

Table Pursuant to C2.35# (Option 1) - Individual Tree Designation, (06/2008)

<u>Subdivision</u>	<u>DxD Spacing</u>	<u>1/ Description of Included Timber (See Other Requirements)</u>
640, 642, 650, 660, 670, 680, 740	15 feet	Only live Douglas-fir, Western Hemlock, Incense Cedar, True firs, and Red Alder, if they are within the specified spacing of a live conifer with a larger stump diameter. All other species are non-included timber.
610, 630, 690, 700, 710	16 feet	Only live Douglas-fir, Western Hemlock, Incense Cedar, True firs, and Red Alder, if they are within the specified spacing of a live conifer with a larger stump diameter. All other species are non-included timber.
600, 770, 772	17 feet	Only live Douglas-fir, Western Hemlock, Incense Cedar, and True firs, if they are within the specified spacing of a live conifer with a larger stump diameter. All other species are non-included timber.
620	18 feet	Only live Douglas-fir, Western Hemlock, Incense Cedar, and True firs, if they are within the specified spacing of a live conifer with a larger stump diameter. All other species are non-included timber.
601, 602, 603, 604, 611, 612, 631, 632, 641, 651, 661, 662, 692	LTM (Gaps)	Only live Douglas-fir, Western Hemlock, Incense Cedar and True firs, not marked with orange tree marking paint above stump height and marked below stump height.
641	LTM (Gaps)	Only live Douglas-fir, Western Hemlock, Incense Cedar and True firs, not marked with double banded (2 horizontal bands) orange tree marking paint above stump height and marked below stump height.
621, 691, 711, 771	LTM (Strips)	Only live Douglas-fir, Western Hemlock, Incense Cedar and True firs, not marked with orange tree marking paint above stump height and marked below stump height.
600, 610, 630, 640, 650, 660, 670, 690, 700, 710, 740	LTM (DTR)	Only live Douglas-fir, Western Hemlock, Incense Cedar and True firs, if they are within 66' slope distance, stump to stump of a marked tree, double banded (2 horizontal bands) marked with orange tree marking paint above stump height and marked below stump height.
640	LTM (DTR)	Only live Douglas-fir, Western Hemlock, Incense Cedar and True firs, if they are within 66' slope distance, stump to stump of a marked tree, double banded (2 horizontal bands) marked with orange tree marking paint above stump height and marked below stump height. This Subdivision 640 contains old existing orange tree marking paint and will be ignored in the

application of the DTR's.

ALL

LTM
(DTR)

All live Douglas-fir, Western Hemlock, Incense Cedar and True firs, if they are within 66' slope distance, stump to stump of a Sugar Pine greater than or equal to 24" at DBH. All other species are non-included timber.

NOTE: Subdivisions 640 and 641 has existing orange tree marking paint from a previous Timber Sale. This paint shall not be considered in the application of the designation of included timber by the DxD spacing requirements and/or LTM designation (Gaps and/or DTRs). The leave trees within gap Subdivision 641 are designated with double banded orange tree marking paint and will not be included timber.

Purchaser agrees to the following measures:

1. Down timber from adjacent private land will be protected from cutting and kept separate from Included Timber.
2. Boundary trees are designated with orange tree marking paint and blue boundary cards.
3. Boundary trees with orange paint and blue boundary tags shall be included in the DXD spacing when the boundary tree has a larger stump diameter than other trees within the DxD spacing. Boundary trees shall always "cut" a tree within subdivisions. Boundary trees shall not be cut, B2.3, Timber Designations.
4. Orange painted trees within Gaps will not be included timber. Subdivision 641 gap contains old orange paint and only the double banded orange painted trees are leave trees and will not be included timber.
5. If orange painted buffer trees along streams are needed to be cut to accommodate a corridor they shall be directionally felled into the channel and left on site.
6. If purchaser permarks units, trees within 50 feet of Forest road 2643 will be marked on the back side of the tree facing away from road, unless waived by Forest Service.

Definitions:

1. DXD: Designation by Description
2. LTM: Leave Tree Mark
3. DTR: Dominant Tree Release
4. DXD Stump Height: Measure at 4 inches above the ground on the uphill side of the tree. When obstacles are present on the uphill side of the tree measure 4 inches from the obstacles.

1/Other Requirements:

1. Minimum stump height left for inspection purposes will be 4 inches.
2. D x D Diameter: Measure at the DxD specified stump height 4 inches, outside the bark with a diameter tape that is perpendicular to the bole of the tree. Stumps missing all or part of their bark will be measured as presented. Measure to the nearest tenth of an inch.
3. D x D Spacing: Measure slope distance at 4 inches above the ground from the closest point between trees. This does not need to be measured on the uphill side of the tree.
4. All leave trees will remain standing.
5. Down Tree: a) An 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 after logging).

C3.47# - Abnormal Delay (09/2004) (con't)

REMOVAL SCHEDULE

Included Timber

ALL.

All timber decked during
construction clearing.

Timber decked during road
construction.

Time Limits

60 days after felling is started.

60 days after felling on each
Specified Road constructed by
Purchaser is initiated.

60 days after Forest Service authorizes
Purchaser to use roads pursuant to B5.2.

C5.12# - USE OF ROADS BY PURCHASER (06/1999)

Purchaser's use of existing roads identified on Sale 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 Road maintenance
- 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. Purchaser'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		
2643 ¹	Foley Ridge	Unit 740	Hwy 126	R	^{1/} Haul on Roads is not allowed evenings or weekends, or during long holiday periods, unless waived by Contracting Officer. ^{2/} U-Road use is unsuitable for hauling prior to all prehaul Road Maintenance Requirements identified in C5.31# being completed and accepted by the Contracting Officer. ^{3/} These Roads have limited strength and are likely to be damaged if used when adverse conditions exist in the roadbeds. When authorized for use, placement of additional aggregate or other determined mitigating measures, at the expense and by the purchaser shall be planned to support haul during poor weather conditions. ^{4/} Road closed by gate. Gate will remain locked at all times except during periods of active haul, unless otherwise agreed to. ^{5/} Road shall remain accessible at all times due to powerline access route.
2643422 ^{1/2/3}	Rim Rock	Unit 650	2643420	RU	
2643423 ^{1/2/3}		Unit 710	2643420	RU	
2643410 ^{1/2/3}		2643411	2643	RU	
2643411 ^{1/2/3/4}	Horse Creek-0	Unit 600	2643410	RU	
2643412 ^{1/2/3}		Unit 700	2643410	RU	
2643405 ^{1/2/3}		HeCSL	2643	RU	
2643080 ^{1/2/3}		HeCL	2643	RU	
2643036 ^{1/2/4/5}		HeCL	2643030	RU	
2643030 ^{1/5}		2643036	2600320	R	
2600320 ^{1/5}		2643030	Hwy 126	R	

Title and Date of Governing Road Rules Document:

Willamette NF Road Rules

1992

Commercial Road Rules

Effective Date

PLANS AND CRITERIA PURSUANT TO C5.1# (OPTION 1) -
TEMPORARY ROAD AND LANDING CONSTRUCTION (06/2008)

1. The Forest Service and Purchaser shall agree to temporary road locations and clearing limits prior to construction.
2. Temporary roads shall be constructed to a minimum width to accommodate logging equipment and shall be located to minimize the number of trees cut while minimizing the extent of ground impacted by construction.
3. All trees to be cut by the purchaser shall be identified and designated for cutting by the Forest Service prior to cutting.
4. On native surface roads, hauling shall be restricted during wet weather, from October 16 thru the end of May 15.
5. Clearing and grubbing debris shall be scattered in areas designated on the ground by the Forest Service.
6. Straw bales or other agreed upon erosion control devices shall be placed in ditches, as needed, to prevent sediment from entering stream courses. All straw bales will be certified weed free.
7. At the end of each season and/or when purchaser is done with the temporary roads that are to Remain Open (RO) and/or termination of contract, purchaser shall install drivable drain dips and water bars and close the road to normal vehicular traffic, B6.63.
8. Methods of closure shall be determined based on existing terrain conditions and needs at the time of closure.
9. Reopening of temporary roads may occur.
10. Other erosion control measures, to stabilize the road and prevent erosion on slopes over 8%, may require a structure approximately every 100 feet. Seed and fertilizer for the road will be in accordance with C6.6.
11. Culverts shall be placed in all stream courses, along/across temporary roads. Culverts shall be corrugated metal pipe and shall not be less than 18 inches diameter.

PLANS AND CRITERIA PURSUANT TO C5.1# (OPTION 1) -
TEMPORARY ROAD AND LANDING CONSTRUCTION (06/2008)
(Continued)

12. Culvert installation in all in-stream work shall be allowed, beginning July 1 thru August 15, C6.315#. 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.
13. Culverts shall not be left in place after purchasers operations are completed.
14. Landings and helicopter service landings shall be designed in accordance to B6.422, shall be as small as operationally feasible, and shall be agreed to in writing by the Forest Service.
15. All landings will be designed to provide adequate drainage to protect the adjacent resources.
16. 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.
17. Where side slopes exceed 45 percent, waste material shall be end-hauled to locations authorized in writing by the Forest Service.
18. Placement of rock ballast shall not take place unless mutually agreed to in writing by the Forest Service.
19. 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.
20. Any culverts replaced shall be removed and disposed of by Purchaser off of National Forest lands.

C5.221# - MATERIAL SOURCES (04/2004) (con't)

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

C5.31# - ROAD MAINTENANCE REQUIREMENTS. (7/2001) Purchaser 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-813	T-834	T-836	T-838	T-839	T-842	T-851	T-891
2643440	Unit 770	Jct. w/ 2643	0.95	P					P				P
2643	Jct. w/ Unit 740	Jct. w/ Hwy.126	3.99										
2643420	Unit 670	Jct. w/ 2643	0.51	P					P				P
2643422	Unit 650	MP 0.03	0.22	P						P	P		P
2643422	MP 0.03	2643420	0.03	P	P	P			P		P		P
2643423	Unit 710	Jct. w/ 2643420	0.1	P						P	P		P
2643409	Jct. w/ Unit 660	Jct. w/ 2643	0.31	P					P				P
2643410	Jct. w/ 2643411	Jct. w/ 2643	1.44	P	P	P			P		P		P
2643411	Jct. w/ temp. spur from Unit 600	Jct. w/ 2643410	1.3	P	P				P		P		P
2643412	Jct. w/ unit 700	Jct. w/ 2643410	0.2	P					P		P		P
2643405	HeCSL	Jct. w/ Unit 610	0.45	P					P		P		P
2643405	Unit 610	Jct. w/ 2643	0.13	P					P		P		P
2643080	HeCL	Jct. w/ 2643	0.1	P					P		P		P
2643036	HeCL	Jct. w/ 2643030	0.2	P	P	P			P		P		P
2643030	Jct. w/ 2643036	Jct. w/ 2600320	0.78	P					P				P
2600320	Jct. w/ 2643030	Jct. w/ Hwy.126	0.07	P					P				P

P = Purchaser 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-813	T-834	T-836	T-838	T-839	T-842	T-851	T-891
2643440	Unit 770	Jct. w/ 2643	0.95	P	P				P				P
2643	Jct. w/ Unit 740	Jct. w/ Hwy.126	3.99		D	D							
2643420	Unit 670	Jct. w/ 2643	0.51	P	P				P				P
2643422	Unit 650	MP 0.03	0.22	P						P			P
2643422	MP 0.03	2643420	0.03	P					P				P
2643423	Unit 710	Jct. w/ 2643420	0.1	P						P			P
2643409	Jct. w/ Unit 660	Jct. w/ 2643	0.31	P	P				P				P
2643410	Jct. w/ 2643411	Jct. w/ 2643	1.44	P					P				P
2643411	Jct. w/ temp. spur from Unit 600	Jct. w/ 2643410	1.3	P					P				P
2643412	Jct. w/ unit 700	Jct. w/ 2643410	0.2	P					P				P
2643405	HeCSL	Jct. w/ Unit 610	0.45	P									P
2643405	Unit 610	Jct. w/ 2643	0.13						P				P
2643080	HeCL	Jct. w/ 2643	0.1	P					P				P
2643036	HeCL	Jct. w/ 2643030	0.2	P					P				P
2643030	Jct. w/ 2643036	Jct. w/ 2600320	0.78	P					P				P
2600320	Jct. w/ 2643030	Jct. w/ Hwy.126	0.07	P					P				P

P = Purchaser 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-834	T-836	T-838	T-839	T-842	T-851	T-891
2643440	Unit 770	Jct. w/ 2643	0.95		P				P				P
2643	Jct. w/ Unit 740	Jct. w/ Hwy.126	3.99										
2643420	Unit 670	Jct. w/ 2643	0.51		P				P				P
2643422	Unit 650	MP 0.03	0.22							P			P
2643422	MP 0.03	2643420	0.03						P				P
2643423	Unit 710	Jct. w/ 2643420	0.1							P			P
2643409	Jct. w/ Unit 660	Jct. w/ 2643	0.31		P				P				P
2643410	Jct. w/ 2643411	Jct. w/ 2643	1.44						P				P
2643411	Jct. w/ temp. spur from Unit 600	Jct. w/ 2643410	1.3						P				P
2643412	Jct. w/ unit 700	Jct. w/ 2643410	0.2						P				P
2643405	HeCSL	Jct. w/ Unit 610	0.45										P
2643405	Unit 610	Jct. w/ 2643	0.13						P				P
2643080	HeCL	Jct. w/ 2643	0.1						P				P
2643036	HeCL	Jct. w/ 2643030	0.2										P
2643030	Jct. w/ 2643036	Jct. w/ 2600320	0.78						P				P
2600320	Jct. w/ 2643030	Jct. w/ Hwy.126	0.07						P				P

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

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			Brushing And Log Out	Surfacing	Dust Abatement			Seasonal Mainte- nance	Snow Removal	Block	Treat
		Width	Cross Slope	Comp			Product	Applic Rate	Width				
<u>2643440</u> Unit 770 To 2643		EX	AI	A	4 Ft. LEFT & RIGHT, OPT					T-838	TS		PR
<u>2643</u> Unit 740 To Hwy.126		EX	AI		4 Ft. LEFT & RIGHT, OPT								PR
<u>2643420</u> Unit 670 To 2643		EX	AI	A	4 Ft. LEFT & RIGHT, OPT					T-838	TS		PR
<u>2643422</u> Unit 650 To MP 0.03		EX	AI	A	2 Ft. LEFT & RIGHT, OPT					T-839	TS		PR
<u>2643422</u> MP 0.03 To 2643420		EX	AI	A	4 Ft. LEFT & RIGHT, OPT	20 CY 1.5" minus, as staked by FS				T-838	TS		PR
<u>2643423</u> Unit 710 To 2643420		EX	AI	A	2 Ft. LEFT & RIGHT, OPT					T-839	TS		PR

<u>2643409</u> Unit 660 To 2643		EX	AI	A	4 Ft. LEFT & RIGHT, OPT					T-838	TS		PR
<u>2643410</u> 2643411 To 2643		EX	AI	B	4 Ft. LEFT & RIGHT, OPT	190 CY 1.5" minus, as staked by FS				T-838	TS		PR
<u>2643411</u> Temp.Spur To 2643410		EX	AI	A	4 Ft. LEFT & RIGHT, OPT					T-838	TS		PR
<u>2643412</u> Unit 700 To 2643410		EX	AI	A	4 Ft. LEFT & RIGHT, OPT					T-838	TS		PR
<u>2643405</u> Unit 610 To 2643		EX	AI	A	4 Ft. LEFT & RIGHT, OPT					T-838	TS		PR
<u>2643405</u> HeCSL To Unit 610		EX	AI	A	4 Ft. LEFT & RIGHT, OPT					T-838	TS		PR
<u>2643080</u> Unit 710 To 2643420		EX	AI	A	4 Ft. LEFT & RIGHT, OPT					T-838	TS		PR

<u>2643036</u> HeCL To 2643030		EX	AI	A	4 Ft. LEFT & RIGHT, OPT	120 CY 1.5" minus, as staked by FS				T-838	TS		PR
<u>2643030</u> 2643036 To 2600320		EX	AI	A	4 Ft. LEFT & RIGHT, OPT		*Water	0.5 gal per square yard	EX	T-838	TS		PR
<u>2600320</u> 2643030 To Hwy.126		EX	AI	A	4 Ft. LEFT & RIGHT, OPT		*Water	0.5 gal per square yard	EX	T-838	TS		PR

*When Directed by the CO

ROAD MAINTENANCE REQUIREMENTS SPECIFICATION CODES TABLE PURSUANT TO
C5.31# - ROAD MAINTENANCE REQUIREMENTS (7/2001)

Column No.	Heading	Entry	Explanation
	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 (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	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 (7/2001)

Column No.	Heading	Entry	Explanation
5	Surfacing	Aggregate Grading	Purchaser shall place surfacing on roads listed according to the grading indicated.
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	Waterbars and/or crossditching 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.

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

Subdivision	Operating Conditions	Purpose
ALL	Ground based operations will normally occur, when soils are relatively dry and water is not pooling.	Minimize soil resource impacts
	Factors to consider, when evaluating:	
	<ul style="list-style-type: none"> • Lower soil moisture content • Minimal standing water • Non-clay soils • Existing soil disturbance • Existing soil exposure • Existing soil compaction • Anticipated weather conditions • Opportunities to work on snow • Anticipated ground base method 	
ALL	Restrict Haul during <ul style="list-style-type: none"> • Evenings, 6:00PM - 12:00AM, • Weekends, Friday 6:00PM - • Monday 6:00AM, • And all Federal Holidays. 	Public Safety
600	Restrict all operations on closed roads during approximately the 3 rd week in October, including the Friday before, through the end of the Friday following.	Cascade Bull Elk Rifle Season
	All non-emergency vehicle traffic shall be restricted on all Forest roads with locked gates, during this period.	
All	Native surface roads have limited structural strength. Haul is restricted during wet weather.	Minimize water resource impacts
All	All in stream work for road reconstruction shall be allowed, beginning July 1 thru August 15.	Minimize water resource impacts

C6.29# - PROTECTION OF HABITAT OF NESTING NON-THREATENED, ENDANGERED AND SENSITIVE RAPTORS (9/2004) INSTRUCTIONS (Continued)

<u>NON-TES RAPTORS</u>	<u>SEASONAL RESTRICTIONS</u>	<u>RESTRICTIONS DISTANCE</u>	<u>NO HARVEST BUFFER</u>
Osprey	3/1 - 7/31	Primary to 500' Secondary to 1000'	Nest Tree
Golden Eagle	3/1 - 7/31	"	None 2/
Red Tailed Hawk	3/1 - 7/31	"	None
Cooper's hawk	4/1 - 7/31	"	None
Shinned Hawk Rough	4/1 - 7/31	"	None
Legged Hawk Kestrel	4/1 - 7/31	"	None
No. Saw Whet Owl	3/1 - 7/31	"	None
Boreal Owl	4/1 - 7/31	"	None
Long Eared Owl	2/1 - 7/31	"	None
Flammulated Owl	2/1 - 7/31	"	None

COLONIAL NESTING

Vaux's Swift	2/1 - 7/31	Primary to 500' Secondary to 1000'	Colony tree
Great Blue Heron	2/1 - 7/31	"	Heronry
Purple Martin	2/1 - 7/31	"	Colony tree
Tree Swallow	2/1 - 7/31	"	Colony tree

SPECIES FROM PRESIDENT'S FOREST PLAN

Great Gray Owl	3/15 - 7/15	1320'	1320'
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SPECIAL MANAGEMENT PLAN SPECIES

Northern Goshawk	4/1 - 7/31	1320'	650'
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1/ 500' radius equivalent to 18 acres; 650' radius equivalent to 30.5 acres, 1000' radius equivalent to 72 acres.

2/ Nest trees would be protected during the nesting season by operational restrictions. After that, there would be no need for a "No Harvest" buffer for these species. The Green Tree Retention areas (GTR's) and the wildlife trees within cutting units will provide the habitat for these species.

C6.41# -Specific Requirements (01/2000)

FELLING METHODS

SUBDIVISIONS

- 1. Directional Felling shall be utilized.
- 2. Directional Felling shall be utilized to fall away from designated streamscourses, buffers, reserve trees, powerlines, Forest road 2643, SMA's, and all existing or proposed improvements (Forest Service and other) or as directed.
- 3. Directional Felling shall be utilized to fall corridor trees into stream channel in riparian, as they are cut. Corridor trees shall be left.
- 4. Directional Felling shall be utilized to fall included timber into and/or toward gaps, wherever possible, to reduce fuel loading concentrations and eliminate windrows adjacent to alley ways of residual trees. Included timber residual tops and limbs are the focus objective.

ALL

ALL

ALL

ALL

FELLING EQUIPMENT

SUBDIVISIONS

The use of tree jacks, wedges or tree lining may be required, however, the required methods used shall not be limited to these options.

ALL

C6.42# - Yarding/Skidding Requirements (04/2003)

YARDING/SKIDDING REQUIREMENTS**SUBDIVISIONS**

A. Prior to all operations commencing, purchaser shall submit a plan of operations, specifying, but, not limited to:

ALL

1. haul road access to and from subdivisions,
2. all proposed temporary spur roads,
3. landings,
4. skid trails and roads,
5. decking areas

B. Purchaser is alerted that:

1. No fueling or fuel storage within 150' of a stream or body of water.
2. Prebunching equipment is permitted on slopes up to 45%.
3. Repair of road damage due to landing locations will be required to be kept current.
4. A rock cost allowance, for landings on roads, that have resulted in road surface damage is included within Development and Other of Timber Sale Appraisal. This post operational repair will be required on all landing sites on roads to restore the road to preoperational conditions. A cost allowance for approximately 210 Cubic Yards of rock has been made. Landings should be rocked or armored with a size and quality of rock to support required operational use. The replacement rock to repair the damage to the road surface will be compatible with contractual road maintenance and reconstruction specifications. This may require a 1" minus cap to meet the final inspection and specifications.
5. All timber sale operations pre, during and post shall avoid areas identified as SMA, as designated on the Sale Area Map.
6. All access points for temporary roads and skidroads (main or secondary) to Forest Road 2643 shall be no closer than 200' (feet) spacing slope distance.
7. Where applicable to be used, it is required that existing landings, skid trails, skid roads, legacy haul roads and/or tractor fireline, etc. is preferred for use.
8. All yarding will be done in accordance to protect Powerline. Project activities in the vicinity of transmission lines and their access facilities will need to coordinate with the Eugene Water & Electric Board prior to operations.
9. All timber sale helicopter operations within the McKenzie Airstrip will need to coordinate with the Oregon Department of Aviation prior to operations. Contact person is Donald Hankwitz, (503)378-4176.

ALL

C. Ground base yarding permitted/restricted to predesignated and approved skidtrails in subdivisions and portions of subdivisions as designated on Sale Area Map.

- | | |
|--|--|
| 1. Yarding and skidding is restricted to slopes 30% or less, unless, otherwise agreed to by the Forest Service. | 610, 611, 612,
620, 621, 650,
651, 660, 661,
662, 670, 680, |
| 2. No more than 2 mainline skidtrails or skidroads shall radiate from landings. Secondary or feeder skidtrail or skidroad use will be maximized in order to minimize the number needed and to avoid excessive compaction and/or disturbance. | 690, 691, 692,
700, 710, 711,
740, 771 |
| 3. No ground based equipment within 30' (feet) of subdivision boundaries that are adjacent to designated streamcourses. | |
| 4. Skid trails will be spaced no closer than 150' (feet), from center line to center line. | |
| 5. Ground based yarding equipment will be equipped with an arch and a winch line, a minimum of 75 feet. | |
| 6. A ground based yarding system capable of transporting logs 1000 feet, utilizes an arch or equivalent system of elevating the lead end of the log and a cable drum system w/ a bull line. A rubber tired skidder or equivalent equipment. Shovel logging equipment is acceptable ground based equipment. | |

D. Skyline yarding permitted as designated in subdivisions and portions of subdivisions as designated on Sale Area Map.

- | | |
|---|---|
| 1. No yarding across designated streamcourses, without full suspension. | 600, 601, 602,
603, 620, 630, |
| 2. All skyline yarding corridors shall initially be made as narrow as practical. The corridors shall normally not exceed 12 feet in width after yarding has been completed. All corridors shall be a minimum of 150' (feet) center-to-center for parallel corridors OR a minimum of 150' (feet) at the backend or farthest point from the landing for radial logging configurations. | 632, 640, 641,
642, 691, 770,
772 |
| 3. All skyline corridors shall be approved before timber falling is started. | |
| 4. One-end suspension required when using skyline yarding system. Stream Channels may require alternate methods for protection to negate all ground disturbance, during yarding. | |
| 5. All Corridor trees in riparian zones, if felled for operations, will be left in the riparian zone. | |
| 6. A skyline yarding system capable of transporting logs at least 1500 feet uphill and 350 feet downhill. The yarder must be equipped with a spar tower with a cable fairlead at least 40 feet above the ground and a slack pulling carriage with a 100 foot dropline. | |

C. Helicopter yarding permitted as designated in subdivisions and portions of subdivisions as designated on Sale Area Map.

1. A helicopter yarding system capable of lifting 7500 pounds payload at an elevation of 4,500 feet above sea level and transporting logs fully suspended at least 5,000 feet horizontal distance uphill and downhill. Logs must be broken free of their beds vertically and totally suspended during in-haul portion of the yarding cycle. A 150' tagline may be required. 600, 604, 631, 640

APPLICATION SCHEDULE PURSUANT TO C6.6# - EROSION CONTROL AND SOIL TREATMENT BY PURCHASER (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	TYPE <u>3/</u>	LBS/AC
ALL	A, C, D.	<u>1/</u>		N/A	N/A	N/A	N/A

1/ Seed mixture will be any of the following: winter wheat, spring wheat, or triticale. Seed will be certified weed free (Blue tag). Application rate will be 40 lbs/acre. Purchaser or sub-contractor that does the actual purchase of the seed will coordinate the acquisition of the seed with the Forest Service.

The purchaser will be required to pay a co-op deposit of: \$0.02/Ton for the cultivation and harvest of replacement seed of native species for use on future contracts.

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.

4/ All skid trails/roads used by Purchaser that have a mineral soil exposed for lineal distances based on the slope of the skid trail.

Waterbars will be spaced every 100 feet on slopes less than 10%,
 Waterbars will be spaced every 75 feet on slopes of 10-19%,
 Waterbars will be spaced every 50 feet on slopes of 20-39%,
 Waterbars will be spaced every 25 feet on slopes greater than 40%.

Water bar locations should occur where local terrain feature facilitates effective drainage of the skidtrail. Install waterbars at a 45-degree angle to the slope, pointing downslope towards the drain of the slope. Outlet shall be lower than the inlet of the waterbar at all times. Side berms shall not occur, which, would negate the transfer action of the waterbar. The outlet of the waterbar shall be armored with material that is present to aid in the reduction of erosion at the outlet.

Treated areas shall span the total width of compaction. Water barring shall be kept reasonably current and shall be done during Normal Operating Season unless otherwise agreed.

**Slash Treatment Requirements
Honker Timber Sale
Willamette National Forest,
McKenzie River Ranger District**

- In accordance with Contract Provisions C6.74# (02/2000), Slash Treatment Requirements and Detailed Slash Disposal Plan
- Not with standing Contract Provision C6.74# (02/2000)

Purchaser responsibilities are as follows:

- A) **Construction and size of landing piles:** The Purchaser shall pile substantially all created slash at least 1 inch in diameter on the small end and at least 3 feet in length shall be piled as compact as possible and free of soil and rocks. Excessive bark that has fallen off of logs generated from logging activities on the landing shall be dispersed on the landing, not piled. Piles will be constructed with a "lift and pile" mechanism rather than a "push and pile" mechanism. Landing piles shall be a minimum of 8 feet in height and diameter at base shall not exceed height. Height of piles should not exceed 12 feet. The area around each pile shall be cleared of all created slash a minimum of 6 feet. All pieces extruding from piles shall be bucked off to facilitate covering after construction.
- B) **Location of all landing and grapple piles:** Slash piles will be located to minimize damage of standing green trees and snags during burning. Unless otherwise agreed, this will be construed to be at least 12 feet from standing green trees and snags. Piles should not be built on tree stumps or heat sinks. Piles should not be located in the bottom of draws, streams, or ditches and should not obstruct roadways. Piles should be spaced 30 feet apart unless otherwise agreed. Multiple piles may occur at site. Where multiple piles occur, spacing between piles shall not be less than average pile height. All piles shall be constructed within the subdivision.
- C) **Construction and size of grapple piles: Sub Divisions 610, 611, 612, 650, 651, 670, 680, 700, and 740.** Grapple piles will be constructed with a "lift and pile" mechanism rather than a "push and pile" mechanism. Piles shall not be placed on stumps or logs in order to remove a heat sink when burning. Created slash shall be piled compactly and free of soil and rocks. Pile the created slash that is at least 1 inch in diameter at the small end and at least 3 feet in length. Pile height shall be at least 8 feet in height and diameter at base shall not exceed height. The area around each pile shall be cleared of all created slash a minimum of 6 feet. All pieces extruding from the piles shall be bucked off to facilitate covering after construction.
1. **Subdivision #610, 611, 612, 650, 651, 670, 680, 700, 740:**
Substantially all created slash within the sub division shall be grapple piled.
- D) **Location of hand piles:** Piles will be located to minimize the damage of standing trees during burning. Unless otherwise agreed this will be construed to be equal distance from the boles of standing green trees and snags. Piles shall not be located within drainage structures, ditches, or stream channels. Piles shall not be placed on stumps or logs in order to remove a heat sink when burning. Piles will be placed so their length is right angle to the direction of the slope. All piles shall be constructed within the subdivision.

- E) **Construction and size of hand piles: Subdivisions #600.** Purchaser shall hand pile substantially all created slash. Created slash is slash that is at least 1 inch in diameter at the small end and at least 3 feet in length. Fine slash should be placed at the bottom of the pile with heavier material on the top. Slash shall be piled in the same direction and as compact as possible. Diameter of piles shall be 6-12 feet. Height of piles shall not be less than 6 feet nor greater than the diameter of the pile. Piles shall be built to facilitate covering after construction. All pieces extruding from piles shall be bucked off. All piles shall be constructed within the subdivision.
1. **Subdivision #600:** Substantially all created slash within 200 feet inside southern subdivision boundary and 200 feet inside west subdivision boundary along private land boundary shall be hand piled.
- F) **Hand pile covering requirement: Subdivisions #600.** Purchaser shall cover all hand piles within subdivisions. All piles shall be covered with polyethylene plastic film .004 inches thick. Plastic size should be approximately 100 square feet. Plastic shall be placed in locations that will ensure safe and adequate ignition can be achieved to allow consumption of piles and should be placed in the upper $\frac{1}{4}$ of the pile. The corners of the plastic shall be secured to the pile and pieces of burnable material shall be placed on top of the plastic to keep the plastic from filling with wind and blowing off.
- G) **Fire line construction:** Fire lines shall be cleared of all brush and debris for a minimum width of 10 feet with the edge of the clearing inside the subdivision boundary. Debris created from the clearing shall be scattered inside the subdivision to reduce the creation of a windrow of slash along the fire line. A continuous fire line, minimum of 18 inches wide, shall be dug to mineral soil within the outer portion of the clearing.
1. Subdivision 620, 621 shall have approximately 1.5 miles of fire line. Fire line construction shall begin at the south east corner of subdivision 621 at the common corner of subdivisions 621 and 660. Continue along subdivision boundary to the north and west to the common corner of subdivisions 621 and 630. Continue along subdivision boundary 621 to the west. Continue fire line at the common corner of subdivisions 621 and 620 to the west. Continue fire line at the common corner of subdivisions 620 and 630 along subdivision boundary 620 to the west, south and east to the western common corner of subdivisions 620 and 660. End fire line at the western common corner of subdivisions 620 and 660.
 2. Subdivision 660 and 661 shall have approximately .50 miles of fire line constructed. Fire line construction shall start North of Rd. 2643 at the southeast corner of subdivision 660 and continue along subdivision 660 boundary to the north. End fire line at the northeast corner of subdivision 660 and 621. Continue fire line at the northwest corner of subdivision 660 to the south and end fire line north of Rd. 409. Continue fire line at the corner of subdivision 660 and 661 to the south along subdivision boundary 600. End Fire line at the southwest corner of subdivision 660, north side of Rd.2643. No fire line is proposed around the SMA. There will be no active lighting through the SMA. Fire will be allowed to back through SMA to Rd. 409. If this is not recommended there may be a hose lay put around SMA to prevent fire from entering.

3. Subdivision 690 and 692 shall have approximately .5 miles of fire line. Fire line construction will start south of Rd. 420 and continue south along eastern boundary of subdivision 692 to the northeast corner of subdivision 690. Continue south along subdivision 690 to Rd 436. End fire line on north side of Rd. 436.
4. Subdivisions 691 shall have approximately .5 miles of fire line. Fire line construction will start on south side of Rd. 2643 along the western boundary of subdivision 691 and continue south and east along subdivision boundary to Rd. 432. Continue east and northeast from Rd. 432 along subdivision boundary. End fire line on the west side of Rd. 2643.
5. Subdivision 710 and 711 shall have approximately 1.5 miles of fire line constructed. Fire line construction shall begin on south side of Rd. 423 and continue along subdivision 710 boundary to the south, east, and north to the northeast corner of subdivision 710. Continue north, west, and southwest along subdivision 711 boundary to the southwest corner of subdivision 711. Continue fire line at the western common corner of subdivisions 710 and 711 southwest to Rd. 423. End fire line to the east of Rd. 423.
6. Subdivision 770 and 771 shall have approximately 1.0 miles of fire line constructed. Fire line construction shall begin on south side of Rd. 440 and continue south, and east along subdivision 771 boundary to the southwest corner of subdivision 770. Continue east, north, west, and south along subdivision 770 boundary. End fire line on north side of Rd. 440 at the eastern end of Rd. 440.

TRAFFIC CONTROL PLAN AND SPECIFICATIONS PURSUANT TO B6.33 SAFETY

Part I. Signing and Other Warning Methods:

Unless otherwise agreed, the following measures are required to provide adequate warning of hazards for users of roads and trails adjacent to Purchaser's Operations.

(a) Signs. The following signs are required when Purchaser's Operations are in progress adjacent to or on Forest Service controlled roads and trails:

<u>MINIMUM LETTER SIZE AND LEGEND</u>	<u>MINIMUM SIZE AND SHAPE</u>	<u>WHEN AND WHERE REQUIRED</u>
1. LOGGING OPERATIONS NEXT <> MILES (4" letters)	24" (rectangle) 36"	Min. 100 ft. outside of any continuous work areas, on roads listed in C5.31# and trails listed in Part II.
2. LOGGING OPERATIONS (3" letters)	24" (diamond) 24"	To be used in conjunction with "Logging Operations Next <> Miles" and where work area is not continuous.
3. FOR LOGGING USE ONLY (3" letters)	24" (diamond) 24"	Required where roads listed in C5.31# and temporary roads intersect with C5.31# roads. Install a cross ditch to discourage use when sign is covered or removed for extended periods.
4. TRUCKS (4" letters)	24" (diamond) 24"	At critical intersections on roads listed in C5.31# when traffic is heavy or otherwise exceeds volumes stated in Part II below. Remove or cover when the sign is not applicable.
5. END LOGGING OPERATIONS (4" letters)	24" (rectangle) 36"	Use in conjunction with "Logging Operations Next <> Miles" and "Logging Operations."
6. TREE FELLING AHEAD (3" letters)	24" (diamond) 24"	Required 200 feet in advance of danger area where timber is being felled adjacent to all roads, including temporary roads, and trails.
7. ROAD MACHINERY AHEAD (3" letters)	24" (diamond) 24"	Required at least 200 feet in advance of Purchaser road maintenance operations on roads listed in Schedule C5.31#.

TRAFFIC CONTROL PLAN AND SPECIFICATIONS – B6.33 Safety (continued)

All signs shall meet requirements as specified in Parts I and VI of the Manual of Uniform Traffic Control Devices (MUTCD).

Sign borders and lettering shall be black. Borders are 1/2 inch wide, inset 1/2 inch from outside edge of sign. All sign backgrounds shall be orange, except signs #1 and 5 which shall be reflectorized orange.

Signs shall be installed on posts, with a 5 foot minimum ground clearance, or on temporary supports complying with MUTCD standards.

All signs are to be removed or covered when operations are interrupted for seasonal nonuse or other extended periods.

Purchaser shall furnish flag personnel and advance warning signs when cable or helicopter logging above roads or trails, felling adjacent to roads or trails, where logs being bucked may roll into roads or trails, and in areas where fallout from blasting may occur. On roads listed in C5.31# and temporary roads, Purchaser may temporarily block the road in lieu of furnishing flag personnel.

(b) Barricades. On roads listed in C5.31#, if Purchaser's Operations cause the traveled way or road shoulders to be constricted overnight, or longer, by such obstructions as decked logs, parked equipment, or piled slash, Purchaser shall place barricades on both sides of the encroaching obstruction to safely channel traffic around such obstructions. Barricades shall remain in place until the obstruction is removed.

Barricades shall be Type II and meet specifications in MUTCD, Part VI. Barricades must be at least 3 feet high. Rails must be at least 2 feet long. Striping shall be alternating orange and white, sloping at a 45 degree angle, and reflectorized. For rails 2 feet to 3 feet long, striping shall be 4 inches wide. For rails longer than 3 feet, striping shall be 6 inches wide. Two rails, 8-12 inches in width, must face each direction.

Barricades shall be equipped with warning lights which shall be Type A low intensity flashing and shall be maintained so as to be capable of being visible on a clear night from a distance of 3,000 feet.

(c) Other Traffic Control Methods. The posting of CB channel signs may be authorized.

On roads listed in C5.31#, Purchaser may be authorized to install temporary gates, barricades (except cables), or natural barriers. The devices must be installed with the necessary hazard markers, be reasonably passable by Forest Service, and be removed prior to acceptance of the subdivision being served by the road.

TRAFFIC CONTROL PLAN AND SPECIFICATIONS – B6.33 SAFETY (continued)

Part II. Specific Requirements:

<>

Purchaser and Forest Service agree to the above stated requirements of the Traffic Control Plan:

_____	_____
Name	Name
_____	_____
Title	Title
_____	_____
Date	Date