List of Special Provisions

K-C.2#	- Utilization and Removal of Included Products (4/03)
K-C.2.1.1#	- Optional Removal of Non-Sawtimber Products (1/07)
K-C.3.0.3#	- Dead Trees (10/04)
K-C.3.5.8#	- Individual Trees (Leave Tree Marking) (2/09)
K-C.3.8#	- Species Designation (2/09)
K-E.2.1.1	- Temporary Reduction of Downpayment (8/09)
K-E.2.1.5	- Deposits When Payment Guaranteed (10/05)
K-E.2.2.5	- Advanced Payment for Non-Sawtimber (2/01)
K-E.4	- Payments not Received (8/12)
K-F.1.0.2#	- Construction of Temporary Roads (2/97)
K-F.1.1.4	- Use Agreement Between Contractor and Owner (7/85)
K-F.1.2#	- Use of Roads by Contractor (9/04)
K-F.3.1#	- Road Maintenance Requirements (9/04)
K-F.3.1.6#	- Snow Removal (4/13)
K-F.3.2#	- Road Maintenance Deposit Schedule (9/04)
K-F.4.1#	- Closure to Use by Others (3/07)
K-G.1.0	- Prework Conference (10/04)
K-G.2.3	- Protection of Land Survey Monument (10/04)
K-G.2.4#	- Site Specific Special Protection Measures (9/04)
K-G.2.7#	- Noxious Weed Treatment (3/07)
	- Technical Spraying Specifications Flathead National Forest
K-G.3.1.6#	- Limited Operating Period (5/05)
K-G.3.3	- Safety Attachment - Logging And Maintenance Operations Signing Standards (10/01)
K-G.3.3.2	- Safety (Timber Hauling) (10/04)
K-G.3.3.9	- Accident And Injury Notification (4/05)
K-G.3.5.1#	- Washing Equipment. (7/07)
K-G.4#	- Conduct of Logging (10/82)
K-G.4.0.6#	- Site Conditon (10/01)
K-G.4.0.9#	- Scarification (1/86)
K-G.4.1#	- Special Felling Requirements (10/04)
K-G.4.2#	- Log Forwarding (7/93)
K-G.6	- Erosion Prevention and Control (10/04)
K-G.6.0.1#	- Erosion Control Seeding (3/07)
K-G.6.3.2#	- Temporary Road and Tractor Road Obliteration (2/02)
K-G.6.3.3#	- Temporary Road, Skid Trail/Skid Road and Landing Scarification (2/02)
K-G.6.6.1	- Current Operating Areas (10/04)
K-G.7	- Hazard Reduction and Site Preparation (3/89)
K-G.7.1	- Change in Slash Treatment (3/90)
K-G.7.1.1	- Burning by Contractor (10/79)
K-G.7.5.3	- Temporary Road Construction Slash Disposal (10/82)
K-G.8.0.1	- Scaling (Pulp Logs) (10/04)
K-G.8.2.2#	- Presentation for Weight Scaling (4/13)
K-G.8.2.3	- Volume Determination (4/13)
K-G.8.4.8	- Weight Accountability For Split Pricing. (10/04)
K-G.8.4.9	- Route of Haul (4/13)
K-G.9#	- Stewardship Projects (9/04)
K-H.2	- Normal Precautions (2/02)
K-H.2.1	- Pump and Trailer (7/71)
K-I.6.8#	- Use of Timber (9/04)

Attachment 1: Road Plans and Specifications for Lunar Kraft Road Decommissioning
Attachment 2: Temporary Land Use Agreement

K-C.2# - UTILIZATION AND REMOVAL OF INCLUDED PRODUCTS (4/03). Unless otherwise agreed in writing, or as specified in K-C.2.1.1# - Optional Removal of Non-sawtimber Products, Contractor is required to pay for and remove the following products described in A.2 of the contract:

Sawtimber is the boles of trees meeting Sawtimber Product specifications as listed in A.2 of the contract.

Non-sawtimber is the boles of trees meeting Non-sawtimber Product specifications as listed in A.2 of the contract, but that do not meet the minimum piece specifications for Sawtimber Products. Non-sawtimber removal is only required in Cutting Units **ALL**. Only the volume of non-sawtimber in the cutting units listed above is included in the estimated volume shown in A.2. If the Contractor and the Forest Service agree to remove non-sawtimber from cutting units other than those listed above this non-sawtimber must be measured and paid for at the rates shown in A.4.

K-C.2.1.1.# - OPTIONAL REMOVAL OF NON-SAWTIMBER PRODUCTS (01/07). Contractor shall fall all trees designated for cutting. Notwithstanding the requirements of C.2 within cutting units **All**, all Non-sawtimber Products meeting utilization standards in A.2 shall either be decked at the landing or removed, at the option of the Contractor. If Contractor elects the decking option, the Non-sawtimber Products shall be limbed and decked in such a manner as to facilitate loading at a later date. Payment for this product shall be made as per K-E.2.2.5. If Contractor elects to remove this product, then payment shall be made after the product is presented for scaling.

If the Contractor requests, and the Forest Service agrees, Non-sawtimber Products may be left in the harvest area in lieu of decking at the landing.

K-C.3.0.3# - DEAD TREES (10/04). Notwithstanding the designations for cutting in other provisions of this contract, dead **Western Larch, Ponderosa Pine, and Douglas Fir** standing trees over **15 feet** in height and **12 inches** diameter at breast height and dead **N/A** standing trees meeting Utilization Standards stated in A.2 will be left standing in Cutting Unit(s) **All**. Upon agreement by the Forest Service, dead trees may be felled when necessary for safety under the State Safety Code. Unless otherwise agreed in writing, all dead trees which are required to be left standing and are felled for safety reasons shall be left on site.

K-C.3.5.8# - INDIVIDUAL TREES (LEAVE TREE MARKING) (2/09). In Cutting Units **2, 7, 9, 10, 12, 13, 14, 17, 24, 25, 26, 31, 48, 48A, 48B, and 49**, all trees (live and dead) meeting minimum merchantable tree specifications of A2 are designated for cutting except trees reserved from cutting. Trees reserved from cutting have been marked with a horizontal stripe of **ORANGE** paint at or above eye level, and a stump mark consisting of a horizontal stripe of **ORANGE** paint on the downhill side of the tree at ground level.

The boundaries of units where leave trees are marked, are marked on three (3)sides of the cutting unit boundary trees with vertical stripes of **ORANGE** paint extending from diameter breast height (DBH) upwards approximately three (3) feet. The middle stripe of paint faces the cutting unit and the other two face on line with the cutting unit boundary. In addition, each boundary tree has a horizontal stump mark painted on the downhill side of the tree at ground level. Trees used for boundary designation are not to be cut. All hardwood trees are not to be cut.

K-C.3.8# - SPECIES DESIGNATION (2/09). Within the following cutting units shown below, listed species are designated for cutting when they meet (a) utilization standards and (b) are smaller than the stump diameter listed below and shown on the Contract Area Map:

Unit	Designated Species	Maximum Stump Diameter – (Inches)
5, 6, 8, 9A, 19, 19A, 20, and 22	LP, ES, GF, AF	N/A
22	DF	8”

Stump diameter will be measured at **6** inches above ground level on the uphill side of the tree. A minimum stump height of **6** inches above ground level on the uphill side shall be left in the units listed above.

In addition, any trees within the cutting unit boundary that are windthrown prior to Contractor’s logging in the immediate vicinity which meet Utilization Standards in amounts less than specified in C1.3.3 are designated for cutting.

Trees of the species listed above that are designated to be left standing are marked with a horizontal stripe of **N/A** paint at or above eye level, and a stump mark consisting of a horizontal stripe of **N/A** paint on the downhill side of the tree at ground level.

In addition to those species listed above, trees marked with a horizontal stripe of **N/A** paint at or above eye level, and a stump mark consisting of a horizontal stripe of **N/A** paint on the downhill side of the tree at ground level are also designated for cutting.

The boundaries of units are marked on three (3)sides of the cutting unit boundary trees with vertical stripes of **ORANGE** paint extending from diameter breast height (DBH) upwards approximately three (3) feet. The middle stripe of paint faces the cutting unit and the other two face on line with the cutting unit boundary. In addition, each boundary tree has a horizontal stump mark painted on the downhill side of the tree at ground level. Trees used for boundary designation are not to be cut.

Upon agreement with Forest Service, dead trees designated to be left standing may be felled when necessary for safety under the State Safety Code and other dead trees designated in their place.

K-E.2.1.1 - TEMPORARY REDUCTION OF DOWNPAYMENT (8/09). Notwithstanding E.2.1.1, upon the Contractor's written request Forest Service may temporarily reduce the downpayment when Contractor's scheduled operations are delayed or interrupted for 30 or more consecutive days, or the contract term is extended for 30 or more consecutive days for any of the following reasons:

(1) Forest Service requests or orders Contractor to delay or interrupt operations for reasons other than breach;
(2) Contractor interrupts or delays scheduled operations to work on a sale designated by the Forest Service as in urgent need of harvesting; or
(3) An adjustment of the contract term authorized upon a determination of substantial overriding public interest, including a market-related contract term addition, or an urgent removal contract term extension under 36 CFR 223.53.

When Contractor is not cutting or removing timber under contract during a qualifying period of delay, interruption, or extension listed above the downpayment may be reduced to $1000 or 2 percent of the downpayment amount stated in the contract, whichever is greater. The Contractor must restore the downpayment to the full amount stated in the contract within 15 days from receipt of the bill for collection and written notice from the Contracting Officer that the basis for temporarily reducing the downpayment no longer exists. Contractor shall not cut or remove timber on a contract where the downpayment has been temporarily reduced until the downpayment amount stated in the contract is fully restored.

K-E.2.1.5 - Deposits When Payment Guaranteed (05/10). To the extent payment guarantee is provided under E.3, requirements for advance cash deposits under E.2.1.2 shall be waived for the value of Included Timber removed except for:

(a) Base Rates,
(b) associated charges, and
(c) the value of Included Timber exceeding the sum of stewardship credits that have not been established under E.2.2 for mandatory stewardship projects listed in A.4.3 plus optional stewardship projects listed in A.4.3 authorized by Contracting Officer.

Charges for (a), (b) and (c) shall be waived for not more than a monthly billing period, subject to the provisions of E.4.

K-E.2.2.5 - ADVANCED PAYMENT FOR NON-SAWTIMBER (5/12). Unless agreed otherwise, prior to beginning of harvest operations in a cutting unit, Contractor must notify the Forest Service of the decision to either remove or deck Non-sawtimber Products shown in A.2, if provision K-C.2.1.1# - Optional Removal of Non-sawtimber Products is included in the contract.

If Contractor selects the option to deck these products in lieu of removal, then advance cash deposit for stumpage, plus the required slash disposal deposits, for the volume of Non-sawtimber Products shown in the timber sale cruise report shall be billed for as a lump sum at the time that Contractor notifies the Forest Service of the decision to deck Non-sawtimber Products. All such

material shown shall be reported as cut, and charged for, on the timber sale statement of account during the month in which the billing is paid.

K-E.4 - PAYMENTS NOT RECEIVED (8/12). (a) Payments are due and payable on the date of issue indicated on the bill for collection. When a payment for timber cut and other charges is not received at the location designated by Forest Service by the date specified in the bill for collection, Contracting Officer will suspend all or any part of Contractor's Operations until payment or acceptable payment guarantee is received. Other charges include, but are not limited to:

(i) Slash disposal, road maintenance, and contract scaling deposits;
(ii) Cooperative work at rates established by specific agreement under E.2.1.8;
(iii) Damages pursuant to J.4;
(iv) Road use fees;
(v) Restoration of downpayment pursuant to E.2.2;
(vi) Periodic payments pursuant to E.2.1.3;
(vii) Extension Deposits pursuant to E.2.1.7; and
(viii) Other mandatory deposits.

(b) Failure to pay amounts due by the date specified in the bill for collection shall be considered a breach under J.3. The 30-day notice period prescribed therein shall begin to run as of the end of business on the date specified for receipt of payments. If the performance or payment is guaranteed by surety bond, the surety will receive a copy of the written notification of breach. Demand will be made on the surety or other institution providing the guarantee or bond instrument for immediate payment 10 days after issuance of written notification of the breach.

(c) Pursuant to the Debt Collection Improvement Act of 1996, as amended, if payment is not received by Forest Service within 15 days after the date of issue indicated on the bill for collection:

(i) Simple interest shall be assessed at the Current Value of Funds Rate as established by the Secretary of the Treasury. Interest will begin to accrue as of the date of issue indicated on the initial bill for collection.

(ii) Debtors will be assessed administrative charges, in addition to the delinquent amount due. Administrative charges are those additional costs incurred by the Government in processing, handling, and collecting delinquent debts.

(iii) A penalty charge of six (6) percent per annum will be assessed on any portion of a debt delinquent more than 90 days. This penalty charge is in addition to interest and administrative charges under paragraphs (c)(i) and (c)(ii). The penalty charge shall accrue from the date of issue indicated on the bill for collection and shall be assessed on all outstanding amounts, including interest and administrative costs assessed under paragraphs (c)(i) and (c)(ii).

(iv) Payments will be credited on the date received by the Federal Depository or Collection Officer designated on the bill for collection.

(d) Forest Service remedies for Contractor's failure to make payment for timber cut and other charges when due, except for accrual of interest, suspension of all or any part of Contractor's Operations, and administrative offset, shall be stayed for so long as:

(i) A bona fide dispute exists as to Contractor's obligation to make such payment and
(ii) Contractor files and prosecutes a timely Claim.

K-F.1.0.2# - CONSTRUCTION OF TEMPORARY ROADS (2/97). Unless otherwise agreed in writing, temporary roads as shown on the Contract Area Map and as designated on the ground, shall be constructed and closed in accordance with the attached plans and specifications. Location has been designated by Flagging the Center Line of the road with a Dot of Tracer Paint at or above eye level in a line on each side of the tree with the direction of travel.

Contractor and Forest Service agree that if the Contractor elects not to build the road, or minor changes in locations or designs are mutually agreed to, there will be no adjustment in costs allowances as extra skid costs or mitigation measures would offset cost differences.

Notwithstanding C.4, timber within the clearing limits of these temporary roads have been included in the quantity estimate in A.2.

K-F.1.0.2 # - ATTACHMENT

Work:

Unless otherwise agreed, excavator construction/recontouring will be required for all new Temporary Road construction. Following completion of purchaser's use of constructed temporary roads, the purchaser will place the excavated material and slash back on the road. Construction of the roadway shall be in conformance with the dimensions show on the attached drawing. An excavator will be used for the construction and recontouring.

Location and Clearing:

Road centerline for new construction has been identified by Pink flagging and Dot of Blue tracer paint at or above eye level. The established clearing limits for temporary road right-of-ways are 11 feet slope distance, each side of the designated centerline. Slash shall not be deposited in stream courses. Construction slash shall be windrowed outside of clearing limits, approximately parallel to the roadway and outside the toe of the fill slope. Slash will be re-used when the road is recontoured. Slash shall be placed on recontoured portion of road.

Excavation and Embankment:

Pioneering operations shall not undercut the final back slope, deposit material outside the roadway limits, or restrict drainage. Embankment may be placed by side casting and end dumping. Road width shall not exceed the specified dimensions by more than 2 feet. A motor grader finish is not required. Unless otherwise agreed, drivable waterbars/drain dips are to be constructed in accordance with the attached drawings and maintained as designated by the sale administrator or marked on the ground.

Erosion Control:

Unless otherwise agreed, all temporary roads constructed will have one (1) grass seed application. The application will be after the temporary road has been recontoured. Seeding shall be accomplished as outlined in K-G.6.0.1#.

Road Obliteration:

Unless otherwise agreed, temporary road obliteration shall be completed as stated under K-G.6.3.2#.

Lunar Kraft Temporary Road Construction - Road Logs

Road Log: Unit 14 Temp Road - Construction

Station	Work Description	Drain Dip (ea)	Install 36" CMP (ft)	Install 42"x29"CMP (ft)	Install 18" CMP (ft)	Install Gate (ea)
0+00	Begin Road Construction (Existing Template)					
0+59	**Install Powder River Gate**					X
3+90	**Construct Drain Dip**	X				
11+30	**Construct Drain Dip**	X				
18+43	End Unit 12					
21+78	Crest					
22+66	**Construct Drain Dip**	X				
24+64	Begin Road Construction (New Template)					
24+97	25' Ephemeral Draw, Use When Dry					
33+93	**Intermittent Stream, Install CMP**		24			
34+79	End Road, Landing within 250 ft					
Road Totals		**3**	**24**	**0**	**0**	**1**

Road Log: Unit 22 Temp Road

Station	Work Description	Drain Dip (ea)	Install 36" CMP (ft)	Install 42"x29"CMP (ft)	Install 18" CMP (ft)	Install Gate (ea)
0+00	Begin New Road Construction (Located Right of Existing Template)					
2+60	Cross Old Road Template					
4+69	**Intermittent Stream, Install CMP**			24		
6+20	Steep Grade (10%)					
16+75	15' Ephemeral Draw, Install 18" CMP				20	
19+10	End Road, Landing within 250 ft					
Road Totals		**0**	**0**	**24**	**20**	**0**

Road Log: Unit 14 Temp Road - Obliteration

Station	Work Description	Remove 36" CMP (ft)	Remove 42"x29"CMP (ft)	Remove 18" CMP (ft)	Remove Gate (ea)	Cover with Heavy Slash (20-30 tons/ac)	Cover with Slash (10-15 tons/ac)	Scarification (ft)	Recontour (ft)	Seeding (ft)
0+00	**Begin Scarification, Begin Seeding**									X
0+59	**Remove Powder River Gate, Cover with Heavy Slash**				X	X		X		X
2+59	**End Cover with Heavy Slash, Begin Cover with Slash**					X		X		X
18+43	End Unit 12						X	X		X
21+78	Crest						X	X		X
24+64	**Begin Recontour, End Scarification**						X	X	X	X
24+97	25' Ephemeral Draw, Use When Dry						X		X	X
33+93	**Intermittent Stream, Remove CMP**	24					X		X	X
34+79	End Road, Landing within 250 ft						X		X	X
Road Totals		**24**	**0**	**0**	**1**	**-**	**-**	**2405**	**1015**	**3479**

Road Log: Unit 22 Temp Road - Obliteration

Station	Work Description	Remove 36" CMP (ft)	Remove 42"x29"CMP (ft)	Remove 18" CMP (ft)	Remove Gate (ea)	Cover with Heavy Slash (20-30 tons/ac)	Cover with Slash (10-15 tons/ac)	Scarification (ft)	Recontour (ft)	Seeding (ft)
0+00	**Begin Recontour, Cover with Heavy Slash, and Seeding**					X			X	X
2+00	**End Cover with Heavy Slash, Begin Cover with Slash**					X			X	X
2+60	Old Road Template						X		X	X
4+69	**Intermittent Stream, Remove CMP**		24				X		X	X
6+20	Steep Grade (10%)						X		X	X
16+75	**15' Ephemeral Draw, Remove 18" CMP**			20			X		X	X
19+10	End Road, Landing within 250 ft						X		X	X
Road Totals		**0**	**24**	**20**	**0**	-	-		**1910**	**1910**

GENERAL NOTES

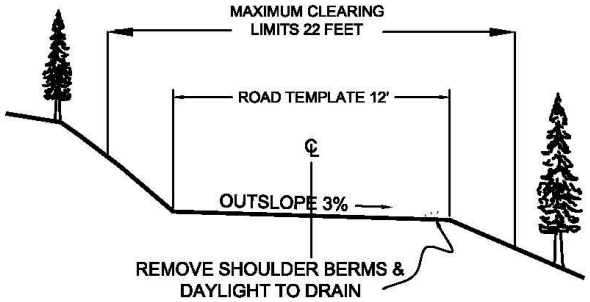
CLEARING AND GRUBBING:
TREES, STUMPS, ROOTS AND OTHER VEGETATIVE MATERIAL WITHIN THE CLEARING LIMITS SHALL BE CLEARED, GRUBBED, REMOVED, AND DISPOSED OF AS FOLLOWS: DISPOSE OF MERCHANTABLE TIMBER ACCORDING TO THE PORVISIONS OF THE TIMBER SALE CONTRACT, STUMPS AND SLASH SHALL BE REUSED WHEN THE ROAD IS RE-CONTOURED

INSTALLATION OF CORRUGATED STEEL PIPE:
AFTER THE BEDDING IS PREPARED AND THE PIPE IS PLACED, PLACE SELECTED MATERIAL IN LAYERS NOT EXCEEDING 6 INCHES LOOSE THICKNESS, AND COMPACT THE MATERIAL UNDER THE HAUNCHES AND ALONGSIDE THE PIPE USING A MECHANICAL TAMPER. USE MATERIAL THAT IS READILY COMPACTIBLE AND FREE OF FROZEN LUMPS, CHUNKS OF HIGHLY PLASTIC CLAY, OR OTHER OBJECTIONABLE MATERIAL. DO NOT USE ROCKS LARGER THAN 3 INCHES IN GREATEST DIMENSION WITHIN 12 INCHES OF THE PIPE. ON EACH SIDE OF THE PIPE, PLACE AN AREA OF COMPACTED MATERIAL AT LEAST AS WIDE AS THE DIAMETER OF THE PIPE. COMPACT THE BACKFILL WITHOUT DAMAGING OR DISPLACING THE PIPE. ENSURE THAT BACKFILL DENSITY EXCEEDS THE DENSITY OF THE SURROUNDING EMBANKMENT.
CONTINUE BACKFILLING AND COMPACTING UNTIL THE BACKFILL IS A MINIMUM OF 12 INCHES ABOVE THE TOP OF THE CULVERT.
AFTER BEDDING AND BACKFILLING THE PIPE, PROTECT IT WITH AN ADEQUATE COVER OF EMBANKMENT BEFORE HEAVY EQUIPMENT IS PERMITTED TO CROSS DURING ROADWAY CONSTRUCTION.

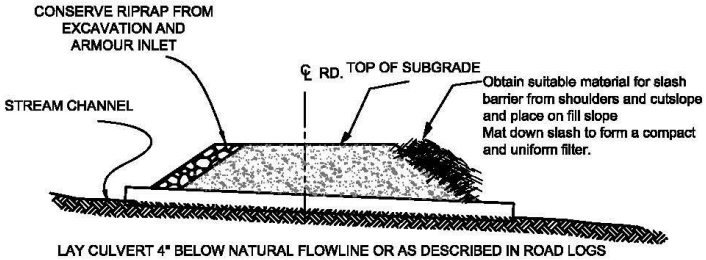
PRIOR TO BEGINNING WORK ON STREAM CULVERTS, REVIEW THE STATE 124 PERMIT ISSUED AND FOLLOW THE REQUIREMENTS. NO WORK SHALL OCCUR ON STREAMS BEFORE JULY 15..
IF STREAM FLOW EXISTS ON THE SITE AT THE TIME OF WORK WITHIN THE STREAM BANKS, THE STREAM SHALL BE DIVERTED AROUND THE WORK AREA BY EITHER A VISQUINE LINED CHANNEL, A DIVERSION PIPE, PUMPING, OR OTHER CONTRACTOR PROPOSED METHODS, AS APPROVED BY THE ENGINEER. CARE SHALL BE TAKEN TO PREVENT SEDIMENT FROM ENTERING THE FLOWING STREAM.
APPLY SEED AS PER TIMBER SALE CONTRACT PROVISION K-G.6.0.1#

TEMPORARY ROAD CLEARING LIMITS

Not to Scale



ROAD SECTIONS WITHOUT DITCH



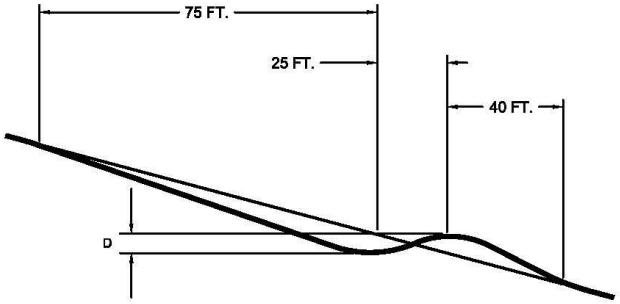
TYPICAL INSTALLATION IN EMBANKMENT

NO SCALE

LUNAR KRAFT K-F.1.0.2# & K-G.6.3.2#		
TEMPORARY ROAD CONSTRUCTION		

DRAIN DIP INSTALLATION

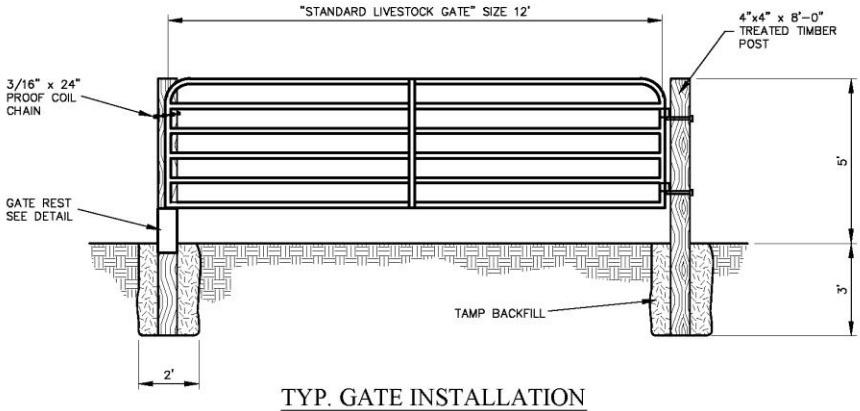
Not to Scale



D = 6 INCHES AT THE INSIDE SHOULDER.
D = 3% TO 4% (15 TO 20 INCHES) AT THE OUTSIDE SHOULDER.
RUBBER TIRE MOTOR GRADER FINISH REQUIRED.

1. CONSTRUCTED DRAIN DIPS SHALL NOT HAVE PROTRUSIONS OR DEPRESSIONS GREATER THAN 2 IN. FROM THE TYPICAL SECTION.
2. SKEW TROUGH AND CREST OF THE DIP 10 DEGREES FROM PERPENDICULAR TO THE ROAD CENTERLINE.
3. CROSS DRAIN SLOPE OF THE DIP SHALL BE 5%.
4. CONSTRUCT 10 FT. VERTICAL CURVES AT ALL DIP TRANSITIONS.
5. IF TOLD TO "INTERCEPT DITCH" CONSTRUCTION OF A DITCH BLOCK AT THE INLET OF THE DIP TO DIRECT WATER INTO THE DIP IS REQUIRED.
6. CONSERVE RIPRAP FROM THE EXCAVATION OR SLASH FROM ROADWAY BRUSHING AND PLACE AT OUTFALL OF DRAIN DIP .

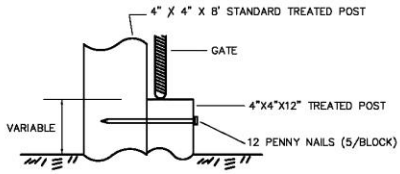
LUNAR KRAFT K-F.1.0.2#		
LOW STANDARD DRAIN DIP TYPICAL		



TYP. GATE INSTALLATION

NO SCALE

	MATERIAL LIST FOR GATE	
ITEM	DESCRIPTION	QUANTITY
CHAIN	3/16" PROOF COIL CHAIN 24" LONG	1 EA.
GATE	PRIEFERT ECONOMY R-GATE "RG12"	1 EA.
TREATED POST	4" X 4" X 8' TREATED POST	2 EA.
NAILS	20 PENNY- FOR GATE REST	5 EA.
TREATED POST	4" X 4" X 12" TREATED POST	1 EA.



GATE REST DETAIL

NO SCALE

NOTES:

PROVIDE AN "ECONOMY 6 RAIL" GATE, MANUFACTURED BY PRIEFERT, PRODUCT NO. "RG12. (WWW.PRIEFERT.COM) FABRICATE THE GATE FROM 1-⅝", 18 GAUGE STEEL TUBING. USE 1.05" O.D., 18 GAUGE STEEL TUBING FOR THE VERTICAL STAYS. POWDER COAT "FOREST GREEN".

PROVIDE WASHERS AND NUTS FOR ALL BOLTS AND LAG BOLTS SHOWN.

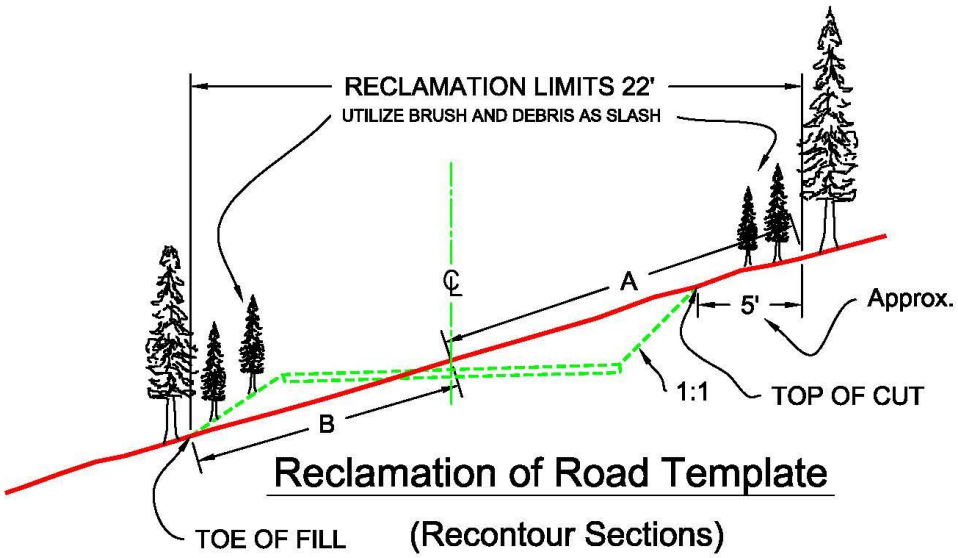
TREAT WOODEN POSTS AND GATE REST WITH PENTACHLOROPHENAL, MINIMUM NET RETENTION OF 0.5# PER CUBIC FOOT (DRY CRYSTAL).

FURNISH AND INSTALL LAG SCREWS FOR HOLDING GATE AND CHAIN.

	Sheet	Total
Standard Livestock Gate		

Closure Detail for New Temporary Roads

Road obliteration shall include full recontouring; excavating and placing fill matierial back onto the road prism to return the ground to its natural contour, removing structures(culverts, cross drains, gates) and reshaping stream crossings and draws to their natural contours, placing woody debris on the disturbed area, and seeding disturbed ground. This work shall be performed on the entire road segment .



Reclamation of Road Template

(Recontour Sections)

A = AREA ABOVE Existing road, Reclamation requires placement of excavated material to neat lines & graded from "Toe of Fill" to "Top of Cut." The material line shall closely approximate natural ground contours shaped to blend with the terrain.

B = AREA BELOW Existing road. Decompact and loosen the road surface to a 1 foot minimum depth, by ripping, plowing or scarifying. Pull all major embankments and use material to recontour area A. Strip the surface to conserve brush, slash, debris, and topsoil from the excavation area and return these materials after the Area B has been recontoured to natural slopes.

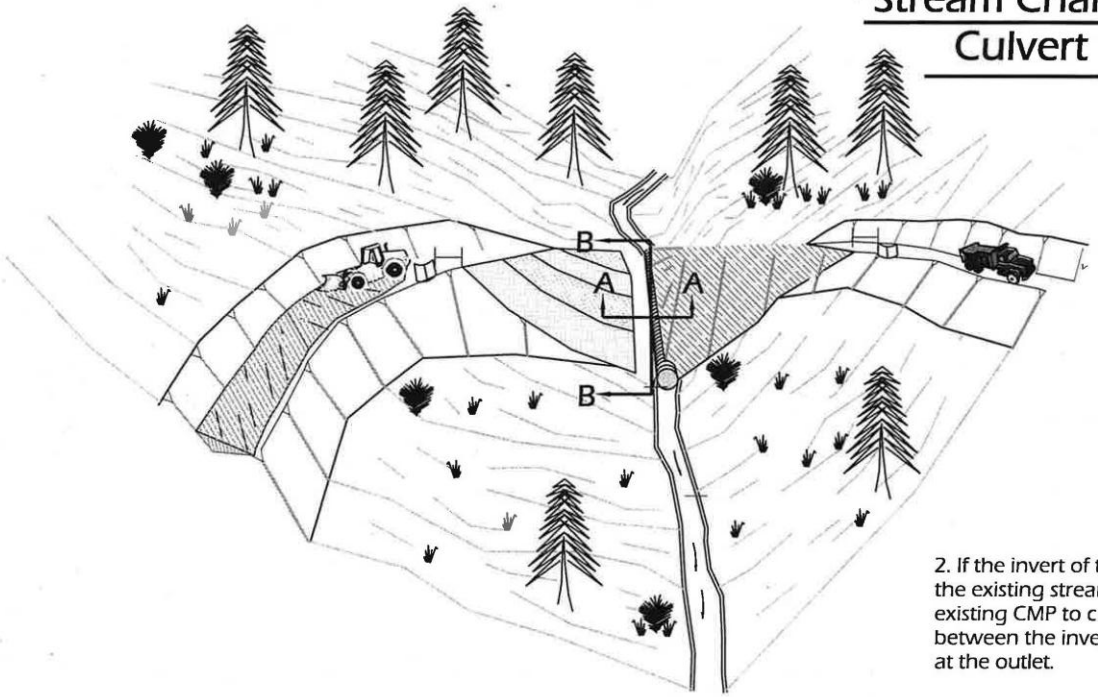
B = TURNPIKE. When template B is a through fill, rip and roughen or pit and mound the area including ditches to create a natural landscaped seedbed. Strip the surface to conserve brush, slash, debris, and topsoil from the excavation area and return these materials after the Area B has been recontoured to natural slopes.

Apply seed, fertilizer, and mulch at the rates specified in FSSS 625 to the recontoured areas and the disturbed ground on the reclaimed roadbed.

LUNAR KRAFT TEMPOARY ROAD OBLITERATION

Stream Channel Restoration and Culvert Removal Typical

Not to Scale



Notes:

1. Place excavated material on either side of the pipe as shown above unless noted otherwise in the road log. Shape excavated material to blend into the existing cut slope and to avoid holding or trapping water. Block existing ditches and spread the excavated material to a depth of 2 feet on the road template so that it acts as a waterbar and diverts any future surface water and ditch flow across the road into a vegetative filter zone and not directly into the stream. Do not deposit any excavated material on the existing fill slopes or in the existing channel. Conserve rocks from the excavation and place along the toe of the slopes adjacent to the restored stream channel as shown on the Typical Cross Section Drawing. Place rock on the erosion blanket as much as possible, beginning at the outlet end. Woody debris may be placed on excavated slopes not to exceed 50% of ground cover.

2. If the invert of the existing culvert outlet is above the existing streambed, remove material below the existing CMP to create a straight-line gradient between the invert of the inlet and the streambed at the outlet.

3. Straw mats must be placed along streambed on all excavated slopes. Certified weed free straw shall be applied

4. Keep piled fill material at a maximum slope of 4:1 and a minimum of three feet from road shoulder to accommodate foot traffic and horses.

5. Removal of Culvert: Culvert must be removed from project.

LUNAR KRAFT K-F.1.0.2#	
STREAM CHANNEL RESTORATION TYPICAL	

K-F.1.1.4# - USE AGREEMENT BETWEEN CONTRACTOR AND OWNER (7/85). Contractor is authorized to **Access Unit 20** subject to the terms and conditions of a Temporary Use Agreement between **Ron Iverson** and Contractor. This agreement has been signed by **Ron Iverson and Chip Weber** and will be dated and signed by Contractor after contract award. A copy of the Temporary Use Agreement is available for review in the office of the District Ranger Rich Kehr and the Forest Supervisor Chip Weber.

K-F.1.2# – USE OF ROADS BY CONTRACTOR (9/04). Contractor's use of existing roads identified on Contract Area Map by the following codes is prohibited or subject to restrictive limitations, unless agreed otherwise:

Code	Use Limitations
X	Hauling prohibited
R	Hauling restricted
U	Unsuitable for hauling prior to completion of agreed reconstruction
P	Use prohibited
A	Public use restriction
W	Regulation waiver

Roads coded A will be signed by Forest Service to inform the public of use restrictions. Contractor's use of roads coded R, A, or W shall be in accordance with the following restrictions:

Restricted Road List

Road Number	Road Name	Termini		Map Legend	Description of Restrictions
		From	To		
9579	Loon Flats	0.00	End	A	Road Closed Yearlong to Public Use
9578	Pulaski	0.00	End	A	Road Closed Yearlong to Public Use
10741	Bunyan Trail	0.00	End	A	Road Closed Yearlong to Public Use
91305	Stoner Elk	0.00	End	A	Road Closed Yearlong to Public Use
9578	Pulaski	M.P. 2.5	End	X	Hauling Prohibited
10741A	Bunyan Trail	M.P. 0.0	End	X	Hauling Prohibited

K-F.3.1# – ROAD MAINTENANCE REQUIREMENTS (9/04). Contractor shall maintain roads in accordance with the following Contract Road Maintenance Requirements Summary:

Contract Road Maintenance Requirements Summary

	Termini			Applicable Prehaul Road Maintenance Specifications									
Road	**From**	**To**	**Miles**	**T-101**	**T-103**	**T-301**	**T-310**	**T-506**	**T-507**	**T-618**	**T-619**	**T-710**	
91306	0.20	0.40	0.20										
91306	0.00	0.20	0.20										
91305	0.46	0.76	0.30										
91305	0.00	0.46	0.46										
90240	1.11	1.82	0.71										
9780	1.07	1.12	0.05										
9591	2.87	3.00	0.13										
9591	0.40	2.87	2.47										
9578	1.92	2.16	0.24										
9578	1.05	1.92	0.87										
9578	0.00	1.05	1.05										
11648B	0.00	0.75	0.75										
11648	0.00	0.15	0.15										
9773	0.00	0.66	0.66										
561	2.86	3.07	0.21										
561	2.31	2.86	0.55										
9579C	0.40	0.55	0.15										
9579C	0.31	0.40	0.09										
9579C	0.21	0.31	0.10										
9579C	0.00	0.21	0.21										
9579	0.38	0.70	0.32										
9579	0.26	0.38	0.12										
9579	0.20	0.26	0.06										
9579	0.00	0.20	0.20										
10741	0.00	0.87	0.87										
79	3.03	3.47	0.44										

P = Purchaser Performance Item, D = Deposit to Forest Service, D3 = Deposit to Third Party

	Termini			Applicable During Haul Road Maintenance Specifications									
Road	**From**	**To**	**Miles**	**T-101**	**T-103**	**T-301**	**T-310**	**T-506**	**T-507**	**T-618**	**T-619**	**T-710**	
91306	0.20	0.40	0.20	P	P		D	P	P			D	
91306	0.00	0.20	0.20	P	P		D	P	P			D	
91305	0.46	0.76	0.30	P	P		D	P	P			D	
91305	0.00	0.46	0.46	P	P		D	P	P		D	D	
90240	1.11	1.82	0.71	P	P	P	D	D	D			D	
9780	1.07	1.12	0.05	P	P		D	D	D			D	
9591	2.87	3.00	0.13	P	P	P	D	D	D			D	

Road	Termini		Miles	Applicable During Haul Road Maintenance Specifications									
	From	To		T-101	T-103	T-301	T-310	T-506	T-507	T-618	T-619	T-710	
9591	0.40	2.87	2.47	P	P	P	D	D	D		D	D	
9578	1.92	2.16	0.24	P	P	P	D	P	P			D	
9578	1.05	1.92	0.87	P	P	P	D	P	P			D	
9578	0.00	1.05	1.05	P	P	P	D	P	P		D	D	
11648B	0.00	0.75	0.75	P	P		D	P	P			D	
11648	0.00	0.15	0.15	P	P		D	P	P			D	
9773	0.00	0.66	0.66	P	P		D	P	P			D	
561	2.86	3.07	0.21	P	P	P	D	D	D			D	
561	2.31	2.86	0.55	P	P	P	D	D	D			D	
9579C	0.40	0.55	0.15	P	P		D	P	P			D	
9579C	0.31	0.40	0.09	P	P		D	P	P			D	
9579C	0.21	0.31	0.10	P	P		D	P	P			D	
9579C	0.00	0.21	0.21	P	P		D	P	P			D	
9579	0.38	0.70	0.32	P	P	P	D	P	P			D	
9579	0.26	0.38	0.12	P	P	P	D	P	P			D	
9579	0.20	0.26	0.06	P	P	P	D	P	P		D	D	
9579	0.00	0.20	0.20	P	P	P	D	D	D			D	
10741	0.00	0.87	0.87	P	P		D	P	P		D	D	
79	3.03	3.47	0.44	P	P	P	D	D	D			D	

P = Purchaser Performance Item, D = Deposit t0o Forest Service, D3 = Deposit to Third Party

Road	Termini		Miles	Applicable Post Haul Road Maintenance Specifications									
	From	To		T-101	T-103	T-301	T-310	T-506	T-507	T-618	T-619	T-710	
91306	0.20	0.40	0.20	P									
91306	0.00	0.20	0.20	P									
91305	0.46	0.76	0.30	P									
91305	0.00	0.46	0.46	P									
90240	1.11	1.82	0.71	P		P							
9780	1.07	1.12	0.05	P									
9591	2.87	3.00	0.13	P		P							
9591	0.40	2.87	2.47	P		P							
9578	1.92	2.16	0.24	P		P							
9578	1.05	1.92	0.87	P		P							
9578	0.00	1.05	1.05	P		P							
11648B	0.00	0.75	0.75	P									
11648	0.00	0.15	0.15	P									
9773	0.00	0.66	0.66	P									
561	2.86	3.07	0.21	P		P							
561	2.31	2.86	0.55	P		P							
9579C	0.40	0.55	0.15	P									
9579C	0.31	0.40	0.09	P									
9579C	0.21	0.31	0.10	P									
9579C	0.00	0.21	0.21	P									

9579	0.38	0.70	0.32	P		P							
9579	0.26	0.38	0.12	P		P							
9579	0.20	0.26	0.06	P		P							
9579	0.00	0.20	0.20	P		P							
10741	0.00	0.87	0.87	P									
79	3.03	3.47	0.44	P		P							

P = Purchaser Performance Item, D = Deposit to Forest Service, D3 = Deposit to Third Party

SPECIFICATION T-101 SURFACE BLADING

DESCRIPTION

1.1 Surface blading is keeping the native or aggregate surfaced road in a condition to facilitate traffic, minimize additional future maintenance, reduce erosion, and provide proper drainage. It includes maintaining the crown, inslope or outslope of the traveled way and shoulders, drainage dips, leadoff ditches, berms, turnouts, removal of minor slides and slumps, and other irregularities that prevent normal runoff from the road surface.

REQUIREMENTS

3.1 Surface blading shall be performed as often as necessary and to the standards required to facilitate traffic and proper drainage.

3.2 The blading shall be performed in such a manner as to preserve the existing cross section and to conserve surface materials. On gravel surfaced roads, the base must not be disturbed and no surface material may be bladed into the ditch or over the road shoulders. Blading of native surface roads shall be performed so no base material under four (4) inches in the greatest dimension is lost. All ruts, holes, etc., shall be removed by scarifying and/or cutting to the bottom of any surface irregularities. Oversize material brought to the surface in the scarification process shall be removed from the roadway. Surface material which has been displaced to the shoulders, turnouts, outside of curves, etc., shall be brought back so as to leave a uniform depth on the traveled way at completion of blading. Water shall be applied during blading if sufficient moisture is not present to prevent segregation.

3.3 Roadside cutslopes or berms shall not be undercut.

3.4 At intersections, the roadbeds of sideroads shall be graded for a reasonable distance to assure proper blending of the two riding surfaces.

3.5 Drainage dips and leadoff ditches shall be cleaned and continually maintained to conform reasonably to their original constructed lines, grade, and cross section.

3.6 Berms shall be repaired promptly by placing selected material as needed to restore the berm to its original condition.

3.7 Surface blading of native surface roads also includes ditch cleaning, which shall be done

in accordance with T-301, Ditch Cleaning.

3.8 All blading operations shall be properly signed in accordance with **G.3.3#** and all applicable State Laws.

SPECIFICATION T-103 DUST ABATEMENT

DESCRIPTION

1.1 Dust abatement consists of road surface preparation and application of materials.

MATERIALS

2.1 Water, bituminous products, lignin sulfonates, chloride products, and other materials may be used for dust abatement. Materials other than water will require approval of the Forest Service and shall meet specifications furnished by the Forest Service.

REQUIREMENTS

3.1 Dust abatement materials shall be applied to the road surface as necessary to control surface loss and provide that vehicles are always intervisible within their stopping sight distance. The average user speed on the road shall be used to determine stopping sight distance. Preparation shall be in accordance with Specification T-101, Surface Blading.

3.2 The rate of application shall be such that the selected material will not run off the surface and cause pollution or unnecessary waste.

3.3 When water is the selected material, it shall be applied as often as necessary to abate dust from all Contractor operations.

a. Dust abatement shall be maintained as needed throughout the duration of operations.

SPECIFICATION T-301 DITCH CLEANING

DESCRIPTION

1.1 Ditch cleaning is removing and disposing of all slough material from roadside ditches to provide an unobstructed waterway conforming reasonably to previous line, grade, and cross section.

REQUIREMENTS

3.1 Slough Material.

A. Native Surfaced Roads. Slough material from ditch cleaning, if suitable, may be placed and blended into the existing road surface or shoulders or placed in a designed berm during surface blading.

B. Aggregate Surface Roads. Slough material from ditch cleaning shall not be mixed with aggregate surfacing or left on the road surface unless otherwise agreed. Material shall be disposed of in an agreed manner at designated locations.

C. Asphalt Surfaced Roads. Equipment, methods, and timing shall be agreed to before start of ditch cleaning operations so as to protect the asphalt pavement. Material shall be disposed of in an agreed manner at designated locations.

SPECIFICATION T-310 MINOR DRAINAGE STRUCTURES

DESCRIPTION

1.1 Minor drainage structures are single passages with maximum waterway opening equivalent to a 78-inch round pipe (87- by 63-inch arch) or multiple passages with maximum, single waterway opening equivalent to a 60-inch round pipe (66- by 51-inch arch). They include overside drains. Maintenance is work performed on inlets, outlets, related channels, existing riprap, trash racks, and drop inlets.

MATERIALS

2.1 All materials used in the maintenance of minor drainage structures shall conform by type and specification to the material in the structure being maintained.

REQUIREMENTS

3.1 All minor drainage structures are to be maintained in accordance with these specifications in the spring following any significant runoff and prior to the beginning of winter storms.

3.2 Clear inlet and outlet channels, inlet trash racks, and drop inlets of loose material that could cause plugging or prevent the free flow of water. Debris shall be disposed of in agreed manner at designated locations.

3.3 If outlet riprap was originally placed to dissipate water energy, it shall be maintained in good condition including the replacement of riprap if necessary.

4.1 Make whatever minor repairs are necessary to ensure the proper functioning of the head walls, aprons, inlet assemblies, overside drains, riprap, trash racks, and other facilities related to the drainage structure

SPECIFICATION T-506 CLEARING ROADWAY VEGETATION

DESCRIPTION

1.1 This work consists of cutting and disposing of all vegetative growth including trees from the road surface that reduces the operational capability of the road. Vegetation removal is required if the growth of the vegetation during the contract period causes unacceptable reduction of sight distance and operation capability.

REQUIREMENTS

3.1 Vegetative matter on the road surface which reduces sight distance, impedes vehicular travel, or interferes with road maintenance operations such as surface blading and ditch and culvert cleaning shall be removed. Downed timber meeting utilization standards shall be cut in appropriate lengths and decked along the roadside in locations where the traveled way or sight distance will not be impaired.

3.2 Low shrubs and brush which do not restrict sight distance, do not impede road maintenance, and reduce erosion need not be removed if the road surface can be adequately maintained without doing so. Vegetation and nonmerchantable timber removed shall be disposed of by scattering, chipping, hauling to designated disposal areas, or as otherwise agreed upon.

SPECIFICATION T-507 CUTTING ROADSIDE VEGETATION

DESCRIPTION

1.1 This work consists of cutting and disposing of all vegetative growth, including trees from within the roadway that reduce sight distance and operational capability of the road. Vegetation removal is required if the growth of the vegetation during the contract period causes unacceptable reduction of sight distance and operation capability.

REQUIREMENTS

3.1 Vegetative matter within the roadway which reduces sight distance, impedes vehicular travel, or interferes with road maintenance operations such as surface blading and ditch and culvert cleaning shall be removed. Downed timber meeting utilization standards shall be cut in appropriate lengths and decked along the roadside in locations where the traveled way or sight distance will not be impaired.

3.2 Low shrubs and brush which do not restrict sight distance, do not impede road maintenance, and reduce erosion shall not be removed. Vegetation removed shall be disposed of by scattering, chipping, hauling to designated disposal areas, or as otherwise agreed upon.

SPECIFICATION T-618 MAJOR DRAINAGE STRUCTURES

DESCRIPTION

1.1 Major drainage structures are culverts, bridges, and other structures with a minimum waterway opening equivalent to an 84-inch round pipe (95- by 67-inch arch) or multiple passages where the smallest single waterway opening is 66 inches (73- by 55-inch arch). All low water structures are major drainage structures.

Maintenance of these structures includes cleaning inlets, outlets, and related channels, trash racks, delineators, object markers, rails, timber or asphalt running surfaces, bridge inspections, and other work incidental to maintenance of the structure.

MATERIALS

2.1 All materials used in the maintenance of large drainage structures shall conform by type and specification to the material in the structure being maintained.

REQUIREMENTS

3.1 All major drainage structures and related channels except stream channels shall be maintained as early as possible in the spring following any significant runoff and prior to the beginning of winter storms.

3.2 The items listed below shall be accomplished within the scope of bridge maintenance and where applicable to the maintenance of other large drainage structures.

A. Ditch Cleaning, T-301, and Surface Blading, T-101, shall be performed to direct drainage away from the approaches to the structure.

B. Trash racks shall be cleaned, and any logs or drift lodged against piers and abutments shall be removed without causing damage to the structure. Vegetative debris removed shall be treated as agreed.

C. Debris shall be removed from the bridge deck, and deck drains shall be opened.

1. Loose bolts and nuts shall be tightened.

SPECIFICATION T-619 MISCELLANEOUS STRUCTURES

DESCRIPTION

1.1 Maintenance of miscellaneous structures include the maintenance of retaining walls, guard rails, cattleguards, fences, gates, and any other similar structures that have been previously installed to insure the safe and efficient operation of the road.

MATERIALS

2.1 Any materials needed in the maintenance of miscellaneous structures shall be similar in type and quality to he material in the structure being maintained.

REQUIREMENTS

3.1 Guard Rails. Anchors shall be tightened.

3.2 Cattleguards. Tie-in fences shall be sound and secured to the wings. Loose rails shall be welded or bolted back in place. Material deposited into the cattleguard well during operations shall be removed. Drainage into and out of cattleguards shall be maintained.

3.3 Fences. Wire fences shall be tightened if loose. Broken strands of wire or wood railings shall be replaced.

3.4 Gates. Gates shall be properly signed, kept in good repair and made to swing easily. Hinges or latches shall be repaired if not operating properly. Hinges shall be oiled.

SPECIFICATION T-710 TRAFFIC SERVICES

DESCRIPTION

1.1 Traffic service maintenance includes the maintenance of traffic-related regulatory, warning, and directional signs as well as devices such as roadside delineators or markers. It also includes restriping paved surfaces.

MATERIALS

2.1 All sign faces shall be retroflective sheeting. Sign posts shall be treated. Materials for delineators and markers shall be similar to those in the devices being replaced unless in conflict with the Manual on Uniform Traffic Control Devices. Pavement striping shall be retroflective and meet the material requirements of specification 634 in "Forest Service Standard Specifications for Construction of Roads and Bridges."

REQUIREMENTS

3.1 A minimum area six (6) feet in diameter around any traffic sign or device shall be kept free of weeds, brush, and limbs. Greater dimensions may be necessary depending on viewing direction.

3.2 Defaced signs shall be repaired using materials in accordance with the Manual on Uniform Traffic Control Devices.

3.3 All traffic control signs and devices that are replaced shall be installed in accordance with the Manual on Uniform Traffic Control Devices.

3.4 All pavement striping shall conform to attached specifications. Pavement striping shall be required when the existing striping is not readily visible both by day and night.

K-F.3.1.6 - SNOW REMOVAL. (4/13) Snow removal shall be done in a manner to preserve and protect the roads, to insure safe and efficient transportation and to prevent unacceptable damage to roads, streams, and adjacent lands.

A. Description. Snow removal work by Contractor shall include:

1. Removal of snow from entire width of road surface including turnouts.

2. Removal of snow slides, minor earth slides, fallen timber and boulders that obstruct normal road surface width including turnouts.

3. Maintenance of drainage so that the drainage system will function efficiently and prevent erosion damage.

B. Performance. Snow removal shall be kept current and performed as often as necessary to insure safeand efficient transportation. Work shall be done in accordance with the following minimum standards of performance.

1. All debris, except snow and ice, that is removed from the road surface and ditches shall be deposited away from stream channels at agreed locations.

2. During snow removal operations, banks shall not be undercut nor shall gravel or other surfacing material be bladed off the roadway surface.

3. Ditches and culverts shall be kept functional during and following road use.

4. Snow berms shall not be left on the running surface of the road. Berms left on the shoulder of road shall be removed and/or drainage holes shall be opened and maintained in them. Drainage holes shall be spaced as needed to obtain satisfactory surface drainage without discharge on erodible fills.

5. Dozers or skidders shall not be used to plow snow on system roads without written approval of Forest Service. If approved, dozers and skidders must be equipped with shoes or runners to keep the plow blade a minimum of two inches above the road surface.

6. Snow removal must be done in such a way as to protect surface water drainage structures and the road surface. Any damage from, or as a result of, Contractor's snow removal work shall be restored in a timely manner at Contractor's expense.

K-F.3.2# – ROAD MAINTENANCE DEPOSIT SCHEDULE (8/12). Other provisions herein notwithstanding, when Forest Service requests payment in lieu of Contractor's performance of road maintenance, Contractor shall make Required Deposits (16 USC 537) for current and/or deferred road maintenance. Such deposits are based on the estimated volume and distance hauled and Contractor's commensurate use of each road listed in the Road Maintenance Plan in K-F.3.1#.

Contractor and Forest Service may agree in writing on adjustment of such rates. If Contractor uses roads under jurisdiction of Forest Service other than those listed in the Road Maintenance Plan, Forest Service shall establish rates commensurate with Contractor's use of such roads.

The Required Deposits for Forest Service work in lieu of Contractor performance are $__**0.38**_____ per __**Ton**_____ for recurrent maintenance, and $___N/A_____ per __N/A_____ for deferred maintenance.

The following table lists who Contractor will make deposits for road maintenance to, and the rate per unit of measure of the deposit. The Road Maintenance Agreement is available for inspection at the Forest Supervisor's Office.

Deposit Made To	**Rate**	**Unit of Measure**
N/A		

K-F.4.1# - CLOSURE TO USE BY OTHERS (3/07).

A. Closure of Roads During Period of Contract. Unless otherwise agreed in writing between Contractor and Forest Service, Contractor shall within 15 days of receipt of notice from Forest Service, install closure devices listed below and close them on roads designated "To Be Closed" on Contract Area Map and listed below to effectively block access to vehicle traffic except that constituting official use. Installation of closure devices shall follow closure details attached hereto and made a part hereof.

Official vehicle traffic shall constitute that use by Contractor and his employees when engaged in contract activities. It shall also include administrative traffic by Forest Service, and other landowners for the administration of their lands. Contractor shall close road as directed by Forest

Service at the completion of daily activities or maintain closure after passage of each vehicle. Forest Service will monitor and administer closure activities.

CLOSURE DEVICES					
Road Number	Location	Furnished By	Closure Method	Closure Device Installed By	In Place
9579	11+35	FS	Gate	FS	Yes
9578	1+16	FS	Gate	FS	Yes
10741	0+21	FS	Gate	FS	Yes
91305	1+80	FS	Gate	FS	Yes

During the life of this contract, Contractor shall install temporary barricades at locations designated "Temporary activity Barricade" on Contract Area Map and shown below. Temporary barricades shall be installed so that they may be readily opened by Contractor or Forest Service for access to Contract Area in case of fire or other emergency. Official vehicle traffic shall also include administrative traffic by Forest Service and other landowners for the administration of their lands. Contractor shall provide and post approved signs as authorized by Forest Service. Installation of Temporary Activity Barricades shall follow closure details attached hereto and made a part hereof.

During the period **Contract Start** to **Contract Completion** when Contractor's Operations are in areas otherwise closed to motorized vehicles, Contractor shall not be permitted to hunt, transport hunters, discharge firearms or transport big game animals with vehicles within the closed areas.

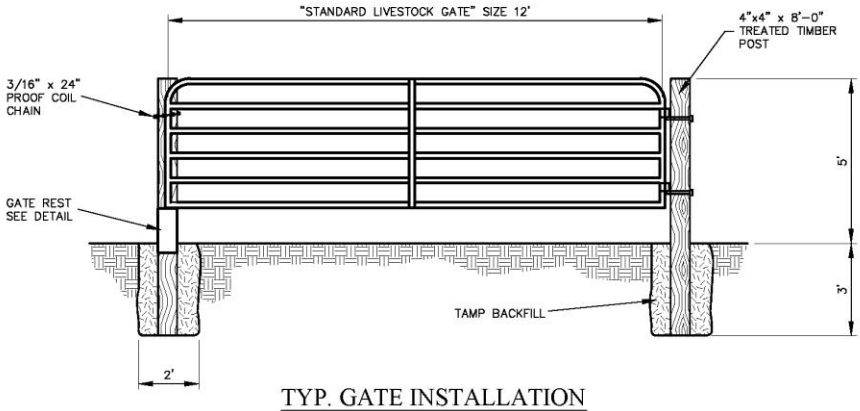
TEMPORARY ACTIVITY BARRICADES

Road Number	Location	Closure Method
Temp Road Unit 9A	Approx 0+50	Gate
Temp Road Unit 2	Approx 0+50	Gate
Temp Road Unit 12	Approx 0+50	Gate
Temp Road Unit 17	Approx 0+50	Gate

B. Closure of Roads at End of Contractor's Use. Unless otherwise agreed in writing between Contractor and Forest Service, upon completion of use, Contractor shall effectively close to public use the following roads designated "To Be Closed" on Contract Area Map and listed below. Existing locking closure devices shall be closed and locked as directed by Forest Service. As an

element of final road maintenance and environmental or resource protection, the designated closure shall be accomplished by using the methods required for each road as described below:

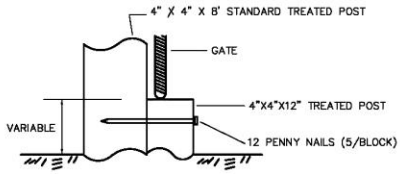
Closure Location(s)				
Road Number	Location	Closure Method	Furnished By	In Place
9579	11+35	Gate	FS	Yes
9578	1+16	Gate	FS	Yes
10741	0+21	Gate	FS	Yes
91305	1+80	Gate	FS	Yes
Temp Road Unit 9A	Approx 0+50	Heavily Cover with Slash	Contractor	No
Temp Road Unit 2	Approx 0+50	Heavily Cover with Slash	Contractor	No
Temp Road Unit 12	Approx 0+50	Heavily Cover with Slash	Contractor	No
Temp Road Unit 17	Approx 0+50	Heavily Cover with Slash	Contractor	No



TYP. GATE INSTALLATION

NO SCALE

	MATERIAL LIST FOR GATE	
ITEM	DESCRIPTION	QUANTITY
CHAIN	3/16" PROOF COIL CHAIN 24" LONG	1 EA.
GATE	PRIEFERT ECONOMY R-GATE "RG12"	1 EA.
TREATED POST	4" X 4" X 8' TREATED POST	2 EA.
NAILS	20 PENNY- FOR GATE REST	5 EA.
TREATED POST	4" X 4" X 12" TREATED POST	1 EA.



GATE REST DETAIL

NO SCALE

NOTES:

PROVIDE AN "ECONOMY 6 RAIL" GATE, MANUFACTURED BY PRIEFERT, PRODUCT NO. "RG12. (WWW.PRIEFERT.COM) FABRICATE THE GATE FROM 1-⅝", 18 GAUGE STEEL TUBING. USE 1.05" O.D., 18 GAUGE STEEL TUBING FOR THE VERTICAL STAYS. POWDER COAT "FOREST GREEN".

PROVIDE WASHERS AND NUTS FOR ALL BOLTS AND LAG BOLTS SHOWN.

TREAT WOODEN POSTS AND GATE REST WITH PENTACHLOROPHENAL, MINIMUM NET RETENTION OF 0.5# PER CUBIC FOOT (DRY CRYSTAL).

FURNISH AND INSTALL LAG SCREWS FOR HOLDING GATE AND CHAIN.

	Sheet	Total
Standard Livestock Gate		

K-G.1.0 - PREWORK CONFERENCE (10/04). Annually, prior to commencement of work, a prework conference will be held to discuss contract terms and work performance requirements. Also at this meeting such things as responsibility under OSHA, and procedures for how undesignated timber that may have to be added to the contract (including danger trees) shall be discussed and documented.

The Contractor,or designated representative, will arrange for the meeting with the Contracting Officer.

K-G.2.3 - PROTECTION OF LAND SURVEY MONUMENTS (10/04). Forest Service shall appropriately designate on the ground all known survey monuments including but not limited to horizontal control stations (Triangulation Stations), vertical control stations (Bench Marks), property corner monuments, and all Public Land Survey System monuments. This shall include reference monuments, corner accessories such as bearing trees, line trees and line posts. Identifying signs shall be posted by Forest Service on two sides of each known bearing tree and each line post shall be posted with a metal sign or decal. Line trees may be cut if designated under C.3.

In authorized clearings such as Clearcutting Units and road construction clearings, and in other instances where damage to survey monuments, corners, corner accessories and survey of property line markers is unavoidable, Forest Service shall arrange protective or perpetuative action which does not cause unnecessary delay to Contractor.

Contractor shall protect all known survey monuments, witness corners, reference monuments, bearing trees and line markers against avoidable destruction, obliteration or damage during Contractor's Operations. Additional monuments or objects discovered on the area shall be promptly reported to the other party and shall also be protected. If any known monuments, corners, corner accessories, and survey or property line markers are destroyed, obliterated or damaged during Contractor's Operations, Contractor shall employ a registered professional land surveyor to reestablish or restore at the same location the monuments, corners, corner accessories or line markers. Such surveyors shall use procedures and monumentation that accords with the Bureau of Land Management Manual of Instructions for the Survey of the Public Lands of the United States for General Land Office surveys and any applicable State statutes concerned with land surveys. Contractor's agent shall record such surveys in accordance with state survey statutes.

K-G.2.4# – SITE SPECIFIC SPECIAL PROTECTION MEASURES (9/04). Special protection measures needed to protect known areas identified on Contract Area Map or on the ground include:

Cultural Resource Protection Measures:
None

Wildlife and Botanical Protection Measures:

Contractor and all subcontractors shall comply with the Northern Continental Divide Grizzly Bear Ecosystem Food-Storage and Sanitation Order

Forest Roads currently closed to motorized vehicles shall be closed to use by the public during and after project activities. All temporary roads shall be closed to use by the public during and after project activities. All other existing roads currently closed to motorized vehicles to be re-opened for harvest activities shall remain closed to use by the public during and after contractor's activities.

Visual screening in the form of submerchantable trees and other non-included timber shall to the extent feasible, be left standing intact within 50' of the clearing limits from all open system roads.

Cave Resource Protection Measures:
None

K-G.2.7# - NOXIOUS WEED TREATMENT (3/07). The roads shown in the table below and being used by the Contractor shall be treated with herbicide to remove seed-bearing noxious weeds.

Contractor shall:

A. Include a schedule for herbicide treatment of noxious weeds as part of the Annual Operating Schedule.

B. Treat roads or road segments required to have noxious weeds treated between **June 1 and July 15 OR September 1 and September 30**, unless otherwise agreed in writing.

C. Follow the "TECHNICAL SPRAYING SPECIFICATIONS".

Treatment shall consist of spot applications that target those noxious weeds identified on the State of Montana Noxious weed list that occur **from the toe of the fill to the top of the cut including the running surface and turnouts** on the listed roads. Reasonable care shall be exercised to limit application so that spraying does not contact native forbs, grasses, herbs, and trees.

Road Number(s)	Road Termini MP to MP	Herbicide	Prehaul	Posthaul
91306	0.00 to 0.40	See List Below	no	yes
91305	0.00 to 0.76	See List Below	no	yes
90240	1.11 to 1.82	See List Below	no	yes
9780	1.07 to 1.12	See List Below	no	yes

9591	0.40 to 3.00	See List Below	no	yes
9578	0.00 to 2.16	See List Below	no	yes
11648B	0.00 to 0.75	See List Below	no	yes
11648	0.00 to 0.15	See List Below	no	yes
9773	0.00 to 0.66	See List Below	no	yes
561	2.31 to 3.07	See List Below	no	yes
9579C	0.00 to 0.55	See List Below	no	yes
9579	0.00 to 0.70	See List Below	no	yes
10741	0.00 to 0.87	See List Below	no	yes
79	3.03 to 3.47	See List Below	no	yes
TOTAL: 11.56 miles				

K-G.2.7# - NOXIOUS WEED TREATMENT - TECHNICAL SPRAYING SPECIFICATIONS
FLATHEAD NATIONAL FOREST

1. The Purchaser shall give the Forest Service a 48 hour notification prior to spraying.

2. Spraying will be done by a State of **Montana** licensed commercial applicator, and only by personnel under the direct supervision of the licensed applicator.

3. The following herbicides and application rates are approved for use, and are the only authorized methods of weed treatment under this contract provision. All use of herbicides and surfactants shall follow EPA label requirements.

Common Name	Trade Name Examples (generic equivalents are acceptable)	Application Rate (lbs active ingredient/ acre or oz/ac)
2,4-D amine	Clean Crop amine 4	1 Lbs. /20 gallons water/acre or 32oz./acre
Clopyralid	Transline	¼ Lbs./20 gallons water/acre or 11 oz./acre
Dicamba	Banvel	1 Lbs. /20 gallons water/acre or 32oz./acre
Picloram	Tordon 22K	¼ or ½ Lbs./20 gallons water/acre or 16 or 32 oz/ac
Aminopyralid	Milestone	0.13—0.18 lbs./20 gallons water/acre or 5-7 oz. per acre plus non-ionic surfactant at label rate.
Chlorsulfuron	Telar XP	0.09—0.14 lbs./20 gallons water/acre or 2-3 oz. per acre plus non-ionic surfactant at label rate

4. For treatments from **September 1 to September 30**, surfactants that cause herbicide to adhere to the plant (stickers) shall be applied with herbicides.

5. No spraying of **Picloram (Tordon 22K or equivalent)** will take place within **100** feet of open water and wet areas. Weed infestations within **100** feet of water can only be treated with **aminopyralid or aquatic labeled 2,4-D amine** unless otherwise approved in writing by the Forest Service. No spray shall come in contact with open water at any time.

6. **Use of Telar will be confined to areas infested with Dalmatian or Yellow (Common) Toadflax.** Telar will not be used in areas where these weeds are not present.

7. No spraying shall occur when rain is expected within six (6) hours of completion of the treatment.

8. Nozzles shall be made of stainless steel or ceramic material.

9. All equipment shall be in good mechanical condition and will be inspected prior to work. The spray pattern, application rates, and calibration shall also be checked before beginning the job and thereafter as deemed necessary by the Forest Service.

10. A tight-fitting lid on all spray tanks is mandatory.

11. Equipment used to draft water from creeks or rivers must be equipped with anti back siphoning devices.

12. Weather conditions shall be monitored before and during all spraying projects. Spraying is NOT allowed when any of the following conditions exist:

Hand-held equipment: temperature greater than 95 degrees F.; humidity less than 20 percent, or wind greater than 5 MPH.

Truck-mounted equipment: temperature greater than 95 degrees F.; humidity less than 20 percent; or wind greater than 5 MPH.

13. Herbicides shall be transported daily to the project site with the following conditions: Transport only the quantity needed for that day's work; transport concentrate containers only in a manner that will prevent spills; and transport spray in a compartment that is isolated from food, clothing, and safety equipment.

14. Mixing shall only occur on site.

15. The Purchaser shall inspect equipment daily for leaks.

16. The Purchaser shall remove all herbicide containers from national forest land and dispose of them in accordance with all local, state, and federal requirements

17. Applicators will complete a daily pesticide application report as required by the Montana Department of Agriculture. **Applicators will use the daily pesticide application report form provided by the Forest Service**. Daily application reports shall be submitted to the Forest Service within 10 days of application.

18. When spraying occurs prior to road reconstruction, road reconstruction will not begin for at least 10 days following herbicide application.

K-G.3.1.6# - LIMITED OPERATING PERIOD (5/05). Except when agreed otherwise in writing, Contractor's Operations shall be limited as follows:

No activities, except those such as log haul on open roads and noxious weed treatments, and site specific eroision prevention work as needed shall occur during the period April 1 through June 15 for units 17, 48, 48A, 48B, and 49

Unit 20: all harvest, log haul, road obliteration, and mechanized slash treatments must be completed no later than January 31, 2014 with any follow up seeding and road work to be completed by July 15, 2014.

Compliance with the Swan Valley Grizzly Bear Conservation Agreement is mandatory as follows:

- In order to maintain grizzly bear security in the inactive grizzly bear subunit, which includes the entire sale area and all harvest units, **after** the grizzly bear subunit becomes inactive on **January 31, 2015**, timber harvest, log hauling, road reconstruction or maintenance, and other mechanized activities shall only occur:
    - during the period starting November 16 and ending March 31,

      or
    - during the period June 16th through August 31st for units 6,7,8,9,9A,10,19,19A,20,24,48,48A,48B, and 49. Operations during this period would be limited to no more than 30 days nor longer than two

consecutive weeks during each calendar year. Contractor shall provide written notification to Sale Administrator of plans to operate during this period, 3 weeks prior to June 16th. Contractor is not guaranteed dates as proposed, due to all mechanized activities requiring coordination within this subunit during the same period across multiple contracts. When two or more timber sale or stewardship contracts are active within this subunit during the inactive period, coordination of operations is mandatory. If contractors cannot agree to concurrent activity dates during this period then the Forest Service shall resolve those differences.

- hauling may occur on open roads.
- After January 1, 2015 the Normal Operating season as per A.16 of this contract becomes December 15 to March 15 inclusive.

K-G.3.3 –SAFETY ATTACHMENT-LOGGING AND MAINTENANCE OPERATIONS SIGNING STANDARDS (10/01).

LOGGING AND MAINTENANCE OPERATIONS SIGNING STANDARDS

All signs must be manufactured & installed as specified in the FHWA "**Manual on Uniform Traffic Control Devices**" (MUTCD) & FS publication "**Standards for Forest Service Signs & Posters**"(EM 7100-15).

SIGN STANDARDS

SHAPE & COLOR: Generally, signs for logging and maintenance operations are either diamond-shaped or rectangular. All signs are ***reflective orange background with black legend and border*** unless shown otherwise. Handpainted, homemade signs are not legal. Fluorescent paint is not reflectorized.

SUBSTRATE: Sign substrate material may be High Density Overlay (HDO) Plywood, Aluminum, Fiberglass Reinforced Plastic, Corrugated Plastic or Roll-up Fabrics.

SIGN SIZE: Sign size is a factor of speed and MUTCD & FS standards. Where conditions of speed, volume, or special hazard require greater visibility or emphasis, larger signs should be used. Minimum sizes for the most common signs can be found in Figure 4. Refer to the EM-7100-15 for additional sign sizes.

LEGEND: All lettering shall be Series "C" alphabet, conforming to Standard Alphabets for Highway Signs. Letter size is also a function of speed - use letter size and word messages as specified in MUTCD and EM-7100-15.

SIGN PLACEMENT

Signs are to be installed in locations as agreed to in the traffic control plan. All signs are to be removed, covered, or folded when operations are not in progress or the sign message is not applicable. Signs should generally be located on the right-hand side of the roadway. When special emphasis is needed, signs may be placed on both the left and right sides of the road. Sign message shall be clearly visible to road users, mounted on posts or portable sign stands.

LATERAL CLEARANCE

From the edge of the road - 2 foot minimum, where slope limits to less than 6 feet. 6-12 foot preferred.

HEIGHT

Minimum of 7 feet, measured from the bottom of the sign to the near edge of the travelway. The height to the bottom of a supplemental sign mounted below the primary sign will be 6 feet.

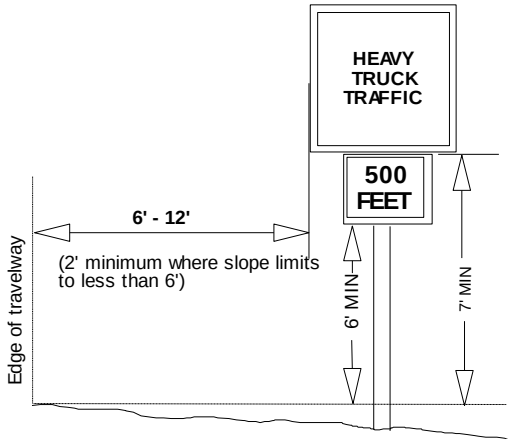


Figure 1: Sign Placement

Dimensions

PLACEMENT DISTANCE

Signs must be located 100-500 feet prior to the activity, (both ends if a through road) and maintained at that distance. This distance is based on speed. Refer to Figure 2 , Table II-1, MUTCD, a portion of which is reproduced here, to determine correct placement distance.

Posted or 85 percentile speed MPH	Decelaration to listed advisory speed MPH				
	10	**20**	**30**	**40**	**50**
20	NA				
25	100				
30	150	100			
35	200	175			
40	275	250	175		
45	350	300	250		
50	425	400	325	225	
55	500	475	400	300	
60	575	550	500	400	300
65	650	625	575	500	375

Figure 2: A Portion of MUTCD TABLE II-1

SIGN SUPPORTS

POSTS: Signs are to be mounted on separate posts. Supplemental signs such as Speed Advisory plates are to be mounted on the same post as the primary sign. ***Do not mount signs on trees or other signs.*** Posts may be wood, metal, carsonite or similar material. Where sign supports cannot be sufficiently offset from the road edge, supports will meet breakaway standards. Single wood posts with less than 24 square inches do not require breakaway design.

TEMPORARY/PORTABLE SUPPORTS: Portable supports may be used for short-term, short-duration, and mobile conditions. MUTCD defines this time period as one work shift, 12 hours or less. All portable supports must meet MUTCD standards, including breakaway. These must be a minimum of 1 foot above the road surface or more if visibility requires it.

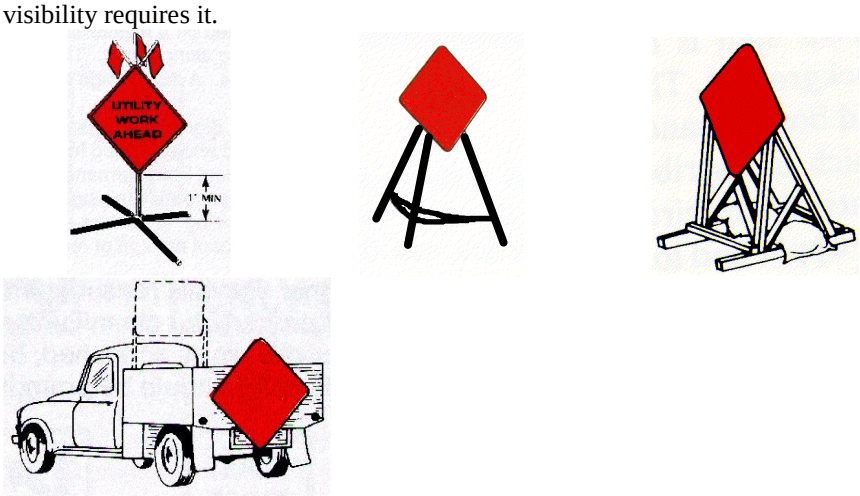
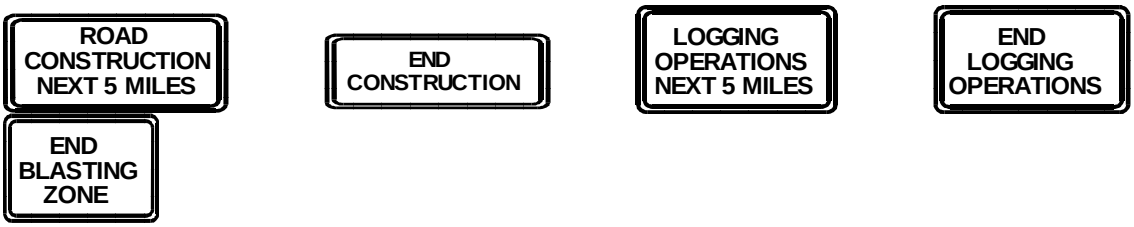


Figure 3: Examples of Temporary/Portable Supports

SIGNS

The following signs meet the intent of Timber Sale Contract Provision **G.3.3**, SAFETY.
This is not a complete listing of signs that may be needed.



FG20-1-48* FG20-2-48 FG20-3-42* FG20-3a-42
FW22-3-30

FW20-1-30* W21-3-30* FW21-4a-30 FW11-7-24 W22-1-36*

FW8-6-24 FW11-9a-24 W7-3a-24* W13-1-18**
W20-7aP-24*

* Specify Distance ** Specify Speed

BM-L-O

BM-R-O

Barricade Markers (See MUTCD for length and stripe size)

K-G.3.3.2 - SAFETY (TIMBER HAULING) (10/04). Contractor shall secure all products transported by truck with at least two chain or cable wrappers over the load, such wrappers being securely fastened to effectively contain every bolt or log in at least two places.

K-G.3.3.9 - ACCIDENT AND INJURY NOTIFICATION (4/05). Contractor shall notify Forest Service of any lost time personal injury accident or any accident or vandalism resulting in personal property damage over $400 in value that occurs as a result of or is associated with Contractor's Operations.

Contractor shall notify Forest Service within 8 hours of any personal injury accident. For vandalism and personal property accidents, Contractor shall notify Forest Service at the same time notification is given to the state and local law enforcement authorities.

Contractor shall take all reasonable measures after an accident or vandalism event to preserve the scene of the incident and provide information to facilitate a Forest Service investigation.

The method of notification shall be agreed to in writing at the prework conference required by provision K-G.1.0.

K-G.3.5.1# - WASHING EQUIPMENT (7/07). In order to prevent the spread of noxious weeds into the Contract Area, Contractor shall be required to clean all off-road logging and construction equipment prior to entry on to the Contract Area. This cleaning shall remove all soil, plant parts, seeds, vegetative matter, or other debris that could contain or hold seeds. Only logging and construction equipment so cleaned and inspected by the Forest Service will be allowed to operate within the Contract Area. All subsequent move-ins of equipment to the Contract Area shall be treated in the same manner as the initial move in. "Off-road equipment" includes all logging and construction machinery, except for log trucks, chip vans, service vehicles, water trucks, pickup trucks, cars, and similar vehicles.

Contractor shall employ whatever cleaning methods are necessary to ensure that off-road equipment is free of noxious weeds. Equipment shall be considered free of soil, seed, and other such debris when a visual inspection does not disclose such material. Disassembly of equipment components or specialized inspection tools is not required.

In order to prevent the spread of noxious weed species **N/A** the Contract Area, Contractor shall be required to clean all off-road logging and construction equipment that operates in **N/A** prior to the equipment leaving the **N/A.** Contractor and Forest Service shall agree on methods of cleaning, locations for the cleaning, and control of off-site impacts, if any.

Unless otherwise agreed, Contractor shall give the forest service at least 24 hours notice when equipment is ready for inspection. Notification will include an agreed upon location where the equipment will be available for inspection by the forest service.

New infestations of noxious weeds, of concern to Forest Service and identified by either Contractor or Forest Service, on the Contract Area or on the haul route, shall be promptly reported to the other party. Contractor and Forest Service shall agree on treatment methods to reduce or stop the spread of noxious weeds when new infestations are found. A current list of noxious weeds of concern to Forest Service is available at each Forest Service office.

K-G.4# - CONDUCT OF LOGGING (10/82). Unless otherwise agreed in writing, silvicultural prescriptions and land management objectives shall be conducted and accomplished by the following requirements, methods and procedures:

Cutting Unit	Conduct of Logging
ALL (except 2, 5, 10, 17, 22)	Skidding shall only occur during dry soil conditions as determined by the Forest Service. **or** Skidding is allowed only over **10** inches of settled snow or frozen ground
2, 5, 10, 17, 22	Skidding is allowed only over **10** inches of settled snow or frozen ground
ALL	Trees designated for cutting and/or logs will be left as rub trees along tractor skid roads/skyline corridors as needed to protect leave trees. Tractor skid roads will be located, approved in advance of falling. Tractors shall be restricted to approved skid roads.
ALL (except 2 and 5)	Logs shall be tractor skidded with the leading end free of the ground Tractor skid roads shall be no less than 75 feet apart, except where converging.
6, 7, 8, 9, 10, 17, 19, 19A, 20, 22, 24, 25, 26, 31, 48, 48A, 48B, 49	Whole trees shall be skidded to landings.

K-G.4.0.6# - SITE CONDITION (10/01). Unless otherwise agreed in writing, in Cutting Units **ALL**, the following site condition is required:

A minimum of **10 tons** and a maximum of **15 tons** of woody material will be left evenly distributed on each acre.

Contractor may be required to remove limbs and tops prior to skidding or yarding or return them to the area after skidding or yarding in order to meet the minimum requirement. If the maximum requirement is not met through normal logging operations, slash will be treated in accordance with specifications listed in the Hazard Reduction and Site Preparation Plan.

K-G.4.0.9# - SCARIFICATION (1/86). Unless agreed otherwise in writing by Forest Service, Contractor shall machine scarify in Cutting Units **7, 8, 9, 9A, 10, and 48** in accordance with specifications listed below:

1) A minimum of 10 percent and a maximum of 15 percent of the workable ground shall be scarified to mineral soil. Scarified patches, at least 2 foot by 2 foot shall be evenly distributed over the workable ground in the unit.

2) Scarification shall only be done during periods of dry soil conditions between June 16 and October 31. Scarification shall be completed by the first October 31 date following the completion of logging, except when logging is completed after September 30, in which case scarification must be completed by October 31 of the following year.

K-G.4.1# - SPECIAL FELLING REQUIREMENTS (10/04). Unless otherwise agreed in writing, the following special requirements shall be met in felling timber designated for cutting:

Cutting Unit	Item or Area to be protected	Protection Measure
2, 6, 12, 13, 14, 19, 19A, 20, 24, 31 and 205	Private Property adjacent to cutting units.	Contractor shall directionally fell or take other measures, as needed, to ensure all included timber or other trees required to be cut that are within striking distance of private property fall away from private property.

K-G.4.2# - LOG FORWARDING (7/93). In Cutting Unit(s) **2 and 5** designated "LF" (LOG FORWARDER) on the Contract Area Map, Included Timber on slopes less than 40 percent shall be carried free of the ground by a log forwarder as 18.5 foot or shorter logs. The log forwarder shall be all wheel drive, capable of self-loading and unloading, and have rear tires or track type tractive devices greater than 27 inches in overall width. Log forwarders with GVW's greater than 15,000 pounds shall have a minimum of three (3) load bearing axles. Stumps shall not be grubbed from forwarder strip roads except for portions requiring excavation for safety. All excavation and any supplemental skidding of Included Timber shall be flagged and preapproved in writing prior to commencing such activity.

Except for manually felled trees which exceed the harvesters capability, Included Timber shall be felled, limbed, bucked, and prebunched by a self-propelled mechanical harvester. The harvester shall place unmerchantable tops and limbs evenly in the strip road as it proceeds. Wherever residual trees require protection, strip roads shall not be more than 15 feet in width nor less than 50 feet apart.

Log landings and transfer points shall be limited to existing roads and turnouts unless otherwise agreed to in writing.

K-G.6 - EROSION PREVENTION AND CONTROL (10/04).

Unless otherwise agreed in writing, Contractor shall complete erosion prevention and control work required in section G.6, including Streamcourse protection, within 15 calendar days after completion of skidding and/or yarding operations for each landing.

Designation of on the ground work shall be done as promptly as feasible unless it is agreed that the location of such work can be established without marking on the ground.

During periods of accelerated water runoff, especially during the spring runoff and periods of heavy rainfall, Contractor shall inspect and open culverts and drainage structures, construct special cross ditches for road runoff, and take other reasonable measures needed to prevent soil erosion and siltation of streams.

When operations are active outside the Normal Operating Season defined in A.16, erosion control work will be kept current and will be completed as soon as practicable.

K-G.6.0.1# - EROSION CONTROL SEEDING (3/07). Following completion of skidding and yarding operations in an area, Contractor shall seed and fertilize all exposed areas of raw soil on skid trails, landings, firebreaks, slides, slumps, Temporary Roads and traveled ways of National Forest system roads scheduled for stabilization by Purchaser after operations. Special Provision K-F.4.1.9# - SYSTEM ROAD STABILIZATION contains a list of the roads requiring seeding and fertilizing.

Soil on areas to be seeded shall be left in a roughened condition favorable to the retention and germination of the seed or as specified in Special Provision K-G.6.3.3# - TEMPORARY ROAD, SKID TRAIL/SKID ROAD AND LANDING SCARIFICATION.

Seed and fertilizer shall be spread evenly at the rate of **24** pounds of seed and **N/A** pounds of fertilizer per acre. When fertilizer and seed are applied in separate operations, the second operation shall be carried out within 72 hours of the first.

Application shall be during the period **N/A** to **N/A** and under the above specified conditions unless otherwise approved.

The kinds and amounts of seed to be sown in terms of pure live seed (PLS) shall be:

Species of Seed	PLS Pounds per Acre
Slender wheatgrass (Elymus trachycaulus)	6
Mountain brome (Bromus marginatus)	9
Bluebunch wheatgrass (Pseudoroegneria spicata)	4
Blue wildrye (Elymus glaucus)	5
TOTAL	24 lbs/PLS

Contractor shall provide to the Forest Service:

1. Blue tags, or copies of blue tags from each seed lot used in the specified mix**.** Only certified, blue-tagged seed shall be used. The blue tag represents a field certification and serves as evidence of the genetic purity and varietal identity of the seed contained in the seed lot .

2. Labels which indicate the percentage composition of the various species in the seed mix.

3. Copies of Seed Analysis Reports from a certified seed analyst for each seed lot used in the specified mix. Contractor will obtain this report from the seed provider. Seed Analysis Reports must include at a minimum, content of any noxious weed seeds listed on the current "State of Montana Noxious Weeds List". Only after the Forest Service has verified that this report indicates the seed does not contain any weeds on the current "State of Montana Noxious Weeds List", will the seed be accepted and used.

The following kinds and amounts of standard commercial fertilizer shall be used with guaranteed analysis of contents clearly marked on containers:

Type of Fertilizer	Pounds Per Acre
N/A	**N/A**

K-G.6.3.2# - TEMPORARY ROAD AND TRACTOR ROAD OBLITERATION (2/02). Notwithstanding the provisions of G.6.3 and G6.5, unless otherwise agreed, temporary roads accessing **All Units** and tractor roads within **All Units** constructed for use with this sale shall be obliterated after they have served the Contractor's purpose. Obliteration shall consist of recontouring road prism including all cut and fill slopes to natural ground contour. Equipment will not be permitted to operate outside the clearing limits. In addition, from **10** to **15** tons per acre of clearing or logging slash, stumps or other woody debris shall be placed and scattered uniformly on the top of the recontoured corridor.

K-G.6.3.3# - TEMPORARY ROAD, SKID TRAIL/SKID ROAD AND LANDING SCARIFICATION (2/02). Unless waived in writing by the Forest Service on specific roads, skid trails/skid roads or landings, all landings, skid trails/skid roads, and Temporary Roads constructed or used by Contractor shall be scarified by the Contractor following use.

Scarification shall span the width of the compacted areas and shall be done to a depth of not less than **2** inches, but not to exceed a depth of 14 inches, and must effectively prepare the ground for seeding.

Scarification shall be done during the period **August 1** to **September 30** unless otherwise approved. No scarification work shall be done during wet weather or when the ground is frozen or otherwise unsuitable.

K-G.6.6.1 - CURRENT OPERATING AREAS (10/04). Unless waived in writing by Forest Service, Contractor shall remove accumulations of slash and logging debris in operating areas from system roads prior to the end of Normal Operating Season. Slash and logging debris in excess of three (3) feet in length and three (3) inches in diameter shall not remain on backslope, in ditches, or on traveled way, shoulders or turnouts. Debris shall be scattered downslope from the roadbed, avoiding any concentrations. When weather permits operation after Normal Operating Season, Contractor shall keep such work on any additional disturbed areas as current as practicable.

K-G.7 - HAZARD REDUCTION AND SITE PREPARATION (3/89). Contractor's timing of product removal, hazard reduction and site preparation shall not unnecessarily delay Forest Service slash disposal, site preparation or reforestation. Contractor shall perform hazard reduction and site preparation work in accordance with the Hazard Reduction and Site Preparation Plan and Map which are attached hereto and made a part hereof. Such work is in addition to Required Deposits for slash disposal.

(1) Landing Slash Disposal

In Units: ALL

A landing is considered a place where any logs or products are gathered for loading or

processing. All slash accumulated at landings shall be piled.

Piles shall be reasonably compact and free of soil to facilitate burning. Piles will not be less than 6 feet in height. Piles shall be of a size and location, which will not impair road use or result in damage to residual timber. Piles shall be located at least 50 feet from any residual timber and the outside perimeter of the unit adjacent to private landholdings. Piles shall not be more than 50 feet long.

All objects, which extend more than 10 feet in any direction from the windrow or pile profile, will be cut off and returned to the windrow or pile.

(2) Slashing

In Units: 9A, 17, 48A, 48B

Contractor shall fell all live and dead coniferous vegetation not meeting utilization standards and over 3 feet in height, unless otherwise designated to be left standing. Stump height shall not exceed 6 inches from the ground surface as measured on the uphill side. Trees shall be completely severed from the stump.

(3) Excavator (Grapple) Piling Units

In Units: 9A, 17, 20, 48, 48A, 48B, 49

Contractor shall machine pile all slash meeting the following specifications in cutting units or portions of cutting units as shown on the Hazard Reduction and Site Prep Map. Piles shall be compact, free of soil and of sufficient size to facilitate burning. Piles will be a minimum height height of 10 feet and shall be placed no closer than 50 feet from the outside perimeter of the unit, system roads, wet areas, or other areas designated on the ground by the Forest Service. No pile shall be closer than 25 feet from any standing Reserve Trees. All material extending more than 6 feet beyond the outside of the pile shall be trimmed off and returned to the pile.

Contractor will leave a minimum of 10 tons/acre of the largest diameter and longest pieces of woody material evenly scattered across each acre where available.

The crawler-type excavator shall be equipped with a grapple or bucket with a thumb, or a combination of both. The machine must be capable of reaching 20 feet either side of the machine and be able to pile slash at least 15 feet in height. The grapple or bucket must be capable of grasping slash 2 inches to 30 inches in diameter. The excavator must be capable of working on 45 percent side slopes.

(4) Fell Damaged Residual

In Units: ALL

Purchaser shall fell all species over 6 feet in height not meeting minimum diameter specifications for Included Timber that are damaged beyond recovery by the Purchaser's Operations. Such trees shall be limbed to a stem diameter of approximately 4 inches, at which point the top shall be cut from the remainder of the stem. These stems shall be bucked into lengths shorter than 6 feet.

K-G.7.1 - CHANGE IN SLASH TREATMENTS (3/90). Slash treatment measures required in accordance with the Hazard Reduction and Site Preparation Plan and Map may be changed upon written agreement. The Forest Service shall determine the current cost of performing the work to be deleted and the work to be added. When the cost of work deleted exceeds the cost of work added, the agreement shall provide for a lump sum payment to the Forest Service for the amount of the difference.

K-G.7.1.1 - BURNING BY CONTRACTOR (10/79). Contractor shall obtain a written permit from Forest Service before burning any camp refuse, brush, slash or construction debris at any time throughout the year. The terms of the permit will set forth:

A. Area or location where burning is permitted.

B. Material to be burned.

C. Safeguards, including help and equipment to control the fire.

1. Special precautions to be taken before burning.

2. Control action needed until the fire is out.

K-G.7.5.3 - TEMPORARY ROAD CONSTRUCTION SLASH DISPOSAL (10/82). Unless agreed otherwise in writing, Temporary Road slash shall be disposed of or treated in accordance with the following:

A. All timber within the road clearing limits which contains a product meeting the minimum piece specifications stated in A.2 shall be felled (not pushed over) and bucked in advance of road construction. All timber shall be felled within the clearing limits whenever it is feasible to do so.

B. Timber within the clearing limits not meeting minimum piece specifications in A.2 and other debris from the clearing and grubbing operations more than three (3) inches in diameter and three (3) feet in length shall either be (a) utilized and removed from Contract Area, (b) burned within the right of way, (c) removed to designated locations shown on Contract Area Map for burying or later burning, (d) buried, (e) processed through a chipping machine, (f) scattered in such a manner as to avoid concentrations of slash and without damaging other trees or resource values, (g) decked, or (h) a combination thereof.

C. All material to be treated or disposed of shall be bucked into lengths not to exceed 20 feet before being piled or buried.

D. If debris is to be burned, burning shall be complete and shall be done at such times and in a manner approved in writing by Forest Service. Residual construction slash from burning shall be buried, scattered or removed to agreed locations.

E. Debris to be buried shall be placed in prepared holes, benches, or trenches at agreed locations and covered with not less than two (2) feet of native soil or rock. Slash and debris may be buried in the roadway providing hauling can be supported and providing there is little probability or hazard of slope failure.

F. If debris is to be chipped, the chips shall be spread over the surface of the ground in such a manner that their loose depth does not exceed six (6) inches. Chips may be mixed with soil within roadway.

G. Slash and debris may be scattered in those situations where the volume of slash or residual slash is relatively light and the adjacent stands of timber are sufficiently open to accommodate the scattering without damage.

H. If material is decked, logs not meeting Utilization Standards that are six (6) inches or more in diameter shall be bucked into lengths not to exceed 32 feet and piled at agreed locations.

K-G.8.0.1 - SCALING (PULP LOGS) (10/04). A pulp log, as shown and specified in A.2, shall be any log or portion of a tree, except western redcedar, dead or alive, not meeting sawlog specifications shown in A.2 and containing at least 50 percent pulpable wood in terms of gross cubic volume. Normal sawlog scaling defects such as stain, shake, checks, crook, sweep, burls, knot clusters, pitch, worm holes, and firm rot are considered pulpable. Fire char is not considered pulpable. Defective logs that will break up under normal debarking operations are not considered pulpable.

Final piece, log, or load volume shall be in terms of gross cubic feet.

When pulp logs are manufactured and marketed in shorter minimum piece lengths than shown in A.2, this shorter pulp log shall be considered as meeting Utilization Standards.

K-G.8.2.2 - PRESENTATION FOR WEIGHT SCALING. (4/13) To facilitate the requirement of G.8.2 that loads be presented so that they may be scaled in an economical and safe manner, and to aid in the accountability requirements of K-G.8.4.0 or K-G.8.4.8, Contractor, unless otherwise agreed in writing, shall:

A. Utilize scales that meet the standard for commercial vehicle scales defined in the National Bureau of Standards Handbook 44, current edition.

B. Weigh all loads on scales currently certified by the State in which weighed. Scales must have a current inspection tag or seal posted which shows the date of the most recent test by

the State weights and measures agency. No load shall be presented for weighing that weighs more than the certified capacity of the scales in use. Each load shall be weighed according to the *Instructions for Load Weighing and Accountability* posted at the weighing facility, with the gross and tare weights stamped and recorded by an automatic recording device on the scales. Loads shall be weighed in sequence, with the gross weight obtained first and the tare weight printed within two (2) hours of unloading. In addition to the gross and tare weights, Purchaser shall record the following information on each weight slip:

a. Sale name
b. Load Removal Permit number
c. Date and time weighed

C. Maintain load accountability from the Sale Area to point of weighing. In so doing, the load of products shall remain intact while in transit. Products accidentally lost in transit shall be promptly identified by Load Removal Permit number and sale designation. Purchaser shall, within 48 hours, load out such lost products and present them for weighing or make other arrangements acceptable to Forest Service. Unless otherwise agreed, off-loaded logs will not be stored at State weigh station sites. Logs will be off-loaded onto an empty truck and will have a log load removal permit attached before proceeding from the weigh station. Purchaser is required to notify the Forest Service before off-loading of logs occurs. Off-loaded logs will be delivered immediately to the designated weight scales.

D. Clearly and legibly paint the last three digits of the Load Removal Permit number in **BLACK** paint on the back end of at least three (3) logs of every load transported from the Sale Area.

K-G.8.2.3 - VOLUME DETERMINATION. (4/13) Volume determination shall be based on Weight Measurement unless otherwise agreed. Products shall be weighed on certified scales at locations approved by Forest Service. The weight slip, showing sale name, Load Removal Permit number, date and time weighed, and the gross and tare weights, shall be attached to the Scaler Permit and placed in the location(s) designated by the Forest Service.

In the event of weight scale equipment breakdown or suspension of use for other reasons, hauling shall be suspended until Contractor and Contracting Officer agree to an alternate weighing location.

If Scaler Permits and/or weight slips are not provided for any reason, Forest Service shall use data from the records during the period in which loss occurred to determine weight of load(s). The weights of such load(s) shall be deemed equal to the load with the heaviest net weight presented during the payment period in which the loss occurred.

Payment for lost products may not be required if Forest Service determines that the weight of such lost products involved is small and justified by existing conditions.

K-G.8.4.8 - WEIGHT ACCOUNTABILITY FOR SPLIT PRICING (3/12).

Products sold on a basis other than single price for all products shall be accounted for as follows:

A. Requirements Applicable to Contractor's Accountability Obligations:

a. Where Contractor's product accountability responsibilities are concerned, all operations performed by Contractor's employees, agents, contractors, subcontractors, their employees or agents, Contractor's obligations shall be the same as if performance is by Contractor.

b. Contractor shall sort and deck separately the sawtimber and non-sawtimber products at the landing. The non-sawtimber products shall remain on the landing until released for hauling and weighing by the Sale Administrator.

B. Requirements Applicable to Product Removal Book:

1. Forest Service:

a. Forest Service will issue to Contractor or designated representative(s) serially numbered Product Removal Permit Books for sawtimber products for use only on this sale. Product Removal Permit Books whether used or unused are accountable property of Forest Service and shall be returned to issuing Ranger District in accordance with instructions contained on the inside cover of each book.

b. The Product Removal Permits for non-sawtimber products will be issued by the sale administrator as needed to haul these products and are accountable property of the Forest Service. The non-sawtimber products will not be hauled until inspected and released by the sale administrator.

2. Contractor shall require:

a. All permits be filled out in ink by an individual named in writing other than the truck driver and be attached to load before products are hauled from immediate vicinity of or adjacent to location where loading is done showing date loaded, brand, sale name, and destination where products will be weighed. Permits shall be attached in accordance with instructions on inside cover of Product Removal Permit Book.

b. Before Sawtimber products are hauled, truck driver will sign legal signature in ink on Woods Permit.

c. Contractor's Representative or other designated representative will sign legal signature in ink on Woods Permit for non Sawtimber products at time the permits are issued by the sale administrator.

d. Contractor shall assure that all used Scaler Permits are deposited in accordance with procedures established by the Forest Service.

C. Requirements Applicable to Weight Slips:

1. Contractor shall assure that:

a. All products removed are presented for weighing at agreed to locations and that gross and tare weights are obtained on certified scales.

b. That weight slips are attached to proper Scaler Permit and deposited in accordance with procedures established by the Forest Service.

K-G.8.4.9 - ROUTE OF HAUL. (4/13) As part of the annual Operating Schedule, Contractor shall furnish Forest Service both a map and a written general plan for hauling Included Timber from Contract Area. The plan shall set forth:

A. Designated haul route(s).
B. Designated weight scales.

Such route of haul shall normally be the shortest, most economical haul route available between the points. Forest Service written approval of the haul route(s) and weight scales is required prior to commencement of Contractor's hauling operations. The designated weight scales must meet the requirements contained in Standard Provision G.8.1.4 at each weighing facility the Contractor wishes to use.

Upon advance written request, other haul routes may be approved. All products removed from Contract Area shall be transported over the approved designated routes of haul. Contractor shall notify Forest Service when a load of products, after leaving Contract Area, will be delayed for more than 12 hours in reaching weighing location. Such notification shall be made as soon as the Contractor is aware of the delay and include the Load Removal Permit number, weighing destination and rationale for the delay.

Contractor shall require truck drivers to stop, if requested by Forest Service, for accountability checks when products are in transit from Contract Area to the designated weighing location. Purchaser and Forest Service shall agree to locations for accountability checks in advance of haul. Such locations shall be established only in areas where it is safe to stop trucks. Forest Service shall notify Contractor of the methods to be used to alert truck drivers of an impending stop.

K-G.9# – STEWARDSHIP PROJECTS (9/04). Performance of stewardship projects shall be in accordance with the following specifications.

Project Number 001- Fuels Reduction and Slash Treatments

UOM (Unit of Measure): Acres **Units: 118**

Within Harvest Units = 2, 12, 13, 14, 25, 26, and 31

Contractor Shall:

1. Include a schedule for fuels reduction and slash treatments as part of the Annual Operating Schedule.
2. Adhere to the Technical specifications and project requirements specified below.

This project only addresses material not included in A2 as Sawtimber and Non-sawtimber products. Activity slash, natural down woody material, and non-utilizable seedlings and saplings will be treated as specified in this project.

Mechanized treatments are preferred in the following order: 1.) remove from NFS lands, 2.) Masticate or chip in woods, and 3.) excavator/hand pile. Other forms of disposal or treatment will be considered, however all mechanized fuel reduction will require excavators and/or low ground pressure chipping machinery.

In areas where masticating or chipping is conducted, woody material shall be scatted to a loose depth not to exceed 6 inches on average over each acre.

TECHNICAL SPECIFICATIONS AND TREATMENT DESCRIPTIONS

A.) Slashing - Treat submerchantable trees, other than Ponderosa Pine, that are two feet or greater in height and do not meet merchantability specifications described as Sawtimber and Non-sawtimber in A2, unless otherwise specified in this project.

B.) Surface Fuels Treatment – Maximum acceptable quantities of natural pre-existing down woody material and activity slash (tops, limbs, trees, etc.) generated during logging operations and fuels reduction treatments are as follows:

Table 1 –Acceptable Fuel Loading to be left on site

Area	Quantities (tonnage)
All Areas	10-15 tons/ac

- The following material sizes are preferred: 1.) large diameter decaying or partially decomposed down woody material existing prior to activities, 2.) material 9” diameter at the small end or larger and 6 ft or longer in length, 3.) the largest naturally occurring diameter at the small end and longest length piece, 4.) the largest activity generated diameter at the small end and longest length piece.

- The following material arrangement is preferred: Material well distributed across the unit and all material in contact with the ground surface with a fuel depth of not exceeding 1 foot on average over each acre.

C.) Hardwood Protection – Leave and protect all black cottonwood, aspen, and paper birch hardwood trees.

D.) Understory Protection Adjacent to Road Closure Devices - Leave and protect all submerchantable trees within 50 ft of road closure devices (berms, gates, etc).

E.) Snag Retention – All dead cull WL, PP, DF trees 12" DBH or greater, shall be left standing if they do not pose a safety hazard to the Contractor's operation. Upon agreement with the Forest Service, dead trees to be left standing may be felled when necessary for safety under the State Safety Code.

F.) Stump Heights - Trees cut or chipped shall have stumps less than 6 inches in height, with no lower live limbs attached, and be completely severed from the stump.

G.) Felling - All trees shall be felled so they fall within the treatment unit. All trees felled, or material that falls outside unit boundaries, shall be returned to the unit.

H.) Piles - All piles shall be located as far from leave trees as practical to avoid damage to reserve tree boles or crown from flame scorch. All piles shall be built reasonably compact and free of soil. No pieces shall extend more than 6 feet beyond the main pile perimeter to allow complete consumption when burned. *The intent is for burning of piles to not damage the residual stand to maintain the desired leave tree spacing and/or thermal cover in white-tailed deer winter range areas.*

I.) Understory Retention (Patches) - Where available leave and protect live submerchantable trees in patches/clumps on approximately 5% of the unit acreage. Preferred patches consist primarily of Ponderosa Pine, Western Larch, or Douglas Fir. Patches of Lodgepole Pine are not acceptable. Patches shall not be located in areas directly under the live crowns of reserve trees, should be no greater than 1/10 ac, and should be evenly distributed across the unit.

J.) Understory Protection within 50 ft of Open Roads (Units 2 and 12 only) - Leave and protect to the extent feasible all submerchantable trees within 50 ft of the clearing limits of open roads, not including landings and temporary road access points.

<u>Project Number 002</u>- System Road Decommissioning

UOM: Project **Units: 1**

SUMMARY of WORK for
LUNAR KRAFT ROAD DECOMMISSIONING
In the LUNAR KRAFT STEWARDSHIP SALE

A. GENERAL: The contractor shall furnish all labor, materials, equipment, and services to decommission 0.84 miles of Forest Service roads. Work includes the construction of waterbars, road closure earth berms, removal and disposal of stream aligned culverts and 18" Cross drains, road spreading excavated material, removing and replacing boulders, and restoration of stream crossing sites using erosion control blankets and straw wattles and re-vegetation methods, riprap placement, determining stake locations to coincide with road logs, seeding and mulching all disturbed areas, and all incidental items necessary to complete the project in accordance with the plans and specifications.

- 0.37 miles of FSRD 561F shall have 1 berm constructed, 6 waterbars installed, and restore 2 stream channels.
- 0.20 miles of FSRD 561G shall have 2 waterbars installed.
- 0.27 miles of FSRD 10247 shall have 1 berm constructed, 1 cross drain removed, and 5 waterbars installed. *** Decommissioning road 10247 requires access via road 9569 which is closed to "wheeled vehicles." Road 9569 has several stream crossings removed and has heavy alder brush. An excavator will be the only equipment accessing the site. The government estimates 16 to 20 hours of excavator time will be utilized accessing the site to perform the work listed on the road log.

A. LOCATION: The project site is located approximately 80 miles south of Kalispell, Montana on the Swan Lake Ranger District of the Flathead National Forest. See the Vicinity Map included in the plans for specific locations.

B. CONTRACTOR PROJECT REQUIREMENTS: A Construction Road Contractor who is regularly engaged in the construction of roads with successful experience on projects with similar requirements.

C. CONTRACTOR QUALIFICATIONS and WRITTEN CERTIFICATIONS: Contractor shall demonstrate qualifications to perform this work by submitting written evidence. The evidence shall confirm they are a company regularly engaged in the construction of roads and that they are capable of performance of the work.

D. CODES AND STANDARDS: The work shall comply with codes and standards applicable to this type of work and as listed in the individual sections of the specifications. This Contract incorporates materials, applications, and tests by reference, with the same force and effect as when they are given in full text.

E. TECHNICAL SPECIFICATIONS:

<u>General:</u> The work shall be complete in every detail. All items of material & labor necessary to complete the work described, indicated or reasonably implied by the drawings or in the specifications shall be included as part of the Contract as if fully specified or drawn.

Forest Service Stand Alone Specifications: *Lunar Kraft Road Decommissioning Specifications*, April 2013, amended, supplemented, and contained in the project contract.

All Specifications regarding payments are inapplicable. Stewardship Credits will be earned as a Lump Sum for the entire project upon completion at the unit bid rate.

Drawings **:** The following drawings are a part of this solicitation and any resulting contract:

* Cover Sheet	Sheet 1	* Typical Drawings	Sheet 5-8
* Vicinity Map	Sheet 2	* Road No. 561F	Sheet 9-10
* Road 10247 Access Map	Sheet 3	* Road No. 561G	Sheet 11
* General Notes	Sheet 4	* Road No. 10247	Sheet 12

Specifications:

Forest Service Specifications	Forest Service Specifications
101 – Terms, Format, and Definitions 103 – Scope of Work 104 – Control of Work 105 – Control of Material 106 – Acceptance of Work 109 – Measurement and Payment 151 – Mobilization 153 – Contractor Quality Control 201 – Clearing and Grubbing	203 – Removal of Structures and Obstructions 204 – Excavation and Embankment 208 – Structural Excavation for Minor Structures 211 – Stream Restoration 251 – Riprap 622 – Rental Equipment 625 – Turf Establishment 705 – Rock 713 – Roadside Improvement Material

GENERAL NOTES

1. Governing road specifications: *Lunar Kraft Road Decommissioning Specifications, April 2013*, amended, supplemented, and entirely contained in the timber sale contract. All Specifications regarding payments are inapplicable. Stewardship credits will be earned Lump Sum for the entire project upon completion at the unit bid rate.

2. Removal of Culverts: All materials designated for removal become the property of the contractor and are to be disposed of by removing off of Forest Service Lands in accordance with all local, state and federal requirements. Culvert Removal will be paid for under Pay Item 21104.

3. Item 21104. All stream restoration sites include straw wattles, erosion control blankets, riprap placement, conserving and placing slash, slope excavation, road spreading material, culvert removal, and culvert disposal No separate payment will be made for these requirements..

4. Straw wattles (minimum 8" diameter) shall be placed parallel and 3-5 feet from the toe of the excavation in each stream channel, the entire length of the disturbed area shown on the Culvert Removal Typical. Product shall be secured in accordance with Manufacturer's recommendations.

5. Streams with surface flow shall require a temporary bypass or water shall be pumped around the site. Dewatering is intended to allow stream channel restoration site work. All in-stream work shall

be completed in an expeditious manner according to the 124 permit to reduce sediment deposited into the stream.

6. Placement of excavated material from the pipe pulls shall begin at a minimum setback of 20 feet from the top edge of the excavation. This excavated material shall be road spread to a depth of 2 feet with a maximum slope of 4:1 and maintained back from the road shoulder a minimum distance of 3 feet on the road template. Do not side cast material over the fill slopes. Ditch may be filled but waterbars must still function as drainage.

7. Suitable rock from the excavation of each stream restoration shall be conserved and placed as riprap in the stream channels and along the toe of the excavation. Conservation of riprap at each stream restoration site is considered incidental to Pay Item 21104.

8. Item 21105. 18" Cross Drain Pipe Removal includes 3:1slope excavation, seed and mulch, conserving and placing slash, culvert removal, and culvert disposal. Excavated material shall be road spread to a depth of 2 feet. Do not side cast material over the side slope. No separate payment will be made for these requirements.

9. Item 62201. Work to access the project site may include but is not limited to brushing, berm removal, road repair, slump excavating, and blow down removal. Stream restorations work may include, but not be limited to, placing logs, vegetation, or rock vanes in the constructed stream channel or on the adjacent banks.

10. Item 62502 Seed and Mulch all disturbed areas utilizing the appropriate materials and rates specified in Section 625.

<u>Project Number 003</u>- Pre-Commercial Thinning

Units = 200 and 205

UOM: Acres **Units: 14**

Contractor Shall:

3. Include a schedule for Pre-commercial Thinning as part of the Annual Operating Schedule.
4. Adhere to the Technical specifications and project requirements specified below.

This project only addresses material not included in A2 as Sawtimber and Non-sawtimber products. There is no included material in units 200 or 205. Seedlings and saplings and natural down woody material will be treated as specified in this project.

Treatments are preferred in the following order: 1.) masticate or chip in woods, and 2.) hand slashing and piling. Other forms of disposal or treatment will be considered provided they meet the specifications included herein, however all mechanized fuel reduction will require excavators and/or low ground pressure chipping machinery. Access to Unit 200 will require equipment or crew to "walk" in approximately 700 feet. There will be no direct vehicle access.

In areas where masticating or chipping is conducted, woody material shall be scattered to a loose depth not to exceed 6 inches on average over each acre.

<u>TECHNICAL SPECIFICATIONS AND TREATMENT DESCRIPTIONS</u>

A.) Slashing - Thin trees less than 5" DBH, that are two feet or greater in height to a spacing of approximately 13-15', or 200-250 trees per acre. Spacing may be varied up to 50% in order to retain the best trees, but should average 14' across the unit when complete.

Thinning Prescription:
Leave tree species preference: 1) WL 2) PP 3) WP 4) DF 5) LP 6) ES

Damage: Western Gall Rust in LP – cut trees with bole infections, discriminating against trees with branch infections. MPB may be present in some LP – cut trees with signs of MPB attacks.

Leave trees shall have the best form and vigor, be a species listed in the leave tree species preference list, and be within the acceptable stocking density. Indicators of desirable leave tree qualities include (roughly in order of importance): free of insects, disease, and damage; high crown to total height ratio; vigorous annual terminal growth; good crown coloration; well-formed crown; straight stem with no multiple tops. Species preference is to be weighted heavier than tree height or diameter for selecting trees for leave, within the guidelines of spacing interval and tree quality. In other words, leave a WL or PP even if it is smaller than an adjacent LP, unless it has serious disease/insects, poor crown, or defects.

B.) Surface Fuels Treatment – All surface fuels generated during this activity shall be treated via piling, chipping, or other treatment as accepted. Natural, pre-existing down logs and other material is not to be treated as a part of this project.

C.) Hardwood Protection – Leave and protect all black cottonwood, aspen, and paper birch hardwood trees.

D.) Snag Retention – All dead cull WL, PP, DF trees 12" DBH or greater, shall be left standing if they do not pose a safety hazard to the Contractor's operation. Upon agreement with the Forest Service, dead trees to be left standing may be felled when necessary for safety under the State Safety Code.

E.) Stump Heights - Trees cut or chipped shall have stumps less than 6 inches in height, with no lower live limbs attached, and be completely severed from the stump.

F.) Felling - All trees shall be felled so they fall within the treatment unit. All trees felled, or material that falls outside unit boundaries, shall be returned to the unit.

G.) Piles - All piles shall be located as far from leave trees as practical to avoid damage to reserve tree boles or crown from flame scorch. All piles shall be built reasonably compact and free of soil. No pieces shall extend more than 6 feet beyond the main pile perimeter to allow complete consumption when burned. *The intent is for burning of piles to not damage the residual stand to maintain the desired leave tree spacing and/or thermal cover in white-tailed deer winter range areas.*

<u>Project Number 004</u>- Equipment Rental

UOM: Hour **Units: 1**

Activity Number	Activity Description	Unit of Measure
004	Excavator (153hp, 1.38cy, w/thumb) or comparable, w/operator	Hourly
	Excavator (84hp, .75 cy, w/thumb) or comparable, w/operator	Hourly
	Grader (150 hp) or comparable, w/operator	Hourly
	Rear Dump Truck (10-12 cy) or comparable, w/operator	Hourly
	Water Truck (3500 gal diesel) or comparable, w/operator	Hourly
	Track Based Masticator capable of operating on slopes up to 35%, w/operator	Hourly
	General Laborer	Hourly

This work consists of furnishing and operating equipment for construction work awarded by the CO and not otherwise provided for under the contract.

The CO will order in writing rental equipment for use on the project. Submit the model number and serial number for each piece of equipment before use. Make equipment available for inspection and approval before use.

Furnish and operate equipment with such auxiliary attachments, oilers, etc., as are usually needed for efficient operation of the equipment. Keep the equipment in good repair and capable of operating 90 percent of the working time.

Obtain approval of the length of workday and workweek before beginning work. Keep daily records of the number of unit-hours of operation. Submit the records and, if applicable, certified copies of the payroll.

K-H.2 - NORMAL PRECAUTIONS (2/02). Specific fire precautionary measures are set forth below. Upon request of Forest Service, Contractor shall permit and provide an individual to assist in periodic testing and inspection of required fire equipment. Contractor shall promptly remedy deficiencies found through such inspecting and testing.

The following requirements shall apply during the period stated in A.12 and during other such periods as specified by Forest Service.

A. Fire Extinguishers and Tools Required with Equipment. Each unit of powered equipment used in connection with this contract shall be equipped with serviceable tools and fire extinguishers acceptable to Forest Service as follows:

1. STATIONARY EQUIPMENT. Examples include yarders, log loaders, Hahn Harvester, stroke delimbers, roadside/landing based processors, whole tree chippers, rock crusher, asphalt plant, or other equipment working at fixed locations such as a landing or rock crushing site.

One - Fire extinguisher, dry chemical type of not less than 2.5-pound capacity with 4 B.C. or higher rating.

One - 5-gallon standard galvanized metal, fiber glass or rubberized backpack water container, with hand pump attached, to be filled at all times.

Weatherproofed tool box marked "FIRE ONLY," equipped with a hasp, kept sealed, and containing:

One - Axe, double bit, 3.5#

Two - Shovels (round point #0 lady or equal)

Two - Pulaskis

The tool box shall be mounted on equipment, if feasible, unless another location is agreed to in writing. The tool box shall be within 100 feet of the designated machine at all times when operating. Only one (1) tool box is required at each active fixed location site.

2. MOBILE EQUIPMENT. Examples include crawler tractors, rubber-tire skidders, soft-track skidders, forwarders, feller-bunchers, feller-processors, excavators, front-end loaders, back-hoes, scrapers, and motor graders.

One - Fire extinguisher, dry chemical type of not less than 2.5-pound capacity with a 4 B.C. or higher rating.

One - Shovel (round point #0 lady or equal). For equipping mobile equipment, an acceptable substitute is a "D-handle" round point shovel with a minimum 27-inch handle and a minimum 8- by 11-inch blade.

One - Axe, double bit, 3.5#, or one pulaski.

3. SUPPORT EQUIPMENT. Examples include trucks, low-boys, busses, pickups, panels, automobiles, service trucks, or similar equipment used in transporting logs, people, equipment, and/or materials.

One - Fire extinguisher, dry chemical type of not less than 2.5-pound capacity with 4 B.C. or higher rating

One - Shovel (round point #0 lady or equal)

One - Axe, 2# or over, 26-inch minimum length, or one pulaski

One - Bucket or similar water container (at least 1-gallon capacity)

4. POWER SAWS

One - Shovel (round point #0 lady or equal). Shovel shall be with gas containers and/or no more than 100 feet distance from where sawyer is working.

One - Fire extinguisher, containing not less than eight (8) ounces of extinguisher fluid or a dry chemical powder type of not less than one (1) pound capacity. The extinguisher shall be carried by the operator at all times.

Any fueling or refueling of a power saw shall only be done in an area which is free of or which has first been cleared of all material capable of carrying fire; such power saw shall be moved at least 10 feet from place of fueling before starting.

B. Fire Tools on Contract Area. Contractor shall furnish and maintain in serviceable condition, in quantities and at locations to be designated by Forest Service, tool boxes, fire tools and other fire equipment to be used only for suppressing forest fires. Each tool box shall be weatherproofed and marked "TOOLS FOR FIRE ONLY" and kept sealed. These requirements are in addition to fire tool requirements for mobile, stationary, support or power saw equipment.

1. Special tool caches shall not be required when less than 20 people are employed on Contract Area, excluding logging truck drivers.

2. Operations employing more than 20 individuals on Contract Area, excluding truck drivers, shall furnish a tool cache with a minimum of one serviceable tool per person in the following configuration:

Axe, double bit, 3.5#, 10%

Shovels (round point #0 lady or equal), 45%

Pulaskis, 45%

C. Spark Arresters. Each internal combustion engine shall be provided with a spark arrester or spark arresting device approved by Forest Service. Exceptions where Forest Service may approve mufflers or other equipment in lieu of spark arresters qualified and rated under Forest Service standard 5100-1a are: (a) small multi-position engines, such as chain saws, shall meet Society of Automotive Engineers J335b standards, (b) passenger-carrying vehicles and light trucks may have baffle-type muffler with tail pipe, (c) heavy-duty trucks may have a vertical stack exhaust system with muffler, provided the exhaust stack extends above the cab of the vehicle, (d) an exhaust driven turbocharger is considered to be a satisfactory spark arrester. Internal combustion engine exhaust systems, arresters and other devices shall be properly installed and maintained.

D. Blasting. Fuse or prima cord shall not be used unless authorized in writing by Forest Service, with special precautions stated.

E. Smoking. Smoking shall not be permitted within logging operations except on surfaced or dirt roads, at landings, within closed vehicles, in camps or at other posted places. Smoking shall not be permitted while working or traveling on foot, within or through Contract Area.

F. Precautions for Stoves. Stovepipes on all temporary buildings, trailers, and tents using wood-burning stoves shall be equipped with roof jacks and serviceable spark arresters of mesh with openings no larger than 5/8 inch. All stovepipes, inside and out, shall not be closer than two (2) feet from any wood or other flammable material or one (1) foot if the combustible material is protected by a metal or asbestos shield.

G. Debris Around Buildings. The grounds around buildings, tents and other structures shall be kept free of flammable material for a distance of at least 15 feet from the wall of such structures.

H. Storage of Petroleum and Other Highly Inflammable Products. Gasoline, oil, grease, or other highly flammable material shall be stored either in a separate building or at a site where all combustible debris and vegetation is cleared away within a radius of 25 feet. Fire extinguishers and/or sand barrels may be required at such locations specified by Forest Service when unusually hazardous conditions exist.

I. Debris Burning and Warming Fires. Burning permits shall be required throughout the year for all debris burning fires. Lunch and warming fires may be allowed in fireproofed areas during periods of low fire danger as specified in the fire plan. Such fires shall not be left unattended.

J. Cable Logging. All tail blocks and corner blocks shall be of an accepted haulback design which prevents line fouling and used with line guards. Such blocks shall be located to prevent cables from rubbing against trees, snags, down logs or rock when operating.

Areas adjacent to blocks shall be cleared of flammable material within a 5-foot radius. One (1) shovel and one (1) pulaski shall be maintained within 10 feet of each block.

K. Emergency Measures. Additional measures and/or other special requirements necessary during periods of critical fire-weather conditions shall be included in the fire prevention and presuppression plan.

L. Welding. Welding and use of cutting torches or cutoff saws will be permitted only in areas that have been cleared or are free of all material capable of carrying fire. Flammable debris and vegetation must be removed from within a minimum 10-foot radius of all welding and cutting operations. A shovel and a 5-gallon standard backpack water container filled and with handpump attached shall be immediately available for use in the event of a fire start.

K-H.2.1 - PUMP AND TRAILER (7/71). Contractor shall provide at a location satisfactory to Forest Service, a serviceable truck or trailer equipped with a firefighting tanker unit to be kept ready for instant use for suppressing forest fires. The unit shall consist of a tank of not less than 100-gallon capacity upon which shall be mounted a live hose reel or live hose basket with 250 feet of a least 3/4-inch I.D. heavy-duty rubber hose; a portable or power takeoff pump with discharge capacity of at least 10 gallons per minute at 150 P.S.I. pressure. Gear type pumps shall be provided with a bypass or pressure relief valve so the hose nozzle may be shut while the pump is operating. Each tanker unit shall have a hose nozzle of the shut-off type, adjustable for straight stream, spray or fog, at least 12 feet of 1-inch suction hose with an intake screen, an additional 250 feet of 3/4-inch heavy-duty rubber hose or 1-inch cotton jacket rubber-lined or linen hose to be carried on the unit for use as needed. Tools, adapters, accessories and fuel necessary to operate the pump and truck or trailer shall be provided. If a trailer is used, a serviceable vehicle with the proper trailer tow hitch shall be located at a point satisfactory to Forest Service. Where water is available, a supply sufficient for rapidly filling the water tank shall be provided at one or more accessible points along or adjacent to the main truck roads.

K-I.2.1.2 - MARKET-RELATED CONTRACT TERM ADDITION (11/08). The term of this contract may be adjusted when a drastic reduction in wood product prices has occurred in accordance with 36 CFR 223.52. The Producer Price Index used to determine when a drastic reduction in price has occurred is stated in A.20. Contractor will be notified whenever the Chief determines that a drastic reduction in wood product prices has occurred. If the drastic reduction criteria specified in 36 CFR 223.52 are met for 2 consecutive calendar quarters, after contract award date, Contracting Officer will add 1 year to the contract term, upon Contractor's written request. For each additional consecutive quarter such a drastic reduction occurs, Contracting Officer will, upon written request, add an additional 3 months to the term during Normal Operating Season, except that no single 3-month addition shall extend the term of the contract by more than one year. Contracting Officer must receive Contractor's written request for a market-related contract term addition before the expiration of this contract.

No more than 3 years shall be added to a contract's term by market-related contract term addition unless the following conditions are met:

(i) The contract was awarded after December 31, 2006; and

(ii) A drastic reduction in wood product prices occurred in at least ten of twelve consecutive quarters during the contract term, but not including the quarter in which the contract was awarded.

For each qualifying quarter meeting the criteria in paragraphs (i) and (ii) of this provision, the Forest Service will, upon the Contractor's written request, add an additional 3 months during the normal operating season to the contract, except no single 3-month addition shall extend the term of a contract by more than 1 year.

In no event shall a revised contract term exceed 10 years as a result of market-related contract term addition.

Additional contract time may not be granted for those portions of the contract that have a required completion date or for those portions of the contract where Contracting Officer determines that the timber is in need of urgent removal or that timber deterioration or resource damage may result from delay.

K-I.6.8# – USE OF TIMBER (Option 1) (9/04).

(a) This contract is subject to the Forest Resources Conservation and Shortage Relief Act of 1990, as amended (16 USC 620, *et seq.*).

(b) Except for **None** determined pursuant to public hearing to be surplus, unprocessed Included Timber shall not be exported from the United States nor used in direct or indirect substitution for unprocessed timber exported from private lands by Contractor or any person as defined in the Act (16 USC 620e).

(c) Timber in the following form will be considered unprocessed:

(i) Trees or portions of trees or other roundwood not processed to standards and specifications suitable for end product use;

(ii) Lumber, construction timbers, or cants intended for remanufacturing not meeting standards defined in the Act (16 USC 620e); and

(iii) Aspen or other pulpwood bolts exceeding 100 inches in length.

(d) Unless otherwise agreed in writing, unprocessed Included Timber shall be delivered to a domestic processing facility and shall not be mixed with logs intended for export.

(e) Prior to award, during the life of this contract, and for a period of 3 years from Termination Date, Contractor shall furnish to Forest Service, upon request, records showing the volume and geographic origin of unprocessed timber from private lands exported or sold for export by Contractor or affiliates.

(f) Prior to delivering unprocessed Included Timber to another party, Contractor shall require each buyer, exchangee, or recipient to execute an acceptable agreement that will:

(i) Identify the Federal origin of the timber;

(ii) Specify domestic processing for the timber involved;

(iii) Require the execution of such agreements between the parties to any subsequent transactions involving the timber;

(iv) Require that all hammer brands and/or yellow paint must remain on logs until they are either legally exported or domestically processed, whichever is applicable; and

(v) Otherwise comply with the requirements of the Act (16 USC 620d).

(g) No later than 10 days following the execution of any such agreement between Contractor and another party, Contractor shall furnish to Forest Service a copy of each such agreement. Contractor shall retain, for 3 years from Termination Date, the records of all sales, exchanges, or dispositions of all Included Timber.

(h) Upon request, all records dealing with origin and disposition of Included Timber shall be made available to Contracting Officer.

(i) For breach of this Subsection, Forest Service may terminate this contract and take such other action as may be provided by statute or regulation, including the imposition of penalties. When terminated by Forest Service under this Subsection, Forest Service will not be liable for any Claim submitted by Contractor relating to the termination.