

EXHIBIT "B"  
FOREST ROAD SPECIFICATIONS

SUBGRADE WIDTH	SURFACED WIDTH	POINT TO POINT	STATION TO STATION	DRAINAGE
14 feet	12 feet	A to B	0+00 to 23+30	Outsloped
18 feet	16 feet	C to D	0+00 to 22+40	Ditched

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 clearing limits shall extend 10 feet back of the top of the cutslope and 5 feet out from the toe of the fill slope, or as directed by STATE. 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:

New construction - From the top of the cutslope to the toe of the fill.

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. Scatter through openings in the timber outside of the cleared right-of-way, except areas where end-haul is required.

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 fills and drainage structure backfills shall be machine compacted in lifts not to exceed 8 inches in depth.

Unless road design plans show otherwise, all roads shall be on a balanced cross section, except when the slope is over 50 percent; the road shall be on full bench for the width specified.

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:

Fill Widening. Add to each fill shoulder 1 foot for fills 3 feet to 6 feet high; 2 feet for fills over 6 feet high.

Curve Widening. Widen the inside shoulder of all curves as follows: 400 divided by the radius of the curve equals the amount of extra width.

DRAINAGE

Ditches. Construct "V" ditch (3) 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 4 to 6 percent.

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

Location: Intervisible but not greater than 750 feet.

GRADING

	<u>Back Slopes</u>	<u>Fill Slopes</u>
Rock	Vertical to 1/4:1	Not steeper
Common - side slopes 50% and over	1/2:1	than 1½:1
Common - side slopes less than 50%	3/4:1	
Common - turnpike (level) section	2:1	

Top of cutslope shall be rounded.

LANDINGS. Landings shall be constructed no less than 50 feet wide and no more than 70 feet wide. Surface is to be crowned for drainage, with general grade no more than 3 percent.

TURNAROUNDS. Increase subgrade width an additional 20 feet for a length of 20 feet at locations marked in the field.

EXHIBIT "B"

FOREST ROAD SPECIFICATIONS

NEW ROAD CONSTRUCTION INSTRUCTIONS

All unrocked or unfinished subgrade shall be waterbarred in accordance with specifications in Exhibit D, and blocked from vehicular traffic, prior to November 1, annually, and as directed by STATE.

- (1) PURCHASER is required to mark the right of way clearing limits for review by STATE. STATE shall inspect and approve road right-of-way clearing limits prior to right-of-way falling.
- (2) Excavated Materials. Excavated materials shall be utilized for road and fill construction, road surfacing and hauled in where necessary. Surplus excavation not suitable for road surfacing shall be hauled to the waste areas as designated by STATE. Waste material shall be sloped and compacted for drainage. Fills shall be thoroughly compacted in accordance with Exhibit B.

ROAD IMPROVEMENT INSTRUCTIONS

- (1) Grading. Complete all culvert installations and other specified work prior to application of new surfacing rock. Cut out all chuckholed and/or washboard sections from existing surface. Remove all berms from road edge. Surfacing material (if required) shall be shaped and processed in accordance with Exhibit B.
- (2) Drainage Ditches. Restore or construct ditchlines, including ditchouts, and rolling dips, as directed by STATE. Clean out all culvert inlets and outlets for a 10-foot radius. Re-establish or construct culvert sediment basins. Waste material from drainage ditches and sediment basins shall not be pulled across existing surfacing rock, but shall be placed in nearby waste areas and uniformly sloped and compacted for drainage, as directed by STATE. Damaged culvert inlets and/or outlets shall be repaired by opening them with a hydraulic jack, or cutting the culvert end to allow for free passage of water at peak flow levels.
- (3) Additional Requirements for Type F Stream Fill Reconstruction. Culverts in Type F streams must allow free passage of fish as provided in the Oregon Forest Practices Rules. Modifications of the existing culvert geometry shall be required to allow free passage of fish, and shall consist of embedding and/or countersinking the culvert inlet and/or culvert outlet, development of the stream channel above the culvert inlet and/or below the culvert outlet, placement of excavated substrate materials inside the installed pipe barrel (invert), and/or the use of riprap rock to construct embedded dissipators, stream pools, and for fill armor, as directed by STATE.
- (4) Equipment. All excavation and riprap placement shall be performed using a minimum 1½ cubic-yard, track-mounted excavator.
- (5) Culvert Markers. The intake ends of culverts shall be marked by driving or placing steel posts within 6 inches of the downgrade side. Posts shall be painted with a rust-resistant fluorescent orange paint and be a minimum of 5 feet long, with the spade driven 2 feet into the ground.

EXHIBIT "B"

ROAD IMPROVEMENT INSTRUCTIONS

All unrocked or unfinished subgrade shall be waterbarred in accordance with Exhibit D.

- (1) Grading. Remove all berms from the road edge. Surfacing material (if required) shall be processed in accordance with Exhibit "B".

SPECIFIC ROAD IMPROVEMENT INSTRUCTIONS

<u>Segment</u>	<u>Station</u>	<u>Work Description</u>
A to B	1+37 to 23+30	Grade and cut out all chuckholed or scoured sections from the existing surface. Remove all dirt berms from the road edge. Spread 20 cubic yards of pit run rock at Station 11+00, and 24 cubic yards pit run rock from the start of the powerline access up to the concrete barricade just east of Point A.
A to B	1+37 to 22+00	Clear roadside vegetation according to the specifications in Exhibit E.

EXHIBIT "B"

ROAD CONSTRUCTION INSTRUCTIONS

All unrocked or unfinished subgrade shall be waterbarred in accordance with specifications in Exhibit D, and blocked from vehicular traffic, prior to November 1, annually and as directed by STATE.

Excavated Materials. Suitable materials, as approved by STATE, shall be utilized for road and fill construction and road surfacing and shall be hauled in where necessary. Suitable materials shall be free of woody debris, brush, muck, sod, frozen material and other deleterious materials. Surplus excavation not suitable for road surfacing shall be hauled to the waste area as designated by STATE. Waste material shall be sloped and compacted for drainage. Fills shall be thoroughly compacted in accordance with Exhibit B.

SPECIFIC ROAD CONSTRUCTION AND CLOSURE INSTRUCTIONS:

<u>Segment</u>	<u>Station</u>	<u>Work Description</u>
A to B	0+00 to 1+37	Construct road, install 18"x 30' culvert at 0+00 and an 18"x 40' cross drain culvert below outlet of culvert at 0+00.
A to B		Upon completion of sale, close road at Point A.
C to D (New)	0+00 to 22+40	Construct road, at start of new road replace culvert with 28"x35' culvert. Utilize 10 cubic yards of 1½"-0" clean bedding rock.
C to D (New)		Install 18"x35' culverts at stations 9+37, 12+77, 17+58 and 20+75.
C to D (New)	21+92	Replace existing culverts with 42"x35' culvert. Utilize 15 cubic yards of 1½"-0" clean bedding rock.
C to D (Old)	-126' from 0+00	Install 18"x35' culvert.
C to D (Old)	26+25	Remove culvert, re-channel drainage.
C to D (Old)	0+00 & 22+40	Upon completion of project work, close C to D (Old) at given stations with dirt berms in conjunction with root wads from C to D (New) R/W.

EXHIBIT "B"  
ROAD SURFACING

TYPE OF ROCK	SIZE OF ROCK	COMPACTED DEPTH	POINT TO POINT	STATION TO STATION	APPROX. TOTAL TRUCK MEASURE VOLUME
Pit-Run (end haul)	6"-0"	8"	C to D (New)	0+00 to 22+40	750 CY
Pit-Run	6"-0"	8"	C to D (New)	0+00 to 22+40	750 CY
Crushed	1½"-0"	6"	C to D (New)	0+00 to 22+40	1120 CY
<b>TURNOUTS:</b>			<b>NO. OF T.O.</b>	<b>POINT TO POINT</b>	
Pit-Run	6"-0"	8"	2	0+00 to 22+40	40 CY
Crushed	1½"-0"	6"	2	0+00 to 22+40	40 CY
<b>MISCELLANEOUS:</b>		<b>AMOUNT</b>			
Apron	Pit-Run 6"-0"	20 CY	--	10+50 to 11+50	--
Apron	Pit-Run 6"-0"	24 CY	Powerline Access	Barricade	--

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.

## EXHIBIT "B"

### ROCK ACCOUNTABILITY

The rock shall meet the quality and size specifications in Exhibit B. Subgrades must be approved by STATE prior to rocking. Rocking must be done only when weather conditions are acceptable to STATE, and must be suspended when muddy water could enter streams from runoff.

Rock accountability shall be determined by the following methods, as directed by STATE. STATE shall be given 24 hours' notice prior to rocking.

Rock Checking. All rock spreading shall be done only when a STATE representative is present. STATE shall issue a receipt for each load delivered, and rock shall be measured without allowance for shrinkage or shakedown during hauling. Total truck measure volume for each road segment shall be as shown on Exhibit B. Deliver at least 500 cubic yards per 8-hour shift, unless otherwise approved by STATE. A penalty of \$10.00 for each 10 cubic yards which are not delivered during a single shift shall be billed, and payment shall be required prior to final acceptance of the project by STATE.

Depth Measurement. Rock shall be spread and compacted according to the depths specified in Exhibit B. 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 B. The average depth for each road segment shall be the specified depth or greater. Surfacing areas shall be staked by STATE.

Junctions shall have a surfaced area of at least 20 square yards each at the compacted depths specified in Exhibit B.

Turnouts shall have a surfaced area of at least 20 square yards each at the depths shown in Exhibit B.

Load Records. Notify STATE before spreading the rock and maintain a record of all rock delivered for spreading. Make the record available for STATE inspection. A report listing the amount of rock delivered the prior month must be submitted no later than the 15th of each month.

EXHIBIT "B"

COMPACTION AND PROCESSING REQUIREMENTS

Subgrade. Subgrade surfaces of the road segments listed below shall be graded and compacted prior to rocking. Compaction shall be accomplished by traveling all surfaces from shoulder to shoulder until visible deformation ceases, or in the case of a sheepsfoot roller, the roller "walks out." A minimum of 3 passes shall be made over the entire width and length of the road. A pass is defined as traveling a road section in one direction and then back over that same section again. Compaction shall be accomplished by using the approved equipment listed below or others approved by STATE:

Rock shall be compacted and processed during the same project period it is spread, unless otherwise approved in writing by STATE.

Rock shall be crowned at 4 to 6 percent unless otherwise specified.

ROAD SEGMENT	COMPACTION EQUIPMENT OPTIONS
C to D (New)	1, 2

Pit-Run Rock. Pit-run surfacing rock shall be spread on roads with a crawler tractor and continuously walked-in. Rock spreading shall begin at nearest point from the rock source and progress toward the end of the project, unless otherwise approved in writing by STATE. Compaction shall be accomplished by using the approved equipment listed below or others approved by STATE:

Rock shall be compacted and processed during the same project period it is spread, unless otherwise approved in writing by STATE.

Rock shall be crowned at 4 to 6 percent unless otherwise specified.

ROAD SEGMENT	COMPACTION EQUIPMENT OPTIONS
C to D (New)	1, 2

Crushed Rock. The rock shall be uniformly mixed and spread in layers on the approved roadbed. Each layer of crushed rock shall be moistened or dried to a uniform moisture content suitable for maximum compaction and compacted in layers not to exceed 6 inches in depth. When more than 1 layer is required, each shall be shaped and compacted before the succeeding layer is placed. Any irregularities or depressions that develop during compaction of the top layer shall be corrected by loosening the material at these places and adding or removing material until the surface is smooth and uniform. Each layer shall be compacted with a minimum of 3 passes over the entire width and length of the road. A pass is defined as traveling a road section in one direction and then back over that same section again. Compaction shall be accomplished by using the approved equipment listed below or others approved by STATE:

Rock shall be compacted and processed during the same project period it is spread, unless otherwise approved in writing by STATE.

Rock shall be crowned at 4 to 6 percent unless otherwise specified.

ROAD SEGMENT	COMPACTION EQUIPMENT OPTIONS
C to D (New)	1, 2



EXHIBIT "B"

COMPACTION EQUIPMENT OPTIONS

- (1) Grid Rollers. Pit-run rock shall be processed by grid rolling with a Hyster Grid Roller Model D or equivalent, fully equipped with 32,000 pounds or more of ballast weights. Twenty passes shall be made with a grid roller over the entire length and width of the road, unless STATE requires fewer passes. A grader weighing at least 20,000 pounds shall work the pit-run surface during grid rolling so that all pit-run rock comes in contact with the grid roller. Grid rolling shall be performed when the subgrade is dry and firm. Road surface shall be uniformly shaped and graded prior to and during grid rolling.
- (2) Vibratory Grid Compactors. The roller shall have a grid surface and have an operating weight of 32,000 pounds or more. The rock shall be worked with a grader weighing at least 20,000 pounds during the grid rolling process. All rock shall come in contact with the vibratory grid compactor. A minimum of 10 passes shall be made with the grader and vibratory grid compactor over the entire length of the road, unless STATE requires fewer passes.

EXHIBIT "B"

ROCK PIT DEVELOPMENT AND USE

- (1) PURCHASER shall conduct the operations relative to the disposal of waste material in such manner that silt, rock, debris, dirt, or clay shall not be washed, conveyed, or otherwise deposited in any stream. All waste shall be deposited at an approved "waste disposal site."
- (2) Where overburden removal limits have not been staked, they shall extend for a distance of at least 20 feet beyond the developed rock source. Overburden and woody debris shall be hauled to a designated waste area. Overburden shall be spread evenly, grass seeded, and compacted at the waste area and woody debris stacked separately. Prior to drilling or rock removal, completion of overburden removal shall be approved in writing by STATE.
- (3) The rock pit floor shall be developed to provide drainage away from the rock pit. Rock pit drainage ditches shall be developed and maintained. Benches shall be constructed at intervals of 40 feet or less in height and shall be a minimum of 20 feet in width. Any gravel or talus slopes shall be left with a working face at an angle of 60 degrees or less. There shall be a minimum of 1 bench with an access road to it. Said bench shall be easily accessible with tractors.
- (4) Blasting shall be accomplished using timing devices, delay charges, low intensity shots, or other suitable means to contain as much material as possible in the rock pit prism.
- (5) Pit face shall be developed in a uniform manner.
- (6) Oversized material that is produced shall be piled in a designated area adjacent to the pit. It shall not be wasted.
- (7) PURCHASER shall prepare a written development plan for the pit area. The plan shall be submitted to STATE for approval prior to conducting any operation in the pit area.  
  
The plan shall include, but not be limited to:
  - (a) Location of benches and roads to benches.
  - (b) Disposal site for debris and overburden.
- (8) Upon completion of use, the pit site and access roads shall be left in a condition free from overburden and debris. Access roads to the pit, and the pit floor, shall be cleared at the termination of use. Rock pit access roads shall be blocked upon completion of rock pit use as directed by STATE. Rock pit roads shall be waterbar constructed to provide drainage as specified in Exhibit D and be blocked as directed by STATE.

## EXHIBIT "C"

### CULVERT SPECIFICATIONS

Minimum height of cover over top of culvert to subgrade when road is to be rocked shall be as follows: 12" for aluminized steel culverts 18" to 36", 18" for aluminized steel culverts 42" to 96", (12" for aluminum culverts 12" to 42", 24" for aluminum culverts 48" to 96",) and 12" for polyethylene culverts (add 6" for roads which will not be rocked). Minimum vertical cover for other steel (or aluminum) designs shall be as specified by STATE.

Lengths of individual culvert sections shall be not less than 10 feet, unless otherwise provided for in special instructions.

The ends of each culvert shall be free of logs and debris which would restrict the free flow of water. Culverts in Type F streams must allow free passage of fish as provided in the Oregon Forest Practice Rules. The intake end of relief culverts shall be provided with a sediment catching basin 3 feet in diameter at the bottom. The outlet end of any culvert which would allow water to erode embankment soil into waters of the State shall be provided with a downspout or other approved slope protection device.

Following are the minimum standard gauges for pipe and coupling bands. All other designs shall be in accordance with the minimum requirements of the Highway Division (Drawing Nos. 2091-A and B), or as approved by STATE.

<u>Dia.</u>	<u>Pipe Gauge</u>		<u>Band Gauges</u>		<u>Band Widths</u>			<u>Hugger Band Widths</u>	
	<u>Aluminized Steel</u>		<u>Aluminized Steel</u>		<u>Annular</u>	<u>Helical</u>	<u>Dimpled</u>	<u>Annular</u>	<u>Helical</u>
12-15	16	16	16	16	7	12	12	13 1/8	10 1/2
18-24	16	16	16	16	12	12	12	13 1/8	10 1/2
30-36	14	16	14	16	12	12	*12	13 1/8	10 1/2
42	12	14	12	16	12	12	NA	13 1/8	10 1/2
48	12	14	12	16	24	24	NA	13 1/8	10 1/2
54	12	14	12	16	24	24	NA	13 1/8	10 1/2
60	10	12	10	16	24	24	NA	13 1/8	10 1/2
66-72	10	12	10	16	24	24	NA	13 1/8	10 1/2
78	10	12	10	16	24	24	NA	13 1/8	10 1/2
84	8	12	8	16	24	24	NA	14 3/4	10 1/2
90-120 (3"x1")	8	12	8	16	26	26	NA	NA	NA

\*Up to 33"

Aluminized steel culverts larger than 60" in diameter shall have 3" x 1" corrugations.

Polyethylene culverts between 3" to 10" in diameter shall meet the requirements of AASHTO M-252-851. Polyethylene culverts between 10" to 36" in diameter shall be double walled and meet the requirements of AASHTO M-294-901, Type S.

The STATE Representative shall determine final culvert locations and stake the locations in the field prior to installation.

## EXHIBIT "C"

### CULVERT SPECIFICATIONS

All culvert materials shall be furnished and installed by PURCHASER, unless otherwise specified in the contract. Culverts shall be constructed of corrugated, double-walled polyethylene, unless use of other culvert materials with an equivalent life expectancy is approved in writing by STATE. Pipe and fittings shall be made of polyethylene compounds which meet or exceed the requirements of Type III, Category 4 or 5, Grade P33 or P34, Class C per ASTM D-1248 with the applicable requirements defined in ASTM D-1248. Double-walled polyethylene pipe shall meet the requirements of AASHTO M-294-901, Type S. Clean, reworked material may be used.

Culverts shall be located according to the alignment and grade as shown on the Plan and Profile, and/or as staked in the field, or as stipulated in special instructions.

The STATE Representative shall determine final culvert locations and stake the locations in the field prior to installation.

The foundation and trench walls for all culverts shall be free from logs, stumps, limbs, stones over 3 inches, and other objects which would dent or damage the pipe during installation or use. If tamping is required, the trench shall be excavated wide enough to permit working on each side of pipe. Bedrock shall be excavated as required to provide a uniform foundation for the full length of the culvert.

A bedding of granulated material or job-excavated soil shall be placed to provide a wide band of support and to transmit the load from above evenly over the entire length of the pipe.

Transporting of the pipe shall be done carefully. Dragging or allowing free fall from trucks or into trenches shall not be permitted. Damage to bituminous coating shall be repaired before the pipe is covered.

Joints shall be made with split couplings, corrugated to engage the pipe corrugations, and shall engage a minimum of 4 corrugations, 2 on each side of the pipe joint.

Backfill shall consist of granulated material or job-excavated soil free of stumps, limbs, rocks, or other objects which would damage the pipe.

Tamping shall be done in 8-inch lifts, 1 pipe diameter each side of the pipe to 85 percent density or over, and to the minimum fill height as specified below. Additional fill shall be embankment material.

A manufacturer's certification that the product was manufactured, tested, and supplied in accordance with this specification shall be furnished to the Project Engineer upon request.

EXHIBIT "C"

CULVERT SPECIFICATIONS

Minimum height of cover over top of culvert to subgrade when road is to be rocked shall be 12 inches for polyethylene culverts (add 6" for roads which will not be rocked). Minimum vertical cover for other steel or aluminum designs shall be as specified by STATE.

Lengths of individual culvert sections shall be not less than 10 feet, unless otherwise provided for in special instructions.

The ends of each culvert shall be free of logs and debris which would restrict the free flow of water. Culverts in Type F streams must allow free passage of fish as provided in the Oregon Forest Practice Rules. The intake end of relief culverts shall be provided with a sediment catching basin 3 feet in diameter at the bottom. The outlet end of any culvert which would allow water to erode embankment soil into waters of the State shall be provided with a downspout or other approved slope protection device.

This specification applies to high density polyethylene corrugated pipe with an integrally formed smooth interior.

This specification is applicable to nominal sizes 4- to 36-inch diameter. Requirements for test methods, dimensions, and markings are those found in AASHTO Designations M-252 and M-294-901, Type S.

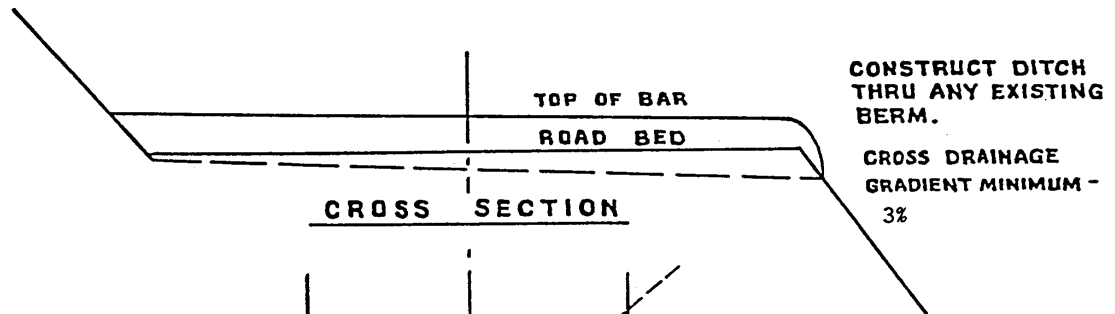
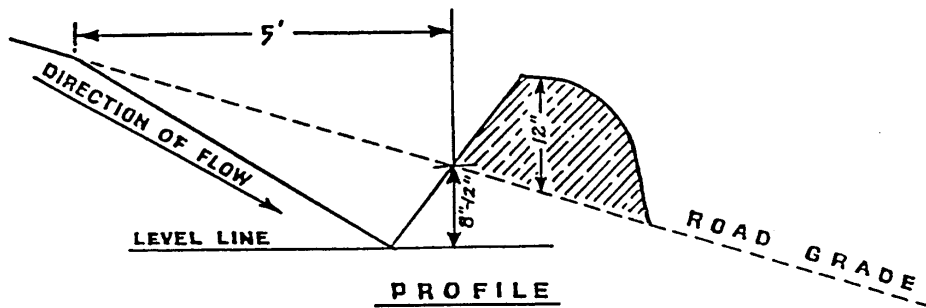
EXHIBIT "C"  
CULVERT LIST

CULVERT NO.	DIAMETER (Inches)	LENGTH (Feet)	ROAD SEGMENT POINT TO POINT	STATION
1	18"	30'	A to B	0+00
2	18"	40'	A to B	0+00
3	28"	35'	C to D (New)	0+00
4	18"	35'	C to D (New)	9+37
5	18"	35'	C to D (New)	12+77
6	18"	35'	C to D (New)	17+58
7	18"	35"	C to D (New)	20+75
8	42"	35'	C to D (New)	21+92
9	18"	35'	C to D (Old)	-126' from 0+00

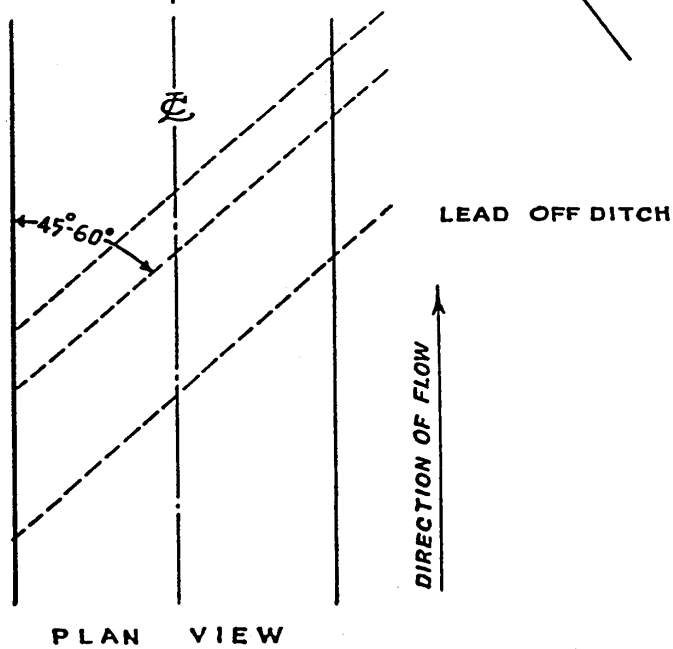
- (1) The intake ends of culverts shall be marked by driving or placing steel posts within 6 inches of the downgrade side. Posts shall be painted with a rust-resistant paint and be a minimum of 5 feet long, with the spade driven 2 feet into the ground.
- (2) Culverts 36 inches in diameter or larger shall have 1:1 beveled inlets.
- (3) Tamping is required.
- (4) All metal culverts scheduled for replacement shall become property of PURCHASER and be removed from State land.
- (5) Half rounds shall be installed within 72 hours of culvert installation, unless otherwise approved in writing by STATE.

EXHIBIT "D"

WATERBAR SPECIFICATIONS

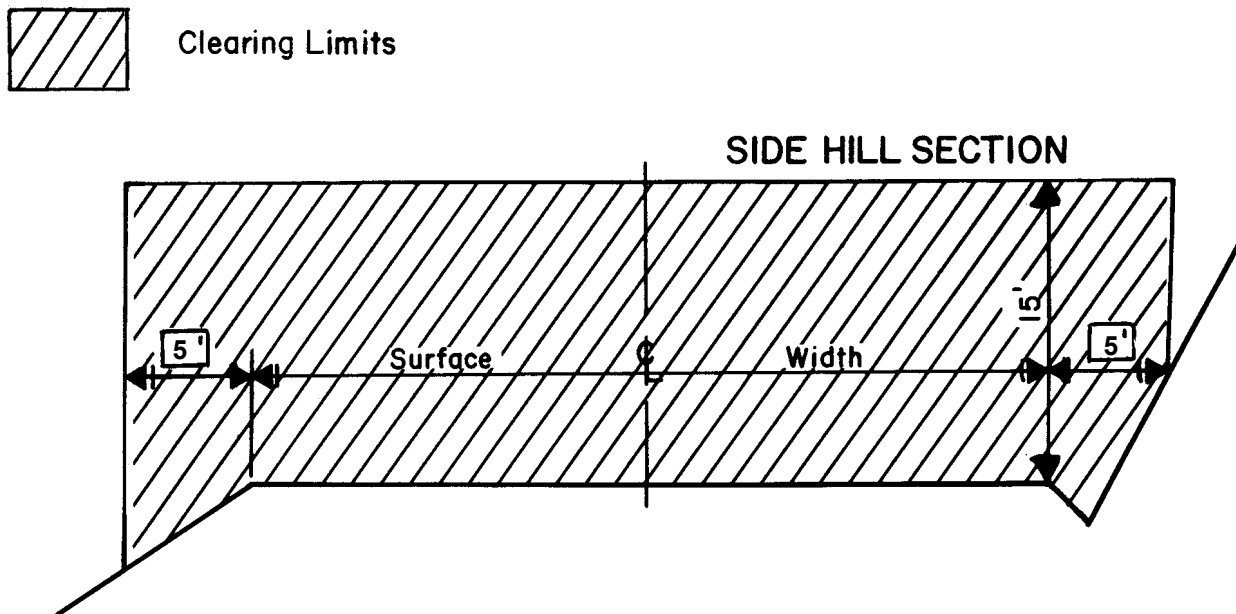


SPACING OF WATERBARS	
ROAD GRADE	DISTANCE
≤ 5%	300'
6-10%	200'
11-15%	150'
16-20% or greater	100'



WATERBAR SPECIFICATIONS  
 FOR CROSS DITCHING #298

EXHIBIT "E"  
ROAD BRUSHING SPECIFICATIONS



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.



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: Southwest Oregon-08 Phone 541-474-3152

\_\_\_\_\_  
(State Forestry District)  
Address 5375 Monument Drive, Grants Pass  
OR 97526

(4) PURCHASER: \_\_\_\_\_  
Address \_\_\_\_\_

State Forester's Representative

(12) SALE NAME Xroad Combo

COUNTY Douglas

(13) STATE CONTRACT NUMBER 341-05-52

(14) SCALE: westside ☒ eastside ☐ cubic foot ☐

(15) STATE BRAND REGISTRATION NUMBER \_\_\_\_\_

(16) BUREAU BRAND CODE NUMBER \_\_\_\_\_

(17) STATE BRAND INFORMATION:

(COMPLETE) 

(5) MINIMUM SCALING SPECIFICATIONS			CLASS		
SPECIES	SCALING DIAMETER INCHES	*NET SCALE VOLUME	PER MBF	** SUM	SUB
Conifers	--	10	X		
Hardwoods	--	10	X		

\* Apply minimum volume test to whole logs over 40' Westside; 20' Eastside.  
\*\* Sum (if indicated): see instructions and explain in Item (20).

(6) WESTSIDE SCALE: YES ☒ NO ☐  
Actual taper all logs over 40' scaling length

(7) EASTSIDE SCALE: ☐ ☒  
\*Actual taper butt logs over 40' scaling length

(8) PENCIL BUCK ☐ ☒  
back to Minimum Scaling Diameter \_\_\_\_\_

(9) ADD-BACK VOLUME -- ☒ ☐  
Deductions due to delay

(18) PAINT REQUIRED: YES ☒  
COLOR Orange

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

(10) APPROVED SCALING LOCATIONS	Species	Yard	Truck

(20) REMARKS: Loads consisting of only hardwood logs shall be verified by species and be scaled by the load at 2.5 MBF per load.

Operator's Name (Optional inclusion by District): \_\_\_\_\_

(21) SIGNATURES:

(11) NOTICE OF CANCELLATION OF BRAND:  
Effective Date: \_\_\_\_\_

Purchaser or Authorized Representative \_\_\_\_\_ Date \_\_\_\_\_

State Forester Representative \_\_\_\_\_ Date \_\_\_\_\_

## EXHIBIT "F"

## 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.