

PART III: EXHIBITS

State Timber Sale Contract
No. 341-06-01
Ellmaker Overlook

EXHIBIT B

Page 1 of 3
629-Form 341-203
Revised 06/97

OREGON DEPARTMENT OF FORESTRY

TIMBER SALE OPERATIONS PLAN

(See Page 2 for instructions)



Date Received by STATE: _____

(5) State Brand Information (complete):

(1) Contract No.: 341-06-01

(2) Sale Name: Ellmaker Overlook

(3) Contract Expiration Date: December 31, 2007

Project Completion Dates: _____

(4) Purchaser: _____

(6) Purchaser Representatives:

Projects: _____

Phone: _____

Cell/Other

Phone: _____

Home: _____

Projects: _____

Phone: _____

Cell/Other

Phone: _____

Home: _____

Projects: _____

Phone: _____

Cell/Other

Phone: _____

Home: _____

Projects: _____

Phone: _____

Cell/Other

Phone: _____

Home: _____

Logging: _____

Phone: _____

Cell/Other

Phone: _____

Home: _____

Logging: _____

Phone: _____

Cell/Other

Phone: _____

Home: _____

Logging: _____

Phone: _____

Cell/Other

Phone: _____

Home: _____

Logging: _____

Phone: _____

Cell/Other

Phone: _____

Home: _____

(7) State Representatives:

Projects: _____

Phone: _____

Cell/Other

Phone: _____

Home: _____

Logging: _____

Phone: _____

Cell/Other

Phone: _____

Home: _____

(8) Name of Subcontractors & Starting Dates:

Projects: No(s) _____ - _____

Date: _____

Phone: _____

No(s) _____ - _____

Date: _____

Phone: _____

No(s) _____ - _____

Date: _____

Phone: _____

No(s) _____ - _____

Date: _____

Phone: _____

Logging: Felling _____

Date: _____

Phone: _____

Yarding: _____

Date: _____

Phone: _____

(9) Comments:

(10) Operations Map: Attach a copy of timber sale Exhibit A or other suitable map which plainly shows the items listed on the instruction sheet.

EXHIBIT B

INSTRUCTION SHEET FOR OPERATIONS PLAN

SUBMIT ONE COPY OF PLAN TO STATE

Operations shall be limited to the work shown in the plan until a revised plan or supplemental plan is submitted covering additional work. Compliance with this plan is not in lieu of compliance with any federal requirements related to the federal Endangered Species Act. If STATE has prepared a required Forest Practices Act (FPA) "Written Plan" for operations, PURCHASER shall comply with all provisions of the Written Plan.

Item No. (from Page 1)

- (5) All sales require you to use a brand furnished by STATE. If the State brand has not been assigned when the plan is submitted, it will be furnished and assigned later. Complete drawing. If more than one brand is assigned to the sale, complete both drawings.
- (6) The contract requires you to have a designated representative available on the sale area or work location who is authorized to receive in your behalf any notice or instruction given by STATE and to take action in regard to performance under the contract. If logging and project work is widely separated, a representative is required for each.
- (7) The STATE representative will be designated when your plan is approved and is the person who will inspect and issue instructions regarding performance.
- (8) Show names of subcontractors to be used for any or all phases of the operations. If subcontractors are not known, or are changed later, give notification to the STATE representative prior to commencement of work by subcontractor.

Show projected dates for commencement of both projects and logging. If projected dates need to be changed at a later date, notification must be given to the STATE representative by supplemental plan or otherwise, prior to commencement of such operations.

- (10) The STATE representative will furnish extra copies of Exhibit A of the contract for your use in preparing the operations map. The map shall use the following legend and show:
 1. Landing locations, approximate setting boundaries, and probable sequence of logging the settings. Number the settings in sequence.
 2. Locations of spur roads planned for construction, other than those required by the timber sale contract. Provide spur road specifications.
 3. Location of proposed tractor yarding roads. Show if and how marked on the ground.
 4. Location of temporary stream crossings.
 5. List the sequence of performing project work.
 6. Location of rock sources - attach pit development plans.



Cable landing, with numbers for sequence.



Tractor landing with alphabetical sequence.



Approximate setting boundary.



Spur truck roads.



Tractor yarding roads.



Temporary stream crossings.

EXHIBIT B
OPERATIONS PLAN

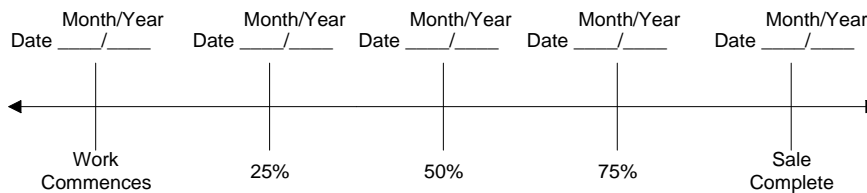
Completion Timeline

Indicate on the appropriate timeline below, the dates by which you plan to complete the work as required under this contract. The purpose of this section is to develop a plan that will ensure you complete the work as required, and meet the interim completion date(s) and contract expiration date. This plan is incorporated and made a part of the contract. When, in the opinion of STATE, operations are not commencing in a manner that meets the intent of this plan, you may be placed in violation of contract and your operations suspended until an amended plan is submitted and approved by STATE.

Projects



Harvest & Other Requirements



The Federal Endangered Species Act (ESA) prohibits a person from taking any federally listed threatened or endangered species. Taking under the federal ESA may include alteration of habitat. STATE's approval of this plan does not certify that PURCHASER's operation under the plan is lawful under the federal ESA. As provided in the timber sale contract, PURCHASERS must comply with all applicable state, federal, and local laws.

PURCHASER's compliance with this plan is not in lieu of compliance with any federal requirements related to the federal Endangered Species Act.

APPROVED: Date: _____

SUBMITTED BY:
PURCHASER

STATE OF OREGON - DEPARTMENT OF FORESTRY

Title _____

Title _____

Original: Salem
cc: District File
Purchaser

EXHIBIT C

SCALING INSTRUCTIONS -- LOCATION APPROVAL -- BRAND INFORMATION

(1) ORIGINAL REGISTRATION ☐ Date _____
REVISION NUMBER _____ ☐ Date _____
CANCELLATION ☐ Date _____

(2) TO: _____
(Third Party Scaling Organization)

(3) FROM: West Oregon (01) Phone (541) 929-3266
(State Forestry District)
Address 24553 Alsea Hwy., Philomath, OR 97370

(4) PURCHASER: _____
Address _____

(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

(10) APPROVED SCALING LOCATIONS	Species	Yard	Truck

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

State Forester's Representative

(12) SALE NAME Ellmaker Overlook
COUNTY Lincoln

(13) STATE CONTRACT NUMBER 341-06-01

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

(15) STATE BRAND REGISTRATION NUMBER _____

(16) BUREAU BRAND CODE NUMBER _____

(17) STATE BRAND INFORMATION:

(COMPLETE) 

(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: _____

(20) REMARKS: _____

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

(21) SIGNATURES:

Purchaser or Authorized Representative Date

State Forester Representative Date

Notify the District within one hour when branding or painting is inadequate for quick identification, the receipts are missing, not correctly or completely filled out, and/or when logs presented for scaling are impossible to scale accurately.

Distribution: ORIGINAL: Salem / COPIES: TPSO (4), Purchaser, Operator, District, Mgmt. Unit

EXHIBIT C

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 2040 or 2045, "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 subspecies 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.

EXHIBIT D
FOREST ROAD SPECIFICATIONS

SUBGRADE WIDTH	SURFACED WIDTH	POINT TO POINT	STATION TO STATION	DRAINAGE
14 feet	12 feet	A to A1	0+00 to 77+50	No Ditch
14 feet	12 feet	A2 to A3	0+00 to 12+70	No Ditch
14 feet	12 feet	A4 to A5	0+00 to 4+80	No Ditch
16 feet	12 feet	A6 to A7	0+00 to 16+20	Ditch
14 feet	----	A8 to A9	0+00 to 20+80	No Ditch
14 feet	12 feet	B to B1	0+00 to 56+70	No Ditch
12 feet	10 feet	C to C1	0+00 to 45+85	No Ditch
14 feet	12 feet	C to C1	45+85 to 55+70	No Ditch
16 feet	12 feet	C2 to C3	0+00 to 18+50	Ditch
14 feet	12 feet	D to D1	0+00 to 77+20	Ditch
14 feet	12 feet	D2 to D3	0+00 to 20+00	No Ditch
14 feet	----	D4 to D5	0+00 to 9+40	No Ditch
14 feet	----	D6 to D7	0+00 to 6+00	No Ditch
14 feet	12 feet	E to E1	0+00 to 52+80	Ditch
14 feet	----	E1 to E8	0+00 to 14+80	No Ditch
14 feet	12 feet	E2 to E3	0+00 to 5+90	No Ditch
14 feet	----	E4 to E5	0+00 to 2+70	No Ditch
14 feet	----	E6 to E7	0+00 to 3+50	No Ditch
14 feet	12 feet	E9 to E10	0+00 to 1+50	No Ditch
14 feet	12 feet	F to F1	0+00 to 91+40	Ditch
14 feet	12 feet	F1 to F9	0+00 to 30+20	No Ditch
14 feet	12 feet	F2 to F3	0+00 to 36+70	Ditch
14 feet	12 feet	F4 to F6	0+00 to 14+00	No Ditch
14 feet	12 feet	F5 to F7	0+00 to 6+50	No Ditch
14 feet	12 feet	F8 to F12	0+00 to 6+20	No Ditch
14 feet	12 feet	F10 to F11	0+00 to 3+00	No Ditch
14 feet	12 feet	G to G1	0+00 to 116+20	Ditch
14 feet	----	G2 to G3	0+00 to 19+50	No Ditch

EXHIBIT D
FOREST ROAD SPECIFICATIONS

SUBGRADE WIDTH	SURFACED WIDTH	POINT TO POINT	STATION TO STATION	DRAINAGE
14 feet	12 feet	H to H1	0+00 to 107+20	No Ditch
14 feet	12 feet	H2 to H3	0+00 to 62+00	No Ditch
14 feet	12 feet	H4 to H5	0+00 to 1+90	No Ditch
14 feet	12 feet	H6 to H7	0+00 to 3+90	No Ditch
14 feet	12 feet	H8 to H9	0+00 to 14+60	No Ditch
14 feet	12 feet	I to I1	0+00 to 13+40	No Ditch
14 feet	----	I1 to I2	0+00 to 25+80	No Ditch
14 feet	----	I3 to I4	0+00 to 5+80	No 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.

All clearing limits shall be marked by STATE with R/W tags and fluorescent pink flagging. 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, improvements, and re-constructions – 5 feet back from the top of the cutslope and 5 feet out from the toe of the fill.

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 D
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 E.

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 landslide hazard location 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. Construct ditchouts away from subgrade at locations marked in the field.

Outslope. Road subgrade shall be outsloped at 1 to 3 percent.

TURNOUTS. Increase roadbed width an additional 8 feet for both subgrade and surfacing. Length shall be at least 50 feet, or as staked on the ground, plus 25-foot approaches at each end.

Location: As marked in the field.

GRADING

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

<u>Back Slopes</u>
Vertical to 1/4:1
1/2:1
3/4:1
2:1

<u>Fill Slopes</u>
Not steeper than 1½:1

Top of cutslope shall be rounded.

LANDINGS. Landings shall be constructed to the dimensions posted in the field. 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 D
END-HAULING REQUIREMENTS

POINT TO POINT	STA. TO STA.	WASTE AREA LOCATION	WASTE AREA TREATMENT
B to B1	55+30 to 56+70	W2	1 and 2
D to D1	13+00 to 20+00	W1	1 and 2
D to D1	22+50 to 25+20	W1	1 and 2
J	--	W3	1 and 2

End-Haul Areas General Requirements

Material shall not be intentionally side cast.

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

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.

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 E
ROAD SURFACING

POINT TO POINT	STATION TO STATION	TYPE OF ROCK	ROCK SIZE	COMPACTED DEPTH	VOLUME PER STA.	APPROX. TOTAL VOLUME
A to A1	0+00 to 77+50	Crushed	1½ - 0"	4"	22 CY	1694 CY
A2 to A3	0+00 to 12+70	Crushed	2½ - 0"	4"	22 CY	279 CY
A4 to A5	0+00 to 4+80	Crushed	2½ - 0"	8"	44 CY	216 CY
A6 to A7	0+00 to 16+20	Crushed	2½ - 0"	10"	56 CY	879 CY
B to B1	21+80 to 30+00	Crushed	2½ - 0"	8"	44 CY	360 CY
C to C1	19+50 to 45+85	Crushed	2½ - 0"	6"	28 CY	739 CY
C to C1	45+85 to 55+70	Crushed	1½ - 0"	6"	33 CY	323 CY
C2 to C3	0+00 to 18+50	Crushed	2½ - 0"	10"	56 CY	1008 CY
D to D1	0+00 to 77+20	Crushed	1½ - 0"	4"	22 CY	1687 CY
E to E1	0+00 to 52+80	Crushed	1½ - 0"	4"	22 CY	1162 CY
E2 to E3	0+00 to 5+90	Crushed	2½ - 0"	8"	44 CY	270 CY
F to F1	37+00 to 91+40	Crushed	1½ - 0"	4"	22 CY	1267 CY
		TURNOUTS:			NO. OF TURNOUTS	
A to A1	0+00 to 77+50	Turnout Rock	2½ - 0"	--	5	135 CY
A2 to A3	0+00 to 12+70	Turnout Rock	2½ - 0"	--	1	27 CY
A6 to A7	0+00 to 16+20	Turnout Rock	2½ - 0"	--	1	27 CY
C to C1	0+00 to 55+70	Turnout Rock	2½ - 0"	--	3	81 CY
C2 to C3	0+00 to 18+50	Turnout Rock	2½ - 0"	--	3	81 CY
D to D1	0+00 to 77+20	Turnout Rock	2½ - 0"	--	9	243 CY
E to E1	0+00 to 52+80	Turnout Rock	2½ - 0"	--	4	108 CY
F to F1	37+00 to 91+40	Turnout Rock	2½ - 0"	--	3	81 CY
	LOCATION	LANDINGS:		VOL. PER LANDING	NO. OF LDGS.	
A6 to A7	Point A7	Crushed	Jaw-Run	36 CY/LNG	1	36 CY
C2 to C3	Point C3	Crushed	Jaw-Run	36 CY/LNG	1	36 CY
D to D1	Point D1	Crushed	Jaw-Run	36 CY/LNG	1	36 CY
E2 to E3	Point E3	Crushed	Jaw-Run	36 CY/LNG	1	36 CY
		MISCELLANEOUS:				
A to A1	0+00 to 77+50	Curve Widening	1½ - 0"	--	--	196 CY
A2 to A3	0+00 to 12+70	Curve Widening	2½ - 0"	--	--	27 CY
A2 to A3	10+75	Turnaround Rock	2½ - 0"	--	--	27 CY
A2 to A3	0+00	Fillet Rock	2½ - 0"	--	--	18 CY
A6 to A7	0+00 to 16+20	Curve Widening	2½ - 0"	--	--	111 CY
A6 to A7	0+00	Fillet Rock	2½ - 0"	--	--	18 CY

EXHIBIT E

ROAD SURFACING

POINT TO POINT	LOCATION	TYPE OF ROCK	ROCK SIZE	VOL. PER LANDING	NO. OF LDGS.	APPROX. TOTAL VOLUME
		MISCELLANEOUS:				
A6 to A7	9+90	Turnaround Rock	2½ - 0"	--	--	36 CY
C to C1	19+50 to 45+85	Curve Widening	2½ - 0"	--	--	71 CY
C to C1	45+85 to 55+70	Curve Widening	1½ - 0"	--	--	37 CY
C to C1	0+00	Fillet Rock	1½ - 0"	--	--	18 CY
C2 to C3	0+00 to 18+50	Curve Widening	2½ - 0"	--	--	126 CY
C2 to C3	0+00	Fillet Rock	2½ - 0"	--	--	18 CY
D to D1	0+00 to 77+20	Curve Widening	1½ - 0"	--	--	185 CY
D to D1	0+00	Fillet Rock	1½ - 0"	--	--	18 CY
E to E1	0+00 to 52+80	Curve Widening	1½ - 0"	--	--	116 CY
E to E1	0+00	Fillet Rock	1½ - 0"	--	--	18 CY
F to F1	37+00 to 91+40	Curve Widening	1½ - 0"	--	--	137 CY
F to F1	37+00	Fillet Rock	1½ - 0"	--	--	18 CY
F to F1	0+00 to 37+00	Spot Rock	1½ - 0"	--	--	54 CY
F2 to F3	0+00 to 36+70	Spot Rock	1½ - 0"	--	--	18 CY
G to G1	0+00 to 116+20	Spot Rock	1½ - 0"	--	--	54 CY
Point J	Culvert # 6	Base Rock	2½ - 0"	--	--	36 CY
Point J	Culvert # 6	Surface Rock	1½ - 0"	--	--	27 CY
Point J	Culvert # 6	Bedding Rock	1½ - 0"	--	--	27 CY
Point J	Culvert # 6	Armoring Rock	24-0"	--	--	36 CY
POST HARVEST:						
A to A1	0+00 to 77+50	Landing Patch Rock	1½ - 0"	9 CY	3	27 CY
A2 to A3	0+00 to 12+70	Landing Patch Rock	2½ - 0"	9 CY	2	18 CY
C2 to C3	Point C3	Turnaround Rock	2½ - 0"	--	--	36 CY
D to D1	Point D1	Turnaround Rock	2½ - 0"	--	--	36 CY
E to E1	Point E1	Turnaround Rock	2½ - 0"	--	--	36 CY
E to E1	0+00 to 52+80	Landing Patch Rock	1½ - 0"	9 CY	11	99 CY
E2 to E3	Point E3	Turnaround Rock	2½ - 0"	--	--	36 CY
F to F1	0+00 to 91+40	Landing Patch Rock	1½ - 0"	9 CY	4	36 CY
F1 to F9	Point F9	Turnaround Rock	2½ - 0"	--	--	36 CY
F2 to F3	0+00 to 36+70	Landing Patch Rock	1½ - 0"	9 CY	2	18 CY
F4 to F6	0+00 to 14+00	Landing Patch Rock	1½ - 0"	9 CY	4	36 CY
F5 to F7	0+00 to 6+50	Landing Patch Rock	1½ - 0"	9 CY	3	27 CY
--	Haul Route	Maintenance Rock	1½ - 0"	--	--	810 CY
--	Haul Route	Maintenance Rock	2½ - 0"	--	--	72 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.

Fifty (50) feet has been subtracted from the total length of rock roads for the landing rock.

Rock volumes, per road segment, are rounded to the nearest 9 or 18 CYD load.

EXHIBIT E

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 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: 3" Maximum

<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.

<u>For 2½"-0"</u>	Passing	3" sieve	100%
	Passing	2½" sieve	95-100%
	Passing	1¼" sieve	55-75%
	Passing	¼" sieve	30-45%

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

<u>For Jaw-Run</u>	Passing	6" sieve	100%
	Passing	3" sieve	45-65%
	Passing	6" sieve	65%

24"-0" Riprap 50 percent or more of the material shall measure at least 24 inches in one dimension.

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.

EXHIBIT E
ROCK ACCOUNTABILITY

The rock shall meet the quality and size specifications in Exhibit E. A copy of the rock test sheets shall be supplied to and approved by STATE prior to rocking. PURCHASER shall obtain subgrade approval from STATE prior to rocking. Rocking shall be limited to periods when weather conditions are acceptable to STATE and when sediments will not enter streams.

Rock accountability shall be determined by the following methods, as directed by STATE. 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 E. 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 E. The average depth for each road segment shall be the specified depth or greater.

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.

Curve Surfacing. Extra surface width shall be required for the inside of all curves as follows: 400 divided by the radius of the curve equals the amount of extra width to be surfaced at the depths shown in Exhibit E.

EXHIBIT E

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." At least 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:

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

ROAD SEGMENT	COMPACTION EQUIPMENT OPTIONS
A6 to A7, B to B1 Station 21+80 to 30+00, C2 to C3, and E2 to E3	1
Point J	1

Fills. Embankments and fills shall be placed in (approximately) horizontal layers not more than 8 inches in depth. Each layer shall be separately, and thoroughly, compacted. Compaction equipment shall be operated over the entire width of each layer until visible deformation of the layers ceases or, in the case of a sheepsfoot roller, the roller "walks out." At least 3 passes shall be made over the entire width and length of each layer. A pass is defined as traveling a fill layer in one direction and then back over that same layer again.

Placing individual rocks or boulders with more depth than the allowed layer thickness shall be permitted, provided the embankment will accommodate them. Such rocks and boulders shall be at least 6 inches below the subgrade. They shall be carefully distributed and the voids filled with finer material, forming a dense and compacted mass. Compaction shall be accomplished by using one or more of the approved equipment options listed below:

ROAD SEGMENT	COMPACTION EQUIPMENT OPTIONS
A6 to A7, C2 to C3 Sta. 1+25	2
C2 to C3 Sta. 6+70	4
D to D1	1 or 2
Point J	1 or 2

EXHIBIT E

COMPACTION AND PROCESSING REQUIREMENTS

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 one or more of the approved equipment options listed below:

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
A to A1, A2 to A3, A4 to A5, A6 to A7, B to B1 Station 21+80 to 30+00, C1 to C2, C2 to C3, D to D1, E to E1, E2 to E3, F to F1 Station 37+00 to 91+40	1 and 3
Point J	1
Maintenance and Landing Patch Rock	3
Spot Rock	3

COMPACTION EQUIPMENT OPTIONS

- (1) Vibratory Rollers. The drum shall have a smooth surface, a diameter not less than 48 inches, a width not less than 58 inches, and a turning radius of 15 feet or less. Vibration frequency shall be regulated in steps to 1400, 1500, and 1600 VPM, corresponding to engine speeds of 1575, 1690, and 1800 RPM. The centrifugal force developed shall be 7 tons at 1600 VPM. It shall be activated by a power unit of not less than 25 horsepower. The vibratory roller shall be self-propelled and operated at speeds ranging from 0.9 miles to 1.8 miles per hour, as directed by STATE.
- (2) Vibratory Hand-Operated or Backhoe-Mounted Tamper. Vibratory hand-held or hydraulic tampers shall be used for compaction of backfill materials around culverts (and/or bridge approach embankment materials around abutments). The tamper shoe dimensions shall be a minimum of 10" X 13" and capable of a centrifugal force of 2,250 pounds.
- (3) 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.
- (4) Crawler Tractors. D-7 Caterpillar or equivalent or larger.

EXHIBIT F
CULVERT SPECIFICATIONS

All culvert materials shall be furnished and installed by PURCHASER, unless otherwise specified in the Contract. Culverts shall be constructed of aluminized steel. All culverts shall conform to the material and fabricating requirements of the "Standard Specifications for Highway Construction" prepared by the Highway Division of the Oregon State Department of Transportation. Corrugation types and shapes other than those meeting the above minimum Highway requirements, shall be approved in writing by STATE.

Watertight joints with gaskets are required for all culverts 36 inches in diameter or larger. Required gasket materials shall be in accordance with the minimum requirements of the Oregon Department of Transportation Drawing RD 354, or as approved in writing by STATE.

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.

Culvert grade shall slope away from ditch grade at least the same grade as the ditch.

Culverts less than 36 inches in diameter shall be installed with the lock seam on the inlet end placed within 45 degrees of the bottom of the trench.

The foundation and trench walls for all culverts shall be free from logs, stumps, limbs, stones, and other objects which would dent or damage the pipe. The culvert trench shall be excavated $1\frac{1}{2}$ times the pipe diameter with at least 2 feet on each side of the pipe to permit compaction and working on each side of pipe. Tamping shall be done in 6-inch lifts each side of the pipe to 95 percent density or over. Bedrock shall be excavated as required to provide a uniform foundation for the full length of the culvert.

A bedding of granulated material or crushed rock as specified 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.

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

Transporting of the pipe shall be done carefully. Dragging or allowing free fall from trucks or into trenches shall not be permitted.

Joining shall be done with bands of like material and corrugations. Manufacturers' instructions shall be followed for prefabricated pipe assembly.

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 F

CULVERT SPECIFICATIONS

Minimum height of cover over top of culvert to subgrade when road is to be rocked shall be as follows: 12" for culverts 18" to 36" and 18" for culverts 42" to 96" (add 6" for roads which will not be rocked). Minimum vertical cover for other 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. 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 shall be provided with a half round or other approved slope protection device. Construct lead-off ditches away from culvert outlets where the slope gradients restrict the free flow of water.

Following are the minimum standard gauges for pipe and coupling bands. Some culverts may require different gauges and may be found in the culvert listing.

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

Culverts larger than 60" in diameter shall have 3" x 1" corrugations.

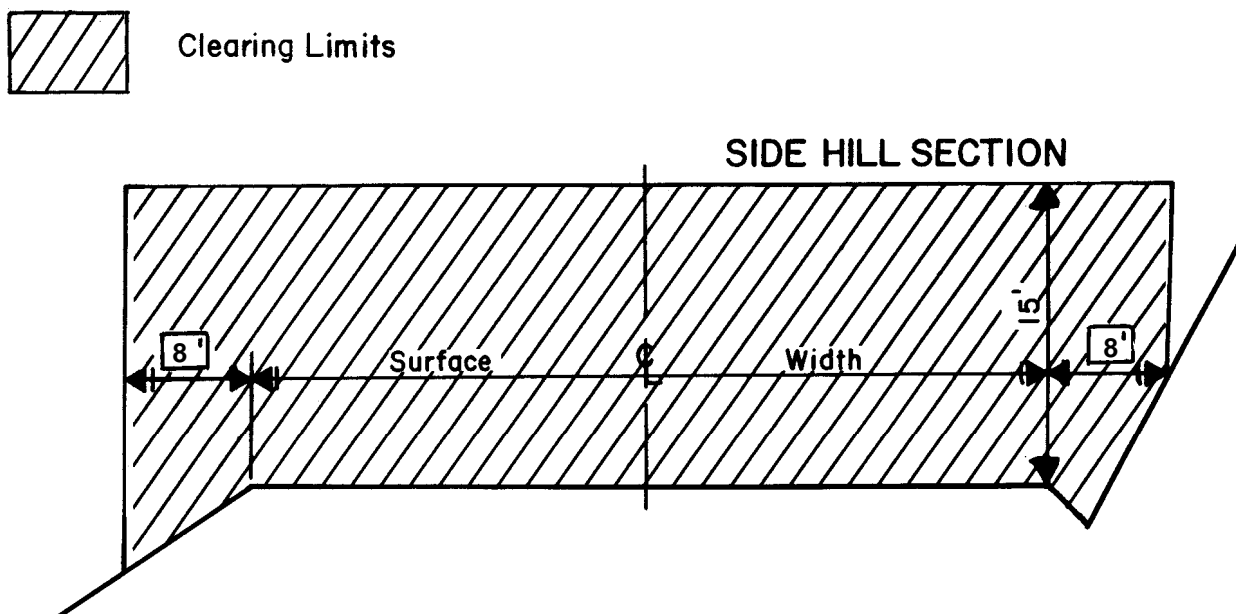
EXHIBIT F
CULVERT LIST

CULVERT NO.	DIAMETER (Inches)	CULVERT GAUGE	LENGTH (Feet)	MATERIAL TYPE	ROAD SEGMENT POINT TO POINT	STATION
1	18	16	30	Aluminized	A6 to A7	3+70
2	18	16	30	Aluminized	A6 to A7	12+75
3	18	16	34	Aluminized	C2 to C3	2+30
4	18	16	32	Aluminized	D to D1	32+70
5	18	16	34	Aluminized	D to D1	35+85
6	95x67	12	80	Aluminized	Cline Creek Road	Point J

Tamping is required.

All metal culverts scheduled for replacement shall become property of PURCHASER and be removed from STATE land in the same project period in which replacement occurred.

EXHIBIT G
ROAD BRUSHING SPECIFICATIONS

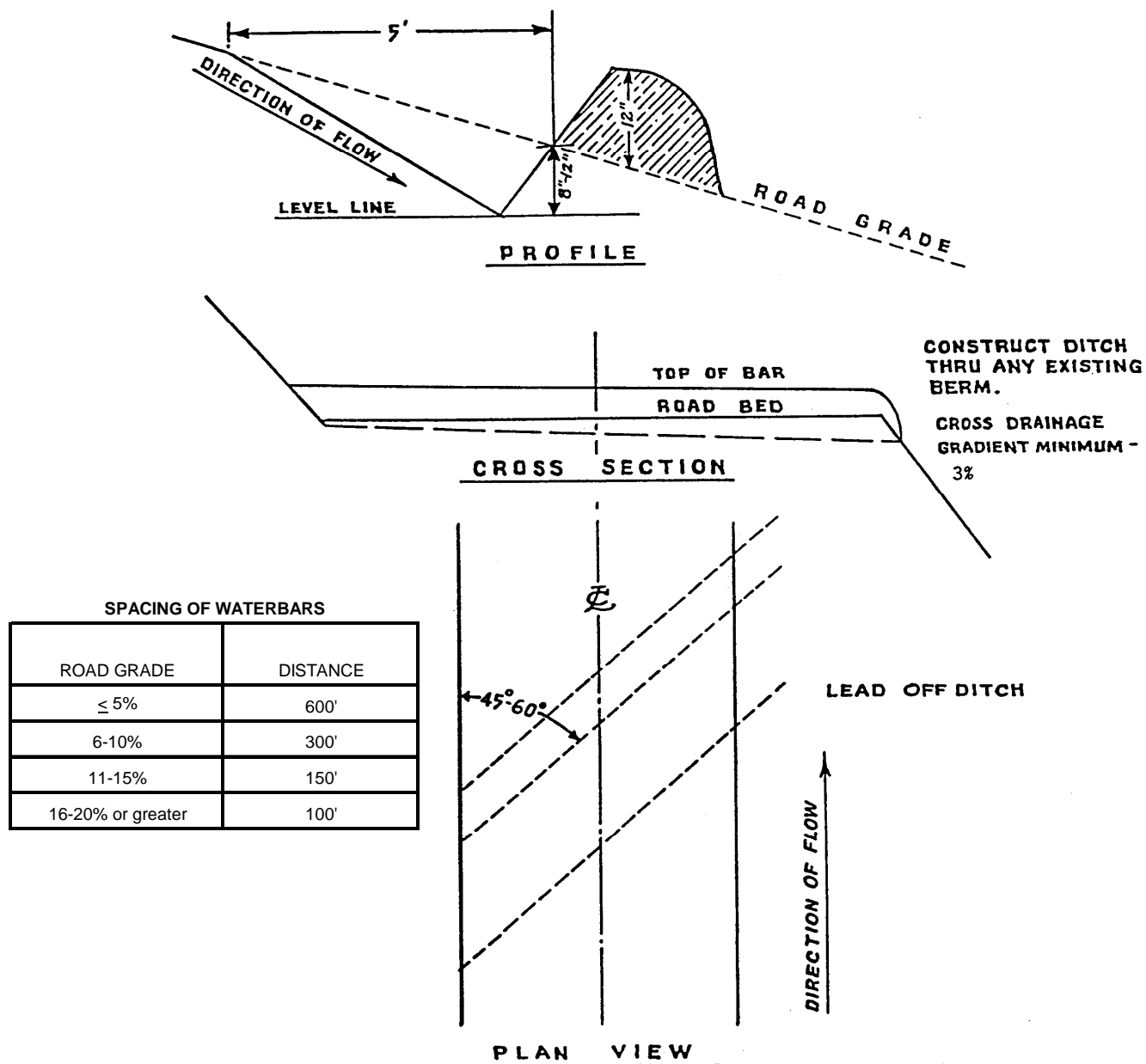


REQUIREMENTS

Unless otherwise approved in writing by STATE, brush and trees shall be cut to a height of 6 inches or less above the ground surface or obstructions such as rocks or existing stumps.

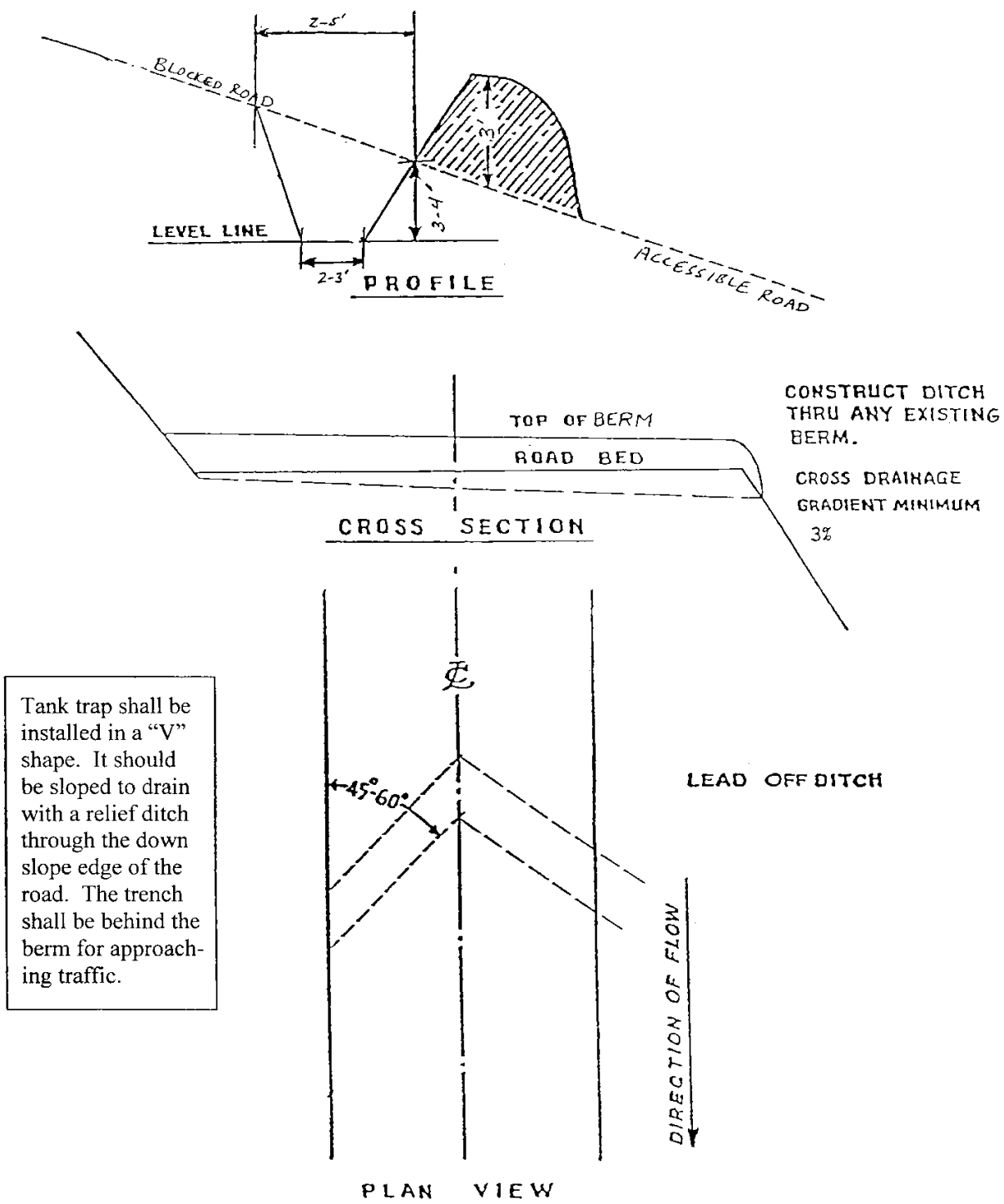
Debris resulting from the brushing operation shall be removed from the roadway, cutslope, ditches, and water courses within 72 hours and may be scattered downslope from the road or placed in other stable locations, unless otherwise approved by STATE.

EXHIBIT H
WATERBAR SPECIFICATIONS



WATERBAR SPECIFICATIONS
FOR CROSS DITCHING #298

EXHIBIT H
TANK TRAP SPECIFICATIONS

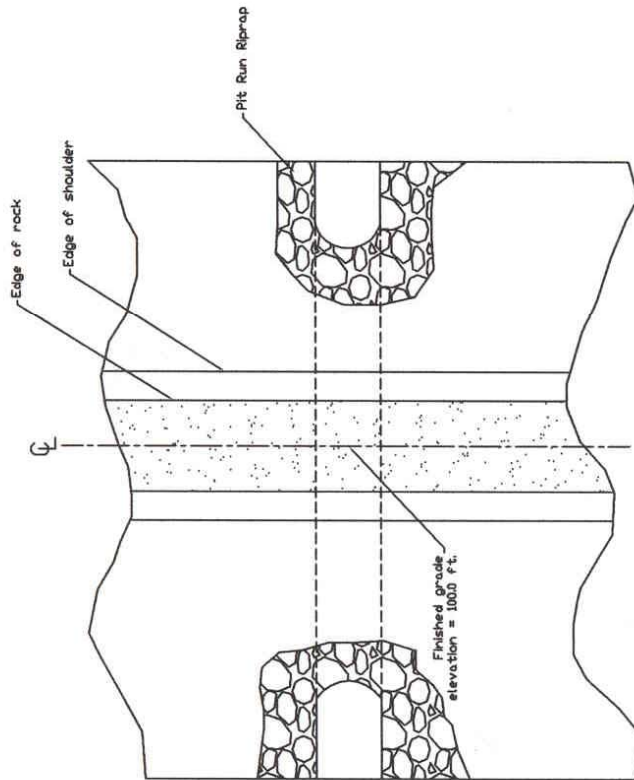


Tank trap shall be installed in a "V" shape. It should be sloped to drain with a relief ditch through the down slope edge of the road. The trench shall be behind the berm for approaching traffic.

TANK TRAP
SPECIFICATIONS

EXHIBIT I

EXHIBIT "I"



CLINE BANANA PIPE NO. 18

Materials

95" x 67" x 80' pipe arch
12 gage
aluminized

Flow requirements

basin area = 187 acres
50 year peak flow = 225 cfs
required flow = 65.7 cfs

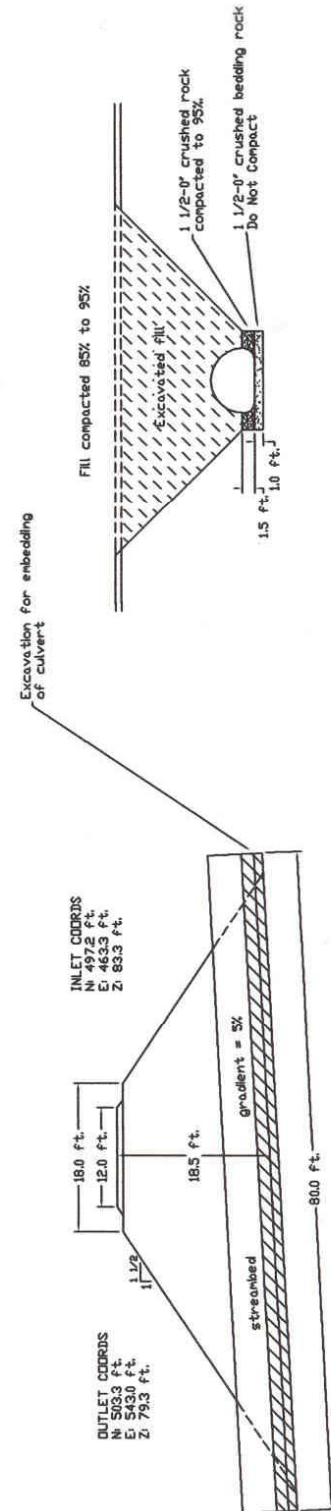


EXHIBIT I

Control Point and
Centerline Coords

Point No.	Northing	Easting	Elevation	Description
1	548.7	511.2	105.4	BS NAIL IN 14" FIR
2	500.0	500.0	100.0	PK nail in road
3	383.7	533.2	109.7	CP-1 HUB
4	373.4	469.5	127.8	CP-2 HUB
5	577.8	466.8	108.9	CP-3 FLUSH HUB
48	613.9	505.5	96.2	ROAD CL
49	589.3	502.4	97.0	ROAD CL
50	563.8	500.2	97.7	ROAD CL
51	538.6	499.0	98.5	ROAD CL
52	515.7	499.0	99.3	ROAD CL
53	484.2	501.4	100.8	ROAD CL
54	457.3	505.0	102.8	ROAD CL
55	430.6	509.2	105.0	ROAD CL
56	406.1	513.8	107.3	ROAD CL
57	380.1	518.5	109.8	ROAD CL
58	354.3	522.6	112.2	ROAD CL

⊗ Control Points

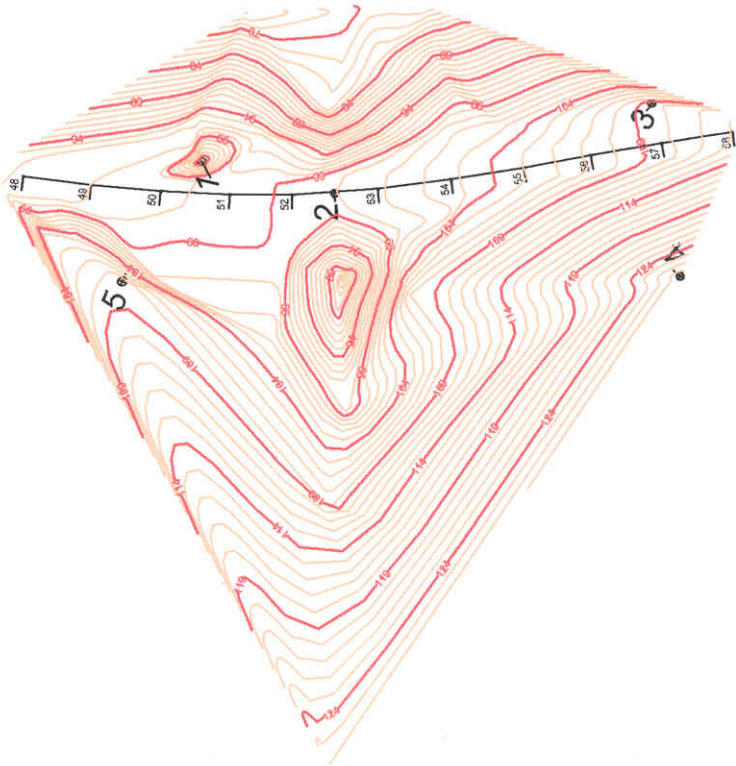


EXHIBIT J

SPECIFICATIONS FOR SLASH TREATMENT

Description of Work To Be Done

Operation Area: Area 1 and patch cuts in Areas IV and V as indicated on Exhibit A; approximately 30 hours of machine time.

Slash Piling: In areas designated for Slash piling, clear all logging Slash measuring greater than 2 inches in diameter but less than 10 inches in diameter at the largest end and all brush as designated by STATE, and stack in compact, dirt-free piles. All woody vegetation is defined as brush in this Contract.

Piles shall be located within the project area designated for piling. Piles shall be spaced at least 50 feet apart; at least 25 feet from standing timber, Snags, and wildlife trees; and at least 50 feet from any property line. Piles shall be 8 to 15 feet tall with steep sides and shall cover the smallest amount of ground possible at their base.

Reserved Material: All trees, Snags, logs, and other Down Wood designated in Sections 2220 through 2250, "Reserved Timber."

Protective Measures: Shall comply with applicable Forest Practice Rules and with the terms of this Contract including, but not limited to, Section 2355, "Ground-Based Operations," and Section 2415, "Protection of Watershed."

Equipment Type, Equipment Operation, and Conduct of Work

The specifications given below are requirements for complying with the terms of this Contract:

Equipment: Shall be a track-mounted machine with a ground-pressure rating of less than 10 PSI.

The bucket shall be a hydraulically controlled, 3 to 5-foot wide, "clamshell-style" bucket with rake arms, with a 360-degree continuous rotation, and tooth length on rake arm shall be greater than 6 inches long, unless otherwise approved in writing by STATE.

Operator: Must be experienced in operating similar equipment on forest site preparation Operations, be able to operate the equipment proficiently, and be willing and able to perform the Operations as directed by STATE.

Support: Including transport, other equipment, replacements, supplies, maintenance, and repairs shall be furnished as required to complete work and shall be furnished without cost to STATE, other than as agreed under the terms of this Contract.

Work Scheduling: Work shall be accomplished only during dry weather conditions and started within 14 calendar days after completion of Yarding activities on Areas I, IV, and V. Operations shall provide for continual operation until Contract work is completed, unless interrupted by poor weather, fire closures, or other uncontrollable circumstances. Equipment breakdowns shall be repaired without undue delay, and provision shall be made for replacement of equipment to prevent prolonged delays. Operations shall not be allowed as described in Section 2455, "Seasonal Restrictions," of the Contract, or during any other period when Operations might damage sites or affect stream flows. Any exception to these instructions must be authorized in writing by STATE.

STATE Representative: Designated to provide directions for the conduct of work and to inspect work to determine when Contract requirements have been satisfied.

PART IV: WRITTEN PLAN

FPA "Written Plan" for State Timber Sale Project No. 4
Ellmaker Overlook
Project Point J
NE ¼ of Section 20, T.11S., R.8W., W.M.
Lincoln County, Oregon

Protected Resources: an un-named tributary to Cline Creek, a medium type F stream. A "written plan" is required for any activity within 100 feet of any type F stream.

Situation: An existing 48" round culvert, located on Cline Creek Road, is deteriorated and hinders juvenile fish passage. As part of the replacement work, the new culvert is designed to allow fish passage through this structure in accordance with current FPA guidelines. In addition, some re-establishing of the natural streambed will be conducted for an approximate upstream distance of 5 feet from the culvert inlet. The work is planned to enhance fisheries habitat. Further detailed work specifications for this project are shown/described in the attached exhibit I.

Drainage Area and Culvert Design: Current FPA guidelines were used to design this structure. The drainage area is 187 acres. The 50-year peak flow for this drainage is 225 cfs per square mile. Therefore, the 50-year flow for this stream crossing is 66 cfs. Current FPA guidelines require that a culvert with a minimum opening of 6.1 ft² is necessary to pass the 50-year peak flow. A 95" x 67" x 80' 12 gage aluminized pipe arch will be used to replace the existing round culvert. This pipe matches the stream channel width and has a cross sectional area of 38.5 ft², which exceeds the required cross sectional area of 6.1 ft². The pipe arch will be countersunk resulting in a net cross sectional area of 30.8 ft². This will allow for ample water flow inside the culvert and allow additional space for rock and debris to accumulate on the bottom of the culvert.

The pipe arch to be used will be embedded to a depth of 1.5 ft. (18"). This will enable the channel width through the pipe to be approximately 7.9 ft. (95"). The bank full channel width is 7 ft. The projected natural stream gradient was calculated to be 5%. The culvert is designed to be placed at a gradient of 5%. The new culvert will accept a flow of 574 cfs. This exceeds the 50-year peak flow of 66 cfs.

Alternative locations for this stream crossing were investigated but no satisfactory alternatives were identified. The original fill height is fifteen feet and will be maintained in order to minimize direct runoff from the road surface into the stream.

Substrate material will be placed and/or deposited naturally inside of the culvert to simulate a natural streambed. The bedding for the culvert will be 1 ½-0" crushed rock which will not be compacted. Fill from the bottom of the culvert to 1.5 feet above the bottom of the culvert will be compacted to 95%. The remainder of the fill will be compacted to 85%. Compaction will be in 8" lifts or less.

Resource Protection Measures:

- 1) All in-stream work will be performed only during dry weather periods, low water stream flows and between July 1 and September 15, annually.
- 2) The stream flow will be diverted around the construction site, minimizing sedimentation to the stream.
- 3) Riprap rock will be used to armor both the inlet and outlet fill slopes to minimize erosion.
- 4) Machine activity in stream channels will be minimized. All excavation and riprap rock placement will be performed using a 1 ½ cubic yard track mounted excavator.
- 5) Selected native earth materials free from woody debris will be used for backfilling. Fill material will be thoroughly compacted.
- 6) All bare soils will be covered with scattered straw to prevent erosion.

I, the undersigned, submit this written plan in compliance with the requirements in the Forest Practices Act regarding the operations conducted within 100 feet of Type F streams.

PURCHASER REPRESENTATIVE

DATE