

EXHIBIT "B"
FOREST ROAD SPECIFICATIONS

SUBGRADE WIDTH	SURFACED WIDTH	POINT TO POINT	DRAINAGE
14 feet	12 feet	A to B	Outslope
14 feet	12 feet	D to E	2-foot Ditch

CLEARING. This work shall consist of clearing, removing, and disposing of all trees, snags, down timber, brush, surface objects, and protruding obstructions within the clearing limits.

Where clearing limits have not been staked, the "Road Brushing Specifications" in Exhibit B shall apply. Clearing debris shall not be placed or permitted to remain in or under any road embankment sections. Clearing debris shall not be left lodged against standing trees.

All danger trees, leaners, and snags outside the clearing limits which could fall and hit the road shall be felled.

GRUBBING. This work shall consist of the removal or digging out of stumps and protruding objects.

All stumps shall be completely removed within the limits of required grubbing. Stumps overhanging cutslopes shall be removed. Grubbing debris shall not be placed or permitted to remain in or under any road embankment sections. Grubbing debris shall not be left lodged against standing trees. Grubbing classifications are as follows:

Improvements and reconstructions - 4 feet back from the shoulder of the subgrade or ditch, whichever is widest, or as marked in the field.

CLEARING AND GRUBBING DISPOSAL.

- (1) Scatter through openings in the timber outside of the cleared right-of-way.
- (2) Point D to E: All material shall be piled in locations as designated by STATE.

EXHIBIT "B"

FOREST ROAD SPECIFICATIONS

EXCAVATION. Excavation and grading shall not be done when weather and/or ground conditions are such that damage will result to existing subgrade or cause excessive erosion.

Excavation shall conform to STATE-engineered lines, grades, dimensions, and plans when provided.

All suitable excavated material shall be used where possible for the formation of fills, shoulders, and drainage structure backfills. Embankment materials shall be free of woody debris, brush, muck, sod, frozen material, and other deleterious materials.

All roads shall be on a balanced cross section.

Excess excavation shall not be sidecast where material will enter a stream course or where material will accumulate in areas deemed a high-risk site by STATE.

ROAD WIDTH LIMITATIONS. PURCHASER shall obtain advance written approval from STATE to construct the road to a greater width than specified. Extra subgrade width shall be required for:

DRAINAGE

Ditch. Construct "V" ditch 2 feet wide and to a depth of 1 foot below subgrade. Subgrade shall be crowned at 4 to 6 percent.

Outslope. Road subgrade shall be outsloped at 3 to 4 percent, as directed by STATE.

TURNOUTS. Increase roadbed width an additional 8 feet for both subgrade and surfacing. Length shall be at least 25 feet, or as staked on the ground, plus 25-foot approaches at each end.

Location: As marked in the field.

EXHIBIT "B"
ROAD IMPROVEMENT INSTRUCTIONS

Drainage Ditches:

Maintain existing ditches between Point A to F, by removing rock, soil, wood, and other materials.

These ditches will be "V" shaped, approximately 2 feet wide, with a depth of approximately 1 foot below the subgrade.

Backslopes shall not be undercut by removal operations.

Suitable material removed from the drainage ditch shall be blended into the existing road surface.

Woody debris and rock in excess of 1 foot in length and 3 inches in diameter shall be removed from the ditches and placed outside the roadway. Concentrations of any size material which may block ditches shall also be removed.

Lead-Off Ditches:

Construct and improve lead-off ditches as designated in the field.

Lead-off ditches shall be shaped to drain away from the traveled way.

Blade and Shape Existing Surface. The existing road surface, including shoulders and turnouts, shall be bladed and shaped to produce a surface which is uniform, consistent to grade, and crowned to a specification of 3/8 inch to 1/2 inch per foot of width.

Outslope surface where a ditch is not applicable, as directed by STATE.

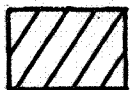
Surfacing material shall be thoroughly loosened to a depth of potholes or corrugations.

PURCHASER shall apply water during blading when sufficient moisture is not present to prevent segregation.

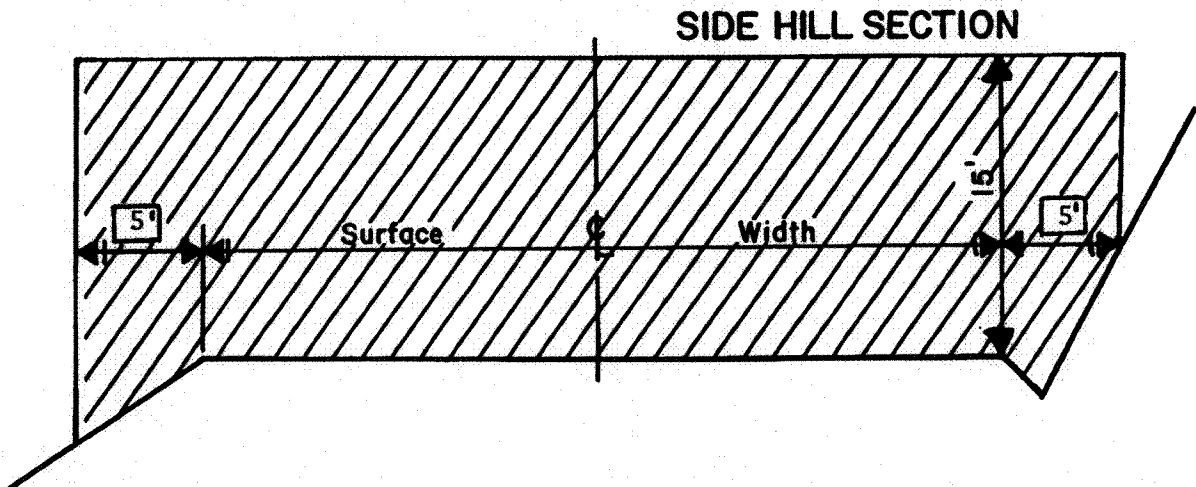
PURCHASER shall retain the surfacing on the roadbed, and provide a thorough mixing of materials within the completed surface width.

Surfacing: Upon completion of the above required work, apply, process, and compact surface rock in accordance with Exhibit C, and as directed by STATE.

EXHIBIT "B"
ROAD BRUSHING SPECIFICATIONS



Clearing Limits



REQUIREMENTS

Brush and trees shall be cut to a maximum height of 6 inches above the ground surface or obstructions such as rocks or existing stumps.

Debris resulting from the brushing operation shall be removed from the roadway, cutslope, ditches, and water courses within 72 hours and may be scattered downslope from the road or placed in other stable locations, unless otherwise approved in writing by STATE.

Conifer trees larger than 6 inches in diameter at stump height, located within clearing limits but outside of the ditchline or shoulder, shall not be cut down, but shall be limbed for road visibility.

State Timber Sale Contract
 No. 341-02-31
 Bottoms Up

EXHIBIT "C"
 ROAD SURFACING

TYPE OF ROCK	SIZE OF ROCK	COMPACTED DEPTH	POINT TO POINT	APPROX. TOTAL TRUCK MEASURE VOLUME
Crushed	1½"-0"	3"	A to B	23 CY
Crushed	1½"-0"	3"	D to E	92 CY

Additional rock for curve widening is required and has been included in the volume estimates.

Roads shall be uniformly graded and approved by STATE prior to rocking. For typical cross section, see Forestry Department Drawing Nos. 351-C and 351-D at the Forestry Department district office.

CRUSHED ROCK SPECIFICATIONS

Grading Requirements

<u>For 1½"-0"</u>	Passing	2" sieve	100%
	Passing	1½" sieve	95-100%
	Passing	¾" sieve	55-75%
	Passing	¼" sieve	35-50%

Of the fraction passing ¼" sieve, 40% to 60% shall pass the No. 10 sieve.

The referenced sieve shall have square openings as set forth in AASHTO M 92, Woven Cloth Series. The determinations of size and gradings shall be as set forth in AASHTO T 27.

ROCK ACCOUNTABILITY

The rock shall meet the quality and size specifications in Exhibit C. A sample of the rock shall be supplied to STATE for testing and approval prior to rocking. PURCHASER shall obtain subgrade approval from STATE prior to rocking. Rocking shall be limited to when weather conditions are acceptable to STATE and when sediments will not enter streams.

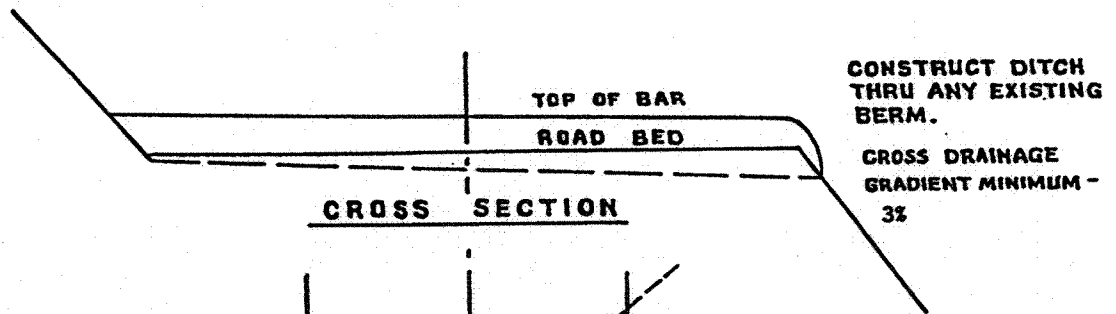
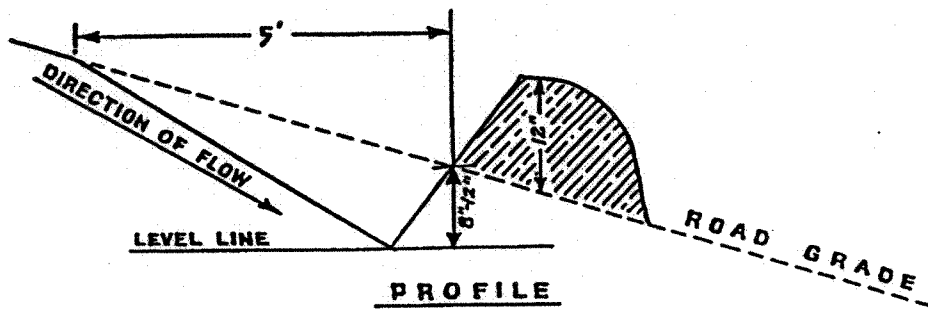
Rock accountability shall be determined by depth measurement. STATE shall be given 24 hours' notice prior to rocking.

Depth Measurement. Rock shall be spread and compacted according to the depths specified in Exhibit C. Truck measure volumes are given, but shall not limit the amount of rock spread.

Depth shall be determined in the most compacted area of the surface cross section. If additional rock is required because of insufficient depth, it shall be added by truck measure to those areas that were slighted. The conversion from compacted yardage to truck yardage is 1.3 multiplied by the compacted yardage equals truck yardage.

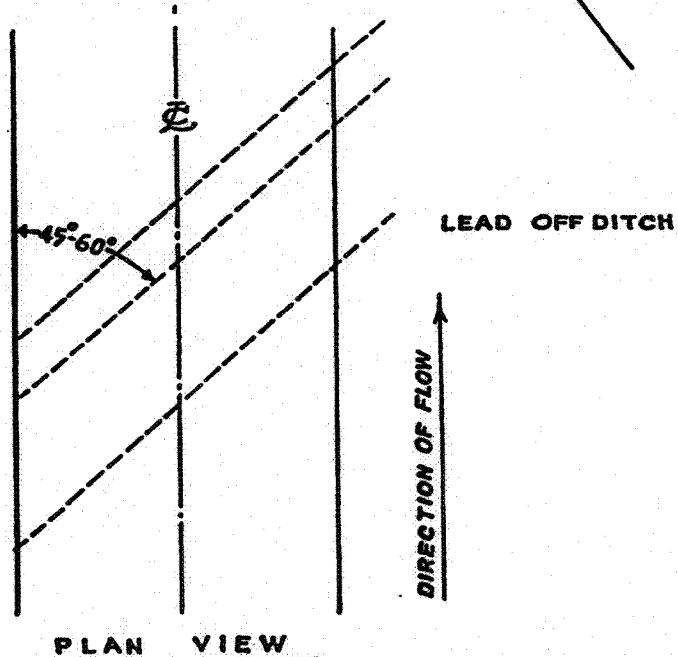
The depth of compacted aggregates shall not vary more than 1 inch from the depth specified in Exhibit C. The average depth for each road segment shall be the specified depth or greater.

EXHIBIT "D"
 WATERBAR SPECIFICATIONS



SPACING OF WATERBARS

ROAD GRADE	DISTANCE
< 5%	As directed by STATE
6-10%	
11-15%	
16-20% or greater	



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EXHIBIT "E"

WATERSHED REGULATIONS

PURCHASER shall take precautions necessary to protect the watershed from damage and to prevent pollution to the water supply. Precautions shall include, but not be limited to, the following regulations.

Laws, Rules, and Regulations. Comply with Oregon laws and with the rules and regulations of the Oregon State Board of Health relative to protection of watersheds and sanitation of public water supply.

Debris in Streams. Prevent, insofar as possible, logs, chunks, and other debris, resulting from logging and road building operations, from being deposited in streams. If such material should become deposited in streams, immediately remove the material to restore normal stream flow, using necessary care to prevent unnecessary damage to the stream channel and banks.

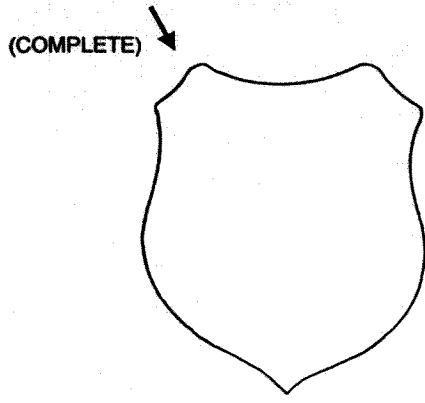
General Sanitary Conditions. Do not create any conditions which may permit breeding of flies or mosquitoes. Machinery, equipment, soil, and fuel storage shall not be located near streams. Waste oil shall be removed from the watershed. Camping shall not be permitted.

EXHIBIT "F"
OREGON DEPARTMENT OF FORESTRY

SCALING INSTRUCTIONS -- LOCATION APPROVAL -- BRAND INFORMATION

- (1) ORIGINAL REGISTRATION Date _____
 REVISION NUMBER _____ Date _____
 CANCELLATION Date _____
- (2) TO: _____
 (Third Party Scaling Organization)
- (3) FROM: Klamath-Lake Phone (541) 883-5681
 (State Forestry District)
 Address 3200 DeLap Road, Klamath Falls, OR
97601
- (4) PURCHASER: _____
 Address _____

- (12) SALE NAME Bottoms Up
 COUNTY Klamath
- (13) STATE CONTRACT NUMBER 341-02-31
- (14) SCALE: westside eastside cubic foot
- (15) STATE BRAND REGISTRATION NUMBER _____
- (16) BUREAU BRAND CODE NUMBER _____
- (17) STATE BRAND INFORMATION:



(5) MINIMUM SCALING SPECIFICATIONS			CLASS		
SPECIES	SCALING DIAMETER INCHES	*NET SCALE VOLUME	PER MBF	** SUM	SUB
Conifers	8.0	20	X		
Conifers	Less than 8	Less than 20			X

- * Apply minimum volume test to whole logs over 40' Westside; 20' Eastside.
 ** Sum (if indicated): see instructions and explain in item (19).
- (6) WESTSIDE SCALE: YES NO
 Actual taper all logs over 40' scaling length
- (7) EASTSIDE SCALE: YES NO
 *Actual taper butt logs over 40' scaling length
- (8) PENCIL BUCK YES NO
 back to Minimum Scaling Diameter 8.0"
- (9) ADD-BACK VOLUME -- YES NO
 Deductions due to delay

- (18) PAINT REQUIRED: YES
 COLOR Orange

(19) SPECIAL SCALES
PEELABLE CULL (all species)
UTILITY/PULP (all species)
NO DEDUCTIONS ALLOWED FOR MECHANICAL DAMAGE
OTHER: _____
OTHER: _____

(10) APPROVED SCALING LOCATIONS	Species	Yard	Truck

(20) REMARKS: A taper rule of 1 inch in diameter for every 4 feet in length shall be used for pencil bucking if scaled on the truck.

Operator's Name (Optional inclusion by District): _____

- (11) NOTICE OF CANCELLATION OF BRAND:
 Effective Date: _____

(21) SIGNATURES:

 Purchaser or Authorized Representative Date

 State Forester Representative Date

State Forester's Representative

INSTRUCTIONS FOR FORM 343-307 (rev. 5/01)

- (1) Check appropriate box. REVISION NUMBER requires comments. CANCELLATION requires Item (21). Complete date.
- (2) Designate Third Party Scaling Organization (TPSO). Send 4 copies to TPSO, 1 to purchaser, 1 to Salem, and keep such copies as to district needs.
- (3) State District office, address and phone.
- (4) Enter Purchaser's business name and address as it appears on the contract.
- (5) Minimum Scaling Specifications. Review Section 45, "Log Removal," of the contract. Species, or combined species can be separate entries. Information serves as a basis for scaling (see also Items (13) thru (17)), and is required to show existence on the sale. PerM (per mbf). SUM (lump sum material). SUB (submerchantable material. SUB, as used by the State, references that material containing at least 10 bf (net) but less than the lower merchantable net volume limit or grade requirements for other merchantable (PerM) entries. PerM, SUM, and SUB must be indicated by checking the appropriate column. Species with the same specifications and value are combined into one entry. PerM and SUB require scaling therefore complete specifications. SUM need not be scaled, hence no specifications. Loads containing only SUM are to be ticketed if so instructed in Item (19). Mixed loads of SUM, PERM and/or SUB species will always be scaled.
- (6) Westside -- actual taper segment scale. Check Yes or No. Special Service Rules on file with TPSO. See: Segment Scaling and Grading of Long Logs -- All Species -- State Forestry Department Scaling Practices (Westside).
- (7) Eastside -- actual taper/taper table segment scale. Special Service Rules on file with TPSO. See: Segment Scaling and Grading of Long Logs -- All Species -- State Forestry Department Scaling Practices (Eastside). Items with * follow U.S. Forest Service Eastside rules.
- (8) Pencil Buck. Check NO if a westside sale, optional for eastside sales.
- (9) Add-Back Volume. Add-Back is normally checked YES. Scaler records deductions (sap rot, weather checks, etc.) caused by an abnormal delay in removal. Enter separately on scale ticket. TPSO provides State with summaries that include this as a net volume by species. Salvage sales and certain other circumstances may require that "NO" be checked.
- (10) Show scaling locations only applicable to TPSO. Not necessary to list markets. If all species are scaled at same location, enter "ALL."
- (11) When logging is complete, recall branding hammers, date and sign where indicated, check CANCELLATION box at top of form, and send to TPSO.
- (12) Enter sale name and county.
- (13) Enter sale contract number.
- (14) Check Westside or Eastside log scale. Cubic foot refers to Northwest Log Rules Cubic Foot Scale.
- (15) Oregon Forest Products Brand Registry Number (optional).
- (16) DO NOT USE -- TPSO will fill in when applicable.
- (17) Show one brand only. Complete drawing. If more than one brand is assigned to the sale, (1) make separate form for each brand, and (2) on each form, explain and show other brand(s) under REMARKS, Item 19.
- (18) Check YES and designate orange.
- (19) Special Scales. These are the Special Scales that will be applied. If "Other" is indicated, please describe. Give comments in Item (19).
- (20) Use this space to designate weight conversion factors, or any other explanations to clarify scaling requirements. If additional scaling locations are approved, prepare another form showing all (old and new) locations. Check REVISION box at top of form and explain under remarks. Route as indicated.
- (21) Require purchaser to sign and date completed form.