

<b>NOTICE TO BIDDERS</b>		<b>Page Number</b> 1	<b>No. of Pages</b> 1
		<b>Date Issued:</b> April 1, 1999	
<b>Issuing Office</b> Anton Johansen, P.E. Regional Director, Northern Region Department of Transportation and Public Facilities 2301 Fairbanks Road Fairbanks, Alaska 99709-5399	<b>Addenda Issued</b>  No. 1 issued March 12, 1999 NTB #1 issued March 18, 1999 No. 2 issued March 26, 1999		
<b>Project</b>  <b>Project No.:</b> STP-0002(47)/66482	<b>Date and Hour of Bid Opening</b> April 13, 1999 at 2:00 p.m. Prevailing Time		

**This is an informational Notice to Bidders, not an addendum: therefore no acknowledgement is required.**

The Bidding is hereby delayed one week, from April 6, 1999 to April 13, 1999. Addendum to follow.

<b>NOTICE TO BIDDERS</b>	<b>Page Number</b> 1	<b>No. of Pages</b> 1
	<b>Date Issued:</b> March 18, 1999	
<b>Issuing Office</b> Anton K. Johansen, P.E. Regional Director, Northern Region Department of Transportation and Public Facilities 2301 Peger Road Fairbanks, Alaska 99709-5399	<b>Addenda Issued</b>  No. 1 issued March 12, 1999	
<b>Project:</b> Unalakleet Landfill Road  <b>Project No.:</b> STP-0002(47)/66482	<b>Date and Hour of Bid Opening</b> April 6, 1999 at 2:00 p.m. Prevailing Time	

**This is an Informational Notice to Bidders, not an addendum: therefore no acknowledgement is required.**

### NOTICE TO BIDDERS

The United States Department of Transportation has recently issued new regulations for the DBE Program (49 CFR Part 26). New eligibility criteria for DBE firms have been added, including consideration of Personal Net Worth (PNW) of the DBE owner(s). These new criteria will be used to verify continued certification with the DBE Program. Contractors are requested to continue to use the same procedures they have been using until the Department can establish the PNW. If a DBE firm on a Project awarded after March 3, 1999, is decertified for failure to meet the PNW criteria, the Department will deal with the issue on a case by case basis.

ADDENDUM TO THE CONTRACT DOCUMENTS	Page Number 1	No. of Pages 3
<u>Addendum No.</u>  4	<u>Date Addendum Issued</u>  April 9, 1999	
<u>Issuing Office</u>  Anton K. Johansen, P.E. Regional Director, Northern Region Department of Transportation and Public Facilities 2301 Peger Road Fairbanks, AK 99709-5399	<u>Previous Addenda Issued</u>  No. 1 issued March 12, 1999 NTB #1 issued March 18, 1999 No. 2 issued March 26, 1999 NTB #2 issued April 1, 1999 No. 3 issued April 2, 1999	
<u>Project:</u> Unalakleet Landfill Road  <u>Project No.:</u> STP-0002(47)/66482	<u>Date and Hour of Bid Opening</u>  April 13, 1999 at 2:00 p.m. Prevailing Time	

The Contract Documents for the above project are amended as follows (All Other Terms and Conditions Remain Unchanged):

**THE STANDARD SPECIFICATIONS ARE MODIFIED AS FOLLOWS:**

**501-4.01 METHOD OF MEASUREMENT.** Add the following: All cast in place concrete including but not limited to the backwalls, pipe pile cores, wingwalls, bridge rail curb, and voids in the precast pile cap beams shall be Class A-A.

**507-4.01 METHOD OF MEASUREMENT.** Add the following to the first paragraph: Cast in place concrete for the curb shall not be measured for payment under Pay Item 507(1) but shall be included in Pay Item 501(2), Class A-A Concrete.

**THE SPECIAL PROVISIONS ARE MODIFIED AS FOLLOWS:**

**501-2.01 MATERIALS.** Delete this subsection in its entirety and substitute the following:

**501-2.01 MATERIALS.** Add the following: Grout for keyways between adjacent concrete members shall be a high strength, non-shrink, non-corrosive, non-metallic epoxy grout. The grout shall develop a 28 day compressive strength (f'c) of at least 62 MPa when tested in conformance with ASTM C109.

**507-2.01 MATERIALS.**

3. **Concrete.** Delete the first two sentences in their entirety and substitute the following: All concrete portions of bridge railings shall be Class A-A concrete conforming to the requirements of Section 501.

BIDDERS ARE REQUIRED TO ACKNOWLEDGE THIS ADDENDUM ON THE PROPOSAL OR BY WIRE, PRIOR TO THE HOUR AND DATE SET FOR THE BID OPENING.

ADDENDUM TO THE CONTRACT DOCUMENTS	Page Number 2	No. of Pages 3
<u>Addendum No.</u>  4	<u>Date Addendum Issued</u>  April 9, 1999	
<u>Issuing Office</u>  Anton K. Johansen, P.E. Regional Director, Northern Region Department of Transportation and Public Facilities 2301 Peger Road Fairbanks, AK 99709-5399	<u>Previous Addenda Issued</u>  No. 1 issued March 12, 1999 NTB #1 issued March 18, 1999 No. 2 issued March 26, 1999 NTB #2 issued April 1, 1999 No. 3 issued April 2, 1999	
<u>Project:</u> Unalakleet Landfill Road  <u>Project No.:</u> STP-0002(47)/66482	<u>Date and Hour of Bid Opening</u>  April 13, 1999 at 2:00 p.m. Prevailing Time	

The Contract Documents for the above project are amended as follows (All Other Terms and Conditions Remain Unchanged):

**THE PLANS ARE MODIFIED AS FOLLOWS:**

**SHEET 19.** Make the following pen & ink changes to the Estimate of Quantities Table:

Change the quantities to read as follows:

ITEM NO.	UNIT	SUBST.	SUPERST.	TOTAL
501(2)	LS-m <sup>3</sup>	28.84	20.3	49.14
503(1)	LS-kg	5004	.	5004

**SHEET 20.** In the reinforcing bar schedule, change the number of B401A bar from "10" to "2" and change the number of B401B bar from "2" to "10".

**SHEET 23.** Delete the Detail at the upper left titled "PARTIAL SECTION AT ABUTMENT AND PIERS".

Add Plan Sheet 23A identified as Attachment No. 1 to this addendum.

**SHEET 24.** Delete Concrete placing notes and substitute the following: The numbers 1 & 2 represent the sequence in which the precast deck panels are to be placed. Panels in like numbered sections need not be placed simultaneously, however, all panels of like number must be placed and grouted prior to placing any sections of the succeeding number.

All grout to cure 48 hours prior to placing panels of the next higher numbered section.

**BIDDERS ARE REQUIRED TO ACKNOWLEDGE THIS ADDENDUM ON THE PROPOSAL OR BY WIRE, PRIOR TO THE HOUR AND DATE SET FOR THE BID OPENING.**

ADDENDUM TO THE CONTRACT DOCUMENTS	Page Number 3	No. of Pages 3
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<u>Addendum No.</u>  4	<u>Date Addendum Issued</u>  April 9, 1999
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<u>Issuing Office</u>  Anton K. Johansen, P.E. Regional Director, Northern Region Department of Transportation and Public Facilities 2301 Peger Road Fairbanks, AK 99709-5399	<u>Previous Addenda Issued</u>  No. 1 issued March 12, 1999 NTB #1 issued March 18, 1999 No. 2 issued March 26, 1999 NTB #2 issued April 1, 1999 No. 3 issued April 2, 1999
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<u>Project:</u> Unalakleet Landfill Road  <u>Project No.:</u> STP-0002(47)/66482	<u>Date and Hour of Bid Opening</u>  April 13, 1999 at 2:00 p.m. Prevailing Time
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The Contract Documents for the above project are amended as follows (All Other Terms and Conditions Remain Unchanged):

**SHEET 25.** Make the following pen & ink changes:

Change the plan view of the Deck Panel (upper left corner of sheet) to show leveling screws over the centerline of each girder instead of the exterior girders only. The change will show a total of 10 leveling screws per panel instead of 4.

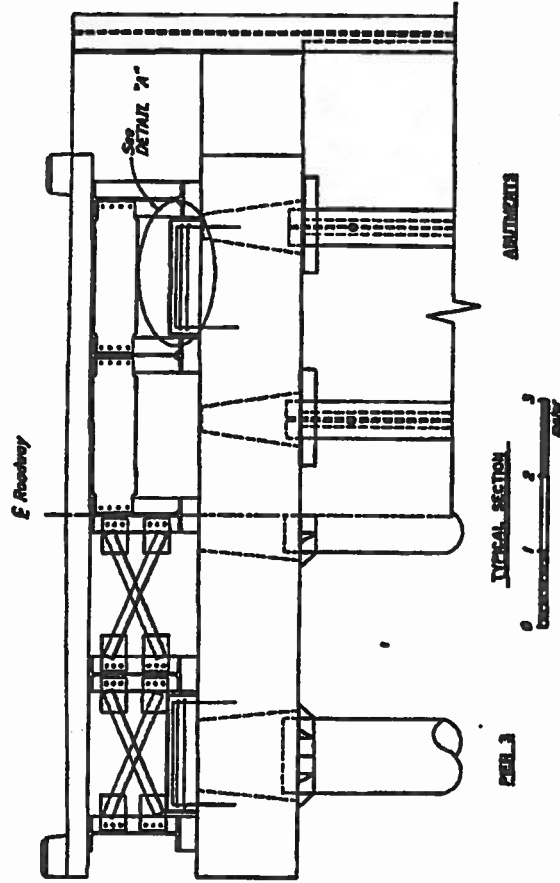
**BIDDERS ARE REQUIRED TO ACKNOWLEDGE THIS ADDENDUM ON THE PROPOSAL OR BY WIRE, PRIOR TO THE HOUR AND DATE SET FOR THE BID OPENING.**

ADDENDUM NO. 4, ATTACHMENT NO. 1

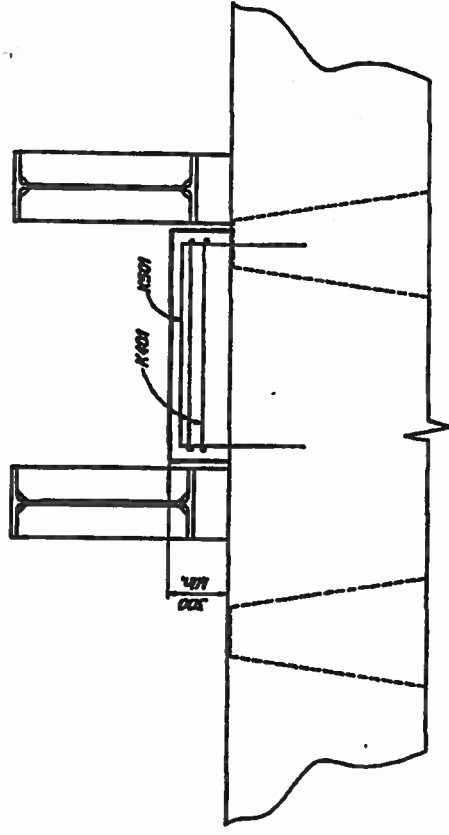
STATE	PROJECT DESCRIPTION	YEAR	NO.
ALASKA	ETA-2000-10-00	1982	23A 38

REINFORCING STEEL

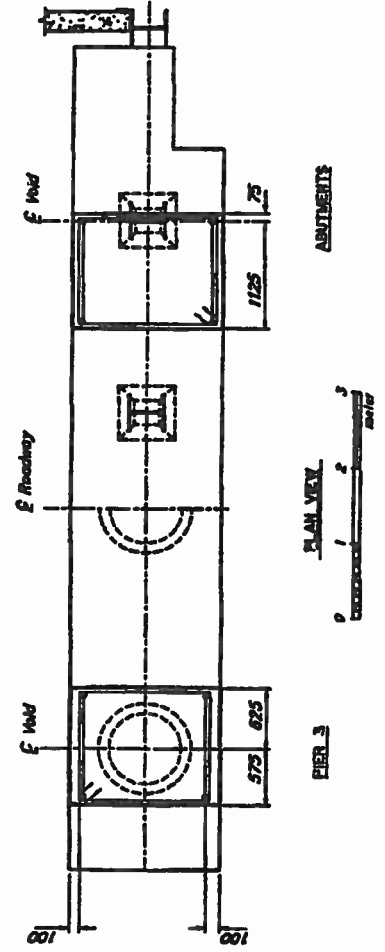
MARK SIZE	NO.	LENGTH	TYPE	BENDING DIAGRAM
K501	4	5'00"	NO. 1	1100
K501	1	12'	NO. 1	1250
K501	1	12'	NO. 2	1350



TYPICAL SECTION  
PIER 3  
1 2 3  
SCALE



DETAIL A  
No. Scale



PLAN VIEW  
PIER 3  
0 1 2 3  
SCALE



KOUWEOOK SLOUGH BRIDGE  
UNLABLET  
SHEAR KEYS  
STATE OF ALASKA  
DEPARTMENT OF TRANSPORTATION  
AND PUBLIC FACILITIES  
ANCHORAGE, ALASKA

DATE: 10/15/82  
DRAWN BY: J. J. [unreadable]  
CHECKED BY: [unreadable]

ADDENDUM TO THE CONTRACT DOCUMENTS	Page Number 1	No. of Pages 1
<u>Addendum No.</u>  3	<u>Date Addendum Issued</u>  April 2, 1999	
<u>Issuing Office</u>  Anton K. Johansen, P.E. Regional Director, Northern Region Department of Transportation and Public Facilities 2301 Peger Road Fairbanks, AK 99709-5399	<u>Previous Addenda Issued</u>  No. 1 issued March 12, 1999 NTB #1 issued March 18, 1999 No. 2 issued March 26, 1999 NTB #2 issued April 1, 1999	
<u>Project:</u> Unalakleet Landfill Road  <u>Project No.:</u> STP-0002(47)/66482	<u>Date and Hour of Bid Opening</u>  April 13, 1999 at 2:00 p.m. Prevailing Time	

The Contract Documents for the above project are amended as follows (All Other Terms and Conditions Remain Unchanged):

**THE CONTRACT DOCUMENTS ARE MODIFIED AS FOLLOWS:**

Delete Wage & Hour Administration Pamphlet No. 600, Laborer's & Mechanics Minimum Rates of Pay, dated September 1, 1998, and substitute the revised Wage & Hour Administration No. 600 dated April 1, 1999, identified as Attachment No. 1 to this addendum.

**BIDDERS ARE REQUIRED TO ACKNOWLEDGE THIS ADDENDUM ON THE PROPOSAL OR BY WIRE, PRIOR TO THE HOUR AND DATE SET FOR THE BID OPENING.**

ADDENDUM TO THE CONTRACT DOCUMENTS	Page Number 1	No. of Pages 1
<u>Addendum No.</u>  2	<u>Date Addendum Issued</u>  March 26, 1999	
<u>Issuing Office</u>  Anton K. Johansen, P.E. Regional Director, Northern Region Department of Transportation and Public Facilities 2301 Peger Road Fairbanks, AK 99709-5399	<u>Previous Addenda Issued</u>  No. 1 issued March 12, 1999 NTB issued March 18, 1999	
<u>Project:</u> Unalakleet Landfill Road  <u>Project No.:</u> STP-0002(47)/66482	<u>Date and Hour of Bid Opening</u>  April 6, 1999 at 2:00 p.m. Prevailing Time	

The Contract Documents for the above project are amended as follows (All Other Terms and Conditions Remain Unchanged):

**THE SPECIAL PROVISIONS ARE MODIFIED AS FOLLOWS:**

**SECTION 641 - EROSION AND SEDIMENT CONTROL PLAN.**

**2. SITE DESCRIPTION.**

- B. Anticipated Sequence of Activities. Delete "2000" from the first sentence and substitute the following: 2001.

**BIDDERS ARE REQUIRED TO ACKNOWLEDGE THIS ADDENDUM ON THE PROPOSAL OR BY WIRE, PRIOR TO THE HOUR AND DATE SET FOR THE BID OPENING.**





STATE OF ALASKA  
DEPARTMENT OF TRANSPORTATION AND PUBLIC FACILITIES

**INVITATION FOR BIDS**

for construction contract

Date: February 12, 1999

Project Number: STP-0002(47)/66482

Name and Location of Project: Unalakleet Landfill Road

Contracting Officer: Anton K. Johansen, P.E., Regional Director

Issuing Office: Northern Region DOT&PF

State Funded  Federal Aid

Description of Work:

Construction of a road to the landfill and a beach road at Unalakleet, 150 miles southeast of Nome, Alaska. Work includes placing embankment, culverts, signs and construction of a 115.1 meter long bridge.

The Engineer's Estimate is between \$2,500,000 and \$5,000,000  
All work shall be completed in \_\_\_\_\_ Calendar Days, or by August 30, 2000.  
Interim completion dates, if applicable, will be shown in the Special Provisions.

**Sealed bids, in single copy for furnishing all labor, equipment and materials and performing all work for the above project are hereby invited. Bids will be opened publicly at 2:00 p.m. local time, in Room 204, Main Conference Room, 2301 Peger Road, Fairbanks, Alaska on the 23rd of March, 1999.**

**SUBMISSION OF BIDS**

ALL BIDS INCLUDING ANY AMENDMENTS OR WITHDRAWALS MUST BE RECEIVED PRIOR TO BID OPENING. BIDS SHALL BE SUBMITTED ON THE FORMS FURNISHED AND MUST BE IN A SEALED ENVELOPE MARKED AS FOLLOWS:

**Bid for Project:**  
STP-0002(47)/66482  
Unalakleet Landfill Road  
\_\_\_\_\_  
\_\_\_\_\_

**State of Alaska**  
**Department of Transportation & Public Facilities**  
**2301 Peger Road**  
**Fairbanks, Alaska 99709-5399**

Bids, amendments or withdrawals transmitted by mail must be received at the above specified address no later than the scheduled time of bid opening. Hand-delivered bids, amendments or withdrawals must be received by the **Contracts Engineer**, at Engineering Services Building, Room 3, 2301 Peger Road prior to the scheduled time of bid opening. Telefacsimile bid amendments must be addressed to **Contracts Engineer**. Telefacsimile number: (907) 451-5390.

*A bid guaranty is required with each bid in the amount of 5% of the amount bid. (Alternate bid items as well as supplemental bid items appearing on the bid schedule shall be included as part of the total amount bid when determining the amount of bid guaranty required for the project.)*

The Department hereby notifies all bidders that it will affirmatively insure that in any contract entered into pursuant to this Invitation, Disadvantaged Business Enterprises (DBEs) will be afforded full opportunity to submit bids and will not be discriminated against on the grounds of race, color, national origin or sex in consideration for an award.

## NOTICE TO BIDDERS

Bidders are hereby notified that data to assist in preparing bids is available as follows:

Alaska Test Methods and the Construction Surveying Requirements Booklet can be obtained upon request from the Contracts Engineer, Engineering Services Building, Room 3, 2301 Peger Road, Fairbanks, Alaska 99709. Document Fee for Alaska Test Methods is \$20.

The Contractor is hereby notified that all records pertaining to the development of this project are available for inspection at the Department of Transportation and Public Facilities Regional Office, 2301 Peger Road, Fairbanks, Alaska.

The subsurface information shown is for information only. It is expressly understood that the State will not be responsible for any deduction, interpretation or conclusion drawn therefrom by the Contractor. This information is made available so that the Contractor may have access to the same information as the State.

Geotechnical Report, Unalakleet Landfill Road and Beach Road, dated July 1998; and Foundation Report, Kouwegok Slough Bridge No. 1308, dated 1998 can be obtained upon request from the Contracts Engineer, Engineering Services Building, Room 3, 2301 Peger Road, Fairbanks, Alaska 99709-5399.

Cross sections and quantity calculations are available for inspection at Department of Transportation and Public Facilities in Fairbanks.

Plans and Specifications may be ordered, for the price of \$ 100.00, from:

Contracts Engineer  
Engineering Services Building, Room 3  
2301 Peger Road  
Fairbanks, Alaska 99709-5399

Phone: (907) 451-2247

TDD (for Hearing Impaired, requires special equipment): (907) 451-2363

All questions relating to design features, constructability, quantities, or other technical aspects of the project should be directed to the following. Bidders requesting assistance in viewing the project must make arrangements at least 48 hours in advance with:

Earl Wellen, P.E.  
District Engineering Manager  
P.O. Box 1048  
Nome, Alaska 99762

Email: earl\_wellen@dot.state.ak.us

Phone: (907) 443-3444

All questions concerning bidding procedures should be directed to: **Contracts Coordinator**

Phone: (907) 451-5299

### Other Information:

Bid results are available after each bid opening by dialing (907) 451-5297 or by accessing the DOT&PF home page at (<http://www.dot.state.ak.us/>). Additional information, such as Planholder Lists and Contract Award Status, is also available on the DOT&PF Home Page.

The Interim Standard Specifications for Highway Construction [Metric] 94M are available upon request for \$25 each from the Contracts Engineer, Engineering Service Building, Room 3, 2301 Peger Road, Fairbanks, Alaska 99709. Telephone (907) 451-2247.

Standard Drawings in an 8 1/2" x 11" format are available upon request for \$75 per set from Gary Oliver, Standards Technician, D&C Standards, Alaska DOT&PF, 3132 Channel Drive, Juneau, Alaska 99801-7898. Telephone (907) 465-2960.

Payment by check or money order will be made payable to the State of Alaska.

State of Alaska, Interim Standard  
Specifications for Highway Construction  
(Metric) 94M, dated 7/1/94 are  
modified as follows:

SPECIAL PROVISIONS

SPECIAL PROVISIONS  
Project No. STP-0002(47)/66482  
Unalakleet Landfill Road

## SECTION 102

### BIDDING REQUIREMENTS AND CONDITIONS

05/01/96

**102-1.06 PREPARATION OF PROPOSAL.** Delete the first sentence of the first paragraph and substitute the following: The Bidder shall submit his proposal upon the forms furnished by the Department or duplicates thereof.

**102-1.07 NON-RESPONSIVE PROPOSALS.** Delete numbered paragraph 1. and substitute the following:

1. If the proposal is on a form other than that furnished by the Department or duplicate thereof; or if the form is altered or any part thereof is detached; or if the proposal is improperly signed.

04/21/95

**102-1.10 WITHDRAWAL OR REVISION OF PROPOSALS.** In the first paragraph, delete: by telegram or.

Add the following to the first paragraph: Modifications to bids shall be submitted on forms furnished by the Department or reasonable facsimiles thereof. If a form other than that provided is used it shall be of a very similar format, containing at a minimum the information required on the provided form.

In the second paragraph, delete: Telegraphic or.

**102-1.12 ADDENDA REQUIREMENTS.** In the second sentence, change "telegram" to read: telefacsimile.

## SECTION 103

### AWARD AND EXECUTION OF CONTRACT

04/13/93

**103-1.05 INSURANCE REQUIREMENTS.** Add the following after the third paragraph: Whenever the work involves activity on or about navigable waters, the Workers Compensation Policy shall contain a United States Longshoreman's and Harbor Workers Act endorsement, and when appropriate, a Maritime Employer's Liability (Jones Act) endorsement with a minimum limit of \$1,000,000.

## SECTION 104

### SCOPE OF WORK

05/01/96

Add the following subsection:

**104-1.07 FROZEN GROUND.** Frozen areas, ice lenses, and saturated soils may be encountered on this project, including material sources. These frozen areas, ice lenses, and saturated soils are not defined and any such area that may be

### SPECIAL PROVISIONS

Project No. STP-0002(47)/66482  
Unalakleet Landfill Road

encountered by the Contractor in the performance of the contract work will not be considered unforeseeable within the terms of the contract such as to entitle the Contractor to any adjustment in contract price or contract time. Reference is made to stage construction 203-3.02 in these specifications.

## SECTION 105

### CONTROL OF WORK

07/25/94

**105-1.12 LOAD RESTRICTIONS.** Add the following to the third paragraph: No overloads will be permitted on or over existing roadway material which will be utilized for Division 300 or Division 400 purposes.

**105-1.13 MAINTENANCE DURING CONSTRUCTION.** Delete in its entirety and substitute the following: The Contractor shall maintain the work, and those portions of the project affected by the work, from the date physical construction begins until project completion. This maintenance shall be a continual and effective effort prosecuted day by day, with adequate equipment and forces to the end that the work, and those portions of the project affected by the work, are kept in satisfactory condition at all times. The Contractor may be relieved of certain portions of this maintenance responsibility during a seasonal suspension of work in accordance with Subsection 643-3.07.

## SECTION 106

### CONTROL OF MATERIAL

07/02/93

**106-1.01 SOURCE OF SUPPLY AND QUALITY REQUIREMENTS.** Add the following: All steel and iron products which are incorporated into the work and the action of applying a coating to a covered product (i.e., steel and iron) shall be manufactured in the United States except that minor amounts of products of foreign manufacture may be used provided the aggregate cost of such does not exceed one tenth of one percent of the total contract amount, or \$2500, whichever is greater. Coating includes epoxy coating, galvanizing, painting, and any other coating that protects or enhances the value of a material subject to the requirements of this paragraph. For the purposes of this paragraph, the cost is the value of the products as they are delivered to the project.

A certification of materials origin, attesting to compliance with this provision, shall be furnished to the Engineer prior to incorporating any steel or iron products into the project.

03/04/98

**YEAR 2000 WARRANTY:** The Contractor warrants that each hardware, software, or firmware product or item delivered or developed under this contract shall accurately process date data (including, but not limited to calculating, comparing, and sequencing) from, into, during, and between the twentieth and

twenty-first centuries, including leap year calculations, when used in accordance with the documentation provided by the Contractor.

If the contract requires that specific products or items perform as a system, then this Year 2000 Warranty shall also apply to those listed items as a system.

The duration and remedies available to the State for breach of the Year 2000 Warranty shall be as defined in, and subject to, the year 2000 terms and limitations of any general warranty provisions contained in this solicitation. In the absence of any such general warranty provision(s), the remedies available to the State shall include repair or replacement, without any cost to the State, of any listed product or item whose non-compliance is discovered and made known to the Contractor in writing by April 1, 2000, or within one (1) year after acceptance, or within the time limits of the Contractor's warranty, whichever is longer.

Nothing in this Year 2000 Warranty shall be construed to limit any rights or remedies the State may otherwise have under the Uniform Commercial Code, State or Federal law, or with respect to defects other than Year 2000 performance.

The warranties contained herein are separate and distinct from any other warranties expressed or implied and are not subject to any disclaimer of warranty or limitation of the supplier's liability.

03/25/98

**106-1.02 LOCAL MATERIAL SOURCES.** 1. General. Add the following: Unless exempted under AS 27.19.050, the Contractor shall acquire from the Alaska Department of Natural Resources, or from an Agency having a Cooperative Management Agreement with the Department of Natural Resources, an approved Reclamation Plan and shall meet bonding requirements, in accordance with AS 27.19 and 11 AAC 97, for each Material Source prior to engaging in mining operation in that source.

08/01/88

Add the following after the first paragraph: The Contractor shall provide and maintain a process control system that will provide reasonable assurance that all materials submitted for acceptance conform to the contract requirements whether processed by the Contractor or subcontractors.

Sampling and testing of materials for process control of aggregate crushing, blending, screening and stockpiling and for production of paving mixtures, etc., shall be the responsibility of the Contractor.

A process control plan shall be developed by the Contractor and submitted to the Engineer for approval prior to production. The process control plan shall include, for each item being produced, the methods to be used for sampling and testing and the proposed testing frequency. The Contractor's process control tests shall be documented and shall be available for review by the Engineer. All tests shall be made in accordance with the applicable test methods specified in the contract. Process control shall not be measured for payment but will be a subsidiary obligation of the Contractor.

#### SPECIAL PROVISIONS

Project No. STP-0002(47)/66482  
Unalakleet Landfill Road

2/01/94

The Contractor is responsible for the sampling and testing of materials for process quality control, including screening, crushing, blending, and stockpiling of aggregates, production and laydown of aggregate courses or aggregate mixtures, and monitoring of compaction. Process control tests shall be documented and shall be available for review by the Engineer.

The Contractor is not required to provide a separate field laboratory for process control testing. Such testing by the Contractor may be done in the Engineer's field laboratory which is specified under Section 644. The Contractor shall furnish appropriate process control testing equipment.

A Crushing Control Plan shall be submitted at least 15 working days prior to the beginning of crushing operations. The plan shall include a proposed testing frequency for aggregate gradation and a description of the process control testing location, staffing, and equipment. Abbreviated testing for process control of gradation shall be in accordance with Alaska Standard Practice SP-9. Such sampling and testing will be coordinated with the Department and split samples are to be provided to the Department.

Delete the first paragraph under 2. and substitute 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.

05/20/97

5. Contractor Furnished Sources. Add the following: The Contractor shall certify in writing to the Engineer that all permits and clearances relating to the use of the material source have been obtained prior to any clearing or ground disturbance in the materials source.
6. Privately Owned Sources. The Unalakleet Landfill Road and Beach Road Geotechnical Report contains information on the MS 470-017-4, which is a material site owned by the Bering Straits Native Corporation (BSNC) and the Unalakleet Native Corporation (UNC). The Department of Transportation and Public Facilities has entered into a Material Sales Contract with BSNC and UNC for the use of material from that site and another undeveloped site on corporation land. A copy of the contract is included in the appendix to the special provisions. The BSNC and UNC properties specified in the Material Sales Contract are available as sources of material under the conditions of that contract (including the purchase of the material at

the price specified in the Material Sales Contract). The Contractor shall make the arrangements for payment directly to BSNC and UNC; and shall provide proof of payment to the Engineer as documentation for the progress payments.

The Contractor shall perform any additional exploration necessary to determine the quantity and quality of material available and develop the required mining plans. The Contractor shall formulate a detailed mining plan for the specific area he intends to mine and obtain approval of the mining plan from the Engineer prior to any excavation. The mining plan shall address:

- a. Location of planned excavation
- b. Depth of excavation
- c. Pit screening (green belt)
- d. Backslope excavation ratios
- e. Material types and estimated quantities to be excavated
- f. Disposition of stripping materials
- g. Location of access
- h. Dewatering plan
- i. Proposed location of plant sites and stockpiles
- j. Final pit dressing
- k. Drainage of pit floor after final dressing

06/10/96

Add the following subsection:

**106-1.08 SUBMITTAL PROCEDURE.**

- A. A Submittal Register shall be completed, and submitted to the Engineer, by the Contractor on forms provided by the State. The Submittal Register shall list all shop drawings, catalog cuts, manufacturer's certifications, process control plans, schedules of work and other items required to be submitted to the Department by the Contractor including but not limited to Storm Water Pollution Prevention Plan, Process Control Plan, Progress Schedule, Blasting Plan, Mining Plan, annual EEO reports, DBE payment documentation and subcontracts. The register shall be filled out sequentially by bid item and shall allow at least three spaces between bid items. The intent of the Submittal Register is to provide a blueprint for the smooth flow of specified project documents.
- B. The number of copies required for submittals may be included in the specifications for individual bid items. If the number of copies of a submittal is not otherwise specified, three copies shall be required. On each sheet of submittal, shop drawings, catalog cuts, etc., space shall be provided for Contractor and Department review stamps.
- C. Each copy of each submittal shall include a Submittal Summary sheet. The Contractor may use forms provided by the State or a similar form of his choice as approved by the State. The Contractor shall note on the Submittal Summary the number of days he proposes for the Department's review. Unless otherwise acceptable to the State, the minimum time



allowed for review shall be 15 working days after receipt by the approving office.

- D. If the Contract has a duration of 180 days or less, the Contractor shall, within fifteen days after the date of the Notice to Proceed, submit to the Department for review all submittals and the submittal register. If the Contract has a duration greater than 180 days, the Contractor shall, within fifteen days after the date of the Notice to Proceed, submit to the Department for review, an anticipated schedule for transmitting submittals.
- E. No payment will be made for specific items until such time that the Department has received the Submittal Register and approved all required submittals.

## SECTION 107

### LEGAL RELATIONS AND RESPONSIBILITY TO PUBLIC

03/25/98

**107-1.11 PROTECTION AND RESTORATION OF PROPERTY AND LANDSCAPE.** Add the following after the fourth paragraph: All hazardous materials used or generated by the Contractor as part of the project shall be disposed of by the Contractor at no additional cost to the Department in accordance with regulations promulgated by the Federal Government under the Resource Conservation and Recovery Act 42 USCA, Section 6901 and by the Alaska Department of Environmental Conservation. Any hazardous material discovered, exposed, or released into the air, water, or ground during construction shall be reported to the Engineer immediately. Any emergency containment, cleanup, or restoration activities must also be immediately reported to the Engineer.

Materials considered hazardous include, but are not limited to, petroleum products, oils, solvents, paints, and chemicals that are toxic, corrosive, explosive, or flammable.

Add the following:

Hazardous Material Control Plan (HMCP) The Contractor shall prepare a detailed plan for the containment, cleanup, and disposal of hazardous waste material (see 40 CFR 117 and 302 for listing), including petroleum products generated by construction equipment or activities. Included in the HMCP is a list of quantities and types of equipment and materials available on site to be used for hazardous substance containment and cleanup.

Submit the HMCP to the Engineer at or before the preconstruction conference.

03/29/89

Add the following to numbered subparagraph 4: Disturbed streambanks shall be immediately stabilized to prevent erosion and sedimentation of the stream.

11/25/92

Add the following item to the fifth paragraph:

11. Fuel storage facilities shall not be placed within 100 feet of water bodies and must be within an impermeable diked area having a holding capacity at least ten percent greater than that of the largest independent fuel container. Manifoldded tanks and bladders are considered as a container. Vehicle refueling shall not occur within the annual floodplain.

04/15/94

**107-1.15 CONTRACTOR'S RESPONSIBILITY FOR WORK.** Delete in its entirety and substitute the following: Until the letter of project completion is issued by the Engineer, the Contractor shall have the charge and care of the work, and portions of the project affected by the work, and shall take every precaution against injury or damage to any part thereof by the action of the elements or from any other cause. The Contractor shall rebuild, repair, restore, and make good all injuries or damages occasioned by any of the above causes before project completion and shall bear the expense thereof except damage which could not have been prevented or mitigated by the Contractor and which is due to sudden, cataclysmic and unforeseeable acts of God or the public enemy. Damage caused by the public to any portion of the work, or portions of the project affected by the work, prior to the project completion shall be corrected by the Contractor at no additional cost to the Department.

In case of suspension of work from any cause, the Contractor shall be responsible for and shall take such precautions as may be necessary to prevent damage to the work or to prevent damage to those portions of the project affected by the work, at no additional cost to the Department. This will include providing for drainage and erecting any necessary temporary structures, signs, or other facilities. During such period of suspension of work, the Contractor shall properly and continually maintain in an acceptable growing condition all plantings, seedings, and soddings furnished under the contract.

03/25/98

Add the following subsection:

**107-1.21 PERMITS.** Permits obtained by the Department for this project are attached to these Specifications as Appendix A. The terms, conditions, and stipulations contained therein are hereby made a part of these Specifications. It is the Contractors responsibility to abide by and adhere to all such stipulations. If an activity cannot be performed as specified in a permit, the Contractor shall cease work on that activity and immediately notify the Engineer. The Engineer will determine if a permit modification is necessary. Work on the affected activity shall not be resumed until a written directive to do so is received from the Engineer.

It is the Contractor's responsibility to obtain all permits required for actions under this contract not previously permitted by the Department. The Contractor shall comply with all permit stipulations, conditions and/or terms.

Agencies to contact for permit information include, but are not limited to, U.S. Army Corps of Engineers, Environmental Protection Agency, U.S. Fish and Wildlife Service, Alaska Department of Fish and Game, Alaska Department of Environmental Conservation, Alaska Department of Natural Resources, and Local or Regional Governments. The Contractor shall provide timely notification of such actions and permit acquisitions as may be required by Federal, State, Regional, and Local authorities. The Contractor shall provide copies of all permits, and applicable Federal and State notifications to the Engineer at the Preconstruction Conference, or if obtained after the Preconstruction Conference, within five days of receipt.

Contact names and phone numbers for permits obtained by the Department are shown on the individual permits.

The Contractor shall provide the information necessary to comply with the U.S. Environmental Protection Agency National Pollutant Discharge Elimination System (NPDES) General Permit for Alaska to discharge stormwater from the construction site. Requirements for this permit are given under Section 641, Erosion and Pollution Control.

## SECTION 108

### PROSECUTION AND PROGRESS

08/09/89

**108-1.01 SUBLETTING OF CONTRACT.** Add the following: When the Contractor elects to utilize the services of a professional land surveyor or registered engineer to perform the construction related surveying, a professional services contract may be used. The professional land surveyor or registered engineer shall comply with the provisions of AS 08.48 rather than AS 08.18. The stipulated criteria for submitting and approving/disapproving these agreements shall be the same as required for subcontracts. The professional land surveyor or professional engineer is not exempt from the requirements of AS 36, AS 43, or any other applicable Alaska Statute for on-site construction surveying services.

09/09/94

**108-1.03 PROSECUTION AND PROGRESS.** Delete item #5 in the first paragraph and substitute the following:

5. A plan for erosion and pollution control, as required under Subsection 641-1.02.

## SECTION 109

### MEASUREMENTS AND QUANTITIES

01/08/92

**109-1.02 MEASUREMENT OF QUANTITIES.** Add the following after the eighth paragraph: The Contractor shall furnish competent scale operators to weigh all materials measured and paid for on a weight basis.

### SPECIAL PROVISIONS

Project No. STP-0002(47)/66482  
Unalakleet Landfill Road

Scale operators shall operate the scale(s) and keep records as directed by the Engineer. All records shall be given to the Engineer as directed. No weigh tickets shall be issued to vehicles which are not in compliance with the requirements of 105-1.12 LOAD RESTRICTIONS.

The weigh ticket shall accompany the load and be given to the ticket taker at the delivery location. Each sheet of the sequential transaction printer log shall be signed and dated by the scale operators prior to the end of each shift or as directed by the Engineer. Scale operators will acknowledge, by signature on a form prepared by the Engineer prior to weighing loads, that their signature on the sequential transaction log indicates their certification that all entries are true and correct.

The Engineer may, if he determines it to be necessary, designate previously weighed vehicles to be reweighed in his presence to verify the weight of the materials being purchased. This may include empty or loaded vehicles as the Engineer may designate.

No direct payment will be made for furnishing scale operator(s), equipment, and incidentals required, but the costs thereof will be considered a subsidiary obligation.

**109-1.03 SCOPE OF PAYMENT.** Add the following: No payment will be made for any material delivered in a vehicle which is not in compliance with the requirements of 105-1.12 LOAD RESTRICTIONS and 644-2.06 SCALES.

03/25/98

**109-1.06 PROGRESS PAYMENTS.** Delete the second sentence of the first paragraph in its entirety and substitute the following: Progress payments will be made twice each month if the value of the estimate for the semi-monthly interval is in excess of \$10,000.

03/01/91

Delete the second paragraph in its entirety and substitute the following: Progress payments at 100 percent of the estimated value of work accomplished in accordance with the contract less all previous payments shall be made to the Contractor, so long as it appears that all the requirements of the contract are being met and will continue to be met.

However, if the Contractor is in violation of any provision of the contract, or if the Engineer finds that satisfactory progress is not being made, the Department may at its option refuse to approve for payment, estimates or portions thereof, until assurance of compliance with the contract is received.

When the Contractor has been paid 90 percent of the project funds, the DBE participation goals will be reviewed. If proof of payment in the form of canceled checks payable to the DBE subcontractors has not been provided to the Engineer, the maximum allowable disincentive, as referenced in Subsection 120-5.01 for unattained goals, may be assessed and no subsequent progress payments will become due until said disincentive assessment is satisfied. If proof of payment showing compliance with DBE goals is subsequently provided by

the Contractor, subsequent progress payments will reflect the compliance achieved.

If the Contractor believes the basis for withholding, including the withholding of disincentive as referenced in Subsection 120-5.01 and/or liquidated damages as referenced in Table 108-1, is invalid or no longer exists, immediate written notice of the facts and contract provisions on which the Contractor relies, shall be given to the Department, together with a request for release of funds and adequate documentary evidence providing that the problem has been cured. In the case of withholding which has occurred at the request of the Department of Labor, the Contractor shall provide a letter from the Department of Labor stating that withholding is no longer requested. Following such a submittal by the Contractor, the Department shall have a reasonable time to investigate and verify the facts and seek additional assurances before determining whether release of withheld payments is justified.

Add the following section:

11/22/95

## 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 23, with the maximum opportunity to participate in the performance of contracts financed in whole or in part with federal funds. The Contractor shall not, nor shall subcontractors or others associated with this contract discriminate on the basis of race, color, national origin, or sex in the award and performance of work under this contract.

**120-1.02 INTERPRETATION.** It is the intent of this section to implement the requirements of 49 CFR, Part 23, in compliance with the Federal Highway Administration's DBE Program guidelines and the Department's federally approved DBE Program.

**120-1.03 ESSENTIAL CONTRACT PROVISION.** Failure to comply with the provisions of this section shall be considered a material breach of contract. The Department also considers failure to comply with this section to be so serious as to justify debarment action as provided in AS36.30.640(4).

#### 120-1.04 DEFINITIONS AND TERMS.

1. **Broker.** A DBE that arranges for the delivery or provision of creditable materials, supplies, equipment, 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 a contract or a distinct element of work or service under a contract by the DBE actually performing, controlling, managing, and supervising the work involved with its own equipment and employees within its certified category. 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). A firm certified by the State of Alaska, Department of Transportation and Public Facilities, in accordance with 49 CFR, Part 23, or one granted that status under the Alaska Native Claims Settlement Act, 1991 Amendments and certified by the Department for participation in the Department's DBE program.
4. Good Faith Efforts. The affirmative action measures that shall be taken by a contractor to meet the DBE Program objectives and goals for this project.
5. Manufacturer. A DBE certified 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.
6. Original DBE Utilization Goal. The percent of work to be performed by certified DBEs that is established by the Department and specified in the contract before approval of the Revised DBE Utilization Goal.
7. Regular Dealer. A DBE certified in a supply category that
  - 1) maintains an in-house inventory on a regular basis of the particular product provided to this project,
  - 2) keeps an inventory in an amount appropriate for the type of work using that product, and
  - 3) 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.
8. Revised DBE Utilization Goal. The DBE Utilization as submitted by the Contractor and approved by the Department for this project on Form 25A325C. The Revised DBE Utilization Goal may be equal to, greater than, or less than the Original DBE Utilization Goal, if approved. Once approved, this Revised goal becomes the minimum required DBE participation during the execution of the contract.

**120-2.01 UTILIZATION GOAL.** The Original DBE Utilization Goal for this contract is shown on Form 25A-324N, Disadvantaged Business Enterprises (DBE) Subcontractable Items, as a percentage of the total basic bid amount. In order for the work of the DBE to be credited towards meeting the Original DBE Utilization Goal at time of contract award, the DBE must be certified by the Department in a category covering the CUF to be performed at the time of listing on the "DBE Utilization Report" (Form 25A325C).

A bidder shall demonstrate the ability to meet the Original 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.

**120-3.01 DETERMINATION OF COMPLIANCE.**

1. Phase I - Bid and Award. In addition to bid submission requirements, the apparent low bidder shall demonstrate DBE responsibility prior to award of this contract by:

a. Submitting, within 15 days of receipt of the notice of intent to award, a copy of the DBE Utilization Report (Form 25A325C) listing the certified DBEs to be used to meet the goal.

b. If the Contractor submits less DBE utilization on Form 25A325C than is required to meet the Original DBE Utilization Goal, documentation of Good Faith Effort in the form of the Summary of Good Faith Effort Documentation (Form 25A332A and attachments) and DBE Contact Reports (25A321A) shall be submitted. If accepted by the Department, this lower DBE utilization becomes the Revised DBE Utilization Goal.

If the bidder cannot demonstrate the ability to meet the Original DBE Utilization Goal, failure to document the minimum required Good Faith Efforts will result in the bid being declared nonresponsive.

c. Where the bidder submits more DBE utilization on Form 25A325C than is required by the Original DBE Utilization Goal, this higher DBE utilization, if accepted by the Department, becomes the Revised DBE Utilization Goal.

2. Phase II - Construction. At the preconstruction conference, the Contractor shall submit, in writing, the designation of a DBE officer.

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. Prior written request by the Contractor and approval from the Engineer is required for the replacement of a DBE for any reason. If DBE replacement is approved, the Contractor is obligated to replace the DBE with another DBE for the same work in order to still meet the Revised DBE Utilization Goal. If the Contractor cannot find a replacement DBE, the Contractor shall document the required Good Faith Efforts stipulated in Subsection 120-3.02 for the items of work to have been performed by the replaced DBE in order to have the Revised DBE Utilization Goal reduced.

**120-3.02 GOOD FAITH EFFORT.** The Contracting Officer will use all of the following criteria to judge if the bidder, who has not met the Original DBE Utilization Goal, has demonstrated sufficient Good Faith Effort to be eligible for award of the contract. Failure by the Contractor to perform and document any of the following actions 1-7 constitutes insufficient Good Faith Effort.

1. Consideration of all subcontractable items. The Contractor 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 prior to bid opening (see Form 25A324).
2. Selection of the most appropriate items or portions of items to be performed by DBEs in order to increase the likelihood of achieving the stated goal.
3. Notification at least 10 calendar days prior to bid opening to all DBEs listed in the Department's most current DBE Directory certified to perform those work items identified in Form 25A324 of the bidder's/Contractor's interest in securing the DBE's participation in the execution of the work. Each contact with the DBE shall be logged on a "Contact Report" (Form 25A321A).
4. Request for DBE participation on specific items of work or services. 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 shall be deemed non-competitive, provided the DBE and non-DBE quotes are for the exact same work or service. Where the Contractor rejects a DBE quote as being non-competitive under this condition, the work performed and payments received by the non-DBE 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.
5. Provision of assistance to DBEs who need help in obtaining bonding or insurance required by the bidder.
6. Providing prospective DBEs with adequate information about the requirements of the contract regarding the specific item of work or service sought from the DBE.
7. Follow-up of initial solicitations for interest by contacting DBEs to determine with certainty whether or not they were interested in bidding. Documentation of follow-up contacts shall be logged on the "Contact Report" (Form 25A321A).

Items 4. through 7. will be utilized to evaluate any request from the Contractor for a reduction in the Revised DBE Utilization Goal due to the default or decertification of a DBE and the Contractor's subsequent inability to obtain additional DBE participation.



**120-3.03 COMMERCIALY USEFUL FUNCTION (CUF).** Measurement of attainment of the Revised DBE Utilization Goal shall 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.

In order for the CUF work of the DBE to be credited toward the goal, the Contractor shall ensure that all of the following requirements are met:

1. The DBE shall be certified in the appropriate category at the time of:
  - a. the Engineer's approval of the DBE subcontract; and
  - b. 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).
2. 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.
3. A DBE trucking firm certified and performing work in a transportation/hauling category is restricted within that category to the CUF of a broker. (This does not effect the CUF of that same firm, when performing work as a subcontractor and certified in another category such as embankment or excavation which could include the hauling of materials for that work.)
4. 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.
5. 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 Revised DBE Utilization Goal.
6. 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 shall not be

credited toward the Revised DBE Utilization Goal. The Contractor must still meet the Revised 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 4-7) 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 and DBEs in an amount to meet the Revised DBE Utilization Goal through either
    - 1) subcontractor substitution (Subsection 103-1.01),
    - 2) increasing the participation of other DBEs on the project,
    - 3) documenting Good Faith Efforts (Subsection 120-3.02, items 4-7),
    - 4) or by a combination of the above.
7. 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 Revised DBE Utilization Goal.
8. The Engineer shall consider the following criteria when determining what CUF is being performed by the DBE:
- a. The work performed shall be necessary and useful work required for the execution of the contract.
  - b. The scope of work shall be distinct and identifiable with specific contract items of work, bonding, or insurance requirements.
  - c. The work shall be performed, controlled, managed, and supervised by employees normally employed by and under the control of the certified DBE, with the exception allowed under (d) below. Either the DBE owner or an on-site DBE representative, DBE superintendent, or DBE foreman shall be responsible for the work at the site. All such DBE representatives must be designated as a key employee in the DBE's certification records with the Department prior to DBE subcontract award.
  - d. The DBE shall use their own employees and equipment for the execution of the work. An exception to this requirement may be permitted where the DBE must perform a specialty task or where the work is in a remote area. In such instance, the DBE may temporarily augment its project workforce with another contractor's equipment and employees (not to include supervision) in order to perform the work, if the Department considers this normal practice performed by non-DBE contractors, within the Alaskan construction industry.

On any project, this practice shall not involve more than 33.3% of the DBE's subcontract value. Also, the Contractor shall submit a request in writing from the DBE and secure the Department's approval for such arrangement prior to commencement of the DBE's subcontract work involved. Exclusive of this arrangement, the DBE's project work force shall be regular DBE employees.

In all instances, the DBE shall be responsible for its payroll and labor compliance requirements concerning all workers under its control. DBE leases and payments for equipment must be documented; Contractor withholding or retainage for DBE labor and equipment usage is not permissible. Two-party checks to individuals are not permissible.

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

There shall be no DBE credit for lower-tier non-DBE subcontract work, unless the Department defines this lower-tier subcontracting as standard, statewide industry practice within Alaska.

- f. The cost of the goods and services shall be reasonable and competitive with the cost of these 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.

- g. All subcontract work, with the exception of truck hauling, shall be sublet by the same unit of measure as is contained in the Bid Schedule unless prior written approval of the Engineer is obtained.
- h. The DBE shall control all business administration, accounting, billing, and payment transactions (this requirement does not preclude the two-party check allowance described under i., below). The prime contractor shall 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.

- i. Credit will not be allowed for payments made by the Contractor to others on behalf of the DBE.

Two-party checks may be issued by the Contractor on an occasional basis to the DBE and another business for work or services performed under the contract; however, the Engineer shall be notified in writing in advance. DBE credit will not be given for these two-party payments, if issued on a routine basis or issued to an extent greater than that offered by the prime to non-DBEs on the project.

- j. A DBE trucking firm certified and performing work in the transportation/hauling category shall have a supervisor on-site at all times in charge of the dispatching of trucks and the hauling of materials before any DBE credit may be credited. The DBE supervisor must be regularly employed by the DBE and designated as a key employee in the DBE's certification records with the Department prior to prime contract award.

9. The Contractor shall provide proof (canceled checks or bank statements that identify payor, payee, and amount of transfer) of the actual monies paid for the qualifying work, goods and services provided by DBEs.
10. If the quantity of work of a bid item which involves a DBE is reduced by the Department, the Original and Revised DBE Utilization Goals on Form 25A325C are reduced proportionately.

**120-3.04 DEFAULT OF DBE.** In the event that a DBE who has been placed 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 Revised DBE Utilization Goal if, in the opinion of the Engineer, both of the following criteria have been met:

1. The Contractor had no fault or negligence in the default and that the circumstances surrounding the default were beyond the control of the Contractor.
2. The Contractor is unable to find replacement DBE participation and has adequately performed and documented the Good Faith Effort expended in accordance with items 4 through 7 of Subsection 120-3.02 GOOD FAITH EFFORT for the defaulted work.

The Revised 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 shall be entitled to count toward the Revised 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 work performed by a DBE prime contractor is 100%, not to exceed the Original DBE Utilization Goal.
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.
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 shall 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 shall 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 shall not exceed 5% of the premium cost.
8. Credit for the CUF of a joint venture (JV) (either as the prime contractor or 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 shall be responsible for performing all of the work as delineated in the certified JV agreement.

**120-5.01 BASIS OF PAYMENT.** Meeting the Revised DBE Utilization Goal will be considered subsidiary to other items of work and no separate payment will be made.

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, retainage may be withheld from progress payments. The retainage shall be sufficient to assure funds are available to cover the cost of the disincentive or potential disincentive.

If the Contractor fails to meet the Revised DBE Utilization Goal, payments will be reduced as a disincentive. The amount of the disincentive shall be equal to 50% of the difference between the Revised DBE Utilization Goal expressed in dollars and the total creditable DBE participation as determined by the Engineer.

If and only after the Original DBE Utilization Goal established on Form 25A325C in terms of dollars has been met, the Contractor may be eligible for an incentive payment based upon the following calculation:

10% of the total dollar amount of CUF work performed by DBE subcontractors not needed in the calculation to meet the Original DBE Utilization Goal; except that the total incentive paid to the Contractor will not exceed 2% of the total basic bid amount at time of original contract award or \$100,000, whichever is less.

Payment of the incentive will be made on the final estimate. The disincentive will be withheld in the form of retainage during the course of the project. If sufficient retainage has not been withheld to cover the cost of the disincentive, the Contractor shall remit same to the Department within 30 days of being billed for the amount due.

A Change Order is not required for DBE Adjustment. The Notice To Proceed shall constitute the notice required to initiate DBE Adjustment.

Payment or Deduction will be made under:

<u>Pay Item No.</u>	<u>Pay Item</u>	<u>Pay Unit</u>
120(1)	DBE Adjustment	Contingent Sum

## SECTION 201

### CLEARING AND GRUBBING

**201-2.04 HAND CLEARING.** Add the following: A mechanical brushcutter may be used in areas designated for hand clearing, but may only be used from January 1 to March 15. The cutoff dates for use of mechanical brushcutter may be extended by work order at the discretion of the Engineer depending on weather and ground conditions.

**201-2.06 DISPOSAL.** Delete the fourth paragraph and substitute the following: Clearing debris smaller than 100 mm in diameter, may be disposed of within the construction limits of the new roadway by spreading it in a layer so as not to create voids. Debris shall not intrude into the upper 1 meter of embankment.

**201-3.01 METHOD OF MEASUREMENT.** Add the following: Clearing and Grubbing shall not be measured or paid for directly, but shall be subsidiary to Item 201(4B), Hand Clearing.

## SECTION 203

### EXCAVATION AND EMBANKMENT

05/20/97

**203-2.05 BORROW.** Delete the second paragraph in its entirety.

### SPECIAL PROVISIONS

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Unalakleet Landfill Road

03/29/89

203-3.01 **GENERAL.** Add the following to the seventh paragraph: Disposal in wetlands is prohibited, except as described in Subsection 107-1.11.

05/20/97

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

03/29/89

203-3.02 **EMBANKMENT CONSTRUCTION.** Delete the fourteenth paragraph and substitute the following: When embankments are to be constructed across wet or swampy ground, which will not support the weight of heavy hauling and spreading equipment, the Contractor shall choose such methods of embankment construction and use such hauling and spreading equipment as will least disturb the soft foundation. When soft foundations are encountered, and when approved by the Engineer, the lower part of the fill may be constructed by dumping and spreading successive vehicle loads in a uniformly distributed layer of a thickness not greater than that necessary to support the vehicle while placing subsequent layers, after which the remainder of the embankment shall be constructed in layers and compacted as specified.

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

203-4.01 **METHOD OF MEASUREMENT.** Add the following after the third paragraph: When the bid schedule provides for payment of excavation on a lump sum basis, no measurement of quantities will be made, except as provided in Subsection 203-5.01. Three dimensional measurements shall be used to determine increased or decreased quantities.

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Add the following to the fourth paragraph: Borrow will not be weighed or used while free moisture is observed draining from the haul vehicle at the scale location.

203-5.01 **BASIS OF PAYMENT.** Add the following after the first paragraph: Lump Sum Price Basis. Lump sum excavation items will be paid for at their respective contract lump sum price, except if increases or decreases in the quantity of work are ordered which will vary the quantity, the lump sum will be adjusted as follows:

The value per cubic meter of excavation increased or decreased will be determined by dividing the lump sum bid by the estimate of volume shown on the plans. The adjusted lump sum payment will be the lump sum bid plus or minus the value involved in the change.

Delete the second paragraph in its entirety.

Change Pay Items 203(5), (6) and (7) to read: Borrow.

Add the following pay item:

<u>Pay Item No.</u>	<u>Pay Item</u>	<u>Pay Unit</u>
203(3A)	Unclassified Excavation	Lump Sum

## SECTION 501

### STRUCTURAL CONCRETE

**501-2.01 MATERIALS.** Add the following: Grout for keyways between adjacent concrete members shall be a high-strength, non-shrink, non-corrosive, non-metallic, cement-based grout conforming to ASTM C1107, Grade C. The grout shall develop a 28-day compressive strength (f'c) of at least 62 MPa, minimum, when tested in conformance with ASTM C109. The grout shall meet the requirements of Alaska Test Method T-30.

**501-3.01 PROPORTIONING.** In Table 501-1, Class of Concrete, under the category Coarse Aggregate Gradation, AASHTO M 43: provide either the No. 57 or the No. 67 gradation for Class A, S, W, and A-A concrete.

**501-3.06 PLACING CONCRETE:** Under item 10., Setting Shoes and Bearing Plates, add the following: Unless otherwise shown on the plans, pier and abutment caps on bridges shall be furnished parallel to the roadway. Grade strips on each side of the caps shall be independently set and the grade at the centerline of the bearing shall be carefully checked prior to casting the concrete.

Add the following numbered item:

- 16. Precast Deck Panels.** Keyways for the precast concrete deck panels shall be cleaned by sandblasting after casting and prior to placement of the panels on the superstructure. The cleaning shall remove all dirt, grease, curing compounds, laitance, and all other deleterious material.

The tops of the steel girders shall be cleaned of all dirt, grease, weld splatter, slag, and all other deleterious material prior to placement of the concrete deck panels, in accordance with the methods prescribed in Section 504.

Deck panel units shall be produced and placed so that the difference in elevation between the top surfaces of adjacent deck panels in place is no



1/4" 2  
more than 2 mm. Panels will be measured at the shop for the dimensional tolerances of the Standard Specifications and these Special Provisions. Deck Panels that do not meet the dimensional tolerances will be rejected at the shop and not allowed to be delivered to the construction site.

Methods for lifting the deck panels shall be shown on the shop drawings. All metal lifting apparatus and leveling devices shall be recessed at least 50 mm, shall be cut off flush with the surface of the recess, and the recess shall be grouted flush with the deck surface.

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Add the following subsection:

**501-3.11 PLACING GROUT.** Grout for installing precast concrete deck panels shall be placed according to the manufacturer's written instructions.

The grout shall be a high strength, quick set, non-shrink grout with a consistency that allows for easy pumping. The grout must be able to set at an ambient air temperature of at least -10°C without the use of bonding agents or curing compounds. The grout must have a 24-hour compressive strength of at least 35 MPa when cured at 0°C. The Contractor shall submit information relating to the acceptability of the grout to the Engineer for review and approval at least six weeks prior to the placement of the deck panels. The grout manufacturer's recommendations for mixing, placing, and curing the grout shall be rigidly followed.

Concrete keyways to be in contact with grout shall be cleaned of all loose and foreign matter that would in any way prevent bond between the mortar and the concrete surfaces and shall be kept thoroughly saturated with water for a period of not less than 24 hours immediately prior to placing the grout.

Forming the edges of the grouted haunches shall be done with expanded polyethylene rods or other resilient material, and such forming shall stay in place permanently. The rods shall be glued to the top flanges of the beams with a glue recommended by the rod manufacturer. Glue shall be set prior to the placement of the deck panels.

The grout shall be applied so that all voids to be filled with grout are completely filled. Haunches between the tops of the steel beams and the bottom of the concrete deck panels shall be grouted through the shear connector voids in sequence so that the grout can be observed to be entering the shear connector void and be above the bottom elevation of the void prior to beginning grout application through the void. If the Contractor's methods of application are not achieving full coverage of grout, as determined by the Engineer, pumping of the grout shall be required.

The grout surface shall be smooth and neat in appearance. The grout surface shall meet the panel edges throughout their lengths, and shall match the elevation of the surface of the panels with a tolerance of  $\pm 2$  mm. Patching and grinding may be required.

Traffic shall not pass over the bridge during the grouting operation and shall not be allowed on any span until all grout has attained at least 75% of the

design compressive strength, as determined by tests on grout samples cured at the site under comparable conditions as the grout on the bridge.

**501-4.01 METHOD OF MEASUREMENT.** Add the following to the first paragraph: All labor, materials, equipment, and work necessary to fabricate, place, and install the Precast Concrete Deck Panels, Precast Concrete Pier Caps, and Precast Concrete Abutment Panels will not be measured for payment but will be incidental to that pay item.

All grouting, reinforcing steel, and metal inserts used in the fabrication of the precast units will not be measured separately for payment but will be subsidiary to that pay item.

Geotextile fabric for placement along wall panel joints will be subsidiary to Pay Item 501(10), Precast Concrete Abutment Panels.

**501-5.01 BASIS OF PAYMENT.** Add the following to numbered item 2.: All other quantities will be paid for at the contract price, per unit of measurement, for each of the particular pay items listed below and shown in the bid schedule.

Add the following pay items:

<u>Pay Item No.</u>	<u>Pay Item</u>	<u>Pay Unit</u>
501(8)	Precast Concrete Deck Panels	Each
501(9)	Precast Concrete Pier Caps	Each
501(10)	Precast Concrete Abutment Panels	Each

### SECTION 503

#### REINFORCING STEEL

**503-1.01 DESCRIPTION.** Add the following: This work shall include the epoxy coating of appropriate reinforcing steel bars. All reinforcing steel in concrete portions of bridge railing, and other locations as noted on the plans shall be epoxy coated.

**503-2.01 MATERIALS.** Add the following: All welded headed reinforcing steel shall conform to ASTM A 970M-97 (approved March 10, 1997).

**503-5.01 BASIS OF PAYMENT.** Add the following: Reinforcing steel embedded in the precast concrete deck panels, precast concrete pier caps, and precast concrete abutment panels will not be paid for separately, but will be subsidiary to and included in the price paid for items under Section 501. Reinforcing steel embedded in the bridge rail curb system will be subsidiary to item 501(8).

SECTION 504

STEEL STRUCTURES

504-3.01 FABRICATION. Delete numbered item 8. and substitute the following:

8. Welding. Welding shall conform to the most recent edition of the AASHTO/AWS Bridge Welding Code D1.5 except that welding of steel tubes, railing, grates, grate frames, deck expansion joints, and existing structures shall conform to the most recent edition of AWS D1.1.

Charpy V-notch impact test requirements shall be as shown on the plans.

Minimum preheat and interpass temperatures for field welds shall be 105 degrees Celsius.

Contractor shall be responsible for providing Quality Control Inspection per AWS D1.1 or Fabrication Inspection per AWS 1.5 for all field welding. This responsibility includes providing all NDE (Non-Destructive Examination) mandated on the plans and by the relevant welding code. It is to be noted that AWS D1.5 mandates non-destructive tests on welds even though such tests are not specifically detailed in the plans and project specifications.

504-3.02 ERECTION. Add the following to numbered item 8. Setting Shoes and Bearings: Epoxy adhesive, conforming to AASHTO M-235, shall be applied to the bottom surfaces of the elastomeric bearing pads prior to placement. The pads shall be secured and restrained from movement until the epoxy has cured and full adhesion is achieved between each pad and its bearing surface.

504-5.01 BASIS OF PAYMENT. Add the following: When called for in the bid schedule, Welding Quality Control and Non-Destructive Examination shall be paid for at the contract lump sum price.

Add the following pay item:

<u>Pay Item No.</u>	<u>Pay Item</u>	<u>Pay Unit</u>
504(3)	Welding Quality Control and NDE	Lump Sum

SECTION 505

PILING

505-1.01 DESCRIPTION. In the second paragraph, delete the word "desirable", and substitute the following: minimum.

Add the following: The Engineer shall perform high-strain dynamic testing on at least one H-Pile at an abutment and at least one steel pipe pile at a pier, for this project. After performing the test pile program as described below, the

Engineer shall establish the installation criteria and construction control criteria which shall be applied to all service piles from the test pile results and analyses. All test piles and service piles shall be driven at least to the minimum tip elevations shown on the plans. The test pile(s) shall be driven as specified below in Subsection 505-3.01 Test Piles.

This item shall include any excavation or backfill within the steel pipe pile shell required before filling the shell with concrete to the elevations shown on the plans. This item shall not include any work required to install reinforcing steel or place concrete in the steel pile shell.

**505-3.01 TEST PILES.** In the first paragraph, delete the last sentence and substitute the following: There shall be high-strain dynamic testing performed on at least one abutment and one pier pile at the bridge to be constructed for this project. The Contractor shall drive a test pile (main bearing pile) at Abutment 1 and at Pier 3. Dynamic measurements will be taken by the Engineer during the driving and re-strike testing of the test pile(s).

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<u>Test Site</u>	<u>Test Pile Type</u>	<u>Requirements</u>
Abutment 1	Plumb	Pile test is required
Pier 3	Plumb	Pile test is required

The initial pile driven shall be a test pile. If the immediate results from the high strain dynamic testing on the test pile are acceptable to the Engineer, the Contractor may drive the remaining abutment or pier piles, as applicable, for the bridge provided the remaining piles are acceptable as specified in Sections 505-3.03 and 505-3.09 of these specifications. Further dynamic pile tests may be required on other piles or at other test sites if in the opinion of the Engineer, performance of the hammer-pile-soil system changes from that of the test pile program.

For the dynamic testing of the pile(s), the Contractor shall provide the Engineer reasonable and safe means of access to the test pile(s) for attaching instruments after the pile is placed in the leads. It is estimated that the Engineer will need approximately 4 (four) hours maximum per pile test to set up and install the dynamic test equipment. The Engineer will furnish the equipment, materials, and labor necessary for drilling holes in the test pile(s) for mounting the testing instruments. The testing instruments will be attached near the top of the pile with bolts placed through drilled and threaded holes. If necessary, the Contractor shall furnish electric power for the setup and use of the high-strain dynamic test equipment. The power supply at the outlet shall be at least 10 amp, 115 volt, 55-60 cycle, AC only. Delays resulting from installation of the high-strain testing equipment shall not be a basis for a claim.

The Contractor shall also provide a separate, movable, weatherproof shed in close proximity to the test pile for the high-strain dynamic testing monitoring equipment. The shed shall have the following minimum functional requirements.

- A. 2.5 m wide x 2.5 m long x 2.5 m high.
- B. .91 m wide lockable entryway & one .4 m<sup>2</sup> window capable of opening.
- C. Two 100 watt lighting fixtures.

The Engineer will use the pile dynamic test data to verify assumptions of the original wave equation analysis, and to confirm pile tip elevation, pile bearing capacity, hammer system efficiency, pile stresses during driving, soil resistance distribution on the pile, and pile integrity.

The test pile(s) shall remain as part of the permanent structure after testing, analysis, and recommendations are completed.

The test pile program with high-strain dynamic testing shall consist of the following tasks:

1. For the test pile program, 21 calendar days prior to driving the first test pile, the Contractor shall submit to the Engineer the necessary pile driving equipment information as shown on the Pile Driving Equipment Data Form. A minimum of 14 calendar days prior to driving the first test pile, the Contractor shall attend a conference with the Engineer to evaluate and discuss the pile test program. The Contractor shall give the Engineer at least 8 calendar days advance notice that a test pile will be driven.
2. The Engineer shall perform an initial wave equation analysis based on subsurface conditions, pile capacity, and pile type.
3. The Contractor shall drive the test pile(s) as specified above and to the tip elevations shown on the plans, and to criteria established by the initial wave equation analysis. Dynamic pile testing shall be performed for the total length of each test pile. If an obstruction is encountered during driving of the test pile, that pile will not be considered a test pile and the next pile driven at the test site shall be designated as a test pile as directed by the Engineer. This dynamic pile testing shall be performed in accordance with ASTM D 4945-89.
4. The Engineer shall evaluate each test pile at the test site(s) by re-striking the test pile(s) a minimum of 48 hours after completion of driving the test pile(s) to the specified tip elevation. The re-strike of the test pile(s) shall be performed by the Contractor with simultaneous testing by the Engineer using the pile dynamic analyzer.

The re-strike testing procedure shall be as follows:

- a. Air or steam hammers. The test pile shall be given 60 consecutive blows and/or penetrate 75 mm at the normal operating pressure for air hammers or steam hammers, so that for a single-acting hammer there is a full upward stroke of the ram, and for a double-acting hammer the number of blows

per minute during and at the completion of driving is approximately equal to that at which the hammer is rated, unless otherwise directed by the Engineer.

- b. Diesel hammers. The test pile shall be given 60 consecutive blows and/or penetrate 75 mm with the fuel setting adjusted to the maximum position, unless otherwise directed by the Engineer.

Re-strike of the test pile shall confirm that the ultimate capacity of the test pile in compression is greater than or equal to the required ultimate capacity as specified in Section 505-3.03 Pile Bearing Values, of these Special Provisions. During re-strike, additional hammer blows and/or penetration may be required as directed by the Engineer. Prior to the re-strike test, the hammer shall be warmed up on another pile near the test pile. The hammer shall be warmed up by striking the other pile at least 20 blows with the fuel setting adjusted to the maximum, unless otherwise directed by the Engineer.

**505-3.03 PILE BEARING VALUES.** Delete this subsection in its entirety and substitute the following: All piles shall be driven to a depth at which they will satisfy the required ultimate bearing capacity. The required ultimate bearing capacity for all the piles on this project is the ultimate pile load as indicated on the bridge plans. The pile driving criteria shall be determined by the Engineer using a Wave Equation analysis and if applicable, results from the high-strain dynamic testing. The Wave Equation computer program to be used on this project shall be the "GRLWEAP" program. Determination of the ultimate bearing capacity of production piles may include re-strike testing as described above and as directed by the Engineer.

**505-3.09 DRIVING PILES.** Delete the fifth sentence of the first paragraph and substitute the following: Piles for exposed pile bents shall be within 75 mm of plan position at cutoff elevation and within 150 mm of plan position at original ground line.

Delete the tenth paragraph and substitute the following: All pile driving equipment used by the Contractor shall be subject to approval by the Engineer. Vibratory drivers may be used for initial pile placement for the service steel pipe piles. The piles shall not penetrate more than 14 m when a vibratory driver is used for initial pile placement. A vibratory driver shall not be used on the test piles. All pile driving systems shall be equipped with an appropriate thickness of hammer cushion to prevent damage to the hammer or pile and to insure uniform driving performance. Hammer cushions shall be made of durable, manufactured materials, and provided in accordance with the hammer manufacturers guidelines except that wood, wire rope, and asbestos hammer cushions shall not be used. The hammer cushion shall be inspected in the presence of the Engineer prior to beginning pile driving and after every 100 hours of pile driving. Any reduction of hammer cushion thickness exceeding 25% of the original thickness shall be replaced by the Contractor before driving is permitted to continue.

The pile driving equipment shall be sized such that the piles can be driven to the required ultimate bearing capacity without damage and with a penetration resistance of 120 blows per foot or less as determined by the wave equation analyses. Approval of the pile driving equipment by the Engineer will be based on the wave equation and the Engineer's recommendations.

All service piles shall be driven at least to the desirable tip elevation as shown in the bridge plans or to a tip elevation based on the high-strain dynamic test results and the Engineer's recommendations. Adequate pile penetration will be considered to be obtained, when the specified high-strain dynamic testing criteria is achieved. Piles not achieving the required ultimate bearing capacity within these limits shall be driven to a tip elevation established by the Engineer.

After the test piles are driven and during the service pile driving operations, the Contractor shall use the approved driving system to install the service piles. No variations in the driving system will be permitted without the Engineer's written approval. Any change in the driving system will only be considered after the Contractor has submitted a revised Pile Driving Equipment Data Form for a revised wave equation analysis by the Engineer, and the analysis indicates an acceptable result. Approval of any change in the Contractor's driving system may be contingent upon obtaining satisfactory results from additional high strain dynamic tests. The Contractor will be notified of the acceptance or rejection of the revised driving system within 7 calendar days of the Engineer's receipt of the requested change. The time required for the submission, review, and approval of a revised driving system shall not constitute the basis for a contract time extension or additional payment.

For the pile driving system to be acceptable, the compressive driving stresses as measured by the pile dynamic analyzer or as indicated by wave equation results, shall not exceed 90 percent of the pile yield stress. The high-strain dynamic testing and analyses shall be performed to confirm or modify pile driving criteria developed using the wave equation for the Contractor's pile-hammer combination. The Engineer reserves the right to require dynamic monitoring in addition to those previously specified if the Contractor's pile driving equipment does not seem to be working properly or in accordance with these specifications, or if pile design modifications are ordered by the Engineer. All dynamic monitoring shall be performed by the Engineer. If changes in the approved driving system are requested by the Contractor, the additional high-strain dynamic testing shall be performed at the Contractor's expense.

Add the following to the eleventh paragraph: There is a possibility of encountering frozen ground, permafrost, cobbles, boulders or other obstructions at this bridge site. Where such obstructions are encountered and result in pile refusal above the minimum pile tip elevation, removal of such obstructions, when required by the Engineer, shall be classified as Special Pipe Pile Excavation. The Contractor shall remove the obstruction using adequate size and type of equipment such as an excavator, drilling equipment, boulder extractor to assist in advancing the steel piles down through the boulders and/or obstruction to the specified pile tip elevation.

Add the following: Prior to driving the piles at Abutment 1, a 150 mm diameter prebore hole shall be drilled at the center of each pile. This preboring is required because of the frozen ground encountered when drilling the subsurface soil test holes at Abutment 1. For the wing wall and anchor piles, the prebore hole shall be drilled to a depth which is 1.5 m above the pile tip elevation. For the main bearing piles, the prebore hole shall be drilled through the frozen ground as indicated by the soil test holes and the prebore drilling reaction. The preboring work at Abutment 1 shall not be considered as Special Pile Excavation as described herein.

**505-4.01 METHOD OF MEASUREMENT.** Delete the following from the sixth line of the second paragraph under Item 2, Piles Driven: "...reinforcing steel, concrete fill...."

Delete numbered paragraph 5 and substitute the following:

5. Load Tests. The Contractor's cost to assist the Engineer in performing the specified high-strain dynamic load tests will not be measured for payment. The test piles used for the high-strain dynamic tests are to be included in the structure as service piles and will be paid for at the contract prices for furnishing and driving service piles.

Add the following:

8. Special Pile Excavation. Removal of obstructions causing pile refusal above the design tip elevations, when required by the Engineer, shall be classified as Special Pipe Pile Excavation. This work will be measured on a time and materials basis in accordance with Section 109, Paragraph 1.05, of the Standard Specifications. Pile refusal is defined as the condition reached during pile driving which results in a bearing pile driven by a impact hammer having a negligible rate of penetration per blow (such as when a pile tip reaches an impenetrable bottom such as a rock or a bedrock formation), or when the effective transferred energy of the impact hammer blow is no longer sufficient to advance the pile tip.

**505-5.01 BASIS OF PAYMENT.** Add the following: The reinforcing steel to be used in the piling shall be measured and paid as Item 503(1), Reinforcing Steel. Concrete fill used in the piling shall be measured and paid as Item 505(1), Class A Concrete.

<u>Pay Item No.</u>	<u>Pay Item</u>	<u>Pay Unit</u>
505(14)	Special Pipe Pile Excavation	Contingent Sum



SECTION 507

BRIDGE RAILING

507-1.01 DESCRIPTION. Delete the last sentence and substitute the following: This work shall also include furnishing fasteners for, and installing Contractor furnished bridge number plates as shown on the plans.

507-5.01 BASIS OF PAYMENT. Add the following: Furnishing and installing three beam transition brackets as shown on the plans will not be paid for directly, but will be subsidiary to Item 507(1) Metal Bridge Railing.

SECTION 603

CULVERTS AND STORMDRAINS

03/29/89

603-3.04 JOINING PIPE. In numbered subparagraph 1., delete the last two sentences and substitute the following: Bands shall have a minimum width of 560 mm.

In numbered subparagraph 2., delete the fourth and fifth sentences and substitute the following: Bands shall have a minimum width of 560 mm and shall have two circumferential rows of projections for each pipe end being joined.

Delete Section 606 in its entirety and substitute the following:

SECTION 606

GUARDRAIL

606-1.01 DESCRIPTION. This item consists of the furnishing and installing of new guardrail, end treatments, guardrail/bridge rail connections of the kind and type specified, in conformance with the Standard Drawings, plans and these specifications.

606-2.01 MATERIALS. Materials shall conform to the following:

Concrete (or an approved, pre-mixed, sacked concrete)	501-3.01
Reinforcing Steel and Wire Rope	709-2.01
Metal Beam Rail	710-2.04
Guardrail Posts and Blocks	710-2.06
Guardrail Hardware	710-2.07

Slotted Rail Terminals (SRT-350s) shall be manufactured by Syro, Inc., Western Division, P.O. Box 99, Centerville, Utah 84014, Telephone 801-292-4461. The SRT-350s supplied shall conform to Syro's Drawing No. SS 425 or SS 425M dated December 27, 1996.

Flexible Markers shall have yellow reflective sheeting and be one of the following:

"Guardrail Delineator Post" manufactured by Carsonite International, 2900 Lockheed Way, Carson City, Nevada 89701.

"Guardrail Delineator" manufactured by Safe-Hit Corporation, 1930 West Winton Avenue, Building 11, Hayward, California 94545.

"Flex-o-Guide", Model EY426 manufactured by Flexible Safety Zoning Company, 4152 Warren Avenue, Hillside, Illinois 60162.

Guardrail reflector assembly brackets shall be fabricated from alloy 6061-T or alloy 5155-H36 as specified in ASTM B 209 or galvanized steel. The fabrication of guardrail reflector assemblies shall conform to base metal preparation, edge sealing, finish, reflective sheeting and testing requirements of Section 730. Type III-A high intensity reflective sheeting shall cover the entire face of the guardrail reflector assembly which faces approaching traffic. On two-way roadways both faces shall be reflectorized.

#### CONSTRUCTION REQUIREMENTS

**606-3.01 POSTS.** When the plans require that the ends of a section of guardrail be curved outward or downward, the posts shall be set to accommodate the curve.

Posts shall be set in dug or drilled holes. Post holes shall be backfilled with acceptable material and thoroughly compacted to the satisfaction of the Engineer. Ramming or driving will be permitted only if approved by the Engineer and no damage to the posts, pavement, shoulders and adjacent slopes result therefrom.

In broken rock embankment, the pre-punching of holes will be permitted only prior to final shoulder or median compaction, surfacing and paving.

All posts and blocks shall be wood.

**606-3.02 BEAM RAIL.** All metal work shall be fabricated in the shop. No punching, cutting, or welding shall be done in the field, except that holes necessary when additional posts are required or for special details in extraordinary cases may be drilled in the field when approved by the Engineer. The rail shall be erected so that the bolts at expansion joints will be located at the centers of the slotted holes. Field drilled holes shall be treated in accordance with AASHTO M 36.

Rail elements shall be lapped so that the exposed ends will not face approaching traffic.

Guardrail elements shall be factory bent for all radii less than or equal to 45 m.

All bolts, except where otherwise required at expansion joints, shall be drawn tight. Bolts through expansion joints shall be drawn up as tight as possible without being tight enough to prevent the rail elements from sliding past one another longitudinally. Bolts shall be sufficiently long to extend at least 6 mm beyond the nuts. Except where required for adjustments, bolts shall not extend more than 25 mm beyond the nuts.

Where the spelter coat on galvanized rail elements has become damaged, repairs to the spelter coat shall be made in accordance with AASHTO M 36.

**606-3.04 END TREATMENTS.** End treatments shall be installed in accordance with the manufacturer's recommendations at the locations shown on the plans.

At each end treatment attach a flexible marker to the end terminal post. Attach the flexible marker manufactured by Carsonite International using four 4.8 mm diameter steel bolts. Attach the flexible marker manufactured by Safe-Hit Corporation using two 9.5 mm diameter galvanized steel bolts. Attach the flexible marker manufactured by Flexible Safety Zoning using three 9.5 mm diameter steel bolts. Mount the flexible markers to extend a minimum of 530 mm above the top of the guardrail. The bottom of the markers shall not extend below the terminal element.

Excavation and backfill required for installation of end treatments shall be performed in accordance with Section 203, Excavation and Embankment.

**606-3.10 GUARDRAIL REFLECTOR ASSEMBLIES.** Guardrail reflector assemblies shall be mounted at the intervals noted on the Standard Drawings beginning with the first standard guardrail post. No assemblies shall be mounted within the limits of the end treatments.

**606-3.11 INCOMPLETE WORK.** At the end of each work shift traffic control devices shall be installed to protect all incomplete sections of guardrail and concrete barrier and all incomplete end treatments and guardrail/bridge rail connections. Requirements for traffic control devices for this purpose are specified in Section 643, Traffic Maintenance.

Whenever possible, guardrail construction shall proceed in the direction of traffic in the lane closest to the barrier. This will ensure that untreated guardrail ends face away from adjacent traffic.

**606-3.12 LENGTH OF NEED VERIFICATION.** After shaping the slopes and staking all proposed guardrail end treatment locations the Contractor shall notify the Engineer of the need to field verify their locations. Do not install end treatments until approval of their staked locations is obtained from the Engineer.

**606-4.01 METHOD OF MEASUREMENT.** Guardrail reflector assemblies, posts, blocks and associated hardware will be subsidiary to the respective barrier pay item and will not be measured separately.

End treatments will be measured for payment as follows:

Slotted Rail Terminals (SRT-350) will be measured per each installation and shall include all rail elements, posts, blocks, tube sleeves, cable terminal assembly and all associated hardware required for a complete installation.

Guardrail/Bridge Rail Connections will be measured per each installed in place. Each Guardrail/Bridge Rail Connection shall include a guardrail/bridge rail bracket, one nested Thrie beam section, one Thrie beam to standard W-beam transition piece, and all posts and associated hardware required to connect standard W-beam guardrail to bridge rail in accordance with the Standard Drawings, plans and Special Provisions.

Flexible markers for end treatments will not be measured separately but will be subsidiary to the respective pay item for end treatments.

**606-5.01 BASIS OF PAYMENT.** The accepted quantity will be paid for at the contract price, per unit of measurement, for each of the particular pay items shown in the bid schedule, complete in place.

Unless otherwise noted, all material required for embankment widening for guardrail and end treatments as detailed in the plans, Standard Drawings and Special Provisions shall be measured and paid for under the appropriate pay items shown in the bid schedule.

Payment will be made under:

<u>Pay Item No.</u>	<u>Pay Item</u>	<u>Pay Unit</u>
606(10)	Slotted Rail Terminal (SRT-350)	Each
606(13)	Guardrail/Bridge Rail Connection	Each

Delete Section 613 in its entirety and substitute the following:

### SECTION 613

#### MONUMENTS AND MARKERS

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

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

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

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

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

If Item 613(2) does not appear on the bid schedule all costs associated with providing and installing culvert marker posts shall be considered subsidiary to culvert installation and will not be measured or paid for separately.

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

Payment will be made under:

<u>Pay Item No.</u>	<u>Pay Item</u>	<u>Pay Unit</u>
613(2)	Culvert Marker Posts	Each

## SECTION 615

### STANDARD SIGNS

03/29/89

**615-2.01 MATERIALS.** Add the following after the third paragraph: D3-1 signs shall be entirely fabricated with Type II (medium intensity) reflective sheeting on sheet aluminum panels.

**615-3.02 SIGN PLACEMENT AND INSTALLATION.** Add the following after the third paragraph: For perforated steel tubing posts, only one splice shall be allowed per post. Splices shall be a minimum of 1 meter above the shoulder elevation and at least 300 mm below the top of the post, and shall be constructed with an 450 mm long piece of P.S.T. which is the next nominal size smaller. The splice insert shall be centered and fastened with one 3/8-inch galvanized bolt, nut, and lock washer in each section of the splice.

**615-4.01 METHOD OF MEASUREMENT.** Add the following to the first paragraph: Only one side of each D3-1 sign shall be measured for payment.

In the fourth paragraph delete the words "Object Markers and" and capitalize the letter "D" in the word "Delineators."

Delete the last paragraph and substitute the following: When pay items 615(2), 615(3), and 615(7) do not appear in the bid schedule, this work will be considered subsidiary to other 615 items.

**615-5.01 BASIS OF PAYMENT.** Delete Pay Item 615(4) Object Markers, Each.

Delete Section 618 in its entirety and substitute the following:

**SECTION 618**

**SEEDING**

**618-1.01 DESCRIPTION.** This work shall consist of preparing the ground, followed by application of seed and fertilizer, in conformance with the plans and these Special Provisions.

It is the intent of this work that a living vegetative cover be provided in the areas indicated on the plans.

**618-2.01 MATERIALS.** Materials shall conform to the requirements specified in the following:

Seed	Section 724
Fertilizer	Section 725

**CONSTRUCTION REQUIREMENTS**

**618-3.01 SOIL PREPARATION.** All areas to be seeded shall be cleared of stones 100 mm in diameter and larger and of all weeds, plant growth, sticks, stumps and other debris or irregularities which might interfere with the seeding operation, growth of grass or subsequent maintenance of the grass-covered areas.

Slopes shall be prepared using one or more of the methods listed below prior to the application of seed:

"Manual Raking" - shall require labor with landscaping rakes to produce a uniform pattern of grooves perpendicular to the fall of the slope.

"Mechanical Track Walking" - shall consist of operating track equipment in such a manner as to leave a uniform pattern of grooves perpendicular to the fall of the slope.

"Mechanical Raking" - shall require the use of a scarifying slope board to produce grooves with an approximate width of 25 mm and no more than 150 mm apart. The resultant indentation shall leave a uniform pattern of grooves perpendicular to the fall of the slope.

The Contractor may round the top and bottom of the slopes to facilitate tracking or raking and to create a pleasing appearance, but drainage flowlines shall not be disrupted.

**618-3.02 SEEDING SEASONS.** All seeding will be performed after the ground is free of snow and no sooner than May 15 and shall be completed by August 1.

No seeding will be done during windy conditions or when climatic conditions or ground conditions would hinder placement or proper growth.

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**618-3.03 APPLICATION.** Seed and fertilizer shall be applied at the rates specified and will be placed by the following method:

Mechanical Method-

1. Mechanical spreaders, seed drills or other approved mechanical spreading equipment may be used when seed and fertilizer are to be applied in dry form.
2. Seeding area shall be watered both prior to and after the application of fertilizer.
3. Spread fertilizer separately from seed.

MATERIALS	TYPE	APPLICATION RATE PER 100 SQUARE METERS
Seed*	Bering Hairgrass (Norcoast) or	0.12 kg
	Glaucous Bluegrass (Tundra)	0.05 kg
	Polargrass (Alyeska)	0.67 kg
	Red Fescue (Arctared)	0.05 kg
	Annual Ryegrass	<u>0.05 kg</u>
	<b>Total</b>	<b>0.89 kg</b>
Fertilizer	20-20-10	5.00 kg

\*The Contractor shall not remove the required tags from the seed containers.

**618-3.04 MAINTENANCE OF SEEDED AREAS.** The Contractor shall protect seeded areas against traffic by approved warning signs or barricades. Surfaces gullied or otherwise damaged following seeding shall be repaired by regrading and reseeding as directed by the Engineer. The Contractor shall otherwise maintain seeded areas in a satisfactory condition until final inspection or acceptance of work described in this section at no additional cost to the Department.

A second application of fertilizer shall be required for seeded areas. It shall be applied between forty and forty-five calendar days after the initial seeding, as directed by the Engineer. Fertilizing will be allowed outside the seeding season. The Contractor shall use 20-20-10 fertilizer at a rate of 2.50 kilograms per 100 square meters within the seeding season or 10-20-20 fertilizer at the same rate outside the seeding season.

The Alaska Department of Natural Resources, Plant Material Center, P.O. Box 7440, Palmer, Alaska, 99645, Telephone: (907) 745-4469, Facsimile: (907) 746-1568 shall be contacted for advice or measures, when seeded areas are not showing evidence of satisfactory growth. The Contractor shall be responsible for retracking, reseeding and refertilizing affected areas.

**618-4.01 METHOD OF MEASUREMENT.** Seeding by the hectare shall be measured by the area of ground surface acceptably seeded and maintained. The amount of seed, fertilizer, and water used in the work including the second application of fertilizer and any required reseeding, shall be considered as subsidiary and will not be measured separately for payment.

Seeding by the kilogram shall be the weight of seed (dry measure) acceptably placed. Fertilizer and water used in the work, including any required reseeding, shall be considered as subsidiary and will not be measured separately for payment. Soil preparation will not be measured separately for payment.

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

Payment will be made under:

<u>Pay Item No.</u>	<u>Pay Item</u>	<u>Pay Unit</u>
618(1)	Seeding	Hectare
618(2)	Seeding	Kilogram

### SECTION 639

#### DRIVEWAYS

11/25/92

Delete in its entirety and substitute the following:

### SECTION 639

#### APPROACHES

**639-1.01 DESCRIPTION.** This item consists of the work involved in the excavation, forming, shaping and construction of driveway approaches.

**639-4.01 METHOD OF MEASUREMENT.** The quantity of work to be paid for under this section shall be the number of approaches constructed as shown on the plans or as directed.

**639-5.01 BASIS OF PAYMENT.** Payment will be made under:

<u>Pay Item No.</u>	<u>Pay Item</u>	<u>Pay Unit</u>
639(1)	Approaches	Each

The contract unit price per each for approaches shall be full compensation for furnishing all equipment and labor necessary to complete the work as specified. Excavation and materials required to construct approaches shall be paid for separately under the respective items listed in the bid schedule.



Delete Section 641 in its entirety and substitute the following:

## SECTION 641

### EROSION AND POLLUTION CONTROL

**641-1.01 DESCRIPTION.** This work shall consist of planning, providing, and maintaining control of erosion, water pollution, and hazardous materials contamination.

#### **641-1.02 DEFINITIONS.**

1. Erosion and Sediment Control Plan (ESCP). The Department's general plan for the permanent and temporary control of erosion and sedimentation during construction of the project as contained in the plans and specifications, and supplemented by the Department's Erosion Prevention and Sediment Control Plan - Policy and Procedures; Guide to Preparing Erosion Prevention and Sediment Control Plans and Best Management Practices for Construction Erosion and Sediment Control. The ESCP is prepared by the Department and is attached to this specification.
2. Storm Water Pollution Prevention Plan (SWPPP). The detailed site-specific plan prepared by the Contractor for the temporary and permanent control of erosion and sedimentation during construction of the project. The SWPPP is based upon the ESCP, and prepared according to guidance provided in the National Pollutant Discharge Elimination System General Permit for Storm Water Discharges from Construction Sites (NPDES General Permit).
3. Hazardous Material Control Plan (HMCP). The Contractor's detailed plan for the prevention, containment, cleanup, and disposal of hazardous waste material, including petroleum products generated by construction equipment or activities. Included in the HMCP is a list of quantities and types of equipment and materials available on site to be used for hazardous substance containment and cleanup. The plan also describes how and where construction equipment fueling and maintenance activities will be carried out and controlled.
4. Notice of Intent (NOI) to utilize the NPDES General Permit for Alaska. This is a standard form (EPA Form 3510-9) giving notice to the U.S. Environmental Protection Agency (EPA) that work will be conducted in compliance with the NPDES General Permit. The NPDES General Permit authorizes discharges of storm water from construction activities involving more than 2.02 hectares of land. The Contractor prepares the NOI, and submits it to the Department a minimum of 5 days before the preconstruction conference for approval.
5. Notice of Termination (NOT) of coverage under the NPDES General Permit for Alaska. This is a standard form (EPA Form 3510-7(8-98)) that constitutes notice that the project site has been finally stabilized or when an Operator of a construction activity, as defined in the NPDES General Permit, changes. The Contractor prepares the NOT, and submits it to the Engineer once final stabilization of the project site has been completed.

6. Final Stabilization: That point when all soil disturbing activities resulting from the project have been completed and the entire site has been stabilized through the use of mechanical or vegetative means to preclude erosion. Mechanical means include paving, riprap, retaining structures, free draining processed aggregate, geotextiles, plus any naturally non-erodible surfaces such as bed rock and porous parent material as specified in the project SWPPP. Vegetative means include a uniform perennial vegetative cover with a density of 70% of the native background cover.
7. Best Management Practices (BMP) is defined as any program, technology, process, siting criteria, operating method, measure, or device which controls, prevents, removes, or reduces pollution.

**641-1.03 SUBMITTALS.** The Contractor shall submit the following items for approval a minimum of 5 days prior to the preconstruction conference:

1. Draft Storm Water Pollution Prevention Plan (SWPPP).
2. Hazardous Material Control Plan (HMCP).
3. Notice of Intent (NOI).

The Engineer will review submittals within 14 calendar days. If required for approval, the Contractor shall modify the submittals within 5 calendar days of receiving comments from the Engineer.

The Contractor's SWPPP shall be prepared and stamped by a professional engineer currently registered in the State of Alaska. The Department will review the draft SWPPP, and either approve it, or recommend changes. The Contractor shall make the necessary revisions to obtain the Department's approval of the SWPPP. The approved SWPPP becomes the project SWPPP and shall be signed and certified by the Contractor and the Department in accordance with the NPDES General Permit.

The Contractor shall implement all measures in the SWPPP and ensure that it remains current.

Once the Contractor's SWPPP is approved, the Engineer will submit the Contractor's NOI along with the Department's NOI to the EPA via Certified Mail. The Engineer will also submit copies of the NOI and the SWPPP to the State of Alaska Department of Environmental Conservation (DEC) Storm Water Coordinator. Earth disturbing work shall not begin until the Contractor receives in writing: 1) Department approval of the Contractor's SWPPP, and 2) notification that 48 hours have passed since the NOIs were postmarked to EPA and DEC.

The following shall be posted at the construction site:

1. NPDES Permit number if available, or a copy of the NOI.
2. Name and phone number of Contractor's local contact person.
3. The location of a SWPPP available for viewing by the public.

The Contractor shall amend the SWPPP within 7 days, when requested by the Engineer. The approval process for amendments to the SWPPP is the same as with the Contractor's draft SWPPP.

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If a storm event occurs where storm water discharges pose a threat to water quality, the Contractor shall take immediate action to preclude pollution subject to the directive of the Engineer. An amended SWPPP covering the emergency measures that were taken shall be submitted to the Engineer within 7 days of the storm event.

Prior to project closeout and Contractor demobilization, the Contractor and Engineer shall review the project to determine if all areas disturbed by construction meet the requirements for final stabilization. When final stabilization has been accomplished, the Contractor shall submit a signed Notice of Termination (NOT) to the Engineer.

**641-1.04 STORM WATER POLLUTION PREVENTION PLAN.** The Contractor shall prepare the SWPPP. The SWPPP shall cover all ground disturbing activities designated by the contract including offsite support activities. Examples of support activities are; concrete or asphalt batch plants, equipment staging yards, overburden and material stockpiles, excavated material disposal areas, borrow areas, etc., which are used solely by the permitted project. In contrast, commercial operations which can not be covered under this permit, are defined as those operations that serve multiple unrelated projects and would continue to operate after project completion.

A detailed description of the required contents of the SWPPP are found in the 1998 NPDES General Permit for construction activities in Alaska. The SWPPP shall follow the format presented in the NPDES General Permit and address all storm water discharge control and management issues identified in the ESCP. The SWPPP shall include the following:

1. Site Description

- a. A description of the nature of the construction activity.
- b. A description of the intended sequence of major ground disturbing activities such as grubbing, excavation, grading, or utility installation.
- c. Estimates of the total area of the site and the total area of the site that is expected to be disturbed including offsite support areas.
- d. Estimate of the runoff coefficient of the site during and post construction; narrative and/or data describing the soil; and the quality of any discharge from the site.
- e. A general location map and a site map showing the following:
  - (1) drainage patterns
  - (2) approximate slopes after grading
  - (3) areas of soil disturbance and undisturbed areas

- (4) locations of major structural and nonstructural controls identified in the SWPPP and locations where stabilization is expected to occur
  - (5) locations of offsite material, waste, borrow or equipment storage areas
  - (6) locations of surface waters, including wetlands, and the locations where storm water discharges to surface waters
- f. Location and description of any discharge associated with industrial activity other than construction, and location of storm water discharges from dedicated asphalt or concrete plants covered by this permit.
  - g. Name of the storm water discharge receiving water(s). The aerial extent and description of wetlands or special aquatic sites at or near the project site which will be disturbed or receive storm water discharge.
  - h. A copy of the 1998 NPDES General Permit which can be an appendix to the SWPPP.
  - i. Information on whether listed threatened or endangered species, or their critical habitat, are found in proximity to the project and off site support areas, and whether such species or habitat may be affected by storm water discharges or related activities.

## 2. Controls

The SWPPP shall include a description of appropriate control measures (BMP) which will be implemented as part of the construction activity to control pollutants in storm water discharges.

The SWPPP shall clearly describe, for each major soil disturbing activity described in 1b above, the appropriate control measures and the general timing (or sequence) during the construction process that the measures will be implemented, and who (Contractor or subcontractor) will be responsible for implementation.

The description and implementation of controls shall address the following minimum components:

- a. Erosion and Sediment Controls.
  - (1) Short and Long Term Goals and Criteria designed to retain sediment on site to the extent practicable, and shall include off site support areas.
  - (2) Stabilization Practices and implementation schedule. This shall include a description of interim and permanent stabilization practices such as the preservation of vegetative

cover, temporary and permanent vegetation establishment, mulching, geotextiles, etc.

The following records shall be maintained and attached to the SWPPP:

- (a) the dates when major grading activities occur;
  - (b) the dates when construction activities cease on a portion of the site, either temporarily or permanently;
  - (c) and the dates when stabilization measures are initiated.
- (3) Structural Practices. This shall include a description of structural practices to divert flows from exposed soils, store flows, or otherwise limit runoff and discharges. Examples of structural practices include but are not limited to silt fences, earth dikes, drainage swales, sediment traps, check dams, subsurface drains, and temporary and permanent sediment basins.
- b. Storm Water Management. A description of measures that will be installed during construction to control pollutants in storm water discharges that will occur after construction operations. Examples of storm water management measures include but are not limited to storm water detention structures (wet ponds), storm water retention structures, flow attenuation, on site filtration, and sequential systems.
- c. Other Controls. This section shall address measures to be used to minimize dust and offsite vehicle tracking of sediments; a description of any on site material storage and measures to be used to minimize exposure of the materials to storm water, and measures to be used for spill prevention and response; a description of pollutant sources from areas other than construction and a description of controls. The SWPPP shall also include a description of measures necessary to protect listed endangered or threatened species or critical habitat.

The SWPPP shall be amended whenever there is a change in design, construction, operation, or maintenance, and shall be updated to remain consistent with any changes applicable to protecting surface water resources.

### 3. Maintenance

All erosion and sediment control measures and other protective measures identified in the SWPPP must be maintained in effective operating condition. If the required inspections described in the following item identify BMP that are not operating effectively, maintenance shall be performed before the next anticipated storm event, or as necessary to maintain the continued effectiveness of storm water controls. If

maintenance prior to the next anticipated storm event is impracticable, maintenance must be scheduled and accomplished as soon as practicable.

#### 4. Inspections

Qualified personnel shall inspect the following:

- a. Disturbed areas of the construction site that have not been finally stabilized.
- b. Areas used for storage of materials that are exposed to precipitation.
- c. Structural control measures.
- d. Locations where vehicles enter or exit the site.

Inspections shall occur at least once every 7 calendar days and within 24 hours of the end of a storm event of 13 mm or greater of rain. Based on the results of the inspection, the SWPPP shall be modified as necessary to include additional or modified BMP to correct identified problems. Revisions to the SWPPP shall be completed within 7 days following inspections. If modifications to existing BMP are necessary, implementation shall be completed within 7 days.

During winter shutdown, the Contractor shall conduct inspections at least once every month and within 24 hours of a storm resulting in rainfall of 13 mm or greater. The Contractor is eligible for a waiver of monthly inspection requirements until one month before thawing conditions are expected to result in a discharge, if all of the following requirements are met:

- a. The project is located in an area where frozen conditions are anticipated to continue for extended periods of time (i.e., more than one month).
- b. Land disturbance activities have been suspended.
- c. The beginning and ending dates of the waiver period are documented in the SWPPP.

#### 5. Inspection Reports

The Contractor shall prepare a report with the following information:

- a. A summary of the scope of the inspection.
- b. Name(s) and qualifications of personnel making the inspection.
- c. The date of the inspection.
- d. Major observations relating to the implementation of the SWPPP.

- e. Any actions taken as the result of the inspection.

Inspection reports shall be made and retained as part of the SWPPP for at least three years from the date of final stabilization. The report shall also identify any areas of non-compliance. Where a report does not identify any incidents of non-compliance, the report shall contain a certification that the facility is in compliance with the SWPPP and NPDES General Permit and be signed by the Contractor in accordance with Part VI.G of the NPDES General Permit. All certifications shall be included as an appendix to the SWPPP. Inspection reports shall be submitted to the Engineer within three (3) days of the inspection.

#### 6. Non-Storm Water Discharges

Except for flows from fire fighting activities, sources of non-storm water listed in Part III.A.2 or 3 of the NPDES General Permit that are combined with storm water discharges associated with construction activity, shall be identified in the SWPPP. The SWPPP shall identify and ensure the implementation of appropriate pollution prevention measures for the non-storm water component(s) of the discharge.

**641-1.05 HAZARDOUS MATERIAL CONTROL PLAN REQUIREMENTS.** The Contractor shall comply with all state and federal regulations which pertain to the handling, storage, cleanup, and disposal of petroleum products or other hazardous substances. The Contractor shall prepare the HMCP. The HMCP shall detail the Contractor's plan for fueling and maintaining equipment and machinery. The locations where fueling and maintenance activities are to take place, and any controls to contain the accidental spillage of petroleum products shall be identified. A list of potentially hazardous materials, including petroleum products to be used and/or stored on site, and their estimated quantities shall be provided in the HMCP. The Contractor's plan for the disposal of waste petroleum products and/or other hazardous wastes generated by the project shall also be identified in the HMCP. Additionally, the Contractor's plan for prevention, containment, cleanup and disposal of soil and water contaminated by accidental spills, and the Contractor's plan for encountering unexpected contaminated soil and water during construction shall be detailed in the HMCP.

**641-2.01 MATERIALS.** Erosion and pollution control measures shall be accomplished utilizing BMP as specified in the SWPPP and HMCP. Ground disturbing activities shall only be undertaken after the seeding deadline under the following conditions:

1. The SWPPP describes the work and controls to be taken to control storm water runoff after the seeding deadline.
2. Personnel, materials, and equipment are on hand to accomplish the control measures identified in the SWPPP.
3. All disturbed areas will be stabilized against erosion within 7 days of the temporary or permanent cessation of work on the slopes. Stabilization practices may include mulching, geotextile, sod, covering with sheet plastic, or other equivalent measures.

The silt fence filtration material shall meet the requirements of Subsection 729-2.04 Sediment Control.

The silt fence support framework shall be finished 50 mm x 50 mm wood, 80 mm diameter wood, #6 rebar with PVC sleeves, iron pipe, or other posts capable of supporting the installation, as approved by the Engineer.

The mesh support shall be WWF 6x6 W1xW1 or as approved by the Engineer.

**641-3.01 CONSTRUCTION REQUIREMENTS.** The Contractor shall comply with all requirements of the NPDES General Permit for Alaska, and shall implement all temporary and permanent measures identified in the SWPPP and plans. The Department and Contractor shall share responsibility for inspecting, and the Contractor's representative shall prepare inspection reports per the requirements of the NPDES General Permit. Compliance with the NPDES General Permit does not reduce the Engineer's authority to direct additional erosion control measures deemed appropriate. The Department reserves the right to hire another contractor to perform this work if the Contractor is unresponsive or a suitable agreement cannot be reached with the Contractor.

Prior to start of construction, the Contractor, his representative, the professional engineer who stamped the SWPPP, and the Engineer shall have an on site inspection to discuss the SWPPP implementation and the requirements under that plan.

The Contractor shall be responsible for the containment, cleanup, and disposal of all construction related discharges of petroleum fuels, oil, and/or other substances hazardous to the land and water. The Contractor shall also be responsible for performing all fueling operations in a safe and environmentally responsible manner. Performance of this activity shall comply with the requirements of 18 AAC 75 and Title 46 of the Alaska Statutes.

Silt fence shall be installed prior to any work in or near the location shown on the plans, and in accordance with the provisions of Subsection 107-1.11, Protection and Restoration of Property and Landscape. Additional silt fencing may be required at other sites as directed by the Engineer.

The silt fence shall not be removed until slopes are stabilized from further erosion as determined by the Engineer. The silt fence shall be removed and disposed of off the project upon completion of construction at those sites. The fabric shall be cut off at ground level and the wire and posts shall be removed. The silt fence removal shall be performed in such a manner that retained silt is not discharged into wetlands or waterbodies. If a sediment height in excess of 100 mm above ground remains, the sediment shall be spread on the roadway side of the fence location and seeded immediately in accordance with Section 618, Seeding.

**641-4.01 METHOD OF MEASUREMENT.** Item 641(1) Erosion and Pollution Control Administration, will not be measured for payment. The Engineer's acceptance will constitute measurement.

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Unalakleet Landfill Road



Item 641(2) Erosion and Pollution Control, will be measured in the manner specified in the directive authorizing the work.

**641-5.01 BASIS OF PAYMENT.** Item 641(1) Erosion and Pollution Control Administration, will be full compensation for administration of erosion control including plan preparation and amendments, inspection, monitoring, reporting and record keeping.

Item 641(2) Erosion and Pollution Control, will be full compensation for providing all labor, equipment, and materials required to accomplish the work, as specified in the directive authorizing the work.

Failure to diligently a) pursue work required by the approved SWPPP, b) respond to inspection recommendations and/or deficiencies in the SWPPP, c) implement erosion and sedimentation controls identified by the Engineer, will result in a permanent price adjustment under Item 641(6). If the Contractor does not respond within 2 hours of the Engineer's directive, then an amount equal to five percent of the total amount earned from all previous and subsequent progress payments on the contract or \$50,000 which ever is greater, will be withheld, and a permanent price adjustment made equivalent to:

1. \$500 per hour for the first 4 hours of non-action;
2. \$1,000 per hour for every hour over four, and up to 10;
3. \$1,500 per hour for every hour over 10 hours of non-action.

The Price Adjustment will cease when corrective actions are accepted by the Engineer. The Department reserves the right to hire another contractor to do corrective action, and to reduce the contract amount by this cost plus the cost to the Department implementing another contract.

If the Department receives a notice of violation for violations of the Clean Water Act and the NPDES General Permit resulting from the Contractor's failure to timely respond to a directive, a price adjustment equivalent to any penalties levied against the Department will be made. This price adjustment shall be the actual cost of any fines levied against the Department. An amount equal to the maximum fine for the violation will be withheld temporarily until the actual cost of the fine is known. The difference, excluding any price adjustments will be released by the Engineer upon satisfactory completion of the requirements of the NPDES General Permit. Penalties for violations are as stated in Part VI.A.2 of the Standard Permit Conditions of the NPDES General Permit. The Contractor shall also be responsible for the payment of his own fines.

Payment will be made under:

<u>Pay Item No.</u>	<u>Pay Item</u>	<u>Pay Unit</u>
641(1)	Erosion and Pollution Control Administration	Lump Sum
641(2)	Erosion and Pollution Control	Contingent Sum
641(6)	Erosion and Pollution Price Adjustment	Contingent Sum
641(3)	Silt Fence	Meter

## EROSION AND SEDIMENT CONTROL PLAN (ESCP)

### UNALAKLEET LANDFILL ROAD STP-0002(47)/66482

1. **GENERAL.** The Department developed this plan based on its knowledge of construction sequencing, available materials, equipment and other relevant factors. It contains information regarding the construction site that may be used by the Contractor in developing their SWPPP, as required under Section 641, Erosion and Pollution Control.
2. **SITE DESCRIPTION.** Information on the composition of the original ground and embankment can be found in the Geotechnical Report, Unalakleet Landfill Road and Beach Road dated July, 1998. Fill material will be obtained from unclassified excavation and from private material sources.
  - A. Scope of Construction. The following are the construction activities that are subject to this plan:
    1. Develop material site(s).
    2. Shape and widen the existing subgrade between the BOP (Sta."O1" 1+083.436) and Sta."O1" 1+150. Place the bridge approach fill at the west end of the Kouwegok Slough Bridge.
    3. Construct a work bridge across Kouwegok Slough.
    4. Construct a work pad at the east end of the bridge.
    5. Drive the abutment and pier piles.
    6. Place the precast concrete pier caps and abutment caps and endwalls.
    7. Set steel girders and place precast concrete deck panels.
    8. Grout deck panels, cast concrete curbs and place bridge rails.
    9. Road construction is expected to begin at the EOP (Sta. "L" 6+155.425), simultaneous with the bridge construction.
    10. Place culverts as the road construction progresses.
    11. Seed all cut slopes and fill slopes and other disturbed soil as soon as feasible (but at least within 3 days) after construction is complete in each section.

12. Crush and place aggregate surface course.

13. Place signs, culvert marker posts and all remaining work to complete contract and open road.

B. Anticipated Sequence of Activities. This project is to be completed in the 2000 construction season. The anticipated sequence of activities are as listed above.

C. Area. The total estimated area of the construction site is 8 hectares.

D. Hydrology. Unalakleet is in western Alaska on the eastern shore of Norton Sound at the mouth of the Unalakleet River. The proposed landfill road is about 5 km long and will extend from the east side of the city near Runway 26 of the Unalakleet Airport and end just west of the landfill. The proposed beach road is about 350 m long and will extend the existing airport access road along the beach on the west side of the city.

The project is located in the Nulato Hills physiographic province, which generally consists of northeast trending ridges with rounded crests and gentle slopes. The elevation of the project varies from sea level to 216 m at the ridge near the landfill. Unalakleet is located on a sand spit north of the mouth of the Unalakleet River. Kouwegok Slough is in the low-lying ground between the town and the hills to the east. The vegetation consists of tundra moss and beach grass in the low-lying areas, and tundra moss on the ridges with thick willows, alders and occasional dwarf birch or spruce trees in the drainage channels.

The project is located in the Continental Climatic Zone of Alaska, near the boundary with the Transitional Climatic Zone. The area is the transition zone between maritime and continental climatic conditions. The average annual precipitation from rain and snowmelt is approximately 50 cm per year.

E. Receiving Waters. The Unalakleet River and its tributary, Kouwegok Slough are the receiving waters for this project.

3. **CONTROLS.** Temporary erosion and sediment runoff control shall conform to current Best Management Practices (BMP). Areas of particular concern are as follows:

- Roadway fill slopes, cut slopes and ditches.
- Culvert installations.
- Material sites.

Possible temporary BMP's to be used could include one or more of the following as appropriate:

- Silt fence.
- Straw bale barrier.
- Surface roughening.
- Seeding and/or mulching.
- Stabilization matting.
- Temporary diversion of water entering the construction areas.

BMP's used on this project shall act to:

- Pass the natural drainage water through the construction site uncontaminated.
- Minimize the area and time period erodible soils are exposed to stormwater.
- Reduce runoff, slow runoff velocities, and protect erodible soil from construction equipment.
- Correct any problems occurring due to inadequate protection measures.

Permanent erosion and sediment runoff control features to be constructed under the project are summarized as follows:

- Seeding within 3 days of completion of the fill slope, cut slope and ditches.

This project is subject to a Corps of Engineers and Alaska Title 16 permits which may have special conditions pertaining to the SWPPP.

## SECTION 642

### CONSTRUCTION SURVEYING

04/15/94

**642-2.01 MATERIALS, MEN & EQUIPMENT.** Add the following: All surveying shall be accomplished under the supervision of a Professional Land Surveyor Registered in the State of Alaska.

**642-3.01 CONSTRUCTION REQUIREMENTS.** Add the following after the fifth paragraph: The Contractor's Land Surveyor shall reference each permanent monument or property marker/corner identified by the Engineer which may be disturbed or buried by construction activities and shall replace it if necessary. Monument referencing field notes shall be submitted to the Engineer prior to monument disturbance. Monument Records shall be prepared for all referenced existing monuments and all project control points which are to be established. Monument Records shall be submitted to the Engineer within 30 days of field note submittal. Upon setting all required monuments, the Contractor shall notify the Engineer that there are no changes to the Monument Records, or submit new Records as necessary. The Department will file all records using the information provided by the Contractor, as required by the State Statutes.

Add the following subsection:

**642-3.02 AS-BUILT SURVEY.** Upon completion of the road construction, an as-built survey for the purpose of documenting the as-built road location for platting and dedication of easement purposes will be completed by the Contractor. An as-built survey is required for the road to the landfill only ("01" and "L" line). This survey will meet the following requirements and be submitted to the Engineer for approval.

1. An as-built survey of the road centerline and construction limits is required. The as-built survey shall consist of a closed traverse that defines the bearings and distances along the centerline tangents and defines tangential curves by central angle, radius and arc length.
2. The new right of way shall typically be 60 meters in width, 30 meters on each side of the as-built road centerline. The right of way shall be widened as required at the road terminus, along the West boundary of U.S. Survey No. 9363, Lot 2 and as directed by the Engineer. The proposed road is approximately located within Sections 23, 26, 35, and 34 of Township 18 South, Range 11 West, Kateel River Meridian, Cape Nome Recording District, Second Judicial District at Unalakleet.
3. The survey shall be performed under the direct supervision of a professional land surveyor licensed to perform land surveys in Alaska.
4. Control shall be based upon the recovered and verified points established for this project and as noted on the Survey Control Drawing. The Basis of Bearings shall be the Alaska State Plane Grid (NAD 83) Zone 6 bearing of N 55°07'50" E between PI #3 and P.C. "L" 2+306.201. Ties to certain monuments recovered or set according to the Record of Survey for Unalakleet Airport Boundary filed as Plat 96-7 in the Nome Recording

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District on 3/14/96 shall be required. Specifically, ties shall be required to the primary monuments for x-wind centerline station 51+02.97 and x-wind centerline station 20+60.00. At the beginning of the project, ties shall be made to monuments C-12, C-13 and MC-14 as shown on sheet 2 of Plat 96-7. Ties shall also be made to BLM monuments C-2 and C-3 of U.S. Survey No. 9363.

5. The survey shall meet the minimum specifications for a Class "D" survey according to the Model Minimum Standards for the Practice of Land Surveying issued by NCEES in December 1993. These specifications include a minimum unadjusted closure of 1:5000, a minimum angular closure of  $30''\sqrt{N}$  where N = number of angles in traverse, and distances accurate to 0.03 meters + 200 ppm.
6. A secondary monument (minimum 16 millimeter rebar with 25 millimeter aluminum cap) shall be set at the centerline BOP, EOP and each PC and PT. The cap shall be marked with the surveyor's license number, the year set, the station and a punch mark indicating the transit point. Each monument shall be set 0.3 meter below finish grade.
7. A plat shall be prepared in a 216 millimeter x 356 millimeter format at scale appropriate to the required level of detail using CAD software compatible with AutoCad Rel.12 or greater. Multiple sheet submittals shall be referenced by match lines and a title/index cover sheet. The title block for each sheet shall note the project name, scale, and sheet number. The title sheet shall note the name and address of the surveying company and include a scale, legend, surveyors certificate and seal, appropriate notes and a vicinity map. The vicinity map, using USGS quadrangle map "Unalakleet D-4" as a basis, shall depict the relationship of the project to adjoining boundaries and land forms. A location map depicting the project location within the State of Alaska shall also be placed on the title sheet. Each recovered monument shall have a graphic representation of the cap markings leadered to the monument symbol or referenced to a separate detail drawing. Bearings, distances and curve data shall be shown between each monument recovered or set and along each course defining the new right of way and centerline. Tables may be used for clarity. Record dimensions between recovered monuments shall be enclosed in parentheses. Each sheet shall have a north arrow and a 13 millimeter border around all sheet edges. All lettering shall have a minimum text height of 2.5 millimeters. Text shall be arranged such that it does not conflict with or overlap other text or line work. The line defining the right of way shall be in a heavier line weight to distinguish it from adjoining property lines. The area of the enclosed right of way parcel shall be noted in hectares to 4 decimal places. Notes shall include references to the basis of bearing, source documents, and other relevant information. Other certificates such as "Ownership and Dedication" shall be included as required.
8. DNR Platting Requirements: On August 18, 1998, the Department of Natural Resources received jurisdiction as the platting authority in the Unorganized Borough. Chapter 40 SLA 1998 provides that subdivisions subject to the DNR platting authority include the creation of public

access. The Contractor shall conform the survey and platting activities to the DNR platting regulations in effect at the time of the survey. Where DNR requirements exceed the specifications outlined herein, the DNR requirements shall prevail. The Contractor shall work directly with DNR Platting staff to coordinate reviews and approval of the final plat. Final acceptance of the Contractor's platting task by the Department shall be contingent upon approval of the plat by DNR and filing in the appropriate recording district.

9. The draft plat, legible copies of field notes, and printouts of COGO traverse closure sheets/lot summaries shall be submitted to the Engineer for review and comments. Upon resolution of comments, two copies of the final plat with original signatures shall be forwarded to the Engineer along with an electronic ASCII file of coordinate points listing the point numbers, northing, easting and descriptors and an AutoCad Release 12 or greater ".dwg" file of the final plat.

**642-4.01 METHOD OF MEASUREMENT.** Add the following: All labor, materials and equipment required to complete the As-Built Survey shall be subsidiary to Item 642(1), Construction Surveying.

## SECTION 643

### TRAFFIC MAINTENANCE

**643-1.03 WORKSITE TRAFFIC SUPERVISOR.** Delete the second sentence of the first paragraph and substitute the following: The Worksite Traffic Supervisor shall meet the following minimum requirements:

Be currently certified as on of the following:

- a. Work Zone Traffic Safety Specialist or a Signs and Markings Specialist by the International Municipal Signal Association (IMSA)
- b. Worksite Traffic Supervisor by ATSSA

Items a. and b. require documentation of a minimum of one year of supervisory level worksite traffic control, or one year of responsible charge of such work. "In responsible charge" shall be construed to mean having been in a position of accountability for the selection of devices and for their placement in the traffic control system, or for the continued operation of the system. Having persons that actually perform the labor under one's control would satisfy this requirement. Copies of the required documentation shall be furnished to the Engineer prior to work requiring traffic control.

Renew certification a minimum of every four years, or as required by the certifying agency.

**643-2.01 MATERIALS.** 3. Barricades and Vertical Panels. Add the following: Type III Barricades shall be a nominal ten foot length unless approved otherwise.

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Add the following: Traffic cones, candles, drums, and delineators that exceed the following weights and heights require certification that they meet the evaluation criteria of NCHRP Report 350, test level 3. This certification may be a one-page affidavit signed by the vendor. It shall be given to the Engineer before the devices are used on the project. Documentation supporting the certification (crash tests and/or engineering analysis) must be kept on file by certifying organization.

	<u>Composition</u>	<u>Weight</u>	<u>Height</u>
Cones	Rubber	9 kg	920 mm
	Plastic	9 kg	1220 mm
Candles	Rubber	6 kg	920 mm
	Plastic	6 kg	920 mm
Drums	Hi Density Plastic	35 kg	920 mm
	Lo Density Plastic	35 kg	920 mm
Delineators	Plastic or Fiberglass	N/A	1220 mm

Truck-mounted attenuators and portable crash cushions purchased after October 1, 1998 must be certified as compliant with National Cooperative Research Program 350, test level 3, crashworthiness requirements. Certification, consisting of a letter of NCHRP-350 compliance from the Federal Highway Administration, shall be provided to the Engineer for each of these devices before they are used on the project.

**643-3.01 GENERAL CONSTRUCTION REQUIREMENTS.** Delete the first sentence of the first paragraph and substitute the following: The Contractor shall keep the work, and portions of the project affected by the work, in such condition that traffic will be accommodated safely.

**643-3.07 MAINTENANCE OF TRAFFIC DURING SUSPENSION OF WORK.** Add the following to the first paragraph: The Department will only accept maintenance responsibility for those portions of the work that are open to the public for use, as determined by the Engineer. The Department will not accept maintenance responsibility for incomplete work adjacent to accepted roads. Maintenance for all other portions of the work, shall remain the responsibility of the Contractor. The Engineer will list all portions of the work for which the Department will accept maintenance responsibility during a seasonal suspension of work in a letter of "Acceptance for Winter Maintenance". The Contractor shall retain all contractually required maintenance responsibilities until receipt of this letter.

**643-4.01 METHOD OF MEASUREMENT.** Add the following: All work required under this section will not be measured separately for payment but will be considered subsidiary to Item 643(2), Traffic Maintenance.



## SECTION 644

### SERVICES TO BE FURNISHED BY THE CONTRACTOR

**644-1.01 DESCRIPTION.** Add the following: This item shall also consist of furnishing and maintaining vehicles for use by the Engineer and staff for the duration of the contract.

**644-2.01 FIELD OFFICE.** Delete the last two sentences of the first paragraph and substitute the following: The inside of the office shall be equipped with flush toilet and sink with running potable water, and shall be furnished with a work table 750 mm wide by 2400 mm long, one executive desk and chair, one side chair, one drafting table with stool, and at least 1.2 square meters of shelf space. The heating system shall be capable of maintaining 21°C. The office shall be equipped with a telephone with a private line for exclusive use by the Engineer. All long distance phone calls made by state personnel will be paid for by the State.

Add the following to the second paragraph: The facility shall be located at a site acceptable to the Engineer. The Contractor shall provide and maintain a sufficient supply of potable water, fuel and electricity and maintain the facility in good condition for the duration of the work. At the conclusion of the contract the Contractor shall remove the facility and equipment which will remain his property. The State shall not be responsible for any damage caused to this facility during its occupancy, and the Contractor shall be responsible for the repair and replacement of any damaged facilities.

03/25/98

Add the following: The Engineer may delete Item 644(1) Field Office by Directive within 5 working days after the Preconstruction Conference. If 644(1), Field Office is deleted within the specified period, Section 109-1.09, Eliminated Items shall not apply to Item 644(1), Field Office.

**644-2.02 FIELD LABORATORY.** Delete this subsection in its entirety and substitute the following: Furnish and maintain a field laboratory for the exclusive use of the Engineer and for the duration of the contract. Provide a completely functional installation two weeks prior to commencing construction work.

1. Grade and compact a site for the lab acceptable to the Engineer. Locate and level the structure on this site. If subsequent ground movement causes an unlevel or unstable condition, re-level or re-locate the facility as directed by the Engineer.
2. Provide a weatherproof structure, suitable to field test construction materials, with the following minimum, functional requirements:
  - A. 28 m<sup>2</sup> of floor space
  - B. Two - 1 m<sup>2</sup> windows capable of opening and locking
  - C. Lockable door(s)

- D. Work bench(es), 0.75 m x 5 m total, 1 m high
  - E. Shelf space, 0.3 m x 5 m
  - F. 0.5 m deep sink which drains to the outside with attached faucet
  - G. A gravity fed 1000-liter tank or pressurized constant water supply of a quality acceptable to the Engineer
  - H. Electrical service and facilities as follows:
    - a. 120/240 VAC, 60-cycle current on a 24 hour basis
    - b. Wiring system to support a 40-amp user load demand; minimum of one 15 amp and one 20 amp circuits, both GFI protected
    - c. 6 outlets conveniently spaced around the lab
    - d. Four 110-watt incandescent or eight 40-watt fluorescent lights
    - e. 0.15 m<sup>3</sup>/s exhaust fan
  - I. Heating equipment capable of maintaining a uniform temperature of 21°C
  - J. 1 m x 1 m x 1 m lockable storage cabinet affixed to an inside wall with a hinged door opening outward
  - K. One office desk and chair
3. For a lab structure consisting of a mobile unit mounted on axles and wheels, block the structure under the frame such that the wheels do not make contact with the ground and the blocking rests firmly on the prepared site.
4. Provide a separate weatherproof shed attached to or within 6 meters of the main lab structure with the following minimum, functional requirements:
- A. 2.5 m x 3.7 m x 2.5 m high
  - B. 1.2-m wide lockable entryway and one 0.5 m<sup>2</sup> window capable of opening
  - C. Electrical service and facilities as in 2.H. except:
    - a. 2 lighting fixtures
    - b. 3 outlets conveniently spaced around the structure
    - c. Wiring system with each circuit GFI protected to satisfy a 20 amp user load demand

- D. Work table 1 m x 1 m x 0.5 m high, capable of supporting 115 kg and affixed to an inside wall as directed by the Engineer.
  - E. 2.5 m x 2.5 m x 100 mm thick concrete-slab floor, cast-in-place or pre-cast. Install anchor bolts in the floor to accommodate the mounting pattern of the Gilson sieving machine at a location directed by the Engineer.
    - a. Comply with 1. above for slab foundation requirements
    - b. Found the slab directly on the prepared site
5. For all installations with an entryway higher than a single 180 mm rise, provide the following:
- A. 1 m wide x 280 mm tread x 180 mm rise stairway
  - B. 1.2 m x 1.2 m landing centered on the entryway
  - C. Handrail(s) firmly affixed to the stairway
6. Provide the following lab equipment and services:
- A. All propane necessary for the lab operation, including 2-45 kg tanks, regulators, hoses, fittings, and incidentals for a functional system
  - B. Specialized sampling equipment such as belt templates or belt sampling devices as required
  - C. All fuel and power necessary for the operation of the facilities
  - D. Gilson model TS-1 Testing Screen or approved equal including screen sizes: 75 mm, 50 mm, 37.5 mm, 25 mm, 19 mm, 12.5 mm, 9.5 mm, 4.75 mm, 2 mm and pan drawer.
  - E. Peerless, model PO-23. 4-deck propane fired oven or approved equal.

The Engineer may delete Item 644(2), Field Laboratory by Directive within 5 working days after the Preconstruction Conference. If 644(2), Field Laboratory is deleted within the specified period, Subsection 109-1.09, Eliminated Items shall not apply to Item 644(2), Field Laboratory.

**644-2.05 FIELD TRANSPORTATION.** Delete the title of the first paragraph and substitute the following: ENGINEERING TRANSPORTATION.

Delete the second paragraph and substitute the following: The Contractor will supply one model year 1996 or newer with less than 30,000 miles, full size, 4x4 1/2 ton pickup equipped as follows:

- \* V-8 engine
- \* automatic transmission

- \* power steering
- \* fire extinguisher
- \* CB radio
- \* flashing or rotating warning beacon

The Contractor shall also provide one 4x4, 300 cc minimum, All Terrain Vehicle (ATV) furnished with a trailer capable of transporting 250 kg.

Engineering Transportation shall be available to Department personnel from two weeks prior to commencing work on the project to one week after on-site work is complete.

The Contractor shall supply all insurance, fuel, fluids, lubricants and tire repair/replacement for the engineering vehicles. The Contractor shall maintain the vehicles in satisfactory running condition throughout the duration of the contract.

The Contractor is responsible for physical damage insurance (comprehensive and collision) for the vehicles except as provided in Subsection 107-1.13, Responsibility for Damage Claims. The State is responsible for auto liability insurance coverage for Department employees use of engineering vehicles. The Department's liability insurance does not cover any use of engineering vehicles by others except as provided for in 107-1.13.

All vehicles will be approved by the Engineer prior to transporting them to the project site.

The Contractor will remove all engineering vehicles from the project at the end of the Contract. Engineering vehicles shall remain the Contractor's property after completion of the contract.

**644-4.01 BASIS OF PAYMENT.** Delete the sixth paragraph and substitute the following: Engineering Transportation. The lump sum price for the Engineer's vehicle shall be full compensation for furnishing, equipping, fueling, maintaining, repairing, including tire repair and/or replacement, and insuring the vehicle as specified, throughout the contract. Adjustments to this item of work due to changes in the Contractor's scheduling or unforeseen increases in the contract time will not be cause for additional compensation.

Add the following section:

## SECTION 645

### TRAINING PROGRAM

10/29/91

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

As part of the Equal Employment Opportunity Affirmative Action Program, the Contractor shall provide on-the-job training aimed at developing full journey

status in the type of trade or job classification involved. The number of individuals to be trained and the number of hours of training to be provided under this contract will be as shown on the bid schedule.

**645-2.01 OBJECTIVE.** Training and upgrading of minorities and women toward journey status is a primary objective of this program. The Contractor shall enroll minorities and/or women, where possible, and document good faith efforts prior to the hire of non-minority males in order to demonstrate compliance with this Training Special Provision. Specific good faith efforts required under this Section for the recruitment and employment of minorities and women are found in the Federal EEO Bid Conditions, Form 25A301, items 7.b, 7.c, 7.d, 7.e, 7.i, 7.j, and 7.1, located in the "green pages" of this document.

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

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

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

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

Prior to award of the contract, the Contractor shall submit Form 25A311, Training Utilization Report, indicating the training program to be used, the number of apprentices/trainees to be trained in each selected classification, the number of hours of training to be provided, and the anticipated starting time for training in each of the classifications.

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

Contractors may use a training program approved by the U.S. Department of Labor, Bureau of Apprenticeship & Training (USDOL/BAT), or one developed by the

Contractor and approved prior to contract award by the Alaska Department of Transportation and Public Facilities (ADOT&PF) Training Program Representative, using Form 25A310.

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

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

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

The Contractor shall furnish each ADOT&PF training program trainee a copy of the program (Form 25A310) to be followed during training on the project, and with a written certification showing the type and length of training completed on the project. Existing USDOL/BAT apprentices should already have a copy of their program. No employee shall be employed for credit as an apprentice/trainee in a classification in which that employee has previously worked at journey status or has previously completed a training course leading to journey status.

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

The Contractor shall provide for maintenance of records and the furnishing of periodic reports documenting the progress of each apprentice/trainee. The Contractor must submit Form 25A313 by the 15th of each month and provide each ADOT&PF trainee written evaluation reports for each unit of training provided as established on Form 25A310.

**645-3.02 WAGES.** Trainees in ADOT&PF approved training programs will be paid prevailing Davis-Bacon fringe benefits plus at least 60 (but less than 100) percent of the appropriate minimum journey rate specified in the contract for the first half of the training period, at least 75 (but less than 100) percent for the third quarter of the training period, and at least 90 (but less than 100) percent for the last quarter of the training period. Trainee wages shall be identified on Form 25A310. Apprentices in USDOL/BAT training programs shall be paid in accordance with their approved program. Beginning wages of each trainee/apprentice enrolled in a Section 645 Training Program on the project shall be identified on Form 25A312.

**645-3.03 SUBCONTRACTS.** In the event the Contractor subcontracts a portion of the work, he shall determine how many, if any, of the apprentices/trainees are to be trained by the subcontractor. Any such subcontracts shall include this Section 645, Form 25A311 and Form 25A310, where appropriate. However, the responsibility for meeting these training requirements remains with the Contractor; compliance or non-compliance with these provisions rests with the Contractor and sanctions and/or damages, if any, shall be applied to the Contractor in accordance with subsection 645-5.01, Basis of Payment.

**645-4.01 METHOD OF MEASUREMENT.** The Contractor will be credited for each approved apprentice/trainee employed on the project and reimbursed on the basis of hours worked, as listed in the certified payrolls. There shall be no credit for training provided under this section prior to each Contractor's submittal and approval by the Engineer for Form 25A312 for each apprentice/trainee trained under this Section. Upon completion of each individual training program, no further measurement for payment shall be made.

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

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

Payment for training in excess of the number of hours specified on the approved Form 25A311, may be made only when approved by the Engineer through Change Order.

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

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

1. provide the required hours of training (as shown on the approved Form 25A311),
2. train the required number of trainees/apprentices in each training program (as shown on the approved Form 25A311), or
3. hire the apprentice/trainee as a journey worker in that classification upon completion of the training program for as long as work in that area remains.

Failure to provide the required training damages the effectiveness and integrity of this affirmative action program and thwarts the Department's federal mandate to bring women and minorities into the construction industry. Although precise

damages to the program are impractical to calculate, they are at a minimum, equivalent to the loss to the individuals who were the intended beneficiaries of the program. Therefore, where the Contractor has failed, by the end of the project, to provide the required number of hours of training and has failed to submit acceptable good faith efforts documentation which establishes why he was unable to do so, the Contractor will be assessed an amount equal to the following damages to be deducted from the final progress payment:

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

Payment will be made under:

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

### SECTION 703

#### AGGREGATES

**703-2.02 COARSE AGGREGATE FOR CONCRETE.** Add the following: In addition, coarse aggregate for concrete shall meet the following requirements:

Thin - Elongated Pieces	ATM T-9	5% max.
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**703-2.07 SELECTED MATERIAL.** Delete the third sentence of item 2. and substitute the following: It shall consist of not more than 20% and not less than 6% by weight of particles that pass the 75  $\mu$ m sieve as determined by ATM T-7. 100% of the material shall pass the 254 mm sieve.

Add the following to item 3.: It shall contain not less than 6% by weight of particles that pass the 75  $\mu$ m sieve as determined by ATM T-7. The percent of minus 75  $\mu$ m will be determined on minus 75 mm material.

**703-2.09 SUBBASE.** Delete Table 703-6 and substitute the following:

#### REQUIREMENTS FOR GRADING FOR SUBBASE Percent Passing by Weight

<u>Sieve Designation</u>	<u>Grading C</u>
50 mm	100
25 mm	70-90
19 mm	50-80
4.75 mm	30-60
2 mm	20-50
75 $\mu$ m	8-12



Delete the second sentence of the second paragraph.

Add the following: Sampling for acceptance testing of Subbase will be taken from the stockpile prior to placement on the roadway.

## SECTION 707

### METAL PIPE

06/23/94

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

A Certification of Compliance conforming to the requirements of Section 106-1.05 shall be furnished based on quality control testing using AASHTO T 241.

No payment for stockpiled material or pipe installation shall be made prior to receipt of the certified test results.

A Supplier of welded helically corrugated pipe which qualifies for inclusion in the current publication of the Department's APPROVED PRODUCTS LIST is not required to perform the Referee Test or to provide the Certification of Compliance required above. The Supplier shall maintain quality control test results and provide them upon request.

04/29/92

**707-2.03 CORRUGATED ALUMINUM ALLOY CULVERT PIPE AND UNDERDRAINS.** Delete the first sentence and substitute the following: This pipe shall conform to the requirements of AASHTO M 196 except that helical corrugations shall not be allowed.

## SECTION 716

### STRUCTURAL STEEL

Add the following subsection:

**716-2.09 THERMAL SPRAY METALLIC COATING.** When spray-metalized structural steel shapes, plates, bars, and their products are specified, they shall be metalized in accordance with the requirements of the Steel Structure Painting Council (SSPC) Coating System Guide No. 23.00, Guide for Thermal Spray Metallic Coating Systems to a minimum thickness of 250 microns (10 mils).

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## SECTION 720

### ELASTOMERIC PADS

720-2.01 Delete this subsection in its entirety and substitute the following: Elastomeric bridge bearing pads shall conform to the requirements of AASHTO M 251-96 with the latest interim's and the following revisions:

#### 4. MATERIALS

4.1 PROPERTIES OF THE ELASTOMER. Replace the first sentence with the following: The elastomeric compound used in the construction of the bearings shall contain only virgin natural polyisoprene (natural rubber) as the raw polymer; neoprene shall not be used. Properties and requirements elsewhere in AASHTO M 251 pertaining solely to polychloroprene (neoprene) shall not be applicable. The elastomer compound shall be of low temperature grade 5 and shall meet the minimum requirement of Table 18.4.5.1-1B of Section 18, Division II-Construction, of the AASHTO Standard Specifications for Bridges.

Amend AASHTO M251 Table 1 as follows: Under "Ozone resistance", change "Concentration of ozone during test" from "25" to "50" MPa and "Duration of test" from "48" to "100" Hours.

#### 5. FABRICATION

Add the following paragraph:

5.5 Pads over 18 mm thick shall be laminated and shall consist of alternate laminations of elastomer and metal reinforcements. The outside lamination shall be metal with a minimum elastomeric cover as shown on the plans. Lamination of elastomer shall be 13 mm ± 3 mm in thickness.

8.8.3 Replace with the following: A minimum of one pad per lot shall be tested for bond strength as follows:

Steel Laminations - AASHTO M-251 9.2, - 7.0 kiloNewtons/meter, minimum.

03/25/98

Delete Section 724 in its entirety and substitute the following:

## SECTION 724

### SEED

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

724-2.02 MATERIALS. Grasses of the type specified shall meet the applicable requirements as outlined by the State of Alaska Department of Natural Resources, Division of Agriculture, "Seed Regulations," latest edition. Seed shall meet or

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exceed the percentages of purity and germination as specified in Table 724-1. Grass seed shall be furnished in standard containers on which shall be shown the following information:

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

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

Seed which contains any of the following prohibited noxious weeds will be rejected:

Bindweed, field (*Convolvulus arvensis*);  
Fieldcress, Austrian (*Rorippa austriaca*);  
Galensoga (*Galensoga parviflora*);  
Hempnettle (*Galeopsis tetrahit*);  
Horsenettle (*Solanum carolinense*);  
Knapweed, Russian (*Centaurea repens*);  
Lettuce, blue-flowering (*Lactuca puichella*);  
Quackgrass (*Agropyron repens*);  
Sowthistle, perennial (*Sonchus arvensis*);  
Spurge, leafy (*Euphorbia esula*);  
Thistle, Canada (*Cirsium arvense*); and  
Whitetops and its varieties (*Cardaria drabe*, *C. pubescens*, *Lepidium latifolium*).

The following are restricted noxious weeds, with their maximum allowable tolerances:

Annual bluegrass (*Poa annua*), 198 seeds per kilogram;  
Blue burr (*Lappula echinatat*), 40 seeds per kilogram;  
Mustard (*Brassica kaber, juncea*), 79 seeds per kilogram;  
Oats, wild (*Avena fatua*), 15 seeds per kilogram;  
Plantain, buckhorn (*Plantago sp.*), 198 seeds per kilogram;  
Radish (*Raphanus raphanistrum*), 59 seeds per kilogram;  
Toadflax, yellow (*Linaria vulgaris*), 2 seeds per kilogram;  
Vetch, tufted (*Vicia cracca*), 4 seeds per kilogram; and  
Wild Buckwheat (*Polygonum convovulus*), 4 seeds per kilogram.

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

TABLE 724-1  
SEEDING REQUIREMENTS

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

## SECTION 725

### FERTILIZER

03/25/98

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

## SECTION 729

### GEOTEXTILES

09/11/98

Delete this section in its entirety and substitute the following:

**729-2.01 EMBANKMENT SEPARATION AND REINFORCEMENT.** Geotextile materials for embankment separation shall conform to AASHTO M 288-92 for Separation (medium survivability), except that the minimum permittivity of the geotextile shall be  $0.02 \text{ sec}^{-1}$ . Geotextile materials for reinforcement shall conform to AASHTO M 288-92 for Separation (high survivability), except that the minimum permittivity of the geotextile shall be  $0.02 \text{ sec}^{-1}$ .

All of the geotextile materials for embankment separation shall have an elongation less than 50%, and apparent opening size (AOS) less than 0.297 mm (sieve designation greater than #50 US Std Sieve).

**729-2.02 SUBSURFACE DRAINAGE AND EROSION CONTROL.** Geotextile materials for subsurface drainage shall conform to AASHTO M 288-92 for Subsurface Drainage, except that the minimum permittivity of the geotextile shall be  $0.08 \text{ sec}^{-1}$ . Geotextile materials for erosion control shall conform to AASHTO M 288-92 for Erosion Control, for the class stipulated on the plans, except that the minimum permittivity of the geotextile shall be  $0.05 \text{ sec}^{-1}$ .

The geotextile materials for erosion control shall have an apparent opening size (AOS) less than 0.297 mm (sieve designation greater than #50 US Std Sieve).

**729-2.03 PAVEMENT REINFORCEMENT.** Geotextile materials for pavement reinforcement shall conform to AASHTO M 288-92 for Paving.

**729-2.04 SEDIMENT CONTROL.** Geotextile materials for Sediment Control shall conform to AASHTO M 288-92 for Sediment Control, except that the minimum permittivity of the geotextile shall be  $0.01 \text{ sec}^{-1}$ .