

Statement of Work

The Contractor shall provide any and all equipment, labor, supplies, tools, supervision, transportation, materials including safety and other incidentals necessary to perform all work activities located within the boundaries of the Contract Area, in accordance with the specifications, exhibits and clauses contained or referenced herein.

Schedule of Work-Mandatory

Project Number	Item Number	Road, Milepost and Item Description.	Unit & M of M ³	Quantity	Unit Allowance	Estimated Allowance
RR-1	FR 2127					
	MP 0.0-2.0					
	303 15	Shoulder Reconditioning: Remove all slide material, vegetation and other debris from existing shoulders. Dispose of at designated locations on-site.	Mile DQ	4.0		
	MP 0.77-0.78 Right					
	249 04	Grub and remove stump. Place upright outside the existing tree line.	EA DQ	2.0		
	MP 0.77-0.83 Right					
	249 03	Widen existing curve to a width of 4' at the mid point. Reshape back slope to a 1 on 2 or flatter. Place excavated material at designated locations on-site.	LS DQ	1		
	MP 1.33-1.38 Left					
	249 03	Widen existing curve to a width of 4' at the mid point. Reshape back slope to a 1 on 2 or flatter. Place excavated material at designated locations on-site.	LS DQ	1		
	MP 1.48-1.51 Right					
	249 03	Widen existing curve to a width of 2' at the mid point. Reshape back slope to a 1 on 2 or flatter. Place excavated material at designated locations on-site.	LS DQ	1		
	MP 1.71 Left					
	249 04	Grub and remove stump. Place upright outside the existing tree line.	EA DQ	1.0		
	MP 1.69-1.73 Left					
	249 03	Widen existing curve to a width of 4' at the mid point. Reshape back slope to a 1 on 2 or flatter. Place excavated material at designated locations on-site.	LS DQ	1		

Supplemental Specifications to Special Provision KT-GT.9# - Stewardship Projects

Road Reconstruction

Mandatory Stewardship Project				
Project Number	Road #	Location of Road Reconstruction Work	Unit of Measure	Estimated Quantity
RR-1	FR 2127	MP 0.00 - 2.00	Mile	2.00
Optional Stewardship Projects				
RR-2	FR 2127	MP 2.00 – 2.50	Mile	0.50
RR-3	FR 2127	MP 2.5 – 3.00	Mile	0.50

Road Reconstruction Requirements

- Remove all slide material, vegetation and other debris from existing shoulder and dispose of at designated locations on-site.
- Cut, haul and remove PU 011 (ROW). Grub and removal of associated stumps, placing upright outside existing tree line.
- Haul and place 12,000 Tons of crushed aggregate, approximately 4,000 Tons from Winslow Creek Pit located, T46N, R36W, Sec 24; the remainder from Six Mile Pit located, T46N, R37W, Sec 1. Compaction shall be method A.
- Crushed aggregate placement shall be an average of 6” thick.
- Finished travel way surface of 18’ minimum to 20’ maximum width.
- Crowned straightaways and super elevated corners from a 2% minimum to a 4% maximum cross slope.
- A Grader finish shall be required.

BOG LAKE PINE SERVICE PROJECTS

SUPPLEMENTAL SPECIFICATIONS (KT-GT.9#)

Statement of Work

The Contractor shall provide any and all equipment, labor, supplies, tools, supervision, transportation, materials including safety and other incidentals necessary to perform all work activities located within the boundaries of the Contract Area, in accordance with the specifications, exhibits and clauses contained or referenced herein.

Schedule of Work – Mandatory

¹ Method of Measure

Project No.	Spec. No.	Location/ Milepost	Work Description	Unit of Measure & M of M ¹	Quantity
RR-1		FR 2127			
	303 15	MP 0.0-2.0	Shoulder Reconditioning: Remove all slide material, vegetation and other debris from existing shoulders. Dispose of at designated locations on-site.	Mile DQ	4.0
	249 04	MP 0.77-0.78 Right	Grub and remove stump. Place upright outside the existing tree line.	EA DQ	2.0
	249 03	MP 0.77-0.83 Right	Widen existing curve to a width of 4' at the mid point. Reshape back slope to a 1 on 2 or flatter. Place excavated material at designated locations on-site.	LS DQ	1
	249 03	MP 1.33-1.38 Left	Widen existing curve to a width of 4' at the mid point. Reshape back slope to a 1 on 2 or flatter. Place excavated material at designated locations on-site.	LS DQ	1
	249 03	MP 1.48-1.51 Right	Widen existing curve to a width of 2' at the mid point. Reshape back slope to a 1 on 2 or flatter. Place excavated material at designated locations on-site.	LS DQ	1
	249 04	MP 1.71 Left	Grub and remove stump. Place upright outside the existing tree line.	EA DQ	1.0

Project No.	Spec. No.	Location/ Milepost	Work Description	Unit of Measure & M of M ¹	Quantity
RR-1 Cont.		FR 2127			RR-1 Cont.
	249 03	MP 1.69-1.73 Left	Widen existing curve to a width of 4' at the mid point. Reshape back slope to a 1 on 2 or flatter. Place excavated material at designated locations on-site.	LS DQ	1
	249 04	MP 1.86-1.92 Left	Grub and remove stump. Place upright outside the existing tree line.	EA DQ	20.0
	249 03	MP 1.84-1.86 Left	Widen existing curve to a width of 2' at the end point. Reshape back slope to a 1 on 2 or flatter. Place excavated material at designated locations on-site.	LS DQ	1
	249 03	MP 1.89-1.92 Left	Widen existing curve to a width of 4' at the beginning to 0' at the end. Reshape back slope to a 1 on 2 or flatter. Place excavated material at designated locations on-site.	LS DQ	1
	249 04	MP Varies Left and Right	Widen existing fill slopes with the material excavated from the shoulders and curve widening. Widen shoulders 2' and reshape the slopes to a 1 on 2 or flatter.	EA DQ	10
	301 15	MP 0.0-2.0	Haul and place 8,000 tons of crushed aggregate from Forest Service pits. See notes for placement dimensions.	TON DQ	8,000

Schedule of Work - Optional					
Project No.	Spec. No.	Location/ Milepost	Work Description	Unit of Measure & M of M ¹	Quantity
RR-2		FR 2127			
	303 15	MP 2.0-2.5	Shoulder Reconditioning: Remove all slide material, vegetation and other debris from existing shoulders. Dispose of at designated locations on-site.	Mile DQ	1.0
	301 15	MP 2.0-2.5	Haul and place 2,000 tons of crushed aggregate from Forest Service pits. See notes for placement dimensions.	TON DQ	2,000
	249 04	MP Varies Left and Right	Reshape existing fill slopes with the material excavated from the shoulders. Widen shoulders 2' and reshape the slopes to a 1 on 2 or flatter.	EA DQ	5
RR-3		FR 2127			
	303 15	MP 2.5-3.0	Shoulder Reconditioning: Remove all slide material, vegetation and other debris from existing shoulders. Dispose of at designated locations on-site.	Mile DQ	1.0
	301 15	MP 2.5-3.0	Haul and place 2,000 tons of crushed aggregate from Forest Service pits. See notes for placement dimensions.	TON DQ	2,000
	249 04	MP Varies Left and Right	Reshape existing fill slopes with the material excavated from the shoulders. Widen shoulders 2' and reshape the slopes to a 1 on 2 or flatter.	EA DQ	2

Bog Lake Pine Stewardship

Road Reconstruction Stewardship Notes

- Note:** There may be underground utility lines in unknown locations on this project. **Call MISS DIG THREE** full working days before any work begins. Phone 1-800-482-7171.
- Note:** The point of beginning for this project is the intersection of FR 3500 and FR 2127 with the mileposts running from west to east.
- Note:** During the reconstruction of FR 2127 the road can be closed during working hours. Place type 3 barricades with road closed signs at both ends of FR 2127 and at the intersection of FR 2127 and FR 2149, remove signs and open the road at the end of each work day. During gravel hauling operations, “safety” signs shall be placed as follows:
- During hauling from Winslow Creek pit. Place sign on FR 2149 300’ south of the pit entrance.
- During hauling from Six Mile pit. Place signs on:
- FR 3500 300’ north of the intersection of FR 2127 and FR 3500
- FR 3500 300’ south of the intersection of FR 3500 and FR 3630
- Note:** **8,000 Tons of crushed aggregate** material is required for the surfacing of FR 2127 for Project number RR-1. Approximately 4,000 tons is available from **Winslow Creek Pit located, T46N, R36W, Sec. 24**. The remainder will need to be taken from **Six Mile Pit located, T46N, R37W, Sec. 1**. Some pit development may be required and is considered incidental to associated items. Compaction shall be method A.
- Note:** **4,000 Tons of crushed aggregate** material is required for the surfacing of FR 2127 for Optional Project number RR-2 and RR-3. Material for these projects will need to be taken from **Six Mile Pit located, T46N, R37W, Sec. 1**. Some pit development may be required and is considered incidental to associated items. Compaction shall be method A.
- Note:** The crushed aggregate placement shall be an average 6” thick with a finished travel way surface of 18’ minimum to 20’ maximum width. Crown straightaways and super elevate corners from a 2% minimum to a 4% maximum cross slope. A Grader finish shall be required.

Project Number	Item Number	Road, Milepost and Item Description.	Unit & M of M ³	Quantity	Unit Allowance	Estimated Allowance
RR-1 Cont.	FR 2127 Cont.					
	MP 1.86-1.92 Left					
	249 04	Grub and remove stump. Place upright outside the existing tree line.	EA DQ	20.0		
	MP 1.84-1.86 Left					
	249 03	Widen existing curve to a width of 2' at the end point. Reshape back slope to a 1 on 2 or flatter. Place excavated material at designated locations on-site.	LS DQ	1		
	MP 1.89-1.92 Left					
	249 03	Widen existing curve to a width of 4' at the beginning to 0' at the end. Reshape back slope to a 1 on 2 or flatter. Place excavated material at designated locations on-site.	LS DQ	1		
	MP Varies Left and Right					
	249 04	Widen existing fill slopes with the material excavated from the shoulders and curve widening. Widen shoulders 2' and reshape the slopes to a 1 on 2 or flatter.	EA DQ	10		
	MP 0.0-2.0					
	301 15	Haul and place 8,000 tons of crushed aggregate from Forest Service pits. See notes for placement dimensions.	TON DQ	8000		

Schedule of Work-Optional

RR-2	FR 2127					
	MP 2.0-2.5					
	303 15	Shoulder Reconditioning: Remove all slide material, vegetation and other debris from existing shoulders. Dispose of at designated locations on-site.	Mile DQ	1.0		
	MP 2.0-2.5					
	301 15	Haul and place 2,000 tons of crushed aggregate from Forest Service pits. See notes for placement dimensions.	TON DQ	2000		

Project Number	Item Number	Road, Milepost and Item Description.	Unit & M of M ³	Quantity	Unit Allowance	Estimated Allowance
RR-2 Cont.	FR 2127 Cont.					
	MP Varies Left and Right					
	249 04	Reshape existing fill slopes with the material excavated from the shoulders. Widen shoulders 2' and reshape the slopes to a 1 on 2 or flatter.	EA DQ	5		

Schedule of Work-Optional

RR-3	FR 2127					
	MP 2.5-3.0					
	303 15	Shoulder Reconditioning: Remove all slide material, vegetation and other debris from existing shoulders. Dispose of at designated locations on-site.	Mile DQ	1.0		
	MP 2.5-3.0					
	301 15	Haul and place 2,000 tons of crushed aggregate from Forest Service pits. See notes for placement dimensions.	TON DQ	2000		
	MP Varies Left and Right					
	249 04	Reshape existing fill slopes with the material excavated from the shoulders. Widen shoulders 2' and reshape the slopes to a 1 on 2 or flatter.	EA DQ	2		

BOG LAKE STEWARDSHIP

FR 2127 ROAD RECONSTRUCTION NOTES

1. There may be underground utility lines in unknown locations on this project. **Call MISS DIG THREE** full working days before any work begins. Phone 1-800-482-7171.
2. The point of beginning for this project is the intersection of FR 3500 and FR 2127 with the mileposts running from west to east.
3. During the reconstruction of FR 2127 the road can be closed during working hours. Place type 3 barricades with road closed signs at both ends of FR 2127 and at the intersection of FR 2127 and FR 2149, remove signs and open the road at the end of each work day. During gravel hauling operations, “safety” signs shall be placed as follows:
During hauling from Winslow Creek pit. Place sign on FR 2149 300’ south of the pit entrance.
During hauling from Six Mile pit. Place signs on:
FR 3500 300’ north of the intersection of FR 2127 and FR 3500
FR 3500 300’ south of the intersection of FR 3500 and FR 3630
FFH 16 300’ south of the intersection of FR 3630 and FFH 16
FFH 16 300’ north of the intersection of FFH 16 and FR 3642
4. **8,000 Tons of crushed aggregate** material is required for the surfacing of FR 2127 for Project number RR-1. Approximately 4,000 tons is available from **Winslow Creek Pit located, T46N, R36W, Sec. 24**. The remainder will need to be taken from **Six Mile Pit located, T46N, R37W, Sec. 1**. Some pit development may be required and is considered incidental to associated items. Compaction shall be method A.
5. **4,000 Tons of crushed aggregate** material is required for the surfacing of FR 2127 for Optional Project number RR-2 and RR-3. Material for these projects will need to be taken from **Six Mile Pit located, T46N, R37W, Sec. 1**. Some pit development may be required and is considered incidental to associated items. Compaction shall be method A.
6. The crushed aggregate placement shall be an average 6” thick with a finished travel way surface of 18’ minimum to 20’ maximum width. Crown straightaways and super elevate corners from a 2% minimum to a 4% maximum cross slope. A Grader finish shall be required.

Project Name: **BOG LAKE STEWARDSHIP
FR 2127 ROAD RECONSTRUCTION**

Date Prepared: **06/27/2016**

Project Numbers: RR-1 RR-2 RR-3		RR-1	RR-2	RR-3	
	Termini.....	0.0-2.0	2.0-2.5	2.5-3.0	
	Const. Reconstruction	2.0	0.5	0.5	
Spec. No.	Title				Latest Revised Edition
101 thru 109	General Requirements	X	X	X	2003
301	Untreated Aggregate Courses	X	X	X	2003
303	Road Reconditioning	X	X	X	2003

NOTE: The Forest Service, US Department of Agriculture has adopted FP-03 for Construction of National Forest System Roads.

BOG LAKE STEWARDSHIP
SUPPLEMENTAL SPECIFICATIONS

Section 101-109 General Requirements

Section 249 Composite Road Construction

Section 301 Aggregate Courses

Section 303 Road Reconditioning

Preface

Delete all but the first paragraph and add the following:

The Forest Service, US Department of Agriculture has adopted FP-03 for construction of National Forest System Roads.

101 - Terms, Format, and Definitions

101.01 Meaning of Terms

Delete all references to the TAR (Transportation Acquisition Regulations) in the specifications.

101.01 Meaning of Terms

Delete all references to the FAR (Federal Acquisition Regulations) in the specifications.

101.03 Abbreviations.

Add the following to (a) Acronyms:

AFPA	American Forest and Paper Association
MSHA	Mine Safety and Health Administration
NIST	National Institute of Standards and Technology
NESC	National Electrical Safety Code
WCLIB	West Coast Lumber Inspection Bureau

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Add the following to (b) SI symbols:

mp	Milepost
ppm	Part Per Million

101.04 Definitions.

Delete the following definitions and substitute the following:

Bid Schedule--The Schedule of Items.

Bridge--No definition.

Contractor--The individual or legal entity contracting with the Government for performance of prescribed work. In a timber sale contract, the contractor is the “purchaser”.

Culvert--No definition.

Right-of-Way--A general term denoting (1) the privilege to pass over land in some particular line (including easement, lease, permit, or license to occupy, use, or traverse public or private lands), or (2) Real property necessary for the project, including roadway, buffer areas, access, and drainage areas.

Add the following:

Adjustment in Contract Price--“Equitable adjustment,” as used in the Federal Acquisition Regulations, or “construction cost adjustment,” as used in the Timber Sale Contract, as applicable.

Change--“Change” means “change order” as used in the Federal Acquisition Regulations, or “design change” as used in the Timber Sale Contract.

Design Quantity--“Design quantity” is a Forest Service method of measurement from the FS-96 *Forest Service Specifications for the Construction of Roads and Bridges*. Under these FP specifications this term is replaced by the term “Contract Quantities”.

Forest Service--The United States of America, acting through the Forest Service, U.S. Department of Agriculture.

Neat Line--A line defining the proposed or specified limits of an excavation or structure.

Pioneer Road--Temporary construction access built along the route of the project.

Purchaser--The individual, partnership, joint venture, or corporation contracting with the Government under the terms of a Timber Sale Contract and acting independently or through agents, employees, or subcontractors.

Protected Streamcourse--A drainage shown on the plans or timber sale area map that requires designated mitigation measures.

Road Order--An order affecting and controlling traffic on roads under Forest Service jurisdiction. Road Orders are issued by a designated Forest Officer under the authorities of 36 CFR, part 260.

Schedule of Items--A schedule in the contract that contains a listing and description of construction items, quantities, units of measure, unit price, and amount.

Utilization Standards--The minimum size and percent soundness of trees described in the specifications to determine merchantable timber.

101.04 Definitions.

Delete the following definitions:

Contract Modification
Day
Notice to Proceed
Solicitation

102 - Bid, Award, and Execution of Contract

102 Bid, Award, and Execution of Contract

Delete Section 102 in its entirety.

103 - Scope of Work

Deletions

Delete all but subsection 103.01 Intent of Contract.

104 - Control of Work

Deletions

Delete Sections 104.01, 104.02, and 104.04.

104.03 Drawings and Specifications

Delete subsection 104.03

104.03 Specifications and Drawings.

Delete 104.03.

104.06 Use of Roads by Contractor

The Contractor is authorized to use roads under the jurisdiction of the Forest Service for all activities necessary to complete this contract, subject to the limitations and authorizations designated in the Road Order(s) or described in the contract, when such use will not damage the roads or national forest resources, and when traffic can be accommodated safely.

Add Subsection.

105 - Control of Material

05.02 Material Sources.

105.02(a) Government Provided Sources.

(a) Government-provided sources. Add the following:

Government-provided sources for this project are identified as follows:

(1) Government-provided mandatory sources.

Obtain material for use as crushed aggregate surfacing under Section 301 from **Winslow Creek Pit located, T46N, R36W, Sec. 24. And Six Mile Pit located, T46N, R37W, Sec. 1.**

105.05 Use of Material Found in the Work.

Delete 105.05 (a) and (b) and the last sentence of the second paragraph and substitute the following:

Materials produced or processed from Government lands in excess of the quantities required for performance of this contract are the property of the Government. The Government is not obligated to make reimbursement for the cost of producing these materials.

106 - Acceptance of Work

106.01 Conformity with Contract Requirements.

Delete Subsection 106.01 and substitute the following:

References to standard test methods of AASHTO, ASTM, GSA, and other recognized standard authorities refer to the methods in effect on the date of solicitation for bids.

Perform all work to the lines, grades, cross-sections, dimensions, and processes or material requirements shown on the plans or specified in the contract.

Incorporate manufactured materials into the work according to the manufacturer's recommendations or to these specifications, whichever is more strict.

Plan dimensions and contract specification values are the values to be strived for and complied with as the design values from which any deviations are allowed. Perform work and provide material that is uniform in character and reasonably close to the prescribed value or within the specified tolerance range. The purpose of a tolerance range is to accommodate occasional minor variations from the median zone that are unavoidable for practical reasons.

When standard manufactured items are specified (such as fence, wire, plates, rolled shapes, pipe conduits, etc., that are identified by gauge, unit mass, section dimensions, etc.), the identification will be considered to be nominal masses or dimensions. Unless specific contract tolerances are noted, established manufacturing tolerances will be accepted.

The Government may inspect, sample, or test all work at any time before final acceptance of the project. When the Government tests work, copies of test reports are furnished to the Contractor upon request. Government tests may or may not be performed at the work site. If Contractor testing and inspection is verified by the Government, the Contractor's results may be used by the Government to evaluate work for acceptance. Do not rely on the availability of Government test results for process control.

Acceptable work conforming to the contract will be paid for at the contract unit bid price. Four methods of determining conformity and accepting work are described in Subsections 106.02 to 106.05 inclusive. The primary method of acceptance is specified in each Section of work. However, work may be rejected at any time it is found by any of the methods not to comply with the contract.

Remove and replace work that does not conform to the contract, or to prevailing industry standards where no specific contract requirements are noted, at no cost to the Government.

(a) Disputing Government test results. **If the accuracy of Government test results is disputed, promptly inform the CO. If the dispute is unresolved after reasonable steps are taken to resolve the dispute, further evaluation may be obtained by written request. Include a narrative describing the dispute and a proposed resolution protocol that addresses the following:**

- (1) Sampling method;
- (2) Number of samples;
- (3) Sample transport;
- (4) Test procedures;
- (5) Testing laboratories;
- (6) Reporting;
- (7) Estimated time and costs; and
- (8) Validation process.

If the evaluation requires additional sampling or testing be performed, mutually agree with the Government on witnessing procedures and on sampling and testing by a third party laboratory. Use a third party laboratory accredited by the AASHTO accreditation program. Provide proof of the laboratory's accreditation for the test procedures to be used. Do not use the same laboratory that produced the disputed Government test results or that produced the test results used as a basis for the dispute. The CO will review the proposed resolution protocol and may modify it before final approval and execution.

The Government will use the approved resolution protocol test results to determine the validity of the disputed testing. If the Government test results are validated, the Contractor will be responsible for all costs associated with developing and performing the resolution protocol. If the Government test results are not validated, the Government will be responsible for all costs associated with developing and performing the resolution protocol. If the validity of the Government test results cannot be determined, the Contractor and Government will equally share all costs associated with developing and carrying out the resolution protocol.

(b) **Alternatives to removing and replacing non-conforming work.** As an alternative to removal and replacement, the Contractor may submit a written request to:

- (1) Have the work accepted at a reduced price; or
- (2) Be given permission to perform corrective measures to bring the work into conformity.

The request must contain supporting rationale and documentation. Include references or data justifying the proposal based on an evaluation of test results, effect on service life, value of material or work, quality, aesthetics, and other tangible engineering basis. The CO will determine disposition of the nonconforming work.

106.07 Delete

Delete subsection 106.07.

107 - Legal Relations and Responsibility to the Public

107.05 Responsibility for Damage Claims.

Delete the entire subsection.

107.06 Contractor's Responsibility for Work.

Delete the following from the first paragraph.

“except as provided in Subsection 106.07”.

107.08 Sanitation, Health, and Safety

Delete the entire subsection.

107 - Legal Relations and Responsibility to the Public

107.09 Legal Relationship of the Parties.

Delete the entire subsection.

107.10 Environmental Protection.

Add the following:

Design and locate equipment repair shops, stationary refueling sites, or other facilities to minimize the potential and impacts of hazardous material spills on Government land.

Before beginning any work, submit a Hazardous Spill Plan. List actions to be taken in the event of a spill. Incorporate preventive measures to be taken, such as the location of mobile refueling facilities, storage and handling of hazardous materials, and similar information. Immediately notify the CO of all hazardous material spills. Provide a written narrative report form no later than 24 hours after the initial report and include the following:

- Description of the item spilled (including identity, quantity, manifest number, and other identifying information).
- Whether amount spilled is EPA or state reportable, and if so whether it was reported, and to whom.
- Exact time and location of spill including a description of the area involved.

- Containment procedures.
- Summary of any communications the Contractor had with news media, Federal, state and local regulatory agencies and officials, or Forest Service officials.
- Description of clean-up procedures employed or to be employed at the site including final disposition and disposal location of spill residue.

When available provide copies of all spill related clean up and closure documentation and correspondence from regulatory agencies.

The Contractor is solely responsible for all spills or leaks that occur during the performance of this contract. Clean up spills or leaks to the satisfaction of the CO and in a manner that complies with Federal, state, and local laws and regulations.

108 - Prosecution and Progress

108 Delete.

Delete Section 108 in its entirety.

109 - Measurement and Payment

109 Deletions

Delete the following entire subsections:

109.06 Pricing of Adjustments.

109.07 Eliminated Work.

109.08 Progress Payments.

109.09 Final Payment.

109.02 Measurement Terms and Definitions.

(b) Contract quantity.

Add the following:

Contract quantities will be adjusted only when there are errors in the original design of 15% or more.

Change the following:

“(b) Cubic yard” to “(c) Cubic yard”.

Add the following definition:

(p) Thousand Board Feet (Mbf). 1,000 board feet based on nominal widths, thickness, and extreme usable length of each piece of lumber or timber actually incorporated in the job. For glued laminated timber, 1,000 board feet based on actual width, thickness, and length of each piece actually incorporated in the job.

249 - Composite Road Construction

249.01 Description

This work consists of clearing and grubbing, excavation and embankment, and removal of all construction slash including all trees designated for removal. Excavation and embankment includes on site borrow excavation; drainage excavation; placing all excavated material; and shaping the roadway; including approaches, turnarounds, ditches and drainage dips. Construct the roadway in conformance with the dimensions “shown on the plans” or as staked on the ground.

249.02 Clearing and Disposal

Protect construction stakes and construction control markers. Remove or treat all trees, snags, downed timber, brush, and stumps within the clearing limits according to the following specifications.

- (a) Merchantable Timber. Treat according to the Utilization Standards of the Timber Sale Contract.
- (b) Unmerchantable Timber. Treat according to Subsection 249.02 Method A.
- (c) Large Construction Slash. Treat construction slash larger than 3 inches in diameter and longer than 3 feet by one or more of the following methods.
 - (1) Method A. Construction slash shall be scattered outside the clearing limits without damaging trees outside the clearing area. Logs shall be placed away from trees, positioned so that they will not roll, not placed on top of one another or left leaning on other trees. Scattered stumps shall be placed in an upright position
 - (2) Method B. Stumps, roots, rocks, topsoil and other grubbing debris shall be concentrated in stump dump areas. Stump dump areas shall be located by the Engineer, be a maximum of 300 feet apart along the road centerline, and generally be located in natural depressions or tucked away behind denser vegetation or ground rises. Stump dumps will vary in size depending on each site, but shall not be closer than 10 feet outside of the clearing limits. Stump dump material shall be matted down as much as possible and shall not obstruct natural drainages.
- (d) Small Construction Slash. Construction slash less than 3 inches in diameter and less than 3 feet in length may be incorporated into embankments so long as the material is distributed so that it does not result in concentrations or matting. Immediately remove slash deposited in stream courses.

249.03 Pioneering

Do not undercut the final back slope during pioneer operations. Deposit material inside the roadway limits. Do not restrict drainages.

249.04 Grubbing.

Grub within the specified limits. Stumps outside the grubbing limits remain if cut no higher than 1 foot or one-third of the stump diameter, whichever is greater, above the original ground, measured on the uphill side, unless otherwise designated. Grub all stumps from the Roadway, or stumps that have less than 1 foot of cover, in the Fill slopes, providing they do not interfere with the placement or compaction of embankments.

249.05 Excavation and Embankment.

Construct the roadway to conform to the typical sections shown on the plans. Protect backslopes from being undercut. Embankment shall be placed in layers no more than 12 inches thick.

Locate and use borrow material, and remove and treat unsuitable excess material, as designated.

Place rocks that are too large to be incorporated in the embankment outside the traveled way on the downhill side such that they will not roll, obstruct drainage, or hinder roadbed use and maintenance.

Shape and finish the roadbed to the condition ordinarily accomplished by a crawler tractor with dozer blade to provide drainage of surface water. Do not permit individual rocks to protrude more than 4 inches above the subgrade of the roadbed. A motor grader finish is not required.

Observe a width tolerance of (+) 18 inches max. for the roadbed.

Where shown on the drawings or designated on the ground, offtake ditches shall be constructed to drain water away from the roadbed.

249.06 Erosion Control.

Perform erosion control measures, where shown on the drawings, or staked on the ground.

249.07 Method.

Measure the section 249 items listed in the schedule of items according to subsection 109.02

Payment

249.08 Basis.

The accepted quantities will be paid at the contract price per unit of measurement for Section 249 pay items listed in the Bid Schedule. Payment will be full compensation for the work prescribed in this section. See Subsection 109.05

301 - Untreated Aggregate Courses

301 Title Change.

Change the title to: **Section 301 Aggregate Courses**

301.01 Work.

Add the following:

Work includes producing aggregate by pit-run, grid rolling, screening, or crushing methods, or placing Government-furnished aggregate. Work may include additive mineral filler, or binder.

301.02 Material.

Add the following:

Bentonite	725.30
Calcium Chloride Flake	725.02
Lignon Sulfonate	725.20
Magnesium Chloride Brine or Calcium Chloride Liquid	725.02

301.03 General.

Add the following:

Written approval of the roadbed is required before placing aggregate.

For pit run or grid-rolled material, furnish material smaller than the maximum size. No gradation other than maximum size will be required for pit-run or grid-rolled material. For grid rolling, use all suitable material that can be reduced to maximum size. After processing on the road, remove all oversize material from the road and dispose of it as directed by the CO.

Provide additives or binder, if required, at the proportions specified.

Develop and use Government furnished sources according to Section 105.

If the aggregate is produced and stockpiled before placement, handle and stockpiled according to Section 320. Establish stockpile sites at locations approved. Clear and grub stockpile sites according to Section 201.

301.04 Mixing and Spreading.

Delete the first sentence of the first paragraph and add the following:

Ensure that aggregate and any required additives, water, mineral filler, and binder are mixed by the specified method except, if crushed aggregate products are being produced and mineral filler, binder, or additives are required, uniformly blend following crushing. Control additive proportions to 0.5 percent dry weight.

(a) Stationary Plant Method. Mix the aggregate with other required materials in an approved mixer. Add water during the mixing operation in the amount necessary to provide the moisture content for compacting to the specified density. After mixing, transport the aggregate to the

jobsite while it contains the proper moisture content, and place it on the roadbed or base course using an aggregate spreader.

(b) Travel Plant Method. After placing the aggregate for each layer with an aggregate spreader or windrow-sizing device, uniformly mix it with other required materials using a traveling mixing plant. During mixing, add water to provide the necessary moisture content for compacting.

(c) Road Mix Method. After placing the aggregate for each layer, mix it with other required materials at the required moisture content until the mixture is uniform throughout. Mix aggregate, water, and all other materials until a uniform distribution is obtained.

Spread the aggregate in a uniform layer, with no segregation of size, and to a loose depth that will provide the required compacted thickness.

When placing aggregate over geotextile, place aggregate in a single lift to the full depth specified.

Route and distribute hauling and leveling equipment over the width and length of each layer.

301.05 Compacting

Delete and replace with the following:

Compact each layer full width. Roll from the sides to the center, parallel to the centerline of the road. Along curbs, headers, walls, and all places not accessible to the roller, compact the material with approved tampers or compactors.

Compact the aggregate using one of the following methods as specified:

Compaction A. Operate spreading and hauling equipment over the full width of the travelway.

Compaction B. Operate rollers and compact as specified in Subsection 204.11(a)(1).

Compaction C. Moisten or dry the aggregate to a uniform moisture content between 5 and 7 percent based on total dry weight of the mixture. Operate rollers and compact as specified in Subsection 204.11(a)(1).

Compaction D. Compact to a density of at least 95 percent of the maximum density, as determined by AASHTO T 99, method C or D.

Compaction E. Removed.

Compaction F. Compact to a density of at least 95 per-cent of the maximum density, as determined by AASHTO T 180, method C or D.

Compaction G. Removed.

For all compaction methods, blade the surface of each layer during the compaction operations to remove irregularities and produce a smooth, even surface. When a density requirement is specified, determine the in place density and moisture content according to AASHTO T 310 or other approved test procedures.

301.06 Surface Tolerance.

Add the following:

Thickness and Width requirements:

The maximum variation from the compacted specified thickness is ½ inch. The compacted thickness is not consistently above or below the specified thickness and the average thickness of 4 random measurements for any ½ mile of road segment is within + ¼ inch of the specified thickness.

The maximum variation from the specified width will not exceed +12 inches at any point. The compacted width is not consistently above the specified width and the average of any four random measurements along any ½ mile of road segment is within +4 inches of the specified width.

301.08(b) Plasticity Index.

Add the following to the first sentence:

“and under 703.05(c)(1)”.

301.09 Measurement.

Replace the second paragraph with the following:

Measure aggregate by cubic yard compacted in place when payment is by contract quantities.

301.10 Payment

Delete the following:

adjusted according to Subsection 106.05

303 - Road Reconditioning

303.01 Work.

Delete and add the following:

This work consists of reconditioning ditches, shoulders, roadbeds, cattleguards, asphalt surfaces, and aggregate surfaces.

303.06 Aggregate Surface Reconditioning.

Delete and replace with the following:

303.06 Asphalt and Aggregate Surface Reconditioning.

Repair soft and unstable areas to the full depth of the aggregate surface and according to Subsection 204.07. Scarify to the depth of the aggregate surface or to a depth of 6 inches, whichever is less, and remove surface irregularities. Reshape, finish, and compact the entire aggregate surface according to Subsection 301.05, Subsection 321.05, or Subsection 322.05 as applicable.

For asphalt surfaces, clean the existing surface of all loose material, dirt, or other deleterious substances by approved methods. Remove and dispose of unsuitable material that shows evidence of distress, excess asphalt material, or settlement in the roadbed. Patch the areas with approved material that conforms to and is compatible with the adjacent pavement structure. Perform the patch work according to Section 301, 404, 430, or other sections as applicable for the layer or courses being repaired. Clean and seal cracks in the existing asphalt surface according to Subsection 414.05. Correct surface irregularities exceeding 6 inches in depth with a specified aggregate. Place and compact the aggregate according to Subsections 301.04 and 301.05. Prelevel other dips, depressions, sags, excessive or nonexistent crown, or other surface irregularities with asphalt concrete according to Section 404. Spread and compact the asphalt concrete in layers parallel to the grade line not to exceed 2 inches in compacted depth.