to be installed with suitable fittings, couplings, connectors, and adapters per the Plans, Specifications, and manufacturers' recommendations.

651-3.03 HOLDING TANK INSTALLATION. Furnish and install a holding tank and related appurtenances in accordance with the Plans and Specifications. Repair scrapes, dents, or any other type of tank or coating damage prior to installation. Install inspection/cleanout pipe caps flush with the finish ground surface. Holding tank bedding and backfill shall be constructed in accordance with Subsection 204-3.01. Testing requirements shall conform to Subsection 106-1.03.

651-3.04 LIQUID LEVEL ALARM. Install alarm and the liquid level apparatus in accordance with manufacturer's recommendations and the details on the Plans. Attach alarm to the side of the apparatus using approved tamper proof one-way screws. Provide one 9-volt battery for the alarm.

651-3.05 CONCRETE BASIN. Install in accordance with the Plans. Provide tight fit at junction of drain hatch, pipe and concrete. Apply hard trowel finish to concrete.

651-4.01 METHOD OF MEASUREMENT. Wastewater System is a lump sum item and will not be measured directly for payment. System components and items necessary to complete an operational system will be considered subsidiary to this item and will not be measured separately for payment. This item will be considered complete when it is operational. Excavation and backfill of the holding tank will be a subsidiary obligation.

651-5.01 BASIS OF PAYMENT. Wastewater System will be paid for at the contract lump sum price.

Payment will be made under:

Pay Item	Pay Unit
651(2) Wastewater Holding Tank	Lump Sum

(01/01/01)PARKS

Add the following Section:

SECTION 652

WATER WELL

652-1.01 DESCRIPTION. The work shall consist of furnishing all materials, equipment, and labor to construct a water well. Installation of a well screen will be included if ordered by the Engineer.

652-1.02 APPLICABLE STANDARD DRAWINGS.

Standard Drawing No.	Standard Drawing Name
U - 1A	Hand Pump Water Well

652-2.01 GENERAL. All materials shall be new and conform to the details shown on the Plans or as specified.

652-2.02 BACKFILL. Selected Material, Type A conforming to Subsection 703-2.07.

652-2.03 CRUSHED AGGREGATE BACKFILL. Crushed aggregate base course, grading D-1 conforming to Section 301.

652-2.04 SEWER ROCK. Sewer rock shall conform to all applicable requirements of Section 703.

652-2.05 CONCRETE. 5-Sack and 6-Sack Concrete conforming to Section 501.

652-2.06 TREATED TIMBER. Conform to Section 713 and 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. Treated materials shall be uniformly brown in color and nonincised. Incising may be used on 4x and thicker material to obtain minimum retention.

652-2.07 PAINT. Unless otherwise specified, use the following paint types and colors, or approved equals:

1. Semi-Transparent Oil Stain. Exterior alkyd based stain, color brown to match DF7XX as manufactured by Fuller/O'Brien products, Russet as manufactured by Pittsburgh Paint Company, or Olympic Russet as manufactured by PPG Architectural Finishes, Inc. Stains for pressure treated wood shall be recommended by manufacturer for use on pressure treated wood.

2. Enamel Paint. Exterior alkyd base gloss enamel. Color green to match hand pump water fountain color.

3. Concrete Sealer. Clear acrylic copolymer conforming to AASHTO M148/ASTM C309 (Standard Specification for Liquid Membrane-Forming Compounds for Curing Concrete, for Type 1 Compounds).

4. Below Ground Wood Preservative. Preservative with active ingredient of minimum 18.16 percent copper naphthenate (equivalent to minimum 2 percent metallic copper).

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

652-2.08 SIGNS. Well signs shall conform to all applicable requirements of Section 615.

652-2.09 WELL CASING. The well shall be cased with standard weight black or galvanized steel pipe, 6 inch diameter conforming to ASTM A 53 (Standard Specification for Pipe, Steel, Black and Hot-Dipped, Zinc-Coated, Welded and Seamless); and AWWA-C206 (Standard for Field Welding of Steel Water Pipe). Metal well casing cap shall be cast iron or aluminum with set screws and a watertight seal.

652-2.10 WELL SCREEN. The well screen shall be stainless steel wire wound telescope size screen, and Figure K packer for the upper fitting. Slot opening size shall be determined in the field. JOHNSON 304SS 6T or approved equal.

652-2.11 DROP PIPE. Drop pipe shall be one and one quarter inch galvanized steel pipe with screw type galvanized couplings conforming to ASTM A 53. The drop pipe shall be installed in 10 foot or longer sections.

652-2.12 PUMP ROD. Pump rod for the well will be galvanized 7/16 inch solid steel stock and is to be installed in 10 foot or longer sections with screw type couplings. The pump rod sections shall be securely coupled together tightly and a lock washer and a lock nut shall be tightened to each end of the coupling.

652.2-13 HAND PUMP DRINKING FOUNTAIN. Hand pumps shall be a sanitary drinking fountain pump stand conforming to the details shown on the Plans. The pump shall come complete and shall conform to the following:

1. Type: Drinking fountain with hydrant and protective shroud.
2. Drop Pipe Tapping: 1-1/4 inch.
3. Spout: Fountain.
4. Stroke: 5-7 1/2-10 (min.- ave.- max.)
5. Rod Size: 11/16 inch.

6. Rod Thread: 7/16 inch, 14 NC.

Hand pump components, except the piston, shall be painted with two coats of an approved green enamel, as directed.

652-2.14 PUMP CYLINDER. 2 inch inside diameter, 3-1/4 inch outside diameter, all brass cylinder with flush cap, brass check valve, two leather brass plunger, threaded for 1-1/4 inch NPT, and rated to produce 0.136 gallons per stroke with 10 inch stroke.

652-2.15 WELL POINT. Well point shall be low carbon steel, 1-1/4 inch diameter by 21 inches long. Slot opening shall be 0.030 to 0.040 inches in width.

652-3.01 GENERAL. The water well will be located approximately as shown on the attached drawing. Minor location adjustments to conform to existing topographic conditions may dictate a more desirable placement.

Wells shall be drilled, developed, cased and tested as specified. The depth of the well is estimated. The presence of water at the anticipated depth cannot be guaranteed. Depth information is offered merely for the purpose of assisting the Contractor in preparing his bid. The Contractor shall investigate all local conditions which might affect his work. The exact depth will depend on adequate yield.

If a satisfactory water supply has not been encountered by a depth of 225 feet, the Engineer may direct the drilling to stop. The Department will then decide if the casing shall be abandoned or left in place with a permanent airtight cap. Method and compensation for extra work involved in sealing a dry hole will be established by Change Order.

The Department has applied for ADEC Approval to Construct this water well.

Choice for method of drilling shall be made by the Contractor.

652-3.02 PROTECTION OF SITE. The Contractor shall protect all structures, trees, shrubbery, etc., during the progress of his work; he shall remove from the site all cuttings, drillings, debris and unused materials; and shall upon completion of the work, restore the site as nearly as possible to its original condition. Water pumped from the well shall be conducted to a designated place where it will be possible to dispose of it without erosion or other damage to property or creation of a nuisance. A settling trench or silt curtain may be required to control out while drilling, developing, or testing the well.

652-3.03 BORE AND CASING. The well shall be drilled and the casing installed with sufficient plumbness to permit the operation of the well pump without interference or damage to the down hole pump assembly or the casing. The completed casing shall be continuous and watertight.

If the blank casing is to be perforated, the work shall be authorized and paid for by Change Order in accordance with Subsection 109-1.05, Compensation for Extra Work. Perforations shall be slotted type with the size of each slot approximately 1/8 inch to 1/4 inch in width by 3 inches in length and equally spaced around the circumference of the pipe.

652-3.04 BORING LOG. The Contractor shall keep an accurate log of all materials passed through and the depths at which changes in formation occur, together with the other information as may be required. The log of the well shall show all material penetrated and full descriptive notes made of everything found by the drill and of all difficulties or unusual conditions met in drillings. All water-bearing strata shall be described in detail as to whether the material is loose, compact, its color and, if gravel, whether it is worn or angular. The presence of clay must be noted. Upon completion of the well, one copy of the log, and results of the yield test shall be delivered to the Engineer for transmittal to the Department in accordance with AS 41.08.

652-3.05 PROTECTING WATER SUPPLY. At all times during the progress of the work, the Contractor shall protect the well in such a manner as to prevent either tampering with the well or the entrance of foreign matter into it until such time that the well is sealed with well cap. The Contractor shall take such necessary precautions as directed to prevent contaminated water or water having undesirable physical or chemical characteristics from entering the water bearing stratum.

652-3.06 CORRECTIVE WORK. In the event that the well becomes contaminated due to the neglect of the Contractor, he shall at his own expense perform such work as may be necessary to correct the situation.

652-3.07 TEMPORARY CAPPING. At all times during the progress of the work, the Contractor shall protect the well in such a manner as to effectively prevent either tampering with the well or the entrance of foreign matter into it and, upon completion, he shall provide a temporary cap satisfactory to the Engineer until such time that the hand pump is finally set.

652-3.08 TESTING. Upon completion of the bore or as directed, the Contractor shall determine the yield by pumping. Pumping capacity of the potential aquifer shall be sufficient to produce a sustained yield of 5 gallons per minute with a sustained yield of 150 gallons per hour. The Department will decide if an acceptable sustained yield has been achieved from yield (draw down/recovery) test results.

The Contractor shall test pump the well for a minimum of four hours using a submersible pump and flow meter to measure water production. The Contractor shall furnish the Engineer a copy of the record of the yield test (draw down/recovery test) for the well including the following information:

1. Static water level.

2. Maximum sustained yield.
3. Draw down for maximum sustained yield.
4. Well depth.
5. Recovery time from sustained yield draw down to static water level.

In the event of an unsuccessful yield test, 10 days shall be allowed for the Department to evaluate the geologic and hydrologic well data and decide upon an alternate course of action.

After a satisfactory yield has been obtained, the Contractor will proceed with development and disinfection. Water samples will then be collected by the Contractor and delivered to an approved testing laboratory for required testing for public water systems. The required tests for a Class B public water system are Nitrate and Total Coliform Bacteria tests. All testing shall conform to current regulations set forth State of Alaska Department of Environmental Conservation Drinking Water Regulations 18 AAC 80. Two copies of the laboratory analysis will be furnished to the Engineer for submittal to the Alaska Department of Environmental Conservation. The Contractor shall bear all costs of samples and analysis.

652-3.09 DEVELOPING. Development shall be by high velocity jetting of air or water. Development shall be conducted to give the maximum practical yield of water per foot of draw down and to extract from the water-bearing formation the practical maximum quantity of such fine materials as may, during the life of the well, be drawn into the casing when the well is pumped under maximum conditions of draw down. At the conclusion of the development, the well shall be cleared of all accumulations of sediment to the full depth of the well. All equipment and material furnished and installed by the Contractor for developing the well shall remain his property and shall be removed by him upon completion of the work.

652-3.10 GROUTING. At least 10 feet continuous grouting shall be installed within the first 20 feet below the ground surface. Ream the section to be grouted to not less than a diameter of 4 inches greater than the casing O.D., and the casing shall be centered in this section and held in place with sufficient spacers to maintain true alignment and the area around the casing grouted. Grout shall consist of 1 part Portland Cement and 3 parts sand mixed with only sufficient water to form a workable mix or an Engineer approved bentonite mixture. The grout shall be placed in such a manner that surface water and other impurities will be prevented from entering the well by infiltration along the bore and casing. Method of grouting shall be approved and shall include forcing grout from bottom of grout space toward ground surface. Grouting operation shall be continuous. Spacers shall be of a durable material and shall be clean and suitable as concrete aggregate.

Grout shall be allowed to set for 3 days before any work may be done which would disturb it or cause it to crack. Care shall be taken to protect the grout from damage and insure a proper curing during this 3 day setting period.

652-3.11 WELL SCREEN. Final determination of the need for the installation of a well screen and the screen criteria will depend upon thickness and uniformity of water bearing strata, analysis of aquifer samples and requirements of the well and will be as directed by the Engineer. It will be the Contractor's responsibility to obtain representative samples of sands and water in the aquifer and submit them, with a copy of the drilling log to the Engineer. The sand sample shall be taken after a satisfactory yield has been obtained.

The well screen shall be installed by holding the well screen in place with the drill steel while pulling the casing up to expose the screen to the water-bearing strata.

The well screen shall have an additional five foot length of 5-inch pipe attached to the upper end. The well screen shall be installed in 5-foot segments. If the well screen slot size opening is to be other than 0.080 inches, as directed by the Engineer, then any difference in cost greater than $100.00 will be compensated by change order.

Final length of screen shall be as directed by the Engineer. Diameter shall be the largest size which may be installed in the casing used.

Screen shall have adequate strength to resist external force after installation and to resist damage during installation. Screen shall have no change of alignment after installation.

Fittings of same material as screen shall be provided as necessary to seal top of screen tightly to casing and to close bottom of screen. The lead packer to be provided at top of screen shall have 12 inches minimum overlap of casing and screen.

652-3.12 ABANDONMENT OF WELL. If the Department decides to abandon a well, the well shall be permanently abandoned in accordance with regulatory standards established by the Alaska Department of Environmental Conservation. Method and compensation for abandoning a water well will be established by a change order agreement.

If the Contractor, due to his operations, should abandon drilling at one location in favor of another, or should fail to complete a satisfactory well bore as specified or required he shall plug the abandoned bore as specified above at no cost to the Department and without compensation for drilling operations performed at the abandoned site. Salvaged materials shall remain the Contractor's property.

652-3.13 HAND PUMP ASSEMBLY. The hand pump assembly shall consist of the hand pump, pump cylinder, well point, and required accessories. Set fountain plumb upon the casing. All miscellaneous hardware not specifically specified or detailed shall be furnished and installed so as to make the water system operational.

On the basis of the yield test, the Engineer will stipulate the depth to the bottom of casing and the depth to which the pump cylinder shall be set.

652-3.14 DROP PIPE AND PUMP ROD. Drop pipe and pump rod shall be installed as detailed on the Plans or approved by the Engineer.

652-3.15 WELL PAD. This work will consist of excavation, grading, bedding, crushed aggregate base material, and sewer rock, well seal, sign installation, and construction of concrete pad as shown on the Plans and Parks Standard Drawing U-1A, Hand pump Water Well. Excavation and backfill shall conform to the requirements of Section 204. Concrete shall conform to the requirements of Section 501.

652-3.16 WELL AND SUBMERSIBLE PUMP DISINFECTION.

1. Pump the well until the well and water distribution system is clear.

2. Obtain one half-gallon of household bleach, i.e., Clorox, Purex, etc., which contains 5 to 6% sodium hypochlorite. Pour one quart in a large bucket of water and pour this solution down the well casing. Repeat this procedure with the remaining quart of bleach.

3. Turn the pump on and off several times to help mix the chlorine solution in the well. Then open all taps until you can smell chlorine in all outlets. When you can smell chlorine at the last outlet on the system, shut off the pump and hold the chlorine in the system overnight.

4. Flush the chlorine from the distribution system by opening all taps until chlorine can no longer be smelled at any water outlet. The well and distribution system should now be disinfected. Wait for at least one week and then sample the well for bacteriological contamination as per the Alaska Department of Environmental Conservation's recommendations. If the sample does not meet ADEC's requirements, repeat the disinfection and sample process until satisfactory results are obtained.

5. Chlorinated water shall not be allowed to discharge into any surrounding streams.

652-3.17 WELL AND HAND PUMP DISINFECTION.

1. Pump the well until the well water is clear.

2. Disinfect with household bleach, i.e., Clorox, Purex, etc., which contains 5% to 6% sodium hypochlorite. Pour one half liter of this disinfectant into a large bucket of water and pour this solution into the well casing. Repeat this procedure with the remaining bleach until a ratio of one pint disinfectant per 100 gallons of well water is obtained (one pint disinfectant per 68 lineal feet of water column).

3. Mix the chlorinated well water by pumping water until a chlorine odor can be detected at the outflow. Remove the pump handle and let the system disinfect overnight.

4. Flush the chlorine from the well by hand pumping until the chlorine odor cannot be detected at the outflow. Remove the pump handle and wait for at least one week before sampling the well for bacteriological contamination as per ADEC's recommendations. If the sample does not meet ADEC's requirements, repeat the disinfection and sample process until satisfactory results are obtained.

5. Chlorinated water shall not be allowed to discharge into any surrounding streams.

652-3.18 PAINT. Deliver in sealed containers with labels legible and intact. Remove dirt, grease, oil and other construction debris prior to painting. Insure 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. Unless otherwise specified, schedule finishes as follows:

1. Treated Wood, Hidden. Dados, cut ends, drilled holes and field cuts in wood materials shall be brush coated to saturation with wood preservative.

2. Treated Wood, Exposed. Finish surfaces with semi-transparent oil stain.

3. Concrete. Seal exposed concrete surfaces.

4. Metal. Prime as recommended by paint manufacturer. Paint exposed metal surfaces with gloss enamel paint, color to match hand pump drinking fountain.

652-4.01 METHOD OF MEASUREMENT. Drilling will be measured by the actual length of well drilled from the ground surface to the bottom of the drilled hole.

Casing will be measured by the actual length of casing furnished and installed in the well hole. The drive shoes shall not be measured as part of the casing length.

Yield Test will be measured by the actual number of hours of test pumping.

Well Screen will be measured by the actual length of well screen furnished and installed in the well hole. The 5 inch pipe shall not be measured as part of the well screen length.

Drop Pipe and Pump Rod will be measured by the actual length of drop pipe and rod furnished and installed.

Well Construction is a lump sum item and will not be measured directly for payment. Measurement will be for all well construction not covered by other water well items of work. Work shall include water testing, pump assembly, developing, well pad construction, well sign installation, grouting, disinfection, the development work completed.

652-5.01 BASIS OF PAYMENT. Drilling will be paid for at the contract unit price per linear foot of drilled hole. Related work such as drilling logs and the cleanup of the drilling operation will be subsidiary to this pay item.

Casing will be paid for at the contract unit price per linear foot of casing installed and accepted. Furnishing and installing well cap and drive shoes will be considered subsidiary to this pay item.

Yield Testing will be paid for at the contract unit price per hour for each hour of actual test pumping.

Well Screen will be paid for at the contract unit price per linear foot of well screen installed and accepted. The 5 inch pipe and all work related to the completion of sampling, testing, and analysis for determination of screen criteria shall be subsidiary to this item.

Drop Pipe and Pump Rod will be paid for at the unit price per linear foot of drop pipe and pump rod acceptably installed as shown in the bid schedule.

Well Construction will be paid for at the contract lump sum price for all water well work not covered by other water well items necessary and required to completed operational well.

Payment will be made under:

Pay Item	Pay Unit
652(1) Drilling	Linear Foot
652(2) Casing	Linear Foot
652(3) Yield Testing	Hour
652(4) Well Screen	Linear Foot
652(5) Drop Pipe	Linear Foot
652(6) Pump Rod	Linear Foot
652(7) Well Construction	Lump Sum

(01/01/01)PARKS

Add the following Section:

SECTION 654

VAULTED TOILET

654-1.01 DESCRIPTION. This work consists of constructing vaulted toilets in conformance with the Plans and Specifications.

654-1.02 APPLICABLE STANDARD DRAWING. Division of Parks and Outdoor Recreation Standard Drawing R-7, Vaulted Toilet.

654-1.03 APPLICABLE ACCESSIBILITY STANDARD. Americans with Disabilities Act (ADA) Accessibility Guidelines for Buildings and Facilities.

654-1.04 SUBMITTALS AND SUBSTITUTIONS. Conform to Subsection 106.

MATERIALS

654-2.01 GENERAL. Materials shall be new and conform to the details shown on the Plans or as specified. An approved products list is available upon request.

654-2.02 BACKFILL. Material will be Selected Material, Type A conforming to Subsection 703-2.07.

654-2.03 CRUSHED AGGREGATE SURFACING. Aggregate base course, grading D-1 conforming to Section 301.

654-2.04 CONCRETE. 5-Sack and 6-Sack Concrete conforming to Section 501.

654-2.05 REINFORCEMENT STEEL. Reinforcing steel shall conform to Subsection 709-2.01.

654-2.06 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.

654-2.07 STEEL CONNECTORS FOR WOOD CONSTRUCTION.

1. Post Cap. Dual-purpose post cap/base combination for light post cap or post base connections, similar to Simpson BC46. Constructed of 18 gauge galvanized steel for connecting 4x4 to 6x6 posts and timbers, designed for allowable load of 980 pounds uplift and 1,000 pounds lateral.

2. Elevated Post Base. Painted steel elevated post base for connecting 6 by 6 wood post to concrete pad, similar to Simpson EPB66. Connector constructed of 12 gauge post base plate and 1 1/16 inch outside diameter by 8 inch pipe, designed for allowable load of 1,500 pounds uplift, 3,465 pounds down force, and 985 pounds lateral. The pipe portion of the post bases set in the rear of the building shall be cut short to prevent the pipe from contacting the tank below.

3. Hurricane Tie. 18 gauge galvanized steel, designed for an allowable load of 455 pounds uplift, similar to Simpson H5.

4. Strap Tie. 12 gauge galvanized steel, similar to Simpson FHA6.

654-2.08 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.

654-2.09 TREATED LUMBER. 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.

654-2.10 SHEATHING MATERIALS. Conform to the latest edition of U.S. Product Standard PS-1 and shall be identified with the appropriate grade-trademark of the American Plywood Association.

1. Roof Sheathing. 5/8 inch APA 32/16 Rated Sheathing, C-D Interior with exterior glue.

2. Siding. 5/8 inch APA 303-16 on center (o.c.), rough-sawn Texture 1-11, with grooves 4 inches o.c. Siding should be from the same manufacturing lot to ensure consistent appearance.

3. Soffits and Ceilings. 1/2 inch APA A-C Exterior.

4. Interior Walls except front. 1/2 inch APA A-C Exterior.

5. Front Interior Wall. 5/8 inch APA A-C Exterior.

654-2.11 ROOF TRUSSES. Roof trusses with 2x4 members shall be commercially manufactured for a minimum roof design live load of 100 pounds per square foot.

654-2.12 WOOD TRIM AND MOLDING. Shall be free from warpage, stain, rot and other imperfections affecting strength, durability and appearance.

1. Dimensional Interior Trim. Common Pine, surfaced four sides. Moisture content not to exceed 12 percent.

2. Dimensional Exterior Trim. Tight knot Common Cedar with exposed surfaces rough cut. Moisture content not to exceed 19 percent.

3. Quarter Round Molding. Conform to the Wood Moldings and Millwork Producers standard pattern WM 105 3/4 X 3/4, and shall be pine or hemlock.

654-2.13 FLASHING AND SHEET METAL. Exposed fastener metal roof system with panel base metal steel conforming to ASTM A-446, Grade 80, (80,000 psi minimum tensile strength) with a protective coating of zinc-aluminum alloy conforming to ASTM A-924/ASTM A-792, 45 percent zinc and 55 percent aluminum by weight applied to a thickness of 1.9 mils. Alternate coatings proposed for substitution will not be accepted. Exterior paint finish to be a 0.8 mil Acrylic Emulsion finish coat over a 0.2 mil baked-on acrylic primer. Exterior color to match Denali Green by IMSA Building Products Inc. Interior paint finish to be a 0.25 mil off-white backer over a 0.15 mil baked-on acrylic primer.

1. Roof Panels. Minimum 29 gauge, 36 inch net width panel with 9 inch on center roll-formed profile pattern consisting of three evenly spaced ribs, one tall rib followed by two shorter ribs.

2. Gable Trim and Universal Ridge. Shall be approximately 6 inches wide.

3. Closure Strips. Polyethylene foam type to fit panel profile or 1 inch by 1 inch universal closures.

4. Sidelap Mastics. Closed cell neoprene butyl.

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

6. Vent Pipe Flashing. Vent pipe flashing is a flexible one piece, ultra-violet resistant, EPDM (ethylene-propylene diene monimer) rubber pipe flashing.

654-2.14 ROOFING FELT. 15 pound dry felt saturated in hot asphalt.

654-2.15 JOINT SEALER. Silicone caulking compound compatible with all surfaces encountered in the work.

654-2.16 DOOR AND HARDWARE.

1. General. Conform to the following:
   a. SDI-100, Standard Steel Doors and Frames.
   b. DHI, Door Hardware Institute, the Installation of Commercial Steel Doors and Steel Frames, Insulated Steel Doors in Wood Frames and Builder's Hardware.
   c. ADA Accessibility Requirements.

2. Door. 1 3/4 Inch thick, 36 inch x 84 inch insulated metal flush exterior door manufactured of 18 gauge cold rolled stretcher leveled steel. Door shall be reinforced, stiffened, insulated, and sound deadened with a solid slab of expanded polystyrene foam permanently bonded to the inside of each face skin. Lock rail shall be one piece full height 14 gauge pressed channel x elongated templating. Hinge rail shall be one piece full height 14 gauge pressed channel, formed and tapped for hinges. Top and bottom of door shall have 16 gauge steel closure channels. Doors shall have beveled (1/8 inch in 2 inches) lock edge. Door shall be bonderized and finished as standard with one coat of baked on prime coat paint.

3. Door Jamb. Flush type metal door frame fabricated of galvanealed 14 gauge steel with unequal rabbet, 4 3/4 inch jamb depth, prepared for all hardware including deadbolt. Frame shall have hinge and lock strike reinforcing. Omit sill. Anchor system for jambs shall be the "Existing Wall Masonry Anchor". Centerline of latchset strike shall be 40 5/16 inches from bottom of frame. Centerline of deadlock strike shall be no higher than 48 inches above the finished floor.

4. Hinges. 4½ Inch x 4½ inch full mortised spring hinges with concealed bearing, US26D, 1½ pair per leaf to fit metal door frame.

5. Latch. Heavy duty commercial grade push/pull latch with 2-3/4 inch backset, government standard #161 cutout, minimum ½ inch bolt throw, US26D finish, non-handed, meeting ADA accessibility requirements. 1-1/2 inch x 4-1/2 inch handles to be mounted vertical with handles up and not projecting from door more than 2-5/8 inch. Engraved with the word PULL on the exterior handle and the word PUSH on the interior handle.

6. Deadbolt. Heavy duty single cylinder deadbolt with 2 ¾ inch backset, ANSI 156.5 Grade 1, US26D, U.L. Listed. Deadbolt shall be Schlage Model B660P or approved

equal. Deadbolt shall be keyed to accept Schlage Series C, No. 56349. Provide two keys per deadbolt.

7. Door Stops. Circular wall screw mount door bumpers, stainless steel, concave style rubber bumper, center screw mounted. The bumper shall be 2 ½ inch diameter and project from the post 1 inch.

8. Door Bottoms. Pemko 321, Ultra DB057, Reese 602/603, or N.G.P. 198N.

654-2.17 WINDOW PANELS. Pebble finish clear polycarbonate sheeting. Window panels to be 3/16 inch thick and sized to fit within the window rough opening.

654-2.18 PAINT. The following paint types, or approved equals, are specified:

1. Epoxy Paint. Two component water based epoxy paint, semi-gloss, color white.

2. Epoxy Paint Primer. Primer for wood surfaces as recommended by the epoxy paint manufacturer. Primer is required unless the epoxy paint is specifically designed to be "self priming".

3. Oil Stain. Solid oil/alkyd base stain, flat, color "Russet". Russet as manufactured by Pittsburgh Paint Company, Behr Plus 10 Solid Stain #354 Russet, Olympic Russet as manufactured by PPG Architectural Finishes, Inc., or DF7XX as manufactured by Fuller O'Brien/Devoe Products.

4. Alkyd Semi-Gloss Enamel. Color to match oil stain.

5. Concrete Sealer. Transparent water based acrylic conforming to AASHTO M148/ASTM C309 (Standard Specification for Liquid Membrane-Forming Compounds for Curing Concrete, for Type 1 Compounds).

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

654-2.19 METAL VENT WITH SECURITY GRILLE. Non-vision two piece steel inverted Y louvers with vandal proof design. Louver blades and frame constructed of 18 gauge zinc electroplated steel. Security grill is constructed of 12 gauge zinc electroplated steel with 13/64 inch openings 1 inch on center. Door vent grill size is 22 inches wide by 14 inches high. Wall vent grill size is 34 inches wide by 10 inches high.

Toilets number 1 and 2 will have wall vents only.

654-2.20 ACCESSIBLE TOILET ROOM SIGNS. Tactile 3-D Braille signs of high impact Plexiglas conforming to Section 4.30 Signage, Americans with Disabilities Act.

1. Accessible Symbol Sign. 6 inch by 6 inch sign with white handicapped pictogram on brown background.

2. Unisex Men/Women Restroom Sign. 6 Inch by 9 inch signs with white MEN/WOMEN pictograms with line between, lettering, and Braille on brown background.

654-2.21 TRASH MESSAGE SIGN. Metal signs fabricated to the dimensions specified. Reflective sheeting shall be Type II (medium intensity) with white sheeting for symbols, letters, and borders, and brown sheeting for backgrounds. Layout details of custom signs not shown shall conform to the Alaska Sign Design Specifications. Sign sheets shall be alloy 6061-T6 aluminum, 0.080 inch or thicker.

The trash message sign shall be a 12 inch by 12 inch sign laid out as follows:

654-2.22 TOILET ACCESSORIES.

1. Grab Bar. One piece 1½ inch outside diameter heavy duty stainless steel horizontal grab bar constructed to dimensions shown on the floor plan. Meet ADA accessibility requirements. 8 gauge mounting flanges shall have exposed fasteners.

2. Toilet Paper Dispenser. 3 roll toilet paper dispenser, Model TH-3 by Pilot Rock Park Equipment (1-800-762-5002), 3 Roll Toilet Paper Dispenser by Romtec, Inc. (503-496-3541), Aslin Three-Roll Dispenser (503-269-1903).

   Dispenser is commercially manufactured of ¼ inch thick steel plate consisting of two L-shaped wall brackets and a cross bar to hold three rolls of toilet paper. One leg of each wall bracket has three holes for fastening to 16 inch o.c. wall framing. The other wall bracket leg is slotted to receive the cross bar. The cross bar is wider than the standard center hole in a toilet paper roll to prevent removal of paper by rolling.

One end of the cross bar is bent so that it cannot be removed from the wall bracket from one direction. The other end of the cross bar has a 3/8 inch padlock hole. When padlocked, the cross bar cannot be removed from the wall brackets. The dispenser has a gloss white enamel finish. Provide one standard Park padlock conforming to Subsection 654-2.26 for each dispenser.

3. Wardrobe Hook. Single robe hook, one piece brass casting with satin nickel plated finish to match stainless steel, 2 3/4 inch flange diameter, 3 to 3 1/2 inch projection from wall, mounted with three exposed countersunk mounting screw holes, and capable of withstanding 300 pounds downward pull. Similar to Bobrick B-211 or McKinney 1027B.

654-2.23 TOILET RISER ASSEMBLY. 18 Inch high smooth, white cross-linked polyethylene vault toilet riser, 7/8 inch thick white high impact polystyrene seat, and white high impact polystyrene cover. Molded one piece design with not joints or seams. Mounting hardware shall be stainless steel. Riser Dimensions: 18 inch high from floor, 5 inch flange "skirt", 20 5/8 inch by 16½ inch oval.

654-2.24 TANK VENT PIPE. 12 Inch diameter black polyethylene pipe, impermeable with ½ inch thick walls.

654-2.25 TOILET TANK AND MANHOLE COVER. 835 Gallon steel tank and cover fabricated in accordance with Plans. The inside and outside surfaces of tanks shall be coated with two coats of coal tar pitch solution after fabrication. The coal tar pitch solution shall have an unthinned volatile organic compounds content of 2.60 to 2.80 pounds per gallon with 62 to 68 percent solids by volume. Other coating satisfying requirements of the Alaska Department of Environmental Conservation may be used. Bituminous coating shall not be acceptable as an equal.

Provide two each standard Park padlocks in conformance with Subsection 654-2.26 for attachment of each manhole cover.

654-2.26 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.

CONSTRUCTION REQUIREMENTS

654-3.01 SITE WORK. Excavation and backfill shall conform to Subsection 204-3.01 and the details on the Plans. Finish ground profile to slope away as detailed in the Plans except for areas that abut adjacent sidewalk or parking areas. Install finish surfacing around concrete pad so that no vertical break results at the point where the

surfacing meets the concrete slab. 4 cubic yards of crushed aggregate base course surfacing is required to construct surface shown in the Plans.

654-3.02 CONCRETE. Concrete shall conform to Section 501 and the details on the Plans. Coordinate concrete placement with the Engineer at least 24 hours prior to the scheduled arrival of concrete. Place concrete only after forms have been accepted.

Reinforcing steel shall not be in contact with ground during concrete placement, and shall not be within 3 inches of the forms. If concrete block pieces are used in lieu of chairs, they shall not have a surface area greater than 9 square inches.

Slope concrete slab as shown on the drawings. Floors of interior areas are to receive a hard trowel finish. Exterior slab surfaces are to receive a broom finish with striations perpendicular to ridge of toilet building. Finish concrete around flanges and post bases without gaps and irregularities.

Slope concrete ballast inside steel tanks from front to rear as shown on the drawings. Concrete floor of steel tanks are to receive a hard trowel finish to facilitate tank cleaning.

Seal concrete using the specified product or approved equal in accordance with the manufacturers instructions. Sealing ballast concrete is not required.

Cover concrete with polyethylene film while concrete is still moist. If concrete surface appears dry it should be wetted with a fine spray before sheeting is placed. If more than one sheet is used, sheets should be lapped minimum 18 inches. Weight polyethylene to allow sheet(s) to remain in contact with concrete surface. Polyethylene shall remain in place for at least 3 days.

Protect concrete against damage from construction operations and painting over spray. Patch concrete damaged by construction operations in a manner acceptable to the Engineer.

654-3.03 ROUGH CARPENTRY. Shall consist of wood framing, blocking, nailers, columns, beams, plates, roof sheathing and trusses, and rough hardware. Use of damaged lumber shall not be allowed. Store on-site lumber above the ground and protected from damage and weathering.

Sole plate shall be treated lumber, cut to a taper where required in order to level building. Treat cut sole plate surfaces with 3 coats of copper naphthenate and install cut surfaces up.

Set the 6x6 post base at the time of pour to the elevation such that the bottom of the base is flush with the upslope edge of the finish concrete surface.

Space roof trusses as shown in the Plans. Hurricane ties are only to be used on the truss/top plate joints that will be concealed by sheathing. Secure trusses in place prior to roof sheathing installation. Install roof sheathing with long edge/face grain perpendicular to the framing and with joints staggered. Butt joints shall be flush with no gaps.

Use box nails for rough carpentry unless otherwise noted. Minimum nailing schedules are listed below. Connections not listed shall conform to Uniform Building Code (UBC) Table 25-Q.

Connection	Fastening
1. Top plate to stud, end nail	2-16d
2. Stud to sole plate, end nail	2-16d
3. Stud to sole plate, toe nail	4-8d
4. Doubled studs, face nail	16d at 24 inches o.c.
5. Doubled top plates, face nail	2-16d at 16 inches o.c.
6. Top plates, laps & intersections, face nail	2-16d
7. Roof truss to plate, toenail	2-8d
8. Built-up corner studs, face nail	16d at 24 inches o.c.
9. Roof sheathing to framing:	
- Edge nailing	8d at 6 inches o.c.
- Interior nailing	8d at 12 inches o.c.
10. Sole plate to floor	17 each - 3/8 inch x 5 inch stud type expansion bolt/washer/nut
11. Post cap/base to post/timber	½ inch by 6 ½ inch bolts

654-3.04 FINISH CARPENTRY. Shall consist of siding, A-C plywood panels, door jambs, window casings, fascia and trim.

All A-C plywood panels except on interior wall surfaces shall be installed with long edge/face grain perpendicular to the framing and with joints staggered. Siding shall be installed long edge/face grain parallel to wall framing. All joints shall occur on studs or 2 by 4 nailers with minimum bearing equal to plywood thickness.

Siding panels shall be full length. Siding and bottom wall trim shall be separated from the concrete slab by ¼ inch gap.

Fascia shall be installed in long lengths, with end joints staggered over bearings. Use scarf nailing joints between continuous pieces. To prevent skippage marks caused by shrinkage, prime all exposed exterior sides to include scarf joints with one coat of oil stain prior to installation.

Trim and molding shall be installed full length, tight fit, and with end grain hidden. Bevel cut top edge of baseboard trim to 45 degrees and caulk baseboard/floor joint with white silicone.

Install trim as shown on the Plans. All finish carpentry nails shall be hand driven.

Hot-dipped galvanized box nails (bn) shall be hand driven on all T1-11 plywood, exterior trim and fascia. Use finish nails (fn) on planed trim and exposed sanded plywood. Minimum nailing schedules are listed below. Connections not listed shall conform to Uniform Building Code (UBC) Table 25-Q.

Connection	Nailing
1. T1-11 and roof sheathing to framing:	
- Edge nailing	8d (bn) 6 inches o.c.
- Interior nailing	8d (bn) 12 inches o.c.
2. Cedar trim:	
- 1x3, 1x4, and 1x6 gable fascia	2-8d (bn) 16 inches o.c.
- 1x6 eave fascia to roof truss end	2-8d (bn)
3. 1x Pine trim	2-8d (fn) 16 inches o.c.
4. Quarter round molding	1-8d (fn) 16 inches o.c.
5. Soffits, ceilings and interior walls:	
- Edge nailing	6d (fn) 6 inches o.c.
- Interior nailing	6d (fn) 12 inches o.c.
6. Window casing to framing	2-8d (fn) 24 inches o.c.
7. Outside window trim	1 5/8 inch galvanized wood screws

654-3.05 FLASHINGS AND SHEET METAL. Store sheets and other roofing components above the ground and keep dry. Steel roofing shall not come into contact with lead, aluminum, copper, alkalines, fertilizers, or acids. Panels shall be clean and unmarked during and after erection.

Place roofing felt over plywood sheathing. Lap felt 4 inches minimum at sides and top and 10 inches at ridge.

Position first roof panel at gable end away from prevailing wind and check for alignment with building structure. Panels shall overhang sheathing at eave 2 inches as a drip edge. Sidelap mastic shall be installed continuously along edge of panels. Do not place fasteners through the sidelap mastic. Install wood-metal screws at 24 inches on center at major ribs and stitch screws at 12 inches on center at sidelaps.

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

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

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

Install vent pipe flashing in accordance with manufacturer's instructions.

654-3.06 SEALERS AND ADHESIVES. Install adhesives and caulking as required and as recommended by the manufacturer. Caulk toilet riser to concrete floor, vent pipe to flange, and baseboard to floor connections. Excess caulking or adhesives applied to finish surfaces shall be removed. Caulking shall be installed without pin holes. Voids over ¼ inch wide shall not be filled without the use of backing rod. Caulking shall be compatible with the surface to which it is applied. Caulking shall not be installed between building and concrete on the outside.

654-3.07 METAL DOORS.

1. General. Install door with 1 inch clearance between bottom of door and finish floor before installation of door sweep. Adjust spring hinges to minimum tension that allows door to close and latch. The maximum force for opening door should not be greater than 5 pounds.

2. Metal Door Jambs. Install per manufacturer's recommendations to include jamb anchors. Inside and outside jamb faces to be flush with surface of plywood wall panel.

3. Door Sweep. Install door sweep as per manufacturer's recommendation on the exterior part of the door.

654-3.08 WINDOWS. Install polycarbonate window panels with the pebble side facing the outside of the building.

654-3.09 PAINTING. Deliver in sealed containers with labels legible and intact. Protect latex paints from freezing. All surfaces receive two coats.

Remove dirt, grease, oil and other construction debris prior to painting. Remove and protect hardware, accessories, factory-finished work and similar items or provide ample in-place protection. Remove paint in an approved manner from portions of the work not adequately protected from painting operations. Upon completion of each space, carefully replace all removed items. Use only skilled tradesmen for removal, replacement and protection. Cover and protect finished work of other trades and surfaces not to be painted. Use drop cloths of adequate size to protect adjacent areas.

Insure that surfaces to which painting and other finishing are to be applied are even, smooth, sound, clean, dry, and free from defects affecting proper application. Fill all joints (including butt joint of plywood), fastener indentations, wood grain depressions and other imperfections on interior wood surfaces, and exterior A-C plywood surfaces with Fixall or other acceptable wood filler compound. Allow filler compound to dry two days prior to painting. The interior surface of the toilet must be absolutely smooth without cracks or indentations or visible wood grain prior to painting. Sand entire surface of plywood sheets prior to painting interior wood surfaces.

Metal surfaces to receive paint shall be corrosion free. Repair damaged surfaces with bonding agent prior to painting. Door and other metal items which have been damaged beyond repair, in the opinion of the Engineer, shall not be installed.

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. Leave moldings, trim, ornaments, edges, and millwork clean and true to details without excess paint in corners or depressions. Make edges of paint adjoining other materials or colors sharp and clean, and without overlaps. Do not apply succeeding coats until the undercoat is thoroughly dry unless recommended otherwise by the manufacturer. No wood grain, butt joints or other surface imperfections shall be visible through the finish painted exposed surfaces of A-C plywood.

Apply finishes as follows:

	LOCATION	FINISH
1.	Interior Wood and Metal Surfaces [a,c]	Epoxy
2.	Exterior Wood Surfaces [b]	Oil Stain
3.	Exterior Metal Surfaces [a,c]	Alkyd Semi-gloss Enamel
4.	Door Surfaces, Edges and Frame [c]	Alkyd Semi-gloss Enamel

Notes:

a. Spray paint door/wall vent grilles.
b. Oil stain shall be applied to all wood surfaces visible in wall vent holes.
c. Do not paint door handles, hinges, latches, weather stripping, bottoms, vent pipe, robe hook, roof metal, grab bars, and manhole covers

Oil stain shall be applied at temperatures between 45 and 90 degrees F. Drying time between coats shall be at least 18 hours unless otherwise approved by the Engineer.

Alkyd semi-gloss enamel shall not be applied below 45 degrees.

Epoxy paint shall be applied at temperatures between 50 and 95 degrees Fahrenheit. Lightly sand between coats of epoxy paint to ensure that surface finish is smooth to the

touch. Apply paint as recommended by the manufacturer to achieve a minimum dry film thickness of 5-6 mils, not including primer. Allow for manufacturers recommended drying time between coats. Epoxy paint that has exceeded it's shelf life shall not be used.

Remove all paint, stain, or other finish material where it has spilled or spattered.

654-3.10 DOOR AND WALL VENTS. Attach vents with #10 x 3/4 inch round head stainless steel one-way tapping screws.

654-3.11 TOILET ROOM ACCESSORIES. Attach toilet accessories with #12 x 1 3/4 inch round head stainless steel one-way tapping screws.

Install grab bar with centerline of bar at the elevation shown in the Plans.

Center toilet paper dispenser on the toilet paper dispenser blocking and at the elevation shown on the Plans.

Install wardrobe hook on the interior center wall, 24 inches from the doorway wall and at 54 inches above finish floor.

654-3.12 SIGNS. Install signs as shown on the Plans. Attach signs with four #12 x 3/4 inch round head stainless steel one-way tapping screws, one in each corner. Select hole location in corners of sign to minimize obstruction of message and to present a neat appearance.

654-3.13 TOILET RISER ASSEMBLY. Fasten riser flange to floor with six #8 x 1 inch stainless steel pan head slotted tapping screws with ¼ inch outside diameter lead screw expansion anchors. Apply liberal amount of silicone sealant between the hole in the concrete slab and toilet riser. Toilet risers displaying cracks on outside surface shall not be installed.

654-3.14 TANK VENT PIPE. Insure that tank vent pipe is installed plumb. Apply silicone at tank vent flange, roofing, and soffit connections. Take special care to cut out soffit and metal roof for vent pipe, so that gap between does not exceed ¼ inch.

654-3.15 TOILET TANKS AND MANHOLE COVER. Tanks and covers shall be inspected for conformance with contract documents and damage prior to installation. Distortion caused by welding heat or other causes shall be repaired prior to installation. Scrapes or other damage which occurs to the tank coating shall be repaired in a manner acceptable to the Engineer prior to placement. Install as shown on the drawings. Secure tank openings with temporary closures until manhole covers and toilet risers are installed.

654-4.01 METHOD OF MEASUREMENT. Measurement will be the actual number of vaulted toilets completed and accepted. Excavation, embankment backfill within the vertical planes of the excavation limits shown of the vaulted toilet standard drawing are considered subsidiary to this item and will not be measured separately for payment. Crushed aggregate base course surfacing shown in the Plans will be paid for separately under contract unit prices.

654-5.01 BASIS OF PAYMENT. The accepted quantity of vaulted toilets will be paid for at the contract unit price for each vaulted toilet completed in conformance with the Plans and Specifications excluding clearing and grubbing and crushed aggregate base course surfacing.

Payment will be made under:

Pay Item	Pay Unit
654(1) Vaulted Toilet	Each

(4/9/01)PARKS

SECTION 670

TRAFFIC MARKINGS

670-3.04 PAINT REMOVAL. Change the title of this Subsection to "Pavement Markings Removal".

Replace the first sentence of the second paragraph with the following: Remove pavement markings to the fullest extent possible by a method that does not materially damage the surface or texture of the pavement. Painting over existing striping does not meet the requirement for removal. Any method utilizing burning with an open flame shall not be used for the removal of pavement markings on the final paving lift.

670-3.06 TOLERENCES FOR LINE STRIPING. Replace criteria number two with the following:

2. Width of Stripe. The width shall not vary more than 1/4 inch in width in any 50 foot longitudinal run from the plan quantity.

(04/30/02)R246USC

SECTION 703

AGGREGATES

703-2.03 AGGREGATE FOR BASE. Replace Table 703-2 with the following:

TABLE 703-2

AGGREGATE FOR UNTREATED BASE
Percent Passing By Weight

Sieve Designation	Grading C-1	Grading D-1	Grading E-1
1-1/2 inch	100		
1 inch	70-100	100	100
3/4 inch	60-90	70-100	70-100
3/8 inch	45-75	50-79	50-85
No. 4	30-60	35-58	35-65
No. 8	22-52	20-47	23-50
No. 30	10-33	10-26	13-31
No. 50	6-23	6-19	10-26
No. 200	0-6	0-6	8-15

(2/28/00)R117USC

703-2.04 AGGREGATE FOR ASPHALT CONCRETE PAVEMENT. Under Blended Aggregate, replace the last sentence with: "Ensure that the fraction actually retained between any two consecutive sieves larger than the No. 100 is not less than 2% of the total."

4. Selected Material, Type D, shall consist of earth, sand, gravel, rock, or combinations thereof, and shall contain no muck, peat, frozen material, roots, sod or other deleterious matter. (8/20/93)PARKS

Under Table 703-6, replace the column labeled Grading A with the following:

Sieve Designation	Grading A
2 Inch	85-100
1 Inch	--------
3/4 Inch	--------
No. 4	20-55
No. 200	6-12

(01/01/01)PARKS

703-2.13 DRAIN ROCK. Durable, washed, coarse aggregate grades as follows:

Sieve Designation	Maximum % by Weight Passing
2-1/2 Inch	100
1-1/2 Inch	90-100
1 Inch	20-55
3/4 Inch	0-15
3/8 Inch	0-5

(8/20/93)PARKS

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

SECTION 726

TOPSOIL

726-2.01 TOPSOIL. Add the following: Perform a quality test, as defined by ALASKA FOP for AASHTO T 267, on the soil to determine the organic content of the soil. Supply the results to the Engineer.

Soil with an organic content of 5% or more may be reused and spread on the finished slopes where topsoil is noted on the Plans. Remove roots, stumps, unnatural material, and rocks greater than 3 inch in diameter from the organic material before it is graded onto the finished slope.

Soil with an organic content of less 5% cannot be used as topsoil for the project. In this case, furnish topsoil consisting of a natural friable surface soil without admixtures of undesirable subsoil, refuse, or foreign materials having an organic content of 5% or more, as determined by ALASKA FOP for AASHTO T 267. The material shall be reasonably free from roots, clods, hard clay, rocks greater than 3 inches in diameter, noxious weeds, tall grass, brush, sticks, stubble or other litter, and shall be free-draining and non-toxic. Notify the Engineer of the location from which topsoil is to be furnish at least 30 calendar days prior to delivery of topsoil to the project from that location. The Engineer will inspect the topsoil and its sources before approval will be granted for its use. (12/05/01)R208USC

726-2.01 TOPSOIL. Replace Item No. 3 with the following:

TABLE 726-1

TOPSOIL REQUIREMENTS

REQUIREMENT	CLASS A	CLASS B
Sieve Designation	Percent Passing by Weight	
3 inch	-	100
½ inch	100	-
No. 4	95-100	75-100
No.16	64-90	50-95
No. 200	30-60	20-80
Organic Content*	10% - 40%	5% - 40%
Limestone	1.5 Ton/Acre	-

* Determined by loss on ignition of oven dried sample in accordance with ALASKA FOP for AASHTO T 267. (12/05/01)R139USC

SECTION 727

SOIL STABILIZATION MATERIAL

727-2.01 MULCH. Replace numbered item 1. in its entirety 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.

(8/19/99)R206M98

SECTION 729

GEOTEXTILES

Add the following Subsection and Table:

729-2.05 GEOTEXTILE FOR TIMBER RETAINING WALL. The geotextile for the construction of timber retaining wall shall meet the requirements listed in Table 729-2.

Table 729-2 GEOTEXTILE FOR TIMBER RETAINING WALL

GEOTEXTILE PROPERTY	TEST METHOD (ASTM)	TEST VALUE
Grab Tensile Strength, lbs., min	D 4632	200
Grab Elongation, (@ 35 lbs. Tensile Strength), %, max.	D 4632	15
Bursting Strength, psi, min.	D 3786	400
Water Permitivity, 1/sec., min.	D 4491	0.04
Apparent Opening Size, US Standard Sieve	D 4751	30-70
Ultraviolet Degradation @ 500 hour exposure, % strength retained, min.	D 4355	70

NOTE:
1. Geotextile Property Values = Minimum average roll values at 95% confidence level in the weaker principal direction.

(5/1/95)PARKS

SECTION 730

SIGN MATERIALS

Add the following:

6. Structural Tubing and W Shape Beams.

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

   b. W shape beams shall conform to ASTM A36.

   c. Structural tubing and W shape beams shall be hot dip galvanized in accordance with 1.b. of this subsection. Damaged and abraded tubes and beams shall be repaired in accordance with 1.c. of this Subsection.

(12/4/02)R81USC