

KT-CT.1.1# - TIMBER SUBJECT TO AGREEMENT (09/2004)

In addition, there is within Sale Area an unestimated quantity of:

<b>Species</b>	<b>Product</b>
<b>Landing Piles</b>	<b>Grn Bio Cv</b>

that shall be Included Timber upon written agreement.

KT-CT.3# - RESERVE TREES (09/2004)

Notwithstanding the designations for cutting under CT.3.1, CT.3.2, CT.3.3, or CT.3.4, live or dead Genetic reserve trees or groups of reserve trees within such cutting units or clearings shall be left uncut. Such Reserve trees are identified by orange paint above and below stump height and a sign "Selected tree for Genetics" above stump and shall be protected in accordance with KT-GT.3.2#. Units with reserve trees are shown on Contract Area Map.

KT-CT.3.5.7# - INDIVIDUAL TREE DESIGNATION (OPTION 1) (06/2008)

All See Attached Table which meet the minimum tree diameter stated in AT.2 are designated for cutting. Additional timber to be cut, if any, will be designated for cutting in accordance with CT.3.7.

Leave trees, Marked with orange paint above and below stump height , or identified by blue boundary tags , are not to be cut, unless designated by the Forest Service.

**Table Pursuant to KT-CT.3.5.7# (Option 1) – Individual Tree Designation**

**(06/2008)**

<b><u>Harvest Unit</u></b>	<b><u>Designation</u></b>	<b><u>Description of Included Timber (see Definitions Below)</u></b>
3,5,8,12,17,19,24,28,30,31,32,39,41,43,46,49 and 51	ITM	<ul style="list-style-type: none"> <li>• Remove all trees marked with blue paint above and below stump height.</li> </ul>
2	ITM / DXD	<ul style="list-style-type: none"> <li>• Remove all live Lodgepole Pine with a stump diameter between 9.4 and 26.0 inches</li> <li>• Remove all Ponderosa Pine and White Fir marked with blue paint above and below stump height.</li> </ul>
15, 27 and 33	ITM / DXD	<ul style="list-style-type: none"> <li>• Remove all live Lodgepole Pine with a stump diameter between 9.4 and 26.0 inches.</li> <li>• Remove all live White fir with a stump diameter between 9.6 and 28.0 inches</li> <li>• Remove all Ponderosa Pine marked with blue paint above and below stump height.</li> </ul>
9, 13, and 14	ITM/DXD	<ul style="list-style-type: none"> <li>• Remove all live and standing dead Lodgepole Pine with a stump diameter greater than 9.4 inches. (no upper diameter limit)</li> <li>• Remove all live White Fir with a stump diameter between 9.6 and 30.0 inches.</li> <li>• Remove all Ponderosa Pine marked with blue paint above and below stump height.</li> </ul>

<b><u>Harvest Unit</u></b>	<b><u>Designation</u></b>	<b><u>Description of Included Timber (see Definitions Below)</u></b>
1, 4, 20, 21, 23, 26, 37,40,45,47, 48, and 50	LTM	<ul style="list-style-type: none"> <li>• Remove all live White Fir with a stump diameter between 9.6 and 28.0 inches that are not marked with orange paint above and below stump height.</li> <li>• Remove all live Ponderosa Pine with a stump diameter between 9.8 and 26.0 inches that are not marked with orange paint above and below stump height.</li> <li>• Remove all live Lodgepole Pine with a stump diameter between 9.4 and 26.0 inches that are not marked with orange paint above and below stump height.</li> </ul>
44	ITM / DXD	<ul style="list-style-type: none"> <li>• Remove all live and standing dead Lodgepole Pine with stump diameter greater than 9.4 inches. (no upper diameter limit)</li> <li>• Remove all Ponderosa Pine and White Fir marked with blue paint above and below stump height.</li> </ul>
7, 10, 16 and 38	LTM	<ul style="list-style-type: none"> <li>• Remove all live White Fir with a stump diameter between 9.6 and 28.0 inches that are not marked with orange paint above and below stump height.</li> <li>• Remove all live Ponderosa Pine with a stump diameter between 9.8 and 26.0 inches that are not marked with orange paint above and below stump height.</li> <li>• Remove all live and standing dead Lodgepole Pine with a stump diameter between 9.4 and 26.0 inches that are not marked with orange paint above and below stump height.</li> </ul>

<b><u>Harvest Unit</u></b>	<b><u>Designation</u></b>	<b><u>Description of Included Timber (see Definitions Below)</u></b>
6 and 11	LTM	<ul style="list-style-type: none"> <li>• Remove all live Lodgepole Pine with a stump diameter greater than 9.4 inches that are not marked with orange paint above and below stump height.</li> <li>• Remove all live Ponderosa Pine with a stump diameter greater than 9.8 inches that are not marked with orange paint above and below stump height.</li> <li>• Remove all live White Fir with a stump diameter between 9.6 and 30.0 inches that are not marked with orange paint above and below stump height.</li> </ul>
18, 29, 34 and 36	LTM	<ul style="list-style-type: none"> <li>• Remove all live and standing dead Lodgepole Pine with a stump diameter greater than 9.4 inches that are not marked with orange paint above and below stump height.</li> <li>• Remove all live Ponderosa Pine with a stump diameter greater than 9.8 inches that are not marked with orange paint above and below stump height.</li> <li>• Remove all live White Fir with a stump diameter between 9.6 and 30.0 inches that are not marked with orange paint above and below stump height.</li> </ul>

<u>Harvest Unit</u>	<u>Designation</u>	<u>Description of Included Timber (see Definitions Below)</u>
22, 25 and 52	DXD/ITM/LTM	<ul style="list-style-type: none"> <li>• Remove all live Lodgepole Pine with a stump diameter of 7.0 to 26.0 inches.</li> <li>• Remove all live White Fir with a stump diameter of 7.0 to 28.0 inches.</li> <li>• Remove all live Ponderosa Pine with a stump diameter of 7.0 to 26.0 inches within 18 feet of an orange marked tree above and below stump height.</li> <li>• Remove all live Ponderosa Pine with a stump diameter of 7.0 to 26.0 inches that are within 18 feet of another live Ponderosa pine with a larger stump diameter.</li> <li>• Remove all trees marked with blue paint above and below stump height. Do not cut trees marked with orange paint above and below stump height.</li> </ul>

Stump height is defined as 4.0 inches above mineral soil on the uphill side of the tree.

Tree spacing is measured from face to face at a 4.0 inches stump height.

KT-DT.3.5# - SCHEDULED RATE REDETERMINATION (09/2004)

Contracting Officer shall redetermine rates to be made effective on \_\_\_\_\_ Redetermined rates for Included Timber shall be used under DT.1 for determination of Current Contract Rates. Rate redeterminations shall cover Included Timber in the entire contract. Base Indices and Required Deposits shall be redetermined. At the time of each rate redetermination, Forest Service shall also determine cost changes for stewardship projects not yet completed. Stewardship project costs shall be adjusted by cost changes to establish a revised AT.4.4.

If rates established by a scheduled rate redetermination result in lower than Current Contract Rates determined from Bid Rates and Base Indices stated in AT.4, such lower rates shall become effective only after at least CCF has been cut and Scaled. However, if the scheduled rate redetermination date is later than the beginning date of contract adjustment under IT.2.1 or IT.2.1T.2, the rate redetermination shall be made as originally scheduled. If redetermined rates, plus Bid Premium Rates, are higher than rates in effect immediately prior to the rate redetermination date, the date on which the redetermined rates shall become effective shall be adjusted by the number of days of contract adjustment prior to the rate redetermination date. Rates and Required Deposits established under DT.3.1, DT.3.2, or DT.3.3 shall be superceded by any subsequent scheduled rate redetermination.

In scheduled rate redeterminations, Contracting Officer may make modifications in minimum specifications for trees or products in AT.2, road maintenance requirements or deposits in FT.3.1 or FT.3.2, logging methods in GT.4, slash disposal in GT.7, and fire precautionary measures in HT.2 if, and to the extent that, such changes are reasonably necessary to protect the interest of the United States. Such modifications shall be limited to requirements generally being made in Forest Service contracts in the Region at the time of rate redetermination and with which Contractor can reasonably comply. Such changes shall be reflected in the rate redetermination, but changes affecting rates shall not be implemented until the redetermined rates become effective.

KT-ET.2.2 - CHANGES IN STEWARDSHIP CREDITS (06/2008)

The Contracting Officer may at any time, by written order, make changes within the general scope of this contract in any one or more of the following:

- (1) Specifications for Stewardship Projects listed in KT-GT.9#.
- (2) Quantities of Stewardship Projects listed in AT.4.4.
- (3) Prices for Stewardship Projects listed in AT.4.4.
- (4) Place of performance of the Stewardship Projects as shown on the Contract Area Map.

If a written change order causes an increase in the time required for performing any part of the work under this contract, the Contracting Officer shall make an adjustment in the Contract Termination Date and shall modify the contract accordingly.

The Contractor must assert their right to equitable adjustments under this provision within 30 days from receipt of the written order. However, if the Contracting Officer decides that the facts justify it, the Contracting Officer may receive and act upon a proposal submitted before contract closure.

If the Contractor's proposal includes the cost of property made obsolete or excess by the change, the Contracting Officer shall have the right to prescribe the manner of the disposition of the property.

Failure to agree to an adjustment under this provision shall be considered a dispute under JT.2. However, nothing in this provision shall excuse the Contractor from proceeding with the contract as changed.

In addition, by written modification of the contract, new Stewardship Projects may be added to KT-GT.9# and AT.4.4, with or without expanding the Contract Area, as long as they are within the general scope of this contract.

KT-ET.4 - PAYMENTS NOT RECEIVED (08/2012)

(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 and road maintenance deposits;
- (ii) Cooperative work at rates established by specific agreement under ET.2.1.8;
- (iii) Damages pursuant to JT.4;
- (iv) Road use fees;
- (v) Restoration of downpayment pursuant to ET.2.2;
- (vi) Periodic payments pursuant to ET.2.1.3;
- (vii) Extension Deposits pursuant to ET.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 JT.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.

KT-FT.1.2# - USE OF ROADS BY CONTRACTOR (09/2004)

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 the 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:

**See Restricted Road List Table.**

**KT-FT.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:

<u>Code</u>	<u>Use Limitations</u>
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		
4615	Swede Ridge Rd.	Road 46 (Cascade Lakes Hwy)	Road 4615300	R	Snow plowing and vehicle use prohibited from Dec. 1 through March 31

KT-FT.1.3# - ROAD COMPLETION DATE (09/2004)

Construction of Specified Roads shall be completed no later than 10/31/2016; except for earlier construction completion dates for roads listed below:

Road Number	Road Name	Station		Completion Date
		From	To	

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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 GT.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 DT.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 FT.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 Subsection, construction of a road is completed when:

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

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

Contract Name: Ruble Stewardship

Notwithstanding FT.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.

KT-FT.2.1.3# - DEPOSIT FOR RECONSTRUCTION ENGINEERING SERVICES (09/2004)

Contractor shall make a cash deposit for engineering services (preconstruction and construction) provided by Forest Service for reconstruction of National Forest system roads necessary to accommodate Contractor's use under this contract, pursuant to 16 USC 537.

The total amount to be deposited by Contractor for reconstruction related engineering services to be completed by Forest Service personnel or by public works contract is \$ \$5,413.00. Contractor shall make this deposit at the end of the first full Normal Operating Season or 12 months from contract award, whichever occurs first. In the event a different deposit schedule is agreed to, such deposit shall be due within 15 days after the date of issue indicated on the initial bill for collection, pursuant to ET.4.

The amount of the required deposit will be shown as an associated charge on Contractor's Integrated Resource Account. Forest Service shall retain any unexpended deposit for reconstruction related engineering services.

The deposit for reconstruction related engineering services shall be commensurate with project need and Contractor's road use. Forest Service shall complete reconstruction related engineering services on the following schedule unless a different completion schedule is agreed in writing:

Road or Facility No.	Termini		Engineering Services Completion Date
	From	To	
Road-4600120	0	.5	08/01/2015
Road-4604000	0	1.4	08/01/2015
Road-4604400	0	.5	08/01/2015
Road-4612200	0	.77	08/01/2015

Reconstruction related engineering services may consist of some or all of the engineering work and expense of: preparing, setting out, controlling, inspecting, and measuring the reconstruction of a National Forest system road.

KT-FT.3.1# - ROAD MAINTENANCE REQUIREMENTS (09/2004)

Contractor shall maintain roads in accordance with the following Contract Road Maintenance Requirements Summary:

See Contract Road Maintenance Requirements Summary Table.

KT-FT.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 Road Maintenance Specifications									
	From	To		T-803	T-811	T-831	T-832	T-834	T-838	T-839	T-851	T-854	T-891
4600120	Hwy 46	4604	2.53	P		P	P	P	P			P	P
4601290	Unit 16	4610700	0.32	P		P	P	P	P			P	P
4604000	End of Pavement	4610	4.95	P	P	P		P			P	P	P
4604000	Skyliners	End of Pavement	0.47	P		P		P			P	P	
4604010	4604	Unit 40	1.70	P		P	P	P	P			P	P
4604200	4604	Unit 47	0.65	P		P	P	P	P			P	P
4604400	4604	4600120	0.45	P		P	P	P	P			P	P
4610000	HWY 46	Unit 16	2.16	P	P	P		P			P	P	P
4610050	4610	Unit 2	0.23	P		P		P		P		P	P
4610700	MP 1.10	4610776	0.19	P		P		P		P		P	P
4610700	4610	MP 1.10	1.10	P		P	P	P	P			P	P
4610710	4610700	4615	0.46	P		P		P		P		P	P
4610712	4610700	4610720	0.47	P		P		P		P		P	P
4610714	4610710	4610712	0.19	P		P		P		P		P	P
4610720	4610700	4615	0.54	P		P	P	P	P			P	P
4610740	4610720	4615	0.57	P		P		P		P		P	P
4610745	4610700	4615	0.60	P		P		P		P		P	P
4610747	4610700	4610745	0.54	P		P		P		P		P	P
4610749	4610700	Unit 7	0.56	P		P	P	P	P			P	P
4610776	4610700	4610749	0.30	P		P	P	P	P			P	P
4612000	HWY 46	4615	3.19	P	P	P		P			P	P	P
4612200	4612	4615	2.66	P		P	P	P	P			P	P
4612205	4612200	Unit 11	0.44	P		P		P		P		P	P
4612206	4612205	Unit 15	0.29	P		P		P		P		P	P
4612207	4612204	Unit 29	0.13	P		P		P		P		P	P
4612208	4610	Unit 4	0.71	P	P	P		P			P	P	P
4612208	Unit 4	Unit 5	0.51	P		P	P	P	P			P	P
4612218	4612200	Unit 6	0.46	P		P		P		P		P	P
4612220	4612200	4612400	0.91	P		P	P	P	P			P	P
4612224	4612220	Unit 37	0.74	P		P		P		P		P	P
4612240	4612200	Unit 33	0.15	P		P	P	P	P			P	P
4612245	4612200	Unit 38	0.68	P		P		P		P		P	P
4612246	4612200	4610	1.33	P		P	P	P	P			P	P
4612400	4612	4615800	0.58	P		P	P	P	P			P	P
4612500	4612	4612500	0.51	P		P	P	P	P			P	P
4615000	HWY 46	4612	3.48	P	P	P		P			P	P	P
4615060	4615	4615090	0.95	P		P	P	P	P			P	P
4615090	4615060	4612	0.51	P		P	P	P	P			P	P
4615800	4612400	4615801	1.24	P		P		P		P		P	P
4615800	4615	4612400	1.19	P		P	P	P	P			P	P
4615801	4615	4615	0.20	P		P	P	P	P			P	P
4615810	4615800	4612200	0.66	P		P	P	P	P			P	P
4615900	4615	4610	0.22	P		P		P		P		P	P

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

Road	Termini		Miles	Applicable During Haul Road Maintenance Specifications										
	From	To		T-803	T-811	T-812	T-831	T-832	T-834	T-838	T-839	T-851	T-854	T-891
4600120	Hwy 46	4604	2.53	P		P	P	P	P	P			P	P
4601290	Unit 16	4610700	0.32	P		P	P	P	P	P			P	P
4604000	End of Pavement	4610	4.95	P	P	P	P		P			P	P	P
4604000	Skyliners	End of Pavement	0.47	P			P		P			P	P	
4604010	4604	Unit 40	1.70	P		P	P	P	P	P			P	P
4604200	4604	Unit 47	0.65	P		P	P	P	P	P			P	P
4604400	4604	4600120	0.45	P		P	P	P	P	P			P	P
4610000	HWY 46	Unit 16	2.16	P	P	P	P		P			P	P	P
4610050	4610	Unit 2	0.23	P		P	P		P		P		P	P
4610700	MP 1.10	4610776	0.19	P		P	P		P		P		P	P
4610700	4610	MP 1.10	1.10	P		P	P	P	P	P			P	P
4610710	4610700	4615	0.46	P		P	P		P		P		P	P
4610712	4610700	4610720	0.47	P		P	P		P		P		P	P
4610714	4610710	4610712	0.19	P		P	P		P		P		P	P
4610720	4610700	4615	0.54	P		P	P	P	P	P			P	P
4610740	4610720	4615	0.57	P		P	P		P		P		P	P
4610745	4610700	4615	0.60	P		P	P		P		P		P	P
4610747	4610700	4610745	0.54	P		P	P		P		P		P	P
4610749	4610700	Unit 7	0.56	P		P	P	P	P	P			P	P
4610776	4610700	4610749	0.30	P		P	P	P	P	P			P	P
4612000	HWY 46	4615	3.19	P	P	P	P		P			P	P	P
4612200	4612	4615	2.66	P		P	P	P	P	P			P	P
4612205	4612200	Unit 11	0.44	P		P	P		P		P		P	P
4612206	4612205	Unit 15	0.29	P		P	P		P		P		P	P
4612207	4612204	Unit 29	0.13	P		P	P		P		P		P	P
4612208	Unit 4	Unit 5	0.51	P		P	P	P	P	P			P	P
4612208	4610	Unit 4	0.71	P	P	P	P		P			P	P	P
4612218	4612200	Unit 6	0.46	P		P	P		P		P		P	P
4612220	4612200	4612400	0.91	P		P	P	P	P	P			P	P
4612224	4612220	Unit 37	0.74	P		P	P		P		P		P	P
4612240	4612200	Unit 33	0.15	P		P	P	P	P	P			P	P
4612245	4612200	Unit 38	0.68	P		P	P		P		P		P	P
4612246	4612200	4610	1.33	P		P	P	P	P	P			P	P
4612400	4612	4615800	0.58	P		P	P	P	P	P			P	P
4612500	4612	4612500	0.51	P		P	P	P	P	P			P	P
4615000	HWY 46	4612	3.48	P	P	P	P		P			P	P	P
4615060	4615	4615090	0.95	P		P	P	P	P	P			P	P
4615090	4615060	4612	0.51	P		P	P	P	P	P			P	P
4615800	4612400	4615801	1.24	P		P	P		P		P		P	P
4615800	4615	4612400	1.19	P		P	P	P	P	P			P	P
4615801	4615	4615	0.20	P		P	P	P	P	P			P	P
4615810	4615800	4612200	0.66	P		P	P	P	P	P			P	P
4615900	4615	4610	0.22	P		P	P		P		P		P	P

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		T-811	T-834	T-835	T-838	T-839	T-891		
4600120	Hwy 46	4604	2.53		P		P		P		
4601290	Unit 16	4610700	0.32		P		P		P		
4604000	End of Pavement	4610	4.95	P	P				P		
4604000	Skyliners	End of Pavement	0.47	P	P						
4604010	4604	Unit 40	1.70		P		P		P		
4604200	4604	Unit 47	0.65		P		P		P		
4604400	4604	4600120	0.45		P		P		P		
4610000	HWY 46	Unit 16	2.16	P	P				P		
4610050	4610	Unit 2	0.23		P	P		P	P		
4610700	MP 1.10	4610776	0.19		P	P		P	P		
4610700	4610	MP 1.10	1.10		P		P		P		
4610710	4610700	4615	0.46		P	P		P	P		
4610712	4610700	4610720	0.47		P	P		P	P		
4610714	4610710	4610712	0.19		P	P		P	P		
4610720	4610700	4615	0.54		P		P		P		
4610740	4610720	4615	0.57		P	P		P	P		
4610745	4610700	4615	0.60		P	P		P	P		
4610747	4610700	4610745	0.54		P	P		P	P		
4610749	4610700	Unit 7	0.56		P		P		P		
4610776	4610700	4610749	0.30		P		P		P		
4612000	HWY 46	4615	3.19	P	P				P		
4612200	4612	4615	2.66		P		P		P		
4612205	4612200	Unit 11	0.44		P	P		P	P		
4612206	4612205	Unit 15	0.29		P	P		P	P		
4612207	4612204	Unit 29	0.13		P	P		P	P		
4612208	Unit 4	Unit 5	0.51		P		P		P		
4612208	4610	Unit 4	0.71	P	P				P		
4612218	4612200	Unit 6	0.46		P	P		P	P		
4612220	4612200	4612400	0.91		P		P		P		
4612224	4612220	Unit 37	0.74		P	P		P	P		
4612240	4612200	Unit 33	0.15		P		P		P		
4612245	4612200	Unit 38	0.68		P	P		P	P		
4612246	4612200	4610	1.33		P		P		P		
4612400	4612	4615800	0.58		P		P		P		
4612500	4612	4612500	0.51		P		P		P		
4615000	HWY 46	4612	3.48	P	P				P		
4615060	4615	4615090	0.95		P		P		P		
4615090	4615060	4612	0.51		P		P		P		
4615800	4612400	4615801	1.24		P	P		P	P		
4615800	4615	4612400	1.19		P		P		P		
4615801	4615	4615	0.20		P		P		P		
4615810	4615800	4612200	0.66		P		P		P		
4615900	4615	4610	0.22		P	P		P	P		

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

ROAD MAINTENANCE REQUIREMENTS SPECIFICATION TABLE PURSUANT TO  
KT-FT.3.1# - ROAD MAINTENANCE REQUIREMENTS (09/2004)

1	2	3			4	5	6			7	8	9	
Road No. and Termini	Special Project Specifi- cation	Travel Way			Brush And Log Out	Surfacing	Dust Abatement			Seasonal Mainte- nance	Snow Removal	Post Haul	
		Width	X Slope	Comp			Product	Applic Rate	Width			Block	Treat
4600120 Hwy 46 to 4604	T-803-01F T-812-01F T-832-01F T-834-01F T-891-01F				T-838		OPT		EX	W	TS		PR
4601290 Unit 16 to 4610700	T-803-01F T-812-01F T-832-01F T-834-01F T-891-01F				T-838		OPT		EX	W	TS		PR
4604000 End of Pavement to 4610	T-803-01F T-834-01F T-891-01F	EX	AI	A	2 Ft. Lt. and Rt.		OPT		EX		JU		PR
4604000 Skyliners to End of Pavement	T-803-01F T-834-01F				2 Ft. Lt. and Rt.						JU		
4604010 4604 to Unit 40	T-803-01F T-812-01F T-832-01F T-834-01F T-891-01F				T-838		OPT		EX	W	TS		PR
4604200 4604 to Unit 47	T-803-01F T-812-01F T-832-01F T-834-01F T-891-01F				T-838		OPT		EX	W	TS		PR

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Road No. and Termini	Special Project Specifi- cation	Travel Way			Brush And Log Out	Surfacing	Dust Abatement			Seasonal Mainte- nance	Snow Removal	Post Haul	
		Width	X Slope	Comp			Product	Applic Rate	Width			Block	Treat
4604400 4604 to 4600120	T-803-01F T-812-01F T-832-01F T-834-01F T-891-01F				T-838		OPT		EX	W	TS		PR
4610000 Hwy 46 to Unit 16	T-803-01F T-834-01F T-891-01F	EX	AI	A	2 Ft. Lt. and Rt.		OPT		EX		JU		PR
4610050 4610 to Unit 2	T-803-01F T-812-01F T-834-01F T-835-01F T-891-01F				T-839		OPT		EX	W	TS	PR	
4610700 MP 1.10 to 4610776	T-803-01F T-812-01F T-834-01F T-835-01F T-891-01F				T-839		OPT		EX	W	TS	PR	
4610700 4610 to MP 1.10	T-803-01F T-812-01F T-832-01F T-834-01F T-891-01F				T-838		OPT		EX	W	TS		PR
4610710 4610700 to 4615	T-803-01F T-812-01F T-834-01F T-835-01F T-891-01F				T-839		OPT		EX	W	TS	PR	
4610712 4610700 to 4610720	T-803-01F T-812-01F T-834-01F T-835-01F T-891-01F				T-839		OPT		EX	W	TS	PR	

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Road No. and Termini	Special Project Specifi- cation	Travel Way			Brush And Log Out	Surfacing	Dust Abatement			Seasonal Mainte- nance	Snow Removal	Post Haul	
		Width	X Slope	Comp			Product	Applic Rate	Width			Block	Treat
4610714 4610710 to 4610712	T-803-01F T-812-01F T-834-01F T-835-01F T-891-01F				T-839		OPT		EX	W	TS	PR	
4610720 4610700 to 4615	T-803-01F T-812-01F T-832-01F T-834-01F T-891-01F				T-838		OPT		EX	W	TS		PR
4610740 4610720 to 4615	T-803-01F T-812-01F T-834-01F T-835-01F T-891-01F				T-839		OPT		EX	W	TS	PR	
4610745 4610700 to 4615	T-803-01F T-812-01F T-834-01F T-835-01F T-891-01F				T-839		OPT		EX	W	TS	PR	
4610747 4610700 to 4610745	T-803-01F T-812-01F T-834-01F T-835-01F T-891-01F				T-839		OPT		EX	W	TS	PR	
4610749 4610700 to Unit 7	T-803-01F T-812-01F T-832-01F T-834-01F T-891-01F				T-838		OPT		EX	W	TS		PR
4610776 4610700 to 4610749	T-803-01F T-812-01F T-832-01F T-834-01F T-891-01F				T-838		OPT		EX	W	TS		PR

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Road No. and Termini	Special Project Specifi- cation	Travel Way			Brush And Log Out	Surfacing	Dust Abatement			Seasonal Mainte- nance	Snow Removal	Post Haul	
		Width	X Slope	Comp			Product	Applic Rate	Width			Block	Treat
4612000 Hwy 46 to 4615	T-803-01F T-834-01F T-891-01F	EX	AI	A	2 Ft. Lt. and Rt.		OPT				JU		PR
4612200 4612 to 4615	T-803-01F T-812-01F T-832-01F T-834-01F T-891-01F				T-838		OPT			W	TS		PR
4612205 4612200 to Unit 11	T-803-01F T-812-01F T-834-01F T-835-01F T-891-01F				T-839		OPT			W	TS	PR	
4612206 4612205 to Unit 15	T-803-01F T-812-01F T-834-01F T-835-01F T-891-01F				T-839		OPT			W	TS	PR	
4612207 4612204 to Unit 29	T-803-01F T-812-01F T-834-01F T-835-01F T-891-01F				T-839		OPT			W	TS	PR	
4612208 Unit 4 to Unit 5	T-803-01F T-812-01F T-832-01F T-834-01F T-891-01F				T-838		OPT			W	TS		PR
4612208 4610 to Unit 4	T-803-01F T-834-01F T-891-01F	EX	AI	A	2 Ft. Lt. and Rt.		OPT				TS		PR

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Road No. and Termini	Special Project Specification	Travel Way			Brush And Log Out	Surfacing	Dust Abatement			Seasonal Maintenance	Snow Removal	Post Haul	
		Width	X Slope	Comp			Product	Applic Rate	Width			Block	Treat
4612218 4612200 to Unit 6	T-803-01F T-812-01F T-834-01F T-835-01F T-891-01F				T-839		OPT		EX	W	TS	PR	
4612220 4612200 to 4612400	T-803-01F T-812-01F T-832-01F T-834-01F T-891-01F				T-838		OPT		EX	W	TS		PR
4612224 4612220 to Unit 37	T-803-01F T-812-01F T-834-01F T-835-01F T-891-01F				T-839		OPT		EX	W	TS	PR	
4612240 4612200 to Unit 33	T-803-01F T-812-01F T-832-01F T-834-01F T-891-01F				T-838		OPT		EX	W	TS		PR
4612245 4612200 to Unit 38	T-803-01F T-812-01F T-834-01F T-835-01F T-891-01F				T-839		OPT		EX	W	TS	PR	
4612246 4612200 to 4610	T-803-01F T-812-01F T-832-01F T-834-01F T-891-01F				T-838		OPT		EX	W	TS		PR
4612400 4612 to 4615800	T-803-01F T-812-01F T-832-01F T-834-01F T-891-01F				T-838		OPT		EX	W	TS		PR

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Road No. and Termini	Special Project Specifi- cation	Travel Way			Brush And Log Out	Surfacing	Dust Abatement			Seasonal Mainte- nance	Snow Removal	Post Haul	
		Width	X Slope	Comp			Product	Applic Rate	Width			Block	Treat
4612500 4612 to 4612500	T-803-01F T-812-01F T-832-01F T-834-01F T-891-01F				T-838		OPT		EX	W	TS		PR
4615000 Hwy 46 to 4612	T-803-01F T-834-01F T-891-01F	EX	AI	A	2 Ft. Lt. and Rt.		OPT		EX		JU		PR
4615060 4615 to 4615090	T-803-01F T-812-01F T-832-01F T-834-01F T-891-01F				T-838		OPT		EX	W	TS		PR
4615090 4615060 to 4612	T-803-01F T-812-01F T-832-01F T-834-01F T-891-01F				T-838		OPT		EX	W	TS		PR
4615800 4612400 to 4615801	T-803-01F T-812-01F T-834-01F T-835-01F T-891-01F				T-839		OPT		EX	W	TS	PR	
4615800 4615 to 4612400	T-803-01F T-812-01F T-832-01F T-834-01F T-891-01F				T-838		OPT		EX	W	TS		PR
4615801 4615 to 4615	T-803-01F T-812-01F T-832-01F T-834-01F T-891-01F				T-838		OPT		EX	W	TS		PR

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Road No. and Termini	Special Project Specifi- cation	Travel Way			Brush And Log Out	Surfacing	Dust Abatement			Seasonal Mainte- nance	Snow Removal	Post Haul	
		Width	X Slope	Comp			Product	Applic Rate	Width			Block	Treat
4615810 4615800 to 4612200	T-803-01F T-812-01F T-832-01F T-834-01F T-891-01F				T-838		OPT		EX	W	TS		PR
4615900 4515 to 4610	T-803-01F T-812-01F T-834-01F T-835-01F T-891-01F				T-839		OPT		EX	W	TS	PR	

ROAD MAINTENANCE REQUIREMENTS SPECIFICATION CODES TABLE PURSUANT TO  
KT-FT.3.1# - ROAD MAINTENANCE REQUIREMENTS (09/2004)

<b>Column No.</b>	<b>Heading</b>	<b>Entry</b>	<b>Explanation</b>
	Any	Blank	Except as otherwise described, no entry indicates Contractor is not authorized or required to perform the work item(s).
	Any	RC	This work requirement applies only when haul of project related construction materials occurs.
2	Special Project Specification	Number	Entry indicates Special Project Specification which applies.
3	Travel Way	EX	Contractor shall maintain the traveled way to the width existing upon entry, or at the completion of Specified Road work.
		Numbers	Contractor shall maintain the traveled way to the standard width indicated by the entry, plus curve widening, in accordance with Section T-811. If required, the road template shall be shaped to this width and to the designated cross slope before haul and during recurring maintenance.
		IS, C, OS, F, or AI	Cross slopes are designated as: IS (Inslope), C (Crown), OS (Outslope), F (Flat), AI (As Is).
		A or B	If compaction is required.
4	Brush and Log Out	Numeric & R and or L	Contractor shall remove brush for specified width on either or both the right (R) side or left (L) side of road.
		As Staked	Limits of brushing are as staked or marked in the field.
		OPT	Contractor may use hand or mechanical means of brushing.
		H	Only hand brushing may be used.

ROAD MAINTENANCE REQUIREMENTS SPECIFICATION CODES TABLE PURSUANT TO  
KT-FT.3.1# - ROAD MAINTENANCE REQUIREMENTS (09/2004)

<b>Column No.</b>	<b>Heading</b>	<b>Entry</b>	<b>Explanation</b>
5	Surfacing	Aggregate Grading	Contractor shall place surfacing on roads listed according to the grading indicated.
		D	Contractor is to make deposits for listed road maintenance, including surface rock replacement.
6	Dust Abatement	OPT	Product selection is Contractor's choice from those listed in Section T-812.
		Product Abbr.	Unless otherwise agreed, Contractor is restricted to product listed corresponding to the abbreviation shown in Section T-812; (i.e., LigS = Lignon Sulfonate) Application rates are estimated amounts.
		EX	Contractor shall abate dust on the existing width
		Numbers	Contractor shall abate dust to the width indicated by entry.
7	Seasonal Maintenance	W	Waterbars and/or crossditching shall be required prior to expected seasonal precipitation.
		B	Entrance barriers shall be installed by Contractor prior to nonuse periods.
8	Snow Removal	TS	Snowplowing authorized for Contractor's Operations without recreation access being provided per Section T-803 requirements.
		JU	Snowplowing authorized, but must provide for recreation joint use per Section T-803 requirements.
		Blank	Snowplowing is not authorized. Forest Service may authorize plowing by permit when not in conflict with other uses.
9	Post Haul	PR	P denotes that work is Contractor's Responsibility to perform.

KT-FT.3.2# - ROAD MAINTENANCE DEPOSIT SCHEDULE (09/2004)

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 KT-FT.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 and for deferred maintenance is: \$.09 per CCF.

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		

KT-GT.3.1.5# - PROJECT OPERATION SCHEDULE (05/2005)

Unless otherwise agreed to between Contractor and Forest Service, Contractor's Operations shall be performed in accordance with the following schedule.

**See attached schedule.**

**SCHEDULE PURSUANT TO KT-GT.3.1.5# - PROJECT OPERATION SCHEDULE (06/1994)**

<u>Harvest &amp; Stewardship Units</u>	<u>Operating Conditions</u>	<u>Purpose</u>
1, 21, 22, 26, 40, 47, 48, 49, 50, 51, 52, 103, and 104 (Block A )	Priority removal. All operations* must be completed no later than October 31, 2016. CTA time is not applicable.	Minimize conflict with public and construction contract.
1, 6, 20, 21, 22, 43, 48, and 50	No operations April 15 through August 31 annually unless otherwise agreed to in writing by Forest Service.	Minimize disturbance to nesting Raptors.
11, 18, 36, 41, 44, and 46	No operations March 1 through August 31 annually unless otherwise agreed to in writing by Forest Service.	Minimize disturbance to nesting Raptors.
1, 2, 4, 10, 16, 19, 20, 21, 22, 23, 24, 25,26, 30,32, 40 47, 48, 49, 50, 51 and 52	No operations within Tumalo winter range from December 1 through March 31. Forest Service will provide maps and permits to grant access.	Winter deer range.
8 & 12	No operations from November 1 through April 1.	Reduce conflict with winter recreation.

\*For this contract, operations (felling, yarding, hauling, slash disposal, erosion control, road construction, and stewardship project operations) shall progress in a manner that provides for the safety of and minimizes impacts to the public. Units have been grouped into blocks that facilitate area closures for public access. At Contractors request, as agreed to by Forest Service, area closures will be implemented by the Forest Service prior to operations within each block. Contractor may choose to operate within any block identified below; however, all operations must be completed within a block prior to leaving that block unless agreed to in writing by the Forest Service.

- Block A: harvest units 1, 21, 22, 26, 40, 47, 48, 49, 50, 51, 52, 103, & 104
- Block B: harvest units 2, 4, 16, 20, 23, 25, 32, 43,105, 106, 107, 110 & 115
- Block C: harvest units 10, 19, & 24
- Block D: harvest units 5, 18, 27, 33, 34, 38, 45, 46, & 114

Cannot work in Block D when operations are occurring in either Block A or Block B.

Harvest units not associated with area closures: 3, 6, 7, 9, 11, 13, 14, 15, 17, 29, 30, 31, 36, 37, 39, 41, 44, 108, 109, & 111.

Contractor shall request area closures 10 business days prior to operations.

KT-GT.3.2# - PROTECTION OF RESERVE TREES (09/2004)

Contractor's damage or destruction of reserve trees described in KT-CT.3# will cause serious and substantial silvicultural or other damage to the National Forest. It will be difficult if not impossible to determine the amount of such damage. Therefore, Contractor shall pay as fixed, agreed, and liquidated damages \$ 500 for each genetic reserve tree and \$ N/A for each N/A reserve tree damaged or destroyed by Contractor's Operations, in addition to amounts payable under DT.4.4 and DT.4.5.

Damage, as used herein, includes any injury to the living crown, bole, or roots of reserve trees. If areas are marked on the ground around such reserve trees, operation of heavy equipment or skidding of products within the area shall be considered to be damage to the tree.

KT-GT.4.0.5 - ALTERNATE REMOVAL OF INCLUDED TIMBER (05/2005)

Contractor and Forest Service may agree to alternate removal requirements of Included Timber contained in AT.2. Alternate removal requirements are to be set forth in an agreement signed by both Contractor and Contracting Officer. The terms of the agreement binds both parties and becomes part of the stewardship contract.

The development and execution of the agreement is based upon the determination by the Contracting Officer that removal of Included Timber is economically impractical if Contractor has no ready market for such logs in the tributary area. A tributary area is defined as the area in which the Contractor and competitors regularly deliver saw logs, or 200 miles from the Contract Area, whichever distance is greater.

The agreement for alternate removal requirements shall be executed prior to removing any timber from the Payment Units included in the agreement. Alternate removal requirements shall apply only to whole units and not to portions of units. All material meeting alternate removal specifications shall be cut and removed to locations designated in the agreement.

Volumes of material with alternate removal requirements will be determined from the National Cruise report for the project. Contractor will be charged for the following:

- a) stumpage value at current contract rates of the alternatively removed timber;
- b) plus the cost of other work required by the Forest Service to dispose of alternatively removed material;
- c) plus the difference between the appraised transportation cost of the Sawtimber and/or Nonsawtimber material involved and the appraised transportation cost of the alternative;
- d) minus any work required to be completed by the Contractor associated with alternate removal requirements.

Charges will be debited to the Contractor's Integrated Resource Account.

Upon acceptance of the alternate removal requirements, the Payment Unit will be removed from the Contract Area under GT.3.6.

Title to material included in the alternate removal agreement shall remain with the Forest Service.

KT-GT.4.1# - SPECIFIC REQUIREMENTS (05/2005)

Notwithstanding GT.4.1, GT.4.1.1, GT.5 and GT.6.1, felling objectives shall be accomplished by the type of felling methods and equipment listed herein. Methods or equipment other than those specified may be approved. For Payment Units shown in the following table, Contractor shall submit a cutting plan for Forest Service acceptance, prior to the start of felling operations.

**See attached Table.**

TABLE PURSUANT TO KT-GT.4.1# - SPECIFIC REQUIREMENTS

(05/2005)

<u>FELLING METHODS</u>	<u>HARVEST UNITS</u>
Mechanized felling equipment shall operate in a manner which will minimize detrimental soil disturbance.	ALL
Mechanized felling equipment may leave main skid trails at average 30 foot intervals and make up to two roundtrips.	ALL
Mechanized felling equipment prohibited on slopes greater than 30%. Avoid operation in units with slopes 20% or greater during periods when soils are extremely dry or as agreed to in writing.	ALL
<u>FELLING EQUIPMENT</u>	<u>HARVEST UNITS</u>
Any ground based felling equipment capable of Operating as stated above, or approved by Forest Service.	ALL
Cross trails with machinery at intervals no closer than 200 feet apart along the length of the trail.	ALL

KT-GT.4.2# - YARDING/SKIDDING REQUIREMENTS (05/2005)

Contractor shall submit for Forest Service approval a Yarding/Skidding Plan prior to the start of felling operations. Requirements other than those specified in the following table may be approved. When appropriate, such approval shall include adjustments in Current Contract Rates and revision of the Contract Area Map. In no such case shall the adjustments result in Current Contract Rates less than Base Rates.

Location of all skid roads and trails, tractor roads, skyline corridors, mechanized harvester trails, forwarder roads, and other log skidding facilities, shall be approved prior to their use or construction.

**See attached table for requirements.**

TABLE PURSUANT TO KT-GT.4.2# - YARDING/SKIDDING REQUIREMENTS

(05/2005)

<u>YARDING/SKIDDING REQUIREMENTS</u>	<u>HARVEST UNITS</u>
<p>Leading end of log shall be suspended while skidding on skid road/trails.</p>	<p>ALL</p>
<p>Skidding equipment shall stay on approved Forest Service skid roads/trails at all times.</p>	<p>ALL</p>
<p>Distance between skid roads/trails shall be on average, 100 feet apart or greater.</p>	<p>ALL</p>
<p>Yarding equipment is prohibited on slopes greater than 30%. Avoid operations in units with slopes 20% or greater during periods when soils are extremely dry or as agreed to in writing.</p>	<p>ALL</p>
<p>Equipment is not to be operated outside of Harvest Unit Boundaries. When Contractor is moving equipment between Harvest Units, equipment will be restricted to existing roadways unless otherwise agreed to in writing.</p>	<p>ALL</p>
<p>Crossing of recreational trails with machinery may occur if agreed to in writing. Designated trail crossings shall be spaced at least 200 feet apart along the length of the trail. Trail tread shall be protected with slash where crossing are approved.</p>	<p>ALL</p>

KT-GT.6.0# - EROSION CONTROL AND SOIL TREATMENT BY CONTRACTOR (04/2014)

Erosion prevention and control work required by GT.6, shall be completed within 15 calendar days after yarding/skidding operations related to each landing are substantially completed or after Forest Service designation on the ground of work where such designation is required hereunder. Said time limit shall be exclusive of full days lost in Contractor's Operations due to causes beyond Contractor's control. Such on the ground designation 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. After September 15, and as long thereafter as operations continue, the work shall be done as promptly as practicable. Damage resulting from Contractor's Operations due to failure to perform required work shall be repaired by Contractor.

On slopes greater than N/A percent, erosion control measures will be done with methods other than mechanized equipment, unless otherwise agreed.

Where soil has been disturbed or displaced on Contract Area by Contractor's Operations and where measures described in GT.6 will not result in satisfactory erosion control or where subsoiling is shown on Contract Area Map, the following shall be performed. If applicable, timing of the work shall be coordinated with required scarification or subsoiling.

(a) Where staked or otherwise marked on the ground by Forest Service, seed, fertilizer, and mulch will be applied as indicated in the attached seeding, fertilizing, and mulching schedule. All applications shall be current and done during the period from N/A to N/A, unless otherwise agreed to. Applications shall be done only during favorable conditions. If Contractor and Forest Service agree, seed can be applied and covered within 10 days of ground disturbance, and may be done outside the required periods.

(b) Where shown on Contract Area Map, landings, Temporary Roads and/or skidtrails/roads shall be scarified to a depth of 20 inches to provide a seedbed for grass seed, fertilizer, and mulch. Seed, fertilizer, and mulch shall be spread evenly at the rates shown in the table. When the seed, fertilizer, and mulch are applied in separate operations, the second or third operations shall be within 10 days of the first or second.

(c) Where shown on Contract Area Map, landings, Temporary Roads, and skid trails/roads used by Contractor shall be subsoiled to a minimum depth of 20 inches, except that Forest Service may agree to lesser depths. Each subsoiler shank shall be equipped with a shoe and wings which has a total width of at least 18 inches. The design of the shank and wings will be such that the treated, compacted soil is slightly lifted and well-fractured rather than plowed, mixed, or displaced. The distance between subsoiler shank passes shall not exceed 36 inches. Treated areas shall span the total width of compaction. Subsoiling shall be kept reasonably current and shall be done during Normal Operating Season unless otherwise agreed.

(d) When agreed to, Contractor may use alternate methods of erosion control.

Seed shall meet current Forest Service requirements, with the additional requirement that no seed containing any noxious weed seed in excess of established state limitations as listed in the current "State Noxious Weed Requirements Recognized in the Administration of the Federal Seed Act" publication will be used (commonly referred to as the "all states" noxious weed seed list). Seed shall be furnished separately or in mixture in standard containers clearly marked with: (1) seed name; (2) lot number; (3) net weight; (4) percentages of purity and of germination (in case of legumes, percentage of germination to include hard seed); (5) percentage of weed seed content; and (6) certification that no noxious weed seeds in excess of established state standards are present. The contractor shall furnish the Government duplicate signed copies of a certificate, signed by a Registered Seed Technologist or Seed Analyst (certified through either the Association of Official Seed Analysis or the Society of Commercial Seed Technologists), certifying that each lot of seed has been tested in accordance with the Association of Official Seed Analysts Standards within 12 months prior to date of application. This certificate shall include (1) name and address of laboratory, (2) date of test, (3) lot number for each kind of seed, (4) name of seed, (5) percentage of

Contract Name: Ruble Stewardship

germination, (6) percentage of purity, (7) percentage of weed seed content, and (8) certification that no noxious weed seeds in excess of established state limitations are present in any kind of seed.

Legume seed shall be inoculated with approved cultures in accordance with the instructions of the manufacturer.

No seed may be applied without prior written approval by the government.

(e) Contractor may be required to seed areas disturbed by harvest activities to prevent the spread of noxious weeds, or the establishment of new areas.

**See attached application schedule.**

APPLICATION SCHEDULE PURSUANT TO KT-GT.6.0# - EROSION CONTROL AND SOIL TREATMENT BY CONTRACTOR (04/2014)

PAYMENT UNIT OR UNIT NUMBER	AREAS A) SKID TRAILS B) FIRELINES C) TEMP. ROADS D) LANDINGS E) OTHER	SEED		FERTILIZER		MULCH	
		APPLICATION		APPLICATION		APPLICATION	
		SPECIES <u>1</u> / MIXTURE	LBS/AC	TYPE <u>2</u> / LBS/AC	LBS/AC	TYPE <u>3</u> / LBS/AC	LBS/AC
All	A,B,C,D,E	N/A	N/A	N/A	N/A	N/A	N/A

The Contractor will be required to pay a co-op deposit of \$0.04/CCF for the cultivation and harvest of replacement seed of native species for use on future contracts.

1/ For projects in Oregon, the seed shall meet the State certification specifications. Seed must be packaged in containers carrying official certification labels sewn in, glued to, or printed upon the container, with the following information:

1. Variety (if certified as to variety) and kind.
2. Quantity of seed (pounds or bushels).
3. Class of certified seed (blue tags for certified seed).
4. Inspection or lot number traceable to the certifying agency's records.

For projects in Washington, the seed shall be labeled as "Prohibited and Restricted Noxious Weed Free for the State of Washington." The Contractor shall furnish a copy of the seed analysis.

For state of California lands in Region 6, seed must be certified by the state of California, or by an independent agency or company that is approved by the state of California for "prohibited and restricted noxious weed free for the state of California."

For mixtures of seed, each ingredient in excess of 5 percent must be listed with its percentage by weight and its germination percentage.

Legumes must be inoculated with nitrogen fixing bacteria before planting. The label must show the expiration date of the inoculant.

All seed treated with a fungicide or pesticide must be labeled that it is "treated" giving the name of the chemical used, and an appropriate warning or a caution statement.

2/ Fertilizer shall be a standard commercial fertilizer with guaranteed analysis of contents clearly marked on containers.

3/ Mulch shall meet the appropriate State's certification specifications, with evidence of its certification traceable to the certifying agency's records.

KT-GT.7.4.2# - SLASH TREATMENT REQUIREMENTS (OPTION 2) (06/2010)

Contractor shall pile, burn, yard, construct firelines or otherwise treat slash defined in KT-GT.7, within designated areas. Work required of Contractor shall be in accordance with the following slash plan and specifications, and the Contract Area Map.

**See following slash plan and specifications.**

SPECIFICATIONS PURSUANT TO KT-GT.7.4.2# (OPTION 2)- SLASH TREATMENT REQUIREMENTS  
(06/2008)

SLASH PLANS AND SPECIFICATIONS FOR PILING LANDINGS,  
WHOLE TREE YARDING, AND LEAVE TOPS ATTACHED YARDING

**1. Slash to be Piled and / or Decked**

- a. Slash resulting from the construction of landings and temporary roads, and slash accumulated on the landings from the logging operation shall be piled and/or decked. Partially pushed out stumps are considered to be included as pushed out stumps in the KT-GT.7 definition of Slash.
- b. Slash created in this operation which lies outside the posted cutting area is not required to be piled unless within a landing or temporary road. However, such slash shall be pulled inside the posted cutting area boundary.
- c. Chips created and not removed from chipping operations on the landings are to be scattered across the entire area of the landings to a depth of no more than 3".

**2. Construction and Location of Piles and/or Decks**

- a. Slash piles shall be located at least 25 feet from the crown or drip line of any dead or live tree or equal-distance between standing dead or live trees, whichever is greater. These piles shall be minimum of 8 feet in height and 12 feet in diameter, if sufficient slash is available.
- b. All piles shall be compact and free of dirt and rocks.
- c. All material extending beyond the general contour of the piled slash shall be trimmed off and added to the pile

**3. Equipment Requirements**

- a. Machines used for piling slash shall be approved by the Forest Service.
- b. Chipping operations are prohibited except at locations designated by Forest Service. Roads within the Sale Area shall not be altered to allow chippers and chip vans access.

**4. Whole Tree Yarding:**

All trees meeting Utilization Standards which are less than 60 feet in length are required to be Whole Tree Yarded to the landing. Any portions of live trees required to be removed, which break during falling or yarding, and are 8 feet or more in length shall be yarded to the landing.

**5. Leave Top Attached Yarding:**

All trees meeting Utilization Standards which are 60 feet in length and greater are required to have tops and limbs attached to the last log while being yarded to the landing. Any portions of live trees required to be removed, which break during felling or yarding, and are 8 feet or more in length shall be yarded to the landing.

**1. Applicable Area**

Contractor shall yard and dispose of slash, in accordance with specifications, where shown on the Contract Area Map.

**2. Disposal of Yarded Material**

Tops and branches yarded to the landing shall be considered landing slash and piled accordingly.

KT-GT.8 - MEASURING (05/2005)

The estimated quantity of timber in AT.2 was determined in advance of advertisement. Any timber subsequently added or deleted under CT.1.3, CT.1.4, CT.1.5, CT.3.1, CT.3.2, CT.3.3, CT.3.4, CT.3.5, or CT.3.7 will be measured by the Forest Service and formulated using Forest Service Handbook 2409.12, Timber Cruising Handbook Standards, unless otherwise agreed to in writing.

KT-GT.8.1.1 - ACCOUNTABILITY (05/2005)

The following requirements are applicable to product removal permits:

1. Forest Service will issue to Contractor or designated representative(s) serially numbered Product Removal Permit Books for use only on this contract. Product Removal Permit Books, whether used or unused, shall be returned to issuing Forest Service Office in accordance with instructions contained on cover of each book.
2. All permits shall be completed and attached to load by an individual named in writing, other than the truck driver in accordance with the instructions on the inside cover of the Product Removal Permit Book. Product Removal Permit will be attached prior to removal from the immediate vicinity where loading is done. The permit will remain attached until the load is decked at the delivery point.
3. Contractor shall require truck drivers to stop when requested by Forest Service for purposes of monitoring accountability when products are in transit. Methods to be used to alert drivers of an impending stop shall be agreed to in advance of hauling products.

KT-GT.8.4 - USE OF PAINT BY CONTRACTOR (OPTION 1) (06/2006)

Notwithstanding GT.8.1, use of paint by the Contractor within the Contract Area in the same color(s) as used by the Forest Service in the preparation of the sale and administration of the contract will be by written approval of the Forest Service.

KT-GT.9# - STEWARDSHIP PROJECTS (09/2004)

Performance of stewardship projects shall be in accordance with the following specifications.

**Stewardship Projects**

SPECIFICATIONS PURSUANT TO KT-GT.9#

Mandatory Projects

Project 001-Treatment of Unwanted Vegetation. See attached requirements and specifications.

Project 002-Road Decommissioning. See attached requirements and specifications.

Project 003-Grinding and Delivering. See attached requirements and specifications.

Project 004-Subsoiling. See attached requirements and specifications.

Optional Stewardship Projects. None.

## Ruble Stew - Project 001

<b>Contract Name: Ruble Stewardship</b>							
<b>Project 001 - Treatment of Unwanted Vegetation</b>							
<b>End results - cut and remove identified trees to reduce fuels, improve stand health, and reduce incidence of insect and disease infestations.</b>							
Payment Unit	Acres	Subsoil acres	Understory and Fuels/Burn Treatment	Leave Tree Density TPA	Cut Tree Specifications		Understory Prescription/Remarks
					Minimum Height to cut	Maximum dbh to cut	
1	125	11	Treatment of unwanted Vegetation	80	12.0"	7.0"	Cut all LPP & WF. Cut all PP with mistletoe as stated in specifications. Cut PP with less than 40% crown. Cut all trees < 7.0 inches DBH within 25 feet of a leave tree over 12.0 inches DBH
2	117	10	Treatment of unwanted Vegetation	100	12.0"	7.0"	Cut all LPP & WF. Cut all PP with mistletoe as stated in specifications. Cut PP with less than 40% crown. Cut all trees < 7.0 inches DBH within 25 feet of a leave tree over 12.0 inches DBH
3	110	8	Treatment of unwanted Vegetation	80	12.0"	7.0"	None
4	37	2	Treatment of unwanted Vegetation	80	12.0"	7.0"	Cut all LPP & WF. Cut all PP with mistletoe as stated in specifications. Cut PP with less than 40% crown. Cut all trees < 7.0 inches DBH within 25 feet of a leave tree over 12.0 inches DBH
5	228	18	Treatment of unwanted Vegetation	80	12.0"	7.0"	None
6	120		Treatment of unwanted Vegetation	80	12.0"	7.0"	Cut all LPP & WF. Cut all PP with mistletoe as stated in specifications. Cut PP with less than 40% crown. Cut all trees < 7.0 inches DBH within 25 feet of a leave tree over 12.0 inches DBH
7	104	8	Treatment of unwanted Vegetation	100	12.0"	7.0"	Cut all WF. Cut all PP with mistletoe as stated in specifications. Cut PP with less than 40% crown. Cut LP within 20' of understory PP Cut all trees < 7.0 inches DBH within 25 feet of a leave tree over 12 inches DBH
8	56	5	Treatment of unwanted Vegetation	80	12.0"	7.0"	Mech equip limit to 50' from edge of channel. Boom reach allowed for removal
9	79	6	Treatment of unwanted Vegetation	80	12.0"	7.0"	Mech equip limit to 50' from edge of channel. Boom reach allowed for removal
10	197	12	Treatment of unwanted Vegetation	80	12.0"	7.0"	None
11	118	9	Treatment of unwanted Vegetation	80	12.0"	7.0"	None
12	34	5	Treatment of unwanted Vegetation	80	12.0"	7.0"	Mech equip limit to 50' from edge of channel. Boom reach allowed for removal. Hand pile greater than 50 feet from stream and no greater than 50 sq ft in size. Machine pile greater than 100 ft from seeps, streams.
13	54	4	Treatment of unwanted Vegetation	80	12.0"	5.0"	Cut all LPP & WF. Cut all PP with mistletoe as stated in specifications. Cut PP with less than 40% crown. Cut all trees < 7.0 inches DBH within 25 feet of a leave tree over 12.0 inches DBH
14	185	15	Treatment of unwanted Vegetation	80	12.0"	7.0"	Cut all LPP & WF. Cut all PP with mistletoe as stated in specifications. Cut PP with less than 40% crown. Cut all trees < 7.0 inches DBH within 25 feet of a leave tree over 12.0 inches DBH
15	37	3	Treatment of unwanted Vegetation	80	12.0"	7.0"	None
16	114	8	Treatment of unwanted Vegetation	80	12.0"	7.0"	Cut all LPP & WF. Cut all PP with mistletoe as stated in specifications. Cut PP with less than 40% crown. Cut all trees < 7.0 inches DBH within 25 feet of a leave tree over 12.0 inches DBH
17	83	7	Treatment of unwanted Vegetation	80	12.0"	7.0"	None
18	195		Treatment of unwanted Vegetation	80	12.0"	7.0"	Cut all LPP & WF. Cut all PP with mistletoe as stated in specifications. Cut PP with less than 40% crown. Cut all trees < 7.0 inches DBH within 25 feet of a leave tree over 12.0 inches DBH

## Ruble Stew - Project 001

Payment Unit	Acres	Subsoil acres	Understory and Fuels/Burn Treatment	Density TPA	Minimum Height to cut	Maximum dbh to cut	Understory Prescription/Remarks
19	241	18	Treatment of unwanted Vegetation	80	12.0"	7.0"	None
20	254	17	Treatment of unwanted Vegetation	80	12.0"	7.0"	None
21	240		Treatment of unwanted Vegetation	80	12.0"	7.0"	None
22	83	6	Treatment of unwanted Vegetation	80	12.0"	5.0"	Cut all LPP & WF. Cut all PP with mistletoe as stated in specifications. Cut PP with less than 40% crown. Cut all trees < 7 inches DBH within 25 feet of a leave tree over 12 inches DBH
23	179	13	Treatment of unwanted Vegetation	80	12.0"	7.0"	None
24	60	5	Treatment of unwanted Vegetation	80	12.0"	7.0"	None
25	67	5	Treatment of unwanted Vegetation	80	12.0"	5.0"	Cut all LPP & WF. Cut all PP with mistletoe as stated in specifications. Cut PP with less than 40% crown. Cut all trees < 7.0 inches DBH within 25 feet of a leave tree over 12.0 inches DBH
26	70		Treatment of unwanted Vegetation	80	12.0"	7.0"	Cut all LPP & WF. Cut all PP with mistletoe as stated in specifications. Cut PP with less than 40% crown. Cut all trees < 7.0 inches DBH within 25 feet of a leave tree over 12.0 inches DBH
27	77	6	Treatment of unwanted Vegetation	80	12.0"	7.0"	None
28	16	1	Treatment of unwanted Vegetation	80	12.0"	7.0"	Cut all LPP & WF. Cut all PP with mistletoe as stated in specifications. Cut PP with less than 40% crown. Cut all trees < 7.0 inches DBH within 25 feet of a leave tree over 12.0 inches DBH
29	54	4	Treatment of unwanted Vegetation	80	12.0"	7.0"	Cut all LPP & WF. Cut all PP with mistletoe as stated in specifications. Cut PP with less than 40% crown. Cut all trees < 7.0 inches DBH within 25 feet of a leave tree over 12.0 inches DBH
30	122	12	Treatment of unwanted Vegetation	100	12.0"	7.0"	None
31	27	3	Treatment of unwanted Vegetation	80	12.0"	7.0"	Mech equip limit to 50 from edge of channel. Boom reach allowed for removal. Hand pile greater than 50 feet from stream and no greater than 50 sq ft in size. Machine pile greater than 100 ft from seeps and streams.
32	175	12	Treatment of unwanted Vegetation	80	12.0"	7.0"	None
33	49		Treatment of unwanted Vegetation	80	12.0"	7.0"	None
34	44	4	Treatment of unwanted Vegetation	100	12.0"	7.0"	None
36	30	3	Treatment of unwanted Vegetation	100	12.0"	7.0"	Cut all PP, LPP, WF with mistletoe as stated in specifications. Cut PP, LPP, WF with less than 40% crown. Cut LP or WF within 20' of understory PP. Leave tree preference PP, LPP Cut all trees < 7.0 inches DBH within 25 feet of a leave tree over 12.0 inches DBH Mech equip limit to 50' from edge of channel. Boom reach allowed for removal. Hand pile greater than 50 feet from stream and no greater than 50 sq ft in size. Machine pile greater than 100 ft from seeps and streams.
37	52	5	Treatment of unwanted Vegetation	80	12.0"	7.0"	None
38	70	7	Treatment of unwanted Vegetation	100	12.0"	7.0"	None
39	101	8	Treatment of unwanted Vegetation	100	12.0"	7.0"	None
40	29		Treatment of unwanted Vegetation	80	12.0"	7.0"	None

## Ruble Stew - Project 001

Payment Unit	Acres	Subsoil acres	Understory and Fuels/Burn Treatment	Density TPA	Minimum Height to cut	Maximum dbh to cut	Understory Prescription/Remarks
41	10	1	Treatment of unwanted Vegetation	100	12.0"	7.0"	None
43	163		Treatment of unwanted Vegetation	80	12.0"	7.0"	None
44	36	3	Treatment of unwanted Vegetation	100	12.0"	7.0"	None
45	50	6	Treatment of unwanted Vegetation	80	12.0"	7.0"	Cut all LPP & WF. Cut all PP with mistletoe as stated in specifications. Cut PP with less than 40% crown. Cut all trees < 7.0 inches DBH within 25 feet of a leave tree over 12.0 inches DBH
46	65	6	Treatment of unwanted Vegetation	80	12.0"	7.0"	None
47	58		Treatment of unwanted Vegetation	80	12.0"	7.0"	Cut all LPP & WF. Cut all PP with mistletoe as stated in specifications. Cut PP with less than 40% crown. Cut all trees < 7.0 inches DBH within 25 feet of a leave tree over 12.0 inches DBH
48	73		Treatment of unwanted Vegetation	80	12.0"	7.0"	None
49	62		Treatment of unwanted Vegetation	100	12.0"	7.0"	Cut all LPP & WF. Cut all PP with mistletoe as stated in specifications. Cut PP with less than 40% crown. Cut all trees < 7.0 inches DBH within 25 feet of a leave tree over 12.0 inches DBH
50	56	3	Treatment of unwanted Vegetation	100	12.0"	7.0"	Cut all LPP & WF. Cut all PP with mistletoe as stated in specifications. Cut PP with less than 40% crown. Cut all trees < 7.0 inches DBH within 25 feet of a leave tree over 12.0 inches DBH
51	25		Treatment of unwanted Vegetation	100	12.0"	7.0"	Cut all LPP & WF. Cut all PP with mistletoe as stated in specifications. Cut PP with less than 40% crown. Cut all trees < 7.0 inches DBH within 25 feet of a leave tree over 12.0 inches DBH
52	69	6	Treatment of unwanted Vegetation	80	12.0"	5.0"	Cut all LPP & WF. Cut all PP with mistletoe as stated in specifications. Cut PP with less than 40% crown. Cut all trees < 7.0 inches DBH within 25 feet of a leave tree over 12.0 inches DBH
103	126		Treatment of unwanted Vegetation	80	12.0"	7.0"	None
104	14		Treatment of unwanted Vegetation	80	12.0"	7.0"	None
105	46		Treatment of unwanted Vegetation	80	12.0"	7.0"	None
106	52		Treatment of unwanted Vegetation	80	12.0"	7.0"	None
107	94		Treatment of unwanted Vegetation	80	12.0"	7.0"	None
108	76		Treatment of unwanted Vegetation	80	12.0"	7.0"	None
109	18		Treatment of unwanted Vegetation	195	12.0"	7.0"	Cut all LPP within 25 feet of a leave tree PP,WF. Thin LPP pockets to 15X15 feet.
110	3		Treatment of unwanted Vegetation	80	12.0"	7.0"	None
111	42		Treatment of unwanted Vegetation	80	12.0"	7.0"	None
114	45		Treatment of unwanted Vegetation	80	12.0"	7.0"	None
115	9		Treatment of unwanted Vegetation	80	12.0"	7.0"	None

**Ruble Stewardship End Results & Slash Treatment Specifications**End Result, Fuels Specifications and Objectives

Reduce fuels to an end result of 5-7 tons per acre post treatment. All created slash and all existing slash (excluding Course Woody Material) shall be treated by removing, mulching, chopping, lopping or piling to meet required fuel loadings referenced in USDA Forest Service GTR PNW-105- Photo Series for Quantifying Natural Forest Residues in Common Vegetation Types of the Pacific Northwest on pages 168 and 169; the 1-PP-2. A copy of photos to assess fuel loadings will be provided to the Contractor.

Mastication and or mowing shall be considered independent of other fuels treatments but slash generated during mastication and or mowing operations will remain included in end result fuel loadings. Brush shall be mulched, chopped or cut to where it lies within 8 inches of the soil surface after treatment.

Course Woody Material minimum requirements shall be maintained in addition to the end result fuel load rating of 5-7 tons per acre.

1. Slash to be piled and/or decked
  - a. Slash resulting from construction of landings and temporary roads, and slash accumulated on the landings from logging operation shall be piled and / or decked. Partially pushed out stumps are considered to be included as pushed out stumps in KT-GT.7 definition of slash.
  - b. Slash created in this operation which lies outside the posted cutting area is not required to be piled unless within a landing or temporary road. However such slash shall be pulled inside the posted cutting area boundary.
  - c. Chips created and not removed from chipping operations on the landings are to be scattered across entire area of the landing to a depth not greater than 3 inches.
2. Construction and Locations of Piles and/or Decks
  - a. Slash piles shall be located at least 25 feet from the crown or drip line of any dead or live tree or equal - distance between standing dead or live trees whichever is greater. These piles shall be minimum of 8 feet in height and 12 feet in diameter, if sufficient slash is available.
  - b. All piles shall be compact and free of dirt debris.
  - c. All material extending beyond the general contour of the piled slash shall be trimmed off and added to the pile.
3. Equipment Requirements
  - a. Machines used for piling slash shall be approved by the Forest Service.
  - b. Chipping operations are prohibited, except at locations designated by Forest Service. Roads within contract area shall not be altered to allow chippers and chip vans.
4. Whole Tree Yarding
  - a. All trees meeting Utilization Standards which are less than 60 feet in length are required to be Whole Tree Yarded Any portions of live trees that break during falling operations or yarding , and are 8 feet or more in length shall be yarded to the landing.
5. Applicable Area

Contractor shall yard and dispose of slash, in accordance with specifications, Where shown on Contract Area Map.
6. Leave Tops Attached Yarding

All trees meeting Utilization Standards which are 60 feet in length and greater are required to have tops and limbs attached to the last log while being yarded to the landing. Any portions of live trees required to be removed, which break during felling or yarding, and are 8 feet or more in length shall be yarded to the landing.

7. Disposal of Yarded Material

Tops and branches yarded to the landing shall be considered landing slash and piled accordingly.

HAND PILING SPECIFICATIONS

Where hand piling is selected or specified, all activity-created and pre-existing slash shall be piled in accordance with the following:

## CONSTRUCTION OF PILES

- (a) Constructed compactly with adequate fine fuels (limbs and needles) in the lower 1/3 of pile, with slash parallel, and in such a manner that they are stable and will not fall over with the passage of time or during windy conditions.
- (b) Trimmed with the excess pieces of slash placed in/on the pile.
- (c) Constructed to include all activity-created slash material with diameters up to 10 inches and a minimum of 2 feet in length.
- (d) Unless approved by the COR/District Fuels Personnel maximum pile size shall be 10 feet in diameter by 8 feet in Height, and minimum pile size shall be 7 feet in diameter and 5 feet in height.

## LOCATION OF PILES

- (a) Located so that burning will not cause damage to standing live trees. Unless otherwise approved, this is at least 10 feet from the crown or drip line of any tree, or equidistant between standing live trees, whichever is greater.
- (b) Placed a minimum of 15 feet from wildlife trees, select trees, unit boundaries, roadways, and other improvements.
- (c) Placed a minimum of 30 feet from established recreation trails.
- (d) Placed, where spacing allows, a minimum of 10 feet from other slash piles.
- (e) Placed so that they are not atop or within 6 feet of logs, stumps, ditches, firelines, channel bottoms, or stream courses.
- (f) Piles shall not be located in the bottom of draws which carry water during periods of surface runoff. (Indicated by scour or sediment deposition)
- (g) Whenever possible, piles created by the contractor shall be placed on existing skid trails, log landings, temporary roads or other previously disturbed sites.

GRAPPLE PILING SPECIFICATIONS

Where grapple piling is selected or specified, all activity-created and pre-existing slash shall be piled in accordance with the following:

- (a) Pre-existing *slash* with diameters up to 10 inches and a minimum of 2 feet in length and all activity-created *slash* shall be piled except as indicated in RETENTION OF WILDLIFE LOGS/COARSE WOODY MATERIAL. Bucking of pre-existing slash at 10 inches may be necessary to meet requirements.
- (b) Contractor shall not move or disturb from natural bed, any Coarse Woody Material.

CONSTRUCTION OF PILES

- (a) All piles shall contain a minimum of soil. Material shall be shaken in the lift position prior to placing on a pile in an effort to remove all excess dirt and rocks.
- (b) Height of piles shall be no less than eight feet.
- (c) All material piled shall be compact and generally parallel so as to insure the piles can be burned (ignited and consumed) during wet weather conditions.
- (d) Piles that are loose and "jackstrawn" shall be reworked by the Contractor.
- (e) Material which is 8 inches or more in diameter shall not protrude more than 8 feet beyond the base of the pile. Such material shall be repositioned onto the pile or cut and placed against the pile.
- (f) Piles should contain a variety of slash size classes to aid the burning.
- (g) Repetitive passes should be minimized. Make no more than two passes over any piece of ground.
- (h) Machine turns and pivots will be constrained to primary skid trails only.
- (i) Limit, as feasible pivoting or sidehill travel on slopes greater than 15%, especially during very dry conditions. Travel should primarily occur on fall line/perpendicular to slope.
- (j) Operator should plan off-trail paths to make full use of machine capability (e.g., using full boom reach of the machine) to limit ground disturbance and minimize the number of off-trail passes needed to achieve treatment objectives.
- (k) Suspend mechanized operations during wet periods when soil moisture is high and machines sink deeply below the soil surface with one or two passes (wheel ruts or track impressions more than six inches deep).
- (l) Soil impacts consistent Class 3 Disturbance as defined in the Forest Soil Disturbance Monitoring Protocol shall be isolated and infrequent (less than 5% of unit area). Class 3 impacts include total removal of surface organics and topsoil, churning/mixing of topsoil with subsoil rutting greater than six inches deep and heavy compaction. These impacts normally result from pivoting and turning off primary skid trails.

LOCATION OF PILES

- (a) Piles shall be located so that burning will not cause damage to standing trees. Unless otherwise approved, this will mean at least 10 feet from the crown or drip line of any tree or equidistant between standing live trees, whichever is greater.
- (b) Piles shall not be located in the bottom of draws which carry water during periods of surface runoff.
- (c) Placed so that they are not atop or within 6 feet of logs, stumps, ditches, firelines, channel bottoms, or stream courses.
- (d) Whenever possible, piles created by the contractor shall be placed on an existing skid trails, log landings, temporary road or other previously disturbed sites.
- (e) Placed a minimum of 15 feet from wildlife trees, select trees, unit boundaries, roadways, and other improvements.

- (f) Placed a minimum of 30 feet from established recreation trails.

TREATMENT OF UNDESIRABLE VEGETATION SPECIFICATIONS

- (a) Treatment units under this contract shall incorporate the cutting of brush and trees as part of the mandatory work. The method to be used shall be mechanical cutting, chopping and chewing up of the brush. Trees may be cut mechanically or by hand.
- (b) Brush requiring treatment shall be all antelope bitterbrush (*Purshia tridentate*), greenleaf manzanita (*Arctostaphylos patula*), snowbrush (*Ceanothus velutinus*) and golden chinkapin (*Castanopsis chrysophylla*), whether live or dead. Tree treated shall be including Ponderosa pine, Lodgepole pine, White Fir and Western Juniper. Spacing and selection are identified in detailed unit sheet.
- (c) Brush shall be cut to within a maximum of 8 inches of the ground surface (stem height).
- (d) 80 percent of existing brush shall be treated, leaving 20% retention in a combination of untreated islands of .5-2 acre in size and isolated pockets of smaller size equally distributed through each unit. Untreated areas should include areas untreatable due to slope, rocks or leave tree spacing
- (e) Brush shall be treated to within 36 inches horizontal distance from the base of green standing trees unless obstructed in some way; in which case treatment shall be as close to the drip-line as possible.
- (f) Cut brush shall be chopped, chewed or ground to the extent that the maximum height of cut brush is 8 inches above the ground surface.
- (g) Mowing shall not occur within 6 feet of snags, rock outcrops, logs greater than 10 inches in diameter, or on slopes greater than 30%.
- (h) Mowing equipment will be washed prior to moving into new contract unit to avoid spread of noxious weeds.
- (i) Repetitive passes should be minimized. Make no more than two passes over any piece of ground.
- (j) Limit, as feasible, pivoting or sidehill travel on slopes greater than 15% particularly during very dry conditions. Travel should primarily occur on the fall line /perpendicular to the slope.
- (k) When using a boom - mounted masticating head operator should plan off-trail paths to make full use of the machine capability (e.g., using full boom reach of the machine) to limit ground disturbance and minimize the number of off-trail passes needed to achieve treatment objectives.
- (l) When using a tracked machine with drum type masticator, work in long, linear swaths to extent practicable to avoid unnecessary pivoting and turning. Pivots and turns cause the majority of soil displacement damage.
- (m) Suspend mechanized operations during wet periods when soil moisture is high and machines sink deeply below the soil surface with one or two passes (wheel ruts or track impressions more than six inches deep).
- (n) Mastication soil impacts consistent with Class 3 disturbances as defined in Forest Soil Disturbance Monitoring Protocol shall be isolated and infrequent (less than 5% of unit area). Class 3 impacts include total removal of surface organics and topsoil, churning/ mixing of topsoil, rutting greater than 6 inches deep and heavy compaction.

**Project 002 Road Decommissioning**

**End Results** Decompact soils on road templates to where they serve their ecological function in the forest. This includes subsoiling, slash and shredded material placement and barrier construction.

Activities for road decommissioning will include subsoiling for decompaction, slash placement/surface cover and barrier construction, as outlined below. These activities will occur on the entirety of the road prism identified in TABLE 1 and MAP 1, or as modified by the Forest Service and the Contracting Officer or their delegated representative. Road decommissioning should occur after all operations are completed in adjacent treatment units as some routes may be used as temp roads.

*Subsoiling for Decompaction*

Subsoiling will occur to a minimum depth of 24 inches, except where the Forest Service agrees to lesser depths. Soil shall be decompacted to the full depth, while preventing mixing or plowing. Surface disturbance of organics and vegetation, where present, will be minimized. Once treated, the decompacted soil is slightly lifted and well-fractured rather than plowed, mixed, or displaced. Treated areas shall span the entire length of the road and the total width of the compacted ground surface. System trails crossing roads treated for decommissioning will not be subsoiled - leaving the tread intact. In some instances, the full width of the road may not warrant treatment (e.g., decompaction of the two-track surface may be preferable). Subsurface rocks should not be pulled to the surface and large supportive roots should also not be severed. The distance between subsoiler shank passes shall not exceed 24 inches.

*Slash Placement and Surface Cover*

To facilitate successful soil rehabilitation and establishment of vegetation, subsoiling must be coupled with organic matter addition and surface protection. This can be achieved by placing logging slash and/or wood mulch across the soil surface in quantities/percent cover specified below. Fine slash may need to be strategically staged along routes for use on road decommissioning once all operations are complete. Slash/debris generated during the current logging activity should be targeted for application. No coarse woody debris of Decay Class 3 or greater should be disturbed or moved. Subsoiling and slash placement should be completed in one pass or Subsoiling accomplished with the final pass to prevent compacting or displacing treated areas. Road segments that do not pass through harvest units will have government supplied wood shred mulch applied in lieu of logging slash. This material will be available within the project area (Cascade Pit) but will need to be transported to the worksite by contractor. Mulch will be applied to the roadbed at an average depth of 1 inch (approx. 200 cubic yards per mile) prior to subsoiling.

The Deschutes National Forest Land and Resource Management Plan sets forth ground cover objectives that should be met within the first two years after an activity is completed to protect soil from wind and water erosion (S&G SL-6, p. 4-70). Required minimum amounts vary from 30-75% depending on surface soil erosion potential. Since all cutting units in the Ruble Stewardship area have a surface soil erosion potential of Low or Moderate, a uniformly-applied 50% standard will meet the intent of this Standard/Guideline.

*Barrier Construction*

All roads decommissioned will have barriers constructed at all open intersections (road or trail) encountered along the length of the route and at the entrance of each route to prevent future use and facilitate vegetative and soil recovery. Where system trails cross roads treated for decommissioning, barriers will need to be constructed on both sides of the trail, with the trail tread left intact. Barriers will be disguised using natural materials as to not draw attention to the decommissioned route. Barrier construction may include boulder placement, slash placement and/or recontouring. Barrier construction may extend beyond the road width if open conditions provide access around a road-width barrier. Barriers should extend sight distance or 100 feet, whichever is greatest, from any open route (road or trail). Barriers should not be passable by any 4WD passenger vehicle or ATV and should be discouraging to dirt bike and mountain bike use.

TABLE 1: Road Decommissioning Unit Summary and Treatment Miles

Adjacent Sale Unit	Route Number	Approx. Subsoil Miles	Approx. Slash Placement Miles	Approx. Mulch Miles	Approx. Number of Barriers Constructed
11	4612228	0.27	0	0.27	1
11	4612224	0.63	0.2	0.43	0
38 & 27	4612245	0.87	0.87	0	3
11 & 29	4612205	0.41	0.41	0	2
06	4612218	0.45	0.45	0	1
<b>Totals</b>		<b>2.6</b>	<b>1.9</b>	<b>0.7</b>	<b>7</b>

**Project 003 Grinding and Delivery of Shredded Material.**

**End Results:** Create stockpiles of shredded material in specific sizes for use in various resource restoration projects.

This project proposes to produce a wood shred mulch product from logging-generated slash. Mulch will be transported and stockpiled at the Cascade Pit for use on future revegetation and restoration projects, including the road decommissioning service items associated with this contract. Work items proposed include production of mulch material and transport to the stockpile site at Cascade Pit. A secondary stockpile site may be identified within the project area if needed.

This proposal involves utilizing slash material from landings and converting it to wood shred mulch (NOT chipped material) with a tub grinder or horizontal grinder (tub grinders are suitable for stumps and other heavy material, while limbs and tops usually need to be processed with a horizontal grinder) to the following specifications:

Grinding: Produce 10,000 cubic yards (yd<sup>3</sup>) of shredded material (not chips) from existing logging operation slash piles consisting of non-merchantable timber, limbs, tops, and brush. Finished product shall be free of inert material and rocks greater than ¾ inches in diameter. Woody debris shall be processed through equipment that produces long, thin shredded wood fibers ("spears"). The finished product shall conform to the following specifications:

1. Grind wood debris so that the spear widths conform to the following:
  - Spear width <1.5 inches, 90% minimum by loose volume.
  - Spear width 1.5 to 2.0 inches, 10% maximum by loose volume.
  - Spear width >2.0 inches, 1% maximum by loose volume.
2. And spear lengths conform to the following:
  - Spear length <3 inches, 90% minimum by loose volume.
  - Spear length 3 inches to 5 inches, 10% maximum by loose volume.
  - Spear length >5 inches, 1% maximum by loose volume.

Transport: Load, transport, and deliver 10,000 yd<sup>3</sup> of wood shred mulch material to approved sites at Cascade Pit. Specific locations within the pit will be designated by the Forest Service and determined to be weed-free prior to commencement of work. Material shall be placed either as discrete piles, up to 12 feet high with 45-degree (1:1) slopes, or as adjacent windrows. Pile dimensions may be modified at the discretion of the Contracting Officer. Existing fence shall be removed and protected while work proceeds, and shall be reinstalled after mulch transport and stockpiling is completed. Transportation shall follow all applicable road use rules. The Forest Service reserves the right to direct haul routes.

Forest Service will assume maintenance responsibility for mulch piles after transport.

**Project 004 Subsoiling**

End Results: Decompress temporary roads, landings and skid trails in cutting units to restore ecological function in the forest.

In specified Cutting Units, temp roads, landings and main skid trails used by the Contractor will be subsoiled. Any unit requiring subsoiling treatment MUST have all temporary roads used by the purchaser treated as part of the required acreage.

*Subsoiling for Decompression:*

Temporary roads, landings, and main skid trails that are determined to require subsoiling shall be subsoiled to a minimum depth of 24 inches, except where the Forest Service agrees to lesser depths. Soil shall be decompressed to the full depth, while preventing detrimental disturbance and mixing of soil horizons. Surface disturbance of organics and vegetation will be minimized. Once treated, the decompressed soil is slightly lifted and well-fractured rather than plowed, mixed, or displaced. Treated areas shall span the total width of the compacted ground surface. In some instances, the full width of the skid trail may not warrant treatment (e.g., decompression of the two-track surface may be preferable). Subsurface rocks should not be pulled to the surface and large supportive roots should not be severed. The distance between subsoiler shank passes shall typically not exceed 24 inches unless inspection by Soil Scientist determines greater distance between passes is effective at treating compaction. Subsoiling shall be kept reasonably current and shall be done during Normal Operating Season unless otherwise agreed. Available slash or wood shred mulch should be placed on treated areas prior to or in conjunction with subsoiling, as specified below.

*Slash Placement and Effective Ground Cover*

To facilitate successful soil rehabilitation, subsoiling must be coupled with organic matter addition and surface soil protection. This can be achieved by placing logging slash or wood shred mulch across the soil surface in quantities/percent cover specified below. If adequate slash is not present within the cutting unit adjacent to treated skid trails (within machine's reach from skid trail), slash may need to be retrieved from landing piles. Slash/debris generated during the current logging activity should be targeted for application. Machines should not leave skid trails or landings to retrieve slash from within the unit. No coarse woody debris of Decay Class 3 or greater should be disturbed or moved. Alternately, in units where landing piles are targeted for mulch production, additional mulch may be created and stockpiled on site to meet this surface cover requirement. Subsoiling and slash/mulch placement should be completed in one pass, or subsoiling accomplished as the final

Table 1 - Subsoiling Unit Summary and Treatment Acreages

Sale Unit	Unit Acres	Total Subsoil Acres	Landings to Subsoil	Total Unit Miles of Skid Trail to Subsoil / Linear Feet of Skid Trail PER LANDING to Subsoil
1	125	10	10	3.4 miles / 1,800 feet
2	117	10	10	3.4 miles / 1,800 feet
3	110	8	9	2.4 miles / 1,400 feet
4	37	2	2	0.7 mile / 1,800 feet
5	228	18	18	6.2 miles / 1,800 feet
6	120	0	0	N/A
7	104	8	9	2.4 miles / 1,400 feet
8	56	5	4	2.1 miles / 2,700 feet
9	79	6	6	2.1 miles / 1,800 feet
10	197	15	15	5.2 miles / 1,800 feet
11	118	9	10	2.8 miles / 1,450 feet
12	34	4	3	1.7 miles / 3,000 feet
13	54	4	4	1.4 miles / 1,800 feet
14	185	1	2	N/A
15	37	3	3	1.0 miles / 1,800 feet
16	114	9	10	2.8 miles / 1,400 feet
17	83	7	6	2.8 miles / 2,400 feet
18	195	0		N/A
19	241	18	20	5.5 miles / 1,450 feet
20	254	17	20	4.8 miles / 1,300 feet
21	240	15	20	3.4 miles / 900 feet
22	83	6	6	2.1 miles / 1,800 feet
23	179	13	15	3.8 miles / 1,350 feet
24	60	5	4	2.1 miles / 2,700 feet
25	67	5	5	1.7 miles / 1,800 feet
26	70	5	5	1.7 miles / 1,800 feet
27	77	6	5	2.4 miles / 2,550 feet
28	16	1	1	0.3 miles / 1,800 feet
29	54	5	4	2.1 miles / 2,700 feet
30	122	10	10	3.4 miles / 1,800 feet
31	27	2	2	0.7 miles / 1,800 feet
32	175	14	15	4.5 miles / 1,600 feet
33	50	0	0	N/A
34	44	4	3	1.7 miles / 3,000 feet
35	109	9	8	3.4 miles / 2,250 feet
36	30	0	0	N/A
37	52	5	4	2.1 miles / 2,700 feet
38	70	6	6	2.1 miles / 1,800 feet

Sale Unit	Unit Acres	Total Subsoil Acres	Landings to Subsoil	Total Unit Miles of Skid Trail to Subsoil / Linear Feet of Skid Trail PER LANDING to Subsoil
39	101	8	8	2.8 miles / 1,800 feet
40	29	0	0	N/A
41	9	1	1	0.3 miles / 1,800 feet
42	95	0	0	N/A
43	163	0	0	N/A
44	36	3	3	1.0 miles / 1,800 feet
45	51	4	4	1.4 miles / 1,800 feet
46	65	5	5	1.7 miles / 1,800 feet
47	58	0	0	N/A
48	73	0	0	N/A
49	62	0	0	N/A
50	56	0	0	N/A
51	25	0	0	N/A
52	69	6	6	2.1 miles / 1,800 feet
53	8	0	0	N/A
<b>Totals</b>		<b>292</b>	<b>301</b>	<b>97.3 miles total / variable feet per landing</b>

#### *Recommended Equipment*

Work identified here shall be performed by the Contractor with an excavator and attachment meeting the following description, unless, as a part of an alternate offer, a different solution for achieving the requirements stated below is proposed by the Contractor and accepted by the Contracting Officer:

*Subsoiling shall be completed with a designed subsoiling implement that is used on the excavator boom. Recommended excavator size for this implement typically ranges from 45,000 to 50,000 lbs and has at least 140 hp. The subsoiling implement shall be designed with a coulter blade, a curvilinear shank approximately 2 feet long, and a winged tooth with a total wingspan of at least 7 inches. The coulter blade shall be designed to slice through the soil in front of the subsoiling shank to minimize surface disturbance of organic horizons and vegetation. The curved shank in combination with the winged tooth is a critical design feature. The curved shank and winged tooth shall be able to achieve proper soil decompaction to a depth of 2 feet while preventing detrimental soil mixing and disturbance to soil horizons. The design of the shank and wings will be such that the treated, compacted soil is slightly lifted and well-fractured rather than plowed, mixed, or displaced. Subsoiler design should also consider the ability to place slash, since subsoiling and slash placement will ideally be completed in one pass. The subsoiler can be designed as an attachment to a bucket or grapple rake. Bulldozer-mounted subsoiling implements are less desirable for this work due to their diminished maneuverability and greater likelihood of root system damage to the residual stand.*

KT-HT.1 - PLANS (05/2005)

The plan shall state how Contractor's representative or alternates will be contacted in a fire emergency, both during periods of operation and at other times such as evenings or weekends. Contractor shall certify compliance with specific fire precautionary measures included as Subsections under KT-HT.2 - Specific Fire Precautions, before beginning operations during Fire Precautionary Period (closed season) and shall update such certification when operations change.

If helicopter yarding is required, the plan shall include a schedule of rates mutually agreed to for computing Contractor costs incurred toward meeting Contractor's obligations under AT.14, or for paying for helicopters controlled by Contractor and used under Forest Service direction for suppressing Operations Fires or other fires on Contract Area, excluding Negligent Fires.

KT-HT.2 - SPECIFIC FIRE PRECAUTIONS (05/2005)

When the industrial fire precaution level is I or higher, unless waiver is granted under KT-HT.2.2, specific required fire precautionary measures are as follows:

## A. Fire Security.

Contractor shall designate in writing a person or persons who shall perform fire security services listed below on Contract Area and vicinity. The designated person will be capable of operating Contractor's communications and fire fighting equipment specified in the contract, excluding helicopters, and of directing the activities of Contractor's personnel on Forest fires. Such person must report any fire detected to Forest Service within 15 minutes of detection. In lieu of having the designated person perform the required supervisory duties, Contractor may provide another person meeting the qualifications stated above to direct the activities of Contractor's personnel and equipment during all fire fighting activities.

Services described shall be for at least 1 hour from the time Contractor's Operations are shut down. For the purposes of this provision, personnel servicing equipment, and their vehicles, who are not engaged in cutting or welding metal are excluded.

Fire security services shall consist of moving throughout the operation area or areas constantly looking, reporting, and taking suppression action on any fires detected. Where possible, the designated person shall observe inaccessible portions of helicopter operating areas from vantage points within or adjacent to Contract Area.

Contractor shall furnish fire security services based on the predicted industrial precaution level, obtained by Contractor from the appropriate Ranger District Headquarters. If predictions made after 6:00 p.m. local time, are significantly different than originally estimated, Forest Service will inform Contractor when changes in fire security services are indicated.

## B. Fire Extinguisher and Equipment (on Trucks, Tractors, Power Saws, etc.).

(a) Each yarder or loader equipped with an internal combustion engine or other spark emitting source shall be equipped with a readily accessible fire extinguisher, with an Underwriter's Laboratory (UL) Rating of at least 5 B,C.

(b) All power-driven equipment operated by Contractor on National Forest land, except portable fire pumps, shall be equipped with one fire extinguisher having a UL rating of at least 5 B,C and one "D" handled or long handled round point shovel, size 0 or larger. In addition, each motor patrol, truck and passenger-carrying vehicle shall be equipped with a double-bit axe or Pulaski, 3-1/2 pounds or larger.

(c) Equipment required in (a) and (b) shall be kept in a serviceable condition and shall be readily available.

(d) Each gasoline power saw operator shall be equipped with a pressurized chemical fire extinguisher of not less than 8-ounce capacity by weight, and one long handled round point shovel, size 0 or larger, except at a landing where a suitable fire extinguisher and shovel are immediately available. The extinguisher will be kept in possession of the saw operator at all times. The shovel shall be accessible to the operator within 1 minute.

(e) Each helicopter shall be equipped with one fire extinguisher having a UL rating of at least 5 B,C mounted inside the aircraft within reach of the pilot's operating position.

(f) One refill for each type or one extra extinguisher sufficient to replace each size extinguisher required on equipment shall be safely stored in the fire tool box or other agreed upon place on Contract Area that is protected and readily available.

(g) At each area where helicopters are being serviced or supplied, a carbon dioxide fire extinguisher with a UL rating of at least 20 B,C will be provided on the site and placed where it is available for immediate use.

C. Spark arresters and mufflers.

Each internal combustion engine shall be equipped with a spark arrester qualified and rated under USDA Forest Service Standard 5100-1a as shown in the National Wildfire Coordination Group Spark Arrester Guide, unless it is:

(a) Equipped with a turbine-driven exhaust supercharger such as the turbocharger. There shall be no exhaust bypass.

(b) A multi-position engine, such as on power saws which must meet the performance levels set forth in the Society of Automotive Engineers (SAE) "multi-positioned small engine exhaust fire ignition standard, SAE recommended practice J335B" as now or hereafter amended.

(c) A passenger carrying vehicle or light truck, or medium truck up to 40,000 GVW, used on roads and equipped with a factory designed muffler complete with baffles and an exhaust system in good working condition.

(d) A heavy duty truck, such as a dump or log truck, or other vehicle used for commercial hauling, used only on roads and equipped with a factory designed muffler and with a vertical stack exhaust system extending above the cab.

Exhaust equipment described in this Subsection, including spark arresters and mufflers, shall be properly installed and constantly maintained in serviceable condition.

D. Fire Tools.

Contractor shall furnish serviceable fire fighting tools in a readily accessible fire tool box or compartment of sound construction with a hinged lid and hasp so arranged that the box can be secured or sealed. The box shall be red and marked "Fire Tools" in letters at least 1 inch high. It shall contain a minimum of:

(a) Two axes or Pulaskis with a 32 inch handle.

(b) Three adze eye hoes. One Pulaski may be substituted for one adze eye hoe.

(c) Three long handled, round point shovels, size 0 or larger.

E. Tank Truck.

Contractor shall provide a tank truck or trailer, containing not less than 300 gallons of water, during yarding, skidding, loading, land clearing, right-of-way clearing, mechanical falling, and mechanical treatment of slash. Such tank truck or trailer shall be maintained in a serviceable condition and located within 10 minutes, round trip, from each operating side during Fire Precautionary Period (closed season), except as provided under HT.2.1.

The tank truck or trailer shall be equipped with a pump capable of discharging 20 gallons of water per minute, using a 1/4 inch nozzle tip, through a 50 foot length of poly or rubber lined hose. In addition, 500 feet of serviceable hard rubber poly or rubber lined or FJRL hose of not less than 1 inch outside diameter, fitted with a nozzle capable of discharging a straight stream of 1/4 inch diameter and a spray pattern shall be immediately available for use. The tank, pump, nozzle and at least 250 feet, of the total 500 feet of hose, shall be connected and ready for use at all times. Synthetic hose may be used by

agreement.

If a trailer is used, it shall be equipped with a hitch to facilitate prompt movement. A serviceable tow vehicle shall be immediately available for attachment to the trailer and must meet the time requirements stated above. Such truck or trailer shall be equipped to operate for a minimum of 8 hours.

Where designated on Contract Area Map, Contractor shall provide a tank trailer or water source and pumping equipment, including accessories, which can be lifted and transported by the yarding system. The component parts shall meet all specifications above. The tank trailer or water supply and pumping accessories shall be deliverable to a fire, in area of operations, within 15 minutes of detection.

In lieu of the above tank trailer or water supply for helicopter operations, Contractor may provide a suitable helicopter water bucket with a 300 gallon capacity. When Contractor provides a water bucket, a water source shall be provided within 5 minutes round trip flight time from operating side.

#### F. Communications.

During Contractor's Operations, excluding powersaw falling and bucking, Contractor shall provide adequate two-way communication facilities to report a fire to Forest Service within 15 minutes of detection. Citizen Band radios (CB's) are not considered adequate two-way communications because FCC Regulations prohibit commercial use.

#### G. Smoking and Open Fire Restrictions.

Smoking and fires shall be permitted only at the option of Contractor. Contractor shall not permit open fires on Contract Area without advance permission in writing from Forest Service.

#### H. Blasting.

Blasting shall be permitted only for road construction purposes unless advance permission is obtained from Forest Service.

Whenever the Industrial Fire Precaution Level is II or greater, a fire security person equipped with a long handled round point No. 0 or larger shovel and a 5 gallon backpack pump can filled with water, will stay at location of blast for 1 hour after blasting is done. Blasting may be suspended by Forest Service, in areas of high rate of spread and resistance to control.

Fuses shall not be used for blasting. Explosive cords shall not be used without permission of Forest Service, which may specify conditions under which such explosives may be used and precautions to be taken.

#### I. Compliance with State Fire Laws.

Listing of specific fire precautionary measures in the foregoing Subsections is not intended to relieve Contractor in any way from compliance with State fire laws covering fire prevention and suppression equipment, applicable to Contractor's Operations.

#### J. Aircraft Communications.

Every aircraft used in conjunction with Contractor's Operations shall be equipped with an operable radio system. The radio system shall be capable of transmitting and receiving on VHF frequency 122.85 Megahertz (MHz) with a minimum output of 5 watts at the transmitter. The system shall be located and installed so that the pilot can operate it while flying. A shielded all-weather broad-band antenna shall be part of the system. Radio and antenna shall be properly installed and maintained.

Upon discovery or notification of a fire on Contract Area, all aircraft pilots controlled by Contractor

shall monitor VHF frequency 122.85 MHz when within 5 miles of a fire and broadcast their intentions.

K. Logging Block Equipment.

Contractor shall provide a serviceable 5 gallon backpack pump full of water, one axe, and one long handled round point shovel, size 0 or larger, at each haulback block through which a running line passes.

The area below such blocks must be kept clear of all flammable debris under 4 inches in diameter for a distance of 6 feet in all directions. Material larger than 4 inches that poses a fire risk, such as punky logs, must also be removed.

Contractor shall avoid line-rub on rocks or woody material which may result in sparks or sufficient heat to cause ignition of fire.

KT-HT.2.0.1 - BURNING BY CONTRACTOR (06/2006)

Notwithstanding the Fire Precautionary Period limitation of HT.2, Contractor is required to obtain written permission from Forest Service prior to any burning on the National Forest Lands.

KT-HT.2.2 - EMERGENCY FIRE PRECAUTIONS (05/2005)

Contractor shall restrict operations in accordance with the Industrial Fire Precaution Levels attached. Forest Service may change the Industrial Fire Precaution Levels to other values upon revision of the National Fire Danger Rating System and may change the specific Industrial Fire Precaution Levels when such changes are necessary for the protection of the National Forest. When sent to Contractor, the revised Industrial Fire Precaution Levels will supersede the attached levels.

## LEVEL INDUSTRIAL FIRE PRECAUTION

I. Closed Season - Fire precaution requirements are in effect. A Fire Watch/Fire Security is required at this and all higher levels unless otherwise waived.

II. Partial Hootowl - The following may operate only between the hours of 8 p.m. and 1 p.m. local time:

- power saws, except at loading sites;
- cable yarding;
- blasting;
- welding or cutting of metal.

III. Partial shutdown - The following are prohibited:

cable yarding - except that gravity operated logging systems employing non-motorized carriages may be operated between the hours of 8 p.m. and 1 p.m. local time when all blocks and moving lines are 10 feet or more above the ground, excluding the line between the carriage and the choker.

power saws - except at loading sites and on tractor/skidder operations between the hours of 8 p.m. and 1 p.m. local time.

In addition, the following are permitted between the hours of 8 p.m. and 1 p.m. local time:

- tractor, skidder, feller-buncher, forwarder, or shovel logging operations where tractors, skidders or other equipment with a blade capable of constructing fireline are immediately available to quickly reach and effectively attack a fire start;
- mechanized loading and hauling;
- blasting;
- welding or cutting of metal;
- any other spark-emitting operation not specifically mentioned.

IV. General Shutdown - All operations are prohibited.

The following definitions shall apply to these Industrial Fire Precaution Levels:

Cable yarding systems: A yarding system employing cables and winches in a fixed position.

Closed Season (Fire Precautionary Period): That time period each year when a fire hazard exists and as described in AT.12.

Hauling: Where hauling involves transit through more than one shutdown zone/regulated use area, the precaution level at the woods site shall govern the level of haul restrictions, unless prohibited by other than the Industrial Fire Precaution Level system.

Loading sites/woods site: A place where any product or material (including but not limited to logs, firewood, slash, soil, rock, poles, posts, etc.) is placed in or upon a truck or other vehicle.

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Advance written waiver of the above precautions may be issued by the Contracting Officer or Forest Service Representative.

Such waiver, or substitute precautions under HT.2.1, shall prescribe measures to be taken by Contractor to reduce the risk of ignition, and/or the spread of fire. The Contracting Officer or Forest Service Representative shall consider site specific weather factors, fuel conditions, and specific operations that result in less risk of fire ignition and/or spread than contemplated when precaution level was predicted. Consideration shall also be given to measures that reduce the precaution levels above. Contractor shall assure that all conditions of such waivers or substitute precautions are met.

Contractor shall obtain the predicted Industrial Fire Precaution Level from the appropriate Ranger District headquarters. If predictions made after 6:00 p.m., local time, are significantly different than originally estimated, Forest Service will inform Contractor when changes in restrictions or industrial precautions are indicated.

KT-HT.3.1 - ADDITIONAL AREA OF FIRE RESPONSIBILITY (05/2005)

The area within 200 feet slope distance of the center line of any road constructed or reconstructed under this contract on National Forest lands outside of Contract Area shall be considered as a part of Contract Area in connection with responsibilities under HT.3 and HT.4 until the road has been accepted in writing by Forest Service.

KT-IT.1.0 - DISCLAIMER OF EXPRESSED OR IMPLIED WARRANTY (05/2005)

Contractor and Forest Service hereby agree, acknowledge, and accept that there is no expressed or implied warranty provided by the Forest Service that guarantees the Contractor will be allowed to complete the removal of products sold under the terms of the contract. Upon execution of the contract, Contractor hereby acknowledges the acceptance of the risk that this contract is subject to interruption or termination as a result of litigation associated with the environmental analysis process used by the Forest Service in the planning of this project. If such interruption or termination occurs due to litigation, Contractor agrees to accept as full compensation for such interruption remedies pursuant to IT.3.3, or for termination remedies pursuant to IT.3.4.

KT-IT.6.8#(Option 1) - USE OF TIMBER (09/2004)

(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.