

DESCRIPTION PURSUANT TO C2.35# (OPTION 1) - INDIVIDUAL TREE DESIGNATION
(08/2002)

Definitions and Requirements:

D x D: Designate by Description

D x D Stump Height: Measure at 4.0 inches above the ground on the uphill side of the tree. Minimum stump height left for inspection will be 4.0 inches.

D x D Diameter: Measure at the D x D specified stump height, outside the existing bark as is, with a diameter tape that is perpendicular to the bole of the tree. Trees with stumps missing all or part of their bark will be measured as presented. Measure to the nearest tenth of an inch.

D x D Spacing: Measured slope distance at 4.0 inches above the ground from the closest point between trees. This does not need to be measured on the uphill side of the tree.

Down Trees: a) A partial or entire tree lying on the ground with an attached root wad; b) a root sprung tree with broken and exposed roots showing above the ground (root sprung trees must remain identifiable as root sprung after logging).

All skyline corridors, temporary roads, and landing clearing limits shall be identified and approved per C6.42#, before this provision is implemented.

All Douglas-fir and Western hemlock leave trees with a D x D diameter 8.0 inches or greater, all other coniferous species leave trees, and all hardwoods trees shall remain standing after logging is complete, except those removed for operational purposes or within 60 feet of a double banded orange painted tree, i.e.: guy line and corridor trees.

Standing or down trees outside the Subdivision boundaries shall not be used to determine cut trees within the Subdivision.

Criteria for All Subdivisions

Standing, live Douglas-fir and Western hemlock, must have a D x D diameter of 8.0 inches or greater to qualify as a leave tree to cut other Douglas-fir and Western hemlock trees.

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(08/2002)

Designate by Description For All Subdivisions:

Priority 1: All live coniferous species, except Pacific yew, that are less than 25 inches stump diameter in Subdivisions 1, 2, 4, 5, 6, 7, 32, 54, 71, 76, and 86 can be cut if they are within 60 feet slope distance, measured on the stump at 4.0 inches above ground, of a tree marked with two complete bands of orange paint above stump height and orange paint below stump height.

Priority 2: All live coniferous species, except Pacific yew, in Subdivisions 3, 64, and 64A can be cut if they are within 60 feet slope distance, measured on the stump at 4.0 inches above ground, of a tree marked with two complete bands of orange paint above stump height and orange paint below stump height.

Priority 3: Douglas-fir and Western hemlock that are within the designated spacing distance (see chart below) of a live, blue Boundary Cutting Unit carded, orange painted boundary tree, which is 8.0 inches stump diameter or larger are designated for cutting.

Priority 4: Douglas-fir and Western hemlock that are within the designated spacing distance (see chart below) of a live tree that is painted orange above and below stump height are designated for cutting.

After the first four priorities have been implemented, Priority 5 will be used to determine the remaining trees in the Subdivision to be cut.

Priority 5: Douglas-fir and Western hemlock that are within the designated spacing distance (see chart below) of a live Douglas-fir or Western hemlock tree with a larger stump diameter are designated for cutting.

D x D Designated Spacing Distances:

17 feet - Subdivisions 5, 6, 7, 8, 76, and 86

20 feet - Subdivisions 1, 3, 32, 54, 64, 64A, 64B and 71

23 feet - Subdivisions 2 and 4

REMOVAL SCHEDULE PURSUANT TO C3.47# - ABNORMAL DELAY (09/2004)

<u>Included Timber</u>		<u>Time Limits</u>
ALL	60	days after felling is started.
All timber decked during construction clearing.	NA	days after felling on each Specified Road constructed by Purchaser is initiated.
Timber decked during road construction	NA	days after Forest Service authorizes Purchaser to use roads pursuant to B5.2.

PLANS AND CRITERIA PURSUANT TO C5.1# (OPTION 1) -
TEMPORARY ROAD AND LANDING CONSTRUCTION (07/2001)
(Continued)

1. All haul, re-opening of temporary roads; temporary road construction and reconstruction shall be done during the dry season of approximately **June 1 to October 31**.
2. The Forest Service and Purchaser shall agree to temporary road locations and clearing limits prior to construction.
3. Temporary roads shall be constructed to a minimum width to accommodate logging equipment and shall be located to minimize the number of trees cut and minimize the extent of ground impacted by construction.
4. All trees to be cut by the purchaser shall be identified and designated for cutting by the Forest Service, prior to cutting.
5. On native running surfaces, hauling shall be restricted to when dry conditions exist. If temporary roads are to be used when wet conditions exist, enough rock surfacing shall be placed on the road to prevent sedimentation.
6. Weed free straw bales and/or other agreed upon erosion control devices shall be placed along the road, as needed, to prevent sediment from entering streamcourses.
7. Clearing and grubbing debris shall be scattered in areas designated on the ground by the Forest Service.
8. At the end of each season, or if the road is not being used for an extended period of wet weather, purchaser shall install drivable drain dips and water bars, or other erosion control measures, to stabilize the road and prevent erosion (on extended slopes over 8%, this may require a structure approximately every 100 feet).
9. Culverts shall be placed in all stream courses, where crossed by temporary roads, and shall return the water to the same streamcourse. Culverts shall be corrugated metal pipe, and shall not be less than 18" in diameter, unless otherwise agreed to in writing. **A culvert is appraised for in Subdivision 7.**
10. Culvert installation in live streams shall take place between **July 1 and October 15**. During culvert installation in live streams, the streams will be temporarily diverted around the site and biodegradable geotextile cloth will be placed downstream from the site to minimize transport of sediment, unless other methods are agreed to in writing with the Forest Service. At the end of temporary road use, culverts will be pulled and removed, the roadbed recontoured to facilitate stream flow, and erosion control methods will be used to stabilize the road and prevent erosion.
11. Landings shall be designed in accordance with B6.422, shall be as small as operationally feasible, and shall be agreed to in writing by the Forest Service.
12. Helicopter landings are planned to be constructed to a maximum size of **80 feet by 200 feet** to accommodate yarding.
13. Areas to be covered with fill material shall be cleared of logs and cull woody material over 4 inches in diameter and/or 8 feet long.
14. Where side slopes exceed 45 percent, waste material shall be end-hauled to locations authorized in writing by the Forest Service.
15. Placement of rock ballast shall not take place unless mutually agreed to in writing by the Forest Service.
16. Rock ballast shall not exceed 4 inches in depth, unless mutually agreed to in writing by the Forest Service. Landing cut and fill slopes shall be left at no steeper than 1 ½ to 1 upon completion of sale operations.

TABLE A PURSUANT TO C5.12# - USE OF ROADS BY PURCHASER (06/1999)

Restricted Road List

Road ID Number	Road Name	Termini		Map Legend	Description of Restrictions
		From	To		
1832418		Jct. 1832	End of Road	R	*
1832407		Jct. 1832396	Unit 2 landing	R	*
1832396		Jct. 1832	Unit 1 landing	R	*
1832345		Jct. 1832	Unit 64B landing	R	*
1832843		Jct. 1832345	End of Road	R	*
1832395		Jct. 1832	Jct. 1832398	R	*
1832342		Jct. 1832	Landing Unit 32	R	*
1832	Tiller Ridge	1800	Jct. 1832387	R	*
1800	Fall Creek	County Road	Jct. 1832	R	No weekend haul

* Roads have limited structural strength and haul is restricted during wet weather.

Title and Date of Governing Road Rules Document:

Road Rules for Commercial Haul
Willamette National Forest

January 1999

Commercial Road Rules

Effective Date

MATERIAL SOURCE TABLE PURSUANT TO C5.221# - MATERIAL SOURCES (04/2004)

Material	Type of Purchase	Owner(s)	Unit of Measure	Unit Price	Estimated Quantity	Total
NA						

CONTRACT ROAD MAINTENANCE REQUIREMENTS SUMMARY TABLE PURSUANT TO
C5.31# - ROAD MAINTENANCE REQUIREMENTS (07/2001)

Contract Road Maintenance Requirements Summary

Road	Termini		Miles	Applicable Pre haul Road Maintenance Specifications								
	From	To		T-803	T-811	T-813	T-831	T-834	T-836	T-839	T-851	T-854
1800	County Maint.	Jct. 1832	9.78	P			D	D				
1832	Jct. 1800	Jct. 1832387	7.95	P	P		P	P			P	
1832418	Jct. 1832	End of Road	0.53	P							P	
1832407	Jct. 1832396	Edge of U 2	0.50	P							P	P
1832396	Jct. 1832	Edge of U 1	0.81	P							P	P
1832345	Jct. 1832	Edge of U 64B	0.26	P							P	P
1832843	Jct. 1832345	End of Road	0.42	P							P	
1832395	Jct. 1832	Jct. 1832398	1.58	P							P	
1832342	Jct. 1832	Landing U 32	0.06	P							P	

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

Road	Termini		Miles	Applicable Pre haul Road Maintenance Specifications								
	From	To		T-803	T-811	T-813	T-831	T-834	T-836	T-839	T-851	T-854
1800	County Maint.	Jct. 1832	9.78	P			D	D				
1832	Jct. 1800	Jct. 1832387	7.95	P	P		P	P			P	
1832418	Jct. 1832	End of Road	0.53	P							P	
1832407	Jct. 1832396	Edge of U 2	0.50	P							P	P
1832396	Jct. 1832	Edge of U 1	0.81	P							P	P
1832345	Jct. 1832	Edge of U 64B	0.26	P							P	P
1832843	Jct. 1832345	End of Road	0.42	P							P	
1832395	Jct. 1832	Jct. 1832398	1.58	P							P	
1832342	Jct. 1832	Landing U 32	0.06	P							P	

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

Road	Termini		Miles	Applicable Post Haul Road Maintenance Specifications								
	From	To		T-803	T-811	T-813	T-831	T-834	T-836	T-839	T-851	T-854
1800	County Maint.	Jct. 1832	9.78				D	D				
1832	Jct. 1800	Jct. 1832387	7.95		P		P	P				
1832418	Jct. 1832	End of Road	0.53								P	
1832407	Jct. 1832396	Edge of U 2	0.50								P	
1832396	Jct. 1832	Edge of U 1	0.81								P	
1832345	Jct. 1832	Edge of U 64B	0.26								P	
1832843	Jct. 1832345	End of Road	0.42								P	
1832395	Jct. 1832	Jct. 1832398	1.58								P	
1832342	Jct. 1832	Landing U 32	0.06								P	

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

Description of work required by the above listed T-specs is shown in the following ROAD MAINTENANCE REQUIREMENTS SPECIFICATION table, and included in the timber sale contract.

ROAD MAINTENANCE REQUIREMENTS SPECIFICATION TABLE PURSUANT TO
C5.31# - ROAD MAINTENANCE REQUIREMENTS (07/2001)

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/*
1800 County Maint.- Jct. 1832		EX	AI		OPT						JU		
1832 Jct. 1800 - Jct. 1832287		EX	AI	B	OPT						TS		PR
1832418 Jct. 1832 - End of Road		EX	AI		OPT						TS		PR/5
1832407 Jct. 1832396 - Edge of U 2		EX	AI		OPT						TS	PR	PR/5
1832396 Jct. 1832 - Edge of U 1		EX	AI		OPT						TS		PR
1832345 Jct. 1832 - Edge of U 64B		EX	AI		OPT						TS		PR/4
1832843 Jct. 1832345 - End of Road		EX	AI		OPT						TS	PR	PR
1832395 Jct. 1832 - Jct. 1832398		EX	AI		OPT						TS		PR
1832342 Jct. 1832 - Landing U 32		EX	AI		OPT						TS	PR	PR

*Number of waterbars to be constructed when logging is complete. Waterbars will be placed staked by C. O.

ROAD MAINTENANCE REQUIREMENTS SPECIFICATION CODES TABLE PURSUANT TO
C5.31# - ROAD MAINTENANCE REQUIREMENTS (07/2001)

Column No.	Heading	Entry	<u>Explanation</u>
	Any	Blank	Except as otherwise described, no entry indicates Purchaser is not authorized or required to perform the work item(s).
	Any	RC	This work requirement applies only when haul of sale related construction materials occurs.
2	Special Project Specification	Number	Entry indicates Special Project Specification which applies.
3	Travel Way	EX	Purchaser shall maintain the traveled way to the width existing upon entry, or at the completion of Specified Road work.
		Numbers	Purchaser 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 (In slope), C (Crown), OS (Out slope), F (Flat), AI (As Is).
		A or B	If compaction is required.
4	Brush and Log Out	Numeric & R and or L	Purchaser 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	Purchaser may use hand or mechanical means of brushing.
		H	Only hand brushing may be used.

ROAD MAINTENANCE REQUIREMENTS SPECIFICATION CODES TABLE PURSUANT TO
C5.31# - ROAD MAINTENANCE REQUIREMENTS (07/2001)

Column No.	Heading	Entry	<u>Explanation</u>
5	Surfacing	Aggregate Grading	Purchaser shall place surfacing on roads listed according to the grading indicated.
		<i>D</i>	
6	Dust Abatement	OPT	Product selection is Purchaser's choice from those listed in Section T-812.
		Product Abbr.	Unless otherwise agreed, Purchaser 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	Purchaser shall abate dust on the existing width
		Numbers	Purchaser shall abate dust to the width indicated by entry.
7	Seasonal Maintenance	W	Water bars and/or cross ditching shall be required prior to expected seasonal precipitation.
		B	Entrance barriers shall be installed by Purchaser prior to nonuse periods.
8	Snow Removal	TS	Snowplowing authorized for Purchaser'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	PR denotes that work is Purchaser's Responsibility to perform.

SCHEDULE PURSUANT TO C6.315# - SALE OPERATION SCHEDULE (06/1994)

<u>Subdivision</u>	<u>Operating Conditions</u>	<u>Purpose</u>
All	Road reopening, reconstruction, and temporary road construction shall occur between June 1 and October 31.	Avoid potential surface erosion of exposed soil.
All permanent and temporary native surface roads	Haul is restricted on native surfaced roads during the wet weather season (approximately November 1 and May 31) unless rocked.	Avoid potential surface erosion of exposed soil.
All Permanent and Temporary Roads	No live stream culvert replacement work from October 16 through July 30.	Minimize input of sediment into streams.

TABLE PURSUANT TO C6.41# - SPECIFIC REQUIREMENTS (01/2000)
(Continued)

FELLING METHODS

SUBDIVISIONS

Trees shall be felled away from designated Streamcourses and wet areas. Direction of felled trees shall also be to the lead, which shall facilitate the yarding operation so damage to residual trees is kept to a minimum. Exceptions to these objectives apply only where safety, or protecting improvements, terrain features, or felling within Subdivision boundaries preclude felling to lead. Trees felled for operational purposes should be felled into the stream where possible and left. Hazard trees in no harvest buffers should be felled toward the stream.

All

FELLING EQUIPMENT

SUBDIVISIONS

Wedges

All

TABLE PURSUANT TO C6.42# - YARDING/SKIDDING REQUIREMENTS (04/2003)
(Continued)

YARDING/SKIDDING REQUIREMENTS

SUBDIVISION

1.	Except during lateral yarding, the yarding system must keep one end of the log suspended above ground during in-haul. All yarding across stream courses and wet areas, and within 50 feet slope distance of streams and wet areas must be done with the logs suspended free of the ground. All yarding across streamcourses must be approved by the Forest Service.	All
2.	The carriage shall be positioned such that during lateral yarding, logs are yarded away from stream courses and wet areas.	All
3.	Ground-lead yarding is permitted within 100 feet of Subdivision boundaries, 100 feet of tail trees, and 100 feet of the tower position.	All
4.	Skyline roads will be spaced no further apart than 150 feet at the back end of the road when radial road are used and 150 feet center to center where parallel roads are used.	All
5.	Skyline corridors shall be only wide enough to allow free passage of the carriage and turn of logs. The corridors shall normally not exceed 12 feet in width after yarding has been completed.	All
6.	When skyline, haul back, or other cables pass through areas of residual trees or reproduction more than 18 inches in height, lines shall be pulled out of the residual trees or reproduction area prior to restringing the next skyline road.	All
7.	Location of all skyline roads shall be agreed upon prior to felling.	All
8.	A slack pulling carriage able to maintain a fixed position on the skyline during lateral yarding and be able to pass over intermediate supports is required. The carriage must be capable of lateral yarding up to 75 feet from skyline.	All
9.	Tail trees, multi-stump anchors, equipment anchors, and intermediate supports may be necessary to achieve suspension requirements.	All
10.	The haul back line that is attached to the carriage shall be positioned so that it remains within the skyline corridor. The objective is to reduce lateral movement in the skyline.	All
11.	Trees outside the boundary which are felled in order to raise the skyline, or trees that are damaged by line whip, shall not be designated as included timber by the Forest Service.	All
12.	A skyline system capable of transporting logs at least 1400 feet slope distance uphill and downhill is required. A yarder with a minimum block height that will keep the lines under the canopy is required.	All
13.	Equipment anchors may be needed for guylines.	1, 7, 8, & 32
14.	Tractor assist may be necessary.	2 & 3

APPLICATION SCHEDULE PURSUANT TO C6.6# - EROSION CONTROL AND SOIL TREATMENT
BY PURCHASER (07/2001)

SUBDIVISION 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	TYPE <u>3/</u>	LBS/AC
All	C) TEMP ROADS D) LANDINGS	<u>4/</u>	<u>4/</u>	NA	NA	<u>7/</u>	1500
All	E) System road cut and fill slope	<u>4/</u>	<u>4/</u>	NA	NA	<u>7/</u>	1500

1/ For sales 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 sales in Washington, the seed shall be labeled as "Prohibited and Restricted Noxious Weed Free for the State of Washington." The purchaser 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.

APPLICATION SCHEDULE PURSUANT TO C6.6# - EROSION CONTROL AND SOIL TREATMENT BY
PURCHASER (07/2001)

(Continued)

GRASS
POUNDS/ACRE

SPECIES MIXTURE

<u>4/</u>	Native Seed Mixture: Blue wildrye grass or California brome	20
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FERTILIZER

TYPE

POUNDS/ACRE

<u>6/</u>	16 - 16 - 16	300
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MULCH

TYPE

POUNDS/ACRE

<u>7/</u>	Wood Fiber Mulch OR Straw (Organic-Weedfree)	1500 1500
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DETAILED SLASH DISPOSAL PLAN
Willamette National Forest

In accordance with Contract Provision C6.74#, SLASH TREATMENT REQUIREMENTS, the following is the detailed Slash Disposal Plan:

I. Yarding Tops and Limbs Left Attached to Logs

Tops and limbs will be left attached to all logs and will be yarded to landings. For safe and efficient operations at the landing and to keep landing size small, the larger material (over 2 inches DOB small end) shall be severed and stacked in a parallel position in a separate pile, unless otherwise agreed to in writing by the Forest Service. The location of piles and method of piling shall be in accordance with the specifications listed below in section II (Machine Piling of Landing and Roadside Clean-up Slash).

II. Machine Piling of Landing and Roadside Clean-up Slash

A. Slash to be Piled

The purchaser is responsible for machine piling all unutilized material resulting from logging operations at all landings, and within 30 feet from the edge of all permanent roads adjacent to Subdivisions. The machine used to grapple pile the slash shall stay on the road surface. Material to be piled will include all material at least 1 inch in diameter on the small end, and at least 3 feet in length. This may include chunks, broken tops, limbs, branches, rotten wood, brush, damaged or destroyed reproduction, and saplings or poles created by any type of vegetative cutting or clearing.

B. Location of Piles

Piles will be located so as to minimize damage to standing green trees during burning. Unless otherwise approved by Forest Service, piles will be constructed to be equal distance between the boles of standing green trees. Piles will not be placed where they will interfere with functioning of drainage structures, ditches, or stream channels.

C. Construction and Size of Piles

Piles shall be constructed using a 'lift and stack' method using equipment with a hydraulic attachment mechanism capable of constructing piles that are compact and free of dirt and rocks. Completed piles shall be approximately equal in height and width, and shall not exceed 10 feet in height.