

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 128+55	3-foot ditch
14 feet	--	B to C	0+00 to 28+20	2-foot ditch
14 feet	--	C to F	0+00 to 26+15	Outslope
14 feet	--	D to E	0+00 to 14+25	Outslope
14 feet	--	F to G	0+00 to 12+10	Outslope
14 feet	--	L to M	0+00 to 3+50	Outslope
14 feet	--	M to Q	0+00 to 16+00	Outslope
14 feet	--	O to P	0+00 to 5+00	Outslope
14 feet	12 feet	R to S	0+00 to 3+00	Outslope
14 feet	12 feet	T to U	0+00 to 7+50	Outslope
14 feet	12 feet	V to W	0+00 to 15+00	Outslope
14 feet	--	X to Y	0+00 to 3+30	Outslope

**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:

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.

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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 according to the specifications in Exhibit B.

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

Ditch. 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 at least 25 feet, or as staked on the ground, plus 25-foot approaches at each end.

Location: Intervisible but not greater than 750 feet.

GRADING

Rock  
Common - side slopes 50% and over  
Common - side slopes less than 50%  
Common - turnpike (level) section

Back Slopes  
Vertical to 1/4:1  
1/2:1  
3/4:1  
2:1

Fill Slopes  
Not steeper  
than 1½:1

Top of cutslope shall be rounded.

EXHIBIT "B"

SPECIAL INSTRUCTIONS FOR ROAD IMPROVEMENT

Point A to Point B:

Prepare road surface for spot rocking by ripping potholes and smoothing surface. Spot rock where applicable and process with a grader.

Point B to Point C:

Slough material shall be removed from the cutbank side and placed in the roadway. Material from Point H shall be disposed of on the roadway throughout this segment. This material shall be used to cover the rough areas and to gain adequate width where needed. The final grade will be achieved by grading.

Point C:

In order to improve the intersection at this point, the 8100 Road shall be cut down with a Cat and the material used to build up the approach at the beginning of the spur to achieve an adequate grade. To achieve proper vertical alignment, the 8100 Road shall be cut down both north and south of the approach to the spur.

Point C to Point F:

Material shall be excavated from the cutbank side to be used in the road prism. It may be necessary to pull material in from the opposite side of the road as well to acquire sufficient material to fill in large depressions and smooth the road surface.

Point D to Point E:

Small alder trees and brush shall be removed. The outside edge of the road has slumped in the first 900 feet of the road. Drilling and shooting will be required to gain adequate road width by going into the bank. Material shall be moved with a Cat to the beginning of this spur to be wasted. The remaining portion of the spur shall be improved by clearing the brush growing in the roadway and smoothing the road surface with a Cat.

Point F to Point G:

A Cat shall be used to excavate into the cutbank and drift material along the roadbed in order to achieve a smooth surface. Drilling and shooting will be required to gain adequate road width.

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LOW WATER CROSSING SPECIFICATIONS

Point H:

This low water crossing is located on the 8100 Road. To improve the vertical alignment of the crossing, approximately 200 cubic yards of material shall be excavated from the 8100 Road. This yardage represents a combined total from both sides of the crossing. The area to be excavated is about 80 feet on each side of the crossing. The cut depth shall not exceed 3 feet. Material from the excavation shall be distributed in the 8100 Road between Points B and C to improve drainage and smooth the road surface. The road gradient on each side of the crossing shall not exceed 8 percent. Both approaches shall be rocked with a total of 40 cubic yards of 2½"-0" crushed quarry rock.

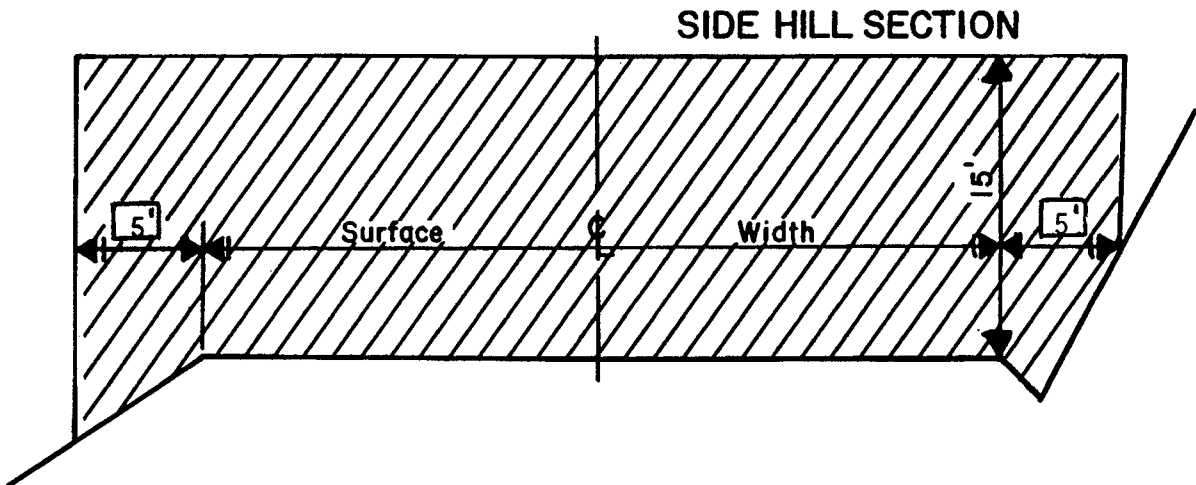
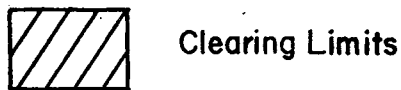
Point I:

This river crossing is located within the West Fork Millicoma River. It is an existing crossing consisting of a concrete structure over the top of a culvert. The streambed on both sides of the structure consists of solid bedrock. Work shall only be done on the approaches to the crossing. Excess material deposited during high flows shall be removed from the approach on the right bank of the river. Material taken from this approach shall be distributed in the roadway adjacent to the approach to improve drainage and alignment. The approach on the left bank shall be improved by smoothing the road surface and cutting down the road near the top of the bank to facilitate a more suitable gradient. Cut depth shall not exceed 18 inches. Road gradient along both approaches shall not exceed 10 percent. The approaches to the crossing shall be rocked with a total of 100 cubic yards of 2½"-0" crushed quarry rock.

Point J:

This low water crossing is a small stream crossing located on privately owned property. To minimize impact to the stream banks, a 12" x 20' culvert shall be placed in the streambed and backfilled to a height not to exceed 3 feet. This will allow for a 12-foot running surface and a smooth transitional vertical curve. No excavation into the stream banks shall be permitted other than to remove vegetation that impairs road use or to smooth the road surface with a grader. Upon completion of hauling logs over this portion of road, all of the fill material shall be removed from the streambed and hauled to the road segment between Points C and D where it will be spread onto the road surface. The culvert shall be removed and placed at an accessible location along the 8100 Road as directed by STATE.

EXHIBIT "B"  
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 "B"  
END-HAULING REQUIREMENTS

POINT TO POINT	CONTAINMENT	WASTE AREA TREATMENT
L to M	1	1
V to W	2	2

End-Haul Areas General Requirements

Material shall not be intentionally sidecast.

Clearing and grubbing debris shall be end-hauled.

When blasting is required, it shall be accomplished using timing devices, delayed charges, low intensity shots, or other suitable means to contain as much material as possible within the road prism.

Containment

- (1) Full containment: The amount of material lost over the outside edge of the road shall not exceed 6 inches in depth measured perpendicular to the natural ground slope. Pioneer excavation shall be removed by digging, loading, and hauling rather than by pushing or scraping methods.
- (2) Average containment: The amount of material lost over the outside edge of the road shall not exceed 12 inches in depth measured perpendicular to the natural ground slope.

Trees and stumps may have up to 12 inches of material directly above them. Any amount of material exceeding the containment requirements shall be removed by whatever means necessary and end-hauled to a designated waste area.

Waste Area Location

As shown on Exhibit A and as marked in the field.

Waste Area Treatment

- (1) Deposit at waste area, spread evenly, compact, and provide adequate drainage.
- (2) Pile woody debris separate from other waste material.

EXHIBIT "C"  
 ROAD SURFACING

TYPE OF ROCK	SIZE OF ROCK	VOLUME PER STATION	POINT TO POINT	TOTAL VOLUME
Hard Crushed Quarry	2½"-0"	12 CY	R to S	45 CY
Hard Crushed Quarry	2½"-0"	12 CY	T to U	88 CY
Hard Crushed Quarry	2½"-0"	12 CY	V to W	180 CY
<b>SPOT ROCKING:</b>				
Hard Crushed Quarry	1½"-0"	200 CY	A to B	200 CY
<b>LOW WATER CROSSINGS:</b>			<b>POINT</b>	
Hard Crushed Quarry	2½"-0"	40 CY	H	40 CY
Hard Crushed Quarry	2½"-0"	100 CY	I	100 CY
Hard Crushed Quarry	2½"-0"	20 CY	J	20 CY

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

**Materials.** The material shall be fragments of rock or other hard, durable particles crushed to the required size and a filler of finely crushed stone, sand, or other finely divided mineral matter. The material shall be free from vegetation and lumps of clay.

**Quality and Grading Requirements.** The stone base materials shall be crushed rock, including sand. River gravel shall not be used.

The material from which base material is produced or manufactured shall conform to the general requirements of Section 2630 of the "Standard Specifications for Highway Construction" prepared by the Highway Division, Oregon Department of Transportation, and shall meet the following test requirements:

Hardness - Test Method AASHTO T 96 35% Maximum

Durability - Test Method ODOT TM 208  
 Passing No. 20 Sieve: 30% Maximum  
 Sediment Height: 6" Maximum

EXHIBIT "C"

CRUSHED ROCK SPECIFICATIONS

Grading Requirements

<u>For 1½"-0"</u>	Passing	2" sieve retained on 1½" sieve	0-10%
	Passing	1½" sieve retained on ¾" sieve	10-50%
	Passing	¾" sieve retained on ¼" sieve	20-60%
	Passing	¼" sieve	10-30%
<u>For 2½"-0"</u>	Passing	3" sieve retained on 2½" sieve	0-10%
	Passing	2½" sieve retained on 1½" sieve	30-60%
	Passing	1½" sieve	24-40%

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

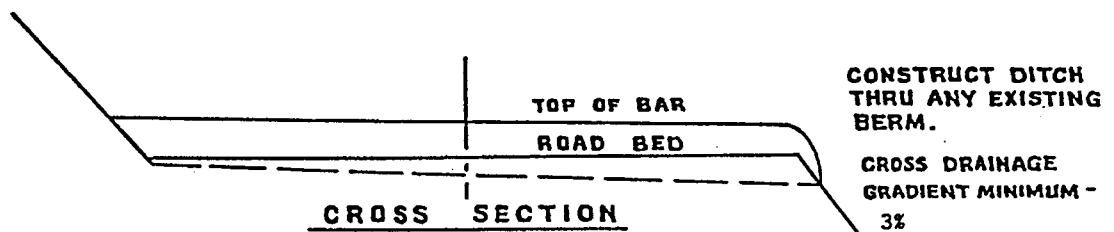
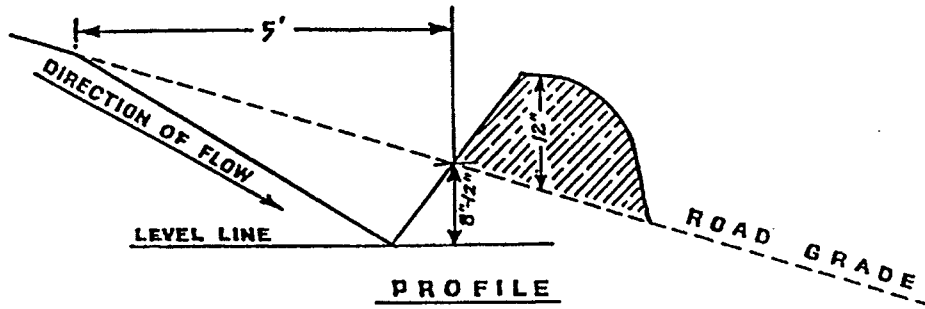
Load Records. Notify STATE before spreading the rock and maintain a record of all rock delivered for spreading. Make the record available for STATE inspection. A report listing the amount of rock delivered the prior month must be submitted no later than the 15th of each month.

COMPACTION EQUIPMENT OPTIONS

Rock Trucks. Rock spreading shall begin at the nearest point to the rock source and progress toward the end of the project. Rock trucks shall be routed over the entire cross section of rock layers.

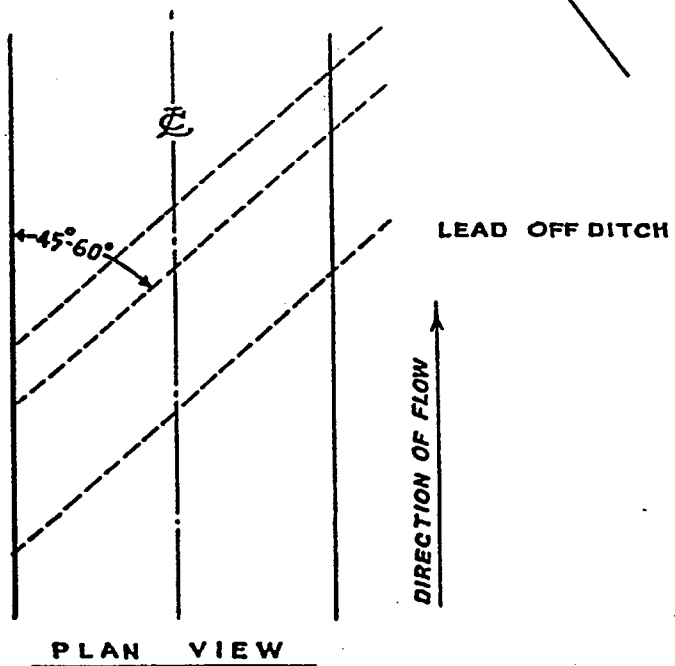


EXHIBIT "D"  
 WATERBAR SPECIFICATIONS



**SPACING OF WATERBARS**

ROAD GRADE	DISTANCE
≤ 5%	200'
6-10%	150'
11-15%	100'
16-20% or greater	75'



**WATERBAR SPECIFICATIONS  
 FOR CROSS DITCHING #298**

EXHIBIT "E"

SPECIFICATIONS FOR GROUP SELECTION AREAS

Group Selection Areas are not posted. A total of 10 acres of Group Selection Areas averaging between ½ acre and 1 acre in size shall be created by thinning more heavily than the thinning prescription for the Area as specified in Section 58 of the contract, or by creating ½ acre to 1 acre clearings. Proposed locations of the Group Selection Areas shall be inspected and approved by STATE. Group Selection Areas shall meet the specifications in the table below. If disease pockets are discovered, the specifications may be modified with prior STATE approval.

AREA	GROUP SELECTION ACREAGE	PRESCRIPTION
I	.5	Retain 12 largest Douglas-firs plus other conifer species
I	.5	Retain 12 largest Douglas-firs plus other conifer species
III	1.0	Remove all alder. Retain any scattered or lone conifer species.
IV	1.0	Remove all alder. Retain any scattered or lone conifer species.
IV	1.0	Remove all alder. Retain any scattered or lone conifer species.
IV	1.0	Remove all alder. Retain any scattered or lone conifer species.
IV	1.0	Remove all alder. Retain any scattered or lone conifer species.
V	1.0	Remove all alder. Retain any scattered or lone conifer species.
V	.5	Remove all alder. Retain any scattered or lone conifer species.
VI	1.0	Remove all alder. Retain any scattered or lone conifer species.
VI	1.0	Remove all alder. Retain any scattered or lone conifer species.
VII	.5	Remove all alder. Retain any scattered or lone conifer species.

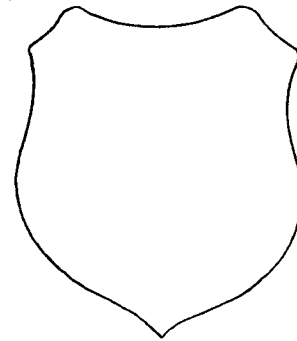
**EXHIBIT "F"**  
**OREGON DEPARTMENT OF FORESTRY**

**SCALING INSTRUCTIONS -- LOCATION APPROVAL -- BRAND INFORMATION**

- (1) ORIGINAL REGISTRATION  Date \_\_\_\_\_  
 REVISION NUMBER \_\_\_\_\_  Date \_\_\_\_\_  
 CANCELLATION  Date \_\_\_\_\_
- (2) TO: \_\_\_\_\_  
 (Third Party Scaling Organization)
- (3) FROM: Coos Phone (541) 267-4136  
 (State Forestry District)  
 Address 63612 Fifth Road, Coos Bay, OR 97420
- (4) PURCHASER: \_\_\_\_\_  
 Address \_\_\_\_\_

- (12) SALE NAME Central Elliott Thin  
 COUNTY Coos/Douglas
- (13) STATE CONTRACT NUMBER 341-02-32
- (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 (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 \_\_\_\_\_
- (9) ADD-BACK VOLUME -- YES NO  
 Deductions due to delay

- (18) PAINT REQUIRED: YES   
 COLOR Orange

(10) APPROVED SCALING LOCATIONS	Species	Yard	Truck

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

- (20) REMARKS: STATE may approve accounting for hardwoods by the load in lieu of scaling.
- \_\_\_\_\_
- \_\_\_\_\_

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

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

- (21) SIGNATURES:

\_\_\_\_\_  
 State Forester's Representative

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

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

## 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.