

Project Name: Date Prepared:	Tole Booth T.S. 06/27/2008	Road Number... Const.-Reconst..	1900 3.89 (R)	1900B 0.31 (R)	1900C 0.84 (R)	1900F 0.90 (R)	1902 1.65 (R)	1902B 1.00 (R)	1902C 0.20 (R)	Revision Date
Spec No.	Title									
SPS 101	Abbreviations		X	X	X	X	X	X	X	
102	Definitions		X	X	X	X	X	X	X	4/85
SPS 102	Definitions		X	X	X	X	X	X	X	(4/96)
103	Intent of Contract		X	X	X	X	X	X	X	4/85
104	Maintenance for Traffic		X	X	X	X	X	X	X	4/85
SPS 104	Maintenance for Traffic		X	X	X	X	X	X	X	
106	Measurment & Payment		X	X	X	X	X	X	X	4/85
SPS 106	Measurment & Payment		X	X	X	X	X	X	X	
173	Construction Staking, Location Line		X			X		X		4/85
SPS 173	Construction Staking, Location Line		X			X		X		
201	Clearing & Grubbing		X			X		X		4/85
SPS 201	Clearing & Grubbing		X			X		X		
SPS 201A	Roadway Brushing		X	X	X		X	X		
202	Removal of Structures & Obstructions		X							4/85
SPS 202	Removal of Structures & Obstructions		X							
203	Excavation & Embankment		X			X		X		4/85
SPS 203	Excavation & Embankment		X			X		X		
204	Soil Erosion & Pollution Control		X			X		X		4/85
SPS 204	Soil Erosion & Pollution Control		X			X		X		
205A	Haul		X			X		X		4/85
SPS 205A	Haul		X			X		X		
206A	Excavation for Culverts & Minor Structures		X			X				4/85
SPS 206A	Excavation for Culverts & Minor Structures		X			X				
207	Developing Water Supply & Watering		X			X		X		4/85
SPS 207	Developing Water Supply & Watering		X			X		X		
304	Aggregate Base or Surface Course		X							4/85
SPS 304	Aggregate Base or Surface Course		X							
306	Reconditioning Existing Road		X	X	X	X	X	X	X	4/85
SPS 306	Reconditioning Existing Road		X	X	X	X	X	X	X	
601	Mobilization		X	X	X	X	X	X	X	4/85
SPS 601	Mobilization		X	X	X	X	X	X	X	
603	Metal Pipe		X			X				4/85
SPS 603	Metal Pipe		X			X				
625	Seeding & Mulching		X			X		X		4/85
SPS 625	Seeding & Mulching		X			X		X		
640	Road Closure Devices		X							4/85
SPS 640	Road Closure Devices		X							
703	Aggregates		X							4/85
707	Metal Pipe		X			X				4/85
713	Roadside Improvement Materials		X			X		X		4/85
SPS 713	Roadside Improvement Materials		X			X		X		(4/96)

Project Name: Date Prepared:	Tole Booth T.S. 6/27/08	Road Number.... Const.-Reconst..	1904 1.80 (R)	1904C 0.70 (C)						Revision Date
Spec No.	Title									
SPS 101	Abbreviations		X	X						
102	Definitions		X	X						4/85
SPS 102	Definitions		X	X						(4/96)
103	Intent of Contract		X	X						4/85
104	Maintenance for Traffic		X	X						4/85
SPS 104	Maintenance for Traffic		X	X						
106	Measurment & Payment		X	X						4/85
SPS 106	Measurment & Payment		X	X						
173	Construction Staking, Location Line			X						4/85
SPS 173	Construction Staking, Location Line			X						
201	Clearing & Grubbing			X						4/85
SPS 201	Clearing & Grubbing			X						
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SPS 202	Removal of Structures & Obstructions		X							
203	Excavation & Embankment		X	X						4/85
SPS 203	Excavation & Embankment		X	X						
204	Soil Erosion & Pollution Control		X	X						4/85
SPS 204	Soil Erosion & Pollution Control		X	X						
205A	Haul			X						4/85
SPS 205A	Haul			X						
206A	Excavation for Culverts & Minor Structures		X							4/85
SPS 206A	Excavation for Culverts & Minor Structures		X							
207	Developing Water Supply & Watering		X	X						4/85
SPS 207	Developing Water Supply & Watering		X	X						
304	Aggregate Base or Surface Course		X							4/85
SPS 304	Aggregate Base or Surface Course		X							
306	Reconditioning Existing Road		X							4/85
SPS 306	Reconditioning Existing Road		X							
601	Mobilization		X	X						4/85
SPS 601	Mobilization		X	X						
603	Metal Pipe		X							4/85
SPS 603	Metal Pipe		X							
625	Seeding & Mulching		X	X						4/85
SPS 625	Seeding & Mulching		X	X						
640	Road Closure Devices			X						4/85
SPS 640	Road Closure Devices			X						
703	Aggregates		X							4/85
707	Metal Pipe		X							4/85
713	Roadside Improvement Materials		X	X						4/85
SPS 713	Roadside Improvement Materials		X	X						(4/96)

IPNF SPECIAL PROJECT SPECIFICATION
Tole Booth Timber Sale

101.02 Delete in its entirety and substitute the following:

Pay Items & Pay Units

"&	And	MAT'L.....	Material
AC.....	Acre	M.....	Metal
AL.....	Aluminum	MAX.....	Maximum
ASP.....	Asphalt	MBF.....	One Thousand Feet Board Measure
AVAIL.....	Available	MGALS.....	One Thousand Gallons
BARR.....	Barrier	MHD.....	Method
BKN.....	Broken	MI.....	Mile
BST.....	Bituminous Surface Treatment	MIN.....	Minimum
CATTLEGD.....	Cattleguard	MISC.....	Miscellaneous
CLEAR (CLG).....	Clearing	MP.....	Mile Post
CLEAR/GRUB.....	Clearing & Grubbing	MSF.....	One Thousand Square Feet
CMP.....	Corrugated Metal Pipe	OTBC.....	Open Top Box Culvert
COMP.....	Compaction	P M.....	Placement Method
CONC.....	Concrete	PVC.....	Polyvinylchloride
CONST.....	Construction (Construct)	RD.....	Road
CTD.....	Coated (Coating)	RECOND.....	Reconditioning
CUSH.....	Cushion	RECONST.....	Reconstruction (Reconstruct)
CY (CU YD).....	Cubic Yard	REFL.....	Reflectorized
CY MI (CYM).....	Cubic Yard Mile	RT.....	Right
DIA.....	Diameter	STMP (STP).....	Stump(s)
DL.....	Double Lane	SB.....	Self Balance
DWGS.....	Drawings	SEC.....	Section
EA.....	Each	SF.....	Square Foot (Feet)
EMB.....	Embankment	SL.....	Single Lane
EXC.....	Excavation	SLD.....	Solid
F&I.....	Furnish & Install	ST.....	Slash Treatment
FDN.....	Foundation	STA.....	Station (100 Feet)
FT.....	Foot (Feet)	STA YD.....	Station Yard
FUNC.....	Function	STL.....	Steel
GAL.....	Gallon	STR (STRUC).....	Structural
GR.....	Grade	SY (SQ YD).....	Square Yard
GRUB.....	Grubbing	SZ.....	Size
HDPE.....	High Density Polyethylene	T&L.....	Tops & Limbs
HOR.....	Horizontal	TBR.....	Timber
HR.....	Hour	TH.....	Thickness
HT.....	Height	TM.....	Ton Mile
I.....	Install	TO.....	Turnout
IN.....	Inches	TOL.....	Turnout Left
INCL.....	Including (Includes)	TOR.....	Turnout right
IND.....	Individual	TRS.....	Trees
JCT.....	Junction	UOT.....	Utilization of timber
L.....	Logs	VERT.....	Vertical
LBS.....	Pounds	W.....	Width
LDG.....	Loading	W/.....	With
LF (LIN FT).....	Linear (lineal) Foot	W/O.....	Without
LS.....	Lump Sum	X-SEC.....	Cross Section
LT.....	Left	YD.....	Yard

Section 102 - Definitions

Add the following:

"Noxious Weeds or Weeds. Any exotic plant species established or that may be introduced in the State which may render land unfit for agriculture, forestry, livestock, wildlife, or other beneficial uses and which is designated by the State's Department of Agriculture, or by the County's weed management district, or by other appropriate agencies having jurisdiction, or as listed on the current "All States Noxious Weed List."

Shop Drawings. Incidental design sheets and/or drawings which the Contractor is required to submit to the Forest Service. Shop drawings shall conform to the contract requirements, but they are not part of the contract drawings. They may be drawings, diagrams, schedules, performance charts, brochures, and similar data prepared by the Contractor, subcontractor, manufacturer, suppliers, or distributors that illustrate how specific portions of the work are to be fabricated or installed.

Weed Management District. A weed management district is any area of land identified for the purpose of weed management or control. Such an identified land area may be, but is not limited to one of the following: a project or job site, a County, two or more Counties, or a National Forest."

Section 104 - Maintenance for Traffic

104.01

Roads to be
Constructed

Delete the second paragraph and replace with the following:

“All ungated roads shall remain open during reconstruction with a three hour maximum delay of traffic except for road 1904 which may remain closed for 10 hours during culvert replacement activities..

Prior to the Contractor shutting down any operations, the Contractor shall take such precautions as may be necessary to prevent damage to the project, such as approaches, crossings or intersections; and shall make provisions for normal drainage and minimization of erosion.

In order to reduce resource damage, traffic behind gate on roads 1900 and 1904C shall be controlled as follows:

The Contractor and the Forest Service shall provide and maintain their own locks for each existing gate in order to limit vehicular use to construction and administrative related traffic only. The contractor shall provide a Multiple Locking Device for the gate of an acceptable design that meets the Contracting Officer’s approval. The gates shall be closed and locked at all times except to allow passage of authorized traffic unless otherwise approved by the Contracting Officer.”

104.02

Use of roads

Add the following:

By Contractor

The Contractor shall maintain all unpaved Forest Service controlled roads used for hauling of materials under this contract. This work includes surface blading, dust abatement and ditch cleaning as directed by the Contracting Officer. No material shall be side cast onto slopes within 100 ft. slope distance of live streams, 100 ft. of stream channel crossings, or within 20 ft. of cross drain culverts.

104.03

Payment

Add the following:

“The cost of this work has been included in and shall be incidental to Pay Item 203(01)H, and 306(01).”

Section 106 - Measurement & Payment

106.03

Units of
Measurement

Under "(a) Cubic Yard, " add the following:

"(4) Material, Compacted in Place. The measurement computed using measurements of length, depth, and width for computation of quantities shall be made along the project when Actual Quantities are shown on the SCHEDULE OF ITEMS."

Section 173 - Construction Staking, Location Line

DESCRIPTION

173.01 Add the following to the second sentence of the first paragraph:
Work

"and re-establishing missing preliminary survey points."

Add the following to the last paragraph:

"Construction staking shall be accomplished by personnel experienced in construction staking methods to the standards as SHOWN ON THE DRAWINGS and as listed in the SCHEDULE OF ITEMS. The party chief for construction staking shall be approved in writing by the Contracting Officer."

MATERIALS

173.02 Add:
Stakes

"The nominal dimension of the wooden stakes shall be:

3/8"X 1-3/4"X 18": For guard, reference, slope,
and other stakes.

3/8"X 1-3/4"X 3': For clearing limit lath.

Colors used for paint or flagging for marking the stakes, lath and clear limits shall be established by the Contracting Officer."

173.03 Add:
Survey Note
Paper &
Books

"When field notes are generated by the Contractor, bound field books shall be used."

173.04 Delete the first sentence and add:
Government
Furnished
Documents

"The Contractor will be furnished by the Government, drawings, P-line survey notes, slope stake notes, computer printouts, and other necessary information for construction staking the project."

STAKING
REQUIREMENTS

173.05 Add the following:
Precision

"The work shall meet the following precision: Slope distance accuracy for setting slope stakes shall be 0.5 foot, or 2.0 percent of the slope distance, from the control point to the slope stake, whichever is the larger value.

Slope Distance accuracy for reference stakes set from slope stakes shall be 0.5 foot, or 2.0 percent of the slope distance, measured from the slope stake to the reference, whichever is the larger value. Accuracy of horizontal measurement from the slope stake to the clearing limit shall be 1.0 foot."

173.06 Delete in entirety and add the following:
Staking
Notes

"Staking notes shall be neatly kept in a standard format, approved by the Contracting Officer, in securely fastened field books with stiff covers. Lettering shall be at least 0.15 inch high and legible at a distance of 2.5 feet. Errors shall be deleted by lining out. Crew names, positions, and date shall be recorded in the stake notes at the beginning of each day's work. The Party Chief, or notekeeper, must sign or initial the beginning sheet of each day's work. All notes, including the originals, shall become the property of the Forest Service. All completed field books shall be reviewed, signed, and dated by the Purchaser prior to submittal to the Contracting Officer. All information recorded on the reference stake shall be recorded in the stake notes. In addition the horizontal distance from centerline to each clearing limit shall be recorded.

173.07 Delete in entirety and add the following:
Location
Survey Line

"A preliminary line has been established on the ground for this project. Missing points shall be re-established and marked on the ground with a new stake containing the original information by the Contractor.

173.08 &
173.09
Clearing
Limits,
Slope
Stakes &
References

Delete in entirety and add the following:

"The contractor shall establish slope stakes, clearing limits and reference points by one of the following methods as shown in the SCHEDULE OF ITEMS:

173(01)A - Clearing Limit and Slope Stake Combined - Cutside(s) and Through Fills.

Clearing limits shall be established on each side of the designed centerline by using the slope distance information given in the staking notes and verify the minimum clearing limit distances shown on the typical section sheet of the drawings. This point shall be marked by firmly setting a lath in the ground for outside and through fills. The clearing limit on the fill side in a cut/fill section shall be marked with a flag. The stakes/flag shall be set on lines at approximate right angles to tangents and normal to the central bearing of intersecting tangents. The clearing stake on the cut side or on both sides in through fill areas shall be marked as shown in figure 173-1 with the following information: The designed cut or fill to ditch grade at the slope stake point if there is a ditch or to shoulder grade if there is no ditch; the horizontal distance from the catch point to centerline; whether cut or fill is to ditch grade or shoulder grade; the slope ratio; the width "W" from inside shoulder to outside shoulder; the station; the diameter and length of culvert if section is a culvert section. Any clearing lath damaged or destroyed during clearing operations shall be replaced before starting excavation.

After each section has been slope staked, reference stakes shall be established for slope stake information a minimum of 10 feet slope distance outside the clearing limits, with the following information recorded on them as shown in figure 173-1: The slope distance from the reference stake to the clearing stake and the information shown on the slope stake.

173(01)B - Clearing Limit and Slope Stake Combined - Both Sides.

The requirements for this pay item shall be the same as 173(01)A except that slope stakes and reference stakes shall be established on both sides of the designed centerline at all sections.

173(01)C - Clearing Limit and Slope Stake Combined - Outside(s) and Through Fills and Layer Place Fills.

Clearing limits shall be established on each side of the designed centerline by using the slope distance information given in the staking notes and verify the minimum clearing limit distances shown on the typical section sheet of the drawings. This point shall be marked by firmly setting a lath in the ground for outside and through fills. The clearing limit on the fill side in a cut fill section shall be marked with a flag. The stakes/flag shall be set on lines at approximate right angles to tangents and normal to the central bearing of intersecting tangents. The clearing stake on the cut side(s) or on both sides in through fill areas shall be marked as shown in figure 173-1 with the following information: The designed cut or fill to ditch grade at the slope stake point if there is a ditch or to shoulder grade if there is no ditch; the horizontal distance from the catch point to centerline; whether cut or fill is to ditch grade or shoulder grade; the slope ratio; the width "W" from inside shoulder to outside shoulder; the station; the diameter and length of culvert if section is a culvert section. Any clearing lath damaged or destroyed during clearing operations shall be replaced before starting excavation.

In layer place areas, a fill stake shall be marked as shown in figure 173-1 with the following information: The designed fill to shoulder grade, the horizontal distance from the catch point to centerline, the slope ratio, the station, and the slope distance from the reference stake to the designed toe of fill. The fill stake shall be placed alongside the reference stake(s).

After each section has been slope staked, reference stakes shall be established a minimum of 10 feet slope distance outside the clearing limits, with the following information recorded on them as shown in figure 173-1: The slope distance from the reference stake to the clearing stake and the information shown on the slope stake.

173(01)D - Establishment of Fill Stakes in Layer Place Fill Areas.

Toe of fill(s) shall be marked by firmly setting the fill stake in the ground using slope distance information as marked on the fill stake and measured from the reference point. The fill stakes shall be established after clearing has been completed and prior to embankment placement.

173(02)A - Clearing Limit and Slope Stake Separate - Cut Side(s) and Through Fills.

The requirements for this pay item shall be the same as 173(01)A except that the slope stake shall be placed at the slope stake point and shall have the slope stake information recorded on it. The Contractor may elect to mark the slope stake point with a "dummy" stake meeting the requirement of 173.02 and set the slope stake back with the reference stake until after clearing operations. In all cases the slope stake shall be reset to the slope stake point prior to starting excavation. The slope distance marked on the reference stake shall be from the reference stake to the slope stake.

173(02)B - Clearing Limit and Slope Stake Separate - Both Sides.

The requirements for this pay item shall be the same as 173(02)A except that slope stakes and reference stakes shall be established on both sides of the designed centerline at all sections."

173.11
Staking
Culverts

Delete in entirety and substitute the following:

"All 36" and larger (or 24" and larger in a live stream) culverts shall be staked by hand level method, or equivalent, with stakes driven on the centerline of the culvert at each end of the culvert. In addition, reference stakes and pipe lath shall be a minimum of 10 feet beyond the anticipated construction limits. Stakes shall be marked with the following:

- (a) Pipe Lath: . . . Station, diameter, length, and type of culvert (such as 18"X 36' CMP).
- (b) Reference Stake: The vertical and horizontal distances from the stake to the invert at the end of the pipe and the station.
- (c) End-of-Pipe Stake: Vertical distance to flowline."

173.14
Marking
Stakes

Delete and substitute with the following:

"All stakes shall be marked with a stake pencil that leaves an imprint in the stake. The imprint is required on all marked stakes and all markings shall be legible. Other methods of permanent marking may be approved in writing by the Contracting Officer. Stakes shall be marked as shown in Figure 173-1."

173.15 After the first paragraph add the following:
Approval and
Maintenance "Stake notes shall be returned by the contractor to the Contracting Officer
for approval and shall be in the original binder and contain the original number of pages
as when furnished to the contractor. The Contracting Officer shall have 15 days from the
date the notes are turned in to inspect the work and notify the contractor as to whether the
work is acceptable."

MEASUREMENT

173.16 Add the following:
Method "Construction staking includes re-establishing missing portions of the location line, setting
reference stakes, slope stakes, culvert stakes, and clearing limits. The quantity shall be the
number of miles, measured to the nearest 0.01 mile, of centerline completed and accepted."

PAYMENT

173.17 Delete Pay Items and add the following:
Basis

<u>Pay Item</u>	<u>Pay Unit</u>
173(01)A - Establishing Slope Stakes, Cut Side(s) and Through-Fills, Clearing Limit and Slope Stake Combined.	Mi.
173(01)B - Establishing Slope Stakes, Both Sides, Clearing Limit and Slope Stake Combined.	Mi.
173(01)C - Establishing Slope Stakes, Cut Side(s) and Through-Fills, Clearing Limit and Slope Stake Combined.	Mi.
173(01)D - Establishing of Fill Stakes in Layer Placed Fill Areas . . .	Mi.
173(02)A - Establishing Slope Stakes, Cut Side(s) and Through-Fills, Clearing Limit and Slope Stake Separate.	Mi.
173(02)B - Establishing Slope Stakes, Both Sides, Clearing Limit and Slope Stake Separate.	Mi.

* **Note:** When using stakes 21" and Longer, the Station may be written on the front of the stake.

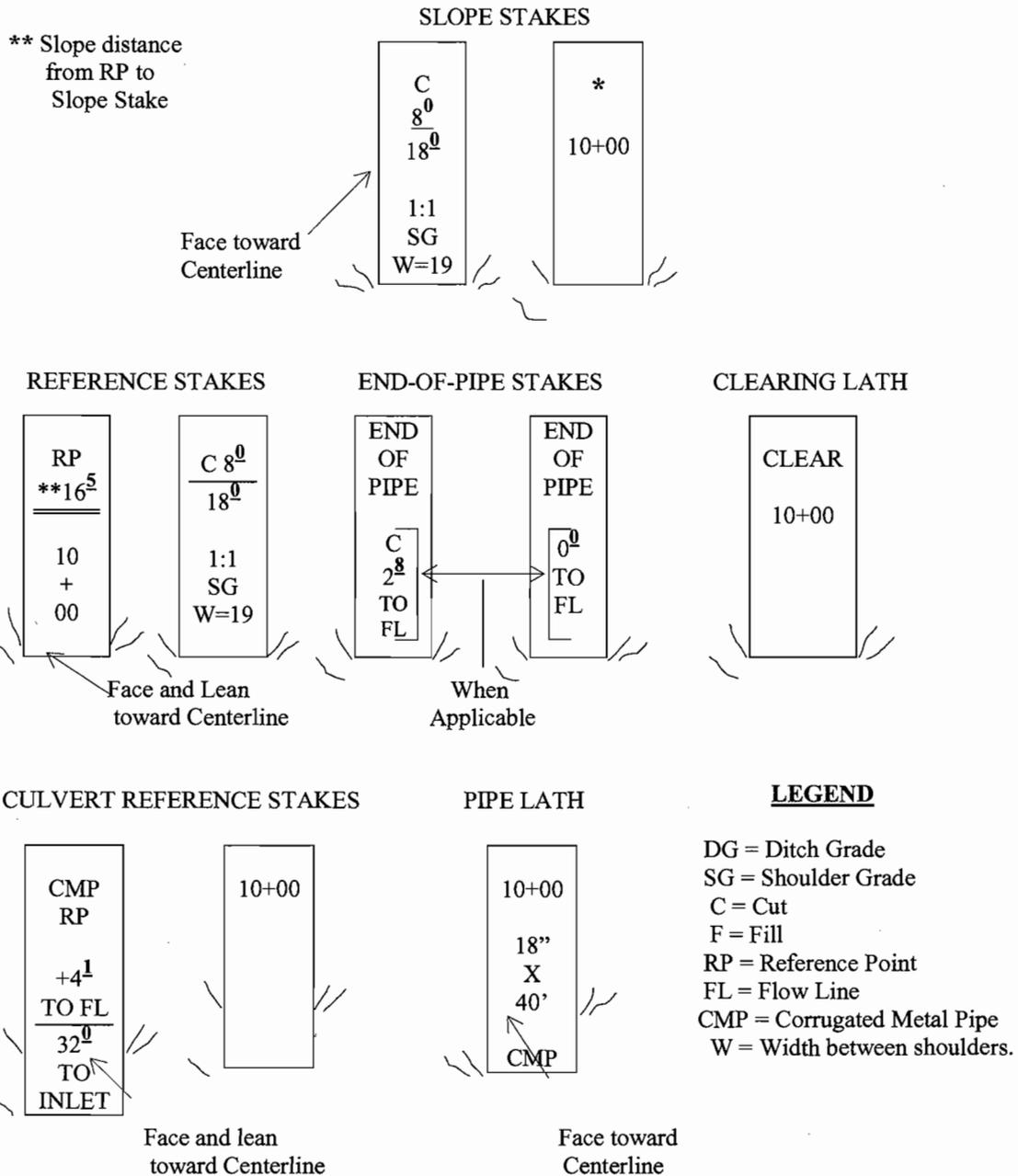


Figure 173 -1 Construction Stakes

Section 201 - Clearing and Grubbing

DESCRIPTION

201.02 Replace (a) with:
Clearing "(a) Undisturbed stumps outside the roadway or in embankment areas, provided they
and do not extend more than 1 foot above the original ground nor closer than 1 foot to the
Grubbing finished subgrade and do not interfere with the placement or compaction of embankments."

Add the following:

"(c) Stable trees up to 6 inches in diameter and uncut vegetation less than 3 feet in height and less than 3 inches in diameter within the clearing limits but beyond the roadway that do not interfere with visibility."

Delete the first sentence of the fifth paragraph and replace with the following:

"Trees within the clearing limits may be felled outside the area being cleared."

201.03 Add the following to the first paragraph after the first sentence:
Utilization "Timber meeting utilization standards shall be that timber as described in A-2 of the
of Timber Timber Sale Contract and shall be treated as included timber, except for timber cut on
 other than National Forest System land which shall be handled separately in accordance
 with the special provisions in the Timber Sale Contract."

201.05 (b) Specific Methods.
Slash (6) Chipping. Add the following:
Treatment

"(6.1) (CHIPPING WITH MAINTENANCE TYPE BRUSH CUTTER-RESIDUE
SIZE LIMITED.)

The intent of Method (6.1) Chipping, may be met with a mechanized brush cutter, provided that no residue larger than 3 inches in diameter and 3 foot in length remain after the operation is completed."

Delete Method (8) and replace with:

"(8.1) Decking Unmerchantable Material.
(DECKING FIREWOOD)

All reasonably sound logs which do not meet utilization standards but can be used for firewood and are 5 inches or more in diameter and 6 feet or more in length shall be limbed and bucked into lengths not to exceed 32 feet and decked outside the roadway.

The logs shall be decked in a stable position at locations approved by the Contracting Officer. If logs are decked on the lower side of the road they shall be decked in areas where the fill does not exceed 15 feet in height and shall be placed between the roadbed and the windrow or slash piles and not covered by the windrow or slash piles. Decks shall not be closer than 5 feet to the shoulder. Logs not suitable for firewood shall be treated by one or more of the slash treatment methods specified for tops and limbs."

Delete Method (11) and replace with:

"(11.1) Piling Construction Slash.
(LARGE CONTINUOUS PILES)

All construction slash shall be placed in piles at the toe of the embankment. Piles shall be stable, compact, uniform, neat in appearance, reasonably free of dirt with all material laid parallel to the roadway. Stumps shall not be placed on top of the pile, but shall be placed in the lower half, on the uphill side of the pile, in a stable position so they will not roll. Piles may extend beyond the clearing limits into adjacent natural openings. Slash may be piled on standing trees. Grubbing of stumps in piling areas is not required.

Length of piles shall not exceed 200 feet with breaks of at least 20 feet between piles. Other breaks of at least 20 feet shall be constructed where big game trails or migratory routes cross the roadway and breaks of at least 20 feet where cutting unit boundaries marked on the ground intersect the roadway.

At ditch relief culvert locations or at culvert locations in dry or intermittent wet draws, the piles shall not be broken but shall be placed a minimum of 10 feet below the culvert outlet. At culvert locations in live streams piles shall not be broken but shall be continued at the toe of the embankment over the top of the culvert. No slash shall be allowed to restrict the flow of water from the culvert. No stumps shall be placed in the piles within 50 feet of the culvert. All piles within 50 feet of the culvert shall be placed and compacted to insure continuous contact with the ground surface to act as a silt barrier. If there is insufficient slash material available in the immediate area of the culvert location, material within 500 feet of either side of the culvert shall be conserved and used to construct the piles at the culvert location. Height of the piles shall be determined by the following:

<u>Height of Fill</u>	<u>Height of Piles above Subgrade</u>
5 feet or less	10 feet maximum
greater than 5 feet	5 feet maximum

All slash shall be kept a minimum of 5 feet from the shoulder of the road and in no case shall the piles reduce sight distance to less than 80 feet."

"(11.3) Piling and Reducing Slash.

(SMALL PILES AT TOE AND BURNED BY THE FOREST SERVICE)

Construction slash shall be piled in small, compact piles, free of dirt, inside the clearing limits or in adjacent natural or man-made openings. These openings will be selected 50 feet to 200 feet apart in locations where a minimum amount of merchantable trees will be cut to accommodate the piles. All merchantable trees shall be removed within 10 feet of the finished piles. Protruding material shall be trimmed from slash piles and repiled. Stumps 12 inches in diameter or greater, shall be split so that all pieces are less than 12 inches maximum dimension measured across the cut face. The piles shall be left for later burning by the Forest Service."

SECTION 201A - ROADWAY BRUSHING

DESCRIPTION

201A.01 This work shall consist of removing limbs, residual slash, live roadside brush, and
Work small trees between, or protruding into, the designated brushing limits. The brushing
limits shall be AS SHOWN ON THE DRAWINGS. Brushing areas shall include turnouts.

CONSTRUCTION

201A.02 All brush and small trees (6 inches diameter, or less, at the point of cut) inside the
Clearing & brushing limits and outside the roadbed shall be cut off no higher than 4 inches
Brushing above ground level (6 inches for machine brushing). Should rocks or other obstructions
 be encountered, the cutting height shall be no higher than 6 inches above the obstruction.
 Live trees with a diameter larger than 6 inches should be limbed to a height of 15 feet
 above the road surface. All brush and trees located on the roadbed shall be cut as nearly
 flush to the road surface as possible so stumps will not become a hazard to automobile
 tires.

201A.03 Windfalls lying within or across the brushing limits shall be limbed and cut off at a
Windfalls horizontal distance of 10 feet from each shoulder or at the brushing limit, which ever is
 least. Cut windfall material shall be disposed of as slash.

201A.04 No brushing debris shall be deposited in the traveled way road junctions and/or
 ditches of adjoining roads.

201A.06 All slash shall be scattered outside the brushing limits without damaging residual
Slash trees. Slash shall be defined as any material cut that has a length greater than
Treatment 36 inches or with a diameter greater than 3 inches at any point. No material shall be
 deposited in streams, streambeds, culvert inlets or outlets, or drainage ways.

MEASUREMENT

201A.07 The method of measurement, described in Section 106, will be DESIGNATED in
Method the SCHEDULE OF ITEMS.

Linear measurements will be horizontal along the road centerline.

Quantities will be the number of miles (or stations) and fractions thereof along the road centerline, regardless of the amount of work required.

PAYMENT

201A.08 The accepted quantities will be paid for at the contract unit price for each pay item shown
Basis in the SCHEDULE OF ITEMS.

Payment will be made under:

<u>Pay Item</u>		<u>Pay Unit</u>
201A(01)	Roadway Brushing	Mile

Section 202 - Removal of Structures and Obstructions

CONSTRUCTION

202.03
Removal of
Bridges,
Culverts,
And Other
Structures

Add to this section:

"All metal pipe removed shall become the property of the Contractor and be removed from National Forest System Lands or shall be crushed and buried within a designated fill approved by the Contracting Officer. The pipes shall be placed in such a manner that all pieces shall extend no closer than two feet from finished grade. All voids and cavities surrounding the pipes shall be filled during backfilling operations.

All untreated woody debris from the removal of log culverts and open top culverts shall be treated with the clearing debris and disposed of by using the same methods required for the adjacent R.O.W. clearing.

Any treated woody debris from the removal of log culverts and open top culverts shall become property of the contractor and be removed from National Forest System Lands and disposed of properly.

Section 203 - Excavation & Embankment

DESCRIPTION

203.01 Insert the word "haul" after the word "roadway" on the first line.
Work

CONSTRUCTION

203.04 Add the following to the last sentence:
Clearing & "..., unless specifically allowed under Section 201."
Grubbing

203.08 Add the following:
Finishing "For simplification, out-sloping and in-sloping of the travelway have not been reflected in
Roadbed the construction staking, however, they will be required as SHOWN ON THE
DRAWINGS.

PAYMENT

203.19 Add the following Pay Item:
Basis

<u>Pay Item</u>	<u>Pay Unit</u>
203(01)H Excavation Placement Method 1, Includes Sta. Yd. Haul	C.Y.

Section 204 - Soil Erosion & Water Pollution Control

DESCRIPTION

204.01 Delete entire subsection and substitute the following:
Work

"This work consists of special temporary and/or permanent construction measures as SHOWN ON THE DRAWINGS and/or listed in this specification to control soil erosion and water pollution. Such measures may include (but are not limited to) filter windrows, slash blankets, brush barriers, drainage devices, earth berms, earthen water bars, sediment basins, aggregate base/surfacing, rock ditches, riprap, seeding, mulching, and/or straw bales.

This work shall also include special construction methods SHOWN ON THE DRAWINGS to control erosion at control areas."

MATERIALS

204.02 Delete the 2nd paragraph and substitute the following:
Requirements

"All other materials shall meet commercial grade standards and shall be approved before being incorporated into the project."

CONSTRUCTION

204.03 Delete the 2nd paragraph and substitute the following:
Performance

"Erosion control measures shall be incorporated into the project no later than the dates specified in Table 204.1. Variations in this schedule must be approved in writing by the Contracting Officer."

Add the following after the 3rd paragraph:

"The following construction requirements shall apply:

- a.- Earthwork. Clearing and grubbing, excavation, borrow and embankment operations shall be scheduled and performed so that grading operations and permanent erosion control measures can follow without interference or be constructed within the time periods listed in Table 204.1.

- b.- Stream Courses. Temporary culvert installations will not be permitted in live streams unless approved individually in writing by the Contracting Officer. If such approval is granted, temporary culverts shall be offset a sufficient distance so that installation of the permanent culvert can be completed without removal of the temporary culvert. Temporary culverts shall not be removed until flowing water is completely confined to the permanent culvert.

Diversion of live streams to allow work in the streambed shall be performed in such a manner as necessary to prevent erosion. Dikes of sufficient height to divert the flow without being overtopped shall be constructed in the stream above the drainage structure. Water shall be conveyed around the work area by a non-eroding conduit. Watertight pipes, tubing, or lined trenches may be used. Trench or pipe outlet areas shall be protected with plastic or other material approved by the Contracting Officer to insure that diverted water does not cause erosion as it returns to the stream.

Equipment shall not operate in the stream unless authorized by the Contracting Officer. This does not include a one time crossing of the stream to begin installation. After installation of the permanent drainage structure is completed, all dikes, temporary culverts, basins, and trenches shall be removed and the area restored to near natural condition.

- c.- Wet Conditions. The contractor shall conduct operations so as to minimize erosion and not develop conditions that will cause erosion. Work may continue during wet conditions as long as erosion and rutting is controlled.
- d.- End of Construction Season and prior to Move-out. Any rutted areas and other damaged areas shall be smoothed, sloped and graded to drain. All temporary stream course diversion conduits and temporary culverts shall be removed and the stream returned to its natural channel. All erosion control measures required under this specification shall be functional and approved by the Contracting Officer. The seeding method prescribed in Section 625 shall be used on all areas where work has been completed.
- e.- Temporary Seeding and Fertilizing. Temporary seeding and fertilizing shall consist of placing seed in one application by the dry method, 23 lbs. Per acre (pure live seed) as per Subsection 625.05 and 150 lbs. Per acre of fertilizer (that has the same chemical analysis as per 625.05) on those portions of road cut/fill slopes, waste areas and/or other disturbed areas that have been constructed as staked or as directed. Seeding of these areas shall be accomplished within 5 days of completion of the subgrade, or sooner when specified in writing by the Contracting Officer.

Temporary seeding and fertilizing shall be prior to, and in addition to, any seed and fertilizer specified in Subsection 625.05.

Pounds of pure live seed shall be computed as described in Subsection 625.05.

- f.- Straw Mulching. Straw mulching shall consist of the application, by hand or machinery specifically designated for such work, of 1.5 tons per acre of straw mulch meeting the requirements of 713.05(b) on areas designed on the DRAWINGS or on other areas directed by the Contracting Officer.
- g.- Filter Windrow. For filter windrow construction, suitable slash shall be conserved from Item 201 Clearing and Grubbing, and stockpiled at approved sites. Slash to be conserved shall consist of tops, limbs, and brush not to exceed 6 inches in diameter and 12 feet in length. Stumps and root wads shall not be included.

Logs of not less than 12-inch diameter shall be placed on the fill slope immediately above and parallel to the toe for the windrow to catch against. Reasonably sound cull logs may be used if available. They shall be firmly anchored against undisturbed stumps, rocks, or trees, or as otherwise directed by the Contracting Officer.

All material in the windrow shall be matted down with construction equipment to form a neat, compact, and uniform pile, so as to effectively halt the flow of sediment. Windrows shall be placed so that they do not interfere with the functioning of drainage structures or block stream channels.

Filter windrows shall be constructed only in locations staked by the Contracting Officer and in accordance with the drawings.

The windrow shall have breaks a minimum of 20 ft. in length at least every 200 lineal feet and at game trails, ridge tops, and cutting unit boundaries."

MEASUREMENT

204.04
Method

Add the following to the first paragraph:

"Items not shown in the SCHEDULE OF ITEMS will not be measured."

PAYMENT

204.05
Basis

Add the following:

"Other erosion control work required under this specification and not shown in the SCHEDULE OF ITEMS is considered incidental to pay items in the Section listed in Table 204.1."

TABLE 204.1

SECTION	DURATION	DESCRIPTION OF WORK	TIMING OF CONSTRUCTION
203	Permanent	<u>Culvert Catch Basins and Ditch Transitions</u>	Concurrently with culvert installation.
203	Permanent	<u>Inslope/Outslope</u> as shown on drawings.	Continuously as road is roughed to grade.
203	Permanent	<u>Ditches</u>	Within <u>5</u> days of completion of cut & fill slopes.
Incidental to 203	Temporary	<p><u>Waterbars</u> in all areas of disturbed earth.</p> <p>1. In areas not roughed to grade or without completed permanent drainage features: maximum spacing: 100' for road grades over 12% 200' for road grades 6% to 12% 300' for road grades under 6%</p>	Prior to winter shutdown or when construction activity ceases for 15 days or more.
	Permanent	<p>2. In areas where permanent drainage features are completed and no gravel surfacing is specified:</p> <p>Within 20 ft. uphill of all culverts, except in through fill areas.</p> <p>Within 20 ft. uphill of the start of through fills.</p> <p>Approximately halfway between culverts, except in through fill areas as needed to control erosion during periods of winter shutdown.</p> <p>maximum spacing: 100' for road grades over 12% 200' for road grades 6% to 12% 300' for road grades 4 to 6% 1000' for road grades under 4%</p>	Within 5 days of completion of subgrade.
203	Permanent	<u>Drainage Dip</u> Locations shown on the drawings.	Prior to the end of the construction season for all areas roughed to grade.
Incidental to 203	Temporary	<u>Straw Bales/Straw Mulch.</u> As necessary to stabilize eroding areas.	Immediately upon discovery of active erosion.
203	Temporary	<u>Uncompleted Roads.</u> The total length of all roads with uncompleted excavation and embankment, including pioneer roads, shall not exceed 5000 lineal feet between Jun. 1 and Sep. 15 and shall not exceed <u>2000</u> lineal feet after Sep. 15.	See description of work. This applies to Road: 1904C

TABLE 204.1(Cont.)

SECTION	DURATION	DESCRIPTION OF WORK	TIMING OF CONSTRUCTION
204	Temporary	<u>Temporary Seeding and Fertilizing</u> Locations shown on the drawings.	Within 5 days of construction activity or sooner when specified in writing by the Contracting Officer.
204	Temporary	<u>Sediment Basins</u> Locations shown on the drawings.	Prior to pioneer road construction.
603	Permanent	<u>Culverts</u> <u>Live Streams</u>	At time of initial crossing of live streams.
		<u>Cross Drains</u>	Within 5 days of completion of cut & fill slopes.
625	Permanent	<u>Seeding</u>	As specified in Section 625
625	Permanent	<u>Mulching</u> Locations shown on the drawings. Application rate: 1.5 tons of straw mulch per acre.	Immediately after seeding & fertilizing.

Section 205A - Haul

MEASUREMENT

205A.02 Delete the last sentence of this subsection.
Methods

PAYMENT

205A.03 Delete this subsection and replace with the following:
Basis
"When no pay item for 205A is specified, the payment for haul shall be included as a subsidiary item to Section 203. No separate payment shall be made under Item 205A.

Section 206A - Excavation for Culverts & Minor Structures

MEASUREMENT

206A.08 Add the following:
Methods

"(c) For gabion structures, measurement will be to the lines and grades as SHOWN ON THE DRAWINGS."

"(d) Excavation for pipe culverts with diameter of 36 inches or smaller and for pipe arches 42 inches by 29 inches or smaller and drop inlets shall not be measured."

PAYMENT

206A.09 After the first sentence, add:
Basis

"Payment for excavation for pipe culverts with diameter of 36 inches or smaller and for pipe arches 42 inches by 29 inches or smaller and drop inlets shall be included as a subsidiary item to Section 603 and Section 604. No separate payment shall be made under this Section or under Section 603, 603A, 603B, or 604."

Section 207 - Developing Water Supply & Watering

CONSTRUCTION

207.03 Add the following:
Development "All activities which may cause siltation or damming of a stream shall be approved
of Supply in advance of the work, in writing by the Contracting Officer. The intake hose for
& Access pumping water from streams shall be equipped with a ¼ inch mesh screen to prevent fish
 intake. Not more than 20% of the total stream flow shall be pumped (removed) from the
 stream at any given time."

PAYMENT

207.06 Delete the first paragraph and substitute with the following:
Basis "Payment for Developing Water Supply & Watering shall be included as a subsidiary
 item to Section 304. No separate payment shall be made under Section 207."

Section 304 - Aggregate Base or Surface Course

MATERIALS

304.03 Delete entire subsection and substitute the following:
Gradation

“The crushed aggregate gradation shall meet the requirements of Table 703-4 for the grading shown in the SCHEDULE OF ITEMS. Aggregate shall be well graded from coarse to fine within the gradation band.”

CONSTRUCTION

304.08 The following is added to this subsection:
Preparation

of Roadbed "The subgrade receiving aggregate shall be compacted to a depth of one foot, in accordance with Subsection 203.15, Method 3. This work shall be considered incidental to Pay Item 304(10)."

304.09 Delete the word "three" from the first sentence of the first paragraph:
Mixing &
Placing

304.12 Add the following to this subsection:
Thickness Requirements
"Compensation will not be made for thickness exceeding the specified thickness."

Section 306 - Reconditioning Existing Road

DESCRIPTION

- 306.01 Delete "scarifying and" from the text.
Add: "and catch basins" following "outlets"

CONSTRUCTION

- 306.02 Delete the first two paragraphs including (a) and (b) of the second paragraph
Performance and replace with the following:
"Scarification of the traveled way and shoulders is not required. Any rock protruding less than two inches may be left in place. Rock protruding in excess of two inches shall be removed or the tops blasted. Resulting holes in the roadway or shoulders shall be backfilled with compacted suitable material."

Section 603 - Metal Pipe

MATERIALS

603.02 Delete the second sentence, last paragraph, and add:
Requirements

"Pipe should not be ordered until culvert locations are DESIGNATED ON THE GROUND and the correct lengths are determined and approved by the Contracting Officer."

CONSTRUCTION

603.06 Replace the last sentence of the first paragraph with the following:
Joining Pipes

"Dimpled bands shall not be used unless approved by the Contracting Officer in writing."

603.08 At the end of the second paragraph, after "Method A or B," add:
Backfilling

"or C"

After Method B, add:

"Method C - Compaction shall be obtained by a minimum of two passes with a mechanical tamper, approved by the Contracting Officer, for each 6-inch layer (loose thickness) of backfill unless otherwise SHOWN ON THE DRAWINGS."

Pounds of seed to be furnished per acre shall be obtained by dividing the pounds of pure live seed (PLS) required per acre by the product of the percent purity and percent germination.

Example:
$$\frac{5(\# \text{ PLS/acre})}{0.90 \times 0.85} = 6.55 \text{ pounds commercial seed per acre.}$$
 (where purity=90% and germination=85%)

Certified, blue-tagged seed shall be used where a name variety or cultivar is specified. Blue tags, which are removed to mix the seed, shall be provided to the Forest.

All seed purchased will be certified to be free of the noxious weed seeds from weeds listed on the current "All States Noxious Weeds List".

Test results from a certified seed analyst and seed analysis labels attached to the bags will be provided to the Forest Service. Lab testing for noxious weeds will be conducted prior to seed mixing. Only after a finding and documentation in writing of no weeds on the current "All States Noxious Weeds List" will the seed be accepted and used.

Seed shall be applied by the Dry method. Fertilizer shall be applied at the rate of 300 pounds per acre in 1 application(s) by the Dry method and have a chemical analysis as listed below:

<u>Nutrient</u>	<u>Percent</u>	<u>Nutrient</u>	<u>Percent</u>
Nitrogen, N . . .	<u>16</u>	Potassium, K. .	<u>16</u>
Phosphorus, P205.	<u>16</u>	Sulphur, S. . .	<u>6</u> "

625.06
Application
of Mulch

The following is added:

"Mulch material shall be certified noxious weed free straw and shall be mechanically applied at a rate of 3000 pounds per acre. The Contractor shall furnish the Contracting Officer with a copy of the certification."

Section 640 - Road Closure Devices

CONSTRUCTION

640.03

Performance Add the following to the end of the first sentence in the first paragraph:

"or DESIGNATED ON THE GROUND by the Engineer."

Delete the third paragraph.

Add the following to this subsection:

"The Contractor shall notify the Engineer at least one week prior to installing any road closure device. The Contractor shall install all regulatory signs, barricade markers, and object markers as SHOWN ON THE DRAWINGS, immediately upon installation of the road closure device.

The road closure device shall be installed within 5 days from the time construction begins on the road where the device is required."

PAYMENT

640.05 Add the following Pay Item:

Basis

<u>Pay Item</u>	<u>Pay Unit</u>
640(05) Install Gate Bypass	EA

Section 713 - Roadside Improvement Materials

713.04
Seed

Replace the first paragraph with the following paragraph:

The kinds of grass, legumes and cover-crop seed furnished shall be those stipulated in the SPECIAL PROJECT SPECIFICATIONS. All seed shall meet the requirements of Federal Specification-JJJ-S-181 which shall be amended as follows:

All seed purchased shall be certified to be free of noxious weed seeds from weeds listed on the current "All States Noxious Weeds List."

Replace the second paragraph with the following paragraph:

Seed shall be furnished separately or in mixture in standard containers with (1) seed name; (2) lot number; (3) net weight; (4) percentages of purity and of germination (in case of legumes, percentage of germination to include hard seed); and (5) percentage of maximum weed seed content clearly marked for each kind of seed. The contractor shall furnish the Contracting Officer duplicate signed copies of a statement certifying that each lot of seed has been tested by a certified seed analyst. This statement shall include (1) name and address of laboratory, (2) date of test, (3) lot number for each kind of seed, and (4) results of tests as to name, percentages of purity and of germination, and percentage of weed content for each kind of seed furnished, and, in case of a mixture, the proportions of each kind of seed. Laboratory testing for noxious weeds shall be conducted prior to seed mixing. Only after a finding and documentation in writing of no weeds on the current "All States Noxious Weeds List" will the seed be accepted and used. Legume seed shall be inoculated with approved cultures in accordance with the instructions of the manufacturer. Seed analysis labels attached to the bags shall be provided to the Forest Service.