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 **All** Cutting Units. 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.3.0.3# - DEAD TREES (10/04). Notwithstanding the designations for cutting in other provisions of this contract, dead **Larch, Douglas Fir, White Pine and Cedar** standing trees over **15 feet** in height and **10 inches** diameter at breast height and dead **N/A** standing trees meeting Utilization Standards stated in A.2 will be left standing in Cutting Units **2, 3, 5, 6, 7, 11, 11A, 12, 13, 15, 22, 23E, 26, 27, 30, 30A, 31, 31A, 32, 34, 35, 37, 40, 40A, 41, 42, 43 and 46**.

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 **25, 28, 30B, 30C, 30D, 41A and 45**, 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.3.5.9# - INDIVIDUAL TREES (CUT TREE MARKING) (2/09). In Cutting Units **40A**, individual trees to be cut have been Marked with a horizontal stripe of **BLUE** paint at or above eye level, and a stump mark consisting of a horizontal stripe of **BLUE** paint on the downhill side of the tree at ground level.

The boundaries of units where individual 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.

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)
2, 3, 5, 6, 7, 11, 11A, 12, 13, 15, 22, 23E, 26, 27, 30, 31, 32, 34, 37, 40, 41, 42, 46	All **(Non-Sawlog)**	9
11A, 12, 22, 23E, 27, 30, 32, 34, 40, 41	Sawlog - N/A – Refer to **1/** below	
13	Sawlog - N/A – Refer to **2/** below	
2, 3, 6, 7, 26, 30A, 31A, 37, 42, 43, 46	LP	N/A
5	AF, C, GF, H, LP, S, WP	N/A
15, 31	H, LP	N/A
11	AF, C, DF, GF, H, LP, S, WP	N/A
35	AF, C, GF, H, LP, S	N/A

Stump diameter will be measured at **6 (six)** inches above ground level on the uphill side of the tree. A minimum stump height of **6 (six)** 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 **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.

In addition to those species listed above, sawlog trees Marked with a horizontal stripe of **BLUE** paint at or above eye level, and a stump mark consisting of a horizontal stripe of **BLUE** paint on the downhill side of the tree at ground level are also designated for **cutting in units 2, 3, 5, 6, 7, 11, 15, 26, 31, 37, 42, 46.**

1/ In units 11A, 12, 22, 23E, 27, 30, 32, 34, 40 and 41, sawlog trees Marked with a horizontal stripe of **BLUE** paint at or above eye level, and a stump mark consisting of a horizontal stripe of **BLUE** paint on the downhill side of the tree at ground level are also designated for cutting.

2/ In addition to those species listed above, sawlog trees Marked with a horizontal stripe of **YELLOW** paint at or above eye level, and a stump mark consisting of a horizontal stripe of **YELLOW** paint on the downhill side of the tree at ground level are also designated **for cutting in units 13 and 35**.

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.2.2.8# - SLASH DISPOSAL DEPOSIT SCHEDULE (2/09). Contractor shall make a cash deposit for slash disposal activities to be performed by the Forest Service.

Upon completion of skidding activities in each cutting unit, the Contractor shall be billed for the amount(s) shown in the table below.

Cutting Unit Number	Required Deposits
2	$860.07
3	$259.76
5	$917.83
6	$1,114.09
7	$3,723.26
11	$3,931.07
11A	$594.57
12	$761.97
13	$646.52
15	$1,004.41
22	$594.57
23E	$531.07
25	$1,737.52
26	$2,499.49
27	$352.12
28	$1,085.23
30	$848.56
30A	$132.77
30B	$1,085.23
30C	$1,085.23
30D	$1,956.87
31	$317.49
31A	$115.45
32	$946.69
34	$825.47
35	$8,358.57
37	$1,027.50
40	$871.65
40A	$144.31
41	$236.67
41A	$3,209.50
42	$894.74
43	$21,635.30
45	$7,048.21
46	$4,104.24

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.1.2# – 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		
68	South Fork Yaak	Jct w/Hwy 508	Jct w/6065	**R**	All vehicles shall comply with statutory load limits unless a permit from the Forest Service and any necessary State permits are obtained prior to overload vehicle use.
6074	Beaver Tail	South Boundary Unit 11A	End	**X**	Hauling Prohibited
7460	Rocky Road	MP 0.15 (Berm)	Jct w/6812		
6713	Fix Cr.	North Boundary unit 37	Fix Cr.		
472A	Burnt Dutch Creek A	SW Corner of Private Land in Section 25	Jct w/68	**P**	Use Prohibited

K-F.1.3# – ROAD COMPLETION DATE (9/04). Construction of Specified Roads shall be completed no later than **10/31/2014**; except for earlier construction completion dates for roads listed below:

Road Number	Road Name	Station		Completion Date
		From	To	
	N/A			

Completion date is binding on the party that constructs road, whether Contractor or Forest Service. Contracting Officer may modify the completion date in writing to conform to the Technical Proposal under G.3.1.1 at the request of Contractor.

When Contractor elects Forest Service construction of Specified Roads shown in contract advertisement, Forest Service may adjust construction completion date when road construction is delayed or interrupted for causes that qualify for an adjustment of the completion date of Forest Service's road construction contract. When qualifying delays or interruptions of road construction occur, Forest Service shall evaluate such occurrences and document any findings. The current status of any adjustment shall be available to Contractor on request. Promptly after the end of Normal Operating Season in which qualifying days occur, Forest Service shall give Contractor written notice of (a) number of qualifying days claimed, and (b) new construction completion dates. After all road construction is complete, Forest Service shall grant Contract Term Adjustment. Such adjustment shall be limited to road completion date delays that occurred during Normal Operating Season.

If Forest Service is responsible for road construction and the actual date of road completion is 1 year or more after the completion date stated above, Contractor may request a rate redetermination under D.3 for remaining volume. Such request must be made within 30 days of notification that road construction has been completed. Upon receipt of such request, Forest Service shall redetermine rates using standard methods in effect on the completion date of road construction. Rates to be established shall apply to all timber removed from Contract Area after the effective date of the rate redetermination.

Forest Service shall in no way be responsible for any delay or damage caused by road contractor in performing the road construction, except such delay as may be the fault or negligence of Forest Service.

When Contractor constructs Specified Roads and requests Contract Term Adjustment, completion dates shall be adjusted by number of days that qualify for such adjustment, provided such qualifying days occur before specified construction completion date. When Contractor desires to construct an alternate facility under F.2.6, Forest Service and Contractor shall agree, in writing, on a construction completion date for alternate facility. Contract Term Adjustment as noted above will apply. Completion date shall be adjusted where a Design Change or physical changes necessitate a modification of Specified Road construction work that increases the scope or magnitude of the required work.

If Contractor fails to complete construction of any or all Specified Roads by applicable completion date, as adjusted, Contract Term Extension shall not be granted.
As used in this provision, construction of a road is completed when:

(a) Contractor constructs Specified Roads and Forest Service furnishes Contractor with written notice of acceptance under G.3.6 or

(b) Forest Service constructs road and furnishes Contractor with written notice authorizing use of road.

Notwithstanding F.1, Contractor shall not use a road that Contractor has elected for Forest Service to construct, until construction is completed and Forest Service furnishes Contractor with written notice authorizing use of road.

K-F.2.2.1# – MATERIAL SOURCES (9/04). Sources of local materials are designated on Plans and Contract Area Map. Forest Service assumes responsibility for the quality and quantity of material in designated sources. Contractor shall determine the equipment and work required to produce the specified product, including the selection of acceptable material that is reasonably available in the source that meets specifications. The designation of source includes the rights of Contractor to use certain area(s) for plant site, stockpiles, and haul roads.

Should the designated source, due to causes beyond the control of Contractor, contain insufficient acceptable material, Forest Service will provide another source with adjustment in accordance with F.2.5.3.

When Contractor elects not to use designated sources, Contractor shall furnish the specified product with no adjustment in unit rates. Quality testing shall be the responsibility of Contractor. Test results shall be furnished to Forest Service.

When Contractor elects not to use designated sources and the Schedule of Items lists pit development separately, cost allowance will be reduced under F.2.5.3 when Forest Service determines the work will not be required.

When materials are subject to a weight measurement, the specific gravity or weight/volume relationship used as a basis for determination of estimated quantities shall be:

Source I **N/A**, Source II **N/A**, and Source III **N/A**.

Contractor may, when agreed in writing, use on the project such suitable stone, gravel, and sand, or other material found in the excavation, and will earn a cost allowance for the excavation of such materials at the corresponding contract unit price and for the pay items for which the excavated material is used. Contractor shall replace, without additional cost allowance, sufficient suitable materials to complete the portion of the work that was originally contemplated to be constructed with such material. Contractor shall not excavate or remove any material, except that which is within the excavation limits, without written authorization from Forest Service.

When material is appraised from non-National Forest designated sources, owner charges for the material in terms of unit cost for royalties, purchase of raw materials, or finished products shall be as follows until N/A:

Material	Type of Purchase	Owner(s)	Unit of Measure	Unit Price	Estimated Quantity	Total
		N/A				

Should quantity vary from that estimated, payment to owners shall be for units actually obtained. Contractor shall make arrangements with owner(s) for measurement and payment for royalties, purchase of raw materials, or finished products, as shown above.

Materials produced or processed from National Forest lands in excess of the quantities required for performance of this contract are the property of Forest Service, unless prior written agreement has been obtained to use excess material on other National Forest contracts. Forest Service is not obligated to reimburse Contractor for the cost of their production.

Materials shall be stored to assure the preservation of their quality and fitness for the work. Stored materials shall be located to facilitate their prompt inspection. Sites on Forest Service administered land, approved by Forest Service, may be used for storage purposes and for the placing of Contractor's plant equipment. All storage sites provided by Forest Service shall be restored at Contractor's expense. Contractor shall be responsible for making arrangements for storage on other than Forest Service administered lands.

When the construction of the portion of the project for which Temporary Roads used for hauling materials is completed, all such Temporary Roads shall be restored as nearly as practicable to their original ground profile, unless otherwise agreed in writing.

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

Road	Termini		Miles	Applicable PREHAUL Haul Road Maintenance Specifications										
	From	To		T101	T301									
593	Unit 30B	Jct. 68	0.31	P	P									
6713	Unit 37	Jct 68	0.11	P	---									

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

Road	Termini		Miles	Applicable DURING HAUL Haul Road Maintenance Specifications											
	From	To		T101	T103	T108	T113	T301	T310	T506	T507	T508	T618	T619	T710
68	Jct. 6065	Road 92	6.87	---	---	P	D	P	P	P	D	P	D	F	F
472	Unit 43	Jct. 68	1.95	P	---	P	---	P	P	P	D	P	D	F	F
593	Unit 30B	Jct. 68	0.31	P	---	P	---	P	P	P	D	P	---	F	F
746	Unit 2	Jct. 68	5.09	P	---	P	---	P	P	P	D	P	D	F	F
6062	Jct. 6074	Jct 746	2.07	P	P	P	---	P	P	P	D	P	---	F	F
6065	Jct 6065B	Jct 68	0.87	P	---	P	---	P	P	P	D	P	---	F	F
6074	Unit 11	Jct 6062	1.08	P	---	P	---	---	P	P	D	P	---	F	F
6114	Jct 6114D	Jct 472	1.60	P	---	P	---	---	P	P	D	P	---	F	F
6713	Unit 37	Jct 68	0.11	P	---	P	---	---	P	P	D	P	---	F	F
6812	Unit 22	Jct 68	0.57	P	---	P	---	---	P	P	D	P	---	F	F
7460	Unit 25	Jct 746	0.15	P	---	P	---	---	P	P	D	P	---	F	F
472A	Unit 43	Jct 472	0.56	P	---	P	---	---	P	P	D	P	---	F	F
6065B	Unit 35	Jct 6065	0.68	P	---	P	---	---	P	P	D	P	---	F	F
6114D	Unit 46	Jct 6114	0.75	P	---	P	---	---	P	P	D	P	---	F	F
7467	Unit 7	Jct 746	0.41	P	---	P	---	P	P	P	D	P	---	F	F

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

Road	Termini		Miles	Applicable POST Haul Road Maintenance Specifications										
	From	To		T101	T108	T113	T301	T310	T506	T507	T508	T618	T619	T710
68	Jct. 6065	Road 92	6.87	---	P	D	P	P	P	D	P	D	F	F
472	Unit 43	Jct. 68	1.95	P	P	---	P	P	P	D	P	D	F	F
593	Unit 30B	Jct. 68	0.31	P	P	---	P	P	P	D	P	---	F	F
746	Unit 2	Jct. 68	5.09	P	P	---	P	P	P	D	P	D	F	F
6062	Jct. 6074	Jct 746	2.07	P	P	---	P	P	P	D	P	---	F	F
6065	Jct 6065B	Jct 68	0.87	P	P	---	P	P	P	D	P	---	F	F
6074	Unit 11	Jct 6062	1.08	P	P	---	---	P	P	D	P	---	F	F
6114	Jct 6114D	Jct 472	1.60	P	P	---	---	P	P	D	P	---	F	F
6713	Unit 37	Jct 68	0.11	P	P	---	---	P	P	D	P	---	F	F
6812	Unit 22	Jct 68	0.57	P	P	---	---	P	P	D	P	---	F	F
7460	Unit 25	Jct 746	0.15	P	P	---	---	P	P	D	P	---	F	F
472A	Unit 43	Jct 472	0.56	P	P	---	---	P	P	D	P	---	F	F
6065B	Unit 35	Jct 6065	0.68	P	P	---	---	P	P	D	P	---	F	F
6114D	Unit 46	Jct 6114	0.75	P	P	---	---	P	P	D	P	---	F	F
7467	Unit 7	Jct 746	0.41	P	P	---	P	P	P	D	P	---	F	F

P = Contractor 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-108 SLIDE REMOVAL AND SLUMP REPAIR

DESCRIPTION

1.1 Slide removal and slump repair consists of all work necessary to restore the road to its original cross section as necessary to facilitate use and provide drainage. This work is such that it cannot be handled by a grader during surface blading and ditch cleaning operations.

Slump repair is the filling with selected material of depressions or washouts in roadway which cannot be routinely filled by a motor grader.

Slide removal and slump repair includes excavation, loading, hauling, placing, and compacting of replacement material and the removal and disposal of waste material. This includes the development of disposal or borrow areas at locations approved by the Forest Service.

REQUIREMENTS

3.1 Contractor shall deposit slide material in an approved manner at designated locations.

Material shall not be disposed of on road fills unless otherwise agreed.

The slope which contributed the slide material shall be reshaped as practicable to reduce future sliding unless otherwise agreed.

3.2 When filling slumps and depressions, select material shall be used, placed in layers, and compacted to conform with or exceed the density of existing subgrade.

Existing aggregate surfacing shall be salvaged and relayed or replaced after slumps have been filled.

Damaged aggregate base, aggregate surfacing, and asphalt surfacing shall be repaired under Specification T-113, Surfacing Repair.

3.3 Following slide removal, roadway shall be shaped so as to reasonably conform to its original subgrade template.

3.4 Slump, waste, and borrow areas shall be seeded as required under T-508.

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-508 SEEDING

DESCRIPTION

1.1 Seeding is the application of seed and fertilizer to areas where vegetation has been disturbed as a result of slides, slumps, disposal of materials, and other Contractor operations in connection with road maintenance.

REQUIREMENTS

3.1 Contractor shall provide and apply the required kinds and amounts of seed and fertilizer in accordance with the requirements in G.6.0.1#.

3.2 Surfaces of areas to be treated shall be in a loose and roughened condition favorable to the retention and germination of seed.

K-F.3.1.2# - RECONDITIONING OF EXISTING ROADS (10/04). Existing roads listed below and shown on the Contract Area Map will be included in the annual Operating schedule pursuant to G.3.1. Such roads shall be reconditioned by Contractor prior to use in accordance with road logs which are attached hereto and made a part thereof. For the roads listed below, the Contractor shall perform the following maintenance work as required:

A. Remove log or earth barricades.

B. Fill and level waterbars.

C. Clear trees and brush, remove down timber and debris from ditches and roadway. Remove bank slough that interferes with ditches and roadway and deposit on fill slopes or at locations staked on the ground.

D. General road blading and ditch maintenance pursuant to K-F.3.1#.

E. Construct drain dips as per attached drawing on Road # 6713. Locations are staked on the ground.

Notwithstanding C.3, down timber required to be moved under item C above shall become Included Timber subject to the requirements of C.2 when (a) it meets Utilization Standards in A.2 and (b) is designated by agreement. Other material and brush or debris removed from the ditches or road surface shall be scattered outside cleared right of way or piled at designated sites for later disposal by the Forest Service as indicated below for each road. Once reconditioned, such roads shall be maintained pursuant to K-F.3.1#.; however, such maintenance shall only be to the standard to which the road is reconditioned.

Road Number	Approximate Length	Termini	Disposal Option
593	0.31	Unit 30B to Jct 68	Scatter
6713	0.11	Unit 37 to Jct 68	Scatter

Reconditioning Log

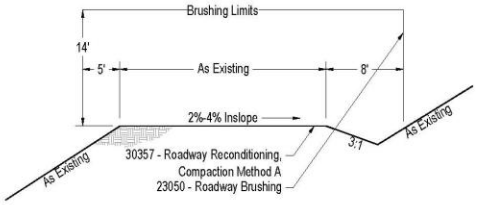
Fix Creek Road 6713

Station or Mile Post	Pay Item Number	Description of Work
MP 0.00	30357 23050 62556	BEGIN PROJECT; JUNCTION WITH ROAD 68. BEGIN ROADWAY RECONDITIONING, COMPACTION METHOD A; SEE TYPICAL A, THIS SHEET. BEGIN ROADWAY BRUSHING; SEE TYPICAL A, THIS SHEET. BEGIN SEEDING OF ALL DISTURBED ARES WITH EXCEPTION OF TRAVELED ROADWAY.
MP 0.01		EXISTING GATE; KEEP GATE CLOSED NIGHTS AND WEEKENDS.
MP 0.04	20482 20481	REMOVE EXISTING WATERBAR, COMPACTION METHOD E. ENSURE DITCH DRAINAGE PAST WATERBAR. CONSTRUCT DRAIN DIP, COMPACTION METHOD E; SEE SHEET 2.
MP 0.08	32222	PLACE 10 C.Y. PIT RUN TO FILL EXISTING WATERBAR, 2" MAX SIZE, COMPACTION METHOD B.
MP 0.11		END OF PROJECT.

Long Meadows Road 593

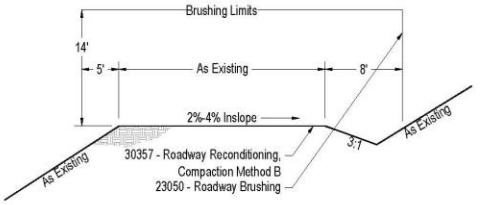
Station or Mile Post	Pay Item Number	Description of Work
MP 0.00	30357 23050	BEGIN PROJECT; JUNCTION WITH ROAD 68. BEGIN ROADWAY RECONDITIONING, COMPACTION METHOD B; SEE TYPICAL B, THIS SHEET. BEGIN ROADWAY BRUSHING; SEE TYPICAL B, THIS SHEET.
MP 0.31		END OF PROJECT.

Typical A



Note: If surface is crowned or outsloped, maintain existing profile at 2%-4%. Typical ditch depth is 1'.

Typical B



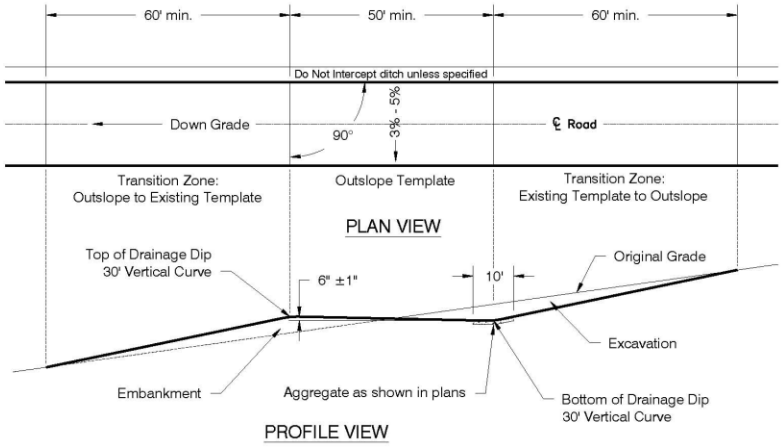
Note: If surface is crowned or outsloped, maintain existing profile at 2%-4%. Typical ditch depth is 1'.

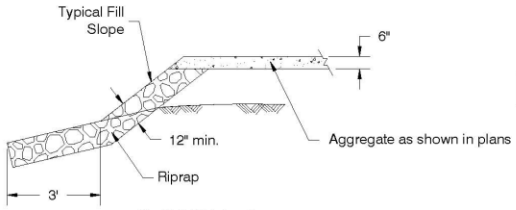
11x17 Blank.dwg REV. 01/2003

SHEET NUMBER	TOTAL SHEETS
1	2

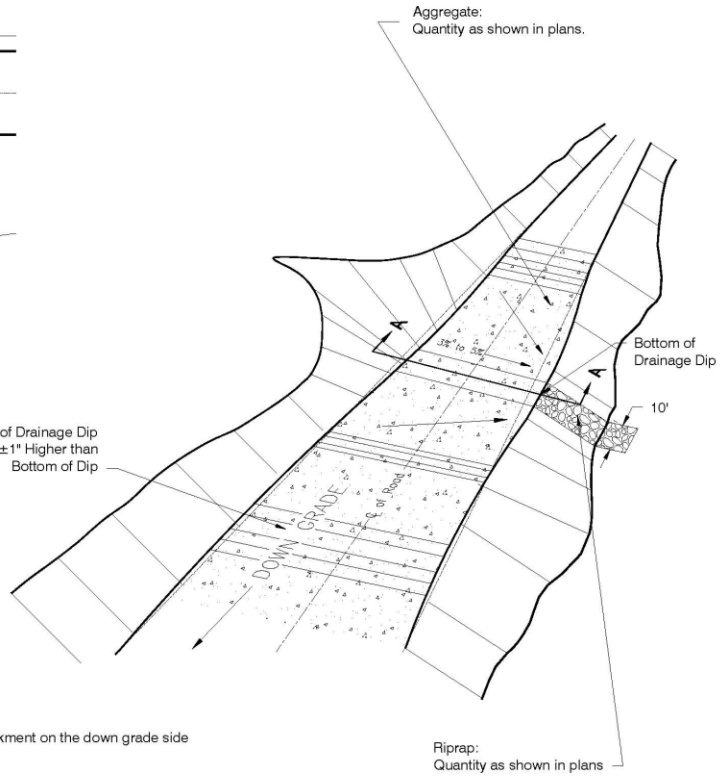
Southbound Stewardship

Drain Dip Detail





Drawings Not To Scale



Notes:

Excavation below the existing grade line will be used as embankment on the down grade side of the dip.

All disturbances shall be kept within the limits of the Drainage Dip.

Aggregate, Dip Reinforcement, or Riprap will only be required when specified in the Drainage Listing or Reconstruction Log.

Drainage Dip.dwg REV. 01/03

Southbound Stewardship	SHEET NUMBER	TOTAL SHEETS
	2	2

K-F.3.1.4# - DUST ABATEMENT TREATMENT (02/02). When conditions are such that dusting would result in hazardous driving conditions or there would be an appreciable loss of road surface binder material, Contractor shall control such dusting by application of a dust abatement treatment to the surface of roadways and other traveled areas according to referenced or attached specifications or other specifications agreed to in writing. This treatment will provide a surface which can be bladed and retreated when necessary. It is not intended to produce a permanent waterproof wearing surface or dust control for more than one year, even though some residual value may be retained. It is intended to be compatible with the physical characteristics of the road surface, such as parent material, percent fines, relative humidity, or possibly some residual dust abatement material.

Dust abatement treatment shall apply only to the roads listed below. The provisions of Specification T-103 of K-F.3.1# shall apply to all other roads when required under K-F.3.1# T-103 of K-F.3.1# may be used in lieu of K-F.3.1.4# to perform dust abatement during hauling of timber cut within the clearing limits of roads constructed under this timber sale unless otherwise agreed.

Dust Abatement Specifications

Road Number	Road Name	Termini	Abatement Treatment	References or Attached
746	Vinal Lake	Unit 3 to Jct 68	CaCl2 94%	Section 412

Section 412 – Dust Palliative Treatment

DESCRIPTION

412.01 Work — This work shall consist of, furnishing, sampling and applying dust palliative to a road surface. Road surface preparation willbe required as per section 412.06.

MATERIALS

412.02 Requirements — The type of material shall meet the specified requirements shown below:

Magnesium or Calcium Chloride

Chloride products shall be a brine consisting of water andmagnesium and/or calcium chloride. The chemical composition, percent by weight brine, shall be as follows:

Chloride Concentration (Sum of Magnesium & Calcium Chloride)	
Magnesium Chloride products	28.0 % minimum
Calcium Chloride products	36.0 % minimum
Sulfate	4.3 % maximum
Nitrate	5.0 % maximum

(Test method R1-412/Cl must be used. It is available uponrequest from USDA Forest Service, Regional Materials TestingLaboratory, P.O. Box 7669, Missoula, Montana 59807)

The pH shall be between 4.5 and 10.0. The temperature of thematerial shall be 40°F or above when it is applied.

Lignin Sulfonate

Lignin Sulfonate shall be the residue produced by the acid-sulfite pulping of wood. The base cation shall be ammonium, calcium, or sodium. Lignin sulfonate shall be supplied as a uniform mixture and shall be miscible with an equal weight of water. The undiluted material shall shall conform to the following requirements:

pH (AASHTO T200)	4.5 minimum
Viscosity at 77º F (AASHTO T202)	20.5 poise maximum
Total Lignin Solids Concentration	48 % Minimum

(Test method R1-412/LS must be used for Total Lignin Solids Concentration. It is available upon request from USDA Forest Service, Regional Materials Testing Laboratory, P.O. Box 7669, Missoula, Montana 59807)

The solids must meet the following requirements:

Lignin Sulfonate	50 % minimum
Reducing Sugars	25 % maximum

The temperature of the material during application shall be between 40 and 140°F.

Clarified Dust Oil DO-4

Clarified Dust Oil shall conform to the following requirements:

Flash Point (AASHTO T48)	200° F min.
Kinematic Viscosity @ 100ºF (AASHTO T201)	20-100 cSt
Water (AASHTO T55)	0.2 % maximum
Asphaltenes (ASTM D3279)	0 – 5 %
Saturates (R1-412/DO-4)	10 % minimum
Volume of Oil Distillate @ 550ºF (AASHTO T59)	5 % max
Viscosity of Residue by Distillation at 100ºF (AASHTO T201)	400 cSt max.

Test Method R1-412/DO-4 is available from USDA Forest Service,Regional Materials Laboratory, P.O. Box 7669, Missoula, MT 59807

The material temperature during application shall be above 85°F.

412.03
Certificate & Sampling

(a) Certification with Shipments. When each load of dust palliative is delivered, the purchaser shall furnish the Sale Administrator with one copy of the Bill of Lading and a fullyexecuted Certificate of Compliance containing the applicable information shown in Figure 412-1. A separate Certificate of Compliance will not be required if the standard Bill of Lading contains the applicable information required by the certificate.

(b) Sampling. Sampling of dust palliative may be required to validate certifications furnished by the purchaser. When sampling is directed by the Government, the actual samples shall be obtained by the purchaser. The Sale Administrator will be given the opportunity to witness sampling. All delivery equipment shall be constructed to permit sampling in conformance with AASHTO T40 test procedure.

CERTIFICATE OF COMPLIANCE

Consignee _____ Destination_____
Transportation ID (Truck No., etc)_____ Date_____
Percent Concentration by Weight: Magnesium Chloride: _____%
Calcium Chloride : _____% Lignin Sulfonate:_____%
Net Weight Total Shipment _____Net Gallons @ 60^{O}F_____
Specific Gravity @ 60^{O}F _____
This shipment of _____ identified above and covered by this Certificate of Compliance complies with Forest Service Specifications applicable to Contract Number _____.
Producer _____ Signed _____
Producer's Representative)_____

Figure 412 – 1. – Sample Certificate of Compliance.

CONSTRUCTION

412.04
Weather Limitations

All dust abatement materials shall be applied only when the surface to be treated contains appropriate moisture to get uniform distribution and adequate penetration of the material. Application during a light rain is acceptable provided the material penetrates the road surface, and does not flow to low areas.

Chloride and Lignin materials shall be applied only when the temperature is 40°F or higher and the ground is not frozen.

Clarified Dust Oil shall be applied only when the road surface and atmospheric temperature is 50°F or more and rising or above 60°F and falling.

412.05
Equipment

The distribution equipment shall be so designed, equipped, maintained, and operated such that the dust abatement material may be applied uniformly on variable widths of surface. Application shall be at readily determined and controlled rates from 0.10 to 0.50 gallons per square yard with uniform pressure and application. The allowable variation from the specified application rate shall not to exceed 0.04 gallons per square yard for individual distributor loads, and 0.01 gallons per square yard for the entire project. The spray pattern from each nozzle on the spray bar shall be uniform across the spray bar. Distribution equipment shall include accurate volume measuring devices or a calibrated tank, a thermometer for measuring temperatures of tank contents, and a hose and nozzle attachment for applying material to areas inaccessible to the spray bar.

412.06
Preparation of Road Surface

One or more of the following preparation and application methods shall be followed as directed by the Forest Service.

Method 1. Apply the dust palliative directly to the previously prepared and compacted surface.

For Method 2 and 3 the road surface shall be processed by blading below the elevation of ravelling, washboarding, and pot holes. The top two inches of surfacing material shall have a moisture content between 5 and 7 percent. After processing, the surface shall be shaped by blading to the existing cross section. The prepared surface shall be approved in writing by the Sale Administrator prior to treatment.

Method 2. A layer of loose cushion material approximately 1 inch in depth shall be developed for the full width of traveled way and kept in as loose a condition as possible prior to applying dust palliative. After the dust palliative has penetrated and pickup of material will not occur, the surface shall be compacted over the full treated width with either roller(s) or loaded truck(s).

If the one inch layer of cushion material becomes compacted by traffic prior to treatment, a one inch thickness shall be cut from the surface and bladed into a berm on the shoulder. Just prior to applying the dust palliative, the material in the berm shall be bladed to a uniform depth across the full width of the previously watered surface. The loose material shall have a 5 to 7 percent moisture content just prior to applying dust palliative. After application, compact as specified above.

Method 3. Approximately 1 inch of the surface material shall be bladed into a berm on the shoulder. The initial application shall then be made on the existing surface. As soon as practical, but no more than 1 hour after application, the material in the berm(s) shall be bladed to a uniform depth across the previously treated surface and watered if necessary, to meet the 5 to 7 percent moisture content. The second application shall then be applied. Compaction shall be performed as specified in Method 2.

412.07
Application of Dust Palliative

Application rates in gallons per square yard and width of road surface coverage shall be as SHOWN BELOW IN TABLE. If the actual application rate is less than specified, the dust abatement material left over will be applied at locations and application rates designated by the Sale Administrator. If the application rate used by the purchaser is greater than specified and additional material is required to complete the project coverage, the additional material shall be furnished and applied at the purchaser's expense.

The Sale Administrator may field test Chloride and Lignin materials prior to application to make sure that the products meet the minimum concentrations specified. Acceptance of the material will be based on the concentration shown on the manufacturer's certificate, or on results of laboratory quality assurance tests done by the Forest Service on samples taken from distribution and hauling vehicles.

Uniform distribution shall be obtained at all points. The spray pattern from each nozzle on the spray bar shall be uniform across the spray bar. Overlapping or skipping between spread sections shall be corrected. Accidental spillage and areas with excess dust palliative that are hazardous to traffic shall be covered with additional road surfacing material at the purchaser's expense. The surface of adjacent structures and trees shall be protected from spattering or marring. Dust palliative material shall be discharged only in approved areas, and shall not be allowed to flow into ditches or stream courses.

APPLICATION RATE TABLE

APPLICATION	PRODUCT	ROAD N0.	SEGMENT	WIDTH (Feet)	APPLICATION RATE (GAL/SY.YD)
INITIAL	**CAL CHL**	**746**	**Unit 3 to Jct 68**	**12**	**.50**
SUBSEQUENT	N/A	N/A	N/A	N/A	N/A

412.08 Maintenance & Opening To Traffic

Traffic control and the prevention of pickup under traffic is the purchaser's responsibility. The treated road surface shall be open to traffic within two hours following treatment, unless prior agreement is approved in writing by the Sale Administrator. The purchaser shall place road surfacing blotter material at his expense where the dust abatement material is being picked up by vehicles.

K-.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 safe and 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 **2 (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 **$N/A** per **Ton** for recurrent maintenance, and **$0.58** per **Ton** 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**
6062	Jct w/8082	FS	Gate	FS	**Yes** – Close Nights and Weekends.
6065B	Jct w/6065	FS	Gate	FS	**Yes** – Close Nights and Weekends.
6114	Jct w/472	FS	Gate	FS	**Yes** – Close Nights and Weekends.
6713	Jct w/68	FS	Gate	FS	**Yes** – Close Nights and Weekends.
7467	MP 0.32	FS	Gate	Purchaser (under Road Package)	**Yes** – Close Nights and Weekends.

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 **9/1** to **12/15** 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

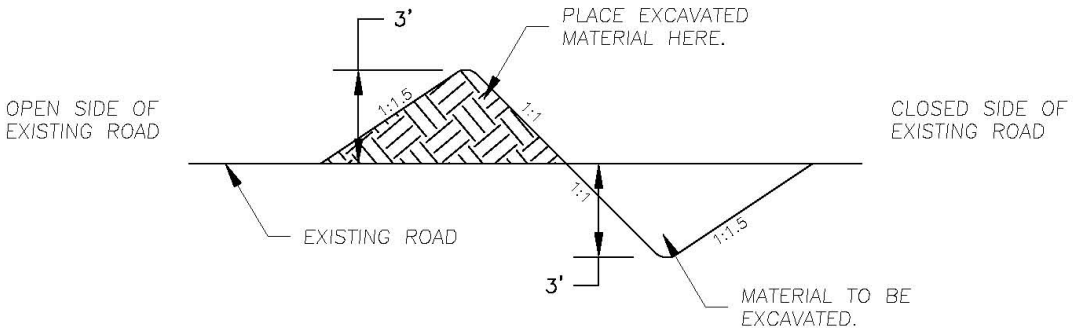
Road Number	Location	Closure Method
N/A		

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**
6062	MP 1.82	Gate	FS	Yes
6065B	Jct w/6065	Gate	FS	Yes
6114	Jct w/472	Gate	FS	Yes
6713	Jct w/68	Gate	FS	Yes
7460	MP 0.02	Earthen Barrier	Purchaser	No
7467	MP 0.32	Earthen Barrier	Purchaser	No

SINGLE EARTH BARRIER DETAILS

SEED AND FERTILIZE ALL DISTURBED SOIL.



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:

Shown as STZ on Contract Area Map and Flagged on ground
No road reconstruction, landing construction or slash piling is allowed within the STZ

Wildlife and Botanical Protection Measures:

Cave Resource Protection Measures:

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 **6/1** and **7/15**, 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 on 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	Road Termini	Herbicide	Road Miles	Prehaul	Posthaul
68	Jct 6065 to Road 92	Aminopyralid	6.87	No	Yes
472	MP 1.95 to Jct. 68	Aminopyralid	1.95	No	Yes
593	Unit 30B to Jct. 68	Aminopyralid	0.31	No	Yes
746	Unit 2 to Jct. 68	Aminopyralid	5.09	No	Yes
6062	Jct. 6074 to Jct 746	Aminopyralid	2.07	No	Yes
6065	Jct 6065B to Jct 68	Aminopyralid	0.87	No	Yes
6074	Unit 11 to Jct 6062	Aminopyralid	1.08	No	Yes
6114	Jct 6114D to Jct 472	Aminopyralid	1.60	No	Yes
6713	Unit 37 to Jct 68	Aminopyralid	0.15	No	Yes
6812	Unit 22 to Jct 68	Aminopyralid	0.57	No	Yes
7460	Unit 25 to Jct 746	Aminopyralid	0.15	No	Yes
472A	Unit 43 to Jct 472	Aminopyralid	0.56	No	Yes
6065B	Unit 35 to Jct 6065	Aminopyralid	0.68	No	Yes
6114D	Unit 46 to Jct 6114	Aminopyralid	0.75	No	Yes
7467	M.P. 0.41 to Jct 746	Aminopyralid	0.41	No	Yes

K-G.2.7# - NOXIOUS WEED TREATMENT - TECHNICAL SPRAYING SPECIFICATIONS
KOOTENAI 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 are approved for use on the Kootenai National Forest. All herbicide applications shall follow EPA label requirements:

Herbicide (Common Name)	**Herbicide (Trade Name)**
Picloram	Tordon 22K or approved equal.
Dicamba	Vanquish or approved equal.
Clopyralid + 2,4-D	Curtail or approved equal.
Glyphosate	Roundup or approved equal.
Clopyralid	Transline or approved equal.
Dicamba + 2,4-D	Weedmaster or approved equal.
2,4-D	Weedar 64 or approved equal.
Metsulfuron	Escort or approved equal.
Triclopyr	Garlon 3A or approved equal.
Imazapic	Plateau or approved equal.
Sulfometuron	Oust or approved equal.
Aminopyralid	Milestone or approved equal.

4. Unless otherwise agreed to by the Forest Service the following herbicides and application rates are the only authorized methods of weed treatment for the roads listed in the table below. All herbicides shall have a surfactant and dye added prior to application.

Road Number	M.P. to M.P. or Termini	Herbicide (Common Name)	Application Rate (lbs active ingredient or oz/ac)	Prehaul	Posthaul
68	Jct 6065 to Road 92	Aminopyralid	6 oz/ac	No	Yes
472	MP 1.95 to Jct. 68	Aminopyralid	6 oz/ac	No	Yes
593	Unit 30B to Jct. 68	Aminopyralid	6 oz/ac	No	Yes
746	Unit 2 to Jct. 68	Aminopyralid	6 oz/ac	No	Yes
6062	Jct. 6074 to Jct 746	Aminopyralid	6 oz/ac	No	Yes
6065	Jct 6065B to Jct 68	Aminopyralid	6 oz/ac	No	Yes
6074	Unit 11 to Jct 6062	Aminopyralid	6 oz/ac	No	Yes
Road Number	**M.P. to M.P. or Termini**	**Herbicide (Common Name)**	**Application Rate (lbs active ingredient or oz/ac)**	**Prehaul**	**Posthaul**
6114	Jct 6114D to Jct 472	Aminopyralid	6 oz/ac	No	Yes
6713	Unit 37 to Jct 68	Aminopyralid	6 oz/ac	No	Yes
6812	Unit 22 to Jct 68	Aminopyralid	6 oz/ac	No	Yes
7460	Unit 25 to Jct 746	Aminopyralid	6 oz/ac	No	Yes
472A	Unit 43 to Jct 472	Aminopyralid	6 oz/ac	No	Yes
6065B	Unit 35 to Jct 6065	Aminopyralid	6 oz/ac	No	Yes
6114D	Unit 46 to Jct 6114	Aminopyralid	6 oz/ac	No	Yes
7467	M.P. 0.41 to Jct 746	Aminopyralid	6 oz/ac	No	Yes

5. No spraying will take place within **30 feet of open water** without prior approval of the Forest Service. No spray shall come in contact with open water at any time.

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

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

8. 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.

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

10. Mixing, loading, and equipment cleaning shall be done more than 200 feet from private land or open water. Mixing and cleaning water shall come from public or cooperator supplies, and shall be transported to the site in labeled containers separate from water used for other purposes.

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

a. Hand-held equipment: temperature greater than 98 degrees F.; humidity less than 20 percent, or wind greater than 15 MPH.

b. Truck-mounted equipment: temperature greater than 95 degrees F.; humidity less than 30 percent; or wind greater than 10 MPH.

12. 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.

13. Mixing shall only occur on site.

14. The Purchaser shall inspect equipment daily for leaks.

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

16. Applicators will complete a daily pesticide application report as required by the Montana Department of Agriculture. Daily application reports shall be made available to the Forest Service within 45 days of 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:

All Units Including Non-Commercial Fuels Reduction Units- No mechanized operations including hand slashing **4/1 – 6/15** to protect Spring Bear/Grizzly Bear habitat.

Jan	Feb	March	April	May	June	July	August	Sept	Oct	Nov	Dec
Ops Allowed *	Ops Allowed *	Ops Allowed *	No Ops	No Ops	No Ops Until **6/16***	Ops Allowed *	Ops Allowed *	Ops Allowed *	Ops Allowed *	Ops Allowed *	Ops Allowed *

*** - If Outside Normal Operating Season, See G.6.**

Units 23E, 27, 28, 30, 30A, 30B, 30C, 30D, 31, 31A, 32, 40, 40A, 41, 41A, 42, 43, 45 and 46- No **logging** operations **4/1 – 11/30** to protect Grizzly Bear Habitat. Piling as specified in K-G.7# is allowed.

Jan	Feb	March	April	May	June	July	August	Sept	Oct	Nov	Dec
Ops Allowed	Ops Allowed	Ops Allowed*	No Ops	No Ops	No Ops	No Ops	No Ops	No Ops	No Ops	No Ops	Ops Allowed

*** - Outside Normal Operating Season– See G.6.**

Units 11, 11A, 12, F-14, F-15 and Road 6074- No operations including road reconstruciton allowed **3/1 – 8/15** to protect Goshawk nesting site.

Jan	Feb	March	April	May	June	July	August	Sept	Oct	Nov	Dec
Ops Allowed *	Ops Allowed *	No Ops	No Ops	No Ops	No Ops	No Ops	No Ops Until 8/15	Ops Allowed *	Ops Allowed *	Ops Allowed *	Ops Allowed *

*** - If Outside Normal Operating Season, See G.6.**

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.

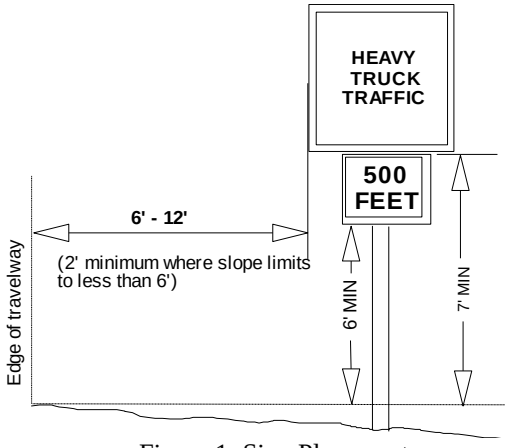


Figure 1: Sign Placement

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	Deceleration 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.

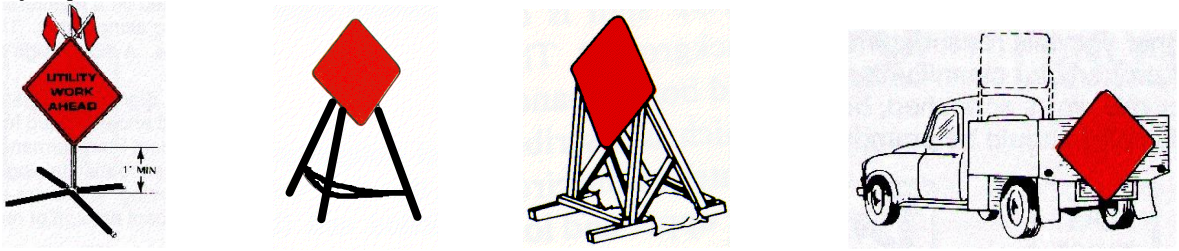


Figure 3: Examples of Temporary/Portable Supports

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
	TRACTOR
2, 3, 5, 6, 7, 11, 11A, 12, 13, 15, 22, 23E, 25, 26, 27, 28, 30, 30A, 30B, 30C, 30D, 31, 31A, 32, 34, 35, 37, 40, 40A, 41, 41A, 42, 43, 45	The location of tractor skid roads shall be by agreement. Tractor skidding shall be done over the natural terrain without excavation except where location of excavated skid roads is approved by Forest Service in advance of construction. Skid roads requiring excavation shall be kept to a minimum width. Prior to completing the unit the constructed skid roads shall be drained by outsloping, cross ditching or both.
2, 3, 5, 6, 7, 11, 11A, 12, 13, 15, 22, 23E, 25, 26, 27, 28, 30, 30A, 30B, 30C, 30D, 31, 31A, 32, 34, 35, 37, 40, 40A, 41, 41A, 42, 43, 45	Logs shall be tractor skidded with the leading end free of the ground.
2, 3, 5, 6, 7, 11, 11A, 12, 13, 15, 22, 23E, 25, 26, 27, 28, 30, 30A, 30B, 30C, 30D, 31, 31A, 32, 34, 35, 37, 40, 40A, 41, 41A, 42, 43, 45	Tractor skid roads shall be located and approved in advance of falling adjacent timber.
2, 3, 5, 6, 7, 11, 11A, 12, 13, 15, 22, 23E, 25, 26, 27, 28, 30, 30A, 30B, 30C, 30D, 31, 31A, 32, 34, 35, 37, 40, 40A, 41, 41A, 42, 43, 45	Tractor skid roads shall be no less than **75** feet apart except where converging.
2, 3, 5, 6, 7, 11, 11A, 12, 13, 15, 22, 23E, 25, 26, 27, 28, 30, 30A, 30B, 30C, 30D, 31, 31A, 32, 34, 35, 37, 40, 40A, 41, 41A, 42, 43, 45	Rub trees and/or logs shall be left along tractor skid roads as needed to protect young growth and leave trees.
2, 6, 7, 12, 23E, 25, 26, 27, 28, 30, 30A, 30B, 30C, 30D, 31, 31A, 32, 35, 37, 40, 40A, 41, 41A, 42, 43, 45	Prior to skidding operations, any snow on the approved skid road **LOCATIONS** shall be removed or compacted to allow soil to freeze to a minimum depth of **one (1)** inches. Once the soil is frozen, skidding can commence and continue as long as the soil remains frozen to a minimum depth of **one (1)** inches.

CUTTING UNIT	CONDUCT OF LOGGING
	SKYLINE
46	A skyline logging system is required. The yarding system must be capable of yarding **800** feet external yarding distance uphill on slopes as shallow as **20** % and **N/A** feet external yarding distance downhill on slopes as steep as **N/A**%.
46	Skyline corridors shall be located on the ground and approved in advance of felling.
46	Except for lateral yarding, logs shall be yarded with the leading end of the log free of the ground.
46	The skyline logging system shall provide for lateral yarding distance up to **50** feet. The carriage must maintain a fixed position on the skyline while lateral yarding. During the lateral phase of yarding, logs shall be yarded along a path which minimizes damage to residual trees.
46	Where topography will permit, skyline corridors shall be spaced not less than **75** feet apart nor more than **100** feet apart at the point of widest divergence within the cutting unit.
46	Skyline corridors shall have only those trees cut that are necessary to allow the safe free passage of the carriage and turn of logs. Final corridor width shall not exceed **10** feet after rub trees have been removed.
46	Purchaser shall leave sufficient rub trees adjacent to the skyline corridors to protect the residual timber from logging damage during the yarding cycle. After included timber has been yarded through the skyline corridor, damaged trees along either side of the corridor shall be cut and removed as provided under B2.13.
46	Notwithstanding other designations for cutting, all trees used to support multispan jacks shall be left uncut.
46	Notwithstanding G.4.2, upon written approval, tractor skidding will be allowed on incidental areas within cable units where it is impractical or impossible to remove the timber without constructing additional roads.

K-G.4.0.6# - SITE CONDITION (10/01). Unless otherwise agreed in writing, in Cutting Units **12, 23E, 25, 27, 28, 30, 30B, 30C, 30D, 31, 32, 34, 35, 40, 41, 41A and 45**, the following site condition is required:

A minimum of **REFER TO K-G.7# FOR PILING SPECIFICATIONS** and a maximum of **REFER TO K-G.7# FOR PILING SPECIFICATIONS** of woody material will be left evenly distributed on each acre.

Unless otherwise agreed in writing, in Cutting Units **13, 15, 22, 30A, and 31A**, the following site condition is required:

A minimum of **8** Tons and a maximum of **16** Tons of woody material will be left evenly distributed on each acre (where practical). Woody material to be left will be over **3** inches in diameter on the small end and over **4** feet in lengh.

Unless otherwise agreed in writing, in Cutting Units **11A and 40A** the following site condition is required:

A minimum of **8** Tons and a maximum of **16** Tons of woody material will be left evenly distributed on each acre (where practical), except within 200 feet of private property where a minimum of **3** Tons and a maximum of **5** Tons will be left. Woody material to be left will be over **7** inches in diameter on the small end and over **4** feet in lengh.

Unless otherwise agreed in writing, in Cutting Units **42 and 43**, the following site condition is required:

A minimum of **16** Tons and a maximum of **20** Tons of woody material will be left evenly distributed on each acre (where practical), except within 200 feet of private property where a minimum of **3** Tons and a maximum of **5** Tons will be left. Woody material to be left will be over **7** inches in diameter on the small end and over **4** feet in lengh.

Unless otherwise agreed in writing, in Cutting Unit **46**, the following site condition is required:

A minimum of **16** Tons and a maximum of **33** Tons of woody material will be left evenly distributed on each acre (where practical), except within 200 feet of private property where a minimum of **3** Tons and a maximum of **5** Tons will be left. Woody material to be left will be over **7** inches in diameter on the small end and over **4** feet in lengh.

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.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, 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 **30** pounds of seed and **240** 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 **4/1** to **5/31** 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
Annual Rye or Winter Wheat	18
Orchard Grass	6
Hard Fescue	6
Total:	**30**

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
25-10-10 or 27-12-12 or 34-16-10	240

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 **Cutting Unit 43** 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 **5** to **10** 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.6.6.1 - 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.

SOUTHBOUND STEWARDSHIP
HAZARD REDUCTION AND SITE PREPARATION PLAN
K-G.7#

General:
Unless otherwise agreed in writing, Purchaser shall perform the following work described below and as shown on the Hazard Reduction and Site Preparation Map.

Forest Service and Purchaser shall jointly develop a schedule for completion of slash treatment on the various portions of the sale area.

In **ALL** cutting units in which logging is substantially completed by **September 30th** or any time outside of the Normal Operating Season, purchaser's slash disposal responsibilities shall be completed within the first 30 days of the next Normal Operating Season.

SLASH TREATMENT METHODS	SPECIFICATIONS
Handpile, Units: **12, 27**	Purchaser shall handpile all logging slash within the cutting units as shown on the Hazard Reduction and Site Preparation Map. Slash to be piled includes material from **2** inches in diameter at the large end, having a minimum length of **4** feet. Piles shall have a minimum height of **5** feet. Piles shall be located at least **6** feet away from any residual green tree.

SLASH TREATMENT METHODS	SPECIFICATIONS
Handpile, Units: **12 and 27 continued from previous page**	If conditions make it impractical to locate piles so that damage to residual green trees can be avoided, an area designated by the Forest Service will be cleared and used as a piling area. Piles shall be constructed reasonably compact and free of soil to facilitate burning. Piles shall also be constructed with enough fine material (less than 1/4 inch in diameter), such as twigs and needles to easily ignite and burn the pile. All piles should have a good base to prevent the pile from toppling. Piles will not be made on downed logs or stumps. Purchaser shall leave a minimum of **8** and a maximum of **16** tons/acre, except within 200 feet of private property where 3-5 tons/acre will be left favoring woody material **7** inches or greater in diameter at the small end to reduce hazardous fuel loading.
Machine Fireline/Fuelbreak, Units: **2, 3, 5, 6, 7, 11, 26, 37**	Mineral firelines shall be constructed by excavator around the perimeter, or portions of the perimeter of each cutting unit. Locations of firelines required around portions of cutting units are shown on the Hazard Reduction and Site Preparation Map. The fireline will be constructed so that a continuous mineral soil line not less than **1** foot and not greater than **2** feet wide shall be cleared completely to expose mineral soil. If a fuelbreak is required, the mineral fireline will be constructed on the exterior edge of the fuelbreak. Slash will not be buried or covered with dirt during the construction of the fireline. All vegetative material within **25** feet of the fireline will be removed and scattered inside the unit so concentrations do not exist next to the fireline.
Machine (Grapple) Piling	Any required machine piling or site preparation (scarification) shall be accomplished with a an excavator equipped with an approved bucket with thumb or other attachment designed for site preparation and approved by the Forest Service.
Machine (Grapple) Slash Piling Without Site Preparation Units: **23E, 25, 28, 30, 30B, 30C, 30D, 31, 32, 34, 35, 40, 41, 41A and 45**	Logging slash abatement may be met by proper utilization. However, in the event logging activities result in significant accumulations of slash due to breakage or as a result of slashing damaged residuals, excavator piling shall be performed to mitigate the accumulations of slash. Purchaser shall grapple pile logging slash within cutting units **23E, 30, 31, 32, 34, 35,** and **41**. Slash to be piled includes material from **3** inches in diameter at the large end, having a minimum length of **4** feet. Piles shall be compact, free of soil and of sufficient size to facilitate burning.

SLASH TREATMENT METHODS	SPECIFICATIONS
Machine (Grapple) Slash Piling Without Site Preparation Units: 23E, 25, 28, 30, 30B, 30C, 30D, 31, 32, 34, 35, 40, 41, 41A and 45 continued from previous page	Piles will be a minimum height of **6** feet and not more than **15** feet in width. Piles shall be placed no closer than **30** 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 or windrow shall be closer than **20** feet from any standing reserve trees. Where material is available (with the exception of 200' proximate to private land), Purchaser will leave a minimum of **8** and a maximum of **16** tons/acre in **23E, 30, 31, 32, 34, 35, and 41.** Woody material to be left will be over **3** inches in diameter on the small end and over **5** feet in lengh, scattered as much as practical, throughout the cutting units. Unsound decomposing pieces are to be left on site. **Units 34, , 41:** Purchaser shall leave a minimum of **3** and a maximum of **5** tons/acre, favoring woody material **7** inches or greater in diameter on ther small end within 200 feet of private land to reduce hazardous fuel loading.
	Purchaser shall grapple pile logging slash within cutting Units **25, 28, 30B, 30C, 30D, 40, 41A, and 45**. Slash to be piled includes material from **3** inches in diameter at the large end, having a minimum length of **4** feet. Piles shall be compact, free of soil and of sufficient size to facilitate burning. Piles will be a minimum height of **6** feet and not more than **15** feet in width. Piles shall be placed no closer than **30** 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 or windrow shall be closer than **20** feet from any standing reserve trees. Where material is available purchaser will leave a minimum of **16** and a maximum of **20** tons/acre in **Units 30B, 30C, 30D, 40 and 41A .** Woody material to be left will be over **3** inches in diameter on the small end and over **5** feet in lengh, scattered as much as practical, throughout the cutting units. Unsound decomposing pieces are to be left on site. Where material is available purchaser will leave a minimum of **16** and a maximum of **33** tons/acre in **Units 25, 28, and 45.** Woody material to be left will be over **3** inches in diameter on the small end and over **5** feet in lengh, scattered as much as practical, throughout the cutting units. Unsound decomposing pieces are to be left on site. **Units 25, 30B, 40 and 41A:** Purchaser shall leave a minimum of **3** and a maximum of **5** tons/acre, favoring woody material 7 inches or greater in diameter on the small end within 200 feet of private land to reduce hazardous fuel loading.

SLASH TREATMENT METHODS	SPECIFICATIONS
Fell Damaged Residuals, Units: **7*, 11A, 12, 13, 15, 22, 30A, 31A, 35, 40A, 40 41A, 42, 43, 46** *** Within STZ- 24 acres**	Purchaser shall fell all species over **3** 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 **3** 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.
Slashing, Units: **2, 3, 5, 6, 7*, 11, 23E, 25, 26, 27, 28, 30, 30B, 30C, 30D, 31, 32, 34, 37, 40, 41, 45** ***Outside STZ- 11 acres**	Purchaser 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 **3** inches from ground surface as measured on the uphill side. Trees shall be completely severed from the stump.
Slashing, Units: **2, 3, 5, 6, 7, 11, 12, 23E, 25, 26, 27, 28, 30, 30B, 30C, 30D, 31, 32, 34, 35, 37, 40, 41 and 45 continued from previous page**	Material to be slashed within **10** feet of the boundary of a unit shall be felled toward the center of the unit. Any material which falls outside of the unit shall be returned to a minimum of **10** feet inside of the boundary. All roads within these units shall be kept free of slashed material. Slashed vegetation shall be felled along the contour as much as possible for water runoff soil movement protection.
Yard Tops, Units: **ALL UNITS**	Purchaser shall leave the tops of felled trees attached to the top log and yard them to landings.
Clean System Roads, Units, **ALL UNITS**	Purchaser shall dispose of all logging slash **3** inches large end diameter and **4** feet in length which is created within the clearing limits of system roads. Slash shall be piled for later burning within the right-of-way clearing unless an alternate method of slash disposal is agreed to in writing. Piles shall be reasonably compact and free of soil to facilitate burning. Piles shall be of a size and location which will not impair road use. Piles shall be a minimum of twice their diameter from any residual timber.
Landing Cleanup, Units: **ALL UNITS**	A landing is considered a place where any logs or products are gathered for loading. Unless otherwise agreed, all slash accumulated at landings shall be piled. Piles shall be reasonably compact and free of soil to facilitate burning. Piles shall be of a size and location which will not impair road use or result in damage to residual timber. Piles shall be a minimum of twice their diameter from any residual timber.

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

B. 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.

C. 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.

All Fuel Reductions Projects

Salvage material is available to the Contractor with approval by the Contracting Officer; when other contract work is progressing as scheduled; and removal will be completed prior to expiration of the contract time Any such material shall become property of the Contractor on a salvage rights basis. Rights to any material not removed from the project prior to expiration of contract time shall revert back to the Government.

The Contractor shall provide a general salvage plan with the technical proposal, which addresses the intent to salvage and general conditions. Based on stewardship projects awarded, the Contractor shall provide a more detailed plan after contract award. The general plan shall address:

(a) Identification of material to be salvaged and number of loads to be removed.
(b) Name of salvage operator and all employees.
(c) License number and vehicle description of all trucks that will be hauling salvage material.
(d) Approximate date salvage and hauling will be accomplished.

Truck tickets may be required for each individual sub item. Tickets will only be issued to identified salvage operators. Salvage shall not commence on any other sub item until truck tickets are all accounted for, from the sub item previously salvaged on.

PROJECT 001 (MANDATORY)

FUEL REDUCTION-Hand Slash/Machine Pile

GENERAL SPECIFICATIONS

For purposes of this Stewardship Project, slash consists of all fuels. Fuels consist of standing fuels and existing down woody debris, that are prescribed to be treated to meet fuel reduction objectives.

SUMMARY OF FUEL TREATMENT UNITS

Unit	Total Treatment Acres
F-2	21
F-3	79
F-9	25
F-14	14
F-15	9

TECHNICAL SPECIFICATIONS

Desired End Results and Fuel Reduction Objectives

The desired end result is to reduce fuel loadings through slashing and piling of fuels.

To address the desired end result, the Contractor's Technical Proposal should include equipment specs and methods while addressing the following:

In **All Units**, Contractor shall slash ladder fuels. Ladder fuels consist of live and dead coniferous trees up to 5 inches diameter breast height (dbh) (except for those units indicating a maximum dbh of 4 inches). Good quality means a straight bole and full crown with no sign of insects or disease.

In **All Units**, Contractor shall fell all live and dead coniferous vegetation according to the individual unit prescriptions. Stump height shall not exceed **3** inches from ground surface as measured on the uphill side. Trees shall be completely severed from the stump.

In **All Units**, unless otherwise indicated, if other species exists in lodgepole dominated stands, favor species in this order: western larch, Douglas-fir, white pine, alpine fir, spruce, and then lodgepole pine.

In **All Units**, Contractor shall construct equipment piles with material from fuel concentrations in conjunction with the resulting debris from fuels generated during the required removal of ladder fuels. Accumulations of fuels will be defined as fuels concentrations at or over one-tenth ($1/10^{th}$) acre that could create a pile not less than 5.5 feet in height and 6 feet in width.

Slash to be piled includes material from 1 inch in diameter and greater at the large end, having a minimum length of **3.5** feet.

Piles shall be compact, free of soil and of sufficient size to facilitate burning. Piles will be a minimum height of **5.5** feet and not more than **12** feet in width. Piles shall be placed no closer than **20** 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 **10** feet from any standing reserve trees.

Dozer piling will **not** be an acceptable method of piling.

In **All Units,** the Contractor shall leave 3-5 tons/acre of downed woody debris (DWD) where material is available. DWD shall be a minimum of 6 inches in diameter or greater on the large end and at least 4 feet in length. Unsound, decomposing pieces are to also be left on site.

All Units, boundaries are marked with pink flagging and identified on the corners with boundary tags containing the unit number and sale name, "Southbound Stewardship". Known riparian areas within fuel reduction units are also delineated by pink flagging, these areas are excluded from treatment. The Contractor shall inform the Forest Service of any unidentified wet areas in fuel reduction units prior to treatment.

Unit F-2 Lodgepole pine dominated stand. Cut trees up to 5" dbh. Remove trees with poor form and quality. Open up around the drip line of leave trees. Residual tree spacing should be on average 15-25 feet. Slash will be removed from base of leave trees and piled in openings.

Unit F-3 Multi-storied stand of mixed species with dense understory of lodgeploe pine and others. Slash all lodgepole pine up to 5" dbh. Cut all trees up to 5" dbh including under the dripline of leave. Residual tree spacing of leave trees should be on average 15-25 feet. Slash will be removed from base of leave trees and piled in openings.

Unit F-9 Stand dominated by lodgepole. Slash all lodgepole trees up to 5" dbh, especially within the dripline of leave trees to an irregular and average tree spacing of 15-25 feet. Slash will be removed from base of leave trees and piled in openings.

Unit F-14 Dense sapling stand dominated by lodgepole pine. Slash all lodgepole pine trees up to 5" dbh. Slash excess and poor quality trees that are beneath the dripline of leave trees. Slash will be removed from base of leave trees and piled in openings.

Unit F-15 Multistory stand of mixed species with lodgepole understory. Slash all odgepole pine trees up to 5" dbh. Slash excess and poor quality trees that are beneath the dripline of leave trees resulting in an average tree spacing of 15-25 feet. Slash will be removed from base of leave trees and piled in openings.

Inspection and Acceptance

Contractor and Forest Service shall agree upon methods used to inspect and accept fuel treatments based upon the Contractor's Technical Proposal.

PROJECT 002 (MANDATORY)

FUEL REDUCTION-Hand Slash/Hand Pile

GENERAL SPECIFICATIONS

For purposes of this Stewardship Project, slash consists of all fuels. Fuels consist of standing fuels and existing down woody debris, that are prescribed to be treated to meet fuel reduction objectives.

SUMMARY OF FUEL TREATMENT UNITS

Unit	Total Treatment Acres
F-13	12
F-20	8
F-23	26

TECHNICAL SPECIFICATIONS

Desired End Results and Fuel Reduction Objectives

The desired end result is to reduce fuel loadings through slashing and piling of fuels.

To address the desired end result, the Contractor's Technical Proposal should include equipment specs and methods while addressing the following:

In **All Units**, Contractor shall slash ladder fuels prior to hand piling. Ladder fuels consist of green and coniferous trees up to 5 inches dbh (except in those units indicating a maximum dbh of 4"). Good quality means a straight bole and full crown with no evidence of insects or disease.

In **All Units**, if other species exists in lodgepole dominated stands, favor species in this order: western larch, Douglas-fir, white pine, alpine fir, spruce, lodgepole pine.

In **All Units**, Contractor shall construct hand piles with material from fuel concentrations in conjunction with the resulting debris from fuels generated during the required removal of ladder fuels. Accumulations of fuels are fuel concentrations at or over one-tenth ($1/10^{th}$) acre that could create a pile not more than five (5.5) feet in height and six (6) feet in width.

Slash to be piled includes material having a minimum diameter of 1 inche and greater at the large end, and having a minimum length of 3.5 feet. Piles shall be located at least 6 feet away from any residual green tree. If conditions make it impractical to locate piles so that damage to residual green trees can be avoided, an area designated by the Forest Service will be cleared and used as a piling area.

Piles shall be constructed reasonably compact and free of soil to facilitate burning. Piles shall also be constructed with enough fine material (less than 1/4 inch in diameter), such as twigs and needles to easily ignite and burn the pile. All piles should have a good base to prevent the pile from toppling. Piles will not be made on downed logs or stumps.

In **All Units**, Contractor shall cover all piles with waterproof material. A minimum of 25% of the surface area shall be covered. This covering shall be placed over the center of the pile. Pieces of branchwood shall be placed on top of the covering to secure it. **The material used to cover piles will be supplied to the purchaser by the Forest Service.**

In **All Units** the Contractor shall leave 3-5 tons/acre of downed woody debris (DWD) where material is available. DWD shall be a minimum of six (6) inches or greater on the large end and at least four (4) feet in length. Unsound, decomposing pieces are to also be left on site.

All Units Boundaries are marked with pink flagging and identified on the corners with boundary tags containing the unit number and sale name, "Southbound Stewardship". Known riparian areas within fuel reduction units are also delineated by pink flagging, these areas are excluded from treatment. The Contractor shall inform the Forest Service of any unidentified wet areas in fuel reduction units prior to treatment.

Unit F-13 Mature lodgepole pine dominated stand. Remove trees up to 5" dbh beneath the dripline of overstory trees. Elsewhere trees to be slashed to an irregular distribution of 15-25 foot tree spacing. Slash will be removed from base of leave trees and piled in openings.

Unit F-20 Dense two-storied stand of mixed species. Cut all trees up to 5" dbh resulting in an average spacing of 15-25 feet. Slash will be removed from base of leave trees and piled in openings.

Unit F-23 Somewhat open grown stand of primarily spruce with some alpine fir and western larch and dense understory of mostly spruce and alpine fir saplings. Selective cutting of trees up to 4" dbh. Focus effors on areas beneath the dripline of overstory trees and areas of thick or clumpy understory, and especially of poor quality resulting in irregular distribution of 15-25 foot tree spacing. Slash will be removed from base of leave trees and piled in openings.

Inspection and Acceptance
Contractor and Forest Service shall agree upon methods used to inspect and accept fuel treatments based upon the Contractor's Technical Proposal.

PROJECT 003 (OPTIONAL)

ROAD MAINTENANCE

The following items shall be completed on the roads listed below as per attached details and specifications. Additional specifications are included in Road Plans for the Southbound Stewardship Project.

SCHEDULE OF ITEMS

Timber Sale	Southbound Stewardship Design Features	**Road No.**	**6065B**
Road Name	Fowler Creek B	Length (Miles)	-

Item Number	Description	Method of Meas.	Unit	Quantity
20301	Removal of Culverts	A.Q.	Each	1.00
20950	Haul and Place Imported Pipe Bedding	C.Q.	C.Y.	20.00
25101	Placed Riprap, Class III	C.Q.	C.Y.	15.00
32222	Haul and Place Pit Run, Max Size 2", Compaction Method B	C.Q.	C.Y.	50.00
60253	Install 73" Rise, 55" Span Corrugated Metal Pipe Arch with Flared Inlet, 0.079" Thickness, 5x1 Corrugations, Compaciton Method B (Includes Culvert Excavation)	A.Q.	L.F.	42.00

Timber Sale	Southbound Stewardship Design Features	**Road No.**	**6114A**
Road Name	Flatail Clay Mtn. A	Length (Miles)	-

Item Number	Description	Method of Meas.	Unit	Quantity
20301	Removal of Culverts	A.Q.	Each	1.00
20481	Construct Drain Dip, Compaction Method B	A.Q.	Each	1.00
60270	Install 18" CMP, 0.064" Thickness, Compaction Method B (Includes Culvert Excavation)	A.Q.	L.F.	24.00

Timber Sale	Southbound Stewardship Design Features	**Road No.**	**6713**
Road Name	Fix Creek	Length (Miles)	-

Item Number	Description	Method of Meas.	Unit	Quantity
20482	Construct Culvert Relief Overflow Channel	A.Q.	Each	1.00
20701	Earthwork Geotextile, Type II-A	C.Q.	S.Y.	120.00
25101	Placed Riprap, Class I	C.Q.	C.Y.	15.00
25101	Placed Riprap, Class III	C.Q.	C.Y.	5.00

Design Features

Project #3: Fowler Creek B Road 6065B

Station or Mile Post	Pay Item Number	Description of Work
MP 0.18	20301 20950 60253 25101 32222	REMOVE EXISTING CMP. HAUL AND PLACE 20 C.Y. IMPORTED PIPE BEDDING. INSTALL 73" RISE, 55" SPAN, 42 L.F. CORRUGATED METAL PIPE ARCH, 0.079" THICKNESS, 5x1 CORRUGATIONS, WITH FLARED INLET, COMPACTION METHOD B. ARMOR INLET WITH 10 C.Y. AND OUTLET WITH 5 C.Y. CLASS 3 RIPRAP. HAUL AND PLACE 50 C.Y. PIT RUN TO ACHIEVE 18" OF COVER OVER NEW PIPE, TAPER PIT RUN TO MATCH EXISTING ROADWAY AND PROVIDE SMOOTH TRANSITIONS; COMPACTION METHOD B.

Project #4: Flatail Clay Mountain A Road 6114A

Station or Mile Post	Pay Item Number	Description of Work
MP 0.04	20301 60270 20481	REMOVE EXISTING CMP. INSTALL 18" x 24 L.F. CMP WITH CATCH BASIN; COMPACTION MEHTOD B. CONSTRUCT DRAIN DIP; COMPACTION METHOD E.

Project #5: Fix Creek Road 6713

Station or Mile Post	Pay Item Number	Description of Work
MP 0.20	20482 25101 25101 20701	CONSTRUCT CULVERT RELIEF OVERFLOW CHANNEL ACROSS ROAD. ARMOR OVERFLOW CHANNEL ON ROADWAY WITH 15 C.Y. CLASS 1 RIPRAP. ARMOR FILL SLOPES AT OVERFLOW CHANNEL WITH 5 C.Y. CLASS 3 RIPRAP. SEE DETAILS A AND B, THIS SHEET. SEPARATE RIPRAP FROM NATIVE MATERIAL USING 120 S.Y. TYPE II-A EARTHWORK GEOTEXTILE.

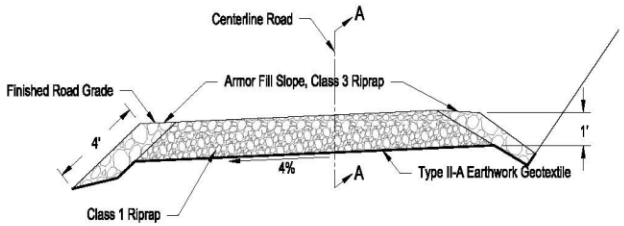
NOTES:

1. ALL WORK IS TO BE COMPLETED IN ACCORDANCE WITH THE PROVISIONS OF THE ROAD PACKAGE AND TIMBER SALE CONTRACT.
2. MATERIAL SOURCE FOR PIPE BEDDING, RIPRAP, AND PIT RUN IS BEAVER BROWNING PIT ON ROAD 6061.

Detail A

Culvert Relief Overflow Channel Details

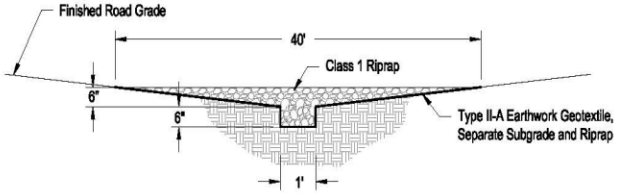
No Scale



Detail B

Section A-A, Overflow Channel

No Scale



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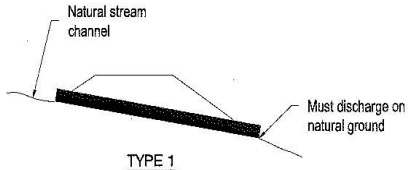
Southbound Stewardship Project 003

SHEET NUMBER	TOTAL SHEETS
1	1

Culvert Construction Detail



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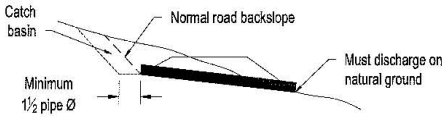

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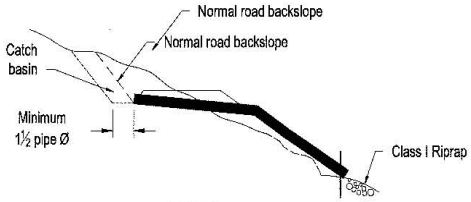

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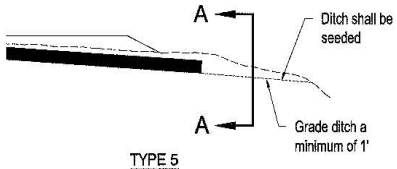

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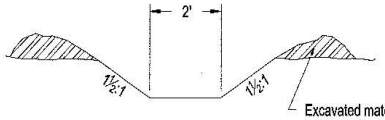
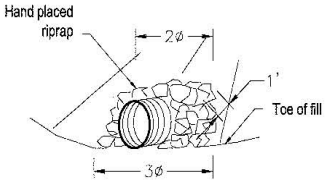
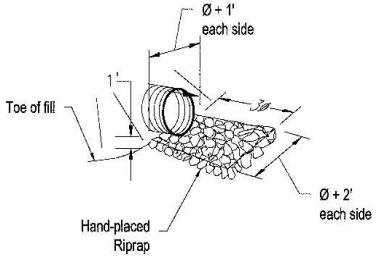


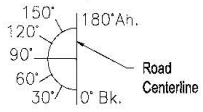
SECTION A-A



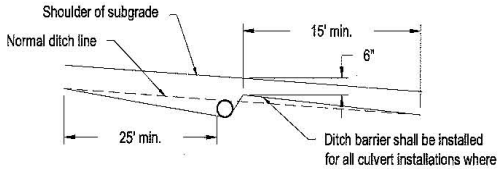
INLET RIPRAP FOR TYPE 1 INSTALLATION
WHEN REQUIRED



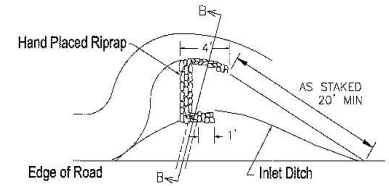
OUTLET RIPRAP
WHEN REQUIRED



CULVERT SKEW

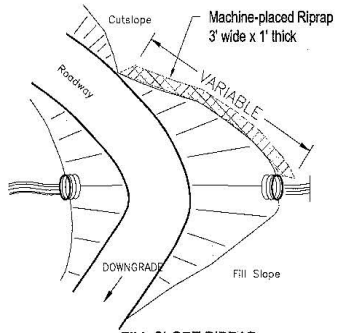


DITCH BLOCK DETAIL
WHEN REQUIRED



INLET RIPRAP FOR TYPE 2 & 3 INSTALLATION
WHEN REQUIRED

SECTION B–B

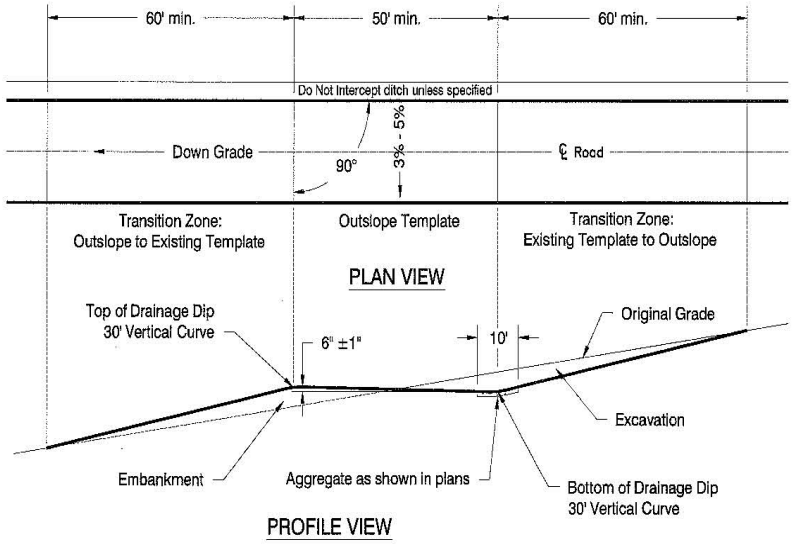


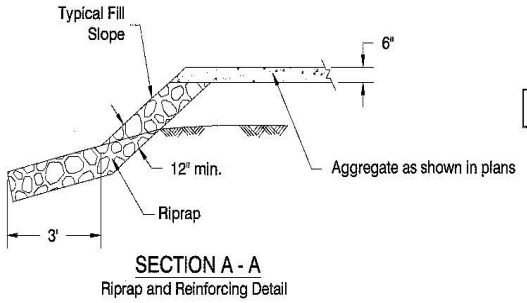
FILL SLOPE RIPRAP
WHEN REQUIRED

Culvert Const Details.dwg REV. 02/2005

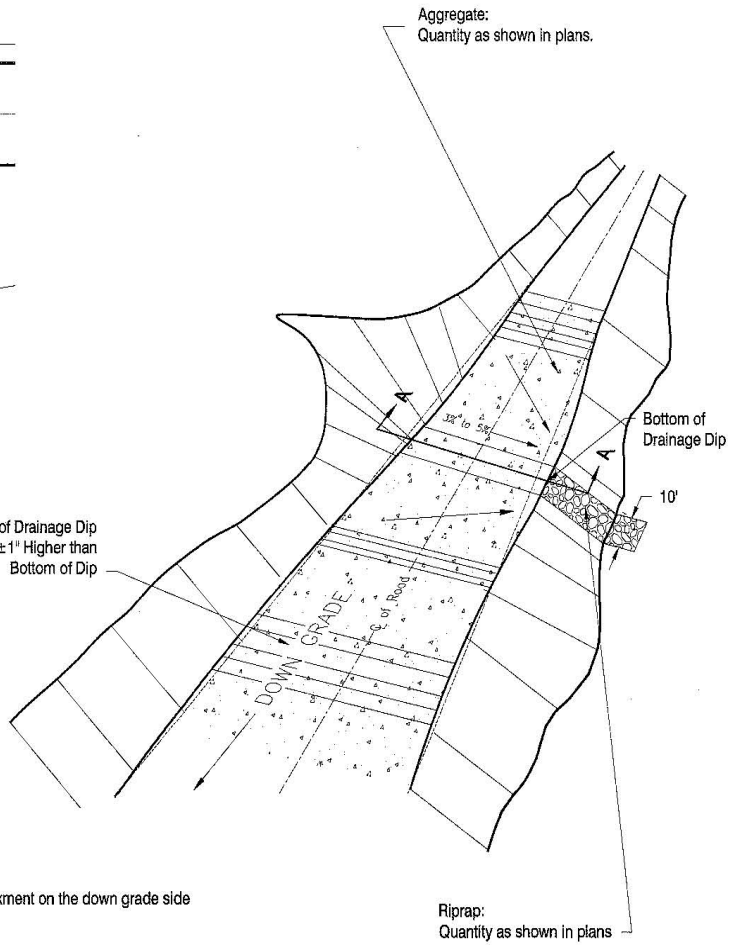
Southbound Stewardship Project 003

Drain Dip Detail





Drawings Not To Scale



Notes:

Excavation below the existing grade line will be used as embankment on the down grade side of the dip.

All disturbances shall be kept within the limits of the Drainage Dip.

Aggregate, Dip Reinforcement, or Riprap will only be required when specified in the Drainage Listing or Reconstruction Log.

Drainage Dip.dwg REV. 01/03

Southbound Stewardship Project 003

PROJECT 004 (OPTIONAL)

FUEL REDUCTION-Hand Slash/Machine Pile

GENERAL SPECIFICATIONS

For purposes of this Stewardship Project, slash consists of all fuels. Fuels consist of standing fuels and existing down woody debris, that are prescribed to be treated to meet fuel reduction objectives.

SUMMARY OF FUEL TREATMENT UNITS

Unit	Total Treatment Acres
F-4	19
F-6	72
F-7	18
F-8	17

TECHNICAL SPECIFICATIONS

Desired End Results and Fuel Reduction Objectives

The desired end result is to reduce fuel loadings through slashing and piling of fuels.

To address the desired end result, the Contractor's Technical Proposal should include equipment specs and methods while addressing the following:

In **All Units**, Contractor shall slash ladder fuels. Ladder fuels consist of live and dead coniferous trees up to 5 inches (dbh) (except for those units indicating a maximum dbh of 4 inches). Good quality means a straight bole and full crown with no sign of insects or disease.
.

In **All Units**, Contractor shall fell all live and dead coniferous vegetation according to the individual unit prescriptions. Stump height shall not exceed **3** inches from ground surface as measured on the uphill side. Trees shall be completely severed from the stump.

In **All Units**, unless otherwise indicated, if other species exists in lodgepole dominated stands, favor species in this order: western larch, Douglas-fir, white pine, alpine fir, spruce, and then lodgepole pine.

In **All Units**, Contractor shall construct equipment piles with material from fuel concentrations in conjunction with the resulting debris from fuels generated during the required removal of ladder fuels. Accumulations of fuels will be defined as fuels concentrations at or over one-tenth ($1/10^{th}$) acre that could create a pile not less than 5.5 feet in height and 6 feet in width.

Slash to be piled includes material from 1 inch in diameter and greater at the large end, having a minimum length of **3.5** feet.

Piles shall be compact, free of soil and of sufficient size to facilitate burning. Piles will be a minimum height of **5.5** feet and not more than **12** feet in width. Piles shall be placed no closer than **20** 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 **10** feet from any standing reserve trees.

Dozer piling will **not** be an acceptable method of piling.

In **All Units** the Contractor shall leave 3-5 tons/acre of downed woody debris (DWD) where material is available. DWD shall be a minimum of 6 inches in diameter or greater on the large end and at least 4 feet in length. Unsound, decomposing pieces are to also be left on site.

All Units Boundaries are marked with pink flagging and identified on the corners with boundary tags containing the unit number and sale name, "Southbound Stewardship". Known riparian areas within fuel reduction units are also delineated by pink flagging, these areas are excluded from treatment. The Contractor shall inform the Forest Service of any unidentified wet areas in fuel reduction units prior to treatment.

Unit F-4 Two storied stand with western larch and lodgepole pine overstory with dense/clumpy understory of cedar, Douglas-fir and lodgepole pine. Slash all lodgepole pine up to 5" dbh. Cut all trees up to 5" dbh that are under the drip line of overstory trees. Elsewhere, selectively cut trees up to 5" dbh of poor quality and form in an average tree spacing of 15-25 feet. Slash will be removed from base of leave trees and piled in openings.

Unit F-6 Lodgepole pine dominated pole sized stand. Slash all lodgepole pine up to 5" dbh. Selective slashing of all trees up to 4" dbh focusing on removal of trees beneath the dripline of overstory trees resulting in an average tree spacing of 15-25 feet. Slash will be removed from base of leave trees and piled in openings.

Unit F-7 Multi-storied stand of mixed species with dense understory of lodgeploe pine and others. Slash all lodgepole pine up to 5" dbh. And cut all trees up to 5" dbh that are under the drip line of leave trees. Elsewhere, selectively cut trees up to 5" dbh of poor quality and form resulting in an average tree spacing of 15-25 feet. Slash will be removed from base of leave trees and piled in openings.

Unit F-8 Multi-storied stand of mixed species with a dense understory of mostly lodgepole pine and spruce. Cut trees up to 5" dbh within the dripline of leave trees. Elsewhere, slash to an irregular and average tree spacing of 15-25 feet. Slash will be removed from base of leave trees and piled in openings.

Inspection and Acceptance
Contractor and Forest Service shall agree upon methods used to inspect and accept fuel treatments based upon the Contractor's Technical Proposal.

PROJECT 005 (OPTIONAL)

FUEL REDUCTION-Hand Slash/Hand Pile

GENERAL SPECIFICATIONS

For purposes of this Stewardship Project, slash consists of all fuels. Fuels consist of standing fuels and existing down woody debris, that are prescribed to be treated to meet fuel reduction objectives.

SUMMARY OF FUEL TREATMENT UNITS

Unit	Total Treatment Acres
F-1	2
F-5	8
F-10	1
F-11	11
F-12	1
F-16	8
F-21	24
F-22	17
F-24	47

TECHNICAL SPECIFICATIONS

Desired End Results and Fuel Reduction Objectives

The desired end result is to reduce fuel loadings through slashing and piling of fuels.

To address the desired end result, the Contractor's Technical Proposal should include equipment specs and methods while addressing the following:

In **All Units**, Contractor shall slash ladder fuels prior to hand piling. Ladder fuels consist of green and coniferous trees up to 5 inches dbh (except in those units indicating a maximum dbh of 4"). Good quality means a straight bole and full crown with no evidence of insects or disease.

In **All Units**, if other species exists in lodgepole dominated stands, favor species in this order: western larch, Douglas-fir, white pine, alpine fir, spruce, lodgepole pine.

In **All Units,** Contractor shall construct hand piles with material from fuel concentrations in conjunction with the resulting debris from fuels generated during the required removal of ladder fuels. Accumulations of fuels are fuel concentrations at or over one-tenth ($1/10^{th}$) acre that could create a pile not more than five (5.5) feet in height and six (6) feet in width.

Slash to be piled includes material having a minimum diameter of 1 inch and greater at the large end, and having a minimum length of 3.5 feet. Piles shall be located at least 6 feet away from any residual green tree. If conditions make it impractical to locate piles so that damage to residual green trees can be avoided, an area designated by the Forest Service will be cleared and used as a piling area.

Piles shall be constructed reasonably compact and free of soil to facilitate burning. Piles shall also be constructed with enough fine material (less than 1/4 inch in diameter), such as twigs and needles to easily ignite and burn the pile. All piles should have a good base to prevent the pile from toppling. Piles will not be made on downed logs or stumps.

In **All Units**, Contractor shall cover all piles with waterproof material. A minimum of 25% of the surface area shall be covered. This covering shall be placed over the center of the pile. Pieces of branchwood shall be placed on top of the covering to secure it. **The material used to cover piles will be supplied to the purchaser by the Forest Service.**

In **All Units** the Contractor shall leave 3-5 tons/acre of downed woody debris (DWD) where material is available. DWD shall be a minimum of six (6) inches or greater on the large end and at least four (4) feet in length. Unsound, decomposing pieces are to also be left on site.

All Units Boundaries are marked with pink flagging and identified on the corners with boundary tags containing the unit number and sale name, “Southbound Stewardship”. Known riparian areas within fuel reduction units are also delineated by pink flagging, these areas are excluded from treatment. The Contractor shall inform the Forest Service of any unidentified wet areas in fuel reduction units prior to treatment.

Unit F-1 Lodegepole pine dominated stand. Cut trees up to 5”dbh leaving the best trees with good form (straight, pointed crowns, no evidence of insect or diseases). Cut all trees up to 5” dbh under the drip line of leave trees. Space trees on average 15-25 feet. Slash will be removed from the base of leave trees and piled in openings.

Unit F-5 Multi-storied, multi-species dense stand. Slash all lodgepole pine up to 5” dbh. Cut all tree up to 5” dbh under the drip line of leave trees. Elsewhere, selectively cut trees up to 5” dbh of poor quality and form resulting in an average spacing of 15-25 feet. Slash will be removed from base of leave trees and piled in openings.

Unit F-10 Multi-storied stand of lodgepole pine and western larch with cedar and alpine fir scattered. Cut trees up to 5” dbh beneath the dripline of overstory trees. Elsewhere trees to be thinned to irregular distribution of 15-25 foot spacing. Slash will be removed from bottoms of leave trees and piled in openings.

Unit F-11 Dense sapling stand of lodgeploe pine, western larch and spruce. Cut trees up to 5” dbh in an irregular distribution of 15-25 foot spacing. Slash will be removed from bottoms of leave trees and piled in openings.

Unit F-12 Lodgepole pine dominated overstory with clumpy spruce, alpine fir and western larch sapling sized trees in the understory. Cut trees up to 5” dbh beneath the dripline of overstory trees. Elsewhere trees to be slashed in irregular spacing averaging 15-25 feet. Slash will be removed from base of leave trees and piled in openings.

Unit F-16 Dense mixed species sapling stand of western larch, lodgepole pine and spruce. Cut trees up to 5" dbh in an irregular distribution of 15-25 foot spacing. Slash will be removed from bottoms of leave trees and piled in openings.

Unit F-21 Dense sapling stand dominated by lodgepole pine. Slash all trees up to 4" dbh. resulting in an average spacing of 15-25 feet. Slash will be removed from base of leave trees and piled in openings.

Unit F-22 Dense sapling stand dominated by lodgepole pine. Slash all trees up to 4" dbh resulting in an average spacing of 15-25 feet. Slash will be removed from base of leave trees and piled in openings.

Unit F-24A and B Stand is dominated by large spruce, western larch and cedar with dense understory of cedar, hemlock and spruce. Focus effors on areas beneath the dripline of overstory trees and areas of thick or clumpy understory, and especially of poor quality and doghair thickets. Cut trees up to 4" dbh with resulting tree spacing should be an irregular distribution of 15-25 foot spacing. Slash will be removed from base of leave trees and piled in openings.

Inspection and Acceptance

Contractor and Forest Service shall agree upon methods used to inspect and accept fuel treatments based upon the Contractor's Technical Proposal.

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.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.